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**Names for Ixodidae (Acari: Ixodoidea): valid, synonyms, *incertae sedis*,
nomina dubia, *nomina nuda*, *lapsus*, incorrect and suppressed names
—with notes on confusions and misidentifications**

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Abstract

A major, but not exhaustive, literature revision has been made to compile the names of Ixodidae from Linnaeus to present. Names are classified as valid, synonyms, *lapsus*, *incertae sedis*, *nomina dubia*, *nomina nuda*, incorrect and suppressed. Notes are included for confusions and misidentifications among different tick species. The lists included in this study are neither aimed to be consensual nor focusing to stabilize nomenclature, but rather part of a discussion on the species forming Ixodidae and a potential aid for research on tick taxonomy and phylogeny.

Key words: Ixodida, hard ticks, Nomenclature, alphabetical lists, 1758–2013, taxonomy, systematic

Introduction

The scientific nomenclature for living organisms, the Linnaeus legacy for systematic, taxonomy and phylogenetic studies, an opposition to vulgar or common names, is vital for a proper communication among scientists in the biological field which, obviously, include those researchers studying Ixodidae.

The combination of biological, molecular and morphological studies shows that apparently well-known species of ticks are, in fact, formed from more than one taxon (Labruna *et al.* 2009a; Estrada-Peña *et al.* 2012a) stressing the importance of knowing if species complexes include taxa already described, new species or both. Therefore, it is of value to construct a list that may aid in finding the names of Ixodidae, sources of their descriptions and related problems according to the view of experts in the field, which will be useful for research on taxonomy and nomenclature with relevance for phylogeny.

The lists below are neither aimed to be consensual nor focusing to stabilize nomenclature, but attempt to be a part of a discussion on the species forming Ixodidae and, as already said above, a potential aid for research on tick taxonomy.

Material and methods

The study is organized in three lists of names constructed from a literature review ended on September 30, 2013.

List 1: contains the main list of tick names in alphabetical order for species (including several non-binomial names and species not defined with the Linnean nomenclature) with the valid names in bold letters based mainly on Guglielmone *et al.* (2010b; 2014).

The authorities for several names are repeated throughout the list under four conditions:

1) for identical names with different authorities, i.e., *Ixodes variegatus* Lucas, 1852 is a synonym of *Amblyomma albopictum* that should not be confused with *Ixodes variegatus* (Fabricius, 1798) a synonym of *Amblyomma variegatum*;

2) same authorities and different years of publication, i.e., *Amblyomma cyprium aeratipes* Schulze, 1932d is a *nomen nudum*, but *Amblyomma cyprium aeratipes* Schulze, 1933d is a synonym of *Amblyomma breviscutatum*;

3) identical specific names from different genus and authorities, i.e., *Aponomma crassipes* Neumann, 1901, *Eschatocephalus crassipes* Joseph, 1882, *Haemalastor crassipes* Kolenati, 1857 including their synonyms *Amblyomma crassipes* (Neumann, 1901), *Eschatocephalus crassipes* (Kolenati, 1857) and *Ixodes crassipes* (Kolenati, 1857);

4) identical specific and subspecific names from different genus and authorities, i.e., *Hyalomma africanus* (Mégnin, 1876), *Ixodes africanus* Mégnin, 1876, *Ixodes simplex africanus* Arthur, 1956a.

There are many names considered *lapsus* in this list, but they represent just an unknown portion of total *lapsus* in the tick literature because many of them were surely overlooked when reading the articles and others are in publications not obtained by the authors. In any situation, all *lapsus* detected are included in the list with the exceptions of those *lapsus* referring to epithets ended in *i* or *ii*, i.e., *Haemaphysalis leachi leachi* is often spelled *Haemaphysalis leachii leachii*, and patronymic names with specific spelling starting with a capital letter, i.e., *Haemaphysalis canestrinii* that has been sometimes spelled *Haemaphysalis Canestrinii*. Each *lapsus* is followed by the authority and year for a particular misspelling, but for the reasons expressed above, it does not necessarily mean the first occurrence of the error.

Each name is followed by the authority, year of description, genus and comments when appropriate. The comments are aimed to show the views of experts about each name and its problems, especially validity, confusions and misidentifications with other names, and author decision about them when appropriate. The extraordinary study of Keirans (1985) analyzing the Nuttall Tick Collection was the main base for detecting confusions and misidentifications about tick names.

The original name for a particular synonym in the opinion of the corresponding author, was preserved followed in brackets by the actual valid name, i.e., the phrase “Keirans (1985) found *Boophilus annulatus* (= *Rhipicephalus annulatus*)...” means that Keirans named this species as *Boophilus annulatus*, but the actual valid name is *Rhipicephalus annulatus*. The term synonym has been attempted to be used solely for non-valid names written in Linnean nomenclature that are considered to be morphologically identical to a valid name. In other words, if a valid name for any reason is used for another valid taxon in the year of publication of the corresponding article, the situation is explained avoiding the use of the word synonym.

Non-valid names are divided into *incertae sedis*, *nomina dubia*, *nomina nuda*, incorrect, and suppressed names. According with the International Commission on Zoological Nomenclature (1999) names published before 1931 should not be classified as *nomen nudum* if there is a description and/or a figure independent of their quality (Dunlop 2011). Therefore, names published before 1931 are considered *nomina nuda* when no description or figure accompanied the corresponding names. Inadequate descriptions for names published after 1931 are regarded as *nomina nuda*.

The division between a name *incertae sedis* and a *nomen dubium*, a classification not included in the International Commission on Zoological Nomenclature (1999), is sometimes difficult to evaluate and contains some degree of author bias, but it was attempted to classify as *incertae sedis* those names supported for more detailed descriptions than those names classified as *nomina dubia*, especially if there are types available for a proper description in the future. Names treated differentially among authors are usually, but not always, classified *incertae sedis*. Therefore, a number of names greater than expected are classified as *incertae sedis*, which is considered to be a minor problem because any worker who considers names unjustified in this position would argue to rank them valid or placed into *nomina dubia* or *nomina nuda* in new scientific articles.

There are several names under proper authority without morphological definition to support them, i.e., *Amblyomma cajennense imitator* Kohls, 1958 in Sundman & Price (1964), or correct names with wrong authority not considered to be *lapsus*, i.e. *Cynorhaestes reduvius* Hermann, 1804 in Hoogstraal (1958). All the names with those characteristics are listed as *nomina nuda*. Other names with questionable authorities that are due to *lapsus* or interpretation of authorities different to the authors are commented under the corresponding proper name.

The year of description for several names is also subject to discrepancies because it is difficult to determine the correct date for several of them. This problem is discussed under the corresponding name with few exceptions, i.e., *Ixodes auritulus zealandicus* Dumbleton, 1961 is treated as described by Dumbleton (1953) in relevant studies when in fact it was described by Dumbleton (1961). The name *Ixodes auritulus zealandicus* Dumbleton, 1953 is considered a *nomen nudum*.

Incorrect names for Ixodidae refer to those names that are not *lapsus*, classified under the genus *Ixodes*, but do not belong to Ixodidae, i.e., *Ixodes columbae* (Hermann, 1804) in Fabricius (1805) is a synonym of *Argas reflexus* which belongs to the family Argasidae.

List 2: contains the names considered valid, their synonyms and *lapsus* with other species names, driven by valid genus in alphabetical order following Guglielmone *et al.* (2010b, 2014). Authorities are included for valid names, but not for synonyms or *lapsus* unless they can be confused with identical specific or subspecific names independent of genera. Names considered probable or provisional synonyms are included in the list, but not names with non-Linnean nomenclature or *lapsus* for species that do not belong to Ixodida.

List 3: contains the names *incertae sedis*, *nomina dubia*, *nomina nuda*, incorrect names for Ixodidae and suppressed names, with synonyms and *lapsus* when appropriate, in alphabetical order driven by genera (valid and invalid) including authorities, but not for synonyms or *lapsus* unless they can be confused with identical specific or subspecific names. Names with non-Linnean nomenclature or *lapsus* for species that do not belong to Ixodida are not included.

The main sources for tick names were three major high quality compilations for all tick names performed by Neumann (1911a), Doss & Anastos (1977) and Camicas *et al.* (1998). Therefore, these references are used intensively throughout this work on tick names and differences with these major studies are explicitly detailed. The revision on names for those major studies are considered concluded by the year 1907 for Neumann (1911a), who finished the redaction of his work in February 1908, the year 1975 for Doss & Anastos (1977) (who do not state when the revision was concluded), while Camicas *et al.* (1998) mention that their work contains names described up to December 31, 1995. No infraspecific names are considered valid in this study although they are included in all lists. However, subspecific names in Neumann (1911a) and Camicas *et al.* (1998) are detailed under the corresponding species names, but not subspecific names from other authors independent of the relevance of the study. This treatment was not applied to the main work of Doss & Anastos (1977) because their list did not specify synonymies or validity for most names.

The reference section is obviously long but not exhaustive because it was impossible to obtain (and read and properly comprehend) all the articles about ticks in the different languages from Linnaeus to present; besides, some articles were difficult to understand (eg., Oudemans 1929, 1936). For this reason no new synonyms are explicit in this study, because experience shows that some new synonyms in the past were in fact the result of overlooking articles where the corresponding synonyms were already detected, and others were the result of wrong interpretations of authors' statements. However, when names are not cited in the three major studies for tick names (Neumann 1911a; Doss & Anastos 1977; Camicas *et al.* 1998) or in other studies apart from the original article, the page or pages where they are named are stated. Occasionally, the pages where a name has been found is also included in order to clarify usage of names.

Dissertations were not included as a source for names with three exceptions: 1) the high quality study of Kaufman (1972) for the former genus *Aponomma*, 2) Özkan (1978) because it contains names like *Haemaphysalis ibrikliensis* and *Haemaphysalis yalvacii* that are mentioned in the Turkish literature on ticks, but until recently mostly ignored out of this country (Guglielmone *et al.* 2014), 3) Morel (1969) for the names *Scaphixodes euplecti* (= *Ixodes euplecti*), *Rhipicephalus glabroscutatus* and *Rhipicephalus plamus* Neumann, 1907f.

Several full names of Russian journals are copied from the relevant work of Hoogstraal (1970c, 1971d). Some important articles were not located and they are mentioned in the list number 1 and again in the reference section, along with the article where the information was obtained. A few articles cited by previous workers appear to be *lapsus* and are also indicated in the first list and in the reference section.

Finally, it is recognized that involuntary errors are surely included in the present compilation that hopefully will be amended in subsequent studies of competent tick workers.

Results

Although the lists 1, 2 and 3 presented below should be considered provisional because the specimens involved in each name were not inspected, this situation is more evident with species such as *Rhipicephalus microplus*,

Rhipicephalus australis Fuller, 1899, *Rhipicephalus sanguineus* and *Rhipicephalus turanicus* Pomerantzev, 1940, but also for *Hyalomma anatolicum* and *Hyalomma excavatum*. Names included in the former genus *Aponomma* were particularly difficult to analyze as well. Additionally, evaluation of specific names as *acaroides*, *hispanum*, *plumbeus*, *rhinocerinus* and *rhinocerotis* among others, was problematic. Nevertheless, the problem with *Rhipicephalus microplus* and *Rhipicephalus australis* Fuller, 1899 is of special importance because of the sanitary and economic relevance of these species.

Under these circumstances we consider that a name that includes the actual distribution of *Rhipicephalus australis* and *Rhipicephalus microplus* following Estrada-Peña *et al.* (2012a) should be treated as a provisional synonym of both names and only a synonym of *Rhipicephalus australis* or *Rhipicephalus microplus* if the localities are placed in the actual distribution of either species. Thus, names like *Rhipicephalus annulatus argentinus* and *Margaropus annulatus argentinus* are synonyms of *Rhipicephalus microplus* because its distribution (Argentina) is beyond the distribution of *Rhipicephalus australis* Fuller, 1899, but in an area endemic for *Rhipicephalus microplus*; while the names *Boophilus annulatus caudatus*, *Margaropus annulatus caudatus* and *Rhipicephalus annulatus caudatus* used for ticks located in the distribution range of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus* are treated as partly synonyms of both names. This situation will be solved by examination of the specimens used to support the designation of names.

The situation about the name *Rhipicephalus sanguineus* is particularly difficult to interpret. There is not type material available for comparison, but it is already known that there is more than one taxon included under this name (Levin *et al.* 2012; Nava *et al.* 2012; Liu *et al.* 2013) and a recent publication on systematics and ecology of *Rhipicephalus sanguineus* fails to address the crucial point of species definition despite of an assertive title (Gray *et al.* 2013). We decided not to include synonyms for the name *Rhipicephalus sanguineus*, and most names regarded as synonyms of this species are considered *incertae sedis* in this study.

The synonyms for *Hyalomma anatolicum* and *Hyalomma excavatum* are based on Camicas *et al.* (1998) who named these species as *Hyalomma anatolicum anatolicum* and *Hyalomma anatolicum excavatum*. The decisions of these authors about both names are generally considered valid although in some cases (i.e., *Hyalomma aegyptium excavatum*, *Hyalomma pusillum pusillum*) we have some doubts about the synonym presented in Camicas *et al.* (1998) which are herein considered provisionally valid.

Discussion

As already stated, this compilation of names aims to instigate discussion of the species contained in the Ixodidae and the problems related to each name. It therefore does not intend to be a definitive work for valid names. The lists were constructed from literature searches, not from examination the actual specimens involved in each name. Therefore, several of the valid or invalid names may not be included in the same position in our lists by workers with different taxonomic opinion than ours. This should be particularly evident with several names from the genera *Rhipicephalus*, *Hyalomma* and the former genus *Aponomma*.

The combination of morphological and molecular taxonomy along with biological studies, tools increasingly applied in research on parasites (Nadler & Pérez-Ponce de León 2011), have been used by Labruna *et al.* (2009a) and Estrada-Peña *et al.* (2012a) to demonstrate that the alleged pantropic tick *Rhipicephalus microplus* is not present in Australia because the tick established in this country is the reinstated *Rhipicephalus australis* Fuller, 1899. Moreover, it appears that other species morphologically similar to *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus* are established in the Australasian and Oriental Zoogeographic Regions. Some of them should be species already described, for instance in Minning (1934), but taxa that are still undescribed are also most probably there.

The case described in the paragraph above is not considered to be unique. It is already known that *Amblyomma cajennense* is formed by more than one species (Labruna *et al.* 2011; Mastropaolo *et al.* 2011; Beati *et al.* 2013). The same appears to be true for others species like *Ixodes auritulus* and *Amblyomma parvum* Aragão, 1908a (Arthur 1960b; Nava *et al.* 2008), but also for species such as *Ixodes ricinus*, *Ixodes pavlovskyi* Pomerantzev, 1946 and several others as well as the known examples of *Rhipicephalus sanguineus* and *Rhipicephalus turanicus* Pomerantzev, 1940 (Beati & Keirans 2001; Szabó *et al.* 2005, Nava *et al.* 2009b, 2012; Moraes-Filho *et al.* 2010; Levin *et al.* 2012; Liu *et al.* 2013). It is expected that research involving those names will surely results in descriptions of new species but, most importantly in the scope of this study, workers will have to consider the

reinstatement of species now considered synonyms and, probably, some species currently regarded *incertae sedis*, *nomina dubia* and even *nomina nuda* if type specimens are found.

The list of confused names is ample but again, not exhaustive. Some confusions of morphologically very different species are difficult to justify, i.e., confusion of *Amblyomma tigrinum* with *Ixodes neuquenensis*, but others confusions are justifiable and sometimes reflect the problems faced by competent workers in the past. Therefore, our list of confused names can aid in the identification of species by showing possible misidentifications.

The tick names presented here will be of further usefulness for researchers if a compilation of type depositories is made available. There are publications with the information of types deposited in several Museums and collections (i.e., Santos Dias 1956b, 1958a, d, 1961a, 1962a, 1989b, 1992a; Keirans & Clifford 1978; Moritz & Fischer 1981; Keirans & Clifford 1984; Keirans & Hillyard 2001, Guglielmone *et al.* 2003, 2014; Filippova 2008 among others) and some Institutions present data on the Internet. Nevertheless, this is insufficient for a comprehensive review of types available in different depositories. Thus, a publication containing that information will be a great aid for research on ticks.

Many *lapsus* for tick names are included in our lists. It is inevitable that *lapsus* occurs, but some may be avoided when editorial work relies on specialists in acarology to assure that the names, whether valid or invalid, are correct, because it is difficult to justify that articles in relevant journals contain several *lapsus* for tick names. In any situation the list of *lapsus* ought to minimize misspellings in future articles on ticks.

Addenda

The following new species of ticks were described from September 30, 2013, when the main revision of the literature for this article ended, to present:

Amblyomma interandinum Beati, Nava and Cáceres, 2014

Amblyomma patinoi Labruna, Nava and Beati, 2014

Amblyomma tonelliae Nava, Beati and Labruna, 2014

These species are described in Nava, S., Beati, L., Labruna, M.B., Cáceres, A.G., Mangold, A.J. & Guglielmone, A.A. (2014) Reassessment of the taxonomic status of *Amblyomma cajennense* (Fabricius, 1787) with the description of three new species, *Amblyomma tonelliae* n. sp., *Amblyomma interandinum* n. sp. and *Amblyomma patinoi* n. sp., and reinstatement of *Amblyomma mixtum* Koch, 1844 and *Amblyomma sculptum* Berlese, 1888 (Ixodida: Ixodidae). *Ticks and Tick-Borne Diseases*, in press.

Ixodes microgalei Apanaskevich, Soarimalala and Goodman, 2013 in Apanaskevich, D.A., Soarimalala, V. & Goodman, S.M. (2013) A new *Ixodes* species (Acari: Ixodidae), parasite of shrew tenrecs (Afrosoricida: Tenricidae) in Madagascar. *Journal of Parasitology*, 99, 970-972.

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List 1: Alphabetical list of species names including several non-binomial names and species not defined with the Linnean nomenclature

A

- 1 *abaensis* Teng, 1963, *Dermacentor*. Hoogstraal (unknown date, footnote 3 on the first page of the translation of Teng 1963 in NAMRU-3 translation 446) believes that *Dermacentor abaensis* is a synonym of *Dermacentor everestianus*, but it is provisionally valid in Guglielmone *et al.* (2009, 2010b, 2014) and here.
- 2 *aborensis* Warburton, 1913, *Haemaphysalis*. This name is a synonym of *Haemaphysalis birmaniae* in Sharif (1928), but it was resurrected in Hoogstraal *et al.* (1971a). Keirans (1985) found *Haemaphysalis aborensis* identified as *Haemaphysalis formosensis*.
- 3 *abrocoma* Tagle, 1971, *Ixodes* (pages 46, 48). This name is a *lapsus* for *Ixodes abrocomae*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 4 *abrocomae* Lahille, 1916, *Ixodes*. This name is a probable synonym of *Ixodes sigelos* in Camicas *et al.* (1998), but it is valid as stated in Guglielmone *et al.* (2010a). Doss & Anastos (1977), Camicas *et al.* (1998) and others, state 1917 the year of description of *Ixodes abrocomae*.
- 5 *acanthoglossi* Lucas, 1878a, *Ixodes*. This name is *incertae sedis* in Neumann (1911a) and a *nomen dubium* in Camicas *et al.* (1998) and here.
- 6 *acanthoglossus* Fielding, 1926, *Ixodes* (page 8). This name is a *lapsus* for *Ixodes acanthoglossi* (*nomen dubium*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 7 *acaroides* Pallas, 1784, *Pediculi* (page 247). This name is a synonym of *Pediculus acaroides* Pallas, 1784 (*nomen dubium*) and its original name. The name *Pediculi acaroides* is also *nomen dubium*, but not included in Neumann (1911a), Doss & Anastos (1977) and Camicas *et al.* (1998).
- 8 *acaroides* Pallas, 1772, *Pediculus*. It was originally named *Pediculi acaroidis* Pallas, 1772 (*nomen nudum*). The name *Pediculus acaroides* is also a *nomen nudum* that is treated here as an emendation of *Pediculi acaroidis* Pallas, 1772 (*nomen nudum*) in Oudemans (1929, page 228), but not included in Neumann (1911a), Doss & Anastos (1977) and Camicas *et al.* (1998).
- 9 *acaroides* (Pallas, 1772), *Haemaphysalis*. It was originally named *Pediculi acaroidis* Pallas, 1772 (*nomen nudum*) and amended to *Pediculus acaroides* in Oudemans (1929). The name *Haemaphysalis acaroides* is in Doss & Anastos (1977) and repeated as a *nomen dubium* in Camicas *et al.* (1998) based on Oudemans (1929), but this author refers to Pallas (1784) not Pallas (1772). The name *Haemaphysalis acaroides* (Pallas, 1772) is a *nomen nudum* synonym of *Pediculus acaroides* (*nomen nudum*), but not included in Neumann (1911a).
- 10 *acaroides* (Pallas, 1784), *Haemaphysalis*. It was originally named *Pediculi acaroides* Pallas, 1784 (*nomen dubium*) but amended to *Pediculus acaroides* Pallas, 1784 in Oudemans (1929) and placed in the genus *Haemaphysalis* also in Oudemans (1929, page 228). The name *Haemaphysalis acaroides* (Pallas, 1784) is a *nomen dubium* synonym of *Pediculus acaroides* Pallas, 1784 (*nomen dubium*), but not included in Neumann (1911a), Doss & Anastos (1977) and Camicas *et al.* (1998).
- 11 *acaroides* Pallas, 1772, *Pediculus*. This name is in Doss & Anastos (1977) and repeated as a *nomen dubium* in Camicas *et al.* (1998) based on Oudemans (1929), but this author referred to Pallas (1784) not Pallas (1772). The name *Pediculus acaroides* (Pallas, 1772) is a *nomen nudum* synonym of *Pediculus acaroides* (*nomen nudum*), but not included in Neumann (1911a).
- 12 *acaroides* Pallas, 1784, *Pediculus*. It was originally named *Pediculi acaroides* Pallas, 1784 (*nomen dubium*) and amended to *Pediculus acaroides* Pallas, 1784 in Oudemans (1929, page 229). The name *Pediculus acaroides* Pallas, 1784 is also a *nomen dubium*, but not included in Neumann (1911a), Doss & Anastos (1977) and Camicas *et al.* (1998).
- 13 *acaroidis* Pallas, 1772, *Pediculi* (page 28). This name is the original for *Pediculus acaroides* Pallas, 1772 (*nomen nudum*), but there is no description or figure either for *Pediculi acaroidis*. The name *Pediculi acaroidis* is a *nomen nudum* synonym of *Pediculus acaroides* Pallas, 1772 (*nomen nudum*), but not included in Neumann (1911a), Doss & Anastos (1977) and Camicas *et al.* (1998).
- 14 *aciculifer* Warburton, 1913, *Haemaphysalis*. This name has been confused with *Haemaphysalis rugosa* as stated in Hoogstraal & El Kammah (1972) and Uilenberg *et al.* (2013). The name *Haemaphysalis aciculifer* in Nuttall & Warburton (1915) is partly in fact *Haemaphysalis rugosa* as shown in Santos Dias (1956b) and Hoogstraal & El Kammah (1972). Keirans (1985) found *Haemaphysalis aciculifer* identified as *Haemaphysalis bispinosa* and *Haemaphysalis parmata* in the Nuttall Tick Collection.
- 15 *aciculifer aciculifer* Warburton, 1913, *Haemaphysalis*. This name used in Santos Dias (1958a) is a synonym of *Haemaphysalis aciculifer*.
- 16 *aciculifer rugosa* Santos Dias, 1956b, *Haemaphysalis*. This name is a synonym of *Haemaphysalis rugosa* and its original name as stated in Hoogstraal & El Kammah (1972).
- 17 *acutitarsus* Alexander, 1984, *Ixodes* (page 369). This name is a *lapsus* for *Ixodes acutitarsus* repeated in Cho *et al.* (1994, pages 552, 553), but not included in Camicas *et al.* (1998).
- 18 *aculeata* Lavarra, 1904, *Haemaphysalis*
- 19 *aculeata* Geevarghese and Mishra, 2011, *Haemaphysalis* (page 135). This name is a *lapsus* for *Haemaphysalis aculeata* repeated in Zivcec *et al.* (2013, pages 404, 406).

- 20 *acuminatus* Neumann, 1901, *Ixodes*. Keirans (1985) found *Ixodes guernseyensis* (= *Ixodes acuminatus*) identified as *Ixodes arvicolae* (= *Ixodes apronophorus*) in the Nuttall Collection.
- 21 *acutangulatum* Neumann, 1899, *Amblyomma*. This name is valid in Neumann (1911a), Santos Dias (1993c) and Camicas *et al.* (1998), but the description is vague and type lost. The name *Amblyomma acutangulatum* is a *nomen nudum* in Guglielmo *et al.* (2009), but it is now considered a *nomen dubium*. *Ixodes varani* Koch, 1867 (= *Bothriocroton undatum*) and *Amblyomma varani* (Koch, 1867) (= *Bothriocroton undatum*) are believed to be identical to *Amblyomma acutangulatum* in Camicas *et al.* (1998) and other workers; however, the description of *Amblyomma acutangulatum* in Neumann (1899) does not appear to have close morphological relationship with *Ixodes varani* Koch, 1867 (= *Bothriocroton undatum*) and this synonym is not confirmed here.
- 22 *acutangulum* Evenhuis, 2007, *Amblyomma* (page 5). This name is a *lapsus* for *Amblyomma acutangulatum* (*nomen dubium*).
- 23 *acutitarsis* Robinson, 1913, *Ixodes* (page 92). This name is a *lapsus* of *Ixodes acutitarsus*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 24 *acutitarsus* (Karsch, 1880), *Eschatocephalus*. It was originally named *Haemalastor acutitarsus* (= *Ixodes acutitarsus*). The name *Eschatocephalus acutitarsus* used in Neumann (1901) is a synonym of *Ixodes acutitarsus* as stated in Neumann (1911a) and Camicas *et al.* (1998).
- 25 *acutitarsus* Karsch, 1880, *Haemalastor*. This name is a synonym of *Ixodes acutitarsus* and its original name as stated in Neumann (1911a) and Camicas *et al.* (1998).
- 26 *acutitarsus* (Karsch, 1880), *Ixodes*. It was originally named *Haemalastor acutitarsus*. The name *Ixodes acutitarsus* was used first in Neumann (1901) as a synonym of *Eschatocephalus acutitarsus*, and placed definitely in the genus *Ixodes* in Neumann (1911a).
- 27 *acutitarsus* Okino, Ushirogawa, Matoba and Hatsushika, 2010, *Ixodes* (pages 119, 120). This name is a *lapsus* for *Ixodes acutitarsus*.
- 28 *adleri* Feldman-Muhsam, 1951, *Haemaphysalis*
- 29 *adpersum* Koch, 1844a, *Amblyomma*. This name is a synonym of *Amblyomma bibrioni* (Gervais, 1842) (*nomen nudum*) in Camicas *et al.* (1998). The name *Amblyomma adpersum* is a synonym of *Amblyomma dissimile* as stated in Neumann (1911a).
- 30 *aegyptiaca* Hoogstraal, 1972c, *Hyalomma* (page 505). This name is a *lapsus* for *Hyalomma aegyptium*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 31 *aegypticum* Jaschke, 1933, *Hyalomma*. This name is a *lapsus* for *Hyalomma aegyptium* repeated in Ribeiro (1967, page 45), Yilmaz & Değer (2011, pages 133-136) and others.
- 32 *aegyptium* (Linnaeus, 1758), *Hyalomma*. It was originally named *Acarus aegyptius* Linnaeus, 1758 and given its current status in Koch (1844a). The name *Hyalomma aegyptium* is not included in Doss & Anastos (1977). The synonymy for *Hyalomma aegyptium* is mostly based on Camicas *et al.* (1998). Roberts (1965) states that *Hyalomma aegyptium* in Taylor (1911) and Roberts (1953, page 112) are in fact *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition). Keirans (1985) found the following species of *Hyalomma* under the name *Hyalomma aegyptium*: *albiparmatum*, *anatolicum anatolicum* (= *anatolicum*), *brevipunctata* (= *brevipunctatum*), *detritum* (= *scupense*), *dromedarii*, *anatolicum excavatum* (= *excavatum*), *hussaini*, *impeltatum*, *impressum* (tentative diagnosis), *marginatum isaaci* (= *isaaci*), *kumari*, *lusitanicum*, *marginatum*, *rufipes* Koch, 1844a, *truncatum*, undetermined species of *Hyalomma* and taxa of other genera like *Amblyomma variegatum*, *Rhipicephalus pulchellus* (Gerstäcker, 1873) and alleged *Rhipicephalus sanguineus*. Neumann (1911a) divided *Hyalomma aegyptium* into four subspecies: *aegyptium aegyptium* (*incertae sedis*), *aegyptium dromedarii* (*incertae sedis*), *aegyptium impressum* (= *Hyalomma impressum*), *aegyptium lusitanicum* (= *Hyalomma lusitanicum*).
- 33 *aegyptium* (Linnaeus, 1758) forma typica, *Hyalomma*, in Sharif (1928). This name is a synonym of *Hyalomma anatolicum anatolicum* (= *Hyalomma anatolicum*) as stated in Camicas *et al.* (1998).
- 34 *aegyptium aegyptium* (Linnaeus, 1758), *Hyalomma*. This name used first in Neumann (1911a) is partly a synonym of *Hyalomma marginatum rufipes* Koch, 1844a (= *Hyalomma rufipes* Koch, 1844a) in Camicas *et al.* (1998), partly a synonym of *Hyalomma rufipes* Koch, 1844a in Apanaskevich & Horak (2008b) and partly a synonym of *Hyalomma truncatum* in Feldman-Muhsam (1954). The name *Hyalomma aegyptium aegyptium* is *incertae sedis* here.
- 35 *aegyptium aegyptium brunnipes* Schulze, 1920, *Hyalomma* (usually cited 1919). This name used in Chodziesner (1924) and by a few other workers, is a synonym of *Hyalomma anatolicum anatolicum* (= *Hyalomma anatolicum*) as stated in Camicas *et al.* (1998), but not included in Doss & Anastos (1977).
- 36 *aegyptium aegyptium excavatum* Koch, 1844a, *Hyalomma*. This name used in Schulze (1923) is a synonym of *Hyalomma excavatum* in Delpy (1949b) and a synonym of *Hyalomma anatolicum anatolicum* (= *Hyalomma anatolicum*) in Camicas *et al.* (1998). The name *Hyalomma aegyptium aegyptium excavatum* is *incertae sedis* here.
- 37 *aegyptium albiparmatum* Schulze, 1920, *Hyalomma* (usually cited 1919). This name is a synonym of *Hyalomma albiparmatum* and its original name as stated in Camicas *et al.* (1998) and Apanaskevich & Horak (2008a).
- 38 *aegyptium albiparmatum transiens* Schulze, 1920, *Hyalomma* (usually cited 1919). This name is a synonym of *Hyalomma truncatum* in Feldman-Muhsam (1954), Santos Dias (1958a) and Camicas *et al.* (1998), but not included in Doss & Anastos (1977). These authors apparently confused the name *Hyalomma aegyptium albiparmatum transiens* with *Hyalomma aegyptium impressum transiens*. The name *Hyalomma aegyptium albiparmatum transiens* is a *nomen nudum*.

- 39 *aegyptium brunnipes* Schulze, 1920, *Hyalomma* (usually cited 1919). This name is cited in Doss & Anastos (1977), but not in Camicas *et al.* (1998). The name *Hyalomma aegyptium brunnipes* is not included in Schulze (1920 cited 1919) as stated in Doss & Anastos (1977). *Hyalomma aegyptium brunnipes* is a *nomen nudum*.
- 40 *aegyptium caucasicum* Kamensky, 1928, *Hyalomma*. This name is a *nomen dubium* as stated in Camicas *et al.* (1998). The original publication for the name *Hyalomma aegyptium caucasicum* was not located and the information has been obtained from Camicas *et al.* (1998).
- 41 *aegyptium dromedarii* Koch, 1844a, *Hyalomma*. This name used first in Neumann (1901) is valid in Neumann (1911a), partly a synonym of *Hyalomma dromedarii* and *Hyalomma excavatum* in Feldman-Muhsam (1954) and Apanaskevich *et al.* (2008b), and a synonym of *Hyalomma dromedarii* in Camicas *et al.* (1998). The name *Hyalomma aegyptium dromedarii* is *incertae sedis* here.
- 42 *aegyptium excavata* Koch, 1844a, *Hyalomma*. This name used in Tonelli Rondelli (1932a) is a synonym of *Hyalomma anatolicum anatolicum* (= *Hyalomma anatolicum*) as stated in Camicas *et al.* (1998).
- 43 *aegyptium excavatum* Koch, 1844a, *Hyalomma*. This name used in Camicas *et al.* (1998) is a synonym of *Hyalomma anatolicum anatolicum* (= *Hyalomma anatolicum*) according to these authors. This synonym is provisionally valid here because the decision of Camicas *et al.* (1998) is based on Hoogstraal & Kaiser (1959a), but these authors do not specifically mention the name *Hyalomma aegyptium excavatum*.
- 44 *aegyptium ferozedini* Sharif, 1928, *Hyalomma*. This name is a synonym of *Hyalomma detritum detritum* (= *Hyalomma scupense*) in Camicas *et al.* (1998), but it is a synonym of *Hyalomma scupense* as stated in Apanaskevich *et al.* (2010).
- 45 *aegyptium impressum* Koch, 1844a, *Hyalomma*. This name used first in Neumann (1901) is valid in Neumann (1911a), but it is a synonym of *Hyalomma impressum* as stated in Camicas *et al.* (1998) and Apanaskevich & Horak (2007). However, the name *Hyalomma aegyptium impressum* in Paoli (1916) is in fact *Hyalomma rufipes* Koch, 1844a, and the same name in Sénevet (1922) is in fact *Hyalomma marginatum* according to Apanaskevich & Horak (2008b); while the synonyms for these names are *Hyalomma marginatum rufipes* Koch, 1844a (= *Hyalomma rufipes* Koch, 1844a) and *Hyalomma marginatum marginatum* (= *Hyalomma marginatum*) in Camicas *et al.* (1998). Keirans (1985) found *Hyalomma rufipes* Koch, 1844a and *Hyalomma truncatum* identified as *Hyalomma aegyptium impressum*.
- 46 *aegyptium impressum rufipes* Koch, 1844a, *Hyalomma*. This name used in Schulze (1920, usually cited 1919) is a synonym of *Hyalomma marginatum rufipes* Koch, 1844a (= *Hyalomma rufipes* Koch, 1844a) in Camicas *et al.* (1998). The name *Hyalomma aegyptium impressum rufipes* Koch, 1844a is a synonym of *Hyalomma rufipes* Koch, 1844a as stated in Apanaskevich & Horak (2008b).
- 47 *aegyptium impressum transiens* Schulze, 1920, *Hyalomma* (usually cited 1919). This name is a synonym of *Hyalomma truncatum* as stated in Camicas *et al.* (1998) and Apanaskevich & Horak (2008a).
- 48 *aegyptium impressum typica* Schulze, 1920, *Hyalomma* (usually cited Schulze, 1919). This name is a synonym of *Hyalomma impressum* as stated in Apanaskevich & Horak (2007). However, the name *Hyalomma aegyptium impressum typica* Schulze, 1920 in Stella (1940b) is in fact *Hyalomma marginatum rufipes* Koch, 1844a (= *Hyalomma rufipes* Koch, 1844a) according to Camicas *et al.* (1998) based on Theiler (1962). Apanaskevich & Horak (2008b) do not share the opinion of Camicas *et al.* (1998), but they list *Hyalomma aegyptium impressum typica* Schulze, 1920 under *Hyalomma rufipes* based on Stella (1940a), although the name *Hyalomma aegyptium impressum typica* Schulze, 1920 is not cited in Stella (1940a), but in Stella (1940b).
- 49 *aegyptium isaaci* Sharif, 1928, *Hyalomma*. This name is a synonym of *Hyalomma marginatum isaaci* (= *Hyalomma isaaci*) in Camicas *et al.* (1998). The name *Hyalomma aegyptium isaaci* is a synonym of *Hyalomma isaaci* and its original name as stated in Apanaskevich & Horak (2008b).
- 50 *aegyptium lusitanicum* Koch, 1844a, *Hyalomma*. This name used in Neumann (1901) and by a few other workers, is valid in Neumann (1911a), but it is a synonym of *Hyalomma lusitanicum* as stated in Camicas *et al.* (1998) and Apanaskevich *et al.* (2008a).
- 51 *aegyptium margaropoides* Sénevet, 1922, *Hyalomma*. This name is a synonym of *Hyalomma dromedarii* as stated in Camicas *et al.* (1998) and Apanaskevich *et al.* (2008b).
- 52 *aegyptium marginatum* Koch, 1844a, *Hyalomma*. This name used in Schulze (1920 usually cited 1919) and by a few other workers, is a synonym of *Hyalomma marginatum marginatum* (= *Hyalomma marginatum*) in Camicas *et al.* (1998). The name *Hyalomma aegyptium marginatum* is a synonym of *Hyalomma marginatum* as stated in Apanaskevich & Horak (2008b).
- 53 *aegyptium marginatum fucosa* Chodziesner, 1924, *Hyalomma*. This name is a *nomen dubium* as stated in Camicas *et al.* (1998).
- 54 *aegyptium mesopotamium* Schulze, 1920, *Hyalomma* (usually cited Schulze, 1919). This name is a synonym of *Hyalomma anatolicum anatolicum* (= *Hyalomma anatolicum*) as stated in Camicas *et al.* (1998).
- 55 *aegyptium ornatipes* Schulze, 1920, *Hyalomma* (usually cited Schulze, 1919). This name is a synonym of *Hyalomma anatolicum anatolicum* (= *Hyalomma anatolicum*) as stated in Camicas *et al.* (1998).
- 56 *aegyptium punctata* Schulze, 1920, *Hyalomma*, (usually cited Schulze, 1919). This name is a synonym of *Hyalomma aegyptium* in Kratz (1940), Hoogstraal (1956a), Doss & Anastos (1977) and Camicas *et al.* (1998). Some of these authors refer to page 193 in Schulze (1920) to support that statement, but Schulze mentions *Hyalomma syriacum punctata* in that page and no references to *Hyalomma aegyptium punctata* Schulze, 1920 were found in Schulze (1920). The name *Hyalomma aegyptium punctata* Schulze, 1920 is a *nomen nudum*.

- 57 *aegyptium rufipes* Koch, 1844a, *Hyalomma*. This name is in Doss & Anastos (1977), based on Schulze (1920, page 194, citing the year 1919 for its description), but not included in Camicas *et al.* (1998). The name *Hyalomma aegyptium rufipes* Koch, 1844a is not cited in Schulze (1920) or in other articles from the same author. *Hyalomma aegyptium rufipes* Koch, 1844a is a *nomen nudum*.
- 58 *aegyptium syriacum* Koch, 1844a, *Hyalomma*. This name used in Oswald (1941) is a synonym of *Hyalomma aegyptium* as stated in Camicas *et al.* (1998).
- 59 *aegyptium typica* Schulze, 1920, *Hyalomma* (usually cited Schulze, 1919). This name is a synonym of *Hyalomma anatolicum excavatum* (= *Hyalomma excavatum*) as stated in Camicas *et al.* (1998).
- 60 *aegyptius* Linnaeus, 1758, *Acarus*. This name is a synonym of *Hyalomma aegyptium aegyptium (incertae sedis)* in Neumann (1911a). The name *Acarus aegyptius* Linnaeus, 1758 is a synonym *Hyalomma aegyptium* and its original name as stated in Camicas *et al.* (1998).
- 61 *aegyptius* (Linnaeus, 1758), *Amblyomma*. This name is a *lapsus* for *Hyalomma aegyptium* in Rickmann (1908) as stated in Camicas *et al.* (1998).
- 62 *aegyptius* (Linnaeus, 1758), *Cynorhaestes*. It was originally named *Acarus aegyptius* Linnaeus, 1758 (= *Hyalomma aegyptium*). The name *Cynorhaestes aegyptius* (Linnaeus, 1758) used in Hermann (1804) and by a few other workers, is a synonym of *Hyalomma aegyptium aegyptium (incertae sedis)* in Neumann (1911a). *Cynorhaestes aegyptius* (Linnaeus, 1758) is a synonym of *Hyalomma aegyptium* as stated in Camicas *et al.* (1998).
- 63 *aegyptius* (Linnaeus, 1758), *Hyalomma*. This name is in Doss & Anastos (1977) based on Koch (1844a), but this author used the correct name *Hyalomma aegyptium*. The name *Hyalomma aegyptius* (Linnaeus, 1758) is a synonym of *Hyalomma aegyptium*, but not included in Camicas *et al.* (1998).
- 64 *aegyptius* (Linnaeus, 1758), *Ixodes*. It was originally named *Acarus aegyptius* Linnaeus, 1758 (= *Hyalomma aegyptium*). The name *Ixodes aegyptius* (Linnaeus, 1758) used first in Latreille (1804) is a synonym of *Hyalomma aegyptium aegyptium (incertae sedis)* in Neumann (1911a). *Ixodes aegyptius* (Linnaeus, 1758) is a synonym of *Hyalomma aegyptium* as stated in Camicas *et al.* (1998).
- 65 *aegyptius* Savigny, 1817, *Ixodes*. This name is a synonym of *Hyalomma anatolicum anatolicum* (= *Hyalomma anatolicum*) in Camicas *et al.* (1998) based on Latreille (1804), but not included in Neumann (1911a) and Doss & Anastos (1977). No publication of Savigny in 1817 has been found, and no mention to Savigny is made under *Ixodes aegyptius* in Latreille (1804). The name *Ixodes aegyptius* Savignyi, 1817 is a *nomen nudum*.
- 66 *aegyptius* Audouin, 1826, *Ixodes*. This name was preoccupied by *Ixodes aegyptius* (Linnaeus, 1758) (= *Hyalomma aegyptium*) in Latreille (1804) and replaced by *Ixodes savignyi* Gervais, 1844 (*incertae sedis*). The name *Ixodes aegyptius* Audouin, 1826 is *incertae sedis* synonym of *Ixodes savignyi* Gervais, 1844 (*incertae sedis*).
- 67 *aegyptium* Nuttall and Warburton, 1916, *Hyalomma* (page 336). This name is a *lapsus* for *Hyalomma aegyptium*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Sixl (1971, page 453) and others.
- 68 *aequalis* Wherry and Wellman, 1909, *Ixodes* (page 376). This name has no description or figure, a *nomen nudum*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 69 *aequalis* Banks, 1910, *Ixodes*. This name is doubtful in Nuttall & Warburton (1911) and a synonym of *Pholeoixodes sculptus* (Neumann, 1904) (= *Ixodes sculptus* Neumann, 1904) in Camicas *et al.* (1998). The name *Ixodes aequalis* Banks, 1910 is a synonym of *Ixodes sculptus* Neumann, 1904 as stated in Keirans & Clifford (1978).
- 70 *aequipunctatum* Olenov, 1931c, *Hyalomma*. This name is a synonym of *Hyalomma marginatum rufipes* Koch, 1844a (= *Hyalomma rufipes* Koch, 1844a) in Camicas *et al.* (1998). The name *Hyalomma aequipunctatum* is a synonym of *Hyalomma rufipes* Koch, 1844a as stated in Apanaskevich & Horak (2008b).
- 71 *affine* Neumann, 1899, *Hyalomma*. This name is a synonym of *Hyalomma syriacum* (= *Hyalomma aegyptium*) in Neumann (1911a). The name *Hyalomma affine* is a synonym of *Hyalomma aegyptium* as stated in Camicas *et al.* (1998).
- 72 *affinis* Neumann, 1899, *Ixodes*. This name is a synonym of *Ixodes ricinus scapularis* Say, 1821 (= *Ixodes scapularis* Say, 1821) in Nuttall & Warburton (1911), but it is valid. Keirans & Clifford (1978, 1984), Durden & Keirans (1996) and Guzmán-Cornejo & Robbins (2010) among others, regard *Ixodes aragai* a synonym of *Ixodes affinis*, but both *Ixodes affinis* and *Ixodes aragai* are valid.
- 73 *africana* Howard, 1909, *Haemaphysalis*. This name is a synonym of *Haemaphysalis hoodi* as stated in Santos Dias (1958a) and Camicas *et al.* (1998).
- 74 *africanum* (Mégnin, 1876), *Hyalomma*. It was originally named *Ixodes africanus* Mégnin, 1876 (*nomen dubium*). The name *Hyalomma africanum* used in Railliet (1895) is also a *nomen dubium* synonym of *Ixodes africanus* Mégnin, 1876 (*nomen dubium*) as stated in Camicas *et al.* (1998), but not included in Neumann (1911a) and Doss & Anastos (1977).
- 75 *africanus* (Mégnin, 1876), *Hyalomma*. This name is used in Doss & Anastos (1977) based on Railliet (1895 citing 1893 the year of this publication), but this author used the correct name *Hyalomma africanum* (Mégnin, 1876). The name *Hyalomma africanus* (Mégnin, 1876) is a *nomen dubium* synonym of *Ixodes africanus* Mégnin, 1876 (*nomen dubium*), but not included in Camicas *et al.* (1998).
- 76 *africanus* Mégnin, 1876, *Ixodes*. This name is *incertae sedis* in Neumann (1911a) and a *nomen dubium* in Camicas *et al.* (1998) and here.
- 77 *africanus* Arthur, 1956a, *Ixodes*. This name used in Walker (1974, page 95) was originally named *Ixodes simplex africanus* Arthur, 1956a (= *Ixodes simplex*), but not included in Camicas *et al.* (1998). The name *Ixodes africanus* Arthur, 1956a is a synonym of *Ixodes simplex*.

- 78 *agamum* Aragão, 1912b, *Amblyomma*. This name is a synonym of *Amblyomma rotundatum* as stated in Robinson (1926) and Camicas *et al.* (1998).
- 79 *agamun* Castro and Trenchi, 1955, *Amblyomma* (page 38). This name is a *lapsus* for *Amblyomma agamum* (= *Amblyomma rotundatum*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Sampaio *et al.* (1992, page 75) and others.
- 80 *aganum* Ribeiro, 1967, *Amblyomma* (page 40). This name is a *lapsus* for *Amblyomma agamum* (= *Amblyomma rotundatum*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Cui *et al.* (2012, page 212) and others.
- 81 *ageyptium* Tavassoli, Rahimi-Asiabi and Tavassoli, 2007, *Hyalomma* (page 41). This name is a *lapsus* for *Hyalomma aegyptium*.
- 82 *aksarensis* Özkan, 1977, *Haemaphysalis*. The original spelling *Haemaphysalis akşarensis* is corrected to *Haemaphysalis aksarensis*. This name is provisionally valid in Bursali *et al.* (2012 citing 1978 the year for its description), but it is a synonym of *Haemaphysalis pospelovashstromae* as stated in Guglielmone *et al.* (2014). The name *Haemaphysalis aksarensis* is not included in Camicas *et al.* (1998).
- 83 *albicollis* Koch, 1844a, *Dermacentor*. This name is *incertae sedis*, probably a synonym of *Dermacentor reticulatus* (Fabricius, 1794) in Neumann (1911a) and Camicas *et al.* (1998), but the description is vague and type location unknown. The name *Dermacentor albicollis* is a *nomen dubium*.
- 84 *albignaci* Uilenberg and Hoogstraal, 1969a, *Ixodes*
- 85 *albiparmata* Schulze, 1920, *Hyalomma* (usually cited 1919). This name used in Lynen *et al.* (2007) is treated here as a synonym of *Hyalomma albiparmatum*.
- 86 *albiparmatum* Schulze, 1920, *Hyalomma* (usually cited 1919). It was originally named *Hyalomma aegyptium albiparmatum* and given its current status in Oudemans (1931). The name *Hyalomma albiparmatum* may be conspecific with *Hyalomma truncatum* according to Apanaskevich & Horak (2008a). Keirans (1985) found *Hyalomma albiparmatum* identified as *Hyalomma aegyptium* in the Nuttall Tick Collection.
- 87 *albipictus* (Packard, 1869), *Cynorhaestes*. It was originally named *Ixodes albipictus* (= *Dermacentor albipictus*). The name *Cynorhaestes albipictus* used in Schulze (1929b) is a synonym of *Dermacentor albipictus* as stated in Camicas *et al.* (1998).
- 88 *albipictus* (Packard, 1869) *Dermacentor*. It was originally named *Ixodes albipictus* and given its current status in Banks (1907), but not included in Neumann (1911a).
- 89 *albipictus* Packard, 1869, *Ixodes*. This name is a synonym of *Dermacentor albipictus* and its original name as stated in Cooley (1938) and Camicas *et al.* (1998). However, the name *Ixodes albipictus* in Neumann (1897) is in fact *Dermacentor variabilis variabilis* (= *Dermacentor variabilis*) according to Neumann (1911a).
- 90 *albipictus kamshadalus* Neumann, 1908d, *Dermacentor*. It was originally named *Dermacentor variegatus kamshadalus*. The name *Dermacentor albipictus kamshadalus* used in Arthur (1960a) is a synonym of *Dermacentor kamshadalus* as stated in Apanaskevich (2013).
- 91 *albipictus kamtshadalus* Neumann, 1908d, *Dermacentor*. It was originally named *Dermacentor variegatus kamshadalus*. The name *Dermacentor albipictus kamtshadalus* (= *Dermacentor kamshadalus*) used in in Doss & Anastos (1977), is a synonym of *Dermacentor kamshadalus* as stated in Apanaskevich (2013), but not included in Camicas *et al.* (1998).
- 92 *albipictus kamschadalus* Neumann, 1908d, *Dermacentor*. It was originally named *Dermacentor variegatus kamshadalus*. The name *Dermacentor albipictus kamschadalus* used in Olenev (1931c) and others is a synonym of *Dermacentor albipictus* in Camicas *et al.* (1998), but it is a synonym of *Dermacentor kamshadalus* as stated in Apanaskevich (2013).
- 93 *albipictus nigrolineata* (Packard, 1869), *Dermacentor*. This name used in Schulze (1941a, page 524) is a synonym of *Dermacentor albipictus* here, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 94 *albipictus nigrolineatus* (Packard, 1869), *Dermacentor*. This name is a synonym of *Dermacentor nigrolineatus* in Camicas *et al.* (1998), but it is a synonym of *Dermacentor albipictus* here. Doss & Anastos (1977) and Camicas *et al.* (1998) based the usage of this name in Schulze (1941a), but this author used the name *Dermacentor albipictus nigrolineata*.
- 95 *albipictus nigromaculata* Schulze, 1941a, *Dermacentor* (page 522). This name is not properly defined in Schulze (1941a) being a *nomen nudum*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 96 *albitictus* Sonenshine, Lamb and Anastos, 1965, *Dermacentor* (page 38). This name is a *lapsus* for *Dermacentor albipictus*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 97 *albolimbatum* Neumann, 1907c, *Amblyomma*. Keirans (1985) found *Amblyomma moreliae* identified as *Amblyomma albolimbatum* in the Nuttall Tick Collection.
- 98 *albopictum* Neumann, 1899, *Amblyomma*. It was originally named *Ixodes variegatus* Lucas, 1852, a name preoccupied by *Ixodes variegatus* (Fabricius, 1798) (= *Amblyomma variegatum*) as stated in Neumann (1911a) and renamed *Amblyomma albopictum* in Neumann (1899). The name *Amblyomma albopictum* in Morel (1967) is partly in fact *Aponomma quadricavum* (= *Amblyomma quadricavum*) according to Santos Dias (1993a).
- 99 *albopictus* Lees, 1948, *Dermacentor* (page 161). This name is a *lapsus* for *Dermacentor albipictus*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Dana (2009, page 299), Merhej & Raoult (2011, page 385) and others.
- 100 *algeriense* (Mégnin, 1880), *Hyalomma*. It was originally named *Ixodes algeriensis* (*incertae sedis*). The name *Hyalomma*

- algeriense* used in Canestrini (1890) and by a few other workers, is a synonym of *Hyalomma aegyptium aegyptium* (*incertae sedis*) in Neumann (1911a) and a synonym of *Hyalomma anaticum excavatum* (= *Hyalomma excavatum*) in Camicas *et al.* (1998). *Hyalomma algeriense* is *incertae sedis* synonym of *Ixodes algeriensis* (*incertae sedis*).
- 101 *algeriensis* (Méglin, 1880), *Hyalomma*. This name is in Doss & Anastos (1977) based on Canestrini (1890), but this author used the correct name *Hyalomma algeriense*. The name *Hyalomma algeriensis* is *incertae sedis* synonym of *Ixodes algeriensis* (*incertae sedis*), but not included in Camicas *et al.* (1998).
- 102 *algeriensis* Méglin, 1880, *Ixodes*. This name is partly a synonym of *Hyalomma anaticum excavatum* (= *Hyalomma excavatum*) and a *nomen dubium* in Camicas *et al.* (1998). The name *Ixodes algeriensis* comprehends an assemblage of *Hyalomma aegyptium*, *Dermacentor reticulatus* (Fabricius, 1794) and *Rhipicephalus bursa* according to Neumann (1911a). *Ixodes algeriensis* is a name *incertae sedis*.
- 103 *alluaudi* Neumann, 1913c, *Ixodes*. Keirans (1985) found *Ixodes alluaudi* identified as *Ixodes tenuirostris* (= *Ixodes trianguliceps*) in the Nuttall Tick Collection.
- 104 *altiplanum* Dios, 1917, *Amblyomma*. This name is a synonym of *Amblyomma parvitarsum* as stated in Aragão (1935) and Camicas *et al.* (1998).
- 105 *amarali* Fonseca, 1935b, *Ixodes*
- 106 *amaralli* Aragão, 1936, *Ixodes* (page 803). This name is a *lapsus* for *Ixodes amarali*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 107 *ambigua* Neumann, 1901, *Haemaphysalis*. This name is valid in Neumann (1911a), but *Haemaphysalis ambigua* is a synonym of *Haemaphysalis inermis* Birula, 1895 as stated in Hoogstraal (1969) and Camicas *et al.* (1998). However, *Haemaphysalis ambigua* in Neumann (1906), Hoogstraal & Wilson (1966) and Kitaoka & Mori (1967) is in fact *Haemaphysalis kitaokai* as shown in Hoogstraal (1969).
- 108 *amblyomma* Bouzek, Foré, Bevell and Kim, 2013, *Amblyomma* (pages 76, 77). This name is a *lapsus* for *Amblyomma americanum*.
- 109 *ambulantium* Gmelin, 1802, *Acarus*. This name is a synonym of *Ixodes ricinus* in Camicas *et al.* (1998), which is an unexpected synonym for a Brazilian tick. The name *Acarus ambulantium* is a *nomen novo* for *Acarus sanguisugus* (*nomen dubium*) in Doss & Anastos (1977), but this is not stated in Gmelin (1802). *Acarus ambulantium* is a *nomen dubium*, but not included in Neumann (1911a).
- 110 *ameivae* Pagenstecher, 1861, *Ixodes*. This name is *incertae sedis* in Neumann (1911a) and a *nomen dubium* in Camicas *et al.* (1998) and here.
- 111 *americana* (Linnaeus, 1758), *Amblyomma*. This name used in Banks (1907), Schneider *et al.* (1971, page 16) and others, is a synonym of *Amblyomma americanum* (page 607), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 112 *americanum* (Linnaeus, 1758), *Amblyomma*. It was originally named *Acarus americanus* Linnaeus, 1758 and given its current status in Koch (1844a). There are several misdiagnosis of *Amblyomma americanum* throughout the New World where it has been confused with *Amblyomma cajennense* in Bodkin (1919), *Amblyomma fossum* (= *Amblyomma ovale*), *Amblyomma maculatum*, *Amblyomma parvum* Aragão, 1908a and other uncertain species as stated in Guglielmone *et al.* (2003). The name *Amblyomma americanum* is not included in Doss & Anastos (1977).
- 113 *americanum* (Linnaeus, 1758), *Rhynchoprion*. It was originally named *Acarus americanus* Linnaeus, 1758 (= *Amblyomma americanum*). The name *Rhynchoprion americanum* used in Hermann (1804) is a synonym of *Amblyomma americanum* as stated in Neumann (1911a) and Camicas *et al.* (1998), but not included in Doss & Anastos (1977).
- 114 *americanus* Linnaeus, 1758, *Acarus*. This name is a synonym of *Amblyomma americanum* and its original name as stated in Neumann (1911a) and Camicas *et al.* (1998). However, the name *Acarus americanus* Linnaeus, 1758 in Neumann (1897) is in fact *Dermacentor americanus* (Linnaeus, 1758) (= *Dermacentor variabilis*) according to Neumann (1911a).
- 115 *americanus* (Linnaeus, 1758), *Amblyomma*. This name is in Doss & Anastos (1977) based on Koch (1844a), but this author used the correct name *Amblyomma americanum*. The name *Amblyomma americanus* (Linnaeus, 1758) is a synonym of *Amblyomma americanum*, but not included in Camicas *et al.* (1998).
- 116 *americanus* (Linnaeus, 1758), *Dermacentor*. This name used first in Curtice (1892) who refers to *Acarus americanus* Linnaeus, 1758 (= *Amblyomma americanum*) as a synonym of *Dermacentor variabilis*. This view has been followed by authors like Neumann (1897), Banks (1907) and others. The name *Dermacentor americanus* (Linnaeus, 1758) is a synonym of *Dermacentor variabilis variabilis* (= *Dermacentor variabilis*) in Neumann (1911a) and a synonym of *Dermacentor variabilis* in Cooley (1938). Camicas *et al.* (1998) treat this name as a probable synonym of *Dermacentor variabilis* and a *nomen dubium*. *Dermacentor americanus* (Linnaeus, 1758) is a synonym of *Dermacentor variabilis* here, but not included in Doss & Anastos (1977).
- 117 *americanus* (Linnaeus, 1758), *Euthesius*. It was originally named *Acarus americanus* Linnaeus, 1758 (= *Amblyomma americanum*). The name *Euthesius americanus* (Linnaeus, 1758) used in Gistel (1848) is a synonym of *Amblyomma americanum* as stated in Camicas *et al.* (1998), who name the authority as Gistel. *Euthesius americanus* (Linnaeus, 1758) is not included in Neumann (1911a).
- 118 *americanus* (Linnaeus, 1758), *Haemalastor*. It was originally named *Acarus americanus* Linnaeus, 1758 (= *Amblyomma americanum*). The name *Haemalastor americanus* (Linnaeus, 1758) used in Oudemans (1936, page 455) is a synonym of *Amblyomma americanum*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 119 *americanus* (Linnaeus, 1758), *Ixodes*. It was originally named *Acarus americanus* Linnaeus, 1758 (= *Amblyomma americanum*). The name *Ixodes americanus* (Linnaeus, 1758) used first in Fabricius (1805) is a synonym of *Amblyomma*

- americanum* as stated in Neumann (1911a) and Camicas *et al.* (1998).
- 120 *americanus* (Linnaeus, 1758), *Rhynchoprion*. This name is listed in Doss & Anastos (1977) based on Hermann (1804), but this author used the name *Rhynchoprion americanum*. The name *Rhynchoprion americanus* (Linnaeus, 1758) is a synonym of *Amblyomma americanum*, but not included in Camicas *et al.* (1998).
- 121 *americanus humanus* Wagner, 1876, *Ixodes*. This name is a *nomen dubium* in Camicas *et al.* (1998), but not included in Neumann (1911a). The name *Ixodes americanus humanus* Wagner, 1876 is a name without description or figure, a *nomen nudum*.
- 122 *amersoni* Kohls, 1966, *Ixodes*. This name is a synonym of *Scaphixodes amersoni* in Camicas *et al.* (1998), but it is valid.
- 123 *amersoni* (Kohls, 1966), *Scaphixodes*. It was originally named *Ixodes amersoni*. The name *Scaphixodes amersoni* is valid in Camicas *et al.* (1998), but it is a synonym of *Ixodes amersoni*.
- 124 *ampullaceus* Warburton, 1933, *Ixodes*. This name is a synonym of *Ixodes ugandanus* as stated in Santos Dias (1958a) and Camicas *et al.* (1998).
- 125 *amratus* Chen, Zhang and He *et al.* [sic], 1999, *Dermacentor* (page 368). This name is a *lapsus* for *Dermacentor auratus*.
- 126 *amurense* Schulze, 1931 *Hyalomma*, in Olenev (1931a). This name is a synonym of *Hyalomma asiaticum asiaticum* (= *Hyalomma asiaticum*) in Camicas *et al.* (1998), but it is a synonym of *Hyalomma asiaticum* as stated in Apanaskevich & Horak (2010).
- 127 *anatolicum anatolicum* Rao, Dhanda, Bhat and Kulkarni, 1973, *Hyalomma* (page 1449). This name is a *lapsus* for *Hyalomma anatolicum anatolicum* (= *Hyalomma anatolicum*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Shastri (1984, page 158) and others.
- 128 *anatis* Chilton, 1904, *Ixodes*. This name is a probable synonym of *Scaphixodes apteridis* (*nomen dubium*) in Camicas *et al.* (1998), but *Ixodes anatis* is valid as stated in Guglielmone *et al.* (2009, 2010b, 2014). The name *Ixodes eudypitidis* in Bishop & Heath (1998) is partly confused with *Ixodes anatis* as stated in Heath (2010). *Ixodes anatis* is not included in Neumann (1911a).
- 129 *anatolicum* Shoukry, El-Kady and Diab, 2002, *Hyalomma* (page 53). This name is a *lapsus* for *Hyalomma anatolicum*.
- 130 *anatolicum* Koch, 1844a, *Hyalomma*. The synonymy for this species is largely based on Camicas *et al.* (1998), who along with Horak *et al.* (2002) and others, use the name *Hyalomma anatolicum anatolicum*. The name *Hyalomma anatolicum* is *incertae sedis*, synonym of *Hyalomma syriacum* (= *Hyalomma aegyptium*) in Neumann (1911a), while it in Schulze & Schlottke (1929a) is in fact *Hyalomma anatolicum excavatum* (= *Hyalomma excavatum*) according to Camicas *et al.* (1998). Species of *Hyalomma* N° 2 near *excavatum* in Hoogstraal (1956a) is actually *Hyalomma anatolicum excavatum* (= *Hyalomma excavatum*) as stated in Camicas *et al.* (1998). Keirans (1985) found *Hyalomma anatolicum anatolicum* (= *Hyalomma anatolicum*) identified as *Hyalomma aegyptium* in the Nuttall Collection. Camicas *et al.* (1998) divided this species into two subspecies: *anatolicum anatolicum* (= *Hyalomma anatolicum*) and *anatolicum excavatum* (= *Hyalomma excavatum*).
- 131 *anatolicum* (Koch, 1844a), *Rhipicephalus*. This name is a *nomen nudum* in Camicas *et al.* (1998) under the authority of Dönitz, 1905. The name *Rhipicephalus anatolicum* is a *lapsus* for *Hyalomma anatolicum* in Dönitz (1905) as stated in Walker *et al.* (2000), but not included in Neumann (1911a).
- 132 *anatolicum anatolicum* (Koch, 1844a), *Haemaphysalis*. This name is a *lapsus* for *Hyalomma anatolicum anatolicum* (= *Hyalomma anatolicum*) in Arserim & Mete (2012, page 6).
- 133 *anatolicum anatolicum* Koch, 1844a, *Hyalomma*. It was originally named *Hyalomma anatolicum*. The name *Hyalomma anatolicum anatolicum* used first in Kratz (1940) is valid in Camicas *et al.* (1998) and Horak *et al.* (2002). The name *Hyalomma anatolicum anatolicum* is a synonym of *Hyalomma anatolicum* here. The correct definition of *Hyalomma anatolicum anatolicum* (= *Hyalomma anatolicum*) according to Camicas *et al.* (1998) is in Pomerantzev (1946).
- 134 *anatolicum asiaticum* Schulze and Schlottke, 1929a, *Hyalomma*. This name used in Tselishev (1950) is a synonym of *Hyalomma asiaticum asiaticum* (= *Hyalomma asiaticum*) in Camicas *et al.* (1998). The name *Hyalomma anatolicum asiaticum* is a synonym of *Hyalomma asiaticum* as stated in Apanaskevich & Horak (2010).
- 135 *anatolicum excavatum* Yeruham, Hadani, Galkar and Rosen, 1996, *Hyalomma* (page 49). This name is a *lapsus* for *Hyalomma anatolicum excavatum* (= *Hyalomma excavatum*).
- 136 *anatolicum excavatum* Rubina, Braverman and Frish, 1984, *Hyalomma* (page 306). This name is a *lapsus* for *Hyalomma anatolicum excavatum* (= *Hyalomma excavatum*), but not included in Camicas *et al.* (1998).
- 137 *anatolicum excavatum* Koch, 1844a, *Hyalomma*. This name used first in Kratz (1940) is valid in Camicas *et al.* (1998) and Horak *et al.* (2002). The name *Hyalomma anatolicum excavatum* is a synonym of *Hyalomma excavatum* here. However, *Hyalomma anatolicum excavatum* in Kratz (1940) is in fact *Hyalomma anatolicum anatolicum* (= *Hyalomma anatolicum*) in Camicas *et al.* (1998), who state that the correct morphological definition of *Hyalomma anatolicum excavatum* (= *Hyalomma excavatum*) is in Pomerantzev (1946).
- 138 *anatolicum excavatum* Arserim and Mete, 2012, *Haemaphysalis* (page 6). This name is a *lapsus* for *Hyalomma anatolicum excavatum* (= *Hyalomma excavatum*).
- 139 *anatolicum zavattarii* Tonelli Rondelli, 1935, *Hyalomma*. This name is a synonym of *Hyalomma anatolicum excavatum* (= *Hyalomma excavatum*) as stated in Camicas *et al.* (1998).
- 140 *anatolicumi anatolicumi* Shastri, Deshpande and Deshpande, 1983, *Hyalomma* (page 319). This name is a *lapsus* for *Hyalomma anatolicum anatolicum* (= *Hyalomma anatolicum*), but not included in Camicas *et al.* (1998).
- 141 *anatolieum excavatum* Koch, 1844a, *Hyalomma*. This name is a *lapsus* for *Hyalomma anatolicum excavatum* (=

- Hyalomma excavatum*) in Yeruham *et al.* (1996, page 49).
- 142 *anatolium anatolium* Shastri, 1984, *Hyalomma* (page 159). This name is a *lapsus* for *Hyalomma anaticum anaticum* (= *Hyalomma anaticum*), but not included in Camicas *et al.* (1998).
- 143 *anaticum* Lak, Vatandoost, Telmadarraiy, Mahdi and Kia, 2008, *Hyalomma* (page 32). This name is a *lapsus* for *Hyalomma anaticum*.
- 144 *anaticum anaaticum* Yakhchali, Rostami and Esmailzadeh 2011, *Hyalomma* (page 232). This name is a *lapsus* for *Hyalomma anaticum anaticum* (= *Hyalomma anaticum*).
- 145 *anceps* Dönitz, 1909, *Amblyomma*. This name is a synonym of *Amblyomma cohaerens* as stated in Robinson (1926) and Camicas *et al.* (1998).
- 146 *andersoni* Stiles, 1905, *Dermacentor*. This name is valid in Neumann (1911a) based on “Stiles 1905 in: Rev. Med. Trop. v:6 p.22.”, a publication that we were unable to locate. Therefore we follow Keirans (1976), Doss & Anastos (1977) and Camicas *et al.* (1998), who state that *Dermacentor andersoni* Stiles, 1905 has no description or figure, a *nomen nudum*.
- 147 *andersoni* Stiles, 1908, *Dermacentor*. It was originally named *Dermacentor venustus* Marx, 1897 in Neumann (1897), but *Dermacentor venustus* Marx, 1897 was suppressed to preserve the name *Dermacentor andersoni* Stiles, 1908 as stated in Keirans (1976).
- 148 *andersoni venustus* Banks, 1908, *Dermacentor*. It was originally named *Dermacentor venustus* Banks, 1908 (suppressed). The name *Dermacentor andersoni venustus* used in Savory (1964) is in fact *Dermacentor andersoni* Stiles, 1908 as stated in Camicas *et al.* (1998), but this name is not included in lists 2 or 3.
- 149 *andicus* Filippova, 2010, *Ixodes* (page 795). This name is a *lapsus* for *Ixodes andinus*.
- 150 *andinus* Kohls, 1956a, *Ixodes*. This name is often cited as described in 1957.
- 151 *angorensis* Schulze and Schlottke, 1927, *Haemaphysalis*. This name is a synonym of *Haemaphysalis sulcata* as stated in Morel (1963a, as *Haemaphysalis angorensis*) and Camicas *et al.* (1998).
- 152 *angorensis* Schulze and Schlottke, 1927, *Haemaphysalis*. This name is used in Morel (1963a, page 916) instead of *Haemaphysalis angorensis*. The name *Haemaphysalis angorensis* is a synonym of *Haemaphysalis sulcata*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 153 *angulatus* Kishida, 1939a, *Ixodes*. Teng & Jiang (1991) spelt this name *Ixodes angutatus* (*lapsus*) and regard it a synonym of *Dermacentor sinicus*, but this statement is unjustified. The name *Ixodes angulatus* is a synonym of *Pholeoixodes pomerantzevi* (Serdjukova, 1941) (= *Ixodes pomerantzevi* Serdjukova, 1941) in Camicas *et al.* (1998) who spelt this name *Pholeoixodes pomerantzevi* Camicas, Hervy, Adam and Morel, 1998 (*lapsus*), another unjustified decision because even if both species are identical (which are not) the name *Ixodes angulatus* will prevail. *Ixodes angulatus* is a name *incertae sedis*.
- 154 *angustus* Neumann, 1899, *Ixodes*. The type used to describe *Ixodes angustus* is in fact a specimen of *Ixodes woodi* as stated in Robbins & Keirans (1989). The name *Ixodes angustus* have consistently applied by recognized workers for a particular taxon different to *Ixodes woodi*; therefore, Robbins & Keirans (1989) selected a neotype for *Ixodes angustus*. This name in Neumann (1901) and Lahille (1905) is in fact *Ixodes loricatus* as stated in Guglielmone *et al.* (2003). *Ixodes angustus* is a synonym of *Pholeoixodes angustus* (= *Ixodes angustus*) in Camicas *et al.* (1998), but it is valid. Keirans (1985) found *Ixodes ochotonae* and *Ixodes soricis* identified as *Ixodes angustus*, and *Ixodes angustus* classified as *Ixodes auritulus* in the Nuttall Collection. Species 3 and 61 of *Ixodes* in Asanuma & Sekikawa (1952) and Asanuma (1955) (these publications were not located) are in fact *Ixodes angustus* as stated in Yamaguti *et al.* (1971).
- 155 *angustus* (Neumann, 1899), *Pholeoixodes*. It was originally named *Ixodes angustus*. The name *Pholeoixodes angustus* is valid in Camicas *et al.* (1998) based on Morel & Pérez (1973), but it is a synonym of *Ixodes angustus*.
- 156 *angustus cookei* Packard, 1869, *Ixodes*. This name is a *lapsus* for *Ixodes hexagonus cookei* (= *Ixodes cookei*) in Guglielmone *et al.* (2003, page 99).
- 157 *angustus woodi* Bishopp, 1911, *Ixodes*. This name is a synonym of *Pholeoixodes woodi* (= *Ixodes woodi*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes woodi* and its original name as stated in Keirans & Clifford (1978).
- 158 *angutatus* Teng and Jiang, 1991, *Ixodes* (page 248). This name is a *lapsus* for *Ixodes angulatus* (*incertae sedis*) which is considered without justification a synonym of *Dermacentor sinicus* in Teng & Jiang (1991). The name *Ixodes angutatus* is not included in Camicas *et al.* (1998).
- 159 *annulatus* Osburn, 1981, *Boophilus* (page 177). This name is a *lapsus* for *Boophilus annulatus* (= *Rhipicephalus annulatus*), but not included in Camicas *et al.* (1998). This *lapsus* is repeated in Colebrook & Wall (2004, page 266) among others.
- 160 *annandalei* Warburton, 1910, *Amblyomma*. This name is a synonym of *Amblyomma supinoi* as stated in Robinson (1926) and Camicas *et al.* (1998).
- 161 *annulatus* Abdel-Wahab, Helal and Kawther, 1999, *Boophilus* (page 142). This name is a *lapsus* for *Boophilus annulatus* (= *Rhipicephalus annulatus*) repeated in Colebrook & Wall (2004, page 266), Lwande *et al.* (2013, page 640), among others.
- 162 *annulata* Okaeme, 1986, *Boophilus* (page 42). This name is a *lapsus* for *Boophilus annulatus* (= *Rhipicephalus annulatus*), but not included in Camicas *et al.* (1998). This *lapsus* is repeated in Farougou *et al.* (2006, page 147) and others.
- 163 *annulatis* Miranpuri and Naithani, 1978, *Rhipicephalus* (page 32). This name is a *lapsus* for *Rhipicephalus annulatus*, but not included in Camicas *et al.* (1998).
- 164 *annulatum* Mamak, Gençer, Özkanlar and Özçelik 2006, *Boophilus* (pages 209-211). This name is a *lapsus* for *Boophilus annulatus* (= *Rhipicephalus annulatus*).

- 165 *annulatus* (Say, 1821), *Boophilus*. It was originally named *Ixodes annulatus* (= *Rhipicephalus annulatus*). The name *Boophilus annulatus* used first in Stiles & Hassall (1901) is valid in Camicas *et al.* (1998) and in many studies, and a synonym of *Margaropus annulatus annulatus* (= *Rhipicephalus annulatus*) in Neumann (1911a). *Boophilus annulatus* is now a synonym of *Rhipicephalus annulatus* as stated in Horak *et al.* (2002). The name *Boophilus annulatus* in Krijgsman & Ponto (1931, 1932) is in fact *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) according to Anastos (1950).
- 166 *annulatus* Say, 1821, *Ixodes*. This name is a synonym of *Margaropus annulatus annulatus* (= *Rhipicephalus annulatus*) in Neumann (1911a) and a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) in Camicas *et al.* (1998). The name *Ixodes annulatus* is a synonym of *Rhipicephalus annulatus* and its original name.
- 167 *annulatus* (Say, 1821), *Margaropus*. It was originally named *Ixodes annulatus* (= *Rhipicephalus annulatus*) and it is a synonym of *Rhipicephalus annulatus*. The name *Margaropus annulatus* used first in Neumann (1907b) is a synonym of *Margaropus annulatus annulatus* (= *Rhipicephalus annulatus*) in Neumann (1911a) and a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) in Camicas *et al.* (1998). Neumann (1911a) divided *Margaropus annulatus* (= *Rhipicephalus annulatus*) in six subspecies: *annulatus annulatus* (= *Rhipicephalus annulatus*), *annulatus argentinus* (= *Rhipicephalus microplus*), *annulatus australis* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*), *annulatus calcaratus* (= *Rhipicephalus annulatus*), *annulatus caudatus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) and *annulatus decoloratus* (= *Rhipicephalus decoloratus*).
- 168 *annulatus* (Say, 1821), *Ornithodoros*. This name is a *nomen nudum* in Camicas *et al.* (1998) based on Hoogstraal (1956a). The name *Ornithodoros annulatus* (Say, 1821) is a *lapsus* for *Boophilus annulatus* (= *Rhipicephalus annulatus*) in Grimaldi (1934). The authority for *Ornithodoros annulatus* is Grimaldi, 1934 in Camicas *et al.* (1998), but regarded here a *lapsus* for *Rhipicephalus annulatus*; therefore the authority for this name belongs to Say.
- 169 *annulatus* (Say, 1821), *Rhipicephalus*. It was originally named *Ixodes annulatus* (= *Rhipicephalus annulatus*) and given its current status first in Neumann (1897). The synonymy of *Rhipicephalus annulatus* is mainly based on Camicas *et al.* (1998) who name this species *Boophilus annulatus*. Neumann (1911a) treats *Rhipicephalus annulatus* as a synonym of *Margaropus annulatus annulatus* (= *Rhipicephalus annulatus*). Keirans (1985) found *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) and *Boophilus australis* (Fuller, 1899) (= *Rhipicephalus australis* Fuller, 1899) identified as *Boophilus annulatus* (= *Rhipicephalus annulatus*) in the Nuttall Tick Collection.
- 170 *annulatus affinis* Minning, 1934, *Boophilus*. This name is a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) as stated in Camicas *et al.* (1998).
- 171 *annulatus annulatus* (Say, 1821), *Boophilus*. This name used in Schulze (1919 usually cited 1918) and by a few other workers, is a synonym of *Rhipicephalus annulatus* here.
- 172 *annulatus annulatus* (Say, 1821), *Margaropus*. This name used in Neumann (1911a) and by a few other workers, is a synonym of *Boophilus annulatus* in Camicas *et al.* (1998). The name *Margaropus annulatus annulatus* is a synonym of *Rhipicephalus annulatus*.
- 173 *annulatus argentina* Neumann, 1904, *Rhipicephalus*. This name is a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Walker *et al.* (2000), but not included in Neumann (1911a), Doss & Anastos (1977) and Camicas *et al.* (1998). The name *Rhipicephalus annulatus argentina* is a *lapsus* for *Rhipicephalus annulatus argentinus* (= *Rhipicephalus microplus*).
- 174 *annulatus argentinensis* Neumann, 1901, *Rhipicephalus*. This name is a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998). The name *Rhipicephalus annulatus argentinensis* is a *lapsus* for *Rhipicephalus annulatus argentinus* Neumann, 1901 (= *Rhipicephalus microplus*) as stated in Walker *et al.* (2000), but not included in Neumann (1911a).
- 175 *annulatus argentinus* (Neumann, 1901), *Boophilus*. This name used in Gedoelst (1911) is a synonym of *Boophilus decoloratus* (= *Rhipicephalus decoloratus*) in Camicas *et al.* (1998). The name *Boophilus annulatus argentinus* is a synonym of *Rhipicephalus microplus* here because the locality for this name is in Argentina.
- 176 *annulatus argentinus* (Neumann, 1901), *Margaropus*. This name used first in Castellani & Chalmers (1910) is a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998). The name *Margaropus annulatus argentinus* is a synonym of *Rhipicephalus microplus* here.
- 177 *annulatus argentinus* Neumann, 1901, *Rhipicephalus*. This name used in Neumann (1901) and by a few other workers, is a synonym of *Rhipicephalus microplus* here. However, the name *Rhipicephalus annulatus argentinus* is a synonym of *Margaropus annulatus argentinus* (= *Rhipicephalus microplus*) in Neumann (1911a), a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) in Estrada-Peña & Castellá (1994) and a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998) and Walker *et al.* (2000).
- 178 *annulatus australis* (Fuller, 1899), *Boophilus*. This name used first in Stiles & Hassall (1901) is a synonym of *Margaropus annulatus australis* (Fuller, 1899) (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Neumann (1911a), and a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998). The name *Boophilus annulatus australis* (Fuller, 1899) is partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus* after the study of Estrada-Peña *et al.* (2012a).

- 179 *annulatus australis* (Fuller, 1899), *Margaropus*. This name used first in Newstead (1909) is valid in Neumann (1911a) and a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998). The name *Margaropus annulatus australis* (Fuller, 1899) is partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus* here.
- 180 *annulatus australis* Fuller, 1899, *Rhipicephalus*. This name used first in Neumann (1901) is a synonym of *Margaropus annulatus australis* (Fuller, 1899) (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Neumann (1911a) and a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998). The name *Rhipicephalus annulatus australis* Fuller, 1899 is partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus* here.
- 181 *annulatus calcarata* (Birula, 1894), *Boophilus*. This name is in Doss & Anastos (1977) based on Lahille (1905), but this author used the correct name *Boophilus annulatus calcaratus* (= *Rhipicephalus annulatus*). The name *Boophilus annulatus calcarata* is a synonym of *Rhipicephalus annulatus*, but not included in Camicas *et al.* (1998).
- 182 *annulatus calcarata* (Birula, 1894), *Margaropus*. This name is in Doss & Anastos (1977) based on Newstead *et al.* (1907), but these authors used the correct name *Margaropus annulatus calcaratus* (= *Rhipicephalus annulatus*). The name *Margaropus annulatus calcarata* is a synonym of *Rhipicephalus annulatus*, but not included in Camicas *et al.* (1998).
- 183 *annulatus calcarata* (Birula, 1894), *Rhipicephalus*. This name used in Neumann (1904) and by a few other workers, is a synonym of *Rhipicephalus annulatus*, but not included in Camicas *et al.* (1998).
- 184 *annulatus calcaratus* (Birula, 1894), *Boophilus*. This name used first in Lahille (1905) is a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) in Camicas *et al.* (1998), but not included in Neumann (1911a) and Doss & Anastos (1977). The name *Boophilus annulatus calcaratus* is a synonym of *Rhipicephalus annulatus*.
- 185 *annulatus calcaratus* (Birula, 1894), *Margaropus*. This name used in Neumann (1911a) and by a few other workers, is a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) in Camicas *et al.* (1998), but not included in Doss & Anastos (1977). The name *Margaropus annulatus calcaratus* is a synonym of *Rhipicephalus annulatus*.
- 186 *annulatus calcaratus* (Birula, 1894), *Rhipicephalus*. This name is a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) in Camicas *et al.* (1998) based on Neumann (1904), who names it *Rhipicephalus annulatus calcarata*. The name *Rhipicephalus annulatus calcaratus* is a synonym of *Rhipicephalus annulatus*, but not included in Doss & Anastos (1977).
- 187 *annulatus caudatus* (Neumann, 1897), *Boophilus*. This name used first in Lahille (1905) is a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) in Estrada-Peña & Castellá (1994) and a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998), but not included in Neumann (1911a). The name *Boophilus annulatus caudatus* is partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus* here.
- 188 *annulatus caudatus* (Neumann, 1897), *Margaropus*. This name used in Neumann (1911a) and by a few other workers, is a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) in Estrada-Peña & Castellá (1994) and a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998). The name *Margaropus annulatus caudatus* is here partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*.
- 189 *annulatus caudatus* Neumann, 1897, *Rhipicephalus*. This name is a synonym of *Margaropus annulatus australis* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Neumann (1911a). The name *Rhipicephalus annulatus caudatus* is a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) in Estrada-Peña & Castellá (1994) and in part a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998). *Rhipicephalus annulatus caudatus* is partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus* here.
- 190 *annulatus decoloratus* (Koch, 1844a), *Boophilus*. This name used first in Lahille (1905) is a synonym of *Boophilus decoloratus* (= *Rhipicephalus decoloratus*) in Camicas *et al.* (1998), but not included in Neumann (1911a). The name *Boophilus annulatus decoloratus* is a synonym of *Rhipicephalus decoloratus*.
- 191 *annulatus decoloratus* (Koch, 1844a), *Margaropus*. This name used in Neumann (1911a) and by a few other workers, is a synonym of *Boophilus decoloratus* (= *Rhipicephalus decoloratus*) as stated in Camicas *et al.* (1998).
- 192 *annulatus decoloratus* Koch, 1844a, *Rhipicephalus*. This name used in Neumann (1901) and by a few other workers, is a synonym of *Margaropus annulatus decoloratus* (= *Rhipicephalus decoloratus*) in Neumann (1911a) and a synonym and *Boophilus decoloratus* (= *Rhipicephalus decoloratus*) in Camicas *et al.* (1998) and Walker *et al.* (2000). The name *Rhipicephalus annulatus decoloratus* is a synonym of *Rhipicephalus decoloratus*.
- 193 *annulatus dugesi* (Mégnin, 1880), *Margaropus*. This name used in Castellani & Chalmers (1919) is a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) in Camicas *et al.* (1998). The name *Margaropus annulatus dugesi* is a synonym of *Rhipicephalus annulatus*.
- 194 *annulatus dugesi* (Mégnin, 1880), *Rhipicephalus*. This name used in Neumann (1901) is a synonym of *Margaropus annulatus calcaratus* (= *Rhipicephalus annulatus*) in Neumann (1911a) and a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) in Camicas *et al.* (1998) and Walker *et al.* (2000). The name *Rhipicephalus annulatus dugesi* is a synonym of *Rhipicephalus annulatus*.
- 195 *annulatus mexicanus* Macías Valadez, 1923, *Margaropus*. This name is a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) in Estrada-Peña & Castellá (1994 with the authority spelled García Valdez) and a synonym of

- Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998). The name *Margaropus annulatus mexicanus* is a synonym of *Rhipicephalus microplus* here.
- 196 *annulatus microdus* Arnold, 1955, *Boophilus*. This name is a *lapsus* for *Boophilus annulatus microplus* (= *Rhipicephalus microplus*) as stated in Camicas *et al.* (1998 with 1935 the year of its description).
- 197 *annulatus microphilis* Castellani and Chalmers, 1919, *Margaropus* (page 2367). This name is a *lapsus* for *Margaropus annulatus microphilus*, which is itself a *lapsus* for *Margaropus annulatus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*). The name *Margaropus annulatus microphilis* is not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 198 *annulatus microphilus* Castellani and Chalmers, 1910, *Margaropus*. This name is treated simultaneously as a *nomen nudum* and a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998), while Estrada-Peña & Castellá (1994) regard it as a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*). The name *Margaropus annulatus microphilus* is here a *lapsus* for *Margaropus annulatus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) repeated in Castellani & Chalmers (1919). Doss & Anastos (1977) stated that Castellani & Chalmers (1919) named *Margaropus annulatus microphilus* on page 2367, but it is mentioned on page 715.
- 199 *annulatus microplus* (Canestrini, 1888), *Boophilus*. This name used first in Lahille (1905) is a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998), but not included in Neumann (1911a). The name *Boophilus annulatus microplus* is partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus* here.
- 200 *annulatus microplus* (Canestrini, 1888), *Margaropus*. This name used in Rohr (1909) and by a few other workers, is a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998). The name *Margaropus annulatus microplus* is partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus* here.
- 201 *annulatus microplus* (Canestrini, 1888), *Rhipicephalus*. This name used in Neumann (1901) and by a few other workers, is a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998) and Walker *et al.* (2000). The name *Rhipicephalus annulatus microplus* is partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus* here, but it also has been confused with *Margaropus winthemi* in Neumann (1901) as stated in Neumann (1911a).
- 202 *annulatus micropus* Dönitz, 1907a, *Rhipicephalus* (page 188). This name is a *lapsus* for *Rhipicephalus annulatus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*), but not included in Neumann (1911a), Doss & Anastos (1977) and Camicas *et al.* (1998).
- 203 *annulipes* Koch, 1844a, *Amblyomma*. This name is a synonym of *Amblyomma hebraeum* as stated in Neumann (1911a) and Camicas *et al.* (1998).
- 204 *anomala* Warburton, 1913, *Haemaphysalis*. It was originally named *Haemaphysalis cornigera anomala* and given its current status in Hoogstraal *et al.* (1967a). The name *Haemaphysalis novaeguineae* Krijgsman and Ponto, 1932 (= *Haemaphysalis bancrofti*) in Toumanoff (1944) is partly in fact *Haemaphysalis anomala* as stated in Hoogstraal *et al.* (1967a).
- 205 *anomoloceraea* Teng, 1984, *Haemaphysalis*, in Teng & Cui (1984). This name is a synonym of *Haemaphysalis shimoga* in Camicas *et al.* (1998) and a synonym of *Haemaphysalis taiwana* in Kolonin (2009), but no explanations are provided for these decisions (Guglielmone *et al.* 2010b, 2014). The authority for *Haemaphysalis anomoloceraea* is Teng and Cui, 1984 in Camicas *et al.* (1998).
- 206 *anoplos* Hoogstraal, Uilenberg and Klein, 1967c, *Haemaphysalis*
- 207 *angustus* Sonenshine, Lamb and Anastos, 1965, *Ixodes* (page 66). This name is a *lapsus* for *Ixodes angustus*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 208 *antechini* Roberts, 1960, *Ixodes*
- 209 *antillonim* Kolonin, 2004, *Amblyomma* (page 178). This name is a *lapsus* for *Amblyomma antillorum*.
- 210 *antillorum* Kohls, 1969b, *Amblyomma*
- 211 *antolicum antolicum* Shoukry, El Kady, Merdan and El Said, 1993, *Hyalomma* (page 465). This name is a *lapsus* for *Hyalomma anatolicum anatolicum* (= *Hyalomma anatolicum*), but not included in Camicas *et al.* (1998).
- 212 *antrorum* Reznik, 1950, *Dermacentor*. This name is a synonym of *Dermacentor marginatus* (Sulzer, 1776) as stated in Filippova & Panova (1989).
- 213 *aponommoides* Warburton, 1913, *Haemaphysalis*. It was originally named *Haemaphysalis inermis aponommoides* and given its current status in Hoogstraal (1962).
- 214 *appendiculatus* Thomas, 1962, *Rhipicephalus* (page 172). This name is a *lapsus* for *Rhipicephalus appendiculatus*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 215 *appendicalatus* Hoogstraal and Valdez, 1980, *Rhipicephalus* (page 11). This name is a *lapsus* for *Rhipicephalus appendiculatus*, but not included in Camicas *et al.* (1998). This *lapsus* is repeated in Valenzuela (2002, page 1203) among others.
- 216 *appendicularius* Jarvis, 1904, *Rhipicephalus* (page 177). This name is a *lapsus* for *Rhipicephalus appendiculatus*, but not included in Neumann (1911a), Doss & Anastos (1977) and Camicas *et al.* (1998).
- 217 *appendiculatis* Cowan, Dolan, Teale, Young, Stagg and Groocock, 1984, *Rhipicephalus* (page 225). This name is a *lapsus*

- for *Rhipicephalus appendiculatus* repeated in Mongi *et al.* (1986, page 471) and several other workers, but not included in Camicas *et al.* (1998).
- 218 *appendiculatus* (Neumann, 1901), *Eurhipicephalus*. It was originally named *Rhipicephalus appendiculatus*. The name *Eurhipicephalus appendiculatus* used in Lounsbury (1906) and by a few other workers, is a synonym of *Rhipicephalus appendiculatus* as stated in Camicas *et al.* (1998), but not included in Neumann (1911a).
- 219 ***appendiculatus*** Neumann, 1901, *Rhipicephalus*. Keirans (1985) found the following species of *Rhipicephalus*: *carnivoralis*, *kochi* Dönitz, 1905, *longus*, *muehlensi*, *pravus*, *punctatus* Warburton, 1912, *senegalensis* and *supertritus* identified as *Rhipicephalus appendiculatus*, but also *Rhipicephalus appendiculatus* identified as *Rhipicephalus neavei* (= *Rhipicephalus kochi* Dönitz, 1905), *Rhipicephalus nitens* Neumann, 1904 and *Rhipicephalus simus*. *Rhipicephalus appendiculatus* in Tonetti *et al.* (2009) is in fact *Rhipicephalus warburtoni* as stated in Tonetti & Walters (2010).
- 220 *appendiculatus* Norval, 1977, *Rhipicephalus* (page 63). This name is a *lapsus* for *Rhipicephalus appendiculatus* but not included in Camicas *et al.* (1998).
- 221 *apenidiculatus* Colebrook and Wall, 2004, *Rhipicephalus* (page 266). This name is a *lapsus* for *Rhipicephalus appendiculatus*.
- 222 *approximans* Doss and Anastos, 1977, *Dermacentor*, derived from *approximans* in Olenev (1927). This name is considered a *nomen dubium* in Camicas *et al.* (1998) under the authority of Olenev, 1927. However, the epithet *approximans* in Olenev (1927) is not a tick name but a morphological definition that involves more than one species (Apanaskevich D.A., personal communication). *Dermacentor approximans* is a *nomen nudum*.
- 223 *apronophorus* Sonenshine, 1974, *Ixodes* (page 1061). This name is a *lapsus* for *Ixodes apronophorus*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 224 *apronatus* Kirschenblatt, 1934, *Ixodes*. This name is a synonym of *Scaphixodes frontalis* (= *Ixodes frontalis*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes frontalis*. The authority for this name is spelled Kirshenblat in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 225 *apronophoros* Gilot, Guiguen, Beaucournu and Aubert, 1987, *Ixodes* (page 250). This name is a *lapsus* for *Ixodes apronophorus* but not included in Camicas *et al.* (1998).
- 226 ***apronophorus*** Schulze, 1924, *Ixodes*. Keirans (1985) found *Ixodes guernseyensis* (= *Ixodes acuminatus*) identified as *Ixodes arvicolae* (= *Ixodes apronophorus*) in the Nuttall Collection.
- 227 *aptericola* Maskell, 1897, *Ixodes*. This name is *incertae sedis* synonym of *Ixodes apteridis* (*nomen dubium*) in Neumann (1911a), and a synonym of *Scaphixodes apteridis* (*nomen dubium*) in Camicas *et al.* (1998). The name *Ixodes aptericola* is a *nomen dubium* here.
- 228 *apteridis* Maskell, 1897, *Ixodes*. This name is *incertae sedis* in Neumann (1911a), valid in Barker & Murrell (2004, 2008) and a synonym of *Scaphixodes apteridis* (*nomen dubium*) in Camicas *et al.* (1998). The name *Ixodes apteridis* is a *nomen nudum* in Guglielmone *et al.* (2009), but it is a *nomen dubium* as stated in Heath *et al.* (2011).
- 229 *apteridis* (Maskell, 1897), *Scaphixodes*. It was originally named *Ixodes apteridis* (*nomen dubium*). The name *Scaphixodes apteridis* is valid in Camicas *et al.* (1998), but it is a *nomen dubium* synonym of *Ixodes apteridis* (*nomen dubium*) here.
- 230 ***aquatilis*** Walker, Keirans and Pegram, 1993, *Rhipicephalus*. Species III of *Rhipicephalus* in Yeoman & Walker (1967) is in fact *Rhipicephalus aquatilis* as stated in Walker *et al.* (2000).
- 231 *aquilae* Neumann, 1899, *Ixodes*. This name is a synonym of *Amblyomma decoratum* (= *Amblyomma helvolum*) in Neumann (1899) and a synonym of *Amblyomma helvolum* in Camicas *et al.* (1998 under the authority of Semper). The name *Ixodes aquilae* has no description or figure, a *nomen nudum*, but not included in Neumann (1911a).
- 232 ***arabica*** Pegram, Hoogstraal and Wassef, 1982, *Hyalomma*
- 233 *arabukeiensis* Keirans, 1992, *Ixodes* (page 8). This name is a *lapsus* for *Ixodes arabukiensis*, but not included in Camicas *et al.* (1998).
- 234 ***arabukiensis*** Arthur, 1959b, *Ixodes*. This name is a synonym of *Ixodes djaronensis* in Camicas *et al.* (1998), but it is provisionally valid in Guglielmone *et al.* (2009) and here. The name *Ixodes arabukiensis* is not included in the list of Ixodidae of Kolonin (2009).
- 235 ***aragaoi*** Fonseca, 1935a, *Ixodes*. The original spelling *Ixodes ricinus aragãoi* is corrected to *Ixodes ricinus aragaoi*. Its status as *Ixodes aragãoi* in Aragão & Fonseca (1951a) is also corrected as *Ixodes aragaoi*. The name *Ixodes aragaoi* is a synonym of *Ixodes affinis* in Keirans & Clifford (1978, 1984), Durden & Keirans (1996) and Guzmán-Cornejo & Robbins (2010) among others, while Kolonin (2009) regards *Ixodes aragaoi* a probable synonym of *Ixodes pararicinus*. However, *Ixodes affinis*, *Ixodes aragaoi* and *Ixodes pararicinus* are valid as stated Guglielmone *et al.* (2003, 2010b, 2014).
- 236 *arakeri* Hiregoudar, 1975, *Rhipicephalus*. This name is a synonym of *Rhipicephalus ramachandrai* Dhanda, 1966 as stated in Walker *et al.* (2000).
- 237 *arborensis* Schulze, 1939c, *Haemaphysalis* (page 728). This name is a *lapsus* for *Haemaphysalis aborensis*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Miranpuri (1988, pages 357-359) and others.
- 238 ***arboricola*** Schulze and Schlottke, 1929b, *Ixodes*. This name is a synonym of *Pholeoixodes arboricola* (= *Ixodes arboricola*) in Camicas *et al.* (1998), but *Ixodes arboricola* is valid. Keirans (1985) found *Ixodes arboricola* identified as *Ixodes brunneus* and *Ixodes canisuga* in the Nuttall Collection. *Ixodes arboricola* in Emel'yanova (1972) is in fact *Pholeoixodes subterraneus* (= *Ixodes subterraneus*) according to Camicas *et al.* (1998 spelled *Pholeoixodes subterraneus*).
- 239 ***arboricola*** (Schulze and Schlottke, 1929b), *Pholeoixodes*. It was originally named *Ixodes arboricola*. The name

- Pholeioxodes arboricola* used in Morel & Pérez (1973) is valid in Camicas *et al.* (1998), but it is a synonym of *Ixodes arboricola*.
- 240 *arboricola arboricola* Schulze and Schlottke, 1929b, *Ixodes*. This name is used in Schulze & Schlottke (1929b) in the same article where *Ixodes arboricola* is described. The name *Ixodes arboricola arboricola* is a synonym of *Pholeioxodes arboricola* (= *Ixodes arboricola*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes arboricola* as stated in Haarløv (1962).
- 241 *arboricola bogatschevi* Kirschenblatt, 1936, *Ixodes*. This name is a synonym of *Pholeioxodes arboricola* (= *Ixodes arboricola*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes arboricola* as stated in Haarløv (1962). Doss & Anastos (1977) and Camicas *et al.* (1998) spelt the authority for this name Kirshenblat.
- 242 *arboricola bogatschewi* Babos, 1964b, *Ixodes* (page 287). This name is a *lapsus* for *Ixodes arboricola bogatschevi* (= *Ixodes arboricola*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 243 *arboricola deserta* Emel'yanova, 1978, *Pholeioxodes*, in Emel'yanova *et al.* (1978). This name is a probable synonym of *Pholeioxodes subterraneus* (= *Ixodes subterraneus*) in Camicas *et al.* (1998 spelled *Pholeioxodes subterraneus*) and Kolonin (2009). The name *Pholeioxodes arboricola deserta* has no description, a *nomen nudum*.
- 244 *arboricola domesticus* Schulze and Schlottke, 1929b, *Ixodes*. This name is a synonym of *Pholeioxodes arboricola* (= *Ixodes arboricola*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes arboricola* as stated in Haarløv (1962).
- 245 *arboricola koshikinae* Emel'yanova, 1978, *Pholeioxodes*, in Emel'yanova *et al.* (1978). This name is a probable synonym of *Pholeioxodes subterraneus* (= *Ixodes subterraneus*) in Camicas *et al.* (1998 spelled *Pholeioxodes subterraneus*). The name *Pholeioxodes arboricola koshikinae* has no description, a *nomen nudum*.
- 246 *arboricola muscicapae* Schulze, 1930a, *Ixodes*. This name is a synonym of *Pholeioxodes arboricola* (= *Ixodes arboricola*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes arboricola* as stated in Haarløv (1962).
- 247 *arbovicola* Babos, 1964a, *Ixodes* (page 11). This name is a *lapsus* for *Ixodes arboricola*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 248 *arcantum* Karsch, 1879b, *Amblyomma*. This species has usually been considered a member of *Aponomma*, but it is now placed again in the genus *Amblyomma* (Horak *et al.* 2002; Klompen *et al.* 2002). The name *Amblyomma arcantum* is a synonym of *Aponomma gervaisi* (= *Amblyomma gervaisi*) in Neumann (1911a) and a doubtful species in Robinson (1926), but *Amblyomma arcantum* is valid.
- 249 *arcantum* (Karsch, 1879b), *Aponomma*. It was originally named *Amblyomma arcantum* and placed in the genus *Aponomma* in Schulze (1935d). The name *Aponomma arcantum* is valid in Camicas *et al.* (1998), but it is a synonym of *Amblyomma arcantum* as stated in Horak *et al.* (2002). However, this name is considered a synonym of *Aponomma exornatum* (= *Amblyomma exornatum*) in Kaufman (1972), and a probable synonym of that name in Kolonin (2009). Santos Dias (1993a) stresses the confusion of *Aponomma arcantum* (= *Amblyomma arcantum*) with *Aponomma exornatum* (= *Amblyomma exornatum*), *Aponomma gervaisi* (= *Amblyomma gervaisi*) and *Aponomma trimaculatum* (Lucas, 1878b) [= *Amblyomma trimaculatum* (Lucas 1878b)].
- 250 *arcticus* Osborn, 1899, *Ixodes*. This name is *incertae sedis* in Neumann (1911a) and a synonym of *Scaphixodes signatus* (= *Ixodes signatus*) in Camicas *et al.* (1998). The name *Ixodes arcticus* is a synonym of *Ixodes signatus* as stated in Keirans & Clifford (1978).
- 251 *arebiensis* Arthur, 1956c, *Ixodes*. This name in Cumming (1998) is in fact *Ixodes aulacodi* because wrong transcription of information in Theiler (1962).
- 252 *arenicola* Eichwald, 1830, *Ixodes*. This name is doubtful and close to *Hyalomma aegyptium* in Neumann (1911a) and a probable synonym of *Hyalomma dromedarii* in Camicas *et al.* (1998). The name *Ixodes arenicola* is a synonym of *Hyalomma dromedarii* as stated in Apanaskevich *et al.* (2008b).
- 253 *areolaris* Olenov, 1939, *Ixodes*. This name is a synonym of *Ixodes ricinus* as stated in Filippova (1977). Doss & Anastos (1977) who spelt this name *Ixodes areololaris* (*lapsus*), and Camicas *et al.* (1998) cite 1936 the year for its description.
- 254 *areololaris* Doss and Anastos, 1977, *Ixodes* (page 7). This name is a *lapsus* for *Ixodes areolaris* (= *Ixodes ricinus*), but not included in Camicas *et al.* (1998).
- 255 *argentinae* Neumann, 1905, *Amblyomma*. It was originally named *Ixodes testudinis* Conil, 1877, a name preoccupied by *Ixodes testudinis* Leydig, 1855 (= *Hyalomma aegyptium*). The name *Amblyomma argentinae* is valid in Neumann (1911a), but several authors consider *Amblyomma argentinae* a synonym of *Amblyomma testudinis* (Conil, 1877) although the opposite is true as stated in Camicas *et al.* (1998) and Guglielmone *et al.* (2001).
- 256 *argentinae* (Neumann, 1905), *Haemalastor*. This name used in Oudemans (1939) is a synonym of *Amblyomma argentinae*.
- 257 *argentinus* (Neumann, 1901), *Boophilus*. This name used in Dönitz (1907b) and by a few other workers, is a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) in Estrada-Peña & Castellá (1994) and a synonym of *Boophilus decoloratus* (= *Rhipicephalus decoloratus*) in Camicas *et al.* (1998), but not included in Neumann (1911a). The name *Boophilus argentinus* is a synonym of *Rhipicephalus microplus* here.
- 258 *argentinus* Neumann, 1901, *Margaropus*. This name used in Castellani & Chalmers (1910) and by a few other workers, is a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998). The name *Margaropus argentinus* is a synonym of *Rhipicephalus microplus* here.
- 259 *argentinus* Neumann, 1901, *Rhipicephalus*. This name is in Doss & Anastos (1977) based on Neumann (1904, page 450), but the latter author mentions *Rhipicephalus annulatus argentinus* not *Rhipicephalus argentinus* on page 450. The name *Rhipicephalus argentinus* used in Dönitz (1907b, page 42) is a synonym of *Rhipicephalus microplus* here.

- 260 *ariana* Keirans and Garris, 1986, *Amblyomma*. This name is valid in Barker & Murrell (2004, 2008), but it is a synonym of *Amblyomma quadricavum* as stated in Keirans & Klompen (1996).
- 261 *armatus* Pocock, 1900, *Rhipicephalus*. The name *Rhipicephalus simus lunulatus* (= *Rhipicephalus lunulatus*) in Lewis (1931) is in fact *Rhipicephalus armatus* as stated in Walker *et al.* (2000).
- 262 *armenicus* Tumanyan, Ananyan and Chubkova, 1968, *Ixodes*. This name is a *lapsus* for *Ixodes laguri armeniacus* (= *Ixodes laguri*) as stated in Camicas *et al.* (1998).
- 263 *armeniorum* Schulze and Schlottke, 1929a, *Hyalomma*. It was originally named *Hyalomma savignyi armeniorum*. The name *Hyalomma armeniorum* used in Kratz (1940) is a synonym of *Hyalomma anatolicum anatolicum* (= *Hyalomma anatolicum*) as stated in Camicas *et al.* (1998).
- 264 *arnoldi* Theiler and Zumpt, 1950, *Rhipicephalus*, in Zumpt (1950, usually cited 1949). This name was confused with *Rhipicephalus deltoideus* as stated in Walker *et al.* (2000).
- 265 *arteriosum* Koch, 1878, *Amblyomma*. This name is *incertae sedis* in Neumann (1911a) and a *nomen dubium* in Camicas *et al.* (1998) and here.
- 266 *arumapertus* Attoui, Jaafar, Mico and Lamballerie, 2005, *Dermacentor* (page 1674). This name is a *lapsus* for *Dermacentor parumapertus* repeated in Dana (2009, page 299) among others.
- 267 *arvalis* Karpov and Popov, 1944, *Ixodes*. This name is a *lapsus* for *Ixodes arvicolae* (= *Ixodes apronophorus*) because it is cited “*Ixodes apronophorus* P. Sch. (= *Ixodes arvalis* Warb.” on page 140 of the translation). The name *Ixodes arvalis* is not included in Doss & Anastos (1977).
- 268 *arvicolae* Warburton, 1926a, *Ixodes*. This name is valid in Arthur (1963) and Keirans (1985), but it is a synonym of *Ixodes apronophorus* as stated in Camicas *et al.* (1998) and Keirans & Hillyard (2001). Keirans (1985) found *Ixodes guernseyensis* (= *Ixodes acuminatus*) identified as *Ixodes arvicolae* (= *Ixodes apronophorus*) in the Nuttall Tick Collection.
- 269 *arvicolae danicae* Arthur, 1955d, *Ixodes*. This name is a synonym of *Ixodes apronophorus* as stated in Camicas *et al.* (1998).
- 270 *asanumai* Kitaoka, 1973, *Ixodes*
- 271 *ascaticumi asiaticum* Yakhchali, Rostami and Esmailzadeh, 2011, *Hyalomma* (page 232). This name is a *lapsus* for *Hyalomma asiaticum asiaticum* (= *Hyalomma asiaticum*).
- 272 *ascatum asiaticum* Yakhchali, Rostami and Esmailzadeh, 2011, *Hyalomma* (page 232). This name is a *lapsus* for *Hyalomma asiaticum asiaticum* (= *Hyalomma asiaticum*).
- 273 *asciatum* Megaw and Beadle, 1979, *Hyalomma* (page 80). This name is a *lapsus* for *Hyalomma asiaticum*, but not included in Camicas *et al.* (1998).
- 274 *asiatica* (Supino, 1897), *Haemaphysalis*. It was originally named *Opisthodon asiaticus* Supino, 1897 and given its current status in Neumann (1897). The name *Haemaphysalis asiatica* is *incertae sedis* in Neumann (1911a), a synonym of *Haemaphysalis leachi* in Nuttall & Warburton (1915), Santos Dias (1958a) and others, but *Haemaphysalis asiatica* is valid as stated in Hoogstraal & Trapido [(1966 spelled *Haemaphysalis asiaticus* (Supino, 1897)] and Camicas *et al.* (1998). Keirans (1985) found *Haemaphysalis asiaticus* (= *Haemaphysalis asiatica*) classified as *Haemaphysalis leachi*.
- 275 *asiaticum* (Schulze and Schlottke, 1929a), *Haemaphysalis*. This name is a *lapsus* for *Hyalomma asiaticum* in Streissel & Mayr (1960) as stated in Hoogstraal & Trapido (1966), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 276 *asiaticum* Schulze and Schlottke, 1929a, *Hyalomma*. It was originally named *Hyalomma dromedarii asiaticum* and given its current status first in Schulze (1935a) and definitively in Apanaskevich & Horak (2010). Guglielmonne *et al.* (2010b) cite 1930 the year for its description. Camicas *et al.* (1998) divided *Hyalomma asiaticum* into three subspecies: *asiaticum asiaticum* (= *Hyalomma asiaticum*), *asiaticum caucasicum* (= *Hyalomma asiaticum*) and *asiaticum kozlovi* (= *Hyalomma asiaticum*).
- 277 *asiaticum asiaticum* Schulze and Schlottke, 1929a, *Hyalomma*. This name used first in Pomerantzev (1946) is valid in Camicas *et al.* (1998) and Horak *et al.* (2002). The name *Hyalomma asiaticum asiaticum* is a synonym of *Hyalomma asiaticum* as stated in Apanaskevich & Horak (2010).
- 278 *asiaticum caucasicum* Pomerantzev, 1940, *Hyalomma*, in Pomerantzev *et al.* (1940). This name is valid in Camicas *et al.* (1998) and Horak *et al.* (2002). The name *Hyalomma asiaticum caucasicum* is a synonym of *Hyalomma asiaticum* as stated in Apanaskevich & Horak (2010). The authorities for *Hyalomma asiaticum caucasicum* are Pomerantzev, Matikashvili and Lototzky, 1940 in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 279 *asiaticum citripes* Schulze, 1935a, *Hyalomma*. This name is a synonym of *Hyalomma asiaticum kozlovi* (= *Hyalomma asiaticum*) in Camicas *et al.* (1998). The name *Hyalomma asiaticum citripes* is a synonym of *Hyalomma asiaticum* as stated in Apanaskevich & Horak (2010).
- 280 *asiaticum kolzovi* Mazlum, 1968, *Hyalomma* (page 437). This name is a *lapsus* for *Hyalomma asiaticum kozlovi* (= *Hyalomma kozlovi*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 281 *asiaticum koslovi* Khalil and Hagrass, 1988, *Hyalomma* (page 198). This name is a *lapsus* for *Hyalomma asiaticum kozlovi* (= *Hyalomma asiaticum*), but not included in Camicas *et al.* (1998).
- 282 *asiaticum kozlovi* Olenev, 1931b, *Hyalomma*. This name used in Pomerantzev (1946) and by a few other workers, is valid in Camicas *et al.* (1998) and Horak *et al.* (2002). The name *Hyalomma asiaticum kozlovi* is a synonym of *Hyalomma asiaticum* as stated in Apanaskevich & Horak (2010).

- 283 *asiaticus* Emel'yanova and Kozlovskaya, 1967b, *Dermacentor*. This name is valid in Estrada-Peña (1991), but it is a synonym of *Dermacentor silvarum* as stated in Filippova (1997). Doss & Anastos (1977) cited Emel'yanova, 1966 as the authority for *Dermacentor asiaticus* Emel'yanova and Kozlovskaya, 1967b.
- 284 *asiaticus* (Supino, 1897), *Haemaphysalis*. It was originally named *Opisthodon asiaticus* Supino, 1897 (= *Haemaphysalis asiatica*). The name *Haemaphysalis asiaticus* (Supino, 1897) used by authors like Hoogstraal & Trapido (1966), Doss & Anastos (1977), Keirans (1985) and others, is a synonym of *Haemaphysalis asiatica* (Supino, 1897).
- 285 *asiaticus* Supino, 1897, *Opisthodon*. This name is a synonym of *Haemaphysalis asiaticus* (Supino, 1897) (= *Haemaphysalis asiatica*) and its original name as stated in Neumann (1911a), who treats it as *incertae sedis*, and Hoogstraal & Trapido (1966).
- 286 *asiaticus* (Supino, 1897), *Prosopodon*. It was originally named *Opisthodon asiaticus* Supino, 1897 (= *Haemaphysalis asiatica*). The generic name *Opisthodon* was preoccupied and Canestrini (1897a) replaced it with *Prosopodon*. The name *Prosopodon asiaticus* (Supino, 1897) printed first in Hoogstraal & Trapido (1966) is a synonym of *Haemaphysalis asiaticus* (Supino, 1897) (= *Haemaphysalis asiatica*) as stated in Hoogstraal & Trapido (1966).
- 287 *asingeri* Tseng, 1978, *Amblyomma* (page 8). This name is a *lapsus* for *Amblyomma usingeri*, but not included in Camicas *et al.* (1998).
- 288 *asper* Arthur, 1960a, *Dermacentor*. This name is a synonym of *Dermacentor sinicus* in Teng & Jiang (1991) and Kolonin (2009), but it is valid in Guglielmone *et al.* (2010b, 2014) and here. Keirans (1985) found *Dermacentor asper* classified as *Dermacentor niveus*.
- 289 *assanumai* Guglielmone, 1990, *Ixodes* (page 147). This name is a *lapsus* for *Ixodes asanumai*, but not included in Camicas *et al.* (1998).
- 290 *astrion* Dönitz, 1909, *Amblyomma*. This name has been confused with *Amblyomma cohaerens* as stated in Elbl & Anastos (1966a) and Uilenberg *et al.* (2013).
- 291 *astrognatus* Patton and Cragg, 1913, *Dermacentor* (page 625). This name is a *lapsus* for *Dermacentor atrosignatus*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Rao *et al.* (1973, page 1448), Cornet *et al.* (2004, page 44) and others.
- 292 *ater* Schulze, 1939c, *Indocentor*. This name is a probable synonym of *Dermacentor steini* (Schulze, 1933b) as stated in Wassef & Hoogstraal (1986b).
- 293 *atheruri* Hoogstraal, Trapido and Kohls, 1965a, *Haemaphysalis*. It was originally named *Haemaphysalis atherurus* and amended in Nadchatram *et al.* (1966). The name *Haemaphysalis atheruri* has been confused with *Haemaphysalis birmaniae* as stated in Hoogstraal *et al.* (1965a), while *Haemaphysalis atheruri* in Nadchatram *et al.* (1966, page 133) is a *lapsus* for *Haemaphysalis traguli*. *Haemaphysalis atheruri* is not included in Doss & Anastos (1977)
- 294 *atherurus* Hoogstraal, Trapido and Kohls, 1965a, *Haemaphysalis*. This name is a synonym of *Haemaphysalis atheruri* and its original name.
- 295 *atrogenatum* Nuttall and Warburton, 1908, *Amblyomma*. This name is a synonym of *Amblyomma clypeolatum* as stated in Camicas *et al.* (1998) and Keirans & Hillyard (2001).
- 296 *atrosignatus* Tseng, 1978, *Dermacentor* (page 12). This name is a *lapsus* for *Dermacentor atrosignatus*, but not included in Camicas *et al.* (1998).
- 297 *atrosignatus* Neumann, 1906, *Dermacentor*. This name is either doubtful or a synonym of *Dermacentor auratus* Supino, 1897 in Arthur (1960a), and a synonym of *Dermacentor auratus* Supino, 1897 in Teng & Jiang (1991), but it is valid as stated in Wassef & Hoogstraal (1984b). However, the name *Dermacentor atrosignatus* in Arthur (1960a) is in fact *Dermacentor taiwanensis* according to Camicas *et al.* (1998).
- 298 *atrosignatus* (Neumann, 1906), *Indocentor*. It was originally named *Dermacentor atrosignatus* and placed in the genus *Indocentor* in Schulze (1933b). The name *Indocentor atrosignatus* is a synonym of *Dermacentor atrosignatus* as stated in Camicas *et al.* (1998).
- 299 *attenuatus* Neumann, 1908b, *Rhipicephalus*. This name is valid in Neumann (1911a), but it is a synonym of *Rhipicephalus lunulatus* as stated in Camicas *et al.* (1998) and Walker *et al.* (2000).
- 300 *aubiensis* Arthur, 1958c, *Ixodes* (page 69). This tick is allegedly described in Arthur & Burrow (1957) according to Arthur (1958c), but it is not. The name *Ixodes aubiensis* is a *nomen nudum*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 301 *audyi* Kohls, 1955, *Ixodes*. This name is a synonym of *Eschatocephalus simplex* (= *Ixodes simplex*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes simplex* Neumann, 1906 as stated in Clifford *et al.* (1973).
- 302 *angustus* Barker, Surgeoner, Artsob, McEwen, Elliot, Campbell and Robinson, 1992, *Ixodes* (page 1017). This name is a *lapsus* for *Ixodes angustus*, but not included in Camicas *et al.* (1998).
- 303 *aulacodi* Arthur, 1956c, *Ixodes*
- 304 *aulicus* Hirst, 1916, *Dermacentor*. It was originally named *Dermacentor reticulatus aulicus* [= *Dermacentor marginatus* (Sulzer, 1776)]. The name *Dermacentor aulicus* used in Roman & Jehl (1948) is a synonym of *Dermacentor marginatus* (Sulzer, 1776) as stated in Camicas *et al.* (1998).
- 305 *aurantiacus* Neumann, 1907d, *Rhipicephalus*. This name is a probable synonym of *Rhipicephalus ziemanni* in Walker *et al.* (2000), valid in Neumann (1911a) and Camicas *et al.* (1998), and provisionally valid in Guglielmone *et al.* (2009) and here.
- 306 *auratus* Shaw, 1793, *Acarus*, in Shaw & Nodder (1793). This name is a *nomen dubium* as stated in Camicas *et al.* (1998), but not included in Neumann (1911a).

- 307 *auratus* (Shaw, 1793), *Aponomma*. It was originally named *Acarus auratus* Shaw, 1793 (*nomen dubium*). The name *Aponomma auratus* (Shaw, 1793) used in Oudemans (1928b, 1929) is a *nomen dubium* as stated in Camicas *et al.* (1998) synonym of *Acarus auratus* Shaw, 1793 (*nomen dubium*). The correct spelling for this name should be *Aponomma auratum*.
- 308 *auratus* Supino, 1897, *Dermacentor*. This name has been confused with other taxa according to Wassef & Hoogstraal (1984a), but this view was not further elaborated. Keirans (1985) found *Dermacentor auratus* identified as *Dermacentor compactus*, but he was unable to confirm the diagnosis of *Dermacentor auratus* Supino, 1897 for several adult ticks in the Nuttall Collection. *Dermacentor auratus* in Krijgsman & Ponto (1932) is not *Dermacentor auratus* Supino, 1897 according to Wassef & Hoogstraal (1984a), but no diagnosis of the species involved was given. Teng & Jiang (1991) consider *Dermacentor steini* a synonym of *Dermacentor auratus* Supino, 1897, while Camicas *et al.* (1998) state that *Dermacentor auratus* in Anastos (1950) is in fact *Dermacentor steini* (Schulze, 1933b). Neumann (1911a) divided *Dermacentor auratus* into two subspecies, *auratus auratus* (= *Dermacentor auratus*) and *auratus compactus* (= *Dermacentor compactus*).
- 309 *auratus* (Shaw, 1793), *Haemalastor*. It was originally named *Acarus auratus* Shaw, 1793 (*nomen dubium*). The name *Haemalastor auratus* (Shaw, 1793) used in Oudemans (1936, page 464) is a *nomen dubium* synonym of *Acarus auratus* Shaw, 1793 (*nomen dubium*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 310 *auratus* (Supino, 1897), *Indocentor*. It was originally named *Dermacentor auratus* Supino, 1897. The name *Indocentor auratus* (Supino, 1897) used in Schulze (1933b) is a synonym of *Dermacentor auratus* Supino, 1897 as stated in Camicas *et al.* (1998).
- 311 *auratus auratus* Supino, 1897, *Dermacentor*. It was originally named *Dermacentor auratus* Supino, 1897. The name *Dermacentor auratus auratus* used in Neumann (1911a) and by a few other workers, is a synonym of *Dermacentor auratus* Supino, 1897 as stated in Camicas *et al.* (1998).
- 312 *auratus compactus* Neumann, 1901, *Dermacentor*. It was originally named *Dermacentor compactus*. The name *Dermacentor auratus compactus* used in Neumann (1905, 1911a) is a synonym of *Dermacentor compactus* as stated in Camicas *et al.* (1998) and Wassef & Hoogstraal (1983).
- 313 *auratus sumatranus* (Schulze, 1939c), *Dermacentor*. It was originally named *Indocentor auratus sumatranus* (= *Dermacentor auratus*). The name *Dermacentor auratus sumatranus* used in Toumanoff (1944) is a synonym of *Dermacentor auratus* Supino, 1897 as stated in Camicas *et al.* (1998).
- 314 *auratus sumatranus* Schulze, 1939c, *Indocentor*. This name is a synonym of *Dermacentor auratus* Supino, 1897 as stated in Camicas *et al.* (1998).
- 315 *auratus* Supino, 1897, typical in Anastos (1950), *Dermacentor*. This name is a synonym of *Dermacentor steini* (Schulze, 1933b) as stated in Camicas *et al.* (1998).
- 316 *auratus* Supino, 1897, variation in Anastos (1950), *Dermacentor*. The variation of *Dermacentor auratus* in Anastos (1950) is partly a synonym of *Dermacentor atosignatus* as stated in Wassef & Hoogstraal (1984a).
- 317 *aureolatum* (Pallas, 1772), *Amblyomma*. It was originally named *Acarus aureolatus* and given its current status in Koch (1844a). However, the name *Amblyomma aureolatum* is *incertae sedis* synonym of *Acarus aureolatus* in Neumann (1911a). Keirans (1985) found *Amblyomma striatum* (= *Amblyomma aureolatum*) identified as *Amblyomma ovale*.
- 318 *aureolatus* Pallas, 1772, *Acarus*. This name is *incertae sedis* in Neumann (1911a), but it is a synonym of *Amblyomma aureolatum* and its original name as stated in Aragão & Fonseca (1961) and Camicas *et al.* (1998).
- 319 *aureolatus* (Pallas, 1772), *Amblyomma*. This name is in Doss & Anastos (1977) based on Koch (1844a), but this author used the correct name *Amblyomma aureolatum*. The name *Amblyomma aureolatus* is a synonym of *Amblyomma aureolatum*, but not included in Camicas *et al.* (1998).
- 320 *aureolatus* (Pallas, 1772), *Haemalastor*. It was originally named *Acarus aureolatus* (= *Amblyomma aureolatum*). The name *Haemalastor aureolatus* used in Oudemans (1936, page 464) is a synonym of *Amblyomma aureolatum*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 321 *aureolatus* (Pallas, 1772), *Ixodes*. This name used in Fabricius (1805) is *incertae sedis* synonym of *Acarus aureolatus* (= *Amblyomma aureolatum*) in Neumann (1911a), but it is a synonym of *Amblyomma aureolatum* as stated in Camicas *et al.* (1998).
- 322 *aureum* Neumann, 1899, *Amblyomma*. This name is a synonym of *Amblyomma petersi* [(= *Amblyomma rhinocerotis* (De Geer, 1778)] in Neumann (1911a) and Robinson (1926). The name *Amblyomma aureum* is a synonym of *Amblyomma rhinocerotis* (De Geer, 1778) as stated in Santos Dias (1958a) and Camicas *et al.* (1998).
- 323 *auriculaelongae* Arthur, 1958c, *Ixodes*. Keirans (1985) found *Ixodes auriculaelongae* (spelled *Ixodes auriculongae*) (*lapsus*) identified as *Ixodes nairobiensis* in the Nuttall Collection.
- 324 *auriculare* (Conil, 1878), *Amblyomma*. This name in Lahille (1905), Neumann (1911a), Robinson (1926), Boero (1957), Guglielmo & Viñabal (1994) and others, is a voluntary wrong spelling of *Amblyomma auricularium* not a *lapsus*. The name *Amblyomma auriculare* is a synonym of *Amblyomma concolor* Neumann, 1899 in Robinson (1926), but it is a synonym of *Amblyomma auricularium*. *Amblyomma auriculare* is a synonym of *Amblyomma concolor* Neumann, 1899 in Neumann (1911a) under the authority of Lahille, 1905; however, Lahille (1905) refers to *Ixodes auricularius* (= *Amblyomma auricularium*) in Conil (1878) which prevails over *Amblyomma concolor* Neumann, 1899. Floch & Fauran (1958) state that *Amblyomma auriculare* (= *Amblyomma auricularium*) in Floch & Abonnenc (1940) is in fact *Amblyomma coelebs*.

- 325 *auricularis* Robineau-Desvoidy, 1836, *Ixodes*. This name is *incertae sedis* in Neumann (1911a) and a synonym of *Pholeioxodes hexagonus* (= *Ixodes hexagonus*) in Camicas *et al.* (1998). The name *Ixodes auricularis* has no description or figure, a *nomen nudum*.
- 326 ***auricularium*** (Conil, 1878), *Amblyomma*. It was originally named *Ixodes auricularius* and given its current status in Aragão (1938) not in Jones *et al.* (1972) as stated in Camicas *et al.* (1998). Guglielmone & Nava (2006) found *Amblyomma pseudoconcolor* identified as *Amblyomma auricularium* in an Argentinean tick collection, while Guzmán-Cornejo *et al.* (2011) found *Amblyomma auricularium* identified as *Amblyomma parvum* Aragão, 1908a in a Mexican tick collection.
- 327 *auricularius* (Conil, 1878), *Amblyomma*. This name is in Doss & Anastos (1977) based on Lahille (1905), but this author used the name *Amblyomma auriculare* (= *Amblyomma auricularium*). The name *Amblyomma auricularius* is a synonym of *Amblyomma auricularium*, but not included in Camicas *et al.* (1998).
- 328 *auricularius* Conil, 1878, *Ixodes*. This name is doubtful and probably a synonym of *Amblyomma concolor* Neumann, 1899 in Neumann (1911a) and Robinson (1926), and doubtful in Nuttall & Warburton (1911). The name *Ixodes auricularius* is a synonym of *Amblyomma auricularium* and its original name as stated in Camicas *et al.* (1998).
- 329 *auricularum* Clavijo, Vásquez and Valera, 2009, *Amblyomma* (page 43). This name is a *lapsus* for *Amblyomma auricularium*.
- 330 *auriculongae* Keirans, 1985, *Ixodes* (page 1745). This name is a *lapsus* for *Ixodes auriculaelongae*, but not included in Camicas *et al.* (1998).
- 331 *auriscutellatus* Koningsberger, 1901, *Ixodes*. This name is a synonym of *Amblyomma testudinarium* as stated in Neumann (1911a) and Camicas *et al.* (1998).
- 332 ***auritulus*** Neumann, 1904, *Ixodes*. It was originally named *Ixodes thoracicus* Neumann, 1899, a name preoccupied by *Ixodes thoracicus* Koch, 1844a (*nomen dubium*) and renamed *Ixodes auritulus* in Neumann (1904). The name *Ixodes auritulus* is a synonym of *Scaphixodes auritulus* in Camicas *et al.* (1998), but it is valid. *Ixodes auritulus* in Zumpt (1952) is in fact *Ixodes kerguelensis* as stated in Wilson (1970). *Ixodes percavatus rothschildi* (= *Ixodes rothschildi*) in Arthur (1953a) is actually *Ixodes auritulus* according to Gregson (1956). *Ixodes conepati* in Doss & Anastos (1977) is actually *Ixodes auritulus* as stated in Guglielmone *et al.* (2003). Keirans (1985) found *Ixodes angustus* classified as *Ixodes auritulus*, while Guglielmone *et al.* (2011) found *Ixodes auritulus* identified as *Ixodes luciae*.
- 333 *auritulus* (Neumann, 1904), *Scaphixodes*. It was originally named *Ixodes thoracicus* Neumann (1899) a name preoccupied by *Ixodes thoracicus* Koch, 1844a (*nomen dubium*) and renamed *Ixodes auritulus* in Neumann (1904). The name *Scaphixodes auritulus* is valid in Camicas *et al.* (1998), but it is a synonym of *Ixodes auritulus*.
- 334 *auritulus auritulus* Neumann, 1904, *Ixodes*. This name used in Kohls & Clifford (1966) is a synonym of *Scaphixodes auritulus* (= *Ixodes auritulus*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes auritulus*.
- 335 *auritulus zealandicus* Dumbleton, 1953, *Ixodes*. This name is cited in Clifford *et al.* (1973) who state that *Ixodes auritulus zealandicus* Dumbleton, 1961 was described in Dumbleton (1953), but it was described in Dumbleton (1961). This error is repeated in Camicas *et al.* (1998) who regard *Ixodes auritulus zealandicus* Dumbleton, 1953 a synonym of *Scaphixodes zealandicus* (Dumbleton, 1953) (*nomen nudum*). The name *Ixodes auritulus zealandicus* Dumbleton, 1953 is a *nomen nudum*.
- 336 *auritulus zealandicus* Dumbleton, 1961, *Ixodes*. This name is a synonym of *Ixodes auritulus* here.
- 337 *auritulus zealandicus* Dumbleton, 1973, *Ixodes* (page 71). This name is a *lapsus* for *Ixodes auritulus zealandicus* Dumbleton, 1961 (= *Ixodes auritulus*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 338 *auritulus zelandicus* Keirans, 1985, *Ixodes* (page 1642). This name is a *lapsus* for *Ixodes auritulus zealandicus* Dumbleton, 1961 (= *Ixodes auritulus*), but not included in Camicas *et al.* (1998).
- 339 *auronitens* Berlese, 1888a, *Amblyomma*. This name is *incertae sedis* in Neumann (1911a). The name *Amblyomma auronitens* is a synonym of *Amblyomma ovale* in Neumann (1899), but also in Aragão & Fonseca (1961), Camicas *et al.* (1998) and here.
- 340 *auruginans* Schulze, 1936c, *Aponomma*. This name is valid in Camicas *et al.* (1998), but it is a synonym of *Bothriocroton auruginans* as stated in Horak *et al.* (2002) and its original name.
- 341 ***auruginans*** (Schulze, 1936c), *Bothriocroton*. It was originally named *Aponomma auruginans*. This tick has usually been considered a member of *Aponomma*, but it is now placed in the genus *Bothriocroton* (Horak *et al.* 2002; Klompen *et al.* 2002).
- 342 *auruginosus* Hoogstraal and Aeschlimann, 1982, *Aponomma* (page 17). This name is a *lapsus* for *Aponomma auruginans* (= *Bothriocroton auruginans*), but not included in Camicas *et al.* (1998).
- 343 *australasiae* Fabricius, 1805, *Ixodes*. This name is *incertae sedis* in Neumann (1911a) and Halliday (2012). The name *Ixodes australasiae* is a *nomen dubium* in Camicas *et al.* (1998) and here.
- 344 *australia* Eduardo and Montano, 1988, *Boophilus* (page 37). This name is a *lapsus* for *Boophilus australis* (= *Rhipicephalus australis*), but not included in Camicas *et al.* (1998).
- 345 ***australiense*** Neumann, 1905, *Amblyomma*. Keirans (1985) found *Amblyomma echidnae* identified as *Amblyomma australiense* in the Nuttall Tick Collection.
- 346 ***australiensis*** Neumann, 1904, *Ixodes*
- 347 *australis* (Fuller, 1899), *Boophilus*. It was originally named *Rhipicephalus australis* Fuller, 1899 (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*). The name *Boophilus australis* (Fuller, 1899) used first

in Stiles & Hassall (1901) is also partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus* here. However, Neumann (1911a) treats this name as a synonym of *Margaropus annulatus australis* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*). Keirans (1985) found *Boophilus annulatus* (= *Rhipicephalus annulatus*), *Boophilus decoloratus* (= *Rhipicephalus decoloratus*) and *Boophilus geigy* (= *Rhipicephalus geigy*) identified as *Boophilus australis* (Fuller, 1899) in the Nuttall Collection. Keirans (1985) considers *Boophilus australis* (Fuller, 1899) a synonym of *Rhipicephalus microplus*, but some localities in that collection are in Australia where only *Rhipicephalus australis* Fuller, 1899 is established as stated in Estrada-Peña *et al.* (2012a).

- 348 *australis* (Fuller, 1899), *Ixodes*. This name is a *lapsus* for *Boophilus australis* (Fuller, 1899) (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Ruotsalainen (1903). The name *Ixodes australis* (Fuller, 1899) is treated simultaneously as a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) and a *nomen nudum* in Camicas *et al.* (1998). The latter authors and Doss & Anastos (1977) regard Ruotsalainen, 1903 the authority for *Ixodes australis* (Fuller, 1899). *Ixodes australis* (Fuller, 1899) is not included in Neumann (1911a).
- 349 *australis* (Fuller, 1899), *Margaropus*. It was originally named *Rhipicephalus australis* Fuller, 1899 (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*). The name *Margaropus australis* (Fuller, 1899) used first in Manson (1907) is a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998). *Margaropus australis* is partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus* here, but not included in Neumann (1911a).
- 350 *australis* Fuller, 1899, *Rhipicephalus*. This name is a synonym of *Margaropus annulatus australis* (Fuller, 1899) (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Neumann (1911a) and a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998), but *Rhipicephalus australis* Fuller, 1899 is valid as stated in Estrada-Peña *et al.* (2012a). The name *Rhipicephalus australis* Fuller, 1899 has been also applied to *Rhipicephalus microplus*. The synonymy for *Rhipicephalus australis* Fuller, 1899 is provisional because a new approach is needed to understand it after the study of Estrada-Peña *et al.* (2012a).
- 351 *australis* (Fuller, 1899), *Uroboophilus*. It was originally named *Rhipicephalus australis* Fuller, 1899 (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*). The name *Uroboophilus australis* (Fuller, 1899) used in Kishida (1939b) is a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998). *Uroboophilus australis* is partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus* here.
- 352 *autumnalis* Leach, 1815, *Ixodes*. This name is a synonym of *Ixodes hexagonus* as stated in Neumann (1911a) and Camicas *et al.* (1998). However, *Ixodes autumnalis* Leach, 1815 in Schulze & Schlottke (1929b) is in fact *Pholeoixodes canisuga* (= *Ixodes canisuga*) in Camicas *et al.* (1998).
- 353 *autumnalis vulpis* Pagenstecher, 1861, *Ixodes*. This name used in Schulze & Schlottke, (1929b) is a synonym of *Pholeoixodes canisuga* (= *Ixodes canisuga*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes canisuga*.
- 354 *avecolens* Cooley and Kohls, 1944b, *Amblyomma*. This name is a synonym of *Amblyomma longirostre* as stated in Jones *et al.* (1972) and Camicas *et al.* (1998).
- 355 *avecolense* Kolonin, 1983, *Amblyomma* (page 49). This name is a *lapsus* for *Amblyomma avecolens* (= *Amblyomma longirostre*), but not included in Camicas *et al.* (1998).
- 356 *avicola* Marx and Neumann, 1899, *Amblyomma*, in Neumann (1899). This name is a synonym of *Amblyomma longirostre* as stated in Neumann (1911a) and Camicas *et al.* (1998).
- 357 *avisuga* Babos, 1964a, *Ixodes* (pages 215, 407). This name is a *lapsus* for *Ixodes avisugus* (= *Ixodes frontalis*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 358 *avisugus* Berlese, 1889b, *Ixodes*. This name is a synonym of *Ixodes brunneus* in Nuttall & Warburton (1911) and others, and a synonym of *Scaphixodes frontalis* (= *Ixodes frontalis*) in Camicas *et al.* (1998). The name *Ixodes avisugus* is a synonym of *Ixodes frontalis* as stated in Neumann (1911a).
- 359 *ayrei* Lewis, 1933, *Rhipicephalus*. This name is a synonym of *Rhipicephalus compositus* as stated in Walker *et al.* (2000).

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- 360 *babirussae* Schulze, 1932d, *Amblyomma*. It is a name without description, a *nomen nudum* as stated in Keirans & Robbins (1987).
- 361 *babirussae* Schulze, 1933d, *Amblyomma*. The name *Amblyomma cyprium* in Krijgsman & Ponto (1931, 1932) and partly in Toumanoff (1944) is in fact *Amblyomma babirussae* Schulze, 1933d as stated in Keirans & Robbins (1987).
- 362 *bacthaensis* Kolonin, 1995b, *Haemaphysalis* (page 279). This name is a *lapsus* for *Haemaphysalis bacthaiensis* (= *Haemaphysalis ornithophila*) repeated in Camicas *et al.* (1998 pages 138, 201).
- 363 *bacthaiensis* Phan Trong, 1977, *Haemaphysalis*. This name is a synonym of *Haemaphysalis ornithophila* as stated in Camicas *et al.* (1998), who names this tick as *Haemaphysalis bacthaensis* (*lapsus*).
- 364 *badium* Neumann, 1901, *Amblyomma*. This name is a synonym of *Amblyomma sublaeve* in Neumann (1911a) and Robinson (1926), but both names, *Amblyomma badium* and *Amblyomma sublaeve*, are synonyms of *Amblyomma javanense* (Supino, 1897) as stated in Camicas *et al.* (1998). The name *Amblyomma badium* is a synonym of *Amblyomma fuscolineatum* in Santos Dias (1958a) because this author considers *Rhipicephalus javanensis* [= *Amblyomma javanense*

- (Supino, 1897)] a synonym of *Amblyomma fuscolineatum*, but both names, *Amblyomma fuscolineatum* and *Amblyomma javanense* are valid. *Amblyomma badius* is a synonym of *Amblyomma javanense* here.
- 365 **baergi** Cooley and Kohls, 1942b, *Ixodes*. This name is a synonym of *Pholeoixodes baergi* in Camicas *et al.* (1998), but *Ixodes baergi* is valid.
- 366 **baergi** (Cooley and Kohls, 1942b), *Pholeoixodes*. It was originally named *Ixodes baergi*. The name *Pholeoixodes baergi* is valid in Camicas *et al.* (1998) based on Morel & Pérez (1973), but it is a synonym of *Ixodes baergi*.
- 367 **bakeri** Arthur and Clifford, 1961, *Ixodes*
- 368 **bakonyensis** Babos, 1964a, *Ixodes*. This name is a synonym of *Pholeoixodes kaiseri* (= *Ixodes kaiseri*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes kaiseri* as stated in Petney *et al.* (2012a) under the name *Ixodes bekonyensis* (*lapsus*).
- 369 **balcanicus** Minning, 1934, *Boophilus*. This name is in Doss & Anastos (1977) and Camicas *et al.* (1998) based on Minning (1936) and Arthur (1960a). Besides, Camicas *et al.* (1998) regard *Boophilus balcanicus* a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*). Neither Minning (1936) nor Arthur (1960a) used the name *Boophilus balcanicus*, which is a *nomen nudum*.
- 370 **bamunensis** Phan Trong, 1977, *Haemaphysalis*. This name is a synonym of *Haemaphysalis mageshimaensis* as stated in Camicas *et al.* (1998).
- 371 **bamunensis** Phan Trong, 1977, *Haemaphysalis* (page 148). This name is an incorrect original spelling for *Haemaphysalis bamunensis* in Phan Trong (1977), and is not included in Camicas *et al.* (1998).
- 372 **bancrofti** Nuttall and Warburton, 1915, *Haemaphysalis*. Roberts (1963a) states that *Haemaphysalis papuana* Thorell, 1883 in Canestrini (1884) and Rainbow (1906) is in fact *Haemaphysalis bancrofti*, and *Haemaphysalis leachi* in Roberts (1935) is actually *Haemaphysalis bancrofti*. Keirans (1985) found *Haemaphysalis bancrofti* identified as *Haemaphysalis wellingtoni* in the Nuttall Tick Collection.
- 373 **bandicota** Hoogstraal and Kohls, 1965b, *Haemaphysalis*
- 374 **banksi** Bishopp, 1911, *Ixodes*. This name is a synonym of *Pholeoixodes banksi* in Camicas *et al.* (1998), but *Ixodes banksi* is valid. The name *Ixodes banksi* in Cooley & Kohls (1945) is in fact *Ixodes cookei* as stated in Keirans & Clifford (1978), while *Ixodes cookei* in Judd (1954) is actually *Ixodes banksi* according to Gregson (1956).
- 375 **banksi** (Bishopp, 1911), *Pholeoixodes*. It was originally named *Ixodes banksi*. The name *Pholeoixodes banksi* is valid in Camicas *et al.* (1998) based on Morel & Pérez (1973), but it is a synonym of *Ixodes banksi*.
- 376 **banski** Kimber and Kollias, 2000, *Ixodes* (page 454). This name is a *lapsus* for *Ixodes banksi*.
- 377 **barbaricum** Santos Dias, 1956c, *Amblyomma*. This name is a synonym of *Amblyomma eburneum* as stated in Santos Dias (1962a) and Camicas *et al.* (1998).
- 378 **barbarossae** Schulze, 1937c, *Ixodes*. This name is a synonym of *Pholeoixodes canisuga* (= *Ixodes canisuga*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes canisuga* as stated in Petney *et al.* (2012a).
- 379 **barbossae** Arthur, 1956b, *Ixodes* (page 272). This name is a *lapsus* for *Ixodes barbarossae* (= *Ixodes canisuga*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 380 **barbouri** Anastos, 1950, *Aponomma*. This name is valid in Teng & Jiang (1991), but *Aponomma barbouri* is a synonym of *Aponomma fuscolineatum* (= *Amblyomma fuscolineatum*) in Santos Dias (1993a), who consider *Aponomma varanense* (= *Amblyomma varanense*) a synonym of *Aponomma fuscolineatum* (= *Amblyomma fuscolineatum*). However, Kaufman (1972) and Camicas *et al.* (1998) regard *Aponomma barbouri* a synonym of *Aponomma varanense* (= *Amblyomma varanense*). The name *Aponomma barbouri* is a synonym of *Amblyomma varanense* here.
- 381 **bartelsi** Schulze, 1938a, *Haemaphysalis*. It was originally considered a small form of *Haemaphysalis koningsbergeri* in Schulze (1934), and a synonym of *Haemaphysalis koningsbergeri* in Anastos (1950), but *Haemaphysalis bartelsi* is valid as stated in Wilson *et al.* (1968).
- 382 **beaurepairei** Vogelsang and Santos Dias, 1953, *Amblyomma*. This name is a synonym of *Amblyomma curruca* (= *Amblyomma auricularium*) in Camicas *et al.* (1998) and a synonym of *Amblyomma auricularium* in Kolonin (2009), but not included in Horak *et al.* (2002). The name *Amblyomma beaurepairei* is valid as stated in Guglielmone *et al.* (2009, 2010b, 2014).
- 383 **becarri** Howard, 1908, *Rhipicephalus* (page 124). This name is a *lapsus* for *Rhipicephalus beccarii* Pavesi, 1883 (*incertae sedis*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 384 **beccarii** Tonelli Rondelli, 1939, *Amblyomma*. This name is a synonym of *Amblyomma scalpturatum* in Aragão & Fonseca (1953a), but *Amblyomma beccarii* Tonelli Rondelli, 1939 is partly a synonym of *Amblyomma scalpturatum* and partly a synonym of *Amblyomma ovale* as stated in Camicas *et al.* (1998) and Labruna *et al.* (2005).
- 385 **beccarii** Pavesi, 1883, *Rhipicephalus*. This name is simultaneously *incertae sedis* and a probably synonym of *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition) in Neumann (1911a) and a certain synonym of *Rhipicephalus sanguineus* in Camicas *et al.* (1998). The name *Rhipicephalus beccarii* Pavesi, 1883 is *incertae sedis* here.
- 386 **bedfordi** Arthur, 1959b, *Ixodes*
- 387 **bekonyensis** Petney, Pfäffle and Skuballa, 2012a, *Ixodes* (page 116). This name is a *lapsus* for *Ixodes bakonyensis* (= *Ixodes kaiseri*).
- 388 **belli** Sonenshine, 1993, *Rhipicephalus*. This name is a *lapsus* for *Rickettsia belli* (not a tick) as stated in Walker *et al.* (2000). The name *Rhipicephalus belli* is not included in Camicas *et al.* (1998) and in lists 2 or 3.
- 389 **bellulus** (Schulze, 1935c), *Dermacentor*. It was originally named *Indocentor bellulus* (*incertae sedis*). The name

- Dermacentor bellulus* used first in Luh & Woo (1950) is a synonym of *Dermacentor auratus* Supino, 1897 in Teng & Jiang (1991) and a synonym of *Dermacentor taiwanensis* in Camicas *et al.* (1998). *Dermacentor atrosignatus* in Neumann (1913b) is in fact *Dermacentor bellulus* according to Schulze (1935c). *Dermacentor bellulus* is a name *incertae sedis* synonym of *Indocentor bellulus* (*incertae sedis*) here
- 390 *bellulus* Schulze, 1935c, *Indocentor*. This name is a synonym of *Dermacentor atrosignatus* in Estrada-Peña (1991) and a synonym of *Dermacentor taiwanensis* in Camicas *et al.* (1998). The name *Indocentor bellulus* is *incertae sedis* here.
- 391 *beneditoi* Gil-Collado, 1938, *Haemaphysalis*. This name is a synonym of *Haemaphysalis sulcata* as stated in Morel (1963a).
- 392 *bengalense* Rudow, 1870, *Amblyomma*. This name is *incertae sedis* in Neumann (1911a) and a *nomen dubium* in Camicas *et al.* (1998) and here.
- 393 *bengalensis* Supino, 1897, *Ixodes*. This name is *incertae sedis* in Neumann (1911a) and a *nomen nudum* in Camicas *et al.* (1998). The name *Ixodes bengalensis* is a *nomen dubium* here.
- 394 *bequaerti* Hoogstraal, 1956c, *Haemaphysalis*. The small specimens of *Haemaphysalis leachi* in Nuttall & Warburton (1915) are *Haemaphysalis bequaerti* Hoogstraal, 1956c according to Morel (1965b). *Species nova* of *Haemaphysalis* in Hoogstraal (1954) is in fact *Haemaphysalis bequaerti* Hoogstraal, 1956c as stated in Hoogstraal (1956c).
- 395 *bequaerti* Cooley and Kohls, 1945, *Ixodes*
- 396 *bequaerti* Zumpt, 1950, *Rhipicephalus* (usually cited 1949). The name *Rhipicephalus simus planus* Neumann, 1907f (= *Rhipicephalus planus*) in Neumann (1913c) is in fact *Rhipicephalus bequaerti* Zumpt, 1950 according to Walker *et al.* (2000) as published in 1949.
- 397 *bergeoni* Morel and Balis, 1976, *Rhipicephalus*. This tick has been confused with *Rhipicephalus appendiculatus* and *Rhipicephalus supertritus* according to Morel & Balis (1976), and allegedly with *Rhipicephalus turanicus* Pomerantzev, 1940, but this last diagnosis is doubtful.
- 398 *berlesei* (Birula, 1895), *Cardioshesis*. It was originally named *Ixodes berlesei*. The name *Cardioshesis berlesei* is used in Olenev (1929b) with the generic name spelled *Cardioschesis* on page 491. The name *Cardioshesis berlesei* is a synonym of *Scaphixodes berlesei* (= *Ixodes berlesei*) in Camicas *et al.* (1998), who based this decision on Filippova (1977), but this author states that the subgenus *Cardioshesis* is a synonym of the subgenus *Scaphixodes*. *Cardioshesis berlesei* is a provisional synonym of *Ixodes berlesei*, but not included in Doss & Anastos (1977).
- 399 *berlesei* Birula, 1895, *Ixodes*. This name is doubtful in Neumann (1911a) and Nuttall & Warburton (1911) and a synonym of *Scaphixodes berlesei* in Camicas *et al.* (1998). The name *Ixodes berlesei* is valid as stated in Filippova (1977) and Guglielmo *et al.* (2010b, 2014).
- 400 *berlesei* (Birula, 1895), *Scaphixodes*. It was originally named *Ixodes berlesei*. The name *Scaphixodes berlesei* is valid in Camicas *et al.* (1998), but it is a synonym of *Ixodes berlesei*. Morel (2003) states that *Scaphixodes caledonicus* (= *Ixodes caledonicus*) and *Scaphixodes semenovi* (= *Ixodes semenovi*) are synonyms or very close to *Scaphixodes berlesei* (= *Ixodes berlesei*). *Ixodes berlesei*, *Ixodes caledonicus* and *Ixodes semenovi* are valid here.
- 401 *besa* Geevarghese and Mishra, 2011, *Haemaphysalis* (page 204). This name is a *lapsus* for *Haemaphysalis obesa*.
- 402 *bhamensis* Supino, 1897, *Rhipicephalus*. This name is *incertae sedis* in Neumann (1911a) and simultaneously considered an alleged synonym of *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition) and *nomen nudum* in Camicas *et al.* (1998), and a *nomen nudum* in Sharif (1928). The name *Rhipicephalus bhamensis* is *incertae sedis* here.
- 403 *bibroni* (Gervais, 1842), *Amblyomma*. It was originally named *Ixodes bibroni* Gervais, 1842 (*nomen nudum*). The name *Amblyomma bibroni* (Gervais, 1842) used first in Blanchard (1909) is valid in Camicas *et al.* (1998) and Barker & Murrell (2004, 2008). *Amblyomma bibroni* (Gervais, 1842) is a *nomen nudum* synonym of *Ixodes bibroni* Gervais, 1842 (*nomen nudum*).
- 404 *bibroni* Gervais, 1842, *Ixodes*. This name is *incertae sedis* in Neumann (1911a) who presents a description for this species that belong to Gervais (1844), while Camicas *et al.* (1998) consider it a synonym of *Amblyomma bibroni* (Gervais, 1842) (*nomen nudum*). The name *Ixodes bibroni* Gervais, 1842 is a name without description or figure, a *nomen nudum*
- 405 *bibroni* Gervais, 1844, *Ixodes* (pages 248, 249). The description of *Ixodes bibroni* Gervais, 1844 is vague; therefore, it is a *nomen dubium* here. The name *Ixodes bibroni* Gervais, 1844 is not included in Neumann (1911a), Doss & Anastos (1977) and Camicas *et al.* (1998).
- 406 *bicornis* Neumann, 1906, *Ixodes*. This name is valid in Neumann (1911a), but a synonym of *Ixodes diversifossus* in Camicas *et al.* (1998). The name *Ixodes bicornis* Neumann, 1906 is a synonym of *Ixodes boliviensis* as stated in Kohls (1956c) and Guglielmo *et al.* (2003), but still named as valid in Mangini *et al.* (2012).
- 407 *bicornis* Nuttall and Warburton, 1908, *Rhipicentor*. This name is a synonym of *Rhipicephalus gladiger* in Neumann (1911a) and Santos Dias (1958a) agreed because priority in publication date, but Howard (1908) presented an opposite view.
- 408 *bicornis* (Nuttall and Warburton, 1908), *Rhipicephalus*. It was originally named *Rhipicentor bicornis* Nuttall and Warburton, 1908. The name *Rhipicephalus bicornis* (Nuttall and Warburton, 1908) used in Brumpt (1936) is a synonym of *Rhipicentor bicornis* Nuttall and Warburton, 1908 in Doss & Anastos (1977) and Camicas *et al.* (1998). *Rhipicephalus bicornis* is a *lapsus* for *Rhipicentor bicornis* Nuttall and Warburton, 1908 in Walker *et al.* (2000) and here.
- 409 *bifurcatus* (Neumann, 1899), *Dermacentor*. It was originally named *Ixodes bifurcatus* (*nomen dubium*). The name *Dermacentor bifurcatus* used in Neumann (1904) and by a few other workers, is *incertae sedis* in Neumann (1911a). *Dermacentor bifurcatus* is a *nomen dubium* synonym of *Ixodes bifurcatus* (*nomen dubium*) here.

- 410 *bifurcatus* Neumann, 1899, *Ixodes*. This name is a synonym of *Ixodes brunneus* in Neumann (1901) and Filippova (1977), *incertae sedis* synonym of *Dermacentor bifurcatus* (*nomen dubium*) in Neumann (1911a) and a probable synonym of *Dermacentor parumapertus* and *nomen dubium* in Camicas *et al.* (1998). The name *Ixodes bifurcatus* is poorly described and the type lost according to Banks (1908) and treated as a *nomen dubium* here.
- 411 *bilenus* (Pavesi, 1883), *Eurhipicephalus*. It was originally named *Rhipicephalus bilenus* (*incertae sedis*). The name *Eurhipicephalus bilenus* used in Castellani & Chalmers (1913) is a probable synonym of *Rhipicephalus bursa* in Camicas *et al.* (1998). *Eurhipicephalus bilenus* is a name *incertae sedis* synonym of *Rhipicephalus bilenus* (*incertae sedis*) here.
- 412 *bilenus* Pavesi, 1883, *Rhipicephalus*. This name is *incertae sedis* in Neumann (1911a) and a probable synonym of *Rhipicephalus bursa* in Camicas *et al.* (1998) and Walker *et al.* (2000). The name *Rhipicephalus bilenus* is *incertae sedis* here.
- 413 *bimaculatum* (Denny, 1843), *Cosmiomma*. It was originally named *Ixodes bimaculatus* (= *Cosmiomma hippopotamensis*). The name *Cosmiomma bimaculatum* is valid in Santos Dias (1958a) because of page priority over *Cosmiomma hippopotamensis*. However, first reviser (Koch 1844a) validated the name *Cosmiomma hippopotamensis* by regarding valid one of its current synonym, *Amblyomma hippopotami*. Therefore, *Cosmiomma bimaculatum* is a synonym of *Cosmiomma hippopotamensis*.
- 414 *bimaculatus* (Denny, 1843), *Cosmiomma*. This name is in Doss & Anastos (1977) based on Santos Dias (1958a), but this author used the correct name *Cosmiomma bimaculatum*. The name *Cosmiomma bimaculatus* is a synonym of *Cosmiomma hippopotamensis*, but not included in Camicas *et al.* (1998).
- 415 *bimaculatus* Denny, 1843, *Ixodes*. This name is a synonym of *Hyalomma hippopotamense* (= *Cosmiomma hippopotamensis*) in Neumann (1911a), but it is a synonym of *Cosmiomma hippopotamensis* as stated in Camicas *et al.* (1998).
- 416 *bipunctatus* Risso, 1826, *Ixodes*. This name is a synonym of *Ixodes ricinus* as stated in Neumann (1911a) and Camicas *et al.* (1998).
- 417 *birmanensis* Supino, 1897, *Ixodes*. This name is a *nomen nudum* in Sharif (1928) and a *nomen dubium* in Camicas *et al.* (1998). The name *Ixodes birmanensis* is *incertae sedis* in Neumann (1911a) and here.
- 418 *birmaniae* Supino, 1897, *Haemaphysalis*. Hoogstraal (1970b) states that references to this species prior to 1965 are partly or entirely incorrect. Neumann (1911a) regards *Haemaphysalis bispinosa*, *Haemaphysalis hystricis* Supino, 1897, *Haemaphysalis punctata* Canestrini and Fanzago, 1878 and *Haemaphysalis semermis* synonyms of *Haemaphysalis birmaniae*, but this statement is not confirmed in Hoogstraal *et al.* (1965a, b, c). The synonymy of *Haemaphysalis aborensis* with *Haemaphysalis birmaniae* in Sharif (1928) is also incorrect according to Hoogstraal *et al.* (1971a). Hoogstraal *et al.* (1965a) state that *Haemaphysalis birmaniae* in Kohls (1957b) and Audy *et al.* (1960) is in fact *Haemaphysalis atheruri* (named *Haemaphysalis atherurus*). Keirans (1985) found *Haemaphysalis darjeeling* identified as *Haemaphysalis birmaniae* in the Nuttall Tick Collection.
- 419 *birulai* Olenev, 1927, *Dermacentor*. This name is valid in Filippova (2008) and Kolonin (2009). The name *Dermacentor birulai* Olenev, 1927 is a provisional synonym of *Dermacentor everestianus* here following Arthur (1960a) and Camicas *et al.* (1998).
- 420 *birulai* Yakimov, Saikovich and Vasilevskaya, 1926, *Ixodes*. This name is a *nomen dubium* in Camicas *et al.* (1998). The article of Yakimov *et al.* (1926) was not located and the information in Camicas *et al.* (1998) is considered valid.
- 421 *birulai kukunoriensis* Olenev, 1929c, *Dermacentor*. This name is a synonym of *Dermacentor everestianus* in Arthur (1960a), but it is a synonym of *Dermacentor nuttalli* Olenev, 1929c as stated in Camicas *et al.* (1998) and Filippova (2008). Doss & Anastos (1977) cite 1928 the year for its description.
- 422 *bishoppi* Smith and Gouck, 1947, *Ixodes*. This name is a synonym of *Ixodes minor* as stated in Keirans & Clifford (1978).
- 423 *bispinosa* Neumann, 1897, *Haemaphysalis*. This name has been used for decades to nominate populations of *Haemaphysalis longicornis* as stated in Hoogstraal *et al.* (1968c) and other species of *Haemaphysalis* for different authors. The name *Haemaphysalis bispinosa* is a synonym of *Haemaphysalis birmaniae* in Neumann (1911a), but this is unsound according to Hoogstraal *et al.* (1965c). *Haemaphysalis hystricis* is a synonym of *Haemaphysalis bispinosa* in Neumann (1902) spelled *Haemaphysalis hystricis*), but this is erroneous in the opinion of Yamaguti *et al.* (1971). Keirans (1985) found these species of *Haemaphysalis*: *aciculifer*, *flava* Neumann, 1897, *bispinosa intermedia* Warburton and Nuttall, 1909 (= *intermedia* Warburton and Nuttall, 1909), *longicornis* and *turturis* identified as *Haemaphysalis bispinosa*, while specimens of *Haemaphysalis bispinosa* were classified as *Haemaphysalis bispinosa intermedia* Warburton and Nuttall, 1909 (= *Haemaphysalis intermedia* Warburton and Nuttall, 1909) and *Haemaphysalis hystricis* Supino, 1897 in the Nuttall Tick Collection.
- 424 *bispinosa bispinosa* Neumann, 1897, *Haemaphysalis*. This name used in Santos Dias (1954a) is a synonym of *Haemaphysalis bispinosa* as stated in Camicas *et al.* (1998).
- 425 *bispinosa intermedia* Warburton and Nuttall, 1909, *Haemaphysalis*. This name is a synonym of *Haemaphysalis intermedia* Warburton and Nuttall, 1909 and its original name used to replace *Haemaphysalis parva* Neumann, 1908d that was preoccupied by *Haemaphysalis parva* (Neumann, 1897) as stated in Trapido & Hoogstraal (1963). The name *Haemaphysalis bispinosa intermedia* Warburton and Nuttall, 1909 (= *Haemaphysalis intermedia* Warburton and Nuttall, 1909) in Sharif (1928) and Nuttall & Warburton (1915, cited 1950 in Hoogstraal *et al.* 1963) is partly in fact *Haemaphysalis paraturturis* as stated in Hoogstraal *et al.* (1963). Keirans (1985) found also *Haemaphysalis bispinosa*, *Haemaphysalis kutchensis* and *Haemaphysalis paraturturis* identified as *Haemaphysalis bispinosa intermedia* Warburton and Nuttall, 1909 (= *Haemaphysalis intermedia* Warburton and Nuttall, 1909) in the Nuttall Tick Collection.

- 426 *bispinosa neumanni* Dönitz, 1905, *Haemaphysalis*. This name used in Pospelova-Shtrom (1940) is a synonym of *Haemaphysalis bispinosa* in Estrada-Peña (1991). The name *Haemaphysalis bispinosa neumanni* Dönitz, 1905 is a synonym of *Haemaphysalis longicornis* as stated in Camicas *et al.* (1998).
- 427 *bispinosa* Wan, Zhang and Dou, 1998, *Haemaphysalis* (pages 263, 264). This name is a *lapsus* for *Haemaphysalis bispinosa* repeated in Geng *et al.* (2010, page 574) among others.
- 428 *bispinosum* Neumann, 1906, *Amblyomma*. This name is valid in Neumann (1911a) and Keirans & Hillyard (2001). The name *Amblyomma bispinosum* is a synonym of *Amblyomma coelebs* as stated in Santos Dias (1958a) after type examination, and Camicas *et al.* (1998).
- 429 *bivari* Santos Dias, 1990, *Ixodes*. This name is a probable synonym of *Ixodes ventalloi* in Kolonin (2009). The name *Ixodes bivari* is valid in Camicas *et al.* (1998), Guglielmone *et al.* (2010b, 2014) and here.
- 430 *boarum* Stoll, 1894, *Ixodes* (usually cited Stoll, 1890). This name is a synonym of *Amblyomma bibroni* (Gervais, 1842) (*nomen nudum*) in Camicas *et al.* (1998). The name *Ixodes boarum* is a synonym of *Amblyomma dissimile* as stated in Neumann (1911a).
- 431 *boeroi* Nava, Mangold, Mastropaolo, Venzal, Oscherov and Guglielmone, 2009c, *Amblyomma*
- 432 *boliviensis* Neumann, 1904, *Ixodes*. This name is a probable synonym of *Ixodes diversifossus* in Camicas *et al.* (1998). The name *Ixodes boliviensis* is provisionally valid in Guglielmone *et al.* (2009, 2010b, 2014) and here.
- 433 *boneti* Hoffmann, 1946, *Amblyomma*. This name is a synonym of *Amblyomma scutatatum* as stated in Keirans & Clifford (1984) and Camicas *et al.* (1998), but still used in Gutsche *et al.* (2012).
- 434 *borealis* (Kramer and Neumann, 1883), *Ceratixodes*. It was originally named *Ixodes borealis* (= *Ixodes uriae*). The name *Ceratixodes borealis* used in Banks (1907) and by a few other workers, is a synonym of *Ceratixodes uriae* (= *Ixodes uriae*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes uriae*. *Ceratixodes borealis* is not included in Neumann (1911a).
- 435 *borealis* Kramer and Neumann, 1883, *Ixodes*. This name is a synonym of *Ixodes putus* (= *Ixodes uriae*) in Nuttall & Warburton (1911) and Neumann (1911a), and a synonym of *Ceratixodes uriae* (= *Ixodes uriae*) in Camicas *et al.* (1998). The name *Ixodes borealis* is a synonym of *Ixodes uriae* as stated in Keirans & Clifford (1978).
- 436 *borneata* Hoogstraal, 1971c, *Haemaphysalis*
- 437 *borneense infestum* Koch, 1844a, *Amblyomma*. This name is a *lapsus* for *Amblyomma infestum borneense* (= *Amblyomma testudinarium*) in Keirans & Clifford (1984, page 312, under the authority of Schulze, 1936c), but not included in Camicas *et al.* (1998).
- 438 *boucaudi* Toumanoff, 1944, *Amblyomma*. This name is a synonym of *Amblyomma geoemydae* as stated in Camicas *et al.* (1998), but treated as valid in Santos Dias (1993c).
- 439 *boueti* Morel, 1957, *Rhipicephalus*
- 440 *boulengeri* Hirst and Hirst, 1910, *Amblyomma*. This name is a synonym of *Amblyomma pilosum* in Santos Dias (1958a), but it is valid.
- 441 *bourreti* Toumanoff, 1944, *Aponomma*. This name is a synonym of *Dermacentor steini* (Schulze, 1933b) in Camicas *et al.* (1998), but its description is insufficient for this decision. The name *Aponomma bourreti* is *incertae sedis* here.
- 442 *bourreti* (Toumanoff, 1944), *Dermacentonomma*. It was originally named *Aponomma bourreti* (*incertae sedis*) and placed in the genus *Dermacentonomma* by Santos Dias (1978). The name *Dermacentonomma bourreti* is a synonym of *Dermacentor steini* (Schulze, 1933b) in Camicas *et al.* (1998), but it is *incertae sedis* here synonym of *Aponomma bourreti* (*incertae sedis*).
- 443 *bourreti* (Toumanoff, 1944), *Dermacentor*. It was originally named *Aponomma bourreti* (*incertae sedis*). The name *Dermacentor bourreti* used in Kaufman (1972, page 239) is *incertae sedis* synonym of *Aponomma bourreti* (*incertae sedis*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 444 *bouthieri* Sénevet, 1940, *Amblyomma*. This name is a synonym of *Amblyomma tigrinum* as stated in Floch & Fauran (1958) and Camicas *et al.* (1998).
- 445 *bovis* (Riley, 1869), *Boophilus*. It was originally named *Ixodes bovis* (= *Rhipicephalus annulatus*) and it is a synonym of *Rhipicephalus annulatus* here. However, the name *Boophilus bovis* used first in Curtice (1891) is a synonym of *Margaropus annulatus annulatus* (= *Rhipicephalus annulatus*) in Neumann (1911a) and a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) in Camicas *et al.* (1998).
- 446 *bovis* Riley, 1869, *Ixodes*, in Packard, 1869. This name is a synonym of *Rhipicephalus annulatus* here. However, the name *Ixodes bovis* is a synonym of *Margaropus annulatus annulatus* (= *Rhipicephalus annulatus*) in Neumann (1911a) and a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) in Camicas *et al.* (1998). *Ixodes bovis* in Lintner (1890) is in fact *Dermacentor variabilis* according to Bequaert (1945). Keirans (1985) found *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) identified as *Ixodes bovis*.
- 447 *bovis* (Riley, 1869), *Margaropus*. It was originally named *Ixodes bovis* (= *Rhipicephalus annulatus*). The name *Margaropus bovis* used in Manson (1907) is a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) as stated in Camicas *et al.* (1998), but not included in Neumann (1911a).
- 448 *bovis* (Riley, 1869), *Rhipicephalus*. It was originally named *Ixodes bovis* (= *Rhipicephalus annulatus*). The name *Rhipicephalus bovis* used in Galli-Valerio (1901) and by a few other workers, is a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) in Camicas *et al.* (1998), but not included in Neumann (1911a). *Rhipicephalus bovis* is a synonym of *Rhipicephalus annulatus*.
- 449 *brachyuris* Kishida, 1939b, *Palpoboophilus*. This name is a synonym of *Boophilus microplus* (partly a synonym of

- Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998). The name *Palpoboophilus brachyuris* is a synonym of *Rhipicephalus microplus* here.
- 450 **brasiliense** Aragão, 1908a, *Amblyomma* (page 113). Keirans (1985) found *Amblyomma brasiliense*, spelled *Amblyomma braziliense* (*lapsus*), identified as *Amblyomma cooperi* (= *Amblyomma dubitatum*) in the Nuttall Collection. The name *Amblyomma brasiliense* is not included in Doss & Anastos (1977).
- 451 *brasiliense guianense* Jones, Clifford, Keirans and Kohls, 1972, *Amblyomma* (page 25). This name is a *lapsus* for *Amblyomma brasiliense guyanense* (= *Amblyomma scalpturatum*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 452 *brasiliense guyanense* Floch and Abonnenc, 1941, *Amblyomma*. This name is a synonym of *Amblyomma scalpturatum* as stated in Floch & Fauran (1958) and Camicas *et al.* (1998).
- 453 *brasiliense superbrasiliense* Schulze, 1941d, *Amblyomma*. This name used in Schulze (1950b, page 553) is a synonym of *Amblyomma incisum*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 454 *brasiliensis* Aragão, 1908a, *Amblyomma*. This name is a misspelling of *Amblyomma brasiliense* in Doss & Anastos (1977) and Camicas *et al.* (1998). The latter authors name Aragão & Fonseca (1952) for the emendation of the name *Amblyomma brasiliensis* to *Amblyomma brasiliense*, but the publication of Aragão & Fonseca (1952) cited in Camicas *et al.* (1998) deals about *Ixodes*. The name *Amblyomma brasiliensis* was originally named *Amblyomma brasiliense* in Aragão (1908a) and its usage in the Latin American tick literature is generally correct. The name *Amblyomma brasiliensis* is a synonym of *Amblyomma brasiliense*.
- 455 *brasiliense* Bequaert, 1926, *Amblyomma* (page 172). This name is a *lapsus* for *Amblyomma brasiliense*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Keirans (1985, pages 364, 554, 928, 1732).
- 456 *brasiliensis* Rozental, Bustamante, Amorim, Serra-Freire and Lemos, 2002, *Amblyomma* (page 155). This name is a *lapsus* for *Amblyomma brasiliense*.
- 457 *bremneri* Tseng, 1978, *Haemaphysalis* (page 22). This name is a *lapsus* for *Haemaphysalis bremneri*, but not included in Camicas *et al.* (1998).
- 458 **bremneri** Roberts, 1963a, *Haemaphysalis*. This species has been confused with *Haemaphysalis humerosa* as stated in Roberts (1963a).
- 459 *breviceps* Warburton, 1910, *Rhipicephalus*. This name is a synonym of *Rhipicephalus sanguineus brevicollis* [an alleged synonym of *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition) in Walker *et al.* (2000)]. The name *Rhipicephalus breviceps* is *incertae sedis* here.
- 460 *brevicollis* Neumann, 1897, *Rhipicephalus*. This name is a synonym of *Rhipicephalus sanguineus brevicollis* (*incertae sedis*) in Neumann (1911a) and a synonym of *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition) in Camicas *et al.* (1998). The name *Rhipicephalus brevicollis* is *incertae sedis* here.
- 461 *brevicoxatus* Morel and Mouchet, 1958, *Rhipicephalus*. It was originally named *Rhipicephalus ziemanni brevicoxatus*. The name *Rhipicephalus brevicoxatus* used in Doss & Anastos (1977) and Walker *et al.* (2000) is a probable synonym of *Rhipicephalus ziemanni* in Walker *et al.* (2000) but not included in Camicas *et al.* (1998). *Rhipicephalus brevicoxatus* is a synonym of *Rhipicephalus ziemanni* here.
- 462 *brevipes* (Neumann, 1899), *Eschatocephalus*. It was originally named *Haemalastor brevipipes* Neumann, 1899 (*incertae sedis*) which was a new name for *Eschatocephalus crassipes* Joseph, 1882 (*incertae sedis*). The name *Eschatocephalus brevipipes* used in Neumann (1901) is a *nomen dubium* in Camicas *et al.* (1998). *Eschatocephalus brevipipes* (Neumann, 1899) is a name *incertae sedis* synonym of *Eschatocephalus crassipes* Joseph, 1882 (*incertae sedis*) in Neumann (1911a) and here.
- 463 *brevipes* Neumann, 1899, *Haemalastor*. It was originally named *Eschatocephalus crassipes* Joseph, 1882 (*incertae sedis*). However, Neumann (1899) considers that this species belongs to *Haemalastor*, but this name was preoccupied by *Haemalastor crassipes* Kolenati, 1857 (*incertae sedis*), and changed the name accordingly. The name *Haemalastor brevipipes* Neumann, 1899 is a *nomen dubium* in Camicas *et al.* (1998). *Haemalastor brevipipes* Neumann, 1899 is a name *incertae sedis* synonym of *Eschatocephalus crassipes* Joseph, 1882 (*incertae sedis*) in Neumann (1911a) and here.
- 464 *brevipes* Murray, 1877, *Ixodes*. This name is *incertae sedis* in Neumann (1911a), a *nomen dubium* and a probable synonym of *Rhipicephalus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998). The name *Ixodes brevipipes* Murray, 1877 is a *nomen dubium* here.
- 465 *brevipes* Kolenati, 1856, *Sarconyssus* (spelled *Sarconissus*). This name is a synonym of *Ixodes vespertilionis* in Neumann (1911a) and others, a synonym of *Eschatocephalus vespertilionis* (= *Ixodes vespertilionis*) in Camicas *et al.* (1998) and a synonym of *Ixodes simplex* Neumann, 1906 in Santos Dias & Nuncio (1996). The name *Sarconyssus brevipipes* Kolenati, 1856 is *incertae sedis* here.
- 466 *brevipunctata* Sharif, 1928, *Hyalomma*. This name is a widely used misspelling of *Hyalomma brevipunctatum* (Horak, I.G., personal communication) and originally named *Hyalomma hussaini brevipunctata* (= *Hyalomma brevipunctatum*). The name *Hyalomma brevipunctata* was used first in Nagar (1963), and Keirans (1985) found *Hyalomma brevipunctata* identified as *Hyalomma aegyptium* in the Nuttall Tick Collection.
- 467 **brevipunctatum** Sharif, 1928, *Hyalomma*. It was originally named *Hyalomma hussaini brevipunctata*, and usually spelled *Hyalomma brevipunctata*, but this is a Latin misspelling (Horak, I.G., personal communication).
- 468 *brevipuneata* Srivastava and Wattal, 1973, *Hyalomma* (page 316). This name is a *lapsus* for *Hyalomma brevipunctata* (= *Hyalomma brevipunctatum*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).

- 469 **breviscutatum** Neumann, 1899, *Amblyomma*. This name is valid in Neumann (1911a) and a probable synonym of *Amblyomma cyprum* in Kolonin (2009). The name *Amblyomma breviscutatum* is valid and *Amblyomma cyprum* its synonym as stated in Santos Dias (1956a) and Camicas *et al.* (1998). *Amblyomma breviscutatum* has been misidentified with *Amblyomma testudinarium* according to Voltzit & Keirans (2002).
- 470 *breviscutatum aeratipes* Schulze, 1932d, *Amblyomma*. This name is a synonym of *Amblyomma breviscutatum* in Santos Dias (1958a) and Camicas *et al.* (1998). The name *Amblyomma breviscutatum aeratipes* Schulze (1932d) has no description, a *nomen nudum*.
- 471 *breviscutatum aeratipes* Schulze, 1933d, *Amblyomma*. This name is a synonym of *Amblyomma breviscutatum*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 472 **brewsterae** Keirans, Clifford and Walker, 1982, *Ixodes*
- 473 *brimonti* Neumann, 1913a, *Amblyomma*. This name is a synonym of *Amblyomma humerale* as stated in Aragão & Fonseca (1953a).
- 474 **browningi** Arthur, 1956c, *Ixodes*
- 475 *brumpti* Delpy, 1946, *Hyalomma*. This name is a synonym of *Hyalomma impeltatum* as stated in Camicas *et al.* (1998) and Apanaskevich & Horak (2009).
- 476 **brumpti** Morel, 1965b, *Ixodes*. *Ixodes ugandanus djaronensis* (= *Ixodes djaronensis*) in Nuttall & Warburton (1911) is partly in fact *Ixodes brumpti* Morel, 1965b according to Morel (1965b) and Camicas *et al.* (1998), while Keirans (1985) identify it as *Ixodes procaviae*.
- 477 *brunneiparmatum* Schulze and Schlottko, 1929a, *Hyalomma*. This name is a synonym of *Hyalomma albiparmatum* as stated in Camicas *et al.* (1998) and Apanaskevich & Horak (2008a).
- 478 **brunneus** Koch, 1844a, *Ixodes*. This name has been used to name related and unrelated tick species. *Ixodes frontalis* is a synonym of *Ixodes brunneus* in Nuttall & Warburton (1911) and others, but both names are valid. The name *Ixodes brunneus* is a synonym of *Dermacentor bifurcatus (nomen dubium)* in Neumann (1911a) and a synonym of *Scaphixodes brunneus* in Camicas *et al.* (1998). Keirans (1985) found *Ixodes arboricola*, *Ixodes frontalis*, *Ixodes ricinus* and *Ixodes spinipalpis* identified as *Ixodes brunneus* in the Nuttall Collection. *Ixodes brunneus* in Boero (1945) is in fact *Ixodes neuquenensis* as stated in Guglielmone *et al.* (2004).
- 479 *brunneus* (Koch, 1844a), *Scaphixodes*. It was originally named *Ixodes brunneus*. The name *Scaphixodes brunneus* is valid in Camicas *et al.* (1998), but it is a synonym of *Ixodes brunneus*.
- 480 *bubi* Sharma, 1993, *Hyalomma* (page 103). This name has no description, a *nomen nudum*, but not included in Camicas *et al.* (1998).
- 481 *bufonicola* Schomburgk, 1848, *Ixodes*. This name is a *nomen dubium* in Camicas *et al.* (1998), but it is a name without description or figure, a *nomen nudum*. The name *Ixodes bufonicola* is not included in Neumann (1911a).
- 482 *burea* Till, 1961, *Rhipicephalus* (page 109). This name is a *lapsus* for *Rhipicephalus bursa*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 483 **burmanicum** Poinar and Brown, 2003, *Cornupalpatum*. It is a fossil species.
- 484 *bursa* (Canestrini and Fanzago, 1878), *Digineus*. It was originally named *Rhipicephalus bursa*. The name *Digineus bursa* used in Lotozky (1956c) is a synonym of *Rhipicephalus bursa* as stated in Camicas *et al.* (1998).
- 485 *bursa* (Canestrini and Fanzago, 1878), *Eurhipicephalus*. It was originally named *Rhipicephalus bursa*. The name *Eurhipicephalus bursa* used in Stephens & Christophers (1908) and by a few other workers, is a synonym of *Rhipicephalus bursa* as stated in Camicas *et al.* (1998).
- 486 **bursa** Canestrini and Fanzago, 1878, *Rhipicephalus*. Santos Dias (1958e) found *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) identified as *Rhipicephalus bursa*, while Keirans (1985) found *Rhipicephalus evertsi* identified as *Rhipicephalus bursa* in the Nuttall Collection. *Rhipicephalus simus* in Stella (1938a) is in fact *Rhipicephalus bursa* as stated in Tonelli Rondelli (1938b).
- 487 *bursa americanus* Neumann, 1897, *Rhipicephalus*. This name is a synonym of *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition) in Walker *et al.* (2000), but not included in Neumann (1911a). The name *Rhipicephalus bursa americanus* Neumann, 1897 is a *nomen dubium* in Camicas *et al.* (1998) and here.
- 488 *bursa pusillus* Gil Collado, 1936, *Rhipicephalus*. This name is a synonym of *Rhipicephalus pusillus* and its original name.

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- 489 *caelaturum* Cooper and Robinson, 1908, *Amblyomma*. This name is valid in Robinson (1926) and a synonym of *Amblyomma malayanum* (= *Amblyomma geoemydae*) in Anastos (1950). The name *Amblyomma caelaturum* is a synonym of *Amblyomma geoemydae* as stated in Camicas *et al.* (1998) and Keirans & Hillyard (2001).
- 490 *caelaturum perfectum* Schulze, 1932e, *Amblyomma*. This name is a synonym of *Amblyomma malayanum* (= *Amblyomma geoemydae*) in Anastos (1950). The name *Amblyomma caelaturum perfectum* is a synonym of *Amblyomma geoemydae* as stated in Camicas *et al.* (1998) and Voltzit & Keirans (2002).
- 491 *cajamense* Labate, Nunes and Silva Gomes, 2001, *Amblyomma* (page 322). This name is a *lapsus* for *Amblyomma cajennense*.
- 492 *cajanense* Newstead, 1909, *Amblyomma* (pages 422, 423, 427, 428, 430, 431, 433, 436, 440-443, 446, 449, 451, 456, 459, 462). This name is a *lapsus* for *Amblyomma cajennense*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Edwards (1949, page 1) and others.

- 493 *cajannense* Aldán, Torres, Andrade, Sarabia and Quintero, 2003, *Amblyomma* (pages 17, 19, 20). This name is a *lapsus* for *Amblyomma cajennense* repeated in Mans *et al.* (2004, page S96) and others.
- 494 *cajenneense* Norris, Klompen and Black, 1999, *Amblyomma* (page 127). This name is a *lapsus* for *Amblyomma cajennense*.
- 495 *cajennense* Vogelsang and Cordero, 1939, *Amblyomma* (page 116). This name is a *lapsus* for *Amblyomma cajennense*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 496 *cajennens* Gordillo-Pérez, Vargas, Solórzano-Santos, Rivera, Polaco, Alvarado, Muñoz and Torres, 2009, *Amblyomma* (page 497). This name is a *lapsus* for *Amblyomma cajennense*.
- 497 *cajennense* Fabricius, 1787, *Acarus*. This name is in Doss & Anastos (1977) based on Fabricius (1787), but this author used the name *Acarus cajennensis* (= *Amblyomma cajennense*). The name *Acarus cajennense* is a synonym of *Amblyomma cajennense*, but not included in Camicas *et al.* (1998).
- 498 *cajennense* (Fabricius, 1787), *Amblyomma*. It was originally named *Acarus cajennensis* and given its current status in Koch (1844a). The name *Amblyomma cajennense* has been confused with many other species in the New World, like *Amblyomma americanum* in Bodkin (1919) and *Amblyomma neumanni* Ribaga, 1902 in Pinto & Lins de Almeida (1939). Keirans (1985) found *Amblyomma cajennense* identified as *Amblyomma coelebs* and *Amblyomma cooperi* (= *Amblyomma dubitatum*) and *Amblyomma coelebs* identified as *Amblyomma cajennense* in the Nuttall Collection. *Amblyomma cajennense* is divided into two subspecies in Neumann (1911a): *cajennense cajennense* (= *Amblyomma cajennense*) and *cajennense parviscutatum* (*incertae sedis*). Recent studies show that under the name *Amblyomma cajennense* there is a species complex (Labruna *et al.* 2011; Mastropaolo *et al.* 2011; Beati *et al.* 2013).
- 499 *cajennense* (Fabricius, 1787), *Ixodes*. This name is in Doss & Anastos (1977) based on Fabricius (1805), but this author used the name *Ixodes cajennensis* (= *Amblyomma cajennense*). The name *Ixodes cajennense* is a synonym of *Amblyomma cajennense*, but not included in Camicas *et al.* (1998).
- 500 *cajennense cajennense* (Fabricius, 1787), *Amblyomma*. This name used in Neumann (1911a) is a synonym of *Amblyomma cajennense* as stated in Camicas *et al.* (1998).
- 501 *cajennense chacoensis* Ivancovich, 1973, *Amblyomma*. This name is a synonym of *Amblyomma cooperi* (= *Amblyomma dubitatum*), as stated in Guglielmone & Viñabal (1994), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 502 *cajennense imitator* Kohls, 1958, *Amblyomma*. This name used in Sundman & Price (1964) is a synonym of *Amblyomma imitator* in Camicas *et al.* (1998), but the text of Sundman & Price (1964) does not provide any data for this conclusion. *Amblyomma cajennense imitator* is a *nomen nudum*.
- 503 *cajennense parviscutatum* Neumann, 1899, *Amblyomma*. It was originally named *Amblyomma parviscutatum* (*incertae sedis*). The name *Amblyomma cajennense parviscutatum* used in Neumann (1905) and by a few other workers, is valid in Neumann (1911a), but a synonym of *Amblyomma cajennense* in Robinson (1926), Camicas *et al.* (1998) and others. *Amblyomma cajennense parviscutatum* is a name *incertae sedis* synonym of *Amblyomma parviscutatum* (*incertae sedis*) here.
- 504 *cajennensi* Hun-Opfer, 2008, *Amblyomma* (page 79). This name is a *lapsus* for *Amblyomma cajennense*.
- 505 *cajennensis* Fabricius, 1787, *Acarus*. This name is a synonym of *Amblyomma cajennense* and its original name as stated in Neumann (1911a) and Camicas *et al.* (1998), but not included in Doss & Anastos (1977).
- 506 *cajennensis* Fabricius, 1787, *Ixodes*. It was originally named *Acarus cajennensis* (= *Amblyomma cajennense*). The name *Ixodes cajennensis* used in Fabricius (1805) is a synonym of *Amblyomma cajennense* as stated in Neumann (1911a) and Camicas *et al.* (1998), but not included in Doss & Anastos (1977).
- 507 *cajennese* Ribeiro, 1967, *Amblyomma* (page 41). This name is a *lapsus* for *Amblyomma cajennense* but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Miller (1987, page 692), Clavijo *et al.* (2009, page 43) and others.
- 508 *cajennesis* Clavijo, Vásquez and Valera, 2009, *Acarus* (page 44). This name is a *lapsus* for *Acarus cajennensis* (= *Amblyomma cajennense*).
- 509 *cajennesse* Norris, Klompen and Black, 1999, *Amblyomma* (page 120). This name is a *lapsus* for *Amblyomma cajennense*.
- 510 *cajennse* Adlan, 1985, *Amblyomma* (page 330). This name is a *lapsus* for *Amblyomma cajennense*, but not included in Camicas *et al.* (1998).
- 511 *cajeunense* Whitaker and Abrell, 1987, *Amblyomma* (page 202). This name is a *lapsus* for *Amblyomma cajennense*, but not included in Camicas *et al.* (1998).
- 512 *calabyi* Roberts, 1963b, *Amblyomma*
- 513 *calcarata* Neumann, 1902, *Haemaphysalis*. This name in Neumann (1910a) is in fact *Haemaphysalis houyi* as stated in Hoogstraal (1955b). Keirans (1985) found specimens of *Haemaphysalis calcarata* identified as *Haemaphysalis houyi* in the Nuttall Tick Collection.
- 514 *calcarata houyi* Nuttall and Warburton, 1915, *Haemaphysalis*. This name is a synonym of *Haemaphysalis houyi* and its original name as stated in Camicas *et al.* (1998) and Keirans & Hillyard (2001).
- 515 *calcaratum* Neumann, 1899, *Amblyomma*. This name has been confused with *Amblyomma nodosum* as stated in Fairchild *et al.* (1966). Keirans (1985) found *Amblyomma varium* identified as *Amblyomma calcaratum* in the Nuttall Tick Collection.
- 516 *calcaratum calcaratum* Neumann, 1899, *Amblyomma*. This name used in Santos Dias (1958d) is a synonym of *Amblyomma calcaratum* here.

- 517 *calcaratum leucozomum* Schulze, 1936c, *Amblyomma*. This name used in Santos Dias (1958d) is a synonym of *Amblyomma calcaratum* as stated in Camicas *et al.* (1998).
- 518 *calcaratum venezuelense* Vogelsang and Santos Dias, 1953, *Amblyomma*. This name is a synonym of *Amblyomma leucozomum* (= *Amblyomma calcaratum*) in Santos Dias (1958d). The name *Amblyomma calcaratum venezuelense* is a synonym of *Amblyomma calcaratum* as stated in Camicas *et al.* (1998).
- 519 *calcaratus* (Birula, 1894), *Boophilus*. It was originally named *Ixodes calcaratus* (= *Rhipicephalus annulatus*). The name *Boophilus calcaratus* used first in Lahille (1905) is a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) in Camicas *et al.* (1998), but not included in Neumann (1911a). *Boophilus calcaratus* is a synonym of *Rhipicephalus annulatus*.
- 520 *calcaratus* Birula, 1894, *Ixodes*. This name is a synonym of *Margaropus annulatus calcaratus* (= *Rhipicephalus annulatus*) in Neumann (1911a) and a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) in Camicas *et al.* (1998). The name *Ixodes calcaratus* is a synonym *Rhipicephalus annulatus* here.
- 521 *calcaratus* (Birula, 1894), *Margaropus*. It was originally named *Ixodes calcaratus* (= *Rhipicephalus annulatus*). The name *Margaropus calcaratus* used in Castellani & Chalmers (1910) is a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) in Camicas *et al.* (1998). *Margaropus calcaratus* is a synonym *Rhipicephalus annulatus* here.
- 522 *calcaratus* (Birula, 1894), *Rhipicephalus*. It was originally named *Ixodes calcaratus* (= *Rhipicephalus annulatus*). The name *Rhipicephalus calcaratus* used in Birula (1895) and by a few other workers, is a synonym of *Margaropus annulatus calcaratus* (= *Rhipicephalus annulatus*) in Neumann (1911a) and a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) in Camicas *et al.* (1998). *Rhipicephalus calcaratus* is a synonym of *Rhipicephalus annulatus* here. Doss & Anastos (1977) affirmed that the name *Rhipicephalus calcaratus* is on pages 133-138 in the article of Birula (1895), but this name was found on pages 353 and 361-364.
- 523 *calcaratus balanicus* Arthur, 1960a, *Boophilus* (page 220). This name is a *lapsus* for *Boophilus calcaratum balanicus* (= *Rhipicephalus annulatus*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 524 *calcaratus balanicus* Minning, 1934, *Boophilus*. This name is a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) as stated in Camicas *et al.* (1998).
- 525 *calcaratus calcaratus* (Birula, 1894), *Boophilus*. This name used in Minning (1934) is a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) as stated in Camicas *et al.* (1998).
- 526 *calcaratus hispanicus* Minning, 1935, *Boophilus*. This name is a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) as stated in Camicas *et al.* (1998).
- 527 *calcaratus palestinensis* Minning, 1934, *Boophilus*. This name is a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) as stated in Camicas *et al.* (1998).
- 528 *calcaratus persicus* Minning, 1936, *Boophilus*. This name is a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) as stated in Camicas *et al.* (1998).
- 529 *calcarhebes* Arthur and Zulu, 1980, *Ixodes*
- 530 *calcaris* Nakatsudi, 1942b, *Amblyomma*. This name is a synonym of *Amblyomma calcaratum* in Camicas *et al.* (1998) and Yamauchi (2010), but it is not because the information in Nakatsudi is for a species different to *Amblyomma calcaratum*. The name *Amblyomma calcaris* is *incertae sedis*, and its authority sometimes spelled Nakatsuji.
- 531 *caledonicus* Nuttall, 1910, *Ixodes*. This name is a synonym of *Scaphixodes caledonicus* in Camicas *et al.* (1998) and a probable synonym of *Scaphixodes berlesei* (= *Ixodes berlesei*) in Morel (2003), but *Ixodes caledonicus* is valid.
- 532 *caledonicus* (Nuttall, 1910), *Scaphixodes*. It was originally named *Ixodes caledonicus*. The name *Scaphixodes caledonicus* is valid in Camicas *et al.* (1998), while Morel (2003) treats it as a probable synonym of *Scaphixodes berlesei* (= *Ixodes berlesei*). *Scaphixodes caledonicus* is a synonym of *Ixodes caledonicus* here.
- 533 *caledonicus sculpturatus* Schulze, 1929a, *Ixodes*. This name is a synonym of *Scaphixodes caledonicus* (= *Ixodes caledonicus*) in Camicas *et al.* (1998). The name *Ixodes caledonicus sculpturatus* is a synonym of *Ixodes caledonicus*.
- 534 *caledonicus sculturatus* Hillyard, 1996, *Ixodes* (pages 110, 178). This name is a *lapsus* for *Ixodes caledonicus sculpturatus* (= *Ixodes caledonicus*).
- 535 *californicus* Banks, 1904, *Ixodes*. This name is *incertae sedis* in Neumann (1911a) and a synonym of *Scaphixodes brunneus* (= *Ixodes brunneus*) in Camicas *et al.* (1998). The name *Ixodes californicus* is a synonym of *Ixodes brunneus* as stated in Keirans & Clifford (1978). The latter authors also state that *Ixodes californicus* in Banks (1908) and several other authors, is in fact *Ixodes pacificus*.
- 536 *calva* Nuttall and Warburton, 1915, *Haemaphysalis*. It was originally named *Haemaphysalis calvus* and amended in Hoogstraal & Kim (1985).
- 537 *calvus* Nuttall and Warburton, 1915, *Haemaphysalis*. This name is a synonym of *Haemaphysalis calva* and its original name. Keirans (1985) found *Haemaphysalis calvus* (= *Haemaphysalis calva*) identified as *Haemaphysalis hystricis* Supino, 1897.
- 538 *camelinus* Fischer von Waldheim, 1823, *Ixodes*. This name is *incertae sedis* close to *Hyalomma syriacum* (= *Hyalomma aegyptium*) for several authors including Neumann (1911a). The name *Ixodes camelinus* is a probable synonym of *Hyalomma dromedarii* in Camicas *et al.* (1998) and a certain synonym of *Hyalomma dromedarii* in Apanaskevich *et al.* (2008b) and here.
- 539 *camelopardalis* Walker and Wiley, 1959, *Rhipicephalus*. This name is valid in Keirans (1985) and Camicas *et al.* (1998), but it is a synonym of *Rhipicephalus longicoxatus* as stated in Walker *et al.* (2000) and Guglielmone *et al.* (2009, 2010b).

- 540 *camicasi* Morel, Mouchet and Rodhain, 1976, *Rhipicephalus*.
- 541 *compactum* Nakamura and Yajima, 1937, *Amblyomma* (page 174). This name is a *lapsus* for *Amblyomma compactum* (= *Amblyomma testudinarium*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 542 *campanulata* Warburton, 1908, *Haemaphysalis*. The original sample with the specimens of *Haemaphysalis flava* Neumann, 1897 contains also *Haemaphysalis campanulata* as stated in Yamaguti *et al.* (1971). Keirans (1985) found *Haemaphysalis campanulata* identified as *Haemaphysalis flava* Neumann, 1897 in the Nuttall Collection. The type of *Haemaphysalis sambar* was originally classified as *Haemaphysalis campanulata*.
- 543 *campanulata hispanica* Gil Collado, 1938, *Haemaphysalis*. This name is a synonym of *Haemaphysalis hispanica* and its original name as stated in Hoogstraal & Morel (1970) and Camicas *et al.* (1998).
- 544 *campanulata hoeppliana* Schulze, 1932b, *Haemaphysalis*. This name is a synonym of *Haemaphysalis campanulata* as stated in Camicas *et al.* (1998).
- 545 *candavius* Černý and Rosicky, 1960, *Ixodes*. This name is a synonym of *Ixodes gibbosus* as stated in Saratsiotis (1970).
- 546 *canestrinii* (Supino, 1897), *Haemaphysalis*. It was originally named *Opisthodon canestrinii* and given its current status in Neumann (1897). The name *Haemaphysalis canestrinii* is *incertae sedis*, probably a synonym of *Haemaphysalis leachi* in Neumann (1911a), but it is certainly valid as stated in Hoogstraal (1971a) and Camicas *et al.* (1998). Keirans (1985) found *Haemaphysalis canestrinii* identified as *Haemaphysalis leachi* in the Nuttall Tick Collection.
- 547 *canestrinii* (Supino, 1897), *Hyalomma*. This name is a *lapsus* for *Haemaphysalis canestrinii* in Fuehrer *et al.* (2012, page 1867).
- 548 *canestrinii* Supino, 1897, *Opisthodon*. This name is a synonym of *Haemaphysalis leachi* in Nuttall & Warburton (1915), Santos Dias (1958a), and others. The name *Opisthodon canestrinii* is a synonym of *Haemaphysalis canestrinii* as stated in Neumann (1911a), Hoogstraal (1971a) and Camicas *et al.* (1998). However, some specimens identified by Supino as *Opisthodon canestrinii* are in fact *Haemaphysalis leachi leachi* (= *Haemaphysalis leachi*) as stated in Hoogstraal & Trapido (1966).
- 549 *canestrinii* (Supino, 1897), *Prosopodon*. The generic name *Opisthodon* was preoccupied and Canestrini (1897a) replaced it with the name *Prosopodon*. The name *Prosopodon canestrinii* printed first in Hoogstraal & Trapido (1966), is a synonym of *Haemaphysalis canestrinii* as stated in Camicas *et al.* (1998).
- 550 *caninis* Doss and Anastos, 1977, *Ricinus* (page 16). This name is a *lapsus* for *Ricinus caninus* (*nomen dubium*) repeated in Camicas *et al.* (1998, page 82 line 1509).
- 551 *caninus* Valmont de Bomare, 1791, *Ricinus*. This name is a synonym of *Ixodes ricinus* in Camicas *et al.* (1998) based partly on Neumann (1911a), who does not mention this name. *Ricinus caninus* is a synonym of *Ixodes reduvius* (Linnaeus, 1758) (= *Ixodes ricinus*) in Oudemans (1929), but the original description, on page 208 not page 209 as stated in Oudemans (1929), is not useful for its diagnosis. *Ricinus caninus* is a *nomen dubium*.
- 552 *canisagu* Aubert, 1975, *Ixodes* (pages 469, 474). This name is a *lapsus* for *Ixodes canisuga*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 553 *canisuga* Johnston, 1849, *Ixodes*. This name is a synonym of *Ixodes hexagonus* in Neumann (1911a), a synonym of *Ixodes crenulatus* in Teng & Jiang (1991) and Kolonin (2009) and a synonym of *Pholeoixodes canisuga* (= *Ixodes canisuga*) in Camicas *et al.* (1998), but *Ixodes canisuga* is valid. The name *Ixodes canisuga* has been confused with *Ixodes kaiseri* as stated in Filippova & Uspenskaya (1973). Keirans (1985) found *Ixodes arboricola*, *Ixodes crenulatus*, *Ixodes lividus* Koch, 1844a and *Ixodes ricinus* identified as *Ixodes canisuga*.
- 554 *canisuga* (Johnston, 1849), *Pholeoixodes*. It was originally named *Ixodes canisuga*. The name *Pholeoixodes canisuga* used in Morel & Pérez (1973) is valid in Camicas *et al.* (1998), but it is a synonym of *Ixodes canisuga*.
- 555 *canisuga alauda* Emel'yanova, 1978, *Pholeoixodes*, in Emel'yanova *et al.* (1978, page 281). This name has no description, a *nomen nudum*, but not included in Camicas *et al.* (1998).
- 556 *canisuga kerguelensis* André and Colas-Belcour, 1942, *Ixodes*. This name is a synonym of *Scaphixodes kerguelensis* (= *Ixodes kerguelensis*) in Camicas *et al.* (1998). The name *Ixodes canisuga kerguelensis* is a synonym of *Ixodes kerguelensis* and its original name as stated in Wilson (1970).
- 557 *canisuga kerguelensis* Doss and Anastos, 1977, *Ixodes* (page 16). This name is a *lapsus* for *Ixodes canisuga kerguelensis* (= *Ixodes kerguelensis*) repeated in Pugh (1993, page 336) and others, but not included in Camicas *et al.* (1998).
- 558 *canisuga oboitricus* Schulze and Schlottke, 1929b, *Ixodes*. This name used in Buitendijk (1945) is a synonym of *Pholeoixodes lividus* (Koch, 1844a) (= *Ixodes lividus* Koch, 1844a) in Camicas *et al.* (1998). The name *Ixodes canisuga oboitricus* in Buitendijk (1945) has no description, a *nomen nudum*.
- 559 *canjennense* Parola and Raoult, 2001 *Amblyomma* (pages 904, 908). This name is a *lapsus* for *Amblyomma cajennense* repeated in McGinley-Smith & Tsao (2003, pages 365, 377).
- 560 *capencis* Nuñez Tovar, 1919, *Rhipicephalus* (page 435). This name is a *lapsus* for *Rhipicephalus capensis* Koch, 1844a, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 561 *capensis* Massey, 1908, *Boophilus*. This name is a synonym of *Boophilus decoloratus* (= *Rhipicephalus decoloratus*) as stated in Camicas *et al.* (1998).
- 562 *capensis* (Koch, 1844a), *Eurhipicephalus*. It was originally named *Rhipicephalus capensis*. The name *Eurhipicephalus capensis* (Koch, 1844a) used in Lounsbury (1906) is a synonym of *Rhipicephalus capensis* Koch, 1844a as stated in Camicas *et al.* (1998), but not included in Neumann (1911a).

- 563 *capensis* Koch, 1844a, *Rhipicephalus*. Keirans (1985) found the following species of *Rhipicephalus*: *compositus*, *hurtii*, *jeanneli*, *longus*, *pravus*, *punctatus* Warburton, 1912 and *simus* identified as *Rhipicephalus capensis* Koch, 1844a in the Nuttall Collection. Besides *Rhipicephalus capensis* Koch, 1844a has been misidentified with *Rhipicephalus theileri* Bedford and Hewitt, 1925 as stated in Walker *et al.* (2000). The name *Rhipicephalus capensis* Koch, 1844a is divided into two subspecies in Neumann (1911a): *capensis capensis* Koch, 1844a (= *Rhipicephalus capensis* Koch, 1844a) and *capensis composita* (= *Rhipicephalus compositus*).
- 564 *capensis capensis*, Koch, 1844a, *Rhipicephalus*. This name used in Neumann (1911a) and by a few other workers, is a synonym of *Rhipicephalus capensis* as stated in Camicas *et al.* (1998).
- 565 *capensis composita*, Neumann, 1897, *Rhipicephalus*. This name used in Neumann (1904) and amended to *Rhipicephalus capensis compositus* in Neumann (1905), is a synonym of *Rhipicephalus compositus* as stated in Camicas *et al.* (1998), but not included in Neumann (1911a) and Doss & Anastos (1977).
- 566 *capensis compositus* Neumann, 1897, *Rhipicephalus*. This name used in Neumann (1905, 1911a) and by a few other workers, is a synonym of *Rhipicephalus compositus* as stated in Camicas *et al.* (1998) and Walker *et al.* (2000).
- 567 *capensis longus* Neumann, 1907a, *Rhipicephalus*. This name used in Zumpt (1942) and a by few other workers, is a synonym of *Rhipicephalus longus* as stated in Camicas *et al.* (1998) and Walker *et al.* (2000).
- 568 *capensis pseudolongus* Santos Dias, 1953a, *Rhipicephalus*. This name is a synonym of *Rhipicephalus longus* in Santos Dias (1958a) and Camicas *et al.* (1998). The name *Rhipicephalus capensis pseudolongus* is a synonym of *Rhipicephalus pseudolongus* and its original name as stated in Walker *et al.* (2000, page 33), although these authors also affirm on page 24 that it is a synonym of *Rhipicephalus longus* (*lapsus*?).
- 569 *capponii* Toumanoff and Maillard, 1957, *Aponomma*. This name is a synonym of *Amblyomma javanense* (Supino, 1897) as stated in Hoogstraal *et al.* (1968a) and Camicas *et al.* (1998).
- 570 *capricornis* Hoogstraal, 1966a, *Haemaphysalis*. This tick was originally identified as *Haemaphysalis hystricis* Supino, 1897 as stated in Hoogstraal (1966a).
- 571 *capromydis* Černý, 1966, *Ixodes*
- 572 *caraborum* Fabricius, 1794, *Acarus*. This name is a synonym of *Ixodes ricinus* as stated in Camicas *et al.* (1998), but not included in Neumann (1911a).
- 573 *carapato* Cobbold, 1879, *Ixodes*. This name is a *nomen dubium* in Camicas *et al.* (1998). The name *Ixodes carapato* has no description or figure, a *nomen nudum*, but not included in Neumann (1911a).
- 574 *cardinalis* Conil, 1877, *Ixodes*. This name is a *nomen dubium* in Camicas *et al.* (1998). The name *Ixodes cardinalis* has no description or figure, a *nomen nudum*, but not included in Neumann (1911a).
- 575 *carenum* Ivancovich, 1973, *Amblyomma*. This name is valid in Ivancovich & Luciani (1992, pages 53 and 54), but not included in Camicas *et al.* (1998). The name *Amblyomma carenum* is a synonym of *Amblyomma parvum* Aragão, 1908a.
- 576 *cariaceus* Santos Dias, 1958a, *Rhipicephalus* (page 475). This name is a *lapsus* for *Rhipicephalus coriaceus* (= *Rhipicephalus supertritus*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 577 *carinatus* Kishida, 1930, *Ixodes*. This name is a synonym of *Ixodes ovatus* as stated in Camicas *et al.* (1998).
- 578 *carinatus* Frauenfeld, 1867, *Rhipicephalus*. This name is *incertae sedis* in Neumann (1911a) as a probable synonym of *Rhipicephalus sanguineus*, and a certain synonym of *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition) in Walker *et al.* (2000). The name *Rhipicephalus carinatus* Frauenfeld, 1867 is *incertae sedis* here.
- 579 *carnivoralis* Walker, 1966, *Rhipicephalus*. Keirans (1985) found *Rhipicephalus carnivoralis* misidentified as *Rhipicephalus appendiculatus* in the Nuttall Tick Collection.
- 580 *castanedai* Vargas and Hoffmann, 1952, *Amblyomma*. The original spelling *Amblyomma castañedai* is corrected to *Amblyomma castenedai*. The name *Amblyomma castanedai* is a synonym of *Amblyomma scutatatum* as stated in Camicas *et al.* (1998), but treated as valid in Santos Dias (1993c, as *Amblyomma castaneidai*, *lapsus*).
- 581 *castaneidai* Santos Dias, 1993c, *Amblyomma* (page 15). This name is a *lapsus* for *Amblyomma castanedai* (= *Amblyomma scutatatum*).
- 582 *catherinei* Keirans, Clifford and Walker, 1982, *Ixodes*
- 583 *caucasica* Olenev, 1928, *Haemaphysalis*
- 584 *caudatus* (Neumann, 1897), *Boophilus*. It was originally named *Rhipicephalus annulatus caudatus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*). The name *Boophilus caudatus* used first in Lahille (1905) for ticks established in Japan, is a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) in Estrada-Peña & Castellá (1994) and a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998). The name *Boophilus caudatus* is a synonym of *Rhipicephalus microplus* here, but not included in Neumann (1911a).
- 585 *caudatus* (Neumann, 1897), *Margaropus*. It was originally named *Rhipicephalus annulatus caudatus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*). The name *Margaropus caudatus* used in Castellani & Chalmers (1910, 1919) for ticks established in Japan, is a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) in Estrada-Peña & Castellá (1994), and a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998). The name *Margaropus caudatus* is a synonym of *Rhipicephalus microplus* here.
- 586 *caudatus* Neumann, 1897, *Rhipicephalus*. It was originally named *Rhipicephalus annulatus caudatus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*). The name *Rhipicephalus caudatus* used in Fuller

- (1899) for a species different to *Rhipicephalus australis* Fuller, 1899 is a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) in Estrada-Peña & Castellá (1994) and a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998). The name *Rhipicephalus caudatus* is a synonym of *Rhipicephalus microplus* here, but not included in Neumann (1911a).
- 587 *caudatus* (Neumann, 1897), *Uroboophilus*. It was originally named *Rhipicephalus annulatus caudatus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*). The name *Uroboophilus caudatus* used in Kishida (1939b) is a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) in Estrada-Peña & Castellá (1994) and a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998). The name *Uroboophilus caudatus* is a synonym of *Rhipicephalus microplus* here
- 588 *cautatus* Jagannath, Muraleedharan and Hiregoudar, 1982, *Boophilus* (page 504). This name is a *lapsus* for *Boophilus caudatus* (= *Rhipicephalus microplus*), but not included in Camicas *et al.* (1998).
- 589 *cavipalpus* Massey, 1908, *Ixodes*. This name is a *nomen nudum* according to Keirans & Hillyard (2001), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 590 *cavipalpus* Nuttall and Warburton, 1908, *Ixodes*. Keirans (1985) found *Ixodes cavipalpus* Nuttall and Warburton, 1908 identified as *Ixodes pilosus*, *Ixodes rubicundus* Neumann, 1904 and *Ixodes schillingsi* in the Nuttall Tick Collection.
- 591 *cayanensi* Rodríguez González and Lujambio, 1954, *Amblyomma* (page 111). This name is a *lapsus* for *Amblyomma cayenensi* (*nomen nudum*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 592 *cayannense* Verhaag and Podloucky, 1997, *Amblyomma* (page 247). This name is a *lapsus* for *Amblyomma cajennense* repeated in Aljamali *et al.* (2009, page 130) and others.
- 593 *cayenense* Ivancovich and Luciani, 1992, *Amblyomma* (page 41). This name is a *lapsus* for *Amblyomma cajennense*, but not included in Camicas *et al.* (1998).
- 594 *cayenensi* Rodríguez González and Lujambio, 1954, *Amblyomma* (pages 108-111). This name is apparently a *lapsus* for *Amblyomma cajennense*, but the tick described under *Amblyomma cayenensi* is uncertain, but not *Amblyomma cajennense*. The name *Amblyomma cayenensi* is a *nomen nudum*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 595 *cayenensis* Conil, 1877, *Ixodes*. This name is a synonym of *Amblyomma cajennense* in Camicas *et al.* (1998), but not included in Neumann (1911a). The name *Ixodes cayenensis* is regarded here as a *lapsus* for *Ixodes cajennensis* (= *Amblyomma cajennense*).
- 596 *cayennense* Aragão, 1911, *Amblyomma* (page 150). This name is a *lapsus* for *Amblyomma cajennense* in (Aragão, 1911), but also in Neumann (1911a, pages 68, 69) repeated in Floch & Fauran (1958) and many other workers. The name *Amblyomma cayennense* is not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 597 *celebensis* Hoogstraal, Trapido and Kohls, 1965e, *Haemaphysalis*. This tick was originally identified as *Haemaphysalis hystricis* Supino, 1897 in Nuttall & Warburton (1915) as stated in Hoogstraal *et al.* (1965e) and Keirans (1985).
- 598 *cenereolus* Nuttall and Warburton, 1911, *Ixodes* (page 283). This name is a *lapsus* for *Ixodes cinereolus* (*nomen dubium*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Anda *et al.* (1993, page 315).
- 599 *centropi* Kohls, 1949, *Haemaphysalis*. This name is a synonym of *Haemaphysalis doenitzi* as stated in Hoogstraal & Wassef (1973) and Camicas *et al.* (1998).
- 600 *cervi* Conil, 1877, *Ixodes*. This name is a *nomen dubium* in Camicas *et al.* (1998), but not included in Neumann (1911a). The name *Ixodes cervi* has no description or figure, a *nomen nudum*.
- 601 *ceylenensis* Miranpuri and Naithani, 1978, *Ixodes* (page 25). This name is a *lapsus* for *Ixodes ceylonensis*, but not included in Camicas *et al.* (1998).
- 602 *ceylonensis* Kohls, 1950a, *Ixodes*
- 603 *ceylonicus* Hoogstraal, 1966e, *Ixodes* (page 266). This name is a *lapsus* for *Ixodes ceylonensis*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 604 *chabaudi* Rageau, 1964, *Amblyomma*
- 605 *chacassicus* Degtyarev, 1934, *Dermacentor*. This name is a synonym of *Dermacentor nuttalli* Olenev, 1929c as stated in Pomerantzev (1950) and Camicas *et al.* (1998), but not included in Doss & Anastos (1977). The publication of Degtyarev (1934) has not been located and the information about this name is based on Pomerantzev (1950).
- 606 *chelififer* Mégnin, 1880, *Ixodes*. This name is a synonym of *Haemaphysalis concinna* (= *Haemaphysalis concinna*) in Neumann (1911a), but it a synonym of *Haemaphysalis concinna* as stated in Camicas *et al.* (1998).
- 607 *cheprai* Tseng, 1978, *Haemaphysalis* (page 18). This name is a *lapsus* for *Haemaphysalis choprai* (*incertae sedis*), but not included in Camicas *et al.* (1998).
- 608 *chilensis* Kohls, 1956a, *Ixodes*. This name is a synonym of *Pholeoixodes chilensis* in Camicas *et al.* (1998), but *Ixodes chilensis* is valid, and often cited as described in 1957.
- 609 *chilensis* (Kohls, 1956a), *Pholeoixodes*. It was originally named *Ixodes chilensis*. The name *Pholeoixodes chilensis* is valid in Camicas *et al.* (1998) based on Morel & Pérez (1973), but it is a synonym of *Ixodes chilensis*.
- 610 *chiropterarum* Feider, 1964, *Ixodes* (page 264). This name is a *lapsus* for *Ixodes chiropterorum* (= *Ixodes simplex* Neumann, 1906), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 611 *chiropteratum* Feider, 1964, *Ixodes* (page 263). This name is a *lapsus* for *Ixodes chiropterorum* (= *Ixodes simplex* Neumann, 1906), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).

- 612 *chiropteronum* Babos and Janisch, 1958, *Ixodes*. This name is a synonym of *Eschatocephalus simplex* (= *Ixodes simplex* Neumann, 1906) in Camicas *et al.* (1998). The name *Ixodes chiropteronum* is a synonym of *Ixodes simplex* as stated in Santos Dias & Nuncio (1996).
- 613 *chiropteronum* Barros, Famadás, Silva Lopes and Serra-Freire, 1998, *Ixodes* (page 132). This name is a *lapsus* for *Ixodes chiropteronum* (= *Ixodes simplex*).
- 614 *choarence* Kassa and Yalaw, 2012, *Amblyomma* (page 34). This name is a *lapsus* for *Amblyomma cohaerens* repeated in Asrate & Yalaw (2012, page 85), an article with identical text that of Kassa & Yalaw (2012).
- 615 *chohaerens* Theiler, 1959a, *Amblyomma* (page 370). This name is a *lapsus* for *Amblyomma cohaerens*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 616 *choherense* Tadese, Abadfaji, Girma, Kumsa and Jibat, 2012, *Amblyomma* (pages 3, 4). This name is a *lapsus* for *Amblyomma cohaerens*.
- 617 *choldokovsky* Moshaverinia, Shayan, Nabian and Rahbari, 2009, *Haemaphysalis* (page 1125). This name is a *lapsus* for *Haemaphysalis cholodkovskiy* (= *Haemaphysalis sulcata*) repeated in Moshaverinia *et al.* (2012, pages, 230, 232, 233).
- 618 *cholodkovskii* Delpy, 1937, *Hyalomma*. This name is a *nomen dubium* in Camicas *et al.* (1998), but a *nomen nudum* here.
- 619 *cholodkovskiy* Olenev, 1928, *Haemaphysalis*. This name is valid in Geevarghese *et al.* (1997), Ghosh *et al.* (2007) and Moshaverinia *et al.* (2012 as *Haemaphysalis choldokovsky*, a *lapsus*). The name *Haemaphysalis cholodkovskiy* is a synonym of *Haemaphysalis sulcata* as stated in Filippova (1997) and Camicas *et al.* (1998).
- 620 *cholodkovsky recta* Oswald, 1941, *Haemaphysalis*. This name is a *nomen dubium* in Camicas *et al.* (1998), but a *nomen nudum* here.
- 621 *cholodkovskiy* Santos Dias, 1947a, *Haemaphysalis* (page 23). This name is a *lapsus* for *Haemaphysalis cholodkovskiy* (= *Haemaphysalis sulcata*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Omeragic (2011, pages 302, 307).
- 622 *choprai* Sharif, 1928, *Haemaphysalis*. This name is a *nomen dubium* in Camicas *et al.* (1998) and valid in Estrada-Peña (1991). The name *Haemaphysalis choprai* is *incertae sedis* here.
- 623 *chordeiles* Beatty, 1944, *Haemaphysalis* (page 113). This name is a *lapsus* for *Haemaphysalis chordeilis*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 624 *chordeilis* (Packard, 1869), *Haemaphysalis*. It was originally named *Ixodes chordeilis* and given its current status in Banks (1907). The name *Haemaphysalis leporis* (Packard, 1869) (= *Haemaphysalis leporispalustris*) in Neumann (1897) and *Haemaphysalis punctata cinnabarina* (*incertae sedis*) in Neumann (1905 spelled *Haemaphysalis punctata cinnaberina*) are in fact *Haemaphysalis chordeilis* according to Neumann (1911a, who treats this name as doubtful) and Gregson (1956), respectively. *Haemaphysalis cinnabarina* in Nuttall & Warburton (1915), Hearle (1938) and Brown (1944) is actually *Haemaphysalis chordeilis* according to Gregson (1956), but Hall-Mendelin *et al.* (2011) still use the name *Haemaphysalis cinnabarina* instead of *Haemaphysalis chordeilis*. Keirans (1985) found *Haemaphysalis chordeilis* identified as *Haemaphysalis punctata* Canestrini and Fanzago, 1878.
- 625 *chordeilis* Packard, 1869, *Ixodes*. This name is a synonym of *Haemaphysalis chordeilis* and its original name as stated in Camicas *et al.* (1998).
- 626 *chordeilus* Teel, Hopkins, Donahue and Strey 1998, *Haemaphysalis* (pages 483, 485, 487). This name is a *lapsus* for *Haemaphysalis chordeilis*.
- 627 *cinctus* (Fabricius, 1805), *Dermacentor*. It was originally named *Ixodes cinctus* Fabricius, 1805 (*incertae sedis*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). The name *Dermacentor cinctus* (Fabricius, 1805) used in Oudemans (1936, page 574) is *incertae sedis* synonym of *Ixodes cinctus* Fabricius, 1805 (*incertae sedis*).
- 628 *cinctus* Fabricius, 1805, *Ixodes*. This name is a probable synonym of *Dermacentor variabilis* in Arthur (1960a) and Camicas *et al.* (1998). The name *Ixodes cinctus* Fabricius, 1805 is a name *incertae sedis* in Neumann (1911a) and here.
- 629 *cinctus* Lucas, 1844a, *Ixodes*, (sometimes cited 1836, 1840 or 1836–1844). This name is *incertae sedis* in Neumann (1911a), a probable synonym of *Hyalomma dromedarii* in Camicas *et al.* (1998) and a certain synonym of *Hyalomma dromedarii* in Apanaskevich *et al.* (2008b). The description of *Ixodes cinctus* Lucas, 1844a is vague and type location unknown. *Ixodes cinctus* is a *nomen dubium* here.
- 630 *cinereolus* Lucas, 1844a, *Ixodes* (sometimes cited 1836, 1840 or 1836–1844). This name is *incertae sedis* in Neumann (1911a). The name *Ixodes cinereolus* is a *nomen dubium* in Camicas *et al.* (1998) and here.
- 631 *cinnabarina* Koch, 1844a, *Haemaphysalis*. This name is a synonym of *Haemaphysalis punctata cinnaberina* (*incertae sedis*) in Neumann (1911a) and a synonym of *Haemaphysalis punctata* Canestrini and Fanzago, 1878 for several workers (i.e., Keirans & Restifo 1993), but Hoogstraal (1973) and Barros-Battesti *et al.* (2008) defend its validity. The name *Haemaphysalis cinnabarina* in Nuttall & Warburton (1915), Hearle (1938) and Brown (1944) is in fact *Haemaphysalis chordeilis* as stated in Gregson (1956), but Hall-Mendelin *et al.* (2011) use the name *Haemaphysalis cinnabarina* instead of *Haemaphysalis chordeilis*. Keirans (1985) found *Haemaphysalis parva* (Neumann, 1897), *Haemaphysalis punctata* Canestrini and Fanzago, 1878 and an undetermined *Haemaphysalis* species identified as *Haemaphysalis cinnabarina* in the Nuttall Tick Collection.
- 632 *cinnabarina cretica* Sénevet and Caminopetros, 1936, *Haemaphysalis*. This name is a synonym of *Haemaphysalis sulcata* in Camicas *et al.* (1998), probably because Delpy (1938, footnote on page 4) states that Sénevet & Caminopetros (1936) name this tick as *Haemaphysalis punctata cretica* (= *Haemaphysalis sulcata*), but Delpy (1938) changes the name to *Haemaphysalis cinnabarina cretica* without justifying this decision. The name *Haemaphysalis cinnabarina cretica* is a *lapsus* for *Haemaphysalis punctata cretica* (= *Haemaphysalis sulcata*) in Doss & Anastos (1977) and here.

- 633 *cinnabarina punctata* Canestrini and Fanzago, 1878, *Haemaphysalis*. This name used first in Nuttall & Warburton (1915) is partly a synonym of *Haemaphysalis otophila* [= *Haemaphysalis parva* (Neumann, 1897)] and partly a synonym of *Haemaphysalis punctata* Canestrini and Fanzago, 1878 in the opinion of Feldman-Muhsam (1951), and partly a synonym of *Haemaphysalis sulcata* according to Filippova (1997). The name *Haemaphysalis cinnabarina punctata* Canestrini and Fanzago, 1878 is a synonym of *Haemaphysalis punctata* Canestrini and Fanzago, 1878 in Camicas *et al.* (1998). Keirans (1985) found specimens of *Haemaphysalis punctata* Canestrini and Fanzago, 1878 and *Haemaphysalis sulcata* identified as *Haemaphysalis cinnabarina punctata* Canestrini and Fanzago, 1878 in the Nuttall Collection. Keirans (1985) gives the authority for *Haemaphysalis cinnabarina punctata* Canestrini and Fanzago, 1878 to Neumann. *Haemaphysalis cinnabarina punctata* Canestrini and Fanzago, 1878 is a name *incertae sedis*.
- 634 *cinnabarina punctata autumnalis* Schulze, 1919, *Haemaphysalis* (usually cited Schulze, 1918). This name is a synonym of *Haemaphysalis punctata* Canestrini and Fanzago, 1878 in Estrada-Peña (1991). The name *Haemaphysalis cinnabarina punctata autumnalis* Schulze, 1919 is a *nomen dubium* in Camicas *et al.* (1998) and here.
- 635 *cinnabarina punctata longicornis* Neumann, 1901, *Haemaphysalis*. This name used in Oswald (1937, 1939) is a synonym of *Haemaphysalis sulcata* in Camicas *et al.* (1998), but a *nomen nudum* here.
- 636 *cinnabarina punctata musimonis* Tonelli Rondelli, 1930, *Haemaphysalis*. This name is a synonym of *Haemaphysalis sulcata* as stated in Filippova (1997) and Camicas *et al.* (1998).
- 637 *cinnabarina punctata perdentata* Schulze, 1919, *Haemaphysalis* (usually cited Schulze, 1918). This name is a synonym of *Haemaphysalis punctata* Canestrini and Fanzago, 1878 in Estrada-Peña (1991). The name *Haemaphysalis cinnabarina punctata perdentata* is a *nomen dubium* in Camicas *et al.* (1998) and here.
- 638 *cinnabarina punctata recta* Oswald, 1939, *Haemaphysalis*. This name is a synonym of *Haemaphysalis punctata* Canestrini and Fanzago, 1878 in Estrada-Peña (1991) and a synonym of *Haemaphysalis sulcata* in Camicas *et al.* (1998). The description of *Haemaphysalis cinnabarina punctata recta* is vague and type location unknown, a *nomen nudum*.
- 639 *cinnabarina recta* Oswald, 1939, *Haemaphysalis*. This name used in Oswald (1941) is a synonym of *Haemaphysalis sulcata* in Camicas *et al.* (1998), but it is a *nomen nudum*, synonym of *Haemaphysalis cinnabarina punctata recta* (*nomen nudum*).
- 640 *cinnaberina* Koch, 1847, *Haemaphysalis*. It is unclear if this name is a *lapsus* or an emendation for *Haemaphysalis cinnabarina* repeated for several authors thereafter. *Haemaphysalis cinnaberina* is a synonym of *Haemaphysalis cinnabarina* here, but not included in Neumann (1911a) and Doss & Anastos (1977).
- 641 *circumguttatus* Cornet, 1995, *Amblyocentor* (page 206). This name is a *lapsus* for *Amblyocentor circumguttatus* (= *Dermacentor circumguttatus*), but not included in Camicas *et al.* (1998).
- 642 *circumguttatus* (Neumann, 1897), *Amblyocentor*. It was originally named *Dermacentor circumguttatus*. The name *Amblyocentor circumguttatus* used in Schulze (1932e) and by a few other workers, is a synonym of *Dermacentor circumguttatus* as stated in Camicas *et al.* (1998), but not included in Doss & Anastos (1977).
- 643 **circumguttatus** Neumann, 1897, *Dermacentor*
- 644 *circumguttatus circumguttatus* Neumann, 1897, *Dermacentor*: This name used in Santos Dias (1954c) and by a few other workers, is a synonym of *Dermacentor circumguttatus* as stated in Camicas *et al.* (1998).
- 645 *circumguttatus cunhasilvai* Santos Dias, 1952a, *Dermacentor*: This name is a synonym of *Dermacentor circumguttatus* as stated in Camicas *et al.* (1998).
- 646 *clathratus* Koch 1844a, *Dermacentor*. This name is *incertae sedis* in Neumann (1911a). *Dermacentor clathratus* is poorly described and the type is not in the British Museum (Keirans & Hillyard 2001) as stated in Arthur (1960a), who regards this name a probable synonym of *Haemaphysalis concinna*. The name *Dermacentor clathratus* is a *nomen dubium* in Camicas *et al.* (1998) and here.
- 647 **cliffordi** Morel, 1965e, *Rhipicephalus*. This name is a synonym of *Rhipicephalus pseudolongus* in Walker *et al.* (2000). The name *Rhipicephalus cliffordi* is valid in Camicas *et al.* (1998) and provisionally valid in Guglielmone *et al.* (2009, 2010b, 2014) and here.
- 648 **clypeolatum** Neumann, 1899, *Amblyomma*. This name in Stella (1938b) is probably in fact *Amblyomma falsomarmoreum* as stated in Theiler (1962). Keirans (1985) found *Amblyomma falsomarmoreum* identified as *Amblyomma clypeolatum* in the Nuttall Tick Collection.
- 649 *coelaturum* Santos Dias, 1958a, *Amblyomma* (page 500). This name is a *lapsus* for *Amblyomma caelaturum* (= *Amblyomma geoemydae*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 650 *coelaturum perfectum* Schulze, 1932e, *Amblyomma*. This name is a *lapsus* for *Amblyomma caelaturum perfectum* (= *Amblyomma geoemydae*) in Santos Dias (1958a, page 500), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 651 **coelebs** Neumann, 1899, *Amblyomma*. The name *Amblyomma auriculare* (= *Amblyomma auricularium*) in Floch & Abonnenc (1940) is in fact *Amblyomma coelebs* according to Floch & Fauran (1958). Keirans (1985) found *Amblyomma coelebs* identified as *Amblyomma cajennense* and *Amblyomma cajennense* identified as *Amblyomma coelebs*.
- 652 *coelogyneri* Doss and Anastos, 1977, *Amblyomma*. This name is in Doss & Anastos (1977) as “*coelogyneri* Anon. (1909), 31 (Mem. Inst. Oswaldo Cruz) 1909: *Amblyomma*”, but it was not found using the information provided. The name *Amblyomma coelogyneri* is a *nomen nudum* as stated in Camicas *et al.* (1998).
- 653 *cohaeren* Tadese, Abadfaji, Girma, Kumsa and Jibat, 2012, *Amblyomma* (page 4). This name is a *lapsus* for *Amblyomma cohaerens*.

- 654 *cohaerence* Tessema and Gashaw, 2010, *Amblyomma* (pages 79, 81, 83, 85). This name is a *lapsus* for *Amblyomma cohaerens*, repeated in two articles with identical texts in Asrate & Yalew (2012, pages 84, 86) and Kassa & Yalew (2012, pages 33, 35), among others.
- 655 *cohaerens* Dönitz, 1909, *Amblyomma*. The name *Amblyomma cohaerens* is a synonym of *Amblyomma astrion* in Santos Dias (1951b), but both names are valid. *Amblyomma hebraeum* in Schoenaers (1951) is in fact *Amblyomma cohaerens* according to Theiler & Robinson (1954), while Elbl & Anastos (1966a) state that *Amblyomma cohaerens* has been confused with *Amblyomma astrion*. Keirans (1985) found *Amblyomma cohaerens* identified as *Amblyomma lepidum* in the Nuttall Tick Collection.
- 656 *cohaerense* Tadese, Abadfaji, Girma, Kumsa and Jibat, 2012, *Amblyomma* (page 3). This name is a *lapsus* for *Amblyomma cohaerens*.
- 657 *coharens* Sang, Onyango, Gachoya, Mabinda, Konongoi, Ofula, Dunster, Okoth, Coldren, Tesh, Rosa, Finkbeiner, Wang, Crabtree and Miller, 2006, *Amblyomma* (page 1077). This name is a *lapsus* for *Amblyomma cohaerens*.
- 658 *cohearens* Kassa and Yalew, 2012, *Amblyomma* (pages 36, 37). This name is a *lapsus* for *Amblyomma cohaerens* repeated twice in Asrate & Yalew (2012, page 87), an article with identical text that of Kassa & Yalew (2012). The *lapsus* *Amblyomma cohearens* is repeated also in Ayana *et al.* (2013, pages 14, 16-19, 21).
- 659 *coherence* Abunna, Tura and Regassa, 2012, *Amblyomma* (pages 459, 461). This name is a *lapsus* for *Amblyomma cohaerens* repeated in Bossena & Mohamed (2012, pages 32, 33, 35-37).
- 660 *coherens* Shiferaw and Onu, 2013, *Amblyomma* (as *Amblyoma*, pages 291, 292). This name is a *lapsus* for *Amblyomma cohaerens*.
- 661 *cokei* Sonenshine, Lamb and Anastos, 1965, *Ixodes* (page 42). This name is a *lapsus* for *Ixodes cookei*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 662 *colasbelcouri* (Santos Dias, 1958c), *Amblyomma*. It was originally named *Aponomma colasbelcouri* Santos Dias, 1958c [= *Haemaphysalis colasbelcouri* (Santos Dias, 1958c)]. The name *Amblyomma colasbelcouri* (Santos Dias, 1958c) used in Barker & Murrell (2004, 2008) is a synonym of *Haemaphysalis colasbelcouri*.
- 663 *colasbelcouri* Santos Dias, 1958c, *Aponomma*. This name is valid in Estrada-Peña & Castellá (1994) and a probable synonym of *Haemaphysalis vietnamensis* in Kolonin (2009). The name *Aponomma colasbelcouri* Santos Dias, 1958c is a synonym of *Haemaphysalis colasbelcouri* (Santos Dias, 1958c) and its original name as stated in Camicas *et al.* (1998) and Petney & Keirans (1996).
- 664 *colasbelcouri* (Santos Dias, 1958c), *Haemaphysalis*. It was originally named *Aponomma colasbelcouri* Santos Dias, 1958c and given its current status in Santos Dias (1985).
- 665 *colasbelcouri* Arthur, 1957b, *Ixodes*. The name *Ixodes lunatus* in Colas-Belcour & Grenier (1942) is in fact *Ixodes colasbelcouri* Arthur, 1957b as stated in Uilenberg *et al.* (1979).
- 666 *colasbergensis* Filippova, 2008, *Haemaphysalis* (page 1004). This name is a *lapsus* for *Haemaphysalis colesbergensis*.
- 667 *colenaty* Zapletal and Grulik, 1963, *Ixodes*, in Emchuk (1963). This name is a *nomen dubium* as stated in Camicas *et al.* (1998).
- 668 *colesbergensis* Apanaskevich and Horak, 2008c, *Haemaphysalis*. This tick was identified as *Haemaphysalis leachi* prior to its description in Apanaskevich & Horak (2008c).
- 669 *collebs* Labate, Nunes and Silva Gomes, 2001, *Amblyomma* (page 322). This name is a *lapsus* for *Amblyomma coelebs* repeated in Rodrigues *et al.* (2006, page 969).
- 670 *collocaliae* Schulze, 1937a, *Ixodes*. This name is a synonym of *Scaphixodes collocaliae* in Camicas *et al.* (1998), but *Ixodes collocaliae* is valid.
- 671 *collocaliae* (Schulze, 1937a), *Scaphixodes*. It was originally named *Ixodes collocaliae*. The name *Scaphixodes collocaliae* is valid in Camicas *et al.* (1998), but it is a synonym of *Ixodes collocaliae*.
- 672 *collocaliae* (Schulze, 1937a), *Xiphixodes*. It was originally named *Ixodes collocaliae*. The name *Xiphixodes collocaliae* used in Schulze (1941a) is a synonym of *Scaphixodes collocaliae* (= *Ixodes collocaliae*) according to Camicas *et al.* (1998), but it is a synonym of *Ixodes collocaliae*.
- 673 *collocaliae* Arthur, 1956b, *Ixodes* (page 296). This name is a *lapsus* for *Ixodes collocaliae*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 674 *collurionis* Scopoli, 1763, *Acarus*. This name is a synonym of *Ixodes ricinus* in Camicas *et al.* (1998), but its description is vague being a *nomen dubium* here. The name *Acarus collurionis* is not included in Neumann (1911a).
- 675 *collurionis* (Scopoli, 1763), *Ixodes*. It was originally named *Acarus collurionis* (*nomen dubium*). The name *Ixodes collurionis* used in Oudemans (1929, pages 148, 149) is also a *nomen dubium* synonym of *Acarus collurionis* (*nomen dubium*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 676 *colmbae* Cooley and Kohls, 1944a, *Ixodes* (page 14), *Ixodes*. This name is a *lapsus* for *Ixodes columbae* (= *Argas reflexus*) (Argasidae) (incorrect name), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 677 *columbae* (Hermann, 1804), *Ixodes*. This name used in Fabricius (1805) and by a few other workers, is an incorrect name for Ixodidae because it is a synonym of *Argas reflexus* (Argasidae) as stated in Neumann (1911a).
- 678 *colombianus* Osorno Mesa, 1940, *Anocentor* (page 14). This name is a *lapsus* for *Anocentor columbianus* (= *Dermacentor nitens* Neumann, 1897) repeated in Arthur (1960a), Guglielmone *et al.* (2003) and others, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 679 *columbianus*, Schulze, 1937e, *Anocentor*. This name is a synonym of *Anocentor nitens* (Neumann, 1897) (= *Dermacentor nitens* Neumann, 1897) as stated in Aragão & Fonseca (1953b).

- 680 *columnae* Takada and Fujita, 1992, *Ixodes*. This name is not included in Camicas *et al.* (1998).
- 681 *communis* Marx, 1901, *Ixodes*, in Neumann (1901). This name is a synonym of *Ixodes affinis* in Camicas *et al.* (1998). The name *Ixodes communis* has no description or figure, a *nomen nudum*, but not included in Neumann (1911a).
- 682 *compactum* Neumann, 1901, *Amblyomma*. This name is a synonym of *Amblyomma testudinarium* as stated in Neumann (1911a) and Camicas *et al.* (1998).
- 683 *compactus* Neumann, 1901, *Dermacentor*. This name is partly a synonym of *Dermacentor auratus compactus* (= *Dermacentor compactus*) in Neumann (1911a), a probable synonym of *Dermacentor auratus* Supino, 1897 in Arthur (1960a) and a certain synonym of *Dermacentor auratus* Supino, 1897 in Teng & Jiang (1991). The name *Dermacentor compactus* is valid as stated in Wassef & Hoogstraal (1983). *Dermacentor compactus* in Stiles (1935) is in fact *Amblyomma testudinarium* because this author apparently confused *Amblyomma compactum* Neumann, 1901 (= *Amblyomma testudinarium*) with *Dermacentor compactus* Neumann, 1901. Keirans (1985) found *Dermacentor auratus* identified as *Dermacentor compactus* Supino, 1897.
- 684 *compactus* (Neumann, 1901), *Indocentor*. It was originally named *Dermacentor compactus*. The name *Indocentor compactus* used in Schulze (1933b, page 417) is a synonym of *Dermacentor compactus*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 685 *compactus compactus* (Neumann, 1901), *Indocentor*. This name used in Schulze (1933b) is a synonym of *Dermacentor compactus* as stated in Wassef & Hoogstraal (1983).
- 686 *compactus sumatranus* Schulze, 1939c, *Indocentor*. This name is a probable synonym of *Dermacentor auratus* Supino, 1897 in Camicas *et al.* (1998) based on Arthur (1960a), but it has not been found in any article of Schulze or in Arthur (1960a) and it is not included in Doss & Anastos (1977). The name *Indocentor compactus sumatranus* is a *nomen nudum*.
- 687 *compactus tricuspis* Schulze, 1933b, *Indocentor*. This name is a synonym of *Dermacentor compactus* in Camicas *et al.* (1998), while Wassef & Hoogstraal (1983) affirm it is not, but no synonym is provided. The name *Indocentor compactus tricuspis* is *incertae sedis* here.
- 688 *complanatum* Berlese, 1888a, *Amblyomma*. This name is a synonym of *Amblyomma maculatum* in Neumann (1911a) and Jones *et al.* (1972), and a synonym of *Amblyomma tigrinum* in Camicas *et al.* (1998) and Dantas-Torres *et al.* (2009). The name *Amblyomma complanatum* Berlese, 1888a is *incertae sedis* here.
- 689 *complanatum* (Neumann, 1911b), *Amblyomma*. This name is a *lapsus* for *Rhipicephalus complanatus* in Estrada-Peña *et al.* (2012b, page 6).
- 690 *complanatus* Neumann, 1911b, *Rhipicephalus*. It was originally named *Rhipicephalus planus* Neumann, 1910a, a name preoccupied by *Rhipicephalus simus planus* Neumann, 1907f as stated in Walker *et al.* (2000) and consequently renamed in Neumann (1911b).
- 691 *compositus* Neumann, 1897, *Rhipicephalus*. This name is a synonym of *Rhipicephalus capensis compositus* (= *Rhipicephalus compositus*) in Neumann (1911a), but it is valid. Keirans (1985) found *Rhipicephalus compositus* identified as *Rhipicephalus capensis* Koch, 1844a and *Rhipicephalus supertritus* in the Nuttall Tick Collection.
- 692 *compressum* Macalister, 1872, *Adenopleura*. This name is *incertae sedis* in Neumann (1911a). The name *Adenopleura compressum* is a synonym of *Amblyomma compressum* and its original name as stated in Neumann (1901) and Camicas *et al.* (1998).
- 693 *compressum* (Macalister, 1872), *Amblyomma*. It was originally named *Adenopleura compressum* and given its current status in Neumann (1901). The name *Amblyomma compressum* is *incertae sedis* in Neumann (1911a), but it is valid as stated in Neumann (1901) and Camicas *et al.* (1998). Keirans (1985) found *Amblyomma compressum* identified as *Amblyomma sublaeve* [= *Amblyomma javanense* (Supino, 1897)] in the Nuttall Tick Collection.
- 694 *compressum* (Macalister, 1872), *Haemalastor*. It was originally named *Adenopleura compressum* (= *Amblyomma compressum*). The name *Haemalastor compressum* used in Oudemans (1939) is a synonym of *Amblyomma compressum* as stated in Camicas *et al.* (1998).
- 695 *compressum javanense* (Supino, 1897), *Amblyomma*. This name used in Schulze (1941a) is a synonym of *Amblyomma javanense* (Supino, 1897) as stated in Anastos (1950) and Camicas *et al.* (1998).
- 696 *concinna* Koch, 1844a, *Haemaphysalis*. This name in Neumann (1897, page 338) is partly in fact *Ixodes nigrolineatus* (= *Dermacentor albipictus*), *Ixodes cookei* and *Ixodes chelifera* (= *Haemaphysalis concinna*) as stated in Neumann (1911a). The name *Haemaphysalis concinna* is divided into three subspecies in Neumann (1911a): *concinna concinna* (= *Haemaphysalis concinna*), *concinna kochi* (= *Haemaphysalis concinna*) and *concinna longicornis* (= *Haemaphysalis longicornis*).
- 697 *concinna concinna* Koch, 1844a, *Haemaphysalis*. This name used in Neumann (1911a) is a synonym of *Haemaphysalis concinna* as stated in Camicas *et al.* (1998).
- 698 *concinna hirudo* Koch, 1878, *Haemaphysalis*. This name used in Gedoelst (1911) is a synonym of *Haemaphysalis concinna* in Camicas *et al.* (1998), but a name *incertae sedis* here.
- 699 *concinna kochi* Neumann, 1905, *Haemaphysalis*. This name used in Neumann (1905, 1911a) and by a few other workers, is a synonym of *Haemaphysalis concinna* as stated in Camicas *et al.* (1998).
- 700 *concinna longicornis* Neumann, 1901, *Haemaphysalis*. This name used in Neumann (1905) and by a few other workers, is a synonym of *Haemaphysalis longicornis* as stated in Hoogstraal *et al.* (1968c) and Camicas *et al.* (1998).
- 701 *concinnae* Lee, Park, Jang, Koh, Park, Kang, Kim, Kook, Park and Lee, 2004, *Haemaphysalis* (pages 127-129). This name is a *lapsus* for *Haemaphysalis concinna*.

- 702 *concolor* Tseng, 1978, *Aponomma* (page 9). This name is a *lapsus* for *Aponomma concolor* Neumann, 1899 [= *Bothriocroton concolor* (Neumann, 1899)], but not included in Camicas *et al.* (1998).
- 703 *concolor* Neumann, 1899, *Amblyomma* (page 222). This name is valid in Neumann (1911a), Camicas *et al.* (1998) and others, but it is a synonym of *Amblyomma auricularium* as stated in Keirans & Hillyard (2001). Keirans (1985) found *Amblyomma pseudoconcolor* identified as *Amblyomma concolor* Neumann, 1899 in the Nuttall Tick Collection.
- 704 *concolor* Neumann, 1899, *Aponomma* (page 198). This name is valid in Camicas *et al.* (1998), but it is a synonym of *Bothriocroton concolor* (Neumann, 1899) and its original name. However, the name *Aponomma concolor* Neumann, 1899 is a synonym of *Aponomma hydrosauri* (= *Bothriocroton hydrosauri*) in Neumann (1911a), while it in Rainbow (1906) is in fact *Aponomma hydrosauri* (= *Bothriocroton hydrosauri*) according to Santos Dias (1993a).
- 705 **concolor** (Neumann, 1899), *Bothriocroton*. It was originally named *Aponomma concolor* Neumann, 1899, but it is now placed in the genus *Bothriocroton* (Horak *et al.* 2002; Klompen *et al.* 2002). Keirans (1985) found *Aponomma concolor* Neumann, 1899 [= *Bothriocroton concolor* (Neumann, 1899)] identified as *Aponomma hydrosauri* (= *Bothriocroton hydrosauri*).
- 706 *concoloro* Rivas, 1919, *Amblyomma* (page 95). This name is a *lapsus* for *Amblyomma concolor* Neumann, 1899 (= *Amblyomma auricularium*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 707 **conepati** Cooley and Kohls, 1943, *Ixodes*. This name is a synonym of *Pholeoixodes conepati* in Camicas *et al.* (1998), but it is valid. The name *Ixodes cookei* in Eads *et al.* (1956) is partly in fact *Ixodes conepati* according to Kohls & Clifford (1966) and actually *Pholeoixodes conepati* (= *Ixodes conepati*) in Camicas *et al.* (1998), while *Ixodes conepati* in Doss *et al.* (1978) is in fact *Ixodes auritulus* as stated in Guglielmone *et al.* (2003).
- 708 *conepati* (Cooley and Kohls, 1943), *Pholeoixodes*. It was originally named *Ixodes conepati*. The name *Pholeoixodes conepati* is valid in Camicas *et al.* (1998) based on Morel & Pérez (1973), but it is a synonym of *Ixodes conepati*.
- 709 *confine* Koch, 1844a, *Amblyomma*. This name is a synonym of *Amblyomma striatum* (= *Amblyomma aureolatum*) in Neumann (1911a), a synonym of *Amblyomma aureolatum* in Aragão & Fonseca (1961) and Camicas *et al.* (1998), and a synonym of *Amblyomma ovale* in Robinson (1926) and Dantas-Torres *et al.* (2009). One of us (SN) examined the holotype of *Amblyomma confine* and confirmed that this name is a synonym of *Amblyomma ovale*.
- 710 *confractus* (Schulze, 1933b), *Dermacentor*. This name is valid in Camicas *et al.* (1998) and Barker & Murrell (2004, 2008), but it is a *lapsus* for *Dermacentor confragus* as stated in Guglielmone *et al.* (2009). The name *Dermacentor confractus* is not included in Doss & Anastos (1977).
- 711 *confractus* Schulze, 1933b, *Indocentor*. This name is a *lapsus* for *Indocentor confragus* (= *Dermacentor confragus*). However, the name *Indocentor confractus* is a synonym of *Dermacentor auratus* Supino, 1897 in Arthur (1960a) and a synonym of *Dermacentor confractus* in Camicas *et al.* (1998).
- 712 *confractus* Moritz and Fischer, 1981, *Indocentor* (page 345). This name is a *lapsus* for *Indocentor confragus* (= *Dermacentor confragus*), but not included in Camicas *et al.* (1998).
- 713 **confragus** (Schulze, 1933b), *Dermacentor*. It was originally named *Indocentor confractus* (page 420) and *Indocentor confragus* (figure 4, page 420), being correct the last name as stated in Schulze (1935c), and given its current status in Guglielmone *et al.* (2009). Camicas *et al.* (1998) name this tick *Dermacentor confractus*. The name *Dermacentor confragus* is not included in Doss & Anastos (1977) and Horak *et al.* (2002).
- 714 *confragus* Schulze, 1933b, *Indocentor*. This name is a synonym of *Dermacentor confractus* (*lapsus*) in Camicas *et al.* (1998), but it is a synonym of *Dermacentor confragus* and its original name as stated in Guglielmone *et al.* (2009).
- 715 *confusus* Stone, 1988 (page 63), *Ixodes*. This name is a *lapsus* for *Ixodes confusus* Roberts, 1960, but not included in Camicas *et al.* (1998). This *lapsus* is repeated in Ghosh & Misra (2012, page 249).
- 716 **confusus** Roberts, 1960, *Ixodes*. Roberts (1960) states that *Ixodes cordifer* in Roberts (1955) is in fact *Ixodes confusus* Roberts, 1960.
- 717 *confusus* Santos Dias, 1956c, *Rhipicephalus*. This name is a synonym of *Rhipicephalus longus* as stated in Camicas *et al.* (1998) and Walker *et al.* (2000).
- 718 *congolensis* Minning, 1934, *Boophilus*. This name is a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) as stated in Camicas *et al.* (1998).
- 719 **congolensis** Apanaskevich, Horak and Mulumba-Mfumu, 2013, *Rhipicephalus*
- 720 *concinna* Liu, Zhao and Xu, 2013, *Haemaphysalis* (page 186). This name is a *lapsus* for *Haemaphysalis concinna*.
- 721 *conspicuum* Aragão, 1912a, *Amblyomma*. This name is a synonym of *Amblyomma pictum* as stated in Robinson (1926) and Camicas *et al.* (1998).
- 722 **cookei** Packard 1869, *Ixodes*. This name is a synonym of *Pholeoixodes cookei* in Camicas *et al.* (1998), but it is valid. Neumann (1911a) states that *Haemaphysalis concinna* in Neumann (1897) is partly in fact *Ixodes cookei*. The name *Ixodes cookei* in Judd (1954) and Eads *et al.* (1956) is in fact *Ixodes banksi* and in part *Ixodes conepati* according to Gregson (1956) and Kohls & Clifford (1966), respectively. Camicas *et al.* (1998) treat *Ixodes cookei* in Eads *et al.* (1956) as *Pholeoixodes conepati* (= *Ixodes conepati*) and *Ixodes banksi* in Cooley & Kohls (1945) as *Pholeoixodes cookei* (= *Ixodes cookei*). Keirans (1985) found *Ixodes cookei* identified as *Ixodes hexagonus* and *Ixodes hexagonus cookei* (= *Ixodes cookei*) in the Nuttall Collection.
- 723 *cookei* (Packard, 1869), *Pholeoixodes*. It was originally named *Ixodes cookei*. The name *Pholeoixodes cookei* is valid in Camicas *et al.* (1998) based on Morel & Pérez (1973), but it is a synonym of *Ixodes cookei*.
- 724 *cookei rugosus* Bishopp, 1911, *Ixodes*. This name is a synonym of *Pholeoixodes rugosus* (= *Ixodes rugosus*) in Camicas *et*

- al.* (1998), but it is a synonym of *Ixodes rugosus* and its original name as stated in Camicas *et al.* (1998) and Keirans & Clifford (1978).
- 725 *cookie* McGinley-Smith and Tsao, 2003, *Ixodes* (page 365, 377). This name is a *lapsus* for *Ixodes cookei* repeated in Kolonin (2007, page 408) and Illoldi-Rangel *et al.* (2012, page 3).
- 726 *cooleyi* Bedford, 1929, *Haemaphysalis*. This name in Bedford (1929) includes *Haemaphysalis pedetes* as stated in Hoogstraal (1972b). The name *Haemaphysalis cooleyi* Bedford, 1929 in Warburton (1933) is partly in fact *Haemaphysalis erinacei* Pavesi, 1884 as shown in Hoogstraal (1956c).
- 727 *cooleyi* (Bedford, 1929) *Hyalomma*. This name in Cumming (1998) is a *lapsus* for *Haemaphysalis cooleyi* Bedford, 1929.
- 728 *cooleyi* Aragão and Fonseca, 1951b, *Ixodes*
- 729 *cooperi* Nuttall and Warburton, 1908, *Amblyomma*. This name is a synonym of *Amblyomma dissimile* in Neumann (1911a) and a synonym of *Amblyomma lutzii* (= *Amblyomma dubitatum*) in Santos Dias (1958a), while other authors consider *Amblyomma cooperi* valid (i.e., Robinson 1926; Guglielmono & Viñabal, 1994; Barker & Murrell 2004, 2008). The name *Amblyomma cooperi* is a synonym of *Amblyomma dubitatum* as stated in Camicas *et al.* (1998) and Estrada-Peña *et al.* (2002). Keirans (1985) found *Amblyomma cajennense* and *Amblyomma brasiliense* (named *Amblyomma brasiliense*, a *lapsus*) identified as *Amblyomma cooperi* (= *Amblyomma dubitatum*).
- 730 *copei* Wilson, 1980, *Ixodes*. This name is a synonym of *Scaphixodes copei* in Camicas *et al.* (1998), but *Ixodes copei* is valid.
- 731 *copei* (Wilson, 1980), *Scaphixodes*. It was originally named *Ixodes copei*. The name *Scaphixodes copei* is valid in Camicas *et al.* (1998), but it is a synonym of *Ixodes copei*.
- 732 *cordatum* Rudow, 1870, *Amblyomma*. This name is *incertae sedis* in Neumann (1911a) and a *nomen dubium* in Camicas *et al.* (1998) and here.
- 733 *cordifer* Neumann, 1908d, *Ixodes*. This name in Roberts (1955) is in fact *Ixodes confusus* Roberts, 1960 according to Roberts (1960). The name *Ixodes holocyclus* in Krijgsman & Ponto (1932) is actually partly *Ixodes cordifer* in the opinion of Petney & Keirans (1994).
- 734 *cordifer* (Neumann, 1908d), *Sternalixodes*. It was originally named *Ixodes cordifer*. The name *Sternalixodes cordifer* used in Schulze (1942) is a synonym of *Ixodes cordifer*. However, Camicas *et al.* (1998) based this synonym on Schulze (1935b), but this statement is erroneous because the latter author affirms that *Sternalixodes* is a subgenus of *Ixodes*.
- 735 *cordifer bibax* Schulze, 1935b, *Ixodes*. This name is a synonym of *Ixodes cordifer* as stated in Camicas *et al.* (1998).
- 736 *cordifer bibax* (Schulze, 1935b), *Sternalixodes*. This name is a synonym of *Ixodes cordifer* in Camicas *et al.* (1998), but not included in Doss & Anastos (1977). The name *Sternalixodes cordifer bibax* is used in Camicas *et al.* (1998) based on Schulze (1935b), but the latter author states that *Sternalixodes* is a sub genus of *Ixodes*. *Sternalixodes cordifer bibax* is treated here as a synonym of *Ixodes cordifer*.
- 737 *cordiferum* Neumann, 1899, *Amblyomma*
- 738 *cordiformis* Yakimov, Saikovich and Vasilevskaya, 1926, *Ixodes*. This name is a *nomen dubium* as stated in Camicas *et al.* (1998). The article of Yakimov *et al.* (1926) was not located and the information in Camicas *et al.* (1998) is considered valid.
- 739 *corensis* Kishida, 1933, *Ixodes* in Kishida (1936). The original description and types for *Ixodes corensis* are not available (Yamaguti *et al.*, 1971) and it is a *nomen nudum*. Doss & Anastos (1977) stated that *Ixodes corensis* was described in 1936, but Kishida (1936) said that it was done in 1933, although no publication is presented to support this statement.
- 740 *coreus* Itagaki, Noda and Yamaguchi, 1944, *Dermacentor*. This name is valid in Arthur (1960a) and Teng & Jiang (1991) among others, and a synonym of *Dermacentor silvarum* in Camicas *et al.* (1998). The name *Dermacentor coreus* is *incertae sedis* here. The authorities for this name are Itagaki and Noda in Doss & Anastos (1977).
- 741 *coriaceum* Newstead, 1909, *Amblyomma* (page 422) as “*Amblyomma (?) coriaceum*”. This name has no description of figure, a *nomen nudum*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 742 *coriaceus* Nuttall and Warburton, 1908, *Rhipicephalus*. This name is a synonym of *Rhipicephalus supertritus* as stated in Neumann (1911a) and Camicas *et al.* (1998).
- 743 *cormupunctata* Sajid, Iqbal, Khan and Muhammad, 2008, *Haemaphysalis* (page 350). This name is a *lapsus* for *Haemaphysalis cormupunctata* repeated in Iqbal *et al.* (2013, page 538).
- 744 *cornatus* Samlaska, 1994, *Ixodes* (page 189). This name is a *lapsus* for *Ixodes cornuatus* Roberts, 1960, but not included in Camicas *et al.* (1998).
- 745 *cornigera* Neumann, 1897, *Haemaphysalis*. Considerable confusion exists about the identity of *Haemaphysalis cornigera* and *Haemaphysalis ias* in the Japanese literature (Yamaguti *et al.* 1971; Mori *et al.* 1995; Takada 1990; Fujita & Takada 2007). The name *Haemaphysalis cornigera* in Tanskul *et al.* (1983) is in fact *Haemaphysalis shimoga* as stated in Tanskul & Inlao (1989). Keirans (1985) found *Haemaphysalis shimoga* identified as *Haemaphysalis proxima* Warburton and Nuttall, 1909 (= *Haemaphysalis cornigera*) in the Nuttall Tick Collection.
- 746 *cornigera anomala* Warburton, 1913, *Haemaphysalis*. This name is a synonym of *Haemaphysalis anomala* and its original name as stated in Hoogstraal *et al.* (1967a) and Camicas *et al.* (1998).
- 747 *cornigera anomala* Miranpuri and Naithani, 1978, *Haemaphysalis* (page iv). This name is a *lapsus* for *Haemaphysalis cornigera anomala* (= *Haemaphysalis anomala*), but not included in Camicas *et al.* (1998).
- 748 *cornigera cornigera* Neumann, 1897, *Haemaphysalis*. This name used in Hoogstraal *et al.* (1972) is a synonym of *Haemaphysalis cornigera*.

- 749 *cornigera ias* Nakamura and Yajima, 1937, *Haemaphysalis*. This name used in Mori *et al.* (1995) is a provisional synonym of *Haemaphysalis ias*, but not included in Camicas *et al.* (1998).
- 750 *cornigera shimoga* Trapido and Hoogstraal, 1964, *Haemaphysalis*. This name is a synonym of *Haemaphysalis shimoga* and its original name as stated in Camicas *et al.* (1998) and Keirans & Hillyard (2001).
- 751 *cornigera taiwana* Sugimoto, 1936, *Haemaphysalis*. This name is a synonym of *Haemaphysalis cornigera* in Anastos (1950) and Teng & Jiang (1991), but it is a synonym of *Haemaphysalis taiwana* and its original name as stated in Camicas *et al.* (1998). The name *Haemaphysalis cornigera taiwana* is still used in Wu *et al.* (2012).
- 752 *cornigera typica* Sharif, 1928, *Haemaphysalis*. This name is a synonym of *Haemaphysalis cornigera* as stated in Camicas *et al.* (1998).
- 753 *cornigera vietnama* Phan Trong, 1977, *Haemaphysalis*. This name is a synonym of *Haemaphysalis shimoga* as stated in Camicas *et al.* (1998).
- 754 *cornuae* Arthur, 1960b, *Ixodes*. It was originally identified as *Ixodes auritulus* as stated in Arthur (1960b). The name *Ixodes cornuae* is a synonym of *Scaphixodes cornuae* in Camicas *et al.* (1998), but it is valid.
- 755 *cornuae* (Arthur, 1960b), *Scaphixodes*. It was originally named *Ixodes cornuae*. The name *Scaphixodes cornuae* is valid in Camicas *et al.* (1998), but it is a synonym of *Ixodes cornuae*.
- 756 *cornuata* Roberts, 1959, *Ixodes*. This name is a synonym of *Ixodes robertsi* (= *Ixodes cornuatus* Roberts, 1960) in Camicas *et al.* (1998). The name *Ixodes cornuata* in Roberts (1959) is a name without description, a *nomen nudum*, described later as *Ixodes cornuatus* Roberts, 1960. *Ixodes cornuata* is not included in Doss & Anastos (1977).
- 757 *cornuatus* Olenev, 1941, *Ixodes*. It was originally named *Ixodes persulcatus cornuatus* Olenev, 1941 (*nomen nudum*). The name *Ixodes cornuatus* Olenev, 1941 used in Guglielmone *et al.* (2009) is also a *nomen nudum* synonym of *Ixodes persulcatus cornuatus* (*nomen nudum*) according to Guglielmone *et al.* (2009).
- 758 *cornuatus* Roberts, 1959, *Ixodes*. This name is apparently an emendation of *Ixodes cornuata* Roberts, 1959 (a *nomen nudum*) in Doss & Anastos (1977) and a synonym of *Ixodes robertsi* (= *Ixodes cornuatus* Roberts, 1960) in Camicas *et al.* (1998). The name *Ixodes cornuatus* Roberts, 1959 is a *nomen nudum* synonym of *Ixodes cornuata* (*nomen nudum*).
- 759 *cornuatus* Roberts, 1960, *Ixodes*. This name is a synonym of *Ixodes robertsi* in Camicas *et al.* (1998). The name *Ixodes cornuatus* Roberts, 1960 is valid and *Ixodes robertsi* is a junior objective synonym of *Ixodes cornuatus* Roberts, 1960 as stated in Halliday (2012).
- 760 *cornuger* (Kolenati, 1857), *Hyalomma*. It was originally named *Ixodes cornuger* (*incertae sedis*). The name *Hyalomma cornuger* used in Murray (1877) is a synonym of *Hyalomma aegyptium* according to Camicas *et al.* (1998). *Hyalomma cornuger* is a name *incertae sedis* synonym of *Ixodes cornuger* (*incertae sedis*) in Neumann (1911a) and here.
- 761 *cornuger* Kolenati, 1857, *Ixodes*. This name is a synonym of *Hyalomma aegyptium* in Camicas *et al.* (1998). The name *Ixodes cornuger* is *incertae sedis* in Neumann (1911a) and here.
- 762 *cornupunctata* Hoogstraal and Varma, 1962, *Haemaphysalis*
- 763 *cornutus* Lotozky, 1956a, *Ixodes*. This name is a synonym of *Pholeoixodes rugicollis* (= *Ixodes rugicollis*) in Camicas *et al.* (1998). The name *Ixodes cornutus* is valid in Filippova (1977) and provisionally valid in Guglielmone *et al.* (2010b, 2014) and here.
- 764 *coronatum* Lewis, 1892b, *Amblyomma*. This name is a *nomen dubium* in Camicas *et al.* (1998), but not included in Neumann (1911a). The name *Amblyomma coronatum* has no description or figure, a *nomen nudum*.
- 765 *coronatum* (Lewis, 1892b), *Ixodes*. This name is in Camicas *et al.* (1998) based on Robinson (1926), but *Ixodes coronatum* is not included in Robinson's work. The name *Ixodes coronatum* is a *lapsus* for *Amblyomma coronatum* (*nomen nudum*).
- 766 *corwini* Keirans, Clifford and Walker, 1982, *Ixodes*
- 767 *colasbelcouri* Santos Dias, 1993a, *Haemaphysalis* (page 177). This name is a *lapsus* for *Haemaphysalis colasbelcouri* (Santos Dias, 1958c), but not included in Camicas *et al.* (1998).
- 768 *coxaeifurcatus* Neumann, 1899, *Ixodes*. This name is valid in Neumann (1911a), but it was subsequently synonymized with *Ixodes loricatus* as stated in Marques *et al.* (2004).
- 769 *coxalis* Gervais, 1842, *Ixodes*. This name is doubtful in Neumann (1911a) and Camicas *et al.* (1998) and *incertae sedis* in Halliday (2012). The name *Ixodes coxalis* Gervais, 1842 has no description or figure, a *nomen nudum*. Doss & Anastos (1977) stated that *Ixodes coxalis* Gervais, 1842 was named in 1843 based on Sherborn (1897), but this author did not refer to *Ixodes coxalis* Gervais, 1842 or other tick name. This error is repeated in Camicas *et al.* (1998).
- 770 *coxalis* Gervais, 1844, *Ixodes* (page 249). The description of *Ixodes coxalis* Gervais, 1844 is vague and considered a *nomen dubium* here. The name *Ixodes coxalis* Gervais, 1844 is not included in Neumann (1911a), Doss & Anastos (1977) and Camicas *et al.* (1998).
- 771 *coxalis* (Gervais, 1844), *Dermacentor*. It was originally named *Ixodes coxalis* Gervais, 1844 (*nomen dubium*). The name *Dermacentor coxalis* (Gervais, 1844) used in Oudemans (1936, page 576) is a *nomen dubium* synonym of *Ixodes coxalis* Gervais, 1844 (*nomen dubium*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 772 *crassa* Warburton, 1908, *Haemaphysalis*. This name is a synonym of *Haemaphysalis punctata* Canestrini and Fanzago, 1878 as stated in Camicas *et al.* (1998).
- 773 *crassipes* (Neumann, 1901), *Amblyomma*. It was originally named *Aponomma crassipes* Neumann, 1901. This species has usually been considered a member of *Aponomma*, but it is now placed in the genus *Amblyomma* (Horak *et al.* 2002; Klompen *et al.* 2002).
- 774 *crassipes* Neumann, 1901, *Aponomma*. This name is valid in Neumann (1911a), a synonym of *Aponomma fuscolineatum*

- (= *Amblyomma fuscolineatum*) in Camicas *et al.* (1998) and Kolonin (2009), and provisionally valid in Kaufman (1972). The name *Aponomma crassipes* Neumann, 1901 is a synonym of *Amblyomma crassipes* (Neumann, 1901) and its original name as stated in Guglielmone *et al.* (2009).
- 775 *crassipes* Joseph, 1882, *Eschatocephalus*. This name was considered to belong to the genus *Haemalastor* in Neumann (1899), but the name *Haemalastor crassipes* was preoccupied by *Haemalastor crassipes* Kolenati, 1857. Consequently, Neumann (1899) renamed *Eschatocephalus crassipes* Joseph, 1882 as *Haemalastor brevipes* Neumann, 1899. The name *Eschatocephalus crassipes* Joseph, 1882 is doubtful in Neumann (1911a) and Camicas *et al.* (1998), and a synonym of *Ixodes simplex* Neumann, 1906 in Santos Dias & Nuncio (1996). *Eschatocephalus crassipes* Joseph, 1882 is a name *incertae sedis* here.
- 776 *crassipes* (Kolenati, 1857), *Eschatocephalus*. It was originally named *Haemalastor crassipes* Kolenati, 1857 (*incertae sedis*). The name *Eschatocephalus crassipes* (Kolenati, 1857) used in Neumann (1901) is a *nomen dubium* in Camicas *et al.* (1998), but not included in Doss & Anastos (1977). *Eschatocephalus crassipes* (Kolenati, 1857) is a name *incertae sedis* in Neumann (1911a) and here, synonym of *Haemalastor crassipes* Kolenati, 1857 (*incertae sedis*).
- 777 *crassipes* Kolenati, 1857, *Haemalastor*. This name is a *nomen dubium* in Camicas *et al.* (1998). The name *Haemalastor crassipes* is *incertae sedis* in Neumann (1911a) and here.
- 778 *crassipes* (Kolenati, 1857), *Ixodes*. It was originally named *Haemalastor crassipes* Kolenati, 1857 (*incertae sedis*). The name *Ixodes crassipes* used in Oudemans (1938) is a *nomen dubium* in Camicas *et al.* (1998) who state that this name is cited in Oudemans (1939). *Ixodes crassipes* (Kolenati, 1857) is a name *incertae sedis* synonym of *Haemalastor crassipes* Kolenati, 1857 (*incertae sedis*) here.
- 779 *crassipunctatum* Stoll, 1894, *Amblyomma* (usually cited as Stoll, 1890). This name is *incertae sedis* in Neumann (1911a), but it was subsequently synonymized with *Amblyomma varium* as stated in Onofrio *et al.* (2008).
- 780 *crassipunctatus* Maes, Palacios Vargas and Jiménez, 1989, *Amblyomma* (page 32). This name is a *lapsus* for *Amblyomma crassipunctatum* (= *Amblyomma varium*), but not included in Camicas *et al.* (1998).
- 781 *crassitarsus* Karsch, 1880, *Haemalastor*. This name is a synonym of *Amblyomma longirostre* as stated in Neumann (1911a) and Camicas *et al.* (1998).
- 782 *crassitarsus* (Karsch, 1880), *Hyalomma*. It was originally named *Haemalastor crassitarsus* (= *Amblyomma longirostre*). The name *Hyalomma crassitarsus* used in Neumann (1901) is a synonym of *Amblyomma longirostre* as stated in Neumann (1911a) and Camicas *et al.* (1998).
- 783 *crassum* Robinson, 1926, *Amblyomma*. This name is a synonym of *Amblyomma humerale* in Santos Dias (1958a). The name *Amblyomma crassum* is valid as stated in Camicas *et al.* (1998) and Guglielmone *et al.* (2003, 2010b, 2014).
- 784 *creatum* Santos Dias, 1989b, *Amblyomma* (page 75). This name is a *lapsus* for *Amblyomma crenatum* (Say, 1821) (= *Ixodes crenatus*) (*nomen dubium*), but not included in Camicas *et al.* (1998).
- 785 *creatum* (Say, 1821), *Amblyomma*. It was originally named *Ixodes crenatus* (*nomen dubium*) and considered a synonym of *Amblyomma cajennense* in Banks (1907, 1908). The name *Amblyomma crenatum* (Say, 1821) is a *nomen dubium* synonym of *Ixodes crenatus* Say, 1821 (*nomen dubium*). The name *Amblyomma crenatum* (Say, 1821) is not included in Neumann (1911a), Camicas *et al.* (1998) and Doss & Anastos (1977).
- 786 *creatum* Neumann, 1899, *Amblyomma*.
- 787 *creatum* Van Saceghen, no year, *Amblyomma*, in Santos Dias (1957). This name is a synonym of *Amblyomma sparsum* in Camicas *et al.* (1998) based on Santos Dias (1957), but it is an error because Santos Dias (1957) mentions that *Amblyomma magnum* (= *Amblyomma sparsum*) collected by Van Saceghen were identified as *Amblyomma crenatum* Neumann, 1899. The name *Amblyomma crenatum* Van Saceghen, no year, is a *nomen nudum*, but not included in Doss & Anastos (1977).
- 788 *creatum* (Neumann, 1899), *Haemalastor*. This name used in Oudemans (1939) is a synonym of *Amblyomma crenatum* Neumann, 1899 as stated in Camicas *et al.* (1998).
- 789 *crenatus* Say, 1821, *Ixodes*. This name is a synonym of *Amblyomma cajennense* in Neumann (1911a) and others, and a probable synonym of *Amblyomma cajennense* in Camicas *et al.* (1998). The name *Ixodes crenatus* has a vague description and type lost, a *nomen dubium*.
- 790 *crenulatus* Koch, 1844b, *Ixodes*. This name is a probable synonym of *Ixodes hexagonus hexagonus* (= *Ixodes hexagonus*) in Neumann (1911a with 1837 the year of its description) and a synonym of *Pholeoixodes crenulatus* in Camicas *et al.* (1998), but *Ixodes crenulatus* is valid. *Ixodes kaiseri* has been confused with *Ixodes crenulatus* as stated in Filippova & Uspenskaya (1973), while Keirans (1985) found *Ixodes crenulatus* identified as *Ixodes canisuga* in the Nuttall Collection. Camicas *et al.* (1998) state that *Ixodes crenulatus* in Schulze & Schlottke (1929b) is in fact *Pholeoixodes canisuga* (= *Ixodes canisuga*) based on Morel & Pérez (1973), and the same name in Pomerantzev (1950) is in fact *Pholeoixodes filippovae* (= *Ixodes filippovae* Černý, 1961).
- 791 *crenulatus* (Koch, 1844b), *Pholeoixodes*. It was originally named *Ixodes crenulatus*. The name *Pholeoixodes crenulatus* used in Morel & Pérez (1973) is valid in Camicas *et al.* (1998), but it is a synonym of *Ixodes crenulatus*.
- 792 *crenulatus terecus* Marutyán, 1963, *Ixodes*. This name is a synonym of *Pholeoixodes crenulatus* (= *Ixodes crenulatus*) in Camicas *et al.* (1998), but a synonym of *Ixodes crenulatus* here.
- 793 *cretica* Sénevet and Caminopetros, 1936, *Haemaphysalis*. It was originally named *Haemaphysalis punctata cretica* (= *Haemaphysalis sulcata*). The name *Haemaphysalis cretica* used in Feldman-Muhsam (1951), Yeruham *et al.* (1996), Chen *et al.* (2012) and others, is a synonym of *Haemaphysalis sulcata* as stated in Camicas *et al.* (1998). There is a sequence of

- 16S rDNA mitochondrial gene in GenBank (L34308) deposited by Black & Piesman (1984) under the name *Haemaphysalis cretica* (= *Haemaphysalis sulcata*), which is repeated each time that this sequence is used.
- 794 **cricetuli** Teng and Huang, 1981, *Anomalohimalaya*. This name is a synonym of *Anomalohimalaya lotozkyi* in Deng *et al.* (1999), but this decision is unsound as stated in Guglielmone *et al.* (2010b, 2014).
- 795 **circumguttatus** Baker and Wharton, 1952, *Dermacentor* (page 142). This name is a *lapsus* for *Dermacentor circumguttatus*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 796 **cruciaris** Fitch, 1872, *Ixodes*. This name is a synonym of *Pholeoixodes cookei* (= *Ixodes cookei*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes cookei* as stated in Neumann (1911a) and Keirans & Barnes (1987).
- 797 **cruciferum** Neumann, 1901, *Amblyomma*
- 798 **cruentus** Koch, 1844a, *Dermacentor*. Neumann (1897) states that its description is poor and type location unknown. *Dermacentor cruentus* is *incertae sedis* in Neumann (1911a), while Camicas *et al.* (1998) consider it a probable synonym of *Dermacentor reticulatus* (Fabricius, 1794). The name *Dermacentor cruentus* is *incertae sedis* here.
- 799 **cubanum** Schulze, 1941b, *Amblyomma*. This name is a synonym of *Amblyomma testudinis* (Conil, 1877) (= *Amblyomma argentinae*) in Santos Dias (1958d) and a synonym of *Amblyomma bibroni* (Gervais, 1842) (*nomen nudum*) in Camicas *et al.* (1998). The name *Amblyomma cubanum* is a synonym of *Amblyomma dissimile* as stated in Guglielmone *et al.* (2001).
- 800 **cuernavacensis** Kohls and Clifford, 1966, *Ixodes*
- 801 **cumulatimpunctatus** Schulze, 1943a, *Ixodes*. It was originally named *Ixodes rasmus cumulatimpunctatus* and given its current status in Larivière *et al.* (1957). The name *Ixodes oldi* in Elbl & Anastos (1966b) is in fact *Ixodes cumulatimpunctatus* as stated in Keirans *et al.* (1982). Keirans (1985) found *Ixodes cumulatimpunctatus* identified as *Ixodes rasmus* in the Nuttall Collection. *Ixodes cumulatimpunctatus* is not included in Doss & Anastos (1977).
- 802 **cuneatum** Neumann, 1899, *Amblyomma*. This name is valid in Neumann (1911a) and others. The name *Amblyomma cuneatum* is a synonym of *Amblyomma compressum* as stated in Camicas *et al.* (1998).
- 803 **cuneatus** Neumann, 1908d, *Rhipicephalus*. This name a synonym of *Rhipicephalus ziemanni* in Walker *et al.* (2000). The name *Rhipicephalus cuneatus* is a synonym of *Rhipicephalus aurantiacus* in Camicas *et al.* (1998) and here.
- 804 **curraca** Barker and Murrell, 2004, *Amblyomma*. This name is a *lapsus* for *Amblyomma curruca* (= *Amblyomma auricularium*) repeated in Barker & Murrell (2008) as stated in Guglielmone *et al.* (2009).
- 805 **curruca** Schulze, 1936c, *Amblyomma*. This name is valid in Camicas *et al.* (1998) and a synonym of *Amblyomma parvum* Aragão, 1908a in Aragão & Fonseca (1953a). The name *Amblyomma curruca* is a synonym of *Amblyomma auricularium* as stated in Guglielmone *et al.* (2009).
- 806 **cuscobia** (Canestrini, 1897b), *Haemaphysalis*. It was originally named *Opisthodon cuscobius (incertae sedis)*. The name *Haemaphysalis cuscobia* appears to be an amendment of *Opisthodon cuscobius (incertae sedis)* in Neumann (1897) and treated as *incertae sedis* in Neumann (1911a), while Camicas *et al.* (1998) regard this name as a synonym of *Haemaphysalis cornigera*. *Haemaphysalis cuscobia* is a name *incertae sedis* synonym of *Opisthodon cuscobius (incertae sedis)*, but not included in Doss & Anastos (1977).
- 807 **cuscobius** (Canestrini, 1897b), *Haemaphysalis*. This name is in Doss & Anastos (1977) based on Neumann (1897), but this author used the name *Haemaphysalis cuscobia (incertae sedis)*. The name *Haemaphysalis cuscobius* is *incertae sedis* synonym of *Opisthodon cuscobius (incertae sedis)*, but not included in Neumann (1911a) and Camicas *et al.* (1998).
- 808 **cuscobius** Canestrini, 1897b, *Opisthodon*. This name is a synonym of *Haemaphysalis cuscobia (incertae sedis)* in Neumann (1911a) and a synonym of *Haemaphysalis cornigera* in Camicas *et al.* (1998). The name *Opisthodon cuscobius* is *incertae sedis* here.
- 809 **cuscobius** (Canestrini, 1897b), *Prosopodon*. It was originally named *Opisthodon cuscobius (incertae sedis)*, but the generic name was preoccupied and changed for *Prosopodon* as stated in Canestrini (1897a). The name *Prosopodon cuscobius* used in Doss & Anastos (1977) is *incertae sedis* synonym of *Opisthodon cuscobius (incertae sedis)*, but not included in Camicas *et al.* (1998).
- 810 **cuspidalis** Alexander, 1984, *Rhipicephalus* (page 370). This name is a *lapsus* for *Rhipicephalus cuspidatus*, but not included in Camicas *et al.* (1998).
- 811 **cuspidata** Warburton, 1910, *Haemaphysalis*
- 812 **cuspidatus** Neumann, 1906, *Rhipicephalus*
- 813 **cyclops** Minning, 1934, *Boophilus*. This name is a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998). The name *Boophilus cyclops* used for tick populations established in the Neotropical Region, is a synonym of *Rhipicephalus microplus*.
- 814 **cyclops** (Minning, 1934), *Uroboophilus*. It was originally named *Boophilus cyclops* (= *Rhipicephalus microplus*). The name *Uroboophilus cyclops* used in Schulze (1936a) and by a few other workers, is a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998). The name *Uroboophilus cyclops* is a synonym of *Rhipicephalus microplus* here.
- 815 **cyclurae** (Pagenstecher, 1861), *Amblyomma*. It was originally named *Hyalomma cyclurae (nomen dubium)*. The name *Amblyomma cyclurae* used in Kratz (1940) is also a *nomen dubium* synonym of *Hyalomma cyclurae (nomen dubium)* as stated in Camicas *et al.* (1998).
- 816 **cyclurae** Pagenstecher, 1861, *Hyalomma*. This name is *incertae sedis* in Neumann (1911a). The name *Hyalomma cyclurae* is a *nomen dubium* in Camicas *et al.* (1998) and here.
- 817 **cypricum** Schulze and Schlottke, 1929a, *Hyalomma*. This name is a synonym of *Hyalomma marginatum marginatum* (=

- Hyalomma marginatum*) in Camicas *et al.* (1998). The name *Hyalomma cypricum* is a synonym of *Hyalomma marginatum* as stated in Apanaskevich & Horak (2008b).
- 818 *cyprinum* Hooker, 1909, *Amblyomma* (page 413). This name is a *lapsus* for *Amblyomma cyprium* (= *Amblyomma breviscutatum*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 819 *cyprum* Koch and Neumann, 1899, *Amblyomma*, in Neumann (1899). This name is valid in Neumann (1911a), Kolonin (2009) and others. The name *Amblyomma cyprium* is a synonym of *Amblyomma breviscutatum* as stated in Santos Dias (1956a) and Camicas *et al.* (1998). *Amblyomma cyprium* in Krijgsman & Ponto (1931, 1932) and partly in Toumanoff (1944) is in fact *Amblyomma babirussae* Schulze, 1933d as stated in Keirans & Robbins (1987), while it in Toumanoff (1944) is partly in fact *Amblyomma babirussae* Schulze, 1933d and partly *Amblyomma geoemydae* according to Anastos (1950).
- 820 *cyprum aeratipes* Schulze, 1932d, *Amblyomma*. This name is a synonym of *Amblyomma breviscutatum* in Camicas *et al.* (1998), but it is a name without description, a *nomen nudum* as stated in Anastos (1950).
- 821 *cyprum aeratipes* Schulze, 1933d, *Amblyomma*. This name is valid in Anastos (1950), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). The name *Amblyomma cyprum aeratipes* Schulze, 1933d is a synonym of *Amblyomma breviscutatum* here.
- 822 *cyprum aetipes* Petney, 1993, *Amblyomma* (pages 33, 35). This name is a *lapsus* for *Amblyomma cyprum aeratipes* Schulze, 1933d (= *Amblyomma breviscutatum*), but not included in Camicas *et al.* (1998).
- 823 *cyprum cyprum* Koch and Neumann, 1899, *Amblyomma*. This name used in Schulze (1932d) and by a few other workers, is a synonym of *Amblyomma breviscutatum* as stated in Camicas *et al.* (1998). The name *Amblyomma cyprum cyprum* in Chang (1958) is in fact *Amblyomma testudinarium* according to Camicas *et al.* (1998).

D

- 824 *daghestanicus* Olenev, 1929c, *Dermacentor*. It was originally named *Dermacentor niveus daghestanicus*. The name *Dermacentor daghestanicus* used first in Schulze (1933b) is a synonym of *Dermacentor marginatus* (Sulzer, 1776) in Estrada-Peña (1991). Kolonin (2009) consider *Dermacentor daghestanicus* valid and *Dermacentor niveus* its synonym, while Camicas *et al.* (1998) and Tekin *et al.* (2012) regard valid both names. *Dermacentor daghestanicus* is a provisional synonym of *Dermacentor niveus* here following Filippova (2008). Doss & Anastos (1977) and Camicas *et al.* (1998) name 1928 the year of its description.
- 825 *daghestanicus daghestanicus* Olenev, 1929c, *Dermacentor*. This name used in Schulze (1933b) is a synonym of *Dermacentor daghestanicus* (= *Dermacentor niveus*) in Camicas *et al.* (1998), but it is a synonym of *Dermacentor niveus* here.
- 826 *daghestanicus sillemi* Schulze, 1933b, *Dermacentor*. This name is a synonym of *Dermacentor marginatus* (Sulzer, 1776) in Estrada-Peña (1991) and a synonym of *Dermacentor daghestanicus* (= *Dermacentor niveus*) in Camicas *et al.* (1998). The name *Dermacentor daghestanicus sillemi* is *incertae sedis* here.
- 827 *daghestanicus* Özkan, Ayyildiz and Soysal, 1988, *Dermacentor* (page 77). This name is a *lapsus* for *Dermacentor daghestanicus* (= *Dermacentor niveus*), but not included in Camicas *et al.* (1998).
- 828 *damini* Cho, Kang, Bang, Kim, Hwang and Song, 1994, *Ixodes* (page 552). This name is a *lapsus* for *Ixodes dammini* (= *Ixodes scapularis* Say, 1821), but not included in Camicas *et al.* (1998).
- 829 *daminii* Gergova, Kunchev and Kamarinchev, 2012, *Ixodes* (pages 611, 612). This name is a *lapsus* for *Ixodes dammini* (= *Ixodes scapularis* Say, 1821).
- 830 *dammermani* Warburton, 1927, *Amblyomma*. This name is a synonym of *Amblyomma cyprum* in Keirans & Hillyard (2001) and others. The name *Amblyomma dammermani* is a synonym of *Amblyomma breviscutatum* as stated in Santos Dias (1958a) and Camicas *et al.* (1998).
- 831 *dammini* Spielman, Clifford, Piesman and Corwin, 1979, *Ixodes*. This name is a synonym of *Ixodes scapularis* Say, 1821 as stated in Camicas *et al.* (1998) and Keirans & Robbins (1999), but treated as valid in Niu *et al.* (2011).
- 832 *dampf* Cooley, 1943, *Ixodes*. This name is a synonym of *Pholeoixodes dampfi* in Camicas *et al.* (1998), but *Ixodes dampfi* is valid.
- 833 *dampf* (Cooley, 1943), *Pholeoixodes*. It was originally named *Ixodes dampfi*. The name *Pholeoixodes dampfi* is valid in Camicas *et al.* (1998) based on Morel & Pérez (1973), but it is a synonym of *Ixodes dampfi*.
- 834 *dangi* Phan Trong, 1977, *Haemaphysalis*
- 835 *danieli* Černý and Hoogstraal, 1977, *Haemaphysalis*.
- 836 *danyi* Babos, 1964a, *Ixodes*. This name is a synonym of *Pholeoixodes filippovae* (= *Ixodes filippovae*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes filippovae* as stated in Morel & Aubert (1975) and Petney *et al.* (2012a).
- 837 *dardanicum* Schulze and Schlottke, 1929a, *Hyalomma*. It was originally named *Hyalomma detritum dardanicum* (= *Hyalomma scupense*). The name *Hyalomma dardanicum* spelled *Hyalomma dardonicum* (*lapsus*) used in Kaplan (1946) is a synonym of *Hyalomma detritum detritum* (= *Hyalomma scupense*) in Camicas *et al.* (1998), but it is a synonym of *Hyalomma scupense* as stated in Apanaskevich *et al.* (2010).
- 838 *dardonicum* Kaplan, 1946, *Hyalomma*. This name is a *lapsus* for *Hyalomma dardanicum* (= *Hyalomma scupense*) as stated in Apanaskevich *et al.* (2010).
- 839 *darjeeling* Hoogstraal and Dhanda, 1970, *Haemaphysalis*. This tick was originally identified as *Haemaphysalis birmaniae* as stated in Hoogstraal & Dhanda (1970) and Keirans (1985). The name *Haemaphysalis darjeeling* in Tanskul & Inlao

- (1989) is in fact *Haemaphysalis quadriaculeata* according to Camicas *et al.* (1998).
- 840 *darjiling* Miranpuri and Naithani, 1978, *Haemaphysalis* (page vi). This name is a *lapsus* for *Haemaphysalis darjeeling*, but not included in Camicas *et al.* (1998).
- 841 *darlingi* Nuttall, 1912, *Amblyomma*. This name is a synonym of *Amblyomma oblongoguttatum* as stated in Robinson (1926) and Camicas *et al.* (1998).
- 842 *darwini* Hirst and Hirst, 1910, *Amblyomma*
- 843 *darwini wollebaeki* Schulze, 1936a, *Amblyomma*. This name is a certain synonym of *Amblyomma darwini* in Camicas *et al.* (1998), but a provisional synonym of *Amblyomma darwini* here.
- 844 *davesi* Doss and Anastos, 1977, *Ixodes* (page 25). This name is a *lapsus* for *Ixodes davesi*, but not included in Camicas *et al.* (1998).
- 845 *daveyi* Nuttall, 1913, *Ixodes*. This name is a probable synonym of *Ixodes frontalis* in Santos Dias (1958a) and a synonym of *Scaphixodes daveyi* in Camicas *et al.* (1998). The name *Ixodes daveyi* is valid.
- 846 *daveyi* (Nuttall, 1913), *Scaphixodes*. It was originally named *Ixodes daveyi*. The name *Scaphixodes daveyi* is valid in Camicas *et al.* (1998), but it is a synonym of *Ixodes daveyi*.
- 847 *davisi* Hoogstraal, Dhanda and Bhat, 1970b, *Haemaphysalis*. The name *Haemaphysalis neumanni* Dönitz, 1905 (= *Haemaphysalis longicornis*) in Dhanda & Rao (1964) is in fact *Haemaphysalis davisi* as stated in Hoogstraal *et al.* (1970b).
- 848 *dawesi* Arthur, 1956c, *Ixodes*
- 849 *decoloratus* Suliman, 2009, *Boophilus* (page 77). This name is a *lapsus* for *Boophilus decoloratus* (= *Rhipicephalus decoloratus*).
- 850 *decoloratus* Zeleke and Bekele, 2004, *Boophilus* (pages 226, 227). This name is a *lapsus* for *Boophilus decoloratus* (= *Rhipicephalus decoloratus*).
- 851 *decoloratus* Short, Floyd, Norval and Sutherst, 1989, *Boophilus* (page 123). This name is a *lapsus* for *Boophilus decoloratus* (= *Rhipicephalus decoloratus*), but not included in Camicas *et al.* (1998). This *lapsus* is repeated in Ica *et al.* (2007, page 157), Wasihun & Doda (2013, pages 73, 74, 76-79) among several other studies.
- 852 *decoloratum* Doss and Anastos, 1977, *Amblyomma* (page 7). This name is a *lapsus* for *Amblyomma decoratum* Koch, 1844a (= *Amblyomma helvolum*) in Doss & Anastos (1977) who write “[*aquilae* Neumann, L.G. (1899)... (collected by Semper) (= *Amblyomma decoloratum*)]” under *Ixodes aquilae* (*nomen nudum* but considered a synonym of *Amblyomma helvolum* by some authors). The name *Amblyomma decoloratum* is not included in Camicas *et al.* (1998).
- 853 *decoloratus* (Koch, 1844a), *Boophilus*. It was originally named *Rhipicephalus decoloratus*. The name *Boophilus decoloratus* used first in Stiles & Hassall (1901) is valid in Camicas *et al.* (1998). The name *Boophilus decoloratus* is a synonym of *Rhipicephalus decoloratus* as stated in Horak *et al.* (2002). However, *Boophilus decoloratus* is a synonym of *Margaropus annulatus decoloratus* (= *Rhipicephalus decoloratus*) in Neumann (1911a), this name in Morel (1958) is partly in fact *Boophilus geigy* (= *Rhipicephalus geigy*) according to Aeschlimann & Morel (1965), while it in Lamontellerie (1960) is actually *Boophilus geigy* (= *Rhipicephalus geigy*) in the opinion of Camicas *et al.* (1998). Keirans (1985) found *Boophilus decoloratus* (= *Rhipicephalus decoloratus*) identified as *Boophilus australis* (= *Rhipicephalus australis* Fuller, 1899) and *Boophilus geigy* (= *Rhipicephalus geigy*) identified as *Boophilus decoloratus* (= *Rhipicephalus decoloratus*) in the Nuttall Tick Collection.
- 854 *decoloratus* (Koch, 1844a), *Eurhipicephalus*. It was originally named *Rhipicephalus decoloratus*. The name *Eurhipicephalus decoloratus* used in Castellani & Chalmers (1913) is a synonym of *Boophilus decoloratus* (= *Rhipicephalus decoloratus*) as stated in Camicas *et al.* (1998).
- 855 *decoloratus* (Koch, 1844a), *Margaropus*. It was originally named *Rhipicephalus decoloratus*. The name *Margaropus decoloratus* used in Hunter & Hooker (1907) and by a few other workers, is a synonym of *Boophilus decoloratus* (= *Rhipicephalus decoloratus*) in Camicas *et al.* (1998), but not included in Neumann (1911a). The name *Margaropus decoloratus* is a synonym of *Rhipicephalus decoloratus*.
- 856 *decoloratus* (Koch, 1844a), *Palpoboophilus*. This name used in Kishida (1939b) and by a few other workers, is a synonym of *Boophilus decoloratus* (= *Rhipicephalus decoloratus*) as stated in Camicas *et al.* (1998). The name *Palpoboophilus decoloratus* is a synonym of *Rhipicephalus decoloratus*.
- 857 *decoloratus* Koch, 1844a, *Rhipicephalus*. This name is a synonym of *Margaropus annulatus decoloratus* (= *Rhipicephalus decoloratus*) in Neumann (1911a), and a synonym of *Boophilus decoloratus* (= *Rhipicephalus decoloratus*) in Camicas *et al.* (1998).
- 858 *decoloratus calcaratus* (Birula, 1894), *Boophilus*. This name used in Alessandrini (1917) is a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) as stated in Camicas *et al.* (1998).
- 859 *decoloratus calcaratus* (Birula, 1894), *Rhipicephalus*. This name used in Velu (1922) is a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) as stated in Camicas *et al.* (1998).
- 860 *decoloratus calcitrans* Theiler, 1910, *Boophilus*. This name is a synonym of *Boophilus decoloratus* (= *Rhipicephalus decoloratus*) in Estrada-Peña & Castellá (1994). The name *Boophilus decoloratus calcitrans* is a *nomen dubium* in Camicas *et al.* (1998) and here.
- 861 *decoratum* Koch, 1844a, *Amblyomma*. This name is valid in Neumann (1911a), but it is a synonym of *Amblyomma helvolum* as stated in Robinson (1926) and Camicas *et al.* (1998).
- 862 *decorosum* (Koch, 1867), *Amblyomma*. It was originally named *Ixodes decorosus* (= *Bothriocroton undatum*). The name

- Amblyomma decorosum* used in Barker & Murrell (2004, 2008) is a synonym of *Bothriocroton undatum*.
- 863 *decorosum* (Koch, 1867), *Aponomma*. It was originally named *Ixodes decorosus* (= *Bothriocroton undatum*). The name *Aponomma decorosum* used first in Neumann (1899) is valid in Neumann (1911a), Keirans (1985) and others. Camicas *et al.* (1998) regard *Aponomma undatum* (= *Bothriocroton undatum*) a synonym of *Aponomma decorosum* (= *Bothriocroton undatum*), but this is unjustified because *Aponomma decorosum* was described almost a century later than *Bothriocroton undatum*. The name *Aponomma decorosum* is a synonym of *Bothriocroton undatum* as stated in Klompen *et al.* (2002) and Guglielmone *et al.* (2009), but not included in Doss & Anastos (1977).
- 864 *decorosus* (Koch, 1867), *Aponomma*. This name is in Doss & Anastos (1977) based on Neumann (1899), but this author used the correct name *Aponomma decorosum* (= *Bothriocroton undatum*). The name *Aponomma decorosus* is a synonym of *Bothriocroton undatum*, but not included in Camicas *et al.* (1998).
- 865 *decorosus* Koch, 1867, *Ixodes*. This name is a synonym of *Aponomma decorosum* (= *Bothriocroton undatum*) in Neumann (1911a) and Camicas *et al.* (1998). The name *Ixodes decorosus* is a synonym of *Bothriocroton undatum* here.
- 866 *delpyi* Schulze and Gossel, 1936, *Hyalomma*, in Schulze (1936d). This name is a synonym of *Hyalomma dromedarii* as stated in Camicas *et al.* (1998) and Apanaskevich *et al.* (2008b).
- 867 *deltoideus* Neumann, 1910b, *Rhipicephalus*. Walker *et al.* (2000) state that *Rhipicephalus arnoldi* and alleged *Rhipicephalus turanicus* Pomerantzev, 1940 have been identified as *Rhipicephalus deltoideus*.
- 868 *demidovae* Emel'yanova, 1978, *Haemaphysalis*
- 869 *deminutivum* Neumann, 1899, *Amblyomma*. This name is valid name in Neumann (1911a) and a synonym of *Amblyomma bibrioni* (Gervais, 1842) (*nomen nudum*) in Camicas *et al.* (1998). The name *Amblyomma deminutivum* is a synonym of *Amblyomma dissimile* as stated in Aragão & Fonseca (1953a).
- 870 *dendrolagi* Wilson, 1967, *Ixodes*
- 871 *dentatum* Canestrini and Fanzago, 1878, *Hyalomma*. This name is a synonym of *Hyalomma aegyptium aegyptium* (*incertae sedis*) in Neumann (1911a) and a synonym of *Hyalomma marginatum marginatum* (= *Hyalomma marginatum*) in Camicas *et al.* (1998). The name *Hyalomma dentatum* is a synonym of *Hyalomma marginatum* as stated in Apanaskevich & Horak (2008b).
- 872 *dentatus* Marx, 1899, *Ixodes*, in Neumann (1899). Keirans (1985) found *Ixodes pomerantzi* identified as *Ixodes dentatus* in the Nuttall Tick Collection.
- 873 *dentatus spinipalpis* Hawden and Nuttall, 1916, *Ixodes*, in Nuttall (1916). This name is a synonym of *Ixodes spinipalpis* and its original name as stated in Keirans & Hillyard (2001).
- 874 *denticulatum* Koch, 1844a, *Amblyomma*. This name is *incertae sedis* in Neumann (1911a), but a *nomen dubium* in Camicas *et al.* (1998) and here.
- 875 *dentipalpis* Warburton and Nuttall, 1909, *Haemaphysalis*. This name is valid in Nuttall & Warburton (1915), but it is a synonym of *Haemaphysalis asiaticus* (= *Haemaphysalis asiatica*) as stated in Hoogstraal & Trapido (1966).
- 876 *dentipes* Koch, 1844a, *Dermacentor*. This name is *incertae sedis* in Neumann (1911a) and doubtful in Arthur (1960a). The name *Dermacentor dentipes* is a synonym of *Dermacentor marginatus* (Sulzer, 1776) as stated in Estrada-Peña (1990) after type examination.
- 877 *detritum* Keysary, Eremeeva, Leitner, Din, Wikswo, Mumcuoglu, Inbar, Wallach, Shanas, King and Waner, 2011, *Hyalomma* (pages 919, 920). This name is a *lapsus* for *Hyalomma detritum* (= *Hyalomma scupense*) repeated in Sahinduran (2012, page 478).
- 878 *depressum* (Schulze, 1920), *Amblyomma*. This name is a *lapsus* for *Hyalomma depressum* (= *Hyalomma anatolicum*) in Stella (1938b). The name *Amblyomma depressum* is under the authority of Stella, 1938b in Doss & Anastos (1977).
- 879 *depressum* Schulze, 1920, *Hyalomma*, (usually cited Schulze, 1919). This name is a synonym of *Hyalomma anatolicum anatolicum* (= *Hyalomma anatolicum*) as stated in Camicas *et al.* (1998).
- 880 *derium* Howard, 1908, *Hyalomma* (page 146). This name is a *lapsus* for *Hyalomma devium* Koch, 1844a (*incertae sedis*) cited Koch, 1847 in Howard (1908). The name *Hyalomma derium* is not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 881 *desertus* Serdjukova, 1960, *Ixodes*, in Afanas'eva (1960). This name is a *nomen nudum* as stated in Doss & Anastos (1977).
- 882 *detericum* Haghi, Razmi, Fakhar and Mohammadpoor, 2013, *Hyalomma* (page 7). This name is a *lapsus* for *Hyalomma detritum* (= *Hyalomma scupense*).
- 883 *deteritum* Srivastava and Wattal, 1973, *Hyalomma* (page 316). This name is a *lapsus* for *Hyalomma detritum* (= *Hyalomma scupense*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 884 *detritum* (Schulze, 1920), *Haemaphysalis*. This name is a *lapsus* for *Hyalomma detritum* (= *Hyalomma scupense*) in Shamsuddin & Mohammad (1988, page 321), but not included in Camicas *et al.* (1998).
- 885 *detritum* Schulze, 1920, *Hyalomma* (usually cited Schulze 1919). This name is valid in Teng & Jiang (1991) and Hubálek (2009) along with *Hyalomma scupense*, but they are synonyms and *Hyalomma scupense* prevails as stated in Guglielmone *et al.* (2009). The name *Hyalomma detritum* is a synonym of *Hyalomma detritum detritum* (= *Hyalomma scupense*) in Camicas *et al.* (1998). Keirans (1985) found *Hyalomma detritum* (= *Hyalomma scupense*) identified as *Hyalomma aegyptium* in the Nuttall Collection. Camicas *et al.* (1998) divided this name into two subspecies: *detritum detritum* (= *Hyalomma scupense*) and *detritum scupense* (= *Hyalomma scupense*).
- 886 *detritum albipictum* Schulze, 1920, *Hyalomma* (usually cited Schulze, 1919). This name is a synonym of *Hyalomma*

- detrutum detrutum* (= *Hyalomma scupense*) in Camicas *et al.* (1998) and others. *Hyalomma detrutum albipictum* is a synonym of *Hyalomma scupense* as stated in Apanaskevich *et al.* (2010).
- 887 *detrutum albipictum ornatipes* Schulze, 1920, *Hyalomma* (usually cited Schulze, 1919). This name is a synonym of *Hyalomma anatolicum anatolicum* (= *Hyalomma anatolicum*) as stated in Camicas *et al.* (1998), but not included in Doss & Anastos (1977).
- 888 *detrutum annulatum* Sénevet, 1922, *Hyalomma*. This name used in Schulze (1923) is a synonym of *Hyalomma detrutum detrutum* (= *Hyalomma scupense*) in Camicas *et al.* (1998). The name *Hyalomma detrutum annulatum* is a synonym of *Hyalomma scupense* as stated in Apanaskevich *et al.* (2010).
- 889 *detrutum damascenium* Schulze and Schlottke, 1929a, *Hyalomma*. This name is a synonym of *Hyalomma detrutum detrutum* (= *Hyalomma scupense*) in Camicas *et al.* (1998). The name *Hyalomma detrutum damascenium* is a synonym of *Hyalomma scupense* as stated in Apanaskevich *et al.* (2010).
- 890 *detrutum dardanicum* Schulze and Schlottke, 1929a, *Hyalomma*. This name is a synonym of *Hyalomma detrutum detrutum* (= *Hyalomma scupense*) in Camicas *et al.* (1998). The name *Hyalomma detrutum dardanicum* is a synonym of *Hyalomma scupense* as stated in Apanaskevich *et al.* (2010).
- 891 *detrutum detrutum* Schulze, 1920, *Hyalomma*, (usually cited Schulze, 1919). This name used first in Schulze (1927) is valid in Camicas *et al.* (1998), Horak *et al.* (2002) and many authors, but others consider it a synonym of *Hyalomma detrutum* (= *Hyalomma scupense*). The name *Hyalomma detrutum detrutum* is a synonym of *Hyalomma scupense* as stated in Apanaskevich *et al.* (2010).
- 892 *detrutum mauritanicum* Sénevet, 1922, *Hyalomma*. This name used in Schulze (1930c) is a synonym of *Hyalomma detrutum detrutum* (= *Hyalomma scupense*) in Camicas *et al.* (1998). The name *Hyalomma detrutum mauritanicum* is a synonym of *Hyalomma scupense* as stated in Apanaskevich *et al.* (2010).
- 893 *detrutum pavlovskiyi* Schulze and Schlottke, 1929a, *Hyalomma*. This name is a synonym of *Hyalomma anatolicum excavatum* (= *Hyalomma excavatum*) as stated in Camicas *et al.* (1998).
- 894 *detrutum perstrigatum* Schulze, 1930c, *Hyalomma*. This name is a synonym of *Hyalomma detrutum* (= *Hyalomma scupense*) in several studies and a synonym of *Hyalomma detrutum detrutum* (= *Hyalomma scupense*) in Camicas *et al.* (1998). The name *Hyalomma detrutum perstrigatum* is a synonym of *Hyalomma scupense* as stated in Apanaskevich *et al.* (2010).
- 895 *detrutum rubrum* Schulze and Olenev, 1930, *Hyalomma*, in Schulze (1930c). This name is a synonym of *Hyalomma detrutum detrutum* (= *Hyalomma scupense*) in Camicas *et al.* (1998). The name *Hyalomma detrutum rubrum* is a synonym of *Hyalomma scupense* as stated in Apanaskevich *et al.* (2010).
- 896 *detrutum savignyi* (Gervais, 1844), *Hyalomma*. It was originally named *Ixodes savignyi* Gervais, 1844 (*incertae sedis*). The name *Hyalomma detrutum savignyi* (Gervais, 1844) used in Pospelova-Shtrom (1935c) is a synonym of *Hyalomma anatolicum anatolicum* (= *Hyalomma anatolicum*) in Camicas *et al.* (1998). *Hyalomma detrutum savignyi* (Gervais, 1844) is *incertae sedis* synonym of *Ixodes savignyi* Gervais, 1844 (*incertae sedis*) here.
- 897 *detrutum scupense* Schulze, 1920, *Hyalomma* (usually cited Schulze, 1919). This name used first in Delpy (1947) is valid in Camicas *et al.* (1998), Horak *et al.* (2002) and many authors, but others consider it a synonym of *Hyalomma detrutum* (= *Hyalomma scupense*). The name *Hyalomma detrutum scupense* is a synonym of *Hyalomma scupense* as stated in Apanaskevich *et al.* (2010).
- 898 *devium* (Koch, 1844a), *Amblyomma*. It was originally named *Hyalomma devium* (*incertae sedis*). The name *Amblyomma devium* used in Neumann (1899) is a synonym of *Amblyomma marmoreum* according to Neumann (1911a), Camicas *et al.* (1998) and others. However, this name in Neumann (1899) is partly *Amblyomma sparsum*, and in Neumann (1901) partly in fact *Amblyomma marmoreum* according to Theiler & Salisbury (1959). *Amblyomma devium* is a name *incertae sedis* here synonym of *Hyalomma devium* (*incertae sedis*).
- 899 *devium* (Koch, 1844a), *Aponomma*. It was originally named *Hyalomma devium* (*incertae sedis*). The name *Aponomma devium* used in Kratz (1940) is a probable synonym of *Amblyomma sylvaticum* in Camicas *et al.* (1998), a certain synonym of *Amblyomma sylvaticum* in Estrada-Peña & Castellá (1994) and *incertae sedis* in Kaufman (1972). The name *Aponomma devium* is *incertae sedis* synonym of *Hyalomma devium* (*incertae sedis*).
- 900 *devium* Koch, 1844a, *Hyalomma*. This name is a synonym of *Amblyomma sylvaticum* in Neumann (1911a), a synonym of *Aponomma latum* (= *Amblyomma latum*) in Estrada-Peña & Castellá (1994) and a probable synonym of *Amblyomma sylvaticum* in Camicas *et al.* (1998). The difficulties to assign specific status to this taxon are shown in Theiler & Salisbury (1959) who wrongly state that Koch (1844a) included *Hyalomma devium* in the genus *Amblyomma*. The name *Hyalomma devium* is *incertae sedis*.
- 901 *diaconus* Kolenati, 1857, *Ixodes*. This name is a *nomen dubium* in Camicas *et al.* (1998), but not included in Neumann (1911a). The name *Ixodes diaconus* has no description or figure, a *nomen nudum*.
- 902 *dicei* Keirans and Ajohda, 2003, *Ixodes*
- 903 *didelphidis* Fonseca and Aragão, 1951, *Ixodes* (page 300). This name has no description, a *nomen nudum*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 904 *didelphidis* Fonseca and Aragão, 1952a, *Ixodes*. This name is a synonym of *Ixodes loricatus* as stated in Marques *et al.* (2004).
- 905 *didephidis* Yoshinari, Barros, Bonoldi, Ishikawa, Barros Battesti, Pirana, Fonseca and Schumaker, 1997 (page 116). This name is a *lapsus* for *Ixodes didelphidis* (= *Ixodes loricatus*).

- 906 *diemeniae* Schulze, 1950a, *Amblyomma*. This name is *incertae sedis* in Halliday (2012) and a probable synonym of *Amblyomma argentinae* in Camicas *et al.* (1998). The description of *Amblyomma diemeniae* in Schulze (1950a) fails to differentiate it from *Amblyomma argentinae*. Therefore, *Amblyomma diemeniae* is a synonym of *Amblyomma argentinae* here.
- 907 *diminutivum* Dantas-Torres, Onofrio and Barros-Battesti, 2009, *Amblyomma* (page 33). This name is a *lapsus* for *Amblyomma deminutivum* (= *Amblyomma dissimile*).
- 908 *diomedeae* Arthur, 1958d, *Ixodes*. This name was originally identified as *Ixodes rothschildi* in Zumpt (1952) as stated in Arthur (1958d). The name *Ixodes diomedeae* is a synonym of *Scaphixodes diomedeae* in Camicas *et al.* (1998), but it is valid.
- 909 *diomedeae* (Arthur, 1958d), *Scaphixodes*. It was originally named *Ixodes diomedeae*. The name *Scaphixodes diomedeae* is valid in Camicas *et al.* (1998), but it is a synonym of *Ixodes diomedeae*.
- 910 *disiimilis* Herber, 1961, *Amblyomma* (page 44). This name is a *lapsus* for *Amblyomma dissimile*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 911 *dispar* Cooley, 1937, *Dermacentor*
- 912 *dissimile* Koch, 1844a, *Amblyomma*. This name is a synonym of *Amblyomma bibroni* Gervais, 1842 (*nomen nudum*) in Camicas *et al.* (1998), but it is valid. The name *Amblyomma dissimile* in Bodkin (1918) is in fact *Amblyomma rotundatum* as stated in Aragão (1935, 1936).
- 913 *dissimile* (Koch, 1844a), *Haemalastor*. It was originally named *Amblyomma dissimile*. The name *Haemalastor dissimile* used in Oudemans (1936, page 471) is a synonym of *Amblyomma dissimile*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 914 *dissimili* El Said, Swiderski, Aeschlimann and Diehl, 1981, *Amblyomma* (page 474). This name is a *lapsus* for *Amblyomma dissimile*, but not included in Camicas *et al.* (1998). This *lapsus* is repeated in Hoogstraal & Aeschlimann (1982, page 14), Fischer *et al.* (2009, page 401) and others.
- 915 *dissimilis* (Cooley, 1947), *Anocentor*. It was originally named *Dermacentor dissimilis*. The name *Anocentor dissimilis* is valid in Camicas *et al.* (1998). *Anocentor dissimilis* is a synonym of *Dermacentor dissimilis* as stated in Yunker *et al.* (1986) and Guglielmone *et al.* (2003).
- 916 *dissimilis* Cooley, 1947, *Dermacentor*
- 917 *distans* Minning, 1934, *Boophilus*. This name is a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998). The name *Boophilus distans* is a synonym of *Rhipicephalus microplus* here.
- 918 *distans* (Minning, 1934), *Uroboophilus*. It was originally named *Boophilus distans* (= *Rhipicephalus microplus*). The name *Uroboophilus distans* used in Schulze (1935c) is a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998). The name *Uroboophilus distans* is a synonym of *Rhipicephalus microplus* here.
- 919 *distinctum* Karsch, 1879c, *Amblyomma*. This name is a probable synonym of *Amblyomma testudinarium* in Neumann (1899), valid in Neumann (1911a), a synonym of *Amblyomma hebraeum* in Robinson (1926) and a synonym of *Amblyomma integrum* in Camicas *et al.* (1998). The name *Amblyomma distinctum* is *incertae sedis* here.
- 920 *distinctus* Bedford, 1932, *Rhipicephalus*. It was originally named *Rhipicephalus punctatus* Bedford, 1929, a name preoccupied by *Rhipicephalus neavei punctatus* Warburton, 1912 (= *Rhipicephalus punctatus* Warburton, 1912), and renamed *Rhipicephalus distinctus* Bedford, 1932. Keirans (1985) found *Rhipicephalus distinctus* identified as *Rhipicephalus punctatus* Warburton, 1912 in the Nuttall Collection. Doss & Anastos (1977) and Camicas *et al.* (1998) regard Bedford and Graf, 1935 as the authorities of this species. The name *Rhipicephalus distinctus* in Bedford (1932) and Theiler (1947) is partly in fact *Rhipicephalus neumanni* Walker, 1990 as stated in Walker *et al.* (2000). According to Walker (1991) and Camicas *et al.* (1998) the name *Rhipicephalus simpsoni* in Baker & Keep (1970) is actually *Rhipicephalus distinctus*, but it is *Rhipicephalus oreotragi* in the opinion of Walker *et al.* (2000).
- 921 *distipes* Murray, 1877, *Ixodes*. This name is doubtful in Neumann (1911a) and Camicas *et al.* (1998). The name *Ixodes distipes* has no description or figure, a *nomen nudum*.
- 922 *diversicoxalis* Kirschenblatt, 1935, *Ixodes*. This name is a synonym of *Ixodes acuminatus* in Camicas *et al.* (1998), but it is a synonym of *Ixodes redikorzevi* as stated in Filippova (2008). Doss & Anastos (1977) and Camicas *et al.* (1998) spelt the authority Kirshenblat.
- 923 *diversifossus* Neumann, 1899, *Ixodes*. This name in Neumann (1911a) and Bishopp (1912) is in fact *Ixodes spinipalpis* according to Gregson (1956) and others, while it in Peters (1936) is actually *Ixodes dentatus* according to Bequaert (1945). The tick *Ixodes diversifossus* is almost identical to *Ixodes boliviensis* and has been confused with *Ixodes dentatus* and *Ixodes spinipalpis* as stated in Keirans & Clifford (1978).
- 924 *diverticoxalis* Kolonin, 1981, *Ixodes* (page 50). This name is a *lapsus* for *Ixodes diversicoxalis* (= *Ixodes redikorzevi*), but not included in Camicas *et al.* (1998).
- 925 *djaronensis* Neumann, 1907f, *Ixodes*. It was originally named *Ixodes ugandanus djaronensis* and given its current status in Santos Dias (1958a).
- 926 *dkensbergensis* Baker, Ducasse, Sutherst and Maywald, 1989, *Ixodes* (page 99). This name is a *lapsus* for *Ixodes drakensbergensis*, but not included in Camicas *et al.* (1998).
- 927 *dnetatus* Sonenshine, Lamb and Anastos, 1965, *Ixodes* (page 73). This name is a *lapsus* for *Ixodes dentatus*, but not

- included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 928 *dicoloratus* Dönitz, 1907a, *Boophilus* (page 191). This name is a *lapsus* for *Boophilus decoloratus* (= *Rhipicephalus decoloratus*), but not included in Neumann (1911a), Doss & Anastos (1977) and Camicas *et al.* (1998).
- 929 *doenitzi* Gao, Tian, Qin, Wang, Kang, Zhang, Zhou, Zhang and Zhang, 2012, *Haemaphysalis* (pages 282, 283). This name is a *lapsus* for *Haemaphysalis doenitzi*.
- 930 *doenitzi* Warburton and Nuttall, 1909, *Haemaphysalis*. This name in Saito (1959) and Yamaguti *et al.* (1971) is in fact *Haemaphysalis phasiana* as stated in Saito *et al.* (1974).
- 931 *domerguei* Uilenberg and Hoogstraal, 1965, *Ixodes*. This name is a synonym of *Scaphixodes domerguei* in Camicas *et al.* (1998), but *Ixodes domerguei* is valid.
- 932 *domerguei* (Uilenberg and Hoogstraal, 1965), *Scaphixodes*. It was originally named *Ixodes domerguei*. The name *Scaphixodes domerguei* is valid in Camicas *et al.* (1998), but it is a synonym of *Ixodes domerguei*.
- 933 *domergui* Morel, 1966, *Ixodes*. This name is not a *lapsus* for *Ixodes domerguei*, but a synonym of this name as stated in Camicas *et al.* (1998) because Uilenberg & Hoogstraal (1965) and Morel (1966) described the same species obtained from the same collector (C.A. Domergue) and named it in honor to him. The name *Ixodes domergui* is a synonym of *Scaphixodes domerguei* in Camicas *et al.* (1998), but it is a synonym of *Ixodes domerguei* here.
- 934 *dommermani* Tseng, 1978, *Amblyomma* (page 4). This name is a *lapsus* for *Amblyomma dammermani* (= *Amblyomma breviscutatum*), but not included in Camicas *et al.* (1998).
- 935 *donarthuri* Santos Dias, 1980, *Ixodes*. This name is valid in Camicas *et al.* (1998). The name *Ixodes donarthuri* is a synonym of *Ixodes neitzi* as stated in Keirans & Hillyard (2001) and Guglielmone *et al.* (2009).
- 936 *dorriensmithi* Turk, 1948, *Ixodes*. This name is valid in Arthur (1963) and a probable synonym of *Ixodes acuminatus* or *Ixodes apronophorus* in Camicas *et al.* (1998) based on Morel & Pérez (1977 cited 1978). The name *Ixodes dorriensmithi* is a synonym of *Ixodes acuminatus* as stated in Keirans & Hillyard (2001).
- 937 *douglasi* Nuttall and Warburton, 1915, *Haemaphysalis*. This name is valid in Kitaoka (1985), Fujita & Takada (2007) and several others Japanese workers. The name *Haemaphysalis douglasi* is here a provisional synonym of *Haemaphysalis japonica*.
- 938 *downsi* Kohls, 1957a, *Ixodes*. This name is a synonym of *Scaphixodes downsi* in Camicas *et al.* (1998), but *Ixodes downsi* is valid.
- 939 *downsi* (Kohls, 1957a), *Scaphixodes*. It was originally named *Ixodes downsi*. The name *Scaphixodes downsi* is valid in Camicas *et al.* (1998), but it is a synonym of *Ixodes downsi*.
- 940 *draconis* Warburton, 1933, *Aponomma*. This name is a synonym of *Aponomma komodoense* (= *Amblyomma komodoense*) as stated in Camicas *et al.* (1998) and Keirans & Hillyard (2001).
- 941 *drajeeling* Tseng, 1978, *Haemaphysalis* (page 16). This name is a *lapsus* for *Haemaphysalis darjeeling*, but not included in Camicas *et al.* (1998).
- 942 *drakensbergensis* Clifford, Theiler and Baker, 1975, *Ixodes*. This name is not included in Doss & Anastos (1977).
- 943 *drakensbergensis* Baker, Ducasse, Sutherst and Maywald, 1989, *Ixodes* (pages 96, 100). This name is a *lapsus* for *Ixodes drakensbergensis*, but not included in Camicas *et al.* (1998).
- 944 *dromadarii* Schöni, Hess, Blum and Ramstein, 1984, *Hyalomma* (page 617). This name is a *lapsus* for *Hyalomma dromedarii*, but not included in Camicas *et al.* (1998).
- 945 *dromaderii* Delpy, 1937, *Hyalomma* (page 230). This name is a *lapsus* for *Hyalomma dromedarii*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 946 *dromdareii* Kadir, Zangana and Mustafa, 2012, *Hyalomma* (page 102). This name is a *lapsus* for *Hyalomma dromedarii*.
- 947 *dromedaii* Sahinduran, 2012, *Hyalomma* (page 478). This name is a *lapsus* for *Hyalomma dromedarii*.
- 948 *dromedanii* Aeschlimann and Büttiker, 1975, *Hyalomma* (page 72). This name is a *lapsus* for *Hyalomma dromedarii*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 949 *dromedarii* Koch, 1844a, *Hyalomma*. This name is a synonym of *Hyalomma aegyptium dromedarii* (*incertae sedis*) in Neumann (1911a), but it is valid. Keirans (1985) found *Hyalomma dromedarii* identified as *Hyalomma aegyptium* in the Nuttall Tick Collection.
- 950 *dromedarii asiaticum* Schulze and Schlottke, 1929a, *Hyalomma*. This name is a synonym of *Hyalomma asiaticum asiaticum* (= *Hyalomma asiaticum*) in Camicas *et al.* (1998). The name *Hyalomma dromedarii asiaticum* is a synonym of *Hyalomma asiaticum* and its original name as stated in Apanaskevich & Horak (2010).
- 951 *dromedarii canariense* Schulze and Schlottke, 1929a, *Hyalomma*. This name is a synonym of *Hyalomma dromedarii* as stated in Camicas *et al.* (1998) and Apanaskevich *et al.* (2008b).
- 952 *dromedarii citripes* Schulze, 1935a, *Hyalomma*. This name used in Delpy (1946) is a synonym of *Hyalomma asiaticum asiaticum* (= *Hyalomma asiaticum*) in Camicas *et al.* (1998). The name *Hyalomma dromedarii citripes* is a synonym of *Hyalomma asiaticum* as stated in Apanaskevich & Horak (2010).
- 953 *dromedarii detritum* Schulze, 1920, *Hyalomma*. This name used in Kurchatov & Kalmykov (1934) is not objectively associated to any species of ticks. The name *Hyalomma dromedarii detritum* is a *nomen dubium* in Camicas *et al.* (1998), but it is as a *nomen nudum* here.
- 954 *dromedarii dromedarii* Koch, 1844a, *Hyalomma*. This name used in Schulze & Schlottke (1929a) is a synonym of *Hyalomma dromedarii* as stated in Camicas *et al.* (1998) and Apanaskevich *et al.* (2008b).
- 955 *dromedarii impressa* Koch, 1844a, *Hyalomma*. This name used in Neveu-Lemaire (1938) is a synonym of *Hyalomma*

- impressum* as stated in Camicas *et al.* (1998) and Apanaskevich & Horak (2007).
- 956 *dromedarii impressum* Koch, 1844a, *Hyalomma*. This name used in Curasson (1947) is a synonym of *Hyalomma impressum* as stated in Camicas *et al.* (1998) and Apanaskevich & Horak (2007).
- 957 *dromedarii indosinensis* Toumanoff, 1944, *Hyalomma*. This name is a synonym of *Hyalomma marginatum isaaci* (= *Hyalomma isaaci*) in Camicas *et al.* (1998). The name *Hyalomma dromedarii indosinensis* is a synonym of *Hyalomma isaaci* as stated in Apanaskevich & Horak (2008b).
- 958 *dromedarii leptosoma* Schulze, 1937b, *Hyalomma*. This name used in Kratz (1940) is a probable synonym of *Hyalomma impeltatum* as stated in Camicas *et al.* (1998) and Apanaskevich & Horak (2009).
- 959 *dromedarri* Shoukry, El-Kady and Diab, 2002, *Hyalomma* (page 53). This name is a *lapsus* for *Hyalomma dromedarii*, repeated in Chen *et al.* (2012, page 88).
- 960 *dromedary* Suliman, 2009, *Hyalomma* (page 77). This name is a *lapsus* for *Hyalomma dromedarii* repeated in Ali *et al.* (2013, page 20).
- 961 *dromederii* Dodd, Bird, Khristova, Albariño, Carroll, Comer, Erickson, Rollin and Nichol, 2011, *Hyalomma* (page 3). This name is a *lapsus* for *Hyalomma dromedarii*.
- 962 *dromedrii* Shoukry, El-Kady and Diab, 2002, *Hyalomma* (page 54). This name is a *lapsus* for *Hyalomma dromedarii*.
- 963 *dromerdarii* Al-Khalifa, Diab and Al-Asgah 1983, *Hyalomma* (page 336). This name is a *lapsus* for *Hyalomma dromedarii*, but not included in Camicas *et al.* (1998).
- 964 *dryadis* (Schulze and Schlottke, 1929b), *Eschatocephalus*. It was originally named *Ixodes dryadis* (= *Ixodes arboricola*). The name *Eschatocephalus dryadis* used in Buitendijk (1945) is a synonym of *Pholeoixodes arboricola* (= *Ixodes arboricola*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes arboricola*.
- 965 *dryadis* Schulze and Schlottke, 1929b, *Ixodes*. This name is a synonym of *Pholeoixodes arboricola* (= *Ixodes arboricola*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes arboricola* as stated in Haarløv (1962).
- 966 *dryalis* Babos, 1964a, *Ixodes* (pages 11, 259, 260, 407). This name is a *lapsus* for *Ixodes dryadis* (= *Ixodes arboricola*) repeated in Babos (1964b, page 283), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 967 *dubitatum* Neumann, 1899, *Amblyomma*. This name was considered doubtful for many years as stated in Estrada-Peña *et al.* (2002). Santos Dias (1958a) affirms that *Amblyomma nuttalli* Dönitz, 1909 is a probable synonym of *Amblyomma dubitatum*, but both names are valid.
- 968 *dugesi* (Gervais, 1844), *Boophilus*. It was originally named *Ixodes dugesi* Gervais, 1844 (*incertae sedis*). The name *Boophilus dugesi* (Gervais, 1844) used in Dönitz (1907b) and by a few other workers, is an alleged synonym of *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition) in Camicas *et al.* (1998). *Boophilus dugesi* (Gervais, 1844) is a name *incertae sedis* synonym of *Ixodes dugesi* Gervais, 1844 (*incertae sedis*), but not included in Neumann (1911a).
- 969 *dugesi* Gervais, 1844, *Ixodes*. This name is a new one for *Ixodes plumbeus* Dugès, 1834a (*nomen nudum*), preoccupied by *Ixodes plumbeus* Leach, 1815 (= *Ixodes lividus* Koch, 1844a) and *Ixodes plumbeus* (Panzer, 1795) (*incertae sedis*) in Fabricius (1805). The name *Ixodes dugesi* Gervais, 1844 is *incertae sedis*, probably a synonym of *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition) in Neumann (1911a), while Camicas *et al.* (1998) regard it as a certain synonym of *Rhipicephalus sanguineus*. *Ixodes dugesi* Gervais, 1844 is a name *incertae sedis* here.
- 970 *dugesi* Mégnin, 1880, *Ixodes*. This name is *incertae sedis* synonym of *Ixodes plumbeus* Dugès, 1834b (*incertae sedis*) in Neumann (1911a). The name *Ixodes dugesi* Mégnin, 1880 is a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) as stated in Camicas *et al.* (1998).
- 971 *dugesi* (Mégnin, 1880), *Margaropus*. It was originally named *Ixodes dugesi* Mégnin, 1880 (= *Rhipicephalus annulatus*). The name *Margaropus dugesi* (Mégnin, 1880) used in Castellani & Chalmers (1910) is a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) as stated in Camicas *et al.* (1998).
- 972 *dugesi* (Gervais, 1844), *Rhipicephalus*. It was originally named *Ixodes dugesi* Gervais, 1844 (*incertae sedis*). The name *Rhipicephalus dugesi* (Gervais, 1844) is *incertae sedis*, probably a synonym of *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition) in Neumann (1911a), while it is a certain synonym of *Rhipicephalus sanguineus* in Camicas *et al.* (1998), but not included in Doss & Anastos (1977). The name *Rhipicephalus dugesi* (Gervais, 1844) is *incertae sedis* synonym of *Ixodes dugesi* Gervais, 1844 (*incertae sedis*) here.
- 973 *dugesi* (Mégnin, 1880), *Rhipicephalus*. It was originally named *Ixodes dugesi* Mégnin, 1880 (= *Rhipicephalus annulatus*). The name *Rhipicephalus dugesi* (Mégnin, 1880) used first in Neumann (1896) is a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) in Camicas *et al.* (1998) and Walker *et al.* (2000) under the authority of Neumann, 1896). *Rhipicephalus dugesi* (Mégnin, 1880) is a synonym of *Rhipicephalus annulatus*.
- 974 *dughessi* Howard, 1908, *Ixodes* (page 124). This name is a *lapsus* for *Ixodes dugesi* Gervais, 1844 (*incertae sedis*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 975 *duttoni* Neumann, 1907a, *Rhipicephalus*. This tick has been confused with *Rhipicephalus appendiculatus* as stated in Walker *et al.* (2000).
- 976 *dux* Dönitz, 1910b *Rhipicephalus*
- E
- 977 *eadsi* Kohls and Clifford, 1964, *Ixodes*
- 978 *eagypiticum* Yilmaz and Değer, 2011, *Hyalomma* (pages 133-136). This name is a *lapsus* for *Hyalomma aegyptium*.

- 979 *eastoni* Keirans and Clifford, 1983, *Ixodes*. This name is a synonym of *Pholeoixodes eastoni* in Camicas *et al.* (1998), but *Ixodes eastoni* is valid.
- 980 *eastoni* (Keirans and Clifford, 1983), *Pholeoixodes*. It was originally named *Ixodes eastoni*. The name *Pholeoixodes eastoni* is valid in Camicas *et al.* (1998), but it is a synonym of *Ixodes eastoni*.
- 981 *eburneum* Howard, 1908, *Amblyomma* (page 136). This name is a *lapsus* for *Amblyomma eburneum*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 982 *eburneum* Gerstäcker, 1873, *Amblyomma*. This name is a synonym of *Amblyomma hebraeum eburneum* (= *Amblyomma eburneum*) in Neumann (1911a). The name *Amblyomma eburneum* in Paoli (1916) is in fact *Amblyomma gemma* according to Estrada-Peña & Castellá (1994). Keirans (1985) found *Amblyomma lepidum* identified as *Amblyomma eburneum*.
- 983 *eburneus* Kolenati, 1857, *Ixodes*. This name is a *nomen dubium* in Camicas *et al.* (1998). The name *Ixodes eburneus* is a name without description or figure, a *nomen nudum*, but not included in Neumann (1911a).
- 984 *eburnum* Lawrence and Norval, 1979, *Amblyomma* (page 28). This name is a *lapsus* for *Amblyomma eburneum* but not included in Camicas *et al.* (1998). The article of Lawrence & Norval (1979) was published again in Lawrence & Norval (1987) and the name *Amblyomma eburnum* included on page 89
- 985 *echidnae* Roberts, 1953, *Amblyomma*. This name is a synonym of *Amblyomma australiense* in Camicas *et al.* (1998), but *Amblyomma echidnae* is valid as stated in Guglielmone *et al.* (2009, 2010b, 2014). The name *Amblyomma echidnae* is not included in the list of Ixodidae of Kolonin (2009). Keirans (1985) found *Amblyomma echidnae* identified as *Amblyomma australiense*.
- 986 *ecinctum* Neumann, 1901, *Aponomma*. This name is valid in Neumann (1911a) and Santos Dias (1958a), but it was subsequently synonymized with *Aponomma fimbriatum* (= *Amblyomma fimbriatum*) as stated in Roberts (1964) and Camicas *et al.* (1998). The name *Aponomma ecinctum* is a synonym of *Amblyomma fimbriatum*.
- 987 *ecinctus* Neumann, 1901, *Rhipicephalus*. This name is valid in Neumann (1911a), but it in Neumann (1901) is partly a synonym of *Rhipicephalus maculatus* Neumann, 1901, while *Rhipicephalus ecinctus* in Neumann (1922) is a synonym of *Rhipicephalus planus* Neumann, 1907f according to Walker *et al.* (2000). The name *Rhipicephalus ecinctus* in Neumann (1908b) is partly a synonym of *Rhipicephalus simus* in Warburton (1912). *Rhipicephalus ecinctus* is a name *incertae sedis*.
- 988 *egyptium* Nuñez Tovar, 1919, *Hyalomma* (page 435). This name is a *lapsus* for *Hyalomma aegyptium* repeated in Aragão (1936, page 762) among others, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 989 *eichhorni* Nuttall, 1916, *Ixodes*. This name is a synonym of *Scaphixodes eichhorni* in Camicas *et al.* (1998), but *Ixodes eichhorni* is valid.
- 990 *eichhorni* (Nuttall, 1916), *Scaphixodes*. It was originally named *Ixodes eichhorni*. The name *Scaphixodes eichhorni* is valid in Camicas *et al.* (1998), but it is a synonym of *Ixodes eichhorni*.
- 991 *eichorni* Morel, 1966, *Ixodes* (pages 205, 206). This name is a *lapsus* for *Ixodes eichhorni*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Clifford *et al.* (1973, page 497), Keirans & Hillyard (2001, pages 20, 68, 72), Heath (2013, page 18) and others.
- 992 *eidmanni* Schulze, 1943a, *Ixodes*. It was originally named *Ixodes rasmus eidmanni*. The name *Ixodes eidmanni* used in Larivière *et al.* (1957) is a synonym of *Ixodes rasmus* as stated in Camicas *et al.* (1998).
- 993 *elaphense* (Price, 1959), *Amblyomma*. It was originally named *Aponomma elaphensis*. This species has usually been considered a member of *Aponomma*, but it is now placed in the genus *Amblyomma* (Horak *et al.* 2002; Klompen *et al.* 2002). Burger *et al.* (2012) present evidence to support that *Amblyomma elaphense* belongs to a new genus of Ixodidae.
- 994 *elaphense* Price, 1959, *Aponomma*. It was originally named *Aponomma elaphensis* and amended in Keirans & Degenhardt (1985). The name *Aponomma elaphense* is valid in Camicas *et al.* (1998), but it is a synonym of *Amblyomma elaphense* as stated in Horak *et al.* (2002).
- 995 *elaphensis* Price, 1959, *Aponomma*. This name is a synonym of *Amblyomma elaphense* and its original name.
- 996 *eldaricus* Dzhaparidze, 1950, *Ixodes*. This name has been confused with *Ixodes gibbosus*, *Ixodes redikorzevi* and *Ixodes ricinus* as stated in Filippova (1974).
- 997 *electus* Koch, 1844a, *Dermacentor*. This name in Neumann (1897) is a synonym of *Amblyomma naponense*. The name *Dermacentor electus* is a synonym of *Dermacentor variabilis* as stated in Neumann (1911a) and Camicas *et al.* (1998).
- 998 *electus parumapertus* Neumann, 1901, *Dermacentor*. This name used in Neumann (1905) is a synonym of *Dermacentor variabilis parumapertus* (= *Dermacentor parumapertus*) in Neumann (1911a). The name *Dermacentor electus parumapertus* is a synonym of *Dermacentor parumapertus* as stated in Cooley (1938) and Camicas *et al.* (1998).
- 999 *elegans* (Guérin-Méneville, 1844), *Amblyomma*. It was originally named *Ixodes elegans* Guérin-Méneville, 1844 (= *Amblyomma variegatum*). The name *Amblyomma elegans* (Guérin-Méneville, 1844) used in Schulze (1941a) is a synonym of *Amblyomma variegatum*.
- 1000 *elegans* (Guérin-Méneville, 1844), *Haemalastor*. It was originally named *Ixodes elegans* Guérin-Méneville, 1844 (= *Amblyomma variegatum*). The name *Haemalastor elegans* (Guérin-Méneville, 1844) used in Oudemans (1936, page 480) is a synonym of *Amblyomma variegatum*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1001 *elegans* Guérin-Méneville, 1844, *Ixodes*. This name is a synonym of *Amblyomma variegatum* as stated in Neumann (1911b) and Camicas *et al.* (1998).
- 1002 *elegans* Neumann, 1910a, *Ixodes*. This name was preoccupied by *Ixodes elegans* Guérin-Méneville, 1844 (= *Amblyomma variegatum*), and renamed *Ixodes stilesi* in Neumann (1911b). Therefore, *Ixodes elegans* Neumann, 1910a is a synonym of

Ixodes stilesi.

- 1003 *elephantinum* (Linnaeus, 1758), *Amblyomma*. It was originally named *Acarus elephantinus (incertae sedis)*. The name *Amblyomma elephantinum* used in Koch (1844a) is doubtful in Neumann (1911a) and Camicas *et al.* (1998), and a probable synonym of *Amblyomma crenatum* Neumann, 1899 in Bequaert (1933), but not included in Doss & Anastos (1977). The name *Amblyomma elephantinum* is *incertae sedis* synonym of *Acarus elephantinus (incertae sedis)*.
- 1004 *elephantinus* Linnaeus, 1758, *Acarus*. This name is doubtful in Neumann (1911a) and Camicas *et al.* (1998) and a probable synonym of *Amblyomma crenatum* Neumann, 1899 in Bequaert (1933). The type of *Acarus elephantinus* is available under specimen 6973 in the Linnaeus collection. The name *Acarus elephantinus* is *incertae sedis*.
- 1005 *elephantinus* (Linnaeus, 1758), *Amblyomma*. This name is in Doss & Anastos (1977) based on Koch (1844a), but this author used the correct name *Amblyomma elephantinum*. The name *Amblyomma elephantinus* is *incertae sedis* synonym of *Acarus elephantinus (incertae sedis)*, but not included in Camicas *et al.* (1998).
- 1006 *elephantinus* (Linnaeus, 1758), *Haemalastor*. It was originally named *Acarus elephantinus (incertae sedis)*. The name *Haemalastor elephantinus* used in Oudemans (1936, page 483) is also *incertae sedis* synonym of *Acarus elephantinus (incertae sedis)*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1007 *elephantinus* (Linnaeus, 1758), *Ixodes*. It was originally named *Acarus elephantinus (incertae sedis)*. The name *Ixodes elephantinus* used in Fabricius (1805) is doubtful in Neumann (1911a) and Camicas *et al.* (1998), and a probable synonym of *Amblyomma crenatum* Neumann, 1899 in Bequaert (1933). *Ixodes elephantinus* is a name *incertae sedis* synonym of *Acarus elephantinus (incertae sedis)*.
- 1008 *elliptica* (Koch, 1844a), *Haemaphysalis*. It was originally named *Rhipistoma ellipticum* and given its current status in Camicas *et al.* (1998). The name *Haemaphysalis elliptica* has been extensively confused with *Haemaphysalis leachi* as stated in Apanaskevich *et al.* (2007).
- 1009 *ellipticum* (Koch, 1844a), *Rhipicephalus*. This name is in Doss & Anastos (1977) and Walker *et al.* (2000) based on Koch (1847), but this author used the correct name *Rhipicephalus ellipticum*. The name *Rhipicephalus ellipticum* is a synonym of *Haemaphysalis elliptica*, but not included in Camicas *et al.* (1998).
- 1010 *ellipticum* Koch, 1844a, *Rhipistoma*. This name is a synonym of *Haemaphysalis elliptica* and its original name as stated in Apanaskevich *et al.* (2007). However, the name *Rhipistoma ellipticum* is a synonym of *Haemaphysalis leachi leachi* (= *Haemaphysalis leachi*) in Neumann (1911a), but Camicas *et al.* (1998) regard this name in Neumann (1911a) as partly *Haemaphysalis leachi* and partly *Haemaphysalis elliptica*. Walker *et al.* (2000) treat *Rhipistoma ellipticum* Koch, 1844a (under the authority of Koch, 1847) a synonym of *Haemaphysalis leachi*.
- 1011 *ellipticus* (Koch, 1844a), *Rhipicephalus*. It was originally named *Rhipistoma ellipticum* (= *Haemaphysalis elliptica*). The name *Rhipicephalus ellipticus* used first in Koch (1847) is a synonym of *Haemaphysalis leachi* in Neumann (1897) and several others workers, but a synonym of *Haemaphysalis leachi leachi* (= *Haemaphysalis leachi*) in Neumann (1911a). Camicas *et al.* (1998) regard this name in Neumann (1911a) as partly *Haemaphysalis leachi* and partly *Haemaphysalis elliptica*. *Rhipicephalus ellipticus* is a synonym of *Haemaphysalis elliptica* as stated in Apanaskevich *et al.* (2007), but not included in Doss & Anastos (1977).
- 1012 *elongata* Neumann, 1897, *Haemaphysalis*. This name in Nuttall & Warburton (1915) is partly in fact *Haemaphysalis tiptoni* Hoogstraal, 1953b as stated in Hoogstraal (1953b).
- 1013 *elongatus* Bedford, 1929, *Ixodes*
- 1014 *enornatum* Tendeiro, 1955, *Aponomma* (page 451). This name is a *lapsus* for *Aponomma exornatum* (= *Amblyomma exornatum*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1015 *erassum* Kolonin, 2004, *Amblyomma* (page 178). This name is a *lapsus* for *Amblyomma crassum*.
- 1016 *erinacci* Bailly-Choumara, Morel and Pérez, 1980, *Haemaphysalis* (pages 11, 12). This name is a *lapsus* for *Haemaphysalis erinacei* Pavesi, 1884, but not included in Camicas *et al.* (1998).
- 1017 *erinacei* Pavesi, 1884, *Haemaphysalis*. This name is *incertae sedis*, probably a synonym of *Haemaphysalis concinna* in Neumann (1911a), doubtful in Nuttall & Warburton (1915), but it is valid as stated in Hoogstraal (1955a). Keirans (1985) found *Haemaphysalis erinacei* Pavesi 1884 identified as *Haemaphysalis leachi* in the Nuttall Collection. Camicas *et al.* (1998) and also Horak *et al.* (2002) divided this species into four subspecies: *erinacei erinacei* (= *Haemaphysalis erinacei*), *erinacei ornata* (= *Haemaphysalis erinacei*), *erinacei taurica* (= *Haemaphysalis erinacei*) and *erinacei turanica* (= *Haemaphysalis erinacei*).
- 1018 *erinacei* Feldman-Muhsam, 1951, *Haemaphysalis*. This name is a synonym of *Haemaphysalis erinacei taurica* (= *Haemaphysalis erinacei* Pavesi, 1884) in Camicas *et al.* (1998). The name *Haemaphysalis erinacei* Feldman-Muhsam, 1951 is a synonym of *Haemaphysalis erinacei* Pavesi, 1884 as stated in Hoogstraal (1955a).
- 1019 *erinacei* Audouin, 1832, *Ixodes*. This name is a synonym of *Pholeoixodes hexagonus* (= *Ixodes hexagonus*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes hexagonus* as stated in Neumann (1911a).
- 1020 *erinacei erinacei* Pavesi, 1884, *Haemaphysalis*. This name used in Hoogstraal (1959b) and by a few other workers, is valid in Camicas *et al.* (1998) and Horak *et al.* (2002). The name *Haemaphysalis erinacei erinacei* Pavesi, 1884 is a synonym of *Haemaphysalis erinacei* Pavesi, 1884 here.
- 1021 *erinacei ornata* Feldman-Muhsam, 1956, *Haemaphysalis*. It was originally named *Haemaphysalis taurica ornata*. The name *Haemaphysalis erinacei ornata* used in Hoogstraal & Kim (1985) and by a few other workers, is valid in Camicas *et al.* (1998) and Horak *et al.* (2002). *Haemaphysalis erinacei ornata* is a synonym of *Haemaphysalis erinacei* Pavesi, 1884 here.

- 1022 *erinacei taurica* Pospelova-Shtrom, 1940, *Haemaphysalis*. It was originally named *Haemaphysalis numidiana taurica* (= *Haemaphysalis erinacei* Pavesi, 1884). The name *Haemaphysalis erinacei taurica* used in Hoogstraal (1959b) and by a few other workers, is valid in Camicas *et al.* (1998) and Horak *et al.* (2002). The name *Haemaphysalis erinacei taurica* is a synonym of *Haemaphysalis erinacei* Pavesi, 1884 here.
- 1023 *erinacei turanica* Pospelova-Shtrom, 1940, *Haemaphysalis*. It was originally named *Haemaphysalis numidiana turanica* (= *Haemaphysalis erinacei* Pavesi, 1884). The name *Haemaphysalis erinacei turanica*, used in Hoogstraal (1959b) and by a few other workers, is valid in Camicas *et al.* (1998) and Horak *et al.* (2002), but not included in Doss & Anastos (1977). *Haemaphysalis erinacei turanica* is a synonym of *Haemaphysalis erinacei* Pavesi, 1884 here.
- 1024 *erinaces* Kirk, 1886, *Ixodes* (page 67). This name is a *lapsus* for *Ixodes erinacei* Audouin, 1832 (= *Ixodes hexagonus*), but not included in Neumann (1911a), Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1025 *erinaceus* Murray, 1877, *Ixodes*. This name is a synonym of *Ixodes hexagonus hexagonus* (= *Ixodes hexagonus*) in Neumann (1911a) and a synonym of *Ixodes hexagonus* in Camicas *et al.* (1998), but not included in Doss & Anastos (1977). The name *Ixodes erinaceus* is a *lapsus* for *Ixodes erinacei* Audouin, 1832 (= *Ixodes hexagonus*) here.
- 1026 *erlangeri* (Neumann, 1902), *Eurhipicephalus*. It was originally named *Rhipicephalus erlangeri (incertae sedis)*. The name *Eurhipicephalus erlangeri* used in Castellani & Chalmers (1910, page 1184) is *incertae sedis* synonym of *Rhipicephalus erlangeri (incertae sedis)*, but not included in Camicas *et al.* (1998).
- 1027 *erlangeri* Neumann, 1902, *Rhipicephalus*. This name is a synonym of *Rhipicephalus simus erlangeri (incertae sedis)* in Neumann (1911a), a synonym of *Rhipicephalus praetextatus* in Camicas *et al.* (1998), while Walker *et al.* (2000) treat it simultaneously “= *Rhipicephalus simus* group” or “a synonym of *Rhipicephalus simus*”. The name *Rhipicephalus erlangeri* is a name *incertae sedis* here.
- 1028 *erraticus* (Say, 1821), *Dermacentor*. It was originally named *Ixodes erraticus (nomen dubium)*. The name *Dermacentor erraticus* used in Oudemans (1936) and Bequaert (1945) is a probable synonym of *Dermacentor albipictus* in Camicas *et al.* (1998). The name *Dermacentor erraticus* is a *nomen dubium* synonym of *Ixodes erraticus (nomen dubium)* here.
- 1029 *erraticus* Say, 1821, *Ixodes*. This name is *incertae sedis* in Neumann (1911a) and a probable synonym of *Dermacentor albipictus* in Camicas *et al.* (1998) and others. The name *Ixodes erraticus* has a vague description, types lost and regarded as a *nomen dubium* here.
- 1030 *erraticus albipictus* (Packard, 1869), *Dermacentor*. This name used in Bequaert (1945) is a synonym of *Dermacentor albipictus* as stated in Gregson (1956) and Camicas *et al.* (1998).
- 1031 *erythraeum* Tonelli Rondelli, 1932b, *Hyalomma*. This name is valid in Camicas *et al.* (1998) and Kolonin (2009). The name *Hyalomma erythraeum* is a synonym of *Hyalomma impeltatum* as stated in Apanaskevich & Horak (2009). However, the name *Hyalomma erythraeum* in Kaiser & Hoogstraal (1968) is in fact *Hyalomma somalicum* as shown in Apanaskevich & Horak (2009).
- 1032 *erythraeum* Estrada-Peña and Castellá, 1994, *Hyalomma* (page 83). This name is a *lapsus* for *Hyalomma erythraeum* (= *Hyalomma impeltatum*), but not included in Camicas *et al.* (1998).
- 1033 *erythreum* Scaramella, 1984, *Hyalomma* (pages 433-435). This name is a *lapsus* for *Hyalomma erythraeum* (= *Hyalomma impeltatum*), but not included in Camicas *et al.* (1998).
- 1034 *escapularis* Delabra, Frago Sánchez, Franco, Martínez Ibañez, Ortiz Estrada, Ortiz Nájera, Osorio, Santamaría and Soberano Céspedes, 1996, *Ixodes* (in “índice”, no page number). This name is a *lapsus* for *Ixodes escapularis* Say, 1821, repeated in Domínguez-García *et al.* (2010, page 187) and others.
- 1035 *escavatum* Ribeiro, 1967, *Hyalomma* (page 42). This name is a *lapsus* for *Hyalomma excavatum*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1036 *esculptum* Dios and Knopoff, 1930, *Amblyomma* (page 611). This name is a *lapsus* for *Amblyomma sculptum*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1037 *esendoholocycclus* Miranpuri and Naithani, 1978, *Ixodes* (page ix). This name is a *lapsus* for *Ixodes pseudoholocycclus* (= *Ixodes petauristae*), but not included in Camicas *et al.* (1998).
- 1038 *espagnol* Brébisson, 1827, *Ixodes*. This name is incorrect for Ixodidae because it is a synonym of *Argas reflexus* (Argasidae) as stated in Santos Dias (1961a). The name *Ixodes espagnol* is not included in Neumann (1911a).
- 1039 *ethiopica* Santos Dias, 1958f, *Haemaphysalis*. This name is a synonym of *Haemaphysalis spinulosa* as stated in Camicas *et al.* (1998) and Apanaskevich *et al.* (2007).
- 1040 *eudyptidis* Maskell, 1885, *Ixodes*. This name is doubtful close to *Ixodes putus* (= *Ixodes uriae*) in Nuttall & Warburton (1911), a synonym of *Ixodes uriae* in Santos Dias (1958a) and a synonym of *Scaphixodes eudyptidis* in Camicas *et al.* (1998), but it is valid. The name *Ixodes eudyptidis* in Bishop & Heath (1998) is partly confused with *Ixodes anatis* as stated in Heath (2010). *Ixodes eudyptidis* has been misidentified as *Ixodes percavatus* according to Halliday (2012). Neumann (1911a) divided *Ixodes eudyptidis* into two subspecies: *eudyptidis eudyptidis* (= *Ixodes eudyptidis*) and *eudyptidis signatus* (= *Ixodes signatus*).
- 1041 *eudyptidis* (Maskell, 1885), *Scaphixodes*. It was originally named *Ixodes eudyptidis*. The name *Scaphixodes eudyptidis* is valid in Camicas *et al.* (1998), but it is a synonym of *Ixodes eudyptidis*.
- 1042 *eudyptidis eudyptidis* Maskell, 1885, *Ixodes*. This name used in Neumann (1911a) is a synonym of *Scaphixodes eudyptidis* in Camicas *et al.* (1998), but it is a synonym of *Ixodes eudyptidis*.
- 1043 *eudyptidis signata* Birula, 1895, *Ixodes*. It was originally named *Ixodes signatus*. The name *Ixodes eudyptidis signata* used in Neumann (1904) was subsequently amended to *Ixodes eudyptidis signatus* in Neumann (1911a). The name *Ixodes*

- eudyptidis signata* is a synonym of *Scaphixodes signatus* in Camicas *et al.* (1998), but not included in Doss & Anastos (1977). *Ixodes eudyptidis signata* is a synonym of *Ixodes signatus*.
- 1044 *eudyptidis signatus* Birula, 1895, *Ixodes*. It was originally named *Ixodes signatus*. The name *Ixodes eudyptidis signatus* used in Neumann (1911a) is a synonym of *Scaphixodes signatus* in Camicas *et al.* (1998), but it is a synonym of *Ixodes signatus*.
- 1045 *eumanni* Guglielmo and Nava, 2006, *Amblyomma* (page 139). This name is a *lapsus* for *Amblyomma neumanni* Ribaga, 1902.
- 1046 *euplecti* Arthur, 1958c, *Ixodes*
- 1047 *euplecti* (Arthur, 1958c), *Scaphixodes*. This name used in Morel (1969) is a synonym of *Ixodes euplecti* as stated in Camicas *et al.* (1998), but not included in Doss & Anastos (1977).
- 1048 *eupleres* Hoogstraal, Kohls and Trapido, 1965d, *Haemaphysalis*
- 1049 *eurysternus* Schwetz, 1927, *Haemaphysalis*. This name is a probable *lapsus* for *Haematopinus eurysternus* which is not a tick (Doss & Anastos 1977). The name *Haemaphysalis eurysternus* is not included in lists 2 or 3.
- 1050 *evansi* Arthur, 1956c, *Ixodes*
- 1051 *everestianus* (Hirst, 1926), *Cynorhaestes*. This name used in Schulze (1929b) is a synonym of *Dermacentor everestianus* as stated in Camicas *et al.* (1998).
- 1052 *everestianus* Hirst, 1926, *Dermacentor*
- 1053 *eversi* Tadesse, Abadfaji, Girma, Kumsa and Jibat, 2012, *Rhipicephalus* (page 3). This name is a *lapsus* for *Rhipicephalus evertsi* repeated in Shiferaw & Onu (2013, page 292) and others.
- 1054 *everti* Jakob, 1924, *Rhipicephalus* (page 355). This name is a *lapsus* for *Rhipicephalus evertsi*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Okaeme (1986, page 41) among others.
- 1055 *evertsi* (Neumann, 1897), *Eurhipicephalus*. It was originally named *Rhipicephalus evertsi*. The name *Eurhipicephalus evertsi* used in Lounsbury (1906) and by a few other workers, is a synonym of *Rhipicephalus evertsi evertsi* (= *Rhipicephalus evertsi*) as stated in Camicas *et al.* (1998), but not included in Neumann (1911a). *Eurhipicephalus evertsi evertsi* is a synonym of *Rhipicephalus evertsi*.
- 1056 *evertsi* Neumann, 1897, *Rhipicephalus*. Keirans (1985) found *Rhipicephalus evertsi* identified as *Rhipicephalus bursa* in the Nuttall Collection. Species of *Rhipicephalus near-oculatus* in Horak *et al.* (1991b) is partly in fact *Rhipicephalus exophthalmos* and *Rhipicephalus evertsi evertsi* (= *Rhipicephalus evertsi*) in Camicas *et al.* (1998), while Walker *et al.* (2000) state that the species *near-oculatus* in Horak *et al.* (1991b) is actually *Rhipicephalus evertsi evertsi* (= *Rhipicephalus evertsi*). Camicas *et al.* (1998) and also Walker *et al.* (2000) and Horak *et al.* (2002) divided this species into two subspecies: *evertsi evertsi* (= *Rhipicephalus evertsi*) and *evertsi mimeticus* (= *Rhipicephalus evertsi*).
- 1057 *evertsi albigeniculatus* Warburton, 1916, *Rhipicephalus*, in Nuttall & Warburton (1916). This name is a synonym of *Rhipicephalus evertsi evertsi* (= *Rhipicephalus evertsi*) in Camicas *et al.* (1998), Walker *et al.* (2000) and others. The name *Rhipicephalus evertsi albigeniculatus* is a synonym of *Rhipicephalus evertsi* here. Doss & Anastos (1977) and Camicas *et al.* (1998) named Nuttall and Warburton, 1916 the authority for *Rhipicephalus evertsi albigeniculatus*.
- 1058 *evertsi evertsi* Neumann, 1897, *Rhipicephalus*. This name used first in Zumpt (1950, usually cited 1949) is valid in Camicas *et al.* (1998), Walker *et al.* (2000), Horak *et al.* (2002) and several other workers. The name *Rhipicephalus evertsi evertsi* is a synonym of *Rhipicephalus evertsi* here.
- 1059 *evertsi mimeticus* Dönitz, 1910a, *Rhipicephalus*. This name is valid in Camicas *et al.* (1998), Walker *et al.* (2000), Horak *et al.* (2002) and several other workers. The name *Rhipicephalus evertsi mimeticus* is a synonym of *Rhipicephalus evertsi* here.
- 1060 *evertsi* Webb and David, 2002, *Rhipicephalus* (page 4). This name is a *lapsus* for *Rhipicephalus evertsi*.
- 1061 *exagonus* Albanese, Smiraglia and Lavagnino, 1971, *Ixodes* (page 273). This name is a *lapsus* for *Ixodes hexagonus*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Sidoti & Tringali (2009, page 9) and others.
- 1062 *exaratus* (Kolenati, 1856), *Eschatocephalus*. It was originally named *Sarconissus* [sic] *exaratus* (= *Ixodes vespertilionis*). The name *Eschatocephalus exaratus* used in Neumann (1901) is a synonym of *Ixodes exaratus* (= *Ixodes vespertilionis*) in Neumann (1911a) and a synonym of *Eschatocephalus vespertilionis* (= *Ixodes vespertilionis*) in Camicas *et al.* (1998). *Eschatocephalus exaratus* is a synonym of *Ixodes vespertilionis* here.
- 1063 *exaratus* (Kolenati, 1856), *Haemalastor*. It was originally named *Sarconissus* [sic] *exaratus* (= *Ixodes vespertilionis*). The name *Haemalastor exaratus* used in Neumann (1899) is a synonym of *Ixodes exaratus* (= *Ixodes vespertilionis*) in Neumann (1911a) and a synonym of *Eschatocephalus vespertilionis* (= *Ixodes vespertilionis*) in Camicas *et al.* (1998). *Haemalastor exaratus* is a synonym of *Ixodes vespertilionis* here.
- 1064 *exaratus* (Kolenati, 1856), *Ixodes*. It was originally named *Sarconissus* [sic] *exaratus* (= *Ixodes vespertilionis*). The name *Ixodes exaratus* used in Neumann (1911a, who treats this name as *incertae sedis*) and by a few other workers, is a *nomen nudum* in Nuttall & Warburton (1911) and a synonym of *Eschatocephalus exaratus* (= *Ixodes vespertilionis*) in Camicas *et al.* (1998). *Ixodes exaratus* is a synonym of *Ixodes vespertilionis* here.
- 1065 *exaratus* Kolenati, 1856, *Sarconyssus* (spelled *Sarconissus*). This name is a synonym of *Ixodes exaratus* (= *Ixodes vespertilionis*) in Neumann (1911a) and a synonym of *Eschatocephalus vespertilionis* (= *Ixodes vespertilionis*) in Camicas *et al.* (1998). The name *Sarconyssus exaratus* is a synonym of *Ixodes vespertilionis* as stated in Santos Dias (1958a).
- 1066 *exartus* Arthur, 1963, *Sarconyssus* (page 136). This name is a *lapsus* for *Sarconyssus exaratus* (= *Ixodes vespertilionis*),

- but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1067 *excavatum* Zlatanova, 1991, *Hyalomma* (pages 78, 79). This name is a *lapsus* for *Hyalomma excavatum*, but not included in Camicas *et al.* (1998).
- 1068 *excavatum* Koch, 1844a, *Hyalomma*. The synonymy of this species is based on Camicas *et al.* (1998), who along with Horak *et al.* (2002) and others, name this tick as *Hyalomma anatolicum excavatum*. However, the name *Hyalomma excavatum* is a synonym of *Hyalomma aegyptium dromedarii (incertae sedis)* in Neumann (1911a), while the same name in Delpy (1949b) is in fact *Hyalomma anatolicum anatolicum (= Hyalomma anatolicum)* according to Camicas *et al.* (1998). The species N° 1 near *excavatum* in Hoogstraal (1956a) is actually *Hyalomma franchinii* as shown in Apanaskevich *et al.* (2008a). Keirans (1985) found *Hyalomma anatolicum excavatum (= Hyalomma excavatum)* identified as *Hyalomma aegyptium* in the Nuttall Collection, and Apanaskevich & Horak (2008b) found *Hyalomma excavatum* within the type specimens of *Hyalomma marginatum balcanicum (= Hyalomma marginatum)*.
- 1069 *excavatum lusitanicum* Koch, 1844a, *Hyalomma*. This name used in Stoker & Marmion (1955) is a synonym of *Hyalomma lusitanicum* as stated in Camicas *et al.* (1998) and Apanaskevich *et al.* (2008a).
- 1070 *excavatum* Miranpuri and Naithami, 1978, *Hyalomma* (page 21). This name is a *lapsus* for *Hyalomma excavatum*, but not included in Camicas *et al.* (1998).
- 1071 *exilipes* Lucas, 1846, *Ixodes*. This name is *incertae sedis* in Neumann (1911a), but a *nomen dubium* in Camicas *et al.* (1998) and here.
- 1072 *exophthalmum* Guglielmone, Estrada-Peña, Keirans and Robbins, 2003, *Amblyomma* (page 77). This name is a *lapsus* for *Amblyomma exophthalmum (nomen nudum)*.
- 1073 *exophthalmum* Méndez Arocha and Ortiz, 1958, *Amblyomma*. This name is a valid in Guerrero (1996), a synonym of *Amblyomma oblongoguttatum* in Camicas *et al.* (1998) and a name *incertae sedis* in Guglielmone *et al.* (2003). The description of *Amblyomma exophthalmum* is vague and the type lost, a *nomen nudum*.
- 1074 *exophthalmos* Keirans and Walker, 1993, *Rhipicephalus*, in Keirans *et al.* (1993). The tick *Rhipicephalus near-oculatus* in Horak *et al.* (1991b) is partly in fact *Rhipicephalus exophthalmos* and *Rhipicephalus evertsi evertsi (= Rhipicephalus evertsi)* in Camicas *et al.* (1998), while Walker *et al.* (2000) regard the species *near-oculatus* in Horak *et al.* (1991b) as *Rhipicephalus evertsi evertsi (= Rhipicephalus evertsi)*. Keirans *et al.* (1993) explain the confusion of *Rhipicephalus oculatus* and species *near-oculatus* with *Rhipicephalus exophthalmos* in several African studies.
- 1075 *exophthalmos* Estrada-Peña, Estrada-Sánchez and Estrada-Sánchez, 2012b, *Rhipicephalus* (page 6). This name is a *lapsus* for *Rhipicephalus exophthalmos*.
- 1076 *exophthalmos* Cumming, 1998, *Rhipicephalus* (page 403). This name is a *lapsus* for *Rhipicephalus exophthalmos* repeated in Cumming (2000, page 428), Cumming & Van Vuurun (2006, page 491) and others.
- 1077 *exornatum* Koch, 1844a, *Amblyomma*. This species has usually been considered a member of *Aponomma*, but it is now placed again in the genus *Amblyomma* (Horak *et al.* 2002; Klompen *et al.* 2002).
- 1078 *exornatum* (Koch, 1844a), *Aponomma*. It was originally named *Amblyomma exornatum*. The name *Aponomma exornatum* used first in Neumann (1899) is valid in Camicas *et al.* (1998). The name *Aponomma exornatum* is a synonym of *Amblyomma exornatum* as stated in Horak *et al.* (2002). *Aponomma exornatum (= Amblyomma exornatum)* has been confused with *Aponomma arcanum (= Amblyomma arcanum)* and *Aponomma flavomaculatum (= Amblyomma flavomaculatum)* as stated in Santos Dias (1993a). Keirans (1985) found *Aponomma fimbriatum (= Amblyomma fimbriatum)*, *Amblyomma helvolum*, *Aponomma trimaculatum* (Lucas, 1878b) [= *Amblyomma trimaculatum* (Lucas, 1878b)] and *Aponomma varanense (= Amblyomma varanense)* identified as *Aponomma exornatum (= Amblyomma exornatum)*.
- 1079 *exornatum flavomaculatum* (Lucas, 1846), *Aponomma*. This name used in Morel & Mouchet (1958) is a synonym of *Aponomma flavomaculatum (= Amblyomma flavomaculatum)* in Kaufman (1972) and Santos Dias (1993a), while Camicas *et al.* (1998) treat *Aponomma exornatum flavomaculatum* partly a synonym of *Aponomma flavomaculatum (= Amblyomma flavomaculatum)* and partly a synonym of *Aponomma exornatum (= Amblyomma exornatum)*. The name *Aponomma exornatum flavomaculatum* is *incertae sedis*.
- 1080 *expeditus* Neumann, 1904, *Rhipicephalus*. It was originally named *Rhipicephalus haemaphysaloides expeditus (= Rhipicephalus haemaphysaloides)*. The name *Rhipicephalus expeditus* used in Nakamura & Yajima (1937) is a synonym of *Rhipicephalus haemaphysaloides haemaphysaloides (= Rhipicephalus haemaphysaloides)* in Camicas *et al.* (1998). *Rhipicephalus expeditus* is a synonym of *Rhipicephalus haemaphysaloides*.
- 1081 *expositicius* (Koch, 1877), *Haemaphysalis*. It was originally named *Rhipicephalus expositicius (incertae sedis)*. The name *Haemaphysalis expositicius* used in Hewitt (1915) and by a few other workers, is partly a synonym of *Haemaphysalis punctata* Canestrini and Fanzago, 1878 in Walker *et al.* (2000). *Haemaphysalis expositicius* is a name *incertae sedis* synonym of *Rhipicephalus expositicius (incertae sedis)* here.
- 1082 *expositicius* Koch, 1877, *Rhipicephalus*. This name is partly a certain synonym of *Haemaphysalis punctata* Canestrini and Fanzago, 1878 in Walker *et al.* (2000) based on Neumann (1911a), but this author states that it is *incertae sedis* probably a synonym of *Haemaphysalis punctata* Canestrini and Fanzago, 1878. The name *Rhipicephalus expositicius* is *incertae sedis* here.
- 1083 *extraoculatum* Neumann, 1899, *Amblyomma*. This name is a synonym of *Amblyomma romitii* in Kolonin (2009), while *Amblyomma romitii* is considered a synonym of *Amblyomma extraoculatum* Neumann, 1899 in Camicas *et al.* (1998), Guglielmone *et al.* (2003) and others. Both names, *Amblyomma extraoculatum* Neumann, 1899 and *Amblyomma romitii*,

are valid as demonstrated in Barros-Battesti *et al.* (2007). Voltzit (2007) regards Tonelli Rondelli, 1939 the authority for *Amblyomma extraoculatum* Neumann, 1899. Recently, Serra-Freire *et al.* (2012) used the name *Amblyomma extraoculatum* for ticks collected from Testudines in Peru, but the figure of the tick included in their article is neither *Amblyomma extraoculatum* nor *Amblyomma romitii*, a tick species previously considered a synonym of *Amblyomma extraoculatum*.

1084 *extraoculatum* Tonelli Rondelli, 1939, *Amblyomma*. This name is a *nomen nudum* used in Voltzit (2007, page 5) due to confusion with *Amblyomma extraoculatum* Neumann, 1899.

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1085 *fabricii* (Audouin, 1826), *Hyalomma*. It was originally named *Ixodes fabricii* (*nomen dubium*). The name *Hyalomma fabricii* used in Koch (1844a) is *incertae sedis* in Neumann (1911a). *Hyalomma fabricii* is a *nomen dubium* synonym of *Ixodes fabricii* (*nomen dubium*).

1086 *fabricii* Audouin, 1826, *Ixodes*. This name is a synonym of *Hyalomma aegyptium* in Nuttall & Warburton (1911) and a name *incertae sedis* in Neumann (1911a as probably *Hyalomma aegyptium*). The name *Ixodes fabricii* is a *nomen dubium* in Camicas *et al.* (1998) and here.

1087 *faiai* Santos Dias, 1951d, *Amblyomma*. This name is a synonym of *Amblyomma sparsum* as stated in Theiler & Salisbury (1959) who spelt it *Amblyomma faifai* (*lapsus*).

1088 *faifai* Theiler and Salisbury, 1959, *Amblyomma* (page 77). This name is a *lapsus* for *Amblyomma faiai* (= *Amblyomma sparsum*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).

1089 *falcatus* Neumann, 1908d, *Rhipicephalus*. This name is a synonym of *Rhipicephalus longus* as stated in Walker *et al.* (2000). Keirans (1985) found *Rhipicephalus hurti*, *Rhipicephalus kochi* Dönitz, 1905, *Rhipicephalus senegalensis* and alleged *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition) identified as *Rhipicephalus falcatus*.

1090 *fallax* Schulze, 1932e, *Amblyomma*. This name is a new one for *Amblyomma testudinarium* in Anastos (1950), but Doss & Anastos (1977) stated that it is a *nomen novo* for *Amblyomma infestum* (= *Amblyomma testudinarium*) because Schulze (1932e) treated *Amblyomma infestum* prevailing over *Amblyomma testudinarium*. The name *Amblyomma fallax* Schulze, 1932e is a synonym of *Amblyomma testudinarium* here.

1091 *fallax* Minning, 1934, *Boophilus*. This name is a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) according to Camicas *et al.* (1998), but *Boophilus fallax* Minning, 1934 may also be a synonym of *Rhipicephalus australis* Fuller, 1899 in the opinion of Estrada-Peña *et al.* (2012a). The name *Boophilus fallax* Minning, 1934 is *incertae sedis* here.

1092 *fallax* (Minning, 1934), *Uroboophilus*. It was originally named *Boophilus fallax* Minning, 1934 (*incertae sedis*). The name *Uroboophilus fallax* (Minning, 1934) used in Kishida (1939b) and by a few other workers, is a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998). *Uroboophilus fallax* (Minning, 1934) is a name *incertae sedis* synonym of *Boophilus fallax* Minning, 1934 (*incertae sedis*) here.

1093 *falsolaeve* Schulze, 1936c, *Aponomma*. This name is a synonym of *Aponomma latum* (= *Amblyomma latum*) as stated in Kaufman (1972) and Camicas *et al.* (1998).

1094 *falsomarmoreum* Tonelli Rondelli, 1935, *Amblyomma*. Theiler (1962) states that *Amblyomma clypeolatum* in Stella (1938b) is probably in fact *Amblyomma falsomarmoreum*. Keirans (1985) found *Amblyomma falsomarmoreum* identified as *Amblyomma clypeolatum* and *Amblyomma marmoreum* in the Nuttall Tick Collection.

1095 *farmosensis* Chen, Zhang, He *et al.* [sic], 1999, *Haemaphysalis* (page 368). This name is a *lapsus* for *Haemaphysalis formosensis*.

1096 *feae* Supino, 1897, *Dermacentor*. This name is a *lapsus* in the description of *Dermacentor feai* (*incertae sedis*) and amended in Neumann (1897).

1097 *feai* Supino, 1897, *Dermacentor*. It was originally named *Dermacentor feae* and amended in Neumann (1897). The name *Dermacentor feai* is *incertae sedis* in Neumann (1911a), a *nomen nudum* in Sharif (1928), simultaneously doubtful and a probable synonym of *Amblyomma supinae* [sic] in Arthur (1960a), and a synonym of *Amblyomma supinoi* in Camicas *et al.* (1998), but not included in Doss & Anastos (1977). *Dermacentor feai* is a name *incertae sedis*.

1098 *fecialis* Warburton and Nuttall, 1909, *Ixodes*.

1099 *fecialis aegrifossus* Warburton and Nuttall, 1909, *Ixodes*. This name is a synonym of *Ixodes fecialis* as stated in Keirans & Hillyard (2001) and described along *Ixodes fecialis* in the same article.

1100 *fennelli* Oudemans, 1936, *Haemalastor* (page 511). This name is a new one for *Ixodes pictus* (Fennel, 1841) {= *Acarus pictus* Fennel? [sic], no year (*nomen dubium*)}, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). The name *Haemalastor fennelli* is a *nomen dubium* synonym of *Acarus pictus* Fennel?, no year (*nomen dubium*).

1101 *ferrugineus* Koch, 1844a, *Dermacentor*. This name is doubtful and probably a synonym of *Dermacentor reticulatus* (Fabricius, 1794) in Arthur (1960a). The name *Dermacentor ferrugineus* is a synonym of *Dermacentor reticulatus* (Fabricius, 1794) as stated in Neumann (1911a), Estrada-Peña (1990) after type examination, and Camicas *et al.* (1998).

1102 *festae* Schulze, 1932a, *Ixodes* (page 322), *Ixodes*. This name is a *lapsus* for *Ixodes festai*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).

1103 *festai* Tonelli Rondelli, 1926b, *Ixodes*. Considerable confusion exists about *Ixodes festai* and *Ixodes ventalloi* as explained in Petney *et al.* (1996). The name *Ixodes festai* in Arthur (1957c, 1958a) is in fact *Ixodes ventalloi* as stated in Gilot &

- Pérez (1978) and Camicas *et al.* (1998). Hoogstraal (1959a) and Arthur (1963) regard *Ixodes ventalloi* as a synonym of *Ixodes festai*, but both species are valid here following Gilot & Pérez (1978).
- 1104 *feuerborni* Schulze, 1932d, *Amblyomma*. This name is a synonym of *Amblyomma helvolum* in Camicas *et al.* (1998). The name *Amblyomma feuerborni* is a *nomen nudum* as stated in Anastos (1950).
- 1105 *feuerborni* Schulze, 1933a, *Amblyomma*. This name is a synonym of *Amblyomma helvolum* as stated in Anastos (1950), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1106 *feuerbornia* Arthur, 1962b, *Amblyomma* (page 183). This name is a *lapsus* for *Amblyomma feuerborni* (= *Amblyomma helvolum*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1107 *fezzanensis* Tonelli Rondelli, 1935, *Hyalomma*. This name is a synonym of *Hyalomma impeltatum* as stated in Camicas *et al.* (1998) and Apanaskevich & Horak (2009).
- 1108 *fiebrigi* Robinson, 1912, *Amblyomma*. This name is a synonym of *Amblyomma pacae* as stated in Robinson (1926) and Camicas *et al.* (1998).
- 1109 *filippovae* Bolotin, 1979, *Haemaphysalis*. This name is a synonym of *Haemaphysalis concinna* in Camicas *et al.* (1998) and Kolonin (2009), but it is valid as stated in Filippova (2008) and Guglielmone *et al.* (2009, 2010b, 2014).
- 1110 *filippovae* Černý, 1961, *Ixodes*. This name is a synonym of *Ixodes crenulatus* in Filippova (1977) and a synonym of *Pholeioxodes filippovae* (Černý, 1961) in Camicas *et al.* (1998). The name *Ixodes filippovae* Černý, 1961 is provisionally valid in Guglielmone *et al.* (2010b, 2014) and here.
- 1111 *filippovae* (Černý, 1961), *Pholeioxodes*. It was originally named *Ixodes filippovae*. The name *Pholeioxodes filippovae* (Černý, 1961) used in Morel & Pérez (1973) is valid in Camicas *et al.* (1998), but it is a synonym of *Ixodes filippovae* Černý, 1961.
- 1112 *fimbriatum* Koch, 1844a, *Amblyomma*. This tick has been usually considered a member of *Aponomma*, but it is now placed again in the genus *Amblyomma* (Horak *et al.* 2002; Klompen *et al.* 2002). The name *Amblyomma fimbriatum* is a synonym of *Amblyomma decoratum* (= *Amblyomma helvolum*) in Neumann (1911a) and a synonym of *Amblyomma helvolum* in Robinson (1926), Voltzit & Keirans (2002) and others, but it is valid.
- 1113 *fimbriatum* (Koch, 1844a), *Aponomma*. This name used first in Schulze (1935d) is valid in Camicas *et al.* (1998), but it is a synonym of *Amblyomma fimbriatum* as stated in Horak *et al.* (2002). Roberts (1970) states that *Aponomma trimaculatum* (Lucas, 1878b) [= *Amblyomma trimaculatum* (Lucas, 1878b)] in Roberts (1953) is probably in fact partly *Aponomma fimbriatum* (= *Amblyomma fimbriatum*). Keirans (1985) found *Aponomma fimbriatum* (= *Amblyomma fimbriatum*) identified as *Aponomma decorosum* (= *Bothriocroton undatum*) in the Nuttall Tick Collection.
- 1114 *fimbriatum trabeatum* Schulze, 1933d, *Aponomma*. This name allegedly used in Schulze (1935d) is a synonym of *Aponomma trimaculatum* (Lucas, 1878b) [= *Amblyomma trimaculatum* (Lucas, 1878b)] in Anastos (1950), a synonym of *Aponomma fimbriatum* (= *Amblyomma fimbriatum*) in Camicas *et al.* (1998) based on Kohls (1957b) and Santos Dias (1993a), but not included in Doss & Anastos (1977). The name *Aponomma fimbriatum trabeatum* is not cited in the work of Schulze (1935d) and treated here as a *nomen nudum*.
- 1115 *fimbriatus* Kramer and Neumann, 1883, *Ixodes*. This name is a synonym of *Ixodes putus* (= *Ixodes uriae*) in Neumann (1911a) and a synonym of *Ceratixodes uriae* (= *Ixodes uriae*) in Camicas *et al.* (1998). The name *Ixodes fimbriatus* is a synonym of *Ixodes uriae* as stated in Santos Dias (1958a).
- 1116 *finitimum* Tonnelli Rondelli, 1937, *Amblyomma*. This name is a synonym of *Amblyomma cajennense* as stated in Aragão & Fonseca (1953a) and Camicas *et al.* (1998).
- 1117 *flava* Jarvis, 1904, *Amblyomma*. This name is a *nomen dubium* in Camicas *et al.* (1998), but not included in Neumann (1911a). The name *Amblyomma flava* Jarvis, 1904 has no description or figure, a *nomen nudum*.
- 1118 *flava* Neumann, 1897, *Haemaphysalis*. The vial with the types of *Haemaphysalis flava* Neumann, 1897 contains also *Haemaphysalis campanulata* as stated in Yamaguti *et al.* (1971) who also affirms that Neumann identified as *Haemaphysalis flava* specimens of *Haemaphysalis japonica*. Dhanda & Bhat (1968b) affirm that Nuttall & Warburton (1915) confused *Haemaphysalis flava* Neumann, 1897 with *Haemaphysalis montgomeryi*, and *Haemaphysalis flava* Neumann, 1897 in Sharif (1928) is at least partly *Haemaphysalis indoflava*. Keirans (1985) found *Haemaphysalis campanulata* and *Haemaphysalis indoflava* identified as *Haemaphysalis flava* Neumann, 1897, and *Haemaphysalis flava* Neumann, 1897 classified as *Haemaphysalis bispinosa* in the Nuttall Collection. Neumann (1911a) divided this name into two subspecies: *flava flava* (= *Haemaphysalis flava*) and *flava armata* (= *Haemaphysalis flava*).
- 1119 *flava armata* Neumann, 1905, *Haemaphysalis*. This name is a synonym of *Haemaphysalis flava* Neumann, 1897 as stated in Nuttall & Warburton (1915) and Camicas *et al.* (1998).
- 1120 *flava flava* Neumann, 1897, *Haemaphysalis*. This name used in Neumann (1911a) and by a few other workers, is a synonym of *Haemaphysalis japonica* in Nuttall & Warburton (1915). The name *Haemaphysalis flava flava* Neumann, 1897 is a synonym of *Haemaphysalis flava* Neumann, 1897 as stated in Camicas *et al.* (1998).
- 1121 *flavamaculatum* Keirans, 1992, *Aponomma* (page 5). This name is a *lapsus* for *Aponomma flavomaculatum* (= *Amblyomma flavomaculatum*), but not included in Camicas *et al.* (1998).
- 1122 *flavidum* (Koch, 1844a), *Amblyomma*. It was originally named *Ixodes flavidus (incertae sedis)*. The name *Amblyomma flavidum* used in Neumann (1911a) and treated as *incertae sedis*, is a synonym of *Amblyomma bibroni* (Gervais, 1842) (*nomen nudum*) in Camicas *et al.* (1998), but not included in Doss & Anastos (1977). *Amblyomma flavidum* is a name *incertae sedis* synonym of *Ixodes flavidus (incertae sedis)* here.
- 1123 *flavidus* (Koch, 1844a), *Amblyomma*. This name is in Doss & Anastos (1977) based on Neumann (1911a), but this author

- used the correct name *Amblyomma flavidum*. The name *Amblyomma flavidus* (Koch, 1844a) is *incertae sedis* synonym of *Ixodes flavidus* Koch, 1844a (*incertae sedis*), but not included in Camicas *et al.* (1998).
- 1124 *flavidus* Koch, 1844a, *Ixodes*. This name is a synonym of *Amblyomma dissimile* in Neumann (1899), *incertae sedis* synonym of *Amblyomma flavidum* in Neumann (1911a) and a synonym of *Amblyomma bibroni* (Gervais, 1842) (*nomen nudum*) in Camicas *et al.* (1998). The name *Ixodes flavidus* Koch, 1844a is *incertae sedis* here.
- 1125 *flavidus* Kolenati, 1856, *Sarconyssus* (spelled *Sarconissus*). This name is a synonym of *Eschatocephalus vespertilionis* (= *Ixodes vespertilionis*) in Camicas *et al.* (1998). The name *Sarconyssus flavidus* Kolenati, 1856 is a synonym of *Ixodes vespertilionis* as stated in Neumann (1911a).
- 1126 *flavii* Castellani and Chalmers, 1910, *Haemaphysalis* (page 483). This name is a *lapsus* for *Haemaphysalis flava* repeated in Castellani & Chalmers (1919, page 719), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1127 *flavipes* (Koch, 1844b), *Eschatocephalus*. This name used in Bonnet (1908) is a synonym of *Eschatocephalus vespertilionis* (= *Ixodes vespertilionis*) in Camicas *et al.* (1998). The name *Eschatocephalus flavipes* is a synonym of *Ixodes vespertilionis*.
- 1128 *flavipes* Koch, 1844b, *Ixodes*. It was originally spelled *Ixodes fluvipes* (*lapsus*) and subsequently spelled correctly in the original article. The name *Ixodes flavipes* is a synonym of *Eschatocephalus vespertilionis* (= *Ixodes vespertilionis*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes vespertilionis* as stated in Neumann (1911a).
- 1129 *flavipes* (Koch, 1844b), *Sarconyssus* (spelled *Sarconissus*). This name used in Kolenati (1856 spelled *Sarconissus flavipes*) is a synonym of *Eschatocephalus vespertilionis* (= *Ixodes vespertilionis*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes vespertilionis* as stated in Neumann (1911a).
- 1130 **flavomaculatum** (Lucas, 1846), *Amblyomma*. It was originally named *Ixodes flavomaculatus*. The name *Amblyomma flavomaculatum* has usually been considered a member of *Aponomma*, but it is now placed in the genus *Amblyomma* (Horak *et al.* 2002; Klompen *et al.* 2002).
- 1131 *flavomaculatum* (Lucas, 1846), *Aponomma*. It was originally named *Ixodes flavomaculatus* (= *Amblyomma flavomaculatum*). The name *Aponomma flavomaculatum* used first in Tendeiro (1955) is valid in and Camicas *et al.* (1998), but it is a synonym of *Amblyomma flavomaculatum* as stated in Horak *et al.* (2002). Santos Dias (1993a) states that *Aponomma flavomaculatum* (= *Amblyomma flavomaculatum*) has been identified as *Aponomma arcanum* (= *Amblyomma arcanum*), *Aponomma exornatum* (= *Amblyomma exornatum*) and *Aponomma gervaisi* (= *Amblyomma gervaisi*), a view shared by Kaufman (1972) for the last two names.
- 1132 *flavomaculatum* Lucas, 1846, *Ixodes*. This name is in Doss & Anastos (1977) based on Lucas (1846), but this author used the correct name *Ixodes flavomaculatus*. The name *Ixodes flavomaculatum* is a synonym of *Amblyomma flavomaculatum*, but not included in Camicas *et al.* (1998).
- 1133 *flavomaculatum* (Lucas, 1846), *Ophiodes*. This name is in Doss & Anastos (1977) based on Murray (1877), but this author used the correct name *Ophiodes flavomaculatus*. The name *Ophiodes flavomaculatum* is a synonym of *Amblyomma flavomaculatum*, but not included in Camicas *et al.* (1998).
- 1134 *flavomaculatus* Lucas, 1846, *Ixodes*. This name is a synonym of *Aponomma exornatum* (= *Amblyomma exornatum*) in Neumann (1911a) and a synonym of *Aponomma flavomaculatum* (= *Amblyomma flavomaculatum*) in Camicas *et al.* (1998), but not included in Doss & Anastos (1977). The name *Ixodes flavomaculatus* is a synonym of *Amblyomma flavomaculatum* and its original name. Guglielmone & Nava (2010, page 39) consider *Ixodes flavomaculatus* a synonym of *Amblyomma rotundatum*, but it is a *lapsus* for *Ixodes fuscumaculatus*.
- 1135 *flavomaculatus* (Lucas, 1846), *Ophiodes*. It was originally named *Ixodes flavomaculatus* (= *Amblyomma flavomaculatum*). The name *Ophiodes flavomaculatus* used in Murray (1877) is a synonym of *Aponomma exornatum* (= *Amblyomma exornatum*) in Neumann (1911a) and a synonym of *Aponomma flavomaculatum* (= *Amblyomma flavomaculatum*) in Camicas *et al.* (1998), but not included in Doss & Anastos (1977). *Ophiodes flavomaculatus* (Lucas, 1846) is a synonym of *Amblyomma flavomaculatum* here.
- 1136 *flavum* Estrada-Peña, Estrada-Sánchez and Estrada-Sánchez 2012b, *Amblyomma* (page 6). This name has no description or figure. *Amblyomma flavum* is a *nomen nudum*.
- 1137 *flavus* Supino, 1897, *Rhipicephalus*. This name is *incertae sedis* in Neumann (1911a), an alleged synonym of *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition) in Walker *et al.* (2000) and a *nomen nudum* in Sharif (1928). The name *Rhipicephalus flavus* is *incertae sedis* here.
- 1138 *florae* Santos Dias, 1987, *Boophilus*. This name is a synonym of *Boophilus decoloratus* (= *Rhipicephalus decoloratus*) as stated in Keirans & Hillyard (2001).
- 1139 *fluvipes* Koch, 1844b, *Ixodes* (in "Inhalt", no page number). This name is a *lapsus* in the description of *Ixodes flavipes* (= *Ixodes vespertilionis*), but not included in Neumann (1911a), Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1140 *foai* Neumann, 1899, *Amblyomma*. This name is a synonym of *Amblyomma petersi* [(= *Amblyomma rhinocerotis* (De Geer, 1778))] in Neumann (1911a) and Robinson (1926). The name *Amblyomma foai* is a synonym of *Amblyomma rhinocerotis* (De Geer, 1778) as stated in Santos Dias (1958a) and Camicas *et al.* (1998).
- 1141 *fodiens* Murray, 1877, *Ixodes*. This name is a synonym of *Ixodes ricinus* as stated in Neumann (1911a).
- 1142 **follis** Dönitz, 1910a, *Rhipicephalus*. This name in Theiler & Robinson (1953) is in fact *Rhipicephalus lounsburyi* Walker, 1990, and it has been confused with *Rhipicephalus theileri* Bedford and Hewitt, 1925 according to Walker *et al.* (2000). The *Rhipicephalus near-capensis* Koch, 1844a in Horak *et al.* (1986a, 1987) is in fact *Rhipicephalus follis* in the opinion of Walker (1991).

- 1143 *foreli* Stoll, 1894 (usually cited Stoll, 1890), *Amblyomma*. This name is a synonym of *Amblyomma americanum* in Neumann (1911a), Robinson (1926), Camicas *et al.* (1998) and others workers. The description of *Amblyomma foreli* is not useful for such a decision and type location unknown. The name *Amblyomma foreli* is *incertae sedis* here.
- 1144 *formosanum* Schulze, 1933d, *Amblyomma*. This name is a probable synonym of *Amblyomma dubitatum* in Santos Dias (1989c). The name *Amblyomma formosanum* is a synonym of *Amblyomma geoemydae* as stated in Keirans & Clifford (1984).
- 1145 *formosensis* Neumann, 1913b, *Haemaphysalis*. Hoogstraal (1966b) found *Haemaphysalis formosensis* identified as *Haemaphysalis warburtoni* Nuttall, 1912, and Keirans (1985) found *Haemaphysalis aborensis* classified as *Haemaphysalis formosensis* in the Nuttall Collection.
- 1146 *forskaelii* (Audouin, 1826), *Argas*. It was originally named *Ixodes forskaelii* (*nomen dubium*). The name *Argas forskaelii* is a *nomen dubium* used in Neumann (1896 spelled *Argas forskåli*) for an argasid synonym of *Ixodes forskaelii* (*nomen dubium*). *Argas forskaelii* is not included in Neumann (1911a) and Camicas *et al.* (1998).
- 1147 *forskaelii* (Audouin, 1826), *Hyalomma*. This name is in Oudemans (1936) and Doss & Anastos (1977) based in Koch (1844a), but this author used the name *Hyalomma forskaolii*. The name *Hyalomma forskaelii* is a *nomen dubium* synonym of *Ixodes forskaelii* (*nomen dubium*), but not included in Camicas *et al.* (1998).
- 1148 *forskaelii* Audouin, 1826, *Ixodes*. It was originally named *Ixodes forskåli* and corrected to *Ixodes forskaelii*. The name *Ixodes forskaelii* is doubtful in Neumann (1911a) and Camicas *et al.* (1998), and considered to be an Argasidae in Nuttall & Warburton (1911). The name *Ixodes forskaelii* is a *nomen dubium*.
- 1149 *forskaolii* Koch, 1844a, *Hyalomma*. This name is a *lapsus* for *Hyalomma forskaelii* (*nomen dubium*), but not included in Doss & Anastos (1977).
- 1150 *fossae* Hoogstraal, 1953b, *Haemaphysalis*
- 1151 *fossulatus* Neumann, 1899, *Ixodes*
- 1152 *fossum* Neumann, 1899, *Amblyomma*. This name is valid in Neumann (1911a), but it is a synonym of *Amblyomma ovale* as stated in Robinson (1926) and Camicas *et al.* (1998).
- 1153 *fossum intermedium* Ivancovich, 1973, *Amblyomma*. This name is a synonym of *Amblyomma calcaratum* as stated in Guglielmone & Viñabal (1994), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1154 *fouisseur* Mégnin, 1867, *Ixodes*. This name is a synonym of *Ixodes ricinus* as stated in Camicas *et al.* (1998), but not included in Neumann (1911a).
- 1155 *franchinii* Tonelli Rondelli, 1932b, *Hyalomma*. It was originally named *Hyalomma tunesiacum franchinii* and given its current status in Hoogstraal & Kaiser (1958a). The species N° 1 near *excavatum* in Hoogstraal (1956a) is in fact *Hyalomma franchinii* as stated in Apanaskevich *et al.* (2008a).
- 1156 *fraudigerum* Schulze, 1935d, *Aponomma*. This name is a probable synonym of *Aponomma varanense* (= *Amblyomma varanense*) in Kaufman (1972) and Camicas *et al.* (1998). The name *Aponomma fraudigerum* is a synonym of *Aponomma fuscolineatum* (= *Amblyomma fuscolineatum*) in Santos Dias (1993a) because this author consider *Aponomma varanense* (= *Amblyomma varanense*) a synonym of *Aponomma fuscolineatum* (= *Amblyomma fuscolineatum*), a view not supported here. The name *Aponomma fraudigerum* is a provisional synonym of *Amblyomma varanense*.
- 1157 *frauenfeldi* Koch, 1872, *Eschatocephalus*. This name is a synonym of *Eschatocephalus vespertilionis* (= *Ixodes vespertilionis*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes vespertilionis* as stated in Neumann (1911a).
- 1158 *freguens* Kim, 1973, *Ixodes* (page 98). This name is a *lapsus* for *Ixodes frequens* (= *Ixodes ovatus*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1159 *frequens* Ogura and Takada, 1927, *Ixodes*. This name is a synonym of *Ixodes ovatus* as stated in Yamaguti *et al.* (1971) and Camicas *et al.* (1998).
- 1160 *frontalis* Panzer, 1798, *Acarus*. This name is a synonym of *Ixodes frontalis* and its original name. The name *Acarus frontalis* is a synonym of *Scaphixodes frontalis* in Camicas *et al.* (1998), but it is a synonym of *Ixodes frontalis*.
- 1161 *frontalis* (Panzer, 1798), *Euixodes*. It was originally named *Acarus frontalis* (= *Ixodes frontalis*). The name *Euixodes frontalis* used in Bonnet (1908) is a synonym of *Scaphixodes frontalis* in Camicas *et al.* (1998), but it is a synonym of *Ixodes frontalis*.
- 1162 *frontalis* (Panzer, 1798), *Ixodes*. It was originally named *Acarus frontalis* and given its current status in Koch (1844a). The name *Ixodes frontalis* is a synonym of *Ixodes brunneus* in Nuttall & Warburton (1911) and others, but both names are valid. *Ixodes frontalis* is a synonym of *Scaphixodes frontalis* in Camicas *et al.* (1998), but it is valid. Keirans (1985) found *Ixodes frontalis* identified as *Ixodes brunneus* in the Nuttall Collection. Neumann (1911a) divided this name into two subspecies: *frontalis frontalis* (= *Ixodes frontalis*) and *frontalis sulcatus* (*incertae sedis*).
- 1163 *frontalis* (Panzer, 1798), *Scaphixodes*. It was originally named *Acarus frontalis* (= *Ixodes frontalis*). The name *Scaphixodes frontalis* used in Camicas & Morel (1977) and by a few other workers, is valid in Camicas *et al.* (1998), but it is a synonym of *Ixodes frontalis*.
- 1164 *frontalis brunneus* Koch, 1844a, *Ixodes*. This name used in Schulze (1933c) is a synonym of *Scaphixodes brunneus* (= *Ixodes brunneus*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes brunneus*.
- 1165 *frontalis frontalis* (Panzer, 1798), *Ixodes*. This name used in Neumann (1911a) is a synonym of *Scaphixodes frontalis* (= *Ixodes frontalis*) in Camicas *et al.* (1998), but *Ixodes frontalis frontalis* is a synonym of *Ixodes frontalis*.
- 1166 *frontalis sulcatus* Neumann, 1911a, *Ixodes*. This name is for a variety of *Ixodes frontalis* unnamed in Neumann (1899). The name *Ixodes frontalis sulcatus* Neumann, 1911a is a synonym of *Scaphixodes brunneus* (= *Ixodes brunneus*) in

- Camicas *et al.* (1998). *Ixodes frontalis sulcatus* Neumann, 1911a has a vague description and unknown type location, a name *incertae sedis* here.
- 1167 *fucipes* Onofrio, Barros-Battesti, Labruna and Faccini, 2009, *Ixodes* (page 152). This name is a *lapsus* for *Ixodes fuscipes*.
- 1168 *fufipes* McGarry, McCall and Welby, 2001, *Hyalomma* (page 2106). This name is a *lapsus* for *Hyalomma rufipes* Koch, 1844a.
- 1169 *fujisana* Kitaoka, 1970, *Haemaphysalis*
- 1170 *fulvum* Neumann, 1899, *Amblyomma*. This name is a synonym of *Amblyomma fuscolineatum* in Santos Dias (1958a), but it is valid as stated in Neumann (1911a), Camicas *et al.* (1998) and Guglielmone *et al.* (2003, 2010b, 2014).
- 1171 *fulvus* (Neumann, 1913a), *Pterygodes*. It was originally named *Rhipicephalus fulvus*. The name *Pterygodes fulvus* used in Morel & Graber (1961) is a synonym of *Rhipicephalus fulvus* as stated in Camicas *et al.* (1998), but not included in Doss & Anastos (1977).
- 1172 *fulvus* Neumann, 1913a, *Rhipicephalus*
- 1173 *furcosum* Neumann, 1901, *Amblyomma*. This name is a synonym of *Amblyomma decoratum* (= *Amblyomma helvolum*) in Neumann (1911a). The name *Amblyomma furcosum* is a synonym of *Amblyomma helvolum* as stated in Robinson (1926) and Camicas *et al.* (1998).
- 1174 *furcosum* (Neumann, 1901), *Rhipicephalus*. This name is a *lapsus* for *Amblyomma furcosum* (= *Amblyomma helvolum*) in Neumann (1901, page 361) and not a *lapsus* in Doss & Anastos (1977) as stated in Camicas *et al.* (1998). The name *Rhipicephalus furcosum* is not included in Neumann (1911a).
- 1175 *furcula* Dönnitz, 1909, *Amblyomma*. This name is valid in Robinson (1926), but it is a synonym of *Amblyomma neumanni* Ribaga, 1902 as stated in Santos Dias (1961b) and Camicas *et al.* (1998).
- 1176 *fusca* Christophers, 1907, *Haemaphysalis*. This name is a *nomen dubium* in Camicas *et al.* (1998), but not included in Neumann (1911a). The name *Haemaphysalis fusca* has no description or figure, a *nomen nudum*, but still listed as valid in Geevarghese *et al.* (1997) and Ghosh *et al.* (2007).
- 1177 *fuscipes* Koch, 1844a, *Ixodes*
- 1178 *fuscipes* (Koch, 1844a), *Haemalastor*. It was originally named *Ixodes fuscipes*. The name *Haemalastor fuscipes* used in Oudemans (1936, page 485) is a synonym of *Ixodes fuscipes* here, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1179 *fuscolineatum* (Lucas, 1847), *Amblyomma*. It was originally named *Ixodes fuscolineatus*. This tick has usually been considered a member of *Aponomma*, but it is now placed in the genus *Amblyomma* (Horak *et al.* 2002; Klompen *et al.* 2002). The name *Amblyomma fuscolineatum* is not included in Doss & Anastos (1977).
- 1180 *fuscolineatum* (Lucas, 1847), *Aponomma*. It was originally named *Ixodes fuscolineatus* (= *Amblyomma fuscolineatum*). The name *Aponomma fuscolineatum* used in Schulze (1936c) is valid in Camicas *et al.* (1998), but it is a synonym of *Amblyomma fuscolineatum* as stated in Horak *et al.* (2002) and here. However, the name *Aponomma fuscolineatum* (= *Amblyomma fuscolineatum*) in Schulze (1936c) is in fact *Aponomma crassipes* Neumann, 1901 [= *Amblyomma crassipes* (Neumann, 1901)] according to Santos Dias (1993a). *Aponomma fuscolineatum* is not included in Doss & Anastos (1977)
- 1181 *fuscolineatus* (Lucas, 1847), *Amblyomma*. This name is in Doss & Anastos (1977) based on Santos Dias (1958a), but these authors used the correct name *Amblyomma fuscolineatum*. The name *Amblyomma fuscolineatus* is a synonym of *Amblyomma fuscolineatum*, but not included in Camicas *et al.* (1998).
- 1182 *fuscolineatus* (Lucas, 1847), *Aponomma*. This name is in Doss & Anastos (1977) based on Schulze (1936c), but these authors used the correct name *Aponomma fuscolineatum*. The name *Aponomma fuscolineatus* is a synonym of *Amblyomma fuscolineatum*, but not included in Camicas *et al.* (1998).
- 1183 *fuscolineatus* Lucas, 1847, *Ixodes*. This name is *incertae sedis* in Neumann (1911a) and a synonym of *Aponomma fuscolineatum* (= *Amblyomma fuscolineatum*) in Camicas *et al.* (1998). The name *Ixodes fuscolineatus* is a synonym of *Amblyomma fuscolineatum* and its original name.
- 1184 *fuscomaculatum* (Lucas, 1873), *Amblyomma*. This name used in Santos Dias (1958a, 1989c) is a synonym of *Amblyomma rotundatum* as stated in Camicas *et al.* (1998), but not included in Doss & Anastos (1977).
- 1185 *fuscomaculatus* Lucas, 1873, *Ixodes*. This name is *incertae sedis* in Neumann (1911a) and a synonym of *Amblyomma fuscomaculatum* in Santos Dias (1958a, 1989c). The name *Ixodes fuscomaculatus* is a synonym of *Amblyomma rotundatum* as stated in Camicas *et al.* (1998), Guglielmone *et al.* (2003) and Guglielmone & Nava (2010, page 39). The latter authors confused this name with *Ixodes flavomaculatus* (= *Amblyomma flavomaculatum*).
- 1186 *fuscous* Say, 1821, *Ixodes*. This name is *incertae sedis* in Neumann (1911a) spelled *Ixodes fuscus* Say 1821). The name *Ixodes fuscous* is a synonym of *Ixodes scapularis* Say, 1821 as stated in Keirans & Clifford (1978) and Camicas *et al.* (1998).
- 1187 *fuscula* Jakob (sometimes cited as Jacob), 1924, *Amblyomma*. This name is a *lapsus* for *Amblyomma furcula* (= *Amblyomma neumanni* Ribaga, 1902).
- 1188 *fuscum* Neumann, 1907d, *Amblyomma*. This name is not included in Horak *et al.* (2002), but *Amblyomma fuscum* is valid as stated in Neumann (1911a), Camicas *et al.* (1998) and Guglielmone *et al.* (2003, 2009, 2010b, 2014).
- 1189 *fuscus* Vallot, 1801, *Acarus*. This name is a synonym of *Ixodes ricinus* in Camicas *et al.* (1998) based on Oudemans [(1929 who regards *Acarus fuscus* Vallot, 1801 a synonym of *Ixodes reduvius* (Linnaeus, 1758) (= *Ixodes ricinus*)] and Neumann (1911a). However, Neumann (1911a) does not list *Acarus fuscus* Vallot, 1801. The original description of

Acarus fuscus Vallot, 1801 has not been found and this name is *incertae sedis* here.

- 1190 *fuscus* Say, 1821, *Ixodes*. It was originally named *Ixodes fuscous*, but Neumann (1911a), who regards this name *incertae sedis*, and others spelt this name *Ixodes fuscus* Say 1821. The name *Ixodes fuscus* Say, 1821 is a synonym of *Ixodes scapularis* Say, 1821 as stated in Camicas *et al.* (1998).
- 1191 *fuscus* Koch, 1844b, *Ixodes*. This name is a synonym of *Ixodes ricinus* as stated in Neumann (1911a) and Camicas *et al.* (1998).
- 1192 *fynbosensis* Apanaskevich, Horak, Matthee and Matthee, 2010 (doi available online from February 25, 2010), *Ixodes*, in Apanaskevich *et al.* (2011).

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- 1193 *gaeyi* Rawlins, Mahadeo and Martínez, 1993, *Amblyomma* (page 9). This name is a *lapsus* for *Amblyomma geayi*, but not included in Camicas *et al.* (1998). This *lapsus* is repeated in Loaiza *et al.* (2013, pages 3, 6).
- 1194 *galactites* Schulze, 1941e, *Aponomma*. It was originally named *Aponomma oudemansi galactites (incertae sedis)*. The name *Aponomma galactites* used in Halliday (2012) is considered by this author a synonym of *Bothriocroton concolor* (Neumann, 1899). *Aponomma galactites* is a name *incertae sedis* synonym of *Aponomma oudemansi galactites (incertae sedis)* here.
- 1195 *galapagoensi* Kolonin, 2007, *Ixodes* (page 407). This name is a *lapsus* for *Ixodes galapagoensis*
- 1196 *galapagoensis* Clifford and Hoogstraal, 1980, *Ixodes*
- 1197 *garhwalensis* Dhanda and Bhat, 1968a, *Haemaphysalis*
- 1198 *garhwalicus* Mathai, 1959, *Ixodes*. This name is a *nomen dubium* following Camicas *et al.* (1998) because the article with the description of *Ixodes garhwalicus* has not been located.
- 1199 *geayi* Neumann, 1899, *Amblyomma*. This name is a synonym of *Ixodes perpunctatus (nomen dubium)* in Santos Dias (1961b) and Camicas *et al.* (1998), but it is valid as stated in Neumann (1911a) and Guglielmone *et al.* (2010b, 2014).
- 1200 *geigeyi* Farougou, Kpodekon, Tchabode, Youssao and Boko, 2006, *Boophilus* (pages 145-149). This name is a *lapsus* for *Boophilus geigyi (= Rhipicephalus geigyi)*.
- 1201 *geigyi* Aeschlimann and Morel, 1965, *Boophilus*. This name is valid in Camicas *et al.* (1998) and in many studies, but it is a synonym of *Rhipicephalus geigyi* as stated in Horak *et al.* (2002).
- 1202 *geigyi* (Aeschlimann and Morel, 1965), *Rhipicephalus*. It was originally named *Boophilus geigyi* and given its current status in Horak *et al.* (2002). Keirans (1985) found *Boophilus geigyi (= Rhipicephalus geigyi)* identified as *Boophilus australis* (Fuller, 1899) (= partly *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) and *Boophilus decoloratus (= Rhipicephalus decoloratus)* in the Nuttall Tick Collection.
- 1203 *geiyi* Ica, Vatansever, Yildirim, Duzlu and Inci, 2007, *Boophilus* (page 157). This name is a *lapsus* for *Boophilus geigyi (= Rhipicephalus geigyi)* repeated in Kalkan *et al.* (2010, page 13).
- 1204 *geiyi* Tavassoli, Tabatabaei, Mohammadi, Esmaeilnejad and Mohamadpour, 2013, *Rhipicephalus* (page 132). This name is a *lapsus* for *Rhipicephalus geigyi*.
- 1205 *gema* Petro, Kasege, Kilasara, Kawiche, Temba, Kaunda and Sungi, 2012, *Amblyomma* (page 99). This name is a *lapsus* for *Amblyomma gemma* repeated in Shiferaw & Onu (2013 as *Amblyomma*, page 292).
- 1206 *gemina* Bossena and Mohamed, 2012, *Amblyomma* (page 33). This name is a *lapsus* for *Amblyomma gemma*.
- 1207 *gemma* Dönitz, 1909, *Amblyomma*. This name has been confused with *Amblyomma eburneum* by several authors. Keirans (1985) found *Amblyomma gemma* identified as *Amblyomma hebraeum* and *Amblyomma lepidum* classified as *Amblyomma gemma*.
- 1208 *genevrayi* Toumanoff, 1944, *Haemaphysalis*. This name is a synonym of *Haemaphysalis hystricis* Supino, 1897 as stated in Hoogstraal *et al.* (1965c) and Camicas *et al.* (1998).
- 1209 *geochelone* Durden, Keirans and Smith, 2002, *Amblyomma*
- 1210 *geoemydae* (Cantor, 1847), *Amblyomma*. It was originally named *Ixodes geoemydae* and given its current status in Neumann (1906).
- 1211 *geoemydae* (Cantor, 1847), *Haemalastor*. It was originally named *Ixodes geoemydae (= Amblyomma geoemydae)*. The name *Haemalastor geoemydae* used in Oudemans (1936) is a synonym of *Amblyomma geoemydae* as stated in Anastos (1950), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1212 *geoemydae* Cantor, 1847, *Ixodes*. This name is a synonym of *Amblyomma geoemydae* and its original name as stated in Neumann (1911a) and Camicas *et al.* (1998).
- 1213 *geoemydae* Schulze, 1932e, *Amblyomma* (pages 470, 471). This name is a *lapsus* for *Amblyomma geoemydae* repeated in Rau (1965, page 58) and others, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1214 *gerneyensis* Pérez-Eid, 2007, *Ixodes* (page 99). This name is a *lapsus* for *Ixodes guernseyensis (= Ixodes acuminatus)*.
- 1215 *gertrudae* Feldman-Muhsam, 1960b, *Rhipicephalus*
- 1216 *gertschi* Cooley and Kohls, 1942a, *Amblyomma*. This name is a synonym of *Amblyomma varium* as stated in Camicas *et al.* (1998) and Onofrio *et al.* (2008), but still used as valid in Hayssen (2010).
- 1217 *gervaisi* (Lucas, 1847), *Amblyomma*. It was originally named *Ixodes gervaisi*. This species has usually been considered a member of *Aponomma*, but it is now placed in the genus *Amblyomma* (Horak *et al.* 2002; Klompen *et al.* 2002).
- 1218 *gervaisi* (Lucas, 1847), *Aponomma*. It was originally named *Ixodes gervaisi (= Amblyomma gervaisi)*. The name *Aponomma gervaisi* used first in Neumann (1899) is valid in Camicas *et al.* (1998), but it is a synonym of *Amblyomma*

- gervaisi* in Horak *et al.* (2002) and here. However, *Aponomma gervaisi* in Neumann (1911a) is probably in fact partly *Aponomma varanensis* (= *Amblyomma varanense*), and in Krijgsman & Ponto (1931) is in fact *Aponomma varanensis* (= *Amblyomma varanense*) according to Kaufman (1972). Santos Dias (1993a) affirms that *Aponomma gervaisi* (= *Amblyomma gervaisi*) in Oudemans (1927) and Seddon (1947) is actually *Aponomma trimaculatum* (Lucas 1878b) [(= *Amblyomma trimaculatum* (Lucas, 1878b))] and *Aponomma fimbriatum* (= *Amblyomma fimbriatum*), respectively. Santos Dias (1993a) also states that the name *Aponomma gervaisi* (= *Amblyomma gervaisi*) is a synonym of *Aponomma ophiophilum* (*incertae sedis*) and that it has been confused with *Aponomma arcanum* (= *Amblyomma arcanum*), *Aponomma fimbriatum* (= *Amblyomma fimbriatum*) and *Aponomma trimaculatum* (Lucas, 1878b) [= *Amblyomma trimaculatum* (Lucas, 1878b)]. Keirans (1985) found *Aponomma varanensis* (= *Amblyomma varanense*) and *Aponomma hydrosauri* (= *Bothriocroton hydrosauri*) identified as *Aponomma gervaisi* (= *Amblyomma gervaisi*).
- 1219 *gervaisi* Lucas, 1847, *Ixodes*. This name is a synonym of *Aponomma ophiophilum* (*incertae sedis*) in Santos Dias (1993a), but it is a synonym of *Aponomma gervaisi* (= *Amblyomma gervaisi*) in Neumann (1911a) and Camicas *et al.* (1998). The name *Ixodes gervaisi* is a synonym of *Amblyomma gervaisi* and its original name.
- 1220 *gervaisi* (Lucas, 1847), *Ophiodes*. It was originally named *Ixodes gervaisi* (= *Amblyomma gervaisi*). The name *Ophiodes gervaisi* used in Murray (1877) is a synonym of *Aponomma gervaisi* (= *Amblyomma gervaisi*) in Neumann (1911a) and Camicas *et al.* (1998). *Ophiodes gervaisi* is a synonym of *Amblyomma gervaisi* here.
- 1221 *gervaisi gervaisi* (Lucas, 1847), *Aponomma*. This name used in Schulze (1941e) is a synonym of *Aponomma gervaisi* (= *Amblyomma gervaisi*) as stated in Kaufman (1972).
- 1222 *gervaisi lucasi* Warburton, 1910, *Aponomma*. This name is a synonym of *Aponomma lucasi* (= *Amblyomma varenense*) in Anastos (1950), but Santos Dias (1993a) considers *Aponomma gervaisi lucasi* a synonym of *Aponomma fuscolineatum* (= *Amblyomma fuscolineatum*). The name *Aponomma gervaisi lucasi* is a synonym of *Aponomma varanense* (= *Amblyomma varanense*) in Kaufman (1972) and Camicas *et al.* (1998). *Aponomma gervaisi lucasi* is a synonym of *Amblyomma varanense* here. Keirans (1985) found *Aponomma trimaculatum* (Lucas 1878b) [= *Amblyomma trimaculatum* (Lucas, 1878b)] identified as *Aponomma gervaisi lucasi* in the Nuttall Tick Collection.
- 1223 *gervaisi toreuma* Schulze, 1941e, *Aponomma*. This name is a synonym of *Aponomma gervaisi* (= *Amblyomma gervaisi*) as stated in Kaufman (1972) and Camicas *et al.* (1998).
- 1224 *gervaisi typica* Sharif, 1928, *Aponomma*. This name is a synonym of *Aponomma gervaisi* (= *Amblyomma gervaisi*) as stated in Camicas *et al.* (1998), but not included in Doss & Anastos (1977).
- 1225 *gervarsii* Tseng, 1978, *Aponomma* (page 8). This name is a *lapsus* for *Aponomma gervaisi* (= *Amblyomma gervaisi*), but not included in Camicas *et al.* (1998).
- 1226 *gerveasii* Tseng, 1978, *Ixodes* (page 8). This name is a *lapsus* for *Ixodes gervaisi* (= *Amblyomma gervaisi*), but not included in Camicas *et al.* (1998).
- 1227 *gestroi* (Supino, 1897), *Haemaphysalis*. It was originally named *Opisthodon gestroi* (= *Haemaphysalis asiatica*). The name *Haemaphysalis gestroi* used in Neumann (1897) and by a few other workers, is *incertae sedis* in Neumann (1911a) and a synonym of *Haemaphysalis leachi* in Nuttall & Warburton (1915), Santos Dias (1958a) and others. *Haemaphysalis gestroi* is a synonym of *Haemaphysalis asiaticus* (Supino, 1897) (= *Haemaphysalis asiatica*) in Keirans & Hillyard (2001). The name *Haemaphysalis gestroi* is a synonym of *Haemaphysalis asiatica* as stated in Camicas *et al.* (1998).
- 1228 *gestroi* Supino, 1897, *Opisthodon*. This name is a synonym of *Haemaphysalis gestroi* (= *Haemaphysalis asiatica*) in Neumann (1911a), a synonym of *Haemaphysalis leachi* in Nuttall & Warburton (1915) and a synonym of *Haemaphysalis asiaticus* (Supino, 1897) (= *Haemaphysalis asiatica*) in Keirans & Hillyard (2001). The name *Opisthodon gestroi* is a synonym of *Haemaphysalis asiatica* as stated in Camicas *et al.* (1998).
- 1229 *gestroi* (Supino, 1897), *Prosopodon*. It was originally named *Opisthodon gestroi* (= *Haemaphysalis asiatica*). The generic name *Opisthodon* was preoccupied and Canestrini (1897a) replaced it with *Prosopodon*. The name *Prosopodon gestroi* printed first in Hoogstraal & Trapido (1966), is a synonym of *Haemaphysalis asiaticus* (Supino, 1897) (= *Haemaphysalis asiatica*) in Hoogstraal & Trapido (1966). *Prosopodon gestroi* is a synonym of *Haemaphysalis asiatica* in Camicas *et al.* (1998) and here.
- 1230 *getruda* Mbat, Hlatshwayo, Mtshali, Mogaswane, De Waal and Dipeolu, 2002, *Rhipicephalus* (page 221). This name is a *lapsus* for *Rhipicephalus gertrudae* repeated in Horak & Matthee (2003, page 190) and others.
- 1231 **ghilarovi** Filippova and Panova, 1988, *Ixodes*
- 1232 **gibbosus** Nuttall, 1916, *Ixodes*. It was originally named *Ixodes ricinus gibbosus* and given its current status in Schulze (1927). The name *Ixodes gibbosus* has been confused with *Ixodes hexagonus* and *Ixodes ricinus* as stated in Saratsiotis (1970) and some records of *Ixodes gibbosus* are in fact *Ixodes eldaricus* according to Filippova (1974).
- 1233 *gibbosus ricinus* (Linnaeus, 1758), *Ixodes*. This name used in Hamel & Gothe (1978, page 188) is treated here as a *lapsus* for *Ixodes ricinus gibbosus* (= *Ixodes gibbosus*), but not included in Camicas *et al.* (1998).
- 1234 *gibsoni* Harkare, Gawande, Baviskar, Latha, Hippargi, Jayraw and Maske, 2007, *Aponomma*. This name has no description, a *nomen nudum*.
- 1235 *giganteum* Neumann, 1899, *Amblyomma*. This name is a synonym of *Amblyomma longirostre* as stated in Neumann (1911a) and Camicas *et al.* (1998).
- 1236 *gigas* Warburton, 1910, *Ixodes*. This name is valid in Nuttall & Warburton (1911), but it is a synonym of *Ixodes acutitarsus* as stated in Camicas *et al.* (1998) and Keirans & Hillyard (2001).
- 1237 *ginghaiensis* Shi, Yang, Li and Zhao, 2000, *Haemaphysalis* (page 49). This name is a *lapsus* for *Haemaphysalis*

- quinghaiensis* repeated in Aktas *et al.* (2006, page 260).
- 1238 *glabroscutatum* Du Toit, 1941, *Rhipicephalus*. This name is a synonym of *Rhipicephalus glabroscutatus* and its original name.
- 1239 *glabroscutatus* Du Toit, 1941, *Rhipicephalus*. It was originally named *Rhipicephalus glabroscutatum* and amended in Morel (1969).
- 1240 *glabrum* Delpy, 1949a, *Hyalomma*. It was originally named *Hyalomma rufipes glabrum*, given its current status in Theiler (1956) and reinstated definitely in Apanaskevich & Horak (2006). The name *Hyalomma glabrum* is a synonym of *Hyalomma marginatum turanicum* (= *Hyalomma turanicum*) in Camicas *et al.* (1998), but it is valid as stated in Apanaskevich & Horak (2006). *Hyalomma turanicum* in Hoogstraal (1956a) is in fact *Hyalomma glabrum*, while *Hyalomma marginatum turanicum* in Horak & MacIvor (1987) and Horak *et al.* (1991a) are also *Hyalomma glabrum* (Horak, I.G. personal communication).
- 1241 *gladiger* (Neumann, 1908b), *Rhipicentor*. It was originally named *Rhipicephalus gladiger* (= *Rhipicentor bicornis*). The name *Rhipicentor gladiger* used in Jakob (sometimes cited as Jacob) (1924) and by a few other workers, is a synonym of *Rhipicentor bicornis* Nuttall and Warburton, 1908 in Camicas *et al.* (1998). However, Santos Dias (1958a) argued that *Rhipicentor gladiger* (= *Rhipicentor bicornis*) was published before than *Rhipicentor bicornis* Nuttall and Warburton, 1908 and prevails, but Howard (1908) presented an opposite view.
- 1242 *gladiger* Neumann, 1908b, *Rhipicephalus*. This name is valid prevailing over *Rhipicentor bicornis* Nuttall and Warburton, 1908 in Neumann (1911a). The name *Rhipicephalus gladiger* is a synonym of *Rhipicentor bicornis* Nuttall and Warburton, 1908 in Camicas *et al.* (1998) and here.
- 1243 *granulatus* Lerdtusnee, Nigro, Monkanna, Leepitakrat, Leepitakrat, Insuan, Charoensongsermkit, Khlainanee, Akkagraisee, Chayapum and Jones, 2008, *Ixodes* (page 271). This name is a *lapsus* for *Ixodes granulatus*.
- 1244 *glauerti* Keirans, King and Sharrad, 1994, *Amblyomma*
- 1245 *glauerti* Burger, Shao and Barker, 2013, *Amblyomma* (page 269). This name is a *lapsus* for *Amblyomma glauerti*.
- 1246 *glebopalma* Keirans, King and Sharrad, 1994, *Aponomma*. This name is valid in Camicas *et al.* (1998), but it is a synonym of *Bothriocroton glebopalma* and its original name.
- 1247 *glebopalma* (Keirans, King and Sharrad, 1994), *Bothriocroton*. It was originally named *Aponomma glebopalma* (= *Bothriocroton glebopalma*). This species has usually been considered a member of *Aponomma*, but it is now placed in the genus *Bothriocroton* (Horak *et al.* 2002; Klompen *et al.* 2002).
- 1248 *globulosus* Supino, 1897, *Ixodes*. This name is a *nomen dubium* in Camicas *et al.* (1998). The name *Ixodes globulosus* is *incertae sedis* in Neumann (1911a) and here.
- 1249 *globulus* (Lucas, 1860), *Aponomma*. It was originally named *Ixodes globulus* (= *Amblyomma transversale*). The name *Aponomma globulus* used in Neumann (1899) is *incertae sedis* in Neumann (1911a), doubtful in Nuttall & Warburton (1911), and a synonym of *Aponomma transversale* (= *Amblyomma transversale*) in Kaufman (1972) and Camicas *et al.* (1998 citing 1844 the year of its description). The name *Aponomma globulus* is a synonym of *Amblyomma transversale* here. The correct name for this tick should be *Aponomma globulum*.
- 1250 *globulus* Lucas, 1860, *Ixodes*. This name is *incertae sedis* synonym of *Aponomma globulus* (= *Amblyomma transversale*) in Neumann (1911a) and a synonym of *Aponomma transversale* (= *Amblyomma transversale*) in Kaufman (1972) and Camicas *et al.* (1998 citing 1844 the year for its description). The name *Ixodes globulus* is a synonym of *Amblyomma transversale*.
- 1251 *glyphis* Dönitz, 1910b, *Rhipicephalus*. This name is a synonym of *Rhipicephalus lunulatus* as stated in Walker *et al.* (2000).
- 1252 *goeldii* Neumann, 1899, *Amblyomma*. This name is spelled *göldii* by several authors, but it is corrected to *goeldii*. The name *Amblyomma goeldii* is a synonym of *Amblyomma fuscomaculatum* (= *Amblyomma rotundatum*) in Santos Dias (1958a), but it is valid. However, *Amblyomma goeldii* in Neumann (1899) is partly a synonym of *Amblyomma rotundatum* as stated in Robinson (1926) and Guglielmone *et al.* (2003). *Amblyomma inini* is partly a synonym of *Amblyomma goeldii* as stated in Guglielmone *et al.* (2003) and Guglielmone & Nava (2010). *Amblyomma rotundatum* has been sometimes named *Amblyomma goeldii* as stated in Aragão (1936) and Keirans (1985).
- 1253 *goral* Hoogstraal, 1970b, *Haemaphysalis*. It was originally identified as *Haemaphysalis neumanni* Dönitz, 1905 (= *Haemaphysalis longicornis*) as stated in Keirans (1985).
- 1254 *gracilentum* (Lucas, 1846), *Hyalomma*. It was originally named *Ixodes gracilentus (incertae sedis)*. The name *Hyalomma gracilentum* used in Santos Dias (1958a) is a *nomen dubium* in Camicas *et al.* (1998), but not included in Doss & Anastos (1977). The name *Hyalomma gracilentum* is *incertae sedis* synonym of *Ixodes gracilentus (incertae sedis)* here.
- 1255 *gracilentus* (Lucas, 1846), *Hyalomma*. This name is in Doss & Anastos (1977) based on Santos Dias (1958a), but this author used the correct name *Hyalomma gracilentum*. The name *Hyalomma gracilentus* is *incertae sedis*, synonym of *Ixodes gracilentus (incertae sedis)*, but not included in Camicas *et al.* (1998).
- 1256 *gracilentus* Lucas, 1846, *Ixodes*. This name is a synonym of *Hyalomma aegyptium aegyptium (incertae sedis)* in Neumann (1911a) and a *nomen dubium* in Camicas *et al.* (1998). The name *Ixodes gracilentus* is *incertae sedis* in Santos Dias (1958a) and here.
- 1257 *gracilentus* (Lucas, 1846), *Ophiodes*. It was originally named *Ixodes gracilentus (incertae sedis)*. The name *Ophiodes gracilentus* used in Murray (1877) is a synonym of *Hyalomma aegyptium aegyptium (incertae sedis)* in Neumann (1911a) and a *nomen dubium* in Camicas *et al.* (1998). *Ophiodes gracilentus* is a name *incertae sedis* synonym of *Ixodes*

gracilentus (*incertae sedis*) here.

- 1258 *gracilipes* Frauenfeld, 1853, *Eschatocephalus*. This name is a synonym of *Eschatocephalus vespertilionis* (= *Ixodes vespertilionis*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes vespertilionis* as stated in Neumann (1911a).
- 1259 *gracilipes* (Frauenfeld, 1853), *Haemalastor*. It was originally named *Eschatocephalus gracilipes* (= *Ixodes vespertilionis*). The name *Haemalastor gracilipes* used in Frauenfeld (1854) and by a few other workers, is a synonym of *Eschatocephalus vespertilionis* (= *Ixodes vespertilionis*) in Camicas *et al.* (1998). *Haemalastor gracilipes* is a synonym of *Ixodes vespertilionis* in Neumann (1911a) and here.
- 1260 *granulatus* Supino, 1897, *Ixodes*. This name is doubtful in Nuttall & Warburton (1911), but it is valid as stated in Neumann (1911a) and Camicas *et al.* (1998). The species 4, 51 and 101 in Asanuma & Sekikawa (1952, 1953 publications that were not located) are in fact *Ixodes granulatus* as stated in Yamaguti *et al.* (1971).
- 1261 *gregsoni* Lindquist, Wu and Redner, 1999, *Ixodes*
- 1262 *grochovskaja* Kolonin 2007, *Haemaphysalis* (page 405). This name is a *lapsus* for *Haemaphysalis grochovskajae* repeated in Kolonin (2009, no page number)
- 1263 *grochovskajae* Kolonin, 1992b, *Haemaphysalis*
- 1264 *grossum* (Pallas, 1772), *Amblyomma*. It was originally named *Acarus grossus* Pallas, 1772 (*nomen dubium*). The name *Amblyomma grossum* (Pallas, 1772) used first in Neumann (1899) is valid in Rawlins *et al.* (1993) and a name *incertae sedis* in Neumann (1911a), but not included in Doss & Anastos (1977). *Amblyomma grossum* (Pallas, 1772) is a *nomen dubium* synonym of *Acarus grossus* Pallas, 1772 (*nomen dubium*) in Camicas *et al.* (1998) and here.
- 1265 *grossum* Koch, 1844a, *Hyalomma*. This name is *incertae sedis* in Neumann (1911a), but Camicas *et al.* (1998) and Apanaskevich & Horak (2008b) consider *Hyalomma grossum* Koch, 1844a to be simultaneously a *nomen nudum* and a synonym of *Hyalomma marginatum rufipes* Koch, 1844a (= *Hyalomma rufipes* Koch, 1844a) and *Hyalomma rufipes* Koch, 1844a, respectively. The name *Hyalomma grossum* Koch, 1844a is *incertae sedis* here.
- 1266 *grossus* Pallas, 1772, *Acarus*. This name is *incertae sedis* in Neumann (1911a). The name *Acarus grossus* is a *nomen dubium* in Camicas *et al.* (1998) and here.
- 1267 *grossus* (Pallas, 1772), *Amblyomma*. This name is in Doss & Anastos (1977) based on Neumann (1899), but this author used the correct name *Amblyomma grossum* (Pallas, 1772). The name *Amblyomma grossus* (Pallas, 1772) is *incertae sedis*, synonym of *Acarus grossus* Pallas, 1772 (*incertae sedis*), but not included in Camicas *et al.* (1998).
- 1268 *grossus* Conil, 1877, *Ixodes*. This name is a *nomen dubium* in Camicas *et al.* (1998), but not included in Neumann (1911a). The name *Ixodes grossus* Conil, 1877 has no description or figure, a *nomen nudum*.
- 1269 *guatamalensis* Clifford, Sonenshine, Keirans and Kohls, 1973, *Ixodes* (page 495). This name is a *lapsus* for *Ixodes guatamalensis*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1270 *guatamalensis* Kohls, 1956a *Ixodes*. This name is often cited as described in 1957.
- 1271 *guernseyensis* Arthur, 1955d, *Ixodes*. This name is valid in Arthur (1963), but it is a synonym of *Ixodes acuminatus* as stated in Camicas *et al.* (1998) and Keirans & Hillyard (2001).
- 1272 *guianense* Neumann, 1907d, *Amblyomma*. This name is valid in Neumann (1911a), Rawlins *et al.* (1993) and Guerrero (1996), a probable synonym of *Amblyomma multipunctum* in Jones *et al.* (1972) and a synonym of *Amblyomma oblongoguttatum* in Camicas *et al.* (1998). The name *Amblyomma guianense* is *incertae sedis* confused with *Amblyomma trimaculatum* Neumann, 1908d (*incertae sedis*) as stated in Guglielmone *et al.* (2003).
- 1273 *guianensis* Neumann, 1907d, *Amblyomma*. This name is used in Guerrero (1996, page 16) and is treated here as a synonym of *Amblyomma guianense* (*incertae sedis*).
- 1274 *guilhoni* Morel and Vassiliades, 1963, *Rhipicephalus*. The name *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition) in Rageau (1953b) and Morel & Magimel (1959) is in fact partly *Rhipicephalus guilhoni* according to Morel & Mouchet (1965).
- 1275 *gussevi* Reznik, 1958, *Ixodes*. This name is a synonym of *Scaphixodes caledonicus* (= *Ixodes caledonicus*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes caledonicus*.
- 1276 *gynaecoides* Doss and Anastos, 1977, *Dermacentor*, derived from *gynaecoides* in Olenev (1927). This name is a *nomen nudum*, repeated in Camicas *et al.* (1998), who regard it a synonym of *Dermacentor marginatus* (Sulzer, 1776) under the authority of Olenev, 1927. The name *Dermacentor gynaecoides* is derived from a wrong interpretation of an epithet in Olenev (1927) that is not a tick name but a morphological definition that involves more than one species (Apanaskevich D.A., personal communication).
- 1277 *gypsatum* Neumann, 1899, *Amblyomma*. This name is a synonym of *Amblyomma humerale* as stated in Neumann (1911a) and Camicas *et al.* (1998).
- 1278 *gypsatus* Neumann, 1899, *Amblyomma*. This name is in Doss & Anastos (1977) based on Neumann (1899), but this author used the correct name *Amblyomma gypsatum* (= *Amblyomma humerale*). The name *Amblyomma gypsatus* is a synonym of *Amblyomma humerale*, but not included in Camicas *et al.* (1998).

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- 1279 *haebraeum eburneum* Gerstäcker, 1873, *Amblyomma*. This name is a *lapsus* for *Amblyomma haebraeum eburneum* (= *Amblyomma eburneum*) in Tonelli Rondelli (1926a), but not included in Doss & Anastos (1977).
- 1280 *haebraeum lepidum* Dönitz, 1909, *Amblyomma*. This name is a *lapsus* for *Amblyomma haebraeum lepidum* (= *Amblyomma lepidum*) in Tonelli Rondelli (1926a), but not included in Doss & Anastos (1977).

- 1281 *haebreum* Tonelli Rondelli, 1926a, *Amblyomma*. This name is a *lapsus* for *Amblyomma hebraeum* repeated in Rageau & Vervent (1953, pages 61, 63) among others, but not included in Doss & Anastos (1977).
- 1282 *haemaphysalides* Chhetri and Shrestha, 2011, *Rhipicephalus* (pages 152, 153). This name is a *lapsus* for *Rhipicephalus haemaphysaloides*.
- 1283 *haemaphysalis* Padbidri, Rodrigues, Shetty, Joshi, Rao and Shukla, 1984, *Rhipicephalus* (page 45). This name is a *lapsus* for *Rhipicephalus haemaphysaloides*, but not included in Camicas *et al.* (1998).
- 1284 *haemaphysaloides* Shahardar and Narsapur, 2003, *Rhipicephalus* (pages 737, 738). This name is a *lapsus* for *Rhipicephalus haemaphysaloides*.
- 1285 *haemaphysaloides* (Supino, 1897), *Boophilus*. This name used in De Blicek (1916) is a *nomen nudum* and a *lapsus* in Camicas *et al.* (1998). The name *Boophilus haemaphysaloides* is a *lapsus* for *Rhipicephalus haemaphysaloides* here.
- 1286 ***haemaphysaloides*** Supino, 1897, *Rhipicephalus*. It was originally named *Rhipicephalus haemaphysaloides niger* and given its current status in Neumann (1897). The name *Rhipicephalus haemaphysaloides* in Krijgsman & Ponto (1931) is in fact *Rhipicephalus haemaphysaloides pilans* (= *Rhipicephalus pilans*) as stated in Anastos (1950), while Camicas *et al.* (1998) regard it a synonym of *Rhipicephalus haemaphysaloides haemaphysaloides* (= *Rhipicephalus haemaphysaloides*). Keirans (1985) found *Rhipicephalus haemaphysaloides* identified as *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition). Neumann (1911a) divided this name into two subspecies: *haemaphysaloides haemaphysaloides* (= *Rhipicephalus haemaphysaloides*) and *haemaphysaloides expeditus* (= *Rhipicephalus haemaphysaloides*), and Camicas *et al.* (1998) also divided this species into two subspecies: *haemaphysaloides haemaphysaloides* (= *Rhipicephalus haemaphysaloides*) and *haemaphysaloides pilans* (= *Rhipicephalus pilans*).
- 1287 *haemaphysaloides expedita* Neumann, 1904, *Rhipicephalus*. This is the original name for *Rhipicephalus haemaphysaloides expeditus* (= *Rhipicephalus haemaphysaloides*) as stated in Neumann (1911a) and Camicas *et al.* (1998), but not included in Doss & Anastos (1977). The name *Rhipicephalus haemaphysaloides expedita* is a synonym of *Rhipicephalus haemaphysaloides haemaphysaloides* (= *Rhipicephalus haemaphysaloides*) in Neumann (1911a) and Camicas *et al.* (1998). *Rhipicephalus haemaphysaloides expedita* is a synonym of *Rhipicephalus haemaphysaloides* here.
- 1288 *haemaphysaloides expeditus* Neumann, 1904, *Rhipicephalus*. It was originally named *Rhipicephalus haemaphysaloides expedita* (= *Rhipicephalus haemaphysaloides*) and amended in Neumann (1911a). The name *Rhipicephalus haemaphysaloides expeditus* is a synonym of *Rhipicephalus haemaphysaloides haemaphysaloides* (= *Rhipicephalus haemaphysaloides*) in Neumann (1911a) and Camicas *et al.* (1998). *Rhipicephalus haemaphysaloides expeditus* is a synonym of *Rhipicephalus haemaphysaloides* as stated in Walker *et al.* (2000).
- 1289 *haemaphysaloides haemaphysaloides* Supino, 1897, *Rhipicephalus*. This name used first in Neumann (1911a) is valid in Camicas *et al.* (1998). The name *Rhipicephalus haemaphysaloides haemaphysaloides* is a synonym of *Rhipicephalus haemaphysaloides* as stated in Walker *et al.* (2000).
- 1290 *haemaphysaloides niger* Supino, 1897, *Rhipicephalus*. This name is *incertae sedis* in Neumann (1911a), a synonym of *Rhipicephalus haemaphysaloides haemaphysaloides* (= *Rhipicephalus haemaphysaloides*) in Camicas *et al.* (1998), while Sharif (1928) considers it a *nomen nudum* with type lost. The name *Rhipicephalus haemaphysaloides niger* is a synonym of *Rhipicephalus haemaphysaloides* and its original name as stated in Walker *et al.* (2000).
- 1291 *haemaphysaloides paulopunctata* Neumann, 1897, *Rhipicephalus*. It was originally named *Rhipicephalus paulopunctatus* (= *Rhipicephalus pilans*). The name *Rhipicephalus haemaphysaloides paulopunctata* used in Neumann (1904) and by a few other workers, is a synonym of *Rhipicephalus haemaphysaloides pilans* (= *Rhipicephalus pilans*) in Camicas *et al.* (1998), but not included in Neumann (1911a). *Rhipicephalus haemaphysaloides paulopunctata* is a synonym of *Rhipicephalus pilans* as stated in Walker *et al.* (2000).
- 1292 *haemaphysaloides paulopunctatus* Neumann, 1897, *Rhipicephalus*. It was originally named *Rhipicephalus haemaphysaloides paulopunctata* (= *Rhipicephalus pilans*) and amended in Schulze (1932c). The name *Rhipicephalus haemaphysaloides paulopunctatus* is a synonym of *Rhipicephalus haemaphysaloides pilans* (= *Rhipicephalus pilans*) in Camicas *et al.* (1998), but not included in Doss & Anastos (1977). *Rhipicephalus haemaphysaloides paulopunctatus* is a synonym of *Rhipicephalus pilans* here. However, *Rhipicephalus haemaphysaloides paulopunctatus* in Zumpt (1940) is a synonym of *Rhipicephalus haemaphysaloides pilans* (= *Rhipicephalus pilans*) according to Camicas *et al.* (1998), but it in Schulze (1936b) is a synonym of *Rhipicephalus haemaphysaloides haemaphysaloides* (= *Rhipicephalus haemaphysaloides*) in the opinion of Anastos (1950). The latter author also affirms that *Rhipicephalus haemaphysaloides paulopunctatus* has been confused with *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*).
- 1293 *haemaphysaloides pilans* Schulze, 1935a, *Rhipicephalus*. This name used in Zumpt (1940) and by a few other workers, is a synonym of *Rhipicephalus haemaphysaloides pilans* (= *Rhipicephalus pilans*) in Camicas *et al.* (1998). The name *Rhipicephalus haemaphysaloides pilans* is a synonym of *Rhipicephalus pilans* as stated in Walker *et al.* (2000).
- 1294 *haemaphysaloides ruber* Supino, 1897, *Rhipicephalus*. This name is a synonym of *Rhipicephalus haemaphysaloides haemaphysaloides* (= *Rhipicephalus haemaphysaloides*) in Neumann (1911a) and Camicas *et al.* (1998). The name *Rhipicephalus haemaphysaloides ruber* is a synonym of *Rhipicephalus haemaphysaloides* as stated in Walker *et al.* (2000).
- 1295 *haemaphysaloides* Vathsala, Mohan and Ramessh, 2008, *Rhipicephalus* (pages 238-241). This name is a *lapsus* for *Rhipicephalus haemaphysaloides*.
- 1296 *hahni* (Oudemans, 1936), *Dermacentor*. This name is a *lapsus* for *Indocentor hahni* (*nomen dubium*) in Estrada-Peña

- (1991, page 36), but not included in Camicas *et al.* (1998).
- 1297 *hahni* Oudemans, 1936, *Indocentor*. This name is a new one for *Ixodes reduvius* (Linnaeus, 1758) (= *Ixodes ricinus*) in Hahn (1834) according to Doss & Anastos (1977). The name *Indocentor hahni* is a *nomen dubium* as stated in Camicas *et al.* (1998).
- 1298 *hainanense* Estrada-Peña and Castellá, 1994, *Amblyomma* (page 23). This name is a *lapsus* for *Amblyomma hainanense*, but not included in Camicas *et al.* (1998).
- 1299 *hainanense* Teng, 1981, *Amblyomma*. This name is a synonym of *Amblyomma helvolum* in Kolonin (2009), but it is provisionally valid in Guglielmone *et al.* (2014) and here. Estrada-Peña & Castellá (1994) spelt this name *Amblyomma hainanense* (*lapsus*) under the authority of Teng and Huang, 1981.
- 1300 *haitianum* Schulze, 1941c, *Amblyomma*. This name is a synonym of *Amblyomma albopictum* as stated in Santos Dias (1958d) and Camicas *et al.* (1998).
- 1301 *halli* McIntosh, 1931, *Dermacentor*. Tick specimens from Costa Rica, Guatemala, Honduras and Panama identified as *Dermacentor halli* are in fact *Dermacentor panamensis*, and illustrations of *Dermacentor halli* in Yunker *et al.* (1986) correspond to *Dermacentor panamensis* as stated in Apanaskevich & Bermúdez (2013).
- 1302 *halli* Tendeiro, 1948, *Aponomma*. This name is a synonym of *Aponomma flavomaculatum* (= *Amblyomma flavomaculatum*) as stated in Santos Dias (1958a) and Camicas *et al.* (1998).
- 1303 *happinus* Yajima, 1955, *Ixodes*. This name is a *nomen dubium* in Camicas *et al.* (1998), but it is a *nomen nudum* as stated in Yamaguti *et al.* (1971).
- 1304 *hassalli* Marx and Neumann, 1899, *Amblyomma*, in Neumann (1899). This name is a synonym of *Amblyomma hebraeum hebraeum* (= *Amblyomma hebraeum*) in Neumann (1911a), a synonym of *Amblyomma hebraeum* in Robinson (1926) and partly a synonym of *Amblyomma hebraeum*, *Amblyomma marmoreum* and *Amblyomma sparsum* in Voltzit & Keirans (2003). The name *Amblyomma hassalli* is *incertae sedis*.
- 1305 *hayashii* Nakatsudi, 1942a, *Ixodes*. This name is a *nomen dubium* in Camicas *et al.* (1998), but its description is vague and types are not available as stated in Yamaguti *et al.* (1971). The name *Ixodes hayashii* is a *nomen nudum*, and its authority is sometimes spelled Nakatsuji.
- 1306 *hearlei* Gregson, 1941, *Ixodes*. This name is a synonym of *Pholeoixodes hearlei* in Camicas *et al.* (1998), but it is valid. *Ixodes marxi* in Hearle (1938) is in fact *Ixodes hearlei* as stated in Gregson (1941). Keirans (1985) found *Ixodes hearlei* identified as *Ixodes texanus* Banks, 1909.
- 1307 *hearlei* (Gregson, 1941), *Pholeoixodes*. It was originally named *Ixodes hearlei*. The name *Pholeoixodes hearlei* is valid in Camicas *et al.* (1998) based on Morel & Pérez (1973), but it is a synonym of *Ixodes hearlei*.
- 1308 *hebraeum* Lwande, Lutomiah, Obanda, Gayuka, Mutisya, Mulwa, Michuki, Chepkorir, Fischer, Venter and Sang, 2013, *Amblyomma* (page 640). This name is a *lapsus* for *Amblyomma hebraeum*.
- 1309 *hebraeum* Koch, 1844a, *Amblyomma*. This name in Schoenaers (1951) is in fact *Amblyomma cohaerens* according to Theiler & Robinson (1954). Keirans (1985) found *Amblyomma gemma* and *Amblyomma lepidum* identified as *Amblyomma hebraeum* in the Nuttall Collection. Neumann (1911a) divided *Amblyomma hebraeum* into three subspecies: *hebraeum hebraeum* (= *Amblyomma hebraeum*), *hebraeum eburneum* (= *Amblyomma eburneum*) and *hebraeum splendidum* (= *Amblyomma splendidum*).
- 1310 *hebraeum* (Koch, 1844a), *Haemalastor*. This name used in Oudemans (1936, page 488) is a synonym of *Amblyomma hebraeum*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1311 *hebraeum eburneum* Gerstäcker, 1873, *Amblyomma*. It was originally named *Amblyomma eburneum*. The name *Amblyomma hebraeum eburneum* used in Neumann (1905, 1911a) is a synonym of *Amblyomma eburneum* as stated in Robinson (1926) and Camicas *et al.* (1998).
- 1312 *hebraeum eburnum* Patton and Cragg, 1913, *Amblyomma* (page 620). This name is a *lapsus* for *Amblyomma haebraeum eburneum* (= *Amblyomma eburneum*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1313 *hebraeum hebraeum* Koch, 1844a, *Amblyomma*. This name used in Neumann (1911a) is a synonym of *Amblyomma hebraeum* as stated in Camicas *et al.* (1998).
- 1314 *hebraeum lepidum* Dönitz, 1909, *Amblyomma*. This name used in Franchini (1929) is a synonym of *Amblyomma lepidum* as stated in Camicas *et al.* (1998).
- 1315 *hebraeum magnum* Neumann, 1909a, *Amblyomma*. This name is doubtful in Robinson (1926), but it is a synonym of *Amblyomma sparsum* as stated in Theiler & Salisbury (1959) and Camicas *et al.* (1998).
- 1316 *hebraeum splendidum* Giebel, 1877, *Amblyomma*. This name used in Neumann (1905, 1911a) and by a few other workers, is a synonym of *Amblyomma splendidum* as stated in Robinson (1926) and Camicas *et al.* (1998).
- 1317 *hebraeum variegatum* (Fabricius, 1798), *Amblyomma*. This name is a synonym of *Amblyomma variegatum* in Camicas *et al.* (1998) based on Doss & Anastos (1977), who name this tick *Amblyomma hebraeum variegatus* (Fabricius, 1798) and state that this name is printed on page 620 in Patton & Cragg (1913). However, there is no mention to *Amblyomma hebraeum variegatum* or *variegatus* in Patton & Cragg (1913), which is a *nomen nudum*.
- 1318 *hebraeum variegatus* (Fabricius, 1798), *Amblyomma*. This name is in Doss & Anastos (1977) based on Patton & Cragg (1913) who allegedly named this tick on page 620. However, there is no mention to *Amblyomma hebraeum variegatus* (Fabricius, 1798) in Patton & Cragg (1913), which is a *nomen nudum*, but not included in Camicas *et al.* (1998).
- 1319 *hebraum* Tatchell, 1987, *Amblyomma* (page 604). This name is a *lapsus* for *Amblyomma hebraeum*, but not included in Camicas *et al.* (1998). This *lapsus* is repeated in Amuamuta *et al.* (2012, pages 173, 174) among others.

- 1320 *hebreum* Ribeiro, 1967, *Amblyomma* (pages 37, 41). This name is a *lapsus* for *Amblyomma hebraeum*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Spinage (2012, page 1133) and others.
- 1321 *hexa* Railliet, 1895, *Ixodes* (as *Ionus*) (page 709). This name is a *lapsus* for *Ixodes hexagonus*, but not included in Neumann (1911a), Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1322 *heinrichi* Schulze, 1939c, *Haemaphysalis*. The alleged type series of *Haemaphysalis heinrichi* Schulze, 1939c contains also *Haemaphysalis wellingtoni* and *Dermacentor* sp. as stated in Hoogstraal & Kohls (1968). The undetermined species of *Haemaphysalis* in Hoogstraal *et al.* (1968a) is *Haemaphysalis heinrichi* Schulze, 1939c as stated in Hoogstraal & Kohls (1968).
- 1323 *heinrichi* Arthur, 1962a, *Ixodes*
- 1324 *helvolum* Miranpuri and Naithani, 1978, *Amblyomma* (page 1). This name is a *lapsus* for *Amblyomma helvolum*, but not included in Camicas *et al.* (1998).
- 1325 *helvolum* Koch, 1844a, *Amblyomma*. This name is *incertae sedis* in Neumann (1911a). Keirans (1985) found *Amblyomma helvolum* identified as *Amblyomma exornatum*.
- 1326 *helvolum* (Koch, 1844a), *Haemalastor*. It was originally named *Amblyomma helvolum*. The name *Haemalastor helvolum* used in Oudemans (1936) is a synonym of *Amblyomma helvolum* as stated in Anastos (1950), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1327 *heraldi* Arthur, 1963, *Endopalpiger* (page 144). This name is a *lapsus* for *Endopalpiger heroldi* (= *Ixodes trianguliceps*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1328 *hermanni* Risso, 1826, *Cynorhaestes*. This name is a synonym of *Ixodes ricinus* as stated in Neumann (1911a) and Camicas *et al.* (1998).
- 1329 *heroldi* Schulze, 1939d, *Endopalpiger*. This name is a synonym of *Ixodes trianguliceps* as stated in Arthur (1963) who spelt this name *Endopalpiger heraldi* (*lapsus*).
- 1330 *heroldi* (Schulze, 1939d), *Exopalpiger*. This name is a synonym of *Ixodes trianguliceps* in Camicas *et al.* (1998) and a *lapsus* for *Endopalpiger heroldi* (= *Ixodes trianguliceps*) in Černý (1959) according to Doss & Anastos (1977). The name *Exopalpiger heroldi* is a *lapsus* for *Endopalpiger heroldi* (= *Ixodes trianguliceps*) here.
- 1331 *herreræ* Dugès, 1891, *Ixodes*. This name is usually regarded a synonym of *Amblyomma cajennense*, i.e. Neumann (1911a) and Camicas *et al.* (1998 citing 1887 the year for its description), but the description has not diagnostic value and the type material is lost. The name *Ixodes herreræ* is a *nomen dubium* here.
- 1332 *herreræ* Ivancovich and Luciani 1992, *Ixodes* (page 37). This name is a *lapsus* for *Ixodes herreræ* (*nomen dubium*), but not included in Camicas *et al.* (1998).
- 1333 *hexagonus* (Leach, 1815), *Euixodes*. It was originally named *Ixodes hexagonus*. The name *Euixodes hexagonus* used in Bonnet (1908) is a synonym of *Pholeioxodes hexagonus* (= *Ixodes hexagonus*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes hexagonus*.
- 1334 *hexagonus* Leach, 1815, *Ixodes*. This name has been widely used to denominate related or unrelated ticks species. The name *Ixodes hexagonus* is a synonym of *Pholeioxodes hexagonus* in Camicas *et al.* (1998), but *Ixodes hexagonus* is valid. The name *Ixodes hexagonus* in Hewitt (1915) and Hearle (1938) is in fact *Ixodes rugosus* according to Gregson (1956). Filippova & Uspenskaya (1973) affirm that *Ixodes kaiseri* has been confused with *Ixodes hexagonus*. Keirans (1985) found *Ixodes cookei*, *Ixodes lividus* Koch, 1844a, *Ixodes rubidus* and *Ixodes rugosus* identified as *Ixodes hexagonus* in the Nuttall Collection, and Saratsiotis (1970) mentions its confusion with *Ixodes gibbosus*. Neumann (1911a) divided this name into two subspecies: *hexagonus hexagonus* (= *Ixodes hexagonus*) and *Ixodes hexagonus inchoatus* [partly a synonym of *Ixodes marxi* in Keirans & Clifford (1978) and partly a synonym of *Pholeioxodes canisuga* (= *Ixodes canisuga*) according to Camicas *et al.* (1998)].
- 1335 *hexagonus* (Leach, 1815), *Pholeioxodes*. It was originally named *Ixodes hexagonus*. The name *Pholeioxodes hexagonus* used in Morel & Pérez (1973) is valid in Camicas *et al.* (1998), but it is a synonym of *Ixodes hexagonus*.
- 1336 *hexagonus cookei* Packard, 1869, *Ixodes*. The name *Ixodes hexagonus cookei* used in Nuttall (1911) is a synonym of *Pholeioxodes cookei* (= *Ixodes cookei*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes cookei* as stated in Keirans & Clifford (1978). Gregson (1956) affirms that this name in Hewitt (1915) is in fact *Ixodes rugosus* and in Hearle (1938) actually partly *Ixodes rugosus*. Keirans (1985) found *Ixodes sculptus* Neumann, 1904, *Ixodes rugosus* and *Ixodes cookei* identified as *Ixodes hexagonus cookei* in the Nuttall Tick Collection.
- 1337 *hexagonus coolei* Vargas 2001, *Ixodes* (page 203). This name is a *lapsus* for *Ixodes hexagonus cookei* (= *Ixodes cookei*).
- 1338 *hexagonus dardanicus* Schulze, 1919, *Ixodes* (usually cited Schulze, 1918). This name is a synonym of *Ixodes gibbosus* as stated in Saratsiotis (1970) and Camicas *et al.* (1998).
- 1339 *hexagonus hexagonus* Leach, 1815, *Ixodes*. This name used in Neumann (1911a) and by a few other workers, is a synonym of *Pholeioxodes hexagonus* (= *Ixodes hexagonus*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes hexagonus* here.
- 1340 *hexagonus hungaricus* Babos, 1964a, *Ixodes*. This name is a synonym of *Pholeioxodes hexagonus* (= *Ixodes hexagonus*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes hexagonus* here.
- 1341 *hexagonus inchoatus* Morel and Pérez, 1973, *Ixodes*. This name is a *lapsus* for *Ixodes hexagonus inchoatus* (partly a synonym of *Ixodes marxi* and *Ixodes canisuga*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1342 *hexagonus inchoatus* Neumann, 1901, *Ixodes*. This name is partly a synonym of *Ixodes marxi* in Keirans & Clifford (1978) and partly a synonym of *Pholeioxodes canisuga* (= *Ixodes canisuga*) in Camicas *et al.* (1998).

- 1343 *hexagonus longispinosus* Neumann, 1901, *Ixodes*. This name is a synonym of *Pholeoixodes cookei* (= *Ixodes cookei*) in Camicas *et al.* (1998). The name *Ixodes hexagonus longispinosus* is a synonym of *Ixodes cookei* as stated in Neumann (1911a) and Keirans & Clifford (1978).
- 1344 *hexagonus pacata* Schulze, 1937c, *Ixodes*. This name is a synonym of *Pholeoixodes hexagonus* (= *Ixodes hexagonus*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes hexagonus* here.
- 1345 *hexagonus rarus* Babos, 1964b, *Ixodes*. This name is a synonym of *Pholeoixodes hexagonus* (= *Ixodes hexagonus*) in Morel & Pérez (1973) and Camicas *et al.* (1998), but *Ixodes hexagonus rarus* is a synonym of *Ixodes hexagonus*.
- 1346 *hexagonus sanguineus* Latreille, 1806, *Ixodes*. This name used in Séguy (1935) is an alleged synonym of *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition) in Camicas *et al.* (1998), but there is no morphological definition for *Ixodes hexagonus sanguineus* either. The name *Ixodes hexagonus sanguineus* is a *nomen nudum* here.
- 1347 *hexaporus* Conceição-Silva, Abranches, Silva-Pereira and Janz, 1988, *Ixodes* (page 346). This name is a *lapsus* for *Ixodes hexagonus*, but not included in Camicas *et al.* (1998).
- 1348 *hexoganus* Brown and Burgess, 2001, *Ixodes* (page 441). This name is a *lapsus* for *Ixodes hexagonus* repeated in Aktas *et al.* (2012, pages 569, 570).
- 1349 *hidrosauri* Chacón, Barbieri, Correia, Faccini and Daemon, 2002, *Aponomma* (page 161). This name is a *lapsus* for *Aponomma hydrosauri* (= *Bothriocroton hydrosauri*).
- 1350 *hilgerti* (Neumann, 1902), *Eurhipicephalus*. It was originally named *Rhipicephalus hilgerti* (= *Rhipicephalus praetextatus*). The name *Eurhipicephalus hilgerti* used in Castellani & Chalmers (1910, page 1184) is a synonym of *Rhipicephalus praetextatus* here, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1351 *hilgerti* Neumann, 1902, *Rhipicephalus*. This name is a synonym of *Rhipicephalus simus hilgerti* (= *Rhipicephalus praetextatus*) in Neumann (1911a). The name *Rhipicephalus hilgerti* is a synonym of *Rhipicephalus praetextatus* as stated in Walker *et al.* (2000).
- 1352 *himalaya* Hoogstraal, 1966d, *Haemaphysalis*. This name is valid in Barker & Murrell (2004, 2008), but it is a synonym of *Haemaphysalis sundrai* as stated in Guglielmone *et al.* (2009).
- 1353 *himalayensis* Dhanda and Kulkarni, 1969, *Ixodes*
- 1354 *hippopotamense* (Denny, 1843), *Amblyomma*. It was originally named *Ixodes hippopotamensis* (= *Cosmiomma hippopotamensis*). The name *Amblyomma hippopotamense* used first in Neumann (1899) is a synonym of *Hyalomma hippopotamense* (= *Cosmiomma hippopotamensis*) in Neumann (1911a), but not included in Doss & Anastos (1977). *Amblyomma hippopotamense* is a synonym of *Cosmiomma hippopotamensis* as stated in Camicas *et al.* (1998)
- 1355 *hippopotamense* (Denny, 1843), *Hyalomma*. It was originally named *Ixodes hippopotamensis* (= *Cosmiomma hippopotamensis*). The name *Hyalomma hippopotamense* used first in Neumann (1906) is valid in Neumann (1911a). *Hyalomma hippopotamense* is a synonym of *Cosmiomma hippopotamensis* as stated Camicas *et al.* (1998).
- 1356 *hippopotamensis* (Denny, 1843), *Cosmiomma*. It was originally named *Ixodes hippopotamensis* and given its current status in Schulze (1920). The name *Cosmiomma hippopotamensis* is a synonym of *Cosmiomma bimaculatum* in Santos Dias (1958a), but it was validated by Koch (1844a) as first reviser, who spelt this name *Amblyomma hippopotami* (= *Cosmiomma hippopotamensis*).
- 1357 *hippopotamensis* (Denny, 1843), *Dermacentor*. It was originally named *Ixodes hippopotamensis* (= *Cosmiomma hippopotamensis*). The name *Dermacentor hippopotamensis* used in Hoogstraal (1956b) is a synonym of *Cosmiomma hippopotamensis* as stated in Camicas *et al.* (1998).
- 1358 *hippopotamensis* Denny, 1843, *Ixodes*. This name is a synonym of *Cosmiomma hippopotamensis* and its original name as stated in Camicas *et al.* (1998).
- 1359 *hippopotami* (Denny, 1843), *Amblyomma*. It was originally named *Ixodes hippopotamensis* (= *Cosmiomma hippopotamensis*). The name *Amblyomma hippopotami* used in Koch (1844a) is a synonym of *Cosmiomma hippopotamensis* as stated in Camicas *et al.* (1998), but not included in Doss & Anastos (1977).
- 1360 *hirsti* Hassall, 1931, *Ixodes*. It was originally named *Ixodes victoriensis* Hirst, 1930, a name preoccupied by *Ixodes victoriensis* Nuttall, 1916 and renamed *Ixodes hirsti* in Hassall (1931).
- 1361 *hirsuta* Hoogstraal, Trapido and Kohls, 1966a, *Haemaphysalis*. It was originally identified as *Haemaphysalis papuana* Thorell, 1883 in Anastos (1950) as stated in Hoogstraal *et al.* (1966a). The name *Haemaphysalis hirsuta* in Phan Trong (1977) is in fact *Haemaphysalis obesa* as stated in Camicas *et al.* (1998).
- 1362 *hirsutus* Birula, 1895, *Ixodes*. This name is *incertae sedis* in Neumann (1911a) and a synonym of *Ceratixodes uriae* (= *Ixodes uriae*) in Camicas *et al.* (1998). The name *Ixodes hirsutus* is a synonym of *Ixodes uriae* as stated in Filippova (2008).
- 1363 *hirtum* Neumann, 1906, *Amblyomma*. This name is a synonym of *Amblyomma pilosum* in Santos Dias (1958a), but it is valid as stated in Camicas *et al.* (1998) and Guglielmone *et al.* (2003).
- 1364 *hirudo* Fabricius, 1781, *Acarus*. This name is a synonym of *Ixodes ricinus* in Camicas *et al.* (1998) and *incertae sedis* in Neumann (1911a), but not included in Doss & Anastos (1977). The name *Acarus hirudo* Fabricius, 1781 is a *nomen dubium* here.
- 1365 *hirudo* Koch, 1878, *Haemaphysalis*. This name in Neumann (1897) is partly a synonym of *Haemaphysalis papuana* Thorell, 1883 and *Haemaphysalis flava* Neumann, 1897 according to Camicas *et al.* (1998). Morel (1963a) affirms that Neumann (1897) did not designate type for *Haemaphysalis hirudo*, but Neumann (1897) refers to *Haemaphysalis hirudo* Koch, 1878 and, obviously, Neumann (1897) did not designate type for a described species. Morel (1963a) presents a

- confuse explanation of *Haemaphysalis hirudo* in Neumann (1897) involving specimens of *Haemaphysalis bispinosa*, *Haemaphysalis concinna*, *Haemaphysalis flava* Neumann, 1897, *Haemaphysalis japonica* and *Haemaphysalis papuana* Thorell, 1883. The name *Haemaphysalis hirudo* Koch, 1878 in Neumann (1897) is in fact *Haemaphysalis concinna kochi* Neumann, 1905 (= *Haemaphysalis concinna*) according to Neumann (1911a, page 111), who also regards *Haemaphysalis hirudo* Koch, 1878 *incertae sedis* on page 116. Yamaguti *et al.* (1971) consider *Haemaphysalis hirudo* Koch, 1878 a synonym of *Haemaphysalis concinna*. Keirans (1985) found *Haemaphysalis concinna* identified as *Haemaphysalis hirudo* Koch, 1878 in the Nuttall Collection. The name *Haemaphysalis hirudo* Koch, 1878 is *incertae sedis*.
- 1366 *hirundinicola* Schulze, 1944b, *Ixodes*. This name is a synonym of *Pholeoixodes lividus* (Koch, 1844a) (= *Ixodes lividus* Koch, 1844a) in Camicas *et al.* (1998), but it is a synonym of *Ixodes lividus* Koch, 1844a here.
- 1367 *hispanica* Gil Collado, 1938, *Haemaphysalis*. It was originally named *Haemaphysalis camapanulata hispanica* and given its current status in Gil Collado (1948).
- 1368 *hispanicum* Murray, 1877, *Hyalomma*. This name is a *lapsus* for *Hyalomma hispanum* (Fabricius, 1787) (*nomen dubium*) as stated in Doss & Anastos (1977), but not included in Neumann (1911a).
- 1369 *hispanum* (Fabricius, 1787), *Hyalomma*. It was originally named *Acarus hispanus* Fabricius, 1787 (*nomen dubium*). The name *Hyalomma hispanum* (Fabricius, 1787) used in Koch (1844a) and by a few other workers, is *incertae sedis*, probably a synonym of *Acarus hispanus* Fabricius, 1787 in Neumann (1911a), a synonym of *Hyalomma marginatum marginatum* (= *Hyalomma marginatum*) in Camicas *et al.* (1998) and a synonym of *Hyalomma marginatum* in Apanaskevich & Horak (2008b). *Hyalomma hispanum* (Fabricius, 1787) is a *nomen dubium* synonym of *Acarus hispanus* Fabricius, 1787 (*nomen dubium*) here. However, specimens of *Hyalomma hispanum* (Fabricius, 1787) identified by Koch are in fact *Hyalomma marginatum* as stated in Apanaskevich & Horak (2008b).
- 1370 *hispanum* Koch, 1844a, *Hyalomma*. This name is in Doss & Anastos (1977), but not included in Neumann (1911a) and Camicas *et al.* (1998). The name *Hyalomma hispanum* in Koch (1844a) is not referred to a new species, but to the taxon *Acarus hispanus* Fabricius, 1787. Nevertheless, Apanaskevich & Horak (2008b) examined Koch's specimens of *Hyalomma hispanum* bearing label of "type" to find that they were *Hyalomma marginatum*. We conclude, that *Hyalomma hispanum* (Fabricius, 1787) in Koch (1844a) is in fact *Hyalomma marginatum*, but the name *Hyalomma hispanum* Koch, 1844a is a *nomen nudum*.
- 1371 *hispanum* (Fabricius, 1787), *Rhipicephalus*. It was originally named *Acarus hispanus* Fabricius, 1787 (*nomen dubium*). The name *Rhipicephalus hispanum* (Fabricius, 1787) used in Dönitz (1905) is a *nomen dubium* in the opinion of Camicas *et al.* (1998). *Rhipicephalus hispanum* (Fabricius, 1787) is a *lapsus* for *Hyalomma hispanum* (Fabricius, 1787) (*nomen dubium*) as stated in Walker *et al.* (2000) under the authority of Dönitz, 1905. *Rhipicephalus hispanum* (Fabricius, 1787) is not included in Neumann (1911a).
- 1372 *hispanus* Fabricius, 1787, *Acarus*. This name is *incertae sedis* probably a synonym of *Hyalomma aegyptium* in Neumann (1911a), a synonym of *Hyalomma marginatum marginatum* (= *Hyalomma marginatum*) in Camicas *et al.* (1998) and simultaneously a probable synonym of *Hyalomma marginatum* and a *nomen dubium* in Apanaskevich & Horak (2008b). The name *Acarus hispanus* Fabricius, 1787 is a *nomen dubium* here.
- 1373 *hispanus* (Fabricius, 1787), *Hyalomma*. This name is in Oudemans (1936) and Doss & Anastos (1977) based on Koch (1844a), but this author used the correct name *Hyalomma hispanum* (Fabricius, 1787). The name *Hyalomma hispanus* (Fabricius, 1787) is a *nomen dubium* synonym of *Acarus hispanus* Fabricius, 1787 (*nomen dubium*), but not included in Camicas *et al.* (1998).
- 1374 *hispanus* (Fabricius, 1787), *Ixodes*. It was originally named *Acarus hispanus* Fabricius, 1787 (*nomen dubium*). The name *Ixodes hispanus* (Fabricius, 1787) used in Latreille (1804) and by a few other workers, is a synonym of *Acarus hispanus* (*incertae sedis*) in Neumann (1911a), a synonym of *Hyalomma marginatum marginatum* (= *Hyalomma marginatum*) in Camicas *et al.* (1998) and a synonym of *Hyalomma marginatum* in Apanaskevich & Horak (2008b). *Ixodes hispanus* (Fabricius, 1787) is a *nomen dubium* synonym of *Acarus hispanus* Fabricius, 1787 (*nomen dubium*) here.
- 1375 *hispanus* Brébisson, 1827, *Ixodes*. This name is incorrect for Ixodidae because it is a synonym of *Argas reflexus* (Argasidae) as stated in Santos Dias (1961a), but not included in Neumann (1911a) and Doss & Anastos (1977).
- 1376 *hispanus* Kolenati, 1857, *Ixodes*. This name is *incertae sedis* in Neumann (1911a), *nomen dubium* in Camicas *et al.* (1998) and also cited in Doss & Anastos (1977). However, Kolenati (1857) on page 433 not page 431 as stated in Neumann (1911a) and Doss & Anastos (1977), refers to *Ixodes hispanus* (Fabricius, 1787). The name *Ixodes hispanus* Kolenati, 1857 is a *nomen nudum*.
- 1377 *hispidulus* Kolenati, 1856, *Sarconyssus* (spelled *Sarconissus*). This name is a synonym of *Eschatocephalus vespertilionis* (= *Ixodes vespertilionis*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes vespertilionis* as stated in Neumann (1911a).
- 1378 *hispinosa* Neumann, 1897, *Haemaphysalis*. This name is a *lapsus* for *Haemaphysalis bispinosa*, but not included in Neumann (1911a).
- 1379 *histicis* Neumann, 1902, *Haemaphysalis* (page 128). This name is a *lapsus* for *Haemaphysalis hystericis* Supino, 1897, but not included in Neumann (1911a), Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Chiya *et al.* (2001, page 61) and others.
- 1380 *histrion* Fabricius, 1798, *Acarus*. This name is *incertae sedis* in Neumann (1911a), but a *nomen dubium* in Camicas *et al.* (1998) and here.
- 1381 *histrion* (Fabricius, 1798), *Amblyomma*. It was originally named *Acarus histrion* (*nomen dubium*). The name *Amblyomma*

- histrion* used in Koch (1844a, 1847) is a name *incertae sedis* in Neumann (1911a). *Amblyomma histrion* is a *nomen dubium* synonym of *Acarus histrion* (*nomen dubium*) in Camicas *et al.* (1998) and here.
- 1382 *histrion* (Fabricius, 1798), *Dermacentor*. It was originally named *Acarus histrion* (*nomen dubium*). The name *Dermacentor histrion* used in Oudemans [1929 (page 233), 1936] is a *nomen dubium* synonym of *Acarus histrion* (*nomen dubium*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1383 *histrion* (Fabricius, 1798), *Ixodes*. It was originally named *Acarus histrion* (*nomen dubium*). The name *Ixodes histrion* used in Fabricius (1805) is a name *incertae sedis* in Neumann (1911a). *Ixodes histrion* is a *nomen dubium* synonym of *Acarus histrion* (*nomen dubium*) in Camicas *et al.* (1998) and here.
- 1384 *hiveus* Alexander, 1984, *Dermacentor* (page 370). This name is a *lapsus* for *Dermacentor niveus*, but not included in Camicas *et al.* (1998).
- 1385 *holdendriedi* Morel and Pérez, 1973, *Ixodes* (page 276). This name is a *lapsus* for *Ixodes holdenriedi* in Morel & Pérez (1973), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1386 *holdenreidi* Durden and Keirans, 1996, *Ixodes* (page 54). This name is a *lapsus* for *Ixodes holdenriedi* (= *Ixodes ochotonae*).
- 1387 *holdenriedi* Cooley, 1946b, *Ixodes*. This name is a synonym of *Pholeoixodes ochotonae* (= *Ixodes ochotonae*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes ochotonae* as stated in Robbins (1989).
- 1388 *holdenriedi* (Cooley, 1946b), *Pholeoixodes*. It was originally named *Ixodes holdenriedi*. The name *Pholeoixodes holdenriedi* is a synonym of *Pholeoixodes ochotonae* in Camicas *et al.* (1998) based on Morel & Pérez (1973), who spelt this name *Ixodes holdendriedi* (*lapsus*), but it is a synonym of *Ixodes ochotonae*.
- 1389 *holocyclous* Harkema, 1936, *Ixodes* (page 200). This name is a *lapsus* for *Ixodes holocyclus*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1390 *holocyclus* Neumann, 1899, *Ixodes*. The syntype series of *Ixodes holocyclus* contains a nymph from India that is not *Ixodes holocyclus* as stated in Keirans & Hillyard (2001); this resulted in the wrong locality application of this name by several authors. The name *Ixodes holocyclus* in Schulze (1935b) is probably in fact *Ixodes hirsti* according to Roberts (1960), actually partly *Ixodes myrmecobii* in Nuttall & Warburton (1911) and partly in fact *Ixodes cordifer* in Krijgsman and Ponto (1932) in the opinion of Roberts (1970) and Petney & Keirans (1994).
- 1391 *holocyclus* (Neumann, 1899), *Sternalixodes*. This name used in Schulze (1938a) is a synonym of *Ixodes holocyclus* as stated in Camicas *et al.* (1998).
- 1392 *holocystus* Erster, Roth, Hadani and Shkap, 2013, *Ixodes* (page 396). This name is a *lapsus* for *Ixodes holocyclus*.
- 1393 *holsatus* Fabricius, 1787, *Acarus*. This name is a synonymy of *Ixodes ricinus* in Nuttall & Warburton (1911 citing 1794 the year for its description) and Camicas *et al.* (1998). The name *Acarus holsatus* is *incertae sedis* in Neumann (1911a) and here.
- 1394 *holsatus* (Fabricius, 1787), *Ixodes*. It was originally named *Acarus holsatus* (*incertae sedis*). The name *Ixodes holsatus* used in Fabricius (1805) and by a few other workers, is *incertae sedis* in Neumann (1911a) and a synonym of *Ixodes ricinus* in Nuttall & Warburton (1911) and Camicas *et al.* (1998). However, *Ixodes holsatus* in Kolenati (1857) is in fact *Dermacentor reticulatus reticulatus* (Fabricius, 1794) [= *Dermacentor reticulatus* (Fabricius, 1794)] according to Neumann (1911a). *Ixodes holsatus* is a name *incertae sedis* synonym of *Acarus holsatus* (*incertae sedis*) here.
- 1395 *holsatus* (Fabricius, 1787), *Pseudoixodes*. It was originally named *Acarus holsatus* (*incertae sedis*). The name *Pseudoixodes holsatus* used in Haller (1882) and by a few other workers, is a synonym of *Dermacentor reticulatus reticulatus* (Fabricius, 1794) [= *Dermacentor reticulatus* (Fabricius, 1794)] in Neumann (1911a), but a synonym of *Ixodes ricinus* according to Camicas *et al.* (1998). *Pseudoixodes holsatus* is a name *incertae sedis* synonym of *Acarus holsatus* (*incertae sedis*) here.
- 1396 *hominis* Gervais and van Beneden, 1859, *Ixodes*. This name is a *nomen nudum* in Camicas *et al.* (1998). The name *Ixodes hominis* is a *lapsus* for *Ixodes humanus* Koch, 1844a (*incertae sedis*) repeated in Cobbold (1879) and others, but not included in Neumann (1911a).
- 1397 *hoodi* Warburton and Nuttall, 1909, *Haemaphysalis*
- 1398 *hoodi hoodi* Warburton and Nuttall, 1909, *Haemaphysalis*. This name used first in Schulze (1932a) is a synonym of *Haemaphysalis hoodi* as stated in Camicas *et al.* (1998).
- 1399 *hoodi madagascariensis* Colas-Belcour and Millot, 1948, *Haemaphysalis*. This name is a synonym of *Haemaphysalis madagascariensis* and its original name as stated in Hoogstraal (1966c) and Camicas *et al.* (1998).
- 1400 *hoodi orientalis* Nuttall and Warburton, 1915, *Haemaphysalis*. This name is a synonym of *Haemaphysalis orientalis* Nuttall and Warburton, 1915 and its original name as stated in Hoogstraal (1956c) and Camicas *et al.* (1998).
- 1401 *hoogstraalae* Emel'yanova, Vasil'ev, Verzhinina, Derevshchikov, Prokop'ev, Sonin, Sheremet'eva and Shikhorb'eev, 1978, *Pholeoixodes*. This name is not a *lapsus* for *Ixodes hoogstraali* Arthur, 1955c, but a name without description, a *nomen nudum* as stated in Carpenter and Robbins (2010), but not included in Camicas *et al.* (1998).
- 1402 *hoogstraali* Kohls, 1950b, *Haemaphysalis*
- 1403 *hoogstraali* Arthur, 1955c, *Ixodes*
- 1404 *hoogstraali* Kolonin, 2009, *Rhipicephalus*. This name is a *nomen nudum* as stated in Guglielmone *et al.* (2010b, 2014).
- 1405 *houlatus* Dana, 2009, *Rhipicephalus* (spelled *Rhicephalus*) (page 296). This name has no description, a *nomen nudum*.
- 1406 *houyi* Nuttall and Warburton, 1915, *Haemaphysalis*. It was originally named *Haemaphysalis calcarata houyi* and given its current status in Hoogstraal (1954). Keirans (1985) found specimens of *Haemaphysalis houyi* identified as

Haemaphysalis calcarata.

- 1407 **howelli** Cooley and Kohls, 1938a, *Ixodes*. This name is a synonym of *Scaphixodes howelli* in Camicas *et al.* (1998), but *Ixodes howelli* is valid.
- 1408 **howelli** (Cooley and Kohls, 1938a), *Scaphixodes*. It was originally named *Ixodes howelli*. The name *Scaphixodes howelli* is valid in Camicas *et al.* (1998), but it is a synonym of *Ixodes howelli*.
- 1409 **howletti** Warburton, 1913, *Haemaphysalis*
- 1410 **humanum** (Koch, 1844a), *Amblyomma*. It was originally named *Ixodes humanus* Koch, 1844a (*incertae sedis*). The name *Amblyomma humanum* is *incertae sedis* in Neumann (1911a) and a synonym of *Amblyomma bibroni* (Gervais, 1842) (*nomen nudum*) in Camicas *et al.* (1998). *Amblyomma humanum* is a name *incertae sedis* synonym of *Ixodes humanus* Koch, 1844a (*incertae sedis*), but not included in Doss & Anastos (1977).
- 1411 **humanus** (Koch, 1844a), *Amblyomma*. This name is in Doss & Anastos (1977) based on Neumann (1911a), but this author used the correct name *Amblyomma humanum* (*incertae sedis*). The name *Amblyomma humanus* (Koch, 1844a) is *incertae sedis* synonym of *Ixodes humanus* Koch, 1844a (*incertae sedis*), but not included in Camicas *et al.* (1998).
- 1412 **humanus** Koch, 1844a, *Ixodes*. This name is a synonym of *Amblyomma dissimile* in Neumann (1899), Robinson (1926) and Guglielmone & Nava (2010), *incertae sedis* synonym of *Amblyomma humanum* in Neumann (1911a) and a synonym of *Amblyomma bibroni* (Gervais, 1842) (*nomen nudum*) in Camicas *et al.* (1998). One of us (SN) examined the type of *Ixodes humanus* Koch, 1844a to conclude that the specimen belong to an unidentified species of *Amblyomma* (*Amblyomma humanum*?) but not *Amblyomma dissimile*. The name *Ixodes humanus* Koch, 1844a is *incertae sedis*.
- 1413 **humeralae** Thoisy, Vogel, Reynes, Pouliquen, Carme, Kazanji and Vie, 2001, *Amblyomma* (page 7). This name is a *lapsus* for *Amblyomma humerale*.
- 1414 **humerale** Koch, 1844a, *Amblyomma*. This name in Berlese (1888a) is in fact *Amblyomma dissimile* according to Tonelli Rondelli (1939), but Estrada-Peña & Castellá (1994) state that Tonelli Rondelli (1939) degraded *Amblyomma humerale* to a synonym of *Amblyomma dissimile*, but this is a wrong interpretation of Tonelli Rondelli (1939). Keirans (1985) found *Amblyomma sabanerae* identified as *Amblyomma humerale* in the Nuttall Tick Collection.
- 1415 **humerale** (Koch, 1844a), *Haemalastor*. It was originally named *Amblyomma humerale*. The name *Haemalastor humerale* used in Oudemans (1936, page 494) is a synonym of *Amblyomma humerale*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1416 **humerali** Luz and Faccini, 2013, *Amblyomma* (page 103). This name is a *lapsus* for *Amblyomma humerale*.
- 1417 **humeralis** Tonelli Rondelli, 1926a, *Rhipicephalus*. It was originally named *Rhipicephalus pulchellus humeralis* and given its current status in Zumpt (1950, usually cited 1949). Keirans (1985) found *Rhipicephalus humeralis* identified as *Rhipicephalus maculatus* Neumann, 1901 and *Rhipicephalus simus* in the Nuttall Collection. The name *Rhipicephalus humeralis* has been confused with *Rhipicephalus ecinctus* (*incertae sedis*) as stated in Walker *et al.* (2000) who consider *Rhipicephalus ecinctus* a synonym of *Rhipicephalus maculatus* Neumann, 1901.
- 1418 **humerli** Evans, 1947, *Amblyomma*. This name is a *lapsus* for *Amblyomma humerale* as stated in Guglielmone *et al.* (2003), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1419 **humerosa** Warburton and Nuttall, 1909, *Haemaphysalis*. This name in Roberts (1935) and other Australian workers is partly in fact *Haemaphysalis bremneri* as stated in Roberts (1963a).
- 1420 **humerosoides** Theiler, 1943, *Haemaphysalis*. This name is a synonym of *Haemaphysalis leachi* in Camicas *et al.* (1998), but it is a synonym of *Haemaphysalis elliptica* as stated in Apanaskevich *et al.* (2007).
- 1421 **humersoides** Doss and Anastos, 1977, *Haemaphysalis* (page 41). This name is a *lapsus* for *Haemaphysalis humerosoides* (= *Haemaphysalis elliptica*), but not included in Camicas *et al.* (1998).
- 1422 **hungaricus** Karpelles, 1893, *Ixodes*. This name is a synonym of *Dermacentor marginatus* (Sulzer, 1776) in Neumann (1911a) and Camicas *et al.* (1998), and a synonym of *Dermacentor reticulatus* (Fabricius, 1794) in Estrada-Peña (1991). The name *Ixodes hungaricus* Karpelles, 1893 is *incertae sedis* here.
- 1423 **hunteri** Bishopp, 1912, *Dermacentor*
- 1424 **hunyaricus** Nakamura and Yajima, 1937, *Ixodes* (page 162). This name is a *lapsus* for *Ixodes hungaricus* Karpelles, 1893 (*incertae sedis*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1425 **hurtii** Wilson, 1954, *Rhipicephalus*. Keirans (1985) found *Rhipicephalus hurtii* identified as *Rhipicephalus capensis* Koch, 1844a, *Rhipicephalus kochi* Dönitz, 1905, *Rhipicephalus falcatus* (= *Rhipicephalus longus*) and *Rhipicephalus simus* in the Nuttall Tick Collection.
- 1426 **hussaini** Sharif, 1928, *Hyalomma*. It was originally named *Hyalomma hussaini typica* Sharif, 1928 and given its current status in Sharif (1930). Keirans (1985) found *Hyalomma hussaini* identified as *Hyalomma aegyptium* in the Nuttall Tick Collection.
- 1427 **hussaini brevipunctata** Sharif, 1928, *Hyalomma*. This name is a synonym of *Hyalomma brevipunctata* (= *Hyalomma brevipunctatum*) and its original name as stated in Camicas *et al.* (1998) and Apanaskevich *et al.* (2009).
- 1428 **hussaini typica**, Sharif, 1928, *Hyalomma*. This name is a synonym of *Hyalomma hussaini* and its original name as stated in Apanaskevich *et al.* (2009), but not included in Doss & Anastos (1977).
- 1429 **hyatti** Clifford, Hoogstraal and Kohls, 1971, *Ixodes*
- 1430 **hydromyidis** Swan, 1931, *Ixodes*
- 1431 **hydrosauri** (Denny, 1843), *Amblyomma*. It was originally named *Ixodes hydrosauri* (= *Bothriocroton hydrosauri*). The name *Amblyomma hydrosauri* used in Koch (1844a) and by a few other workers, is a synonym of *Aponomma hydrosauri*

- (= *Bothriocroton hydrosauri*) in Neumann (1911a) and Camicas *et al.* (1998). *Amblyomma hydrosauri* is a synonym of *Bothriocroton hydrosauri*.
- 1432 *hydrosauri* (Denny, 1843), *Aponomma*. It was originally named *Ixodes hydrosauri* (= *Bothriocroton hydrosauri*). The name *Aponomma hydrosauri* used first in Neumann (1899) is valid in Neumann (1911a), Camicas *et al.* (1998), Andrews *et al.* (2006) and other authors. *Aponomma hydrosauri* is a synonym of *Bothriocroton hydrosauri* as stated in Horak *et al.* (2002). Keirans (1985) found *Aponomma concolor* Neumann, 1899 [= *Bothriocroton concolor* (Neumann, 1899)] identified as *Aponomma hydrosauri* (= *Bothriocroton hydrosauri*) and *Aponomma hydrosauri* (= *Bothriocroton hydrosauri*) classified as *Aponomma gervaisi* (= *Amblyomma gervaisi*) in the Nuttall Collection. Santos Dias (1993a) states that *Aponomma oudemansi* (= *Bothriocroton oudemansi*) has been confused with *Aponomma hydrosauri* (= *Bothriocroton hydrosauri*).
- 1433 *hydrosauri* (Denny, 1843), *Bothriocroton*. It was originally named *Ixodes hydrosauri*. This tick has usually been considered a member of *Aponomma*, but it is now placed in the genus *Bothriocroton* (Horak *et al.* 2002; Klompen *et al.* 2002).
- 1434 *hydrosauri* Denny, 1843, *Ixodes*. This name is a synonym of *Aponomma hydrosauri* (= *Bothriocroton hydrosauri*) and its original name as stated in Neumann (1911a), Kaufman (1972) and Camicas *et al.* (1998).
- 1435 *hylobatis* Schulze, 1933a, *Haemaphysalis*
- 1436 *hylobatis* (Schulze, 1933a), *Rhipicephalus*. This name is a *lapsus* for *Haemaphysalis hylobatis* in Schulze (1936b) as stated in Camicas *et al.* (1998).
- 1437 *himalayensis* Filippova, 2002, *Ixodes* (page 216). This name is a *lapsus* for *Ixodes himalayensis*.
- 1438 *hyracophila* Hoogstraal, Walker and Neitz, 1971b, *Haemaphysalis*
- 1439 *hystricis* Mahara, 2006, *Haemaphysalis* (page 68). This name is a *lapsus* for *Haemaphysalis hystricis* Supino, 1897.
- 1440 *hystricis* Supino, 1897, *Haemaphysalis*. This name is a synonym of *Haemaphysalis bispinosa* in Neumann (1902), who spelt this name *Haemaphysalis histricis* (*lapsus*), but this is unsound for Yamaguti *et al.* (1971). Neumann (1911a) regards *Haemaphysalis hystricis* Supino, 1897 a synonym of *Haemaphysalis birmaniae*, but this is not confirmed in Hoogstraal *et al.* (1965c). The name *Haemaphysalis hystricis* Supino, 1897 in Nuttall & Warburton (1915), Krijgsman & Ponto (1932), Anastos (1950), Kohls (1957b) and Audy *et al.* (1960) is a combination of *Haemaphysalis papuana nadchatrami* (= *Haemaphysalis nadchatrami*) and *Haemaphysalis semermis* according to Hoogstraal *et al.* (1965c). The name *Haemaphysalis hystricis* Supino, 1897 in Toumanoff (1944) is probably in fact *Haemaphysalis lagrangei* in the opinion of Hoogstraal *et al.* (1965c). Keirans (1985) found the following species of *Haemaphysalis*: *bispinosa*, *calvus* (= *calva*), *celebensis*, *longicornis*, *nadchatrami*, *semermis* and *traguli* identified as *Haemaphysalis hystricis* Supino, 1897 in the Nuttall Collection. Camicas *et al.* (1998) treats *Haemaphysalis menui* (*incertae sedis*) in Toumanoff (1944) as a synonym of *Haemaphysalis hystricis* Supino, 1897.
- 1441 *hystricis* Dhanda and Raja, 1974, *Hyalomma*. This name is not included in Doss & Anastos (1977).
- 1442 *hystricis indochinensis* Phan Trong, 1977, *Haemaphysalis*. This name is a synonym of *Haemaphysalis lagrangei* as stated in Camicas *et al.* (1998).
- 1443 *hystricis* Senadhira, 1969, *Haemaphysalis* (page 8). This name is a *lapsus* for *Haemaphysalis hystricis* Supino, 1897, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Chen *et al.* (1999, page 368), Hwang & Larivière (2003, page 2) and others,
- 1444 *hystricis* Noda, Yamamoto and Fujita, 2004, *Haemaphysalis* (page 85). This name is a *lapsus* for *Haemaphysalis hystricis*.
- 1445 *hystris* Kitaoka and Suzuki, 1974, *Haemaphysalis* (page 24). This name is a *lapsus* for *Haemaphysalis hystricis*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
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- 1446 *i* Kishida, 1922, *Haemaphysalis*. This name is a synonym of *Haemaphysalis flava* Neumann, 1897 in Yamaguti *et al.* (1971), but it is a *nomen nudum* as stated in Camicas *et al.* (1998) because a name of any species must be a word of two or more letters.
- 1447 *ias* Kishida, 1936, *Haemaphysalis*. This name is valid in Nakamura & Yajima (1937) and Estrada-Peña (1991). The name *Haemaphysalis ias* Kishida, 1936 is a name without description as stated in Yamaguti *et al.* (1971), a *nomen nudum*.
- 1448 *ias* Nakamura and Yajima, 1937, *Haemaphysalis*. Considerable confusion exists about the identity of *Haemaphysalis ias* Nakamura and Yajima, 1937 and *Haemaphysalis cornigera* in the Japanese literature (Yamaguti *et al.* 1971; Mori *et al.* 1995; Takada 1990; Fujita & Takada 2007).
- 1449 *iberum* Schulze and Slothkke, 1929a, *Hyalomma*. This name used in Kratz (1940) is a synonym of *Hyalomma lusitanicum* as stated in Camicas *et al.* (1998) and Apanaskevich *et al.* (2008a).
- 1450 *ibrikliensis* Özkan, 1978, *Haemaphysalis*. This name is provisionally valid in Bursali *et al.* (2012), but it is a synonym of *Haemaphysalis inermis* Birula, 1895 as stated in Guglielmone *et al.* (2014). The name *Haemaphysalis ibrikliensis* is not included in Camicas *et al.* (1998).
- 1451 *identatus* Neumann, 1897, *Ixodes*. This name is a synonym of *Rhipicephalus annulatus* in Neumann (1897), a synonym of *Margaropus annulatus annulatus* (= *Rhipicephalus annulatus*) in Neumann (1911a) and a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) in Camicas *et al.* (1998), but not included in Doss & Anastos (1977). The name *Ixodes identatus* is a *lapsus* for *Ixodes indentatus* (= *Rhipicephalus annulatus*).

- 1452 *iguanae* Fabricius, 1794, *Acarus*. This name is *incertae sedis* in Neumann (1911a), but it is a *nomen dubium* in Camicas *et al.* (1998) and here.
- 1453 *iguanae* (Fabricius, 1794), *Amblyomma*. It was originally named *Acarus iguanae* (*nomen dubium*). The name *Amblyomma iguanae* used in Koch (1844a) is *incertae sedis* in Neumann (1911a). *Amblyomma iguanane* is a *nomen dubium* synonym of *Acarus iguanae* (*nomen dubium*) in Camicas *et al.* (1998) and here.
- 1454 *iguanae* (Fabricius, 1794), *Ixodes*. It was originally named *Acarus iguanae* (*nomen dubium*). The name *Ixodes iguanane* used in Fabricius (1805) is *incertae sedis* in Neumann (1911a). *Ixodes iguanae* is a *nomen dubium* synonym of *Acarus iguanae* (*nomen dubium*) in Camicas *et al.* (1998) and here.
- 1455 *imitador* Rodríguez-Vivas, Aguilar, Estrella, García-Vázquez, Cruz and Fragozo-Sánchez, 2006, *Amblyomma* (page 1). This name is a *lapsus* for *Amblyomma imitator*.
- 1456 *imitans* Warburton, 1933, *Dermacentor*
- 1457 *imitator* Kohls, 1958, *Amblyomma*. Kohls (1958) leaves the possibility that *Amblyomma imitator* is a synonym of *Amblyomma tenellum* (= *Amblyomma cajennense* although this synonymy is provisional). One of us (SN) is currently studying the types of *Amblyomma tenellum* to confirm its status.
- 1458 *immaculatum* Spicer and Dove, 1938, *Amblyomma*. This name is a *lapsus* for *Amblyomma maculatum*.
- 1459 *imitator* Zavala-Velázquez, Ruiz-Sosa, Vado-Solís, Billings and Walker, 1999, *Amblyomma* (page 405). This name is a *lapsus* for *Amblyomma imitator*.
- 1460 *impeltatum* Shoukry, El-Kady and Diab, 2002, *Hyalomma* (page 54). This name is a *lapsus* for *Hyalomma impeltatum*.
- 1461 *impeltatum* Schulze and Schlottke, 1929a, *Hyalomma*. It was originally named *Hyalomma savignyi impeltatum* and given its current status in Kratz (1940). Keirans (1985) found *Hyalomma impeltatum* identified as *Hyalomma aegyptium* in the Nuttall Tick Collection.
- 1462 *impeltatum impeltatum* Schulze and Schlottke, 1929a, *Hyalomma*. This name used in Hoogstraal & Kaiser (1958b) is a synonym of *Hyalomma impeltatum* as stated in Apanaskevich & Horak (2009).
- 1463 *impeltatum somalicum* Tonelli Rondelli, 1935, *Hyalomma*. This name used in Hoogstraal & Kaiser (1959b) is a synonym of *Hyalomma somalicum* as stated in Apanaskevich & Horak (2009), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1464 *imperfectus* Neumann, 1899, *Ixodes*. This name is *incertae sedis* in Neumann (1911a) and a *nomen dubium* in Camicas *et al.* (1998) and here.
- 1465 *impltatum* Al-Khalifa, Diab and Al-Asgah 1983, *Hyalomma* (pages 336, 337). This name is a *lapsus* for *Hyalomma impeltatum*, but not included in Camicas *et al.* (1998).
- 1466 *impressum* Koch, 1844a, *Hyalomma*. This name is a synonym of *Hyalomma aegyptium impressum* (= *Hyalomma impressum*) in Neumann (1911a). The name *Hyalomma impressum* in Adler & Feldman-Muhsam (1946) and Filippova (1984) is in fact *Hyalomma marginatum rufipes* Koch, 1844a (= *Hyalomma rufipes* Koch, 1844a) in Camicas *et al.* (1998) and *Hyalomma rufipes* in Apanaskevich & Horak (2008b). *Hyalomma impressum* in Rageau (1951) is actually in part *Hyalomma rufipes* Koch, 1844a in Apanaskevich & Horak (2008b) and in part *Hyalomma marginatum rufipes* Koch, 1844a (= *Hyalomma rufipes* Koch, 1844a) in Camicas *et al.* (1998). Keirans (1985) found *Hyalomma impressum* (tentative diagnosis) identified as *Hyalomma aegyptium*.
- 1467 *impressum albiparmatum* Schulze, 1920, *Hyalomma* (usually cited 1919). This name used in Schulze & Schlottke (1929a) and by a few other workers, is a synonym of *Hyalomma albiparmatum* in Camicas *et al.* (1998), but Apanaskevich & Horak (2008a) regard this synonym questionable. The description of *Hyalomma impressum albiparmatum* is vague and type specimens lost, and regarded as a *nomen dubium* here.
- 1468 *impressum brunneiparmatum* Schulze and Schlottke, 1929a, *Hyalomma*. This name is a questionable synonym of *Hyalomma albiparmatum* in Apanaskevich & Horak (2008a). The name *Hyalomma impressum brunneiparmatum* is a provisional synonym of *Hyalomma albiparmatum* here.
- 1469 *impressum impressum* Koch, 1844a, *Hyalomma*. This name used in Schulze & Schlottke (1929a) and by a few other workers, is a synonym of *Hyalomma impressum* as stated in Apanaskevich & Horak (2007).
- 1470 *impressum luteipes* Schulze and Schlottke, 1929a, *Hyalomma*. This name is a synonym of *Hyalomma truncatum* as stated in Camicas *et al.* (1998) and Apanaskevich & Horak (2008a).
- 1471 *impressum nitidum* Schulze, 1920, *Hyalomma* (usually cited 1919). This name used in Schulze & Schlottke (1929a) and by a few other workers, is a synonym of *Hyalomma nitidum* Schulze, 1920 as stated in Camicas *et al.* (1998) and Apanaskevich & Horak (2008a).
- 1472 *impressum nitidum brevipes* Schulze and Schlottke, 1929a, *Hyalomma*. This name is a *nomen nudum* in Camicas *et al.* (1998) and a *nomen dubium* here.
- 1473 *impressum planum* Schulze, 1920, *Hyalomma* (usually cited 1919). This name used in Kratz (1940) is a synonym of *Hyalomma truncatum* as stated in Camicas *et al.* (1998) and Apanaskevich & Horak (2008a), but not included in Doss & Anastos (1977).
- 1474 *impressum planum rhinocerotis* Schulze and Schlottke, 1929a, *Hyalomma*. This name used in Kratz (1940) is a synonym of *Hyalomma truncatum* as stated in Camicas *et al.* (1998) and Apanaskevich & Horak (2008a).
- 1475 *impressum rufipes* Koch, 1844a, *Hyalomma*. This name used first in Schulze & Schlottke (1929a) is a synonym of *Hyalomma marginatum rufipes* Koch, 1844a (= *Hyalomma rufipes* Koch, 1844a) in Camicas *et al.* (1998). The name *Hyalomma impressum rufipes* Koch, 1844a is a synonym of *Hyalomma rufipes* Koch, 1844a as stated in Apanaskevich &

Horak (2008b).

- 1476 *impressum transiens* Schulze, 1920, *Hyalomma* (usually cited 1919). It was originally named *Hyalomma aegyptium impressum transiens*. The name *Hyalomma impressum transiens* used first in Schulze & Schlottke (1929a) is a synonym of *Hyalomma truncatum* as stated in Camicas *et al.* (1998) and Apanaskevich & Horak (2008a).
- 1477 *inchoatus* Neumann, 1901, *Ixodes*. It was originally named *Ixodes hexagonus inchoatus* (partly a synonym of *Ixodes marxi* and *Ixodes canisuga*). The name *Ixodes inchoatus* used in Banks (1907) is a synonym of *Pholeoixodes marxi* (= *Ixodes marxi*) in Camicas *et al.* (1998), but not included in Neumann (1911a). The name *Ixodes inchoatus* is a synonym of *Ixodes marxi*.
- 1478 *incisum* Neumann, 1906, *Amblyomma*. Labruna *et al.* (2005) found *Amblyomma latepunctatum* identified as *Amblyomma incisum* and state that the type series of *Amblyomma incisum* contains a specimen of *Amblyomma scalpturatum*, confirming a fact anticipated in Fonseca & Aragão (1952b).
- 1479 *indentatus* Gamgee, 1869, *Ixodes*. This name was proposed as a new name for *Ixodes bovis* (= *Rhipicephalus annulatus*). The name *Ixodes indentatus* is a synonym of *Rhipicephalus annulatus*, but not included in Neumann (1911a), who names it *Ixodes indentatus (lapsus)*.
- 1480 *indica* Warburton, 1910, *Haemaphysalis*. It was originally named *Haemaphysalis leachi indica* and given its current status in Santos Dias (1958a). Many diagnosis of *Haemaphysalis indica* are incorrect (Hoogstraal 1970a). The *Haemaphysalis leachi* species 1 in Trapido *et al.* (1964a) is in fact *Haemaphysalis indica* as stated in Hoogstraal (1970a). Keirans (1985) found *Haemaphysalis indica* identified as *Haemaphysalis leachi* and *Haemaphysalis leachi indica* (= *Haemaphysalis indica*) in the Nuttall Tick Collection.
- 1481 *indicum* (Supino, 1897), *Amblyomma*. It was originally named *Dermacentor indicum* [= *Amblyomma javanense* (Supino, 1897)]. The name *Amblyomma indicum* used in Arthur (1960a) is a synonym of *Amblyomma javanense* (Supino, 1897) as stated in Camicas *et al.* (1998), but not included in Doss & Anastos (1977).
- 1482 *indicus* Supino, 1897, *Dermacentor*. This name is a synonym of *Amblyomma sublaeve* [= *Amblyomma javanense* (Supino, 1897)] in Neumann (1911a) and Robinson (1926). *Dermacentor indicus* Supino, 1897 is a doubtful species probably synonym of either *Amblyomma badium* or *Amblyomma sublaeve* [both synonyms of *Amblyomma javanense* (Supino, 1897)] in Arthur (1960a). Santos Dias (1958a) regards *Dermacentor indicus* Supino, 1897 a synonym of *Amblyomma fuscolineatum* because he treats *Rhipicephalus javanensis* (Supino, 1897) [= *Amblyomma javanense* (Supino, 1897)] as a synonym of *Amblyomma fuscolineatum*, but both, *Amblyomma fuscolineatum* and *Amblyomma javanense* (Supino, 1897) are valid. *Dermacentor indicus* Supino, 1897 is a synonym of *Amblyomma javanense* (Supino, 1897) in Camicas *et al.* (1998) and here.
- 1483 *indicus* Minning, 1936, *Uroboophilus*. This name is a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998). The name *Uroboophilus indicus* is a synonym of *Rhipicephalus microplus* here.
- 1484 *indoflava* Dhanda and Bhat, 1968b, *Haemaphysalis*. *Haemaphysalis flava* Neumann, 1897 in Sharif (1928) is at least partly *Haemaphysalis indoflava* as stated in Dhanda & Bhat (1968b). Keirans (1985) found *Haemaphysalis indoflava* classified as *Haemaphysalis flava* Neumann, 1897 in the Nuttall Tick Collection.
- 1485 *indum* (Linnaeus, 1767), *Amblyomma*. It was originally named *Acarus indus (nomen dubium)*. The name *Amblyomma indum* used in Koch (1844a, 1847) is *incertae sedis* synonym of *Acarus indus (incertae sedis)* in Neumann (1911a). *Amblyomma indum* is a *nomen dubium* synonym of *Acarus indus (nomen dubium)* as stated in Camicas *et al.* (1998).
- 1486 *indus* Linnaeus, 1767, *Acarus*. This name is *incertae sedis* in Neumann (1911a) and a *nomen dubium* in Camicas *et al.* (1998) and here.
- 1487 *indus* (Linnaeus, 1767), *Amblyomma*. This name is in Doss & Anastos (1977) based on Koch (1844a), but this author used the correct name *Amblyomma indum*. The name *Amblyomma indus* is a *nomen dubium* synonym of *Acarus indus (nomen dubium)*, but not included in Camicas *et al.* (1998).
- 1488 *indus* (Linnaeus, 1767), *Haemalastor*. It was originally named *Acarus indus (nomen dubium)*. The name *Haemalastor indus* used in Oudemans (1936, page 496) is a *nomen dubium* synonym of *Acarus indus (nomen dubium)*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1489 *indus* (Linnaeus, 1767), *Ixodes*. It was originally named *Acarus indus (nomen dubium)*. The name *Ixodes indus* used in Fabricius (1805) is *incertae sedis* synonym of *Acarus indus (nomen dubium)* in Neumann (1911a). *Ixodes indus* is a *nomen dubium* synonym of *Acarus indus (nomen dubium)* as stated in Camicas *et al.* (1998).
- 1490 *inermis* (Birula, 1895), *Alloceraea*. This name used in Schulze (1919 usually cited 1918) is a synonym of *Haemaphysalis inermis* Birula, 1895 as stated in Camicas *et al.* (1998).
- 1491 *inermis* Birula, 1895, *Haemaphysalis*. This name is *incertae sedis* in Neumann (1911a). Keirans (1985) found specimens of *Haemaphysalis parva* (Neumann, 1897) identified as *Haemaphysalis inermis* Birula, 1895 in the Nuttall Collection. Santos Dias (1958a, page 538) names Birula, 1845 the authority for *Haemaphysalis inermis* Birula, 1895.
- 1492 *inermis* (Birula, 1895), *Hyalomma*. This name is a *lapsus* for *Haemaphysalis inermis* Birula, 1895 in Pomerantzev *et al.* (1940) as stated in Camicas *et al.* (1998), but not included in Doss & Anastos (1977). The *lapsus* of *Hyalomma inermis* (Birula, 1895) for *Haemaphysalis inermis* Birula, 1895 has not been detected in the translation of Pomerantzev *et al.* (1940). Camicas *et al.* (1998) name Pomerantzev, Matikashvili and Lototzky, 1940 as the authorities for *Hyalomma inermis* (Birula, 1895); this is unjustified because the authority of the species belongs to Birula.
- 1493 *inermis* Neumann, 1901, *Ixodes*. This name is a synonym of *Ixodes hexagonus inchoatus* (partly a synonym of *Ixodes*

marxi and *Ixodes canisuga*) in Neumann (1911a), doubtful in Nuttall & Warburton (1911) and a synonym of *Pholeoixodes canisuga* (= *Ixodes canisuga*) in Camicas *et al.* (1998). The name *Ixodes inermis* Neumann, 1901 is a synonym of *Ixodes canisuga* here.

- 1494 *inermis* (Birula, 1895), *Rhipicephalus*. This name is a synonym of *Haemaphysalis inermis* Birula, 1895 in Walker *et al.* (2000). The name *Rhipicephalus inermis* (Birula, 1895) is a *lapsus* for *Haemaphysalis inermis* Birula, 1895 in Blanchard (1909) as stated in Camicas *et al.* (1998).
- 1495 *inermis aponomoides* Warburton, 1913, *Haemaphysalis*. This name is a synonym of *Haemaphysalis aponomoides* and its original name as stated in Hoogstraal (1962). However, *Haemaphysalis inermis aponomoides* in Nuttall & Warburton (1915) is partly in fact *Haemaphysalis kitaokai* as stated in Hoogstraal (1969).
- 1496 *inermis inermis* (Birula, 1895), *Alloeceraea*. This name used in Feider (1964) is a synonym of *Haemaphysalis inermis* Birula, 1895 as stated in Camicas *et al.* (1998).
- 1497 *infestum* Koch, 1844a, *Amblyomma*. This name is a synonym of *Amblyomma testudinarium* in Neumann (1911a), but Schulze (1932e) considers *Amblyomma infestum* valid and *Amblyomma testudinarium* its synonym. The name *Amblyomma infestum* is a synonym of *Amblyomma testudinarium* here, but treated as valid in Santos Dias (1993c).
- 1498 *infestum* (Koch, 1844a), *Haemalastor*. It was originally named *Amblyomma infestum* (= *Amblyomma testudinarium*). The name *Haemalastor infestum* used in Oudemans (1936) is a synonym of *Amblyomma testudinarium* as stated in Anastos (1950), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1499 *infestum borneense* Schulze, 1936c, *Amblyomma*. This name is a synonym of *Amblyomma testudinarium* as stated in Anastos (1950) and Camicas *et al.* (1998).
- 1500 *infestum infestum* Koch, 1844a, *Amblyomma*. This name used in Schulze (1932e) and by a few other workers, is a synonym of *Amblyomma testudinarium* as stated in Anastos (1950).
- 1501 *infestum taivanicum* Schulze, 1935c, *Amblyomma*. This name is a synonym of *Amblyomma testudinarium* as stated in Anastos (1950) and Camicas *et al.* (1998).
- 1502 *infestum testudinarium* Koch, 1844a, *Amblyomma*. This name used in Schulze (1932e) and by a few other workers, is a synonym of *Amblyomma testudinarium* as stated in Anastos (1950) and Camicas *et al.* (1998).
- 1503 *infestum testudinarium* (Koch, 1844a), *Haemalastor*. This name used in Oudemans (1936) is a synonym of *Amblyomma testudinarium* as stated in Anastos (1950). The name *Haemalastor infestum testudinarium* is not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1504 *inflatum* Neumann, 1901, *Amblyomma*. This name is *incertae sedis* in Neumann (1911a), a *nomen dubium* in Camicas *et al.* (1998) and a *nomen nudum* in González-Acuña & Guglielmone (2005). The name *Amblyomma inflatum* is *incertae sedis* here.
- 1505 *infumatum* Koch, 1844a, *Amblyomma*. This name is *incertae sedis* in Neumann (1911a) and a synonym of *Amblyomma bibrioni* (Gervais, 1842) (*nomen nudum*) in Camicas *et al.* (1998). The name *Amblyomma infumatum* is a synonym of *Amblyomma dissimile* in Robinson (1926) and this synonym is considered provisionally valid here.
- 1506 *infutum* Bertkau, 1880, *Amblyomma*. This name is a *lapsus* for *Amblyomma infumatum* (= *Amblyomma dissimile*) as stated in Guglielmone & Nava (2010), but not included in Neumann (1911a).
- 1507 *ininii* Floch and Abonnenc, 1941, *Amblyomma*. This name is a synonym of *Amblyomma fuscomaculatum* (= *Amblyomma rotundatum*) in Santos Dias (1958a). The name *Amblyomma ininii* is a synonym of *Amblyomma goeldii* in Camicas *et al.* (1998), but it is partly a synonym of *Amblyomma goeldii* and *Amblyomma rotundatum* as stated in Guglielmone *et al.* (2003) and Guglielmone & Nava (2010).
- 1508 *inopinatum* Santos Dias, 1955, *Amblyomma*. This name is in Theiler & Salisbury (1959, page 119), but no species named *Amblyomma inopinatum* has been found in articles of Santos Dias. The name *Amblyomma inopinatum* Santos Dias, 1955 is a *nomen nudum*.
- 1509 *inopinatum* (Santos Dias, 1989a), *Amblyomma*. It was originally named *Aponomma inopinatum* Santos Dias, 1989a. This species has been considered a member of *Aponomma*, but it is now placed in the genus *Amblyomma* (Horak *et al.* 2002; Klompen *et al.* 2002).
- 1510 *inopinatum* Santos Dias, 1989a, *Aponomma*. This name is a synonym of *Amblyomma inopinatum* (Santos Dias, 1989a) and its original name. The name *Aponomma inopinatum* Santos Dias, 1989a [= *Amblyomma inopinatum* (Santos Dias, 1989a)] is valid in Camicas *et al.* (1998), while Kolonin (2009) regards it a probable synonym of *Aponomma flavomaculatum* (= *Amblyomma flavomaculatum*).
- 1511 *inornatum* Hunt and Hilburn, 1985, *Amblyomma* (page 526). This name is a *lapsus* for *Amblyomma inornatum*, but not included in Camicas *et al.* (1998).
- 1512 *inornata* (Banks, 1909), *Amblyomma*. This name is in Doss & Anastos (1977) based on Fairchild (1943), but this author used the correct name *Amblyomma inornatum*. The name *Amblyomma inornata* is a synonym of *Amblyomma inornatum*, but not included in Camicas *et al.* (1998).
- 1513 *inornata* Banks, 1909, *Aponomma*. This name is a synonym of *Amblyomma inornatum* and its original name as stated in Cooley & Kohls (1944b) and Camicas *et al.* (1998).
- 1514 *inornatum* (Banks, 1909), *Amblyomma*. It was originally named *Aponomma inornata* and given its current status in Fairchild (1943) who also amended this name. The name *Amblyomma inornatum* is not included in Doss & Anastos (1977).
- 1515 *inornatum* González-Cerón, Becerril-Pérez, Torres-Hernández and Díaz-Rivera, 2009, *Amblyomma* (page 11). This name

is a *lapsus* for *Amblyomma inornatum*.

- 1516 **integrum** Karsch, 1879c, *Amblyomma*. This name is a probable synonym of *Amblyomma testudinarium* in Neumann (1899), but it is valid.
- 1517 **intermedia** Warburton and Nuttall, 1909, *Haemaphysalis*. It was originally named *Haemaphysalis bispinosa intermedia* Warburton and Nuttall, 1909. The name *Haemaphysalis intermedia* Warburton and Nuttall, 1909 replaced *Haemaphysalis parva* Neumann, 1908d, a name preoccupied by *Haemaphysalis parva* (Neumann 1897) as explained in Trapido & Hoogstraal (1963). Keirans (1985) found *Haemaphysalis intermedia* Warburton and Nuttall, 1909 classified as *Haemaphysalis bispinosa* and *Haemaphysalis turturis* identified as *Haemaphysalis bispinosa intermedia* Warburton and Nuttall, 1909 (= *Haemaphysalis intermedia* Warburton and Nuttall, 1909) in the Nuttall Tick Collection.
- 1518 **intermedius** Neumann, 1899, *Ixodes*. This name is a synonym of *Ixodes eudyptidis eudyptidis* (= *Ixodes eudyptidis*) in Neumann (1911a), a synonym of *Ixodes neumanni* Nuttall and Warburton, 1911 (= *Ixodes eudyptidis*) in Nuttall & Warburton (1911) and a synonym of *Scaphixodes eudyptidis* (= *Ixodes eudyptidis*) in Camicas *et al.* (1998). The name *Ixodes intermedius* Neumann, 1899 is a synonym of *Ixodes eudyptidis* as stated in Nuttall (1916).
- 1519 **intermedius** Neumann, 1897, *Phauloixodes*. This name is a synonym of *Rhipicephalus intermedius* (Neumann, 1897) (*incertae sedis*) in Neumann (1911a), and an alleged synonym of *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition) in Camicas *et al.* (1998). The name *Phauloixodes intermedius* Neumann, 1897 is *incertae sedis* here.
- 1520 **intermedius** (Neumann, 1897), *Rhipicephalus*. It was originally named *Phauloixodes intermedius* Neumann, 1897 (*incertae sedis*). The name *Rhipicephalus intermedius* (Neumann, 1897) used in Neumann (1901) is *incertae sedis* in Neumann (1911a) and an alleged synonym of *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition) in Camicas *et al.* (1998) and Walker *et al.* (2000). *Rhipicephalus intermedius* (Neumann, 1897) is a name *incertae sedis* synonym of *Phauloixodes intermedius* (*incertae sedis*) here.
- 1521 **internis aponommoides** Warburton, 1913, *Haemaphysalis*. This name is a *lapsus* for *Haemaphysalis inermis aponommoides* (= *Haemaphysalis aponommoides*) in Miranpuri & Naithani (1978, page iv), but not included in Camicas *et al.* (1998).
- 1522 **interventus** Walker, Pegram and Keirans, 1995, *Rhipicephalus*. The *Rhipicephalus* near *tricuspis* in Walker *et al.* (1988) is in fact *Rhipicephalus interventus* as stated in Walker *et al.* (1995).
- 1523 **intraoculatus** Minning, 1936, *Boophilus*. This name is a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998). The name *Boophilus intraoculatus* is a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) as stated in Keirans & Clifford (1984).
- 1524 **irroratum** Koch, 1844a, *Amblyomma*. This name is a synonym of *Amblyomma bibroni* (Gervais, 1842) (*nomen nudum*) in Camicas *et al.* (1998). The name *Amblyomma irroratum* is a synonym of *Amblyomma dissimile* as stated in Neumann (1911a).
- 1525 **isaaci** Sharif, 1928, *Hyalomma*. It was originally named *Hyalomma aegyptium isaaci* and given its current status in Kratz (1940). The name *Hyalomma isaaci* is a synonym of *Hyalomma marginatum isaaci* (= *Hyalomma isaaci*) in Camicas *et al.* (1998), but it is valid. *Hyalomma isaaci* is not included in Horak *et al.* (2002). Keirans (1985) found *Hyalomma marginatum isaaci* (= *Hyalomma isaaci*) identified as *Hyalomma aegyptium* in the Nuttall Tick Collection.
- 1526 **isaaci indosinense** Toumanoff, 1944, *Hyalomma*. This name is used on the Internet in Kolonin (2009, no page number) without any morphological definition and out of the rules of the International Commission on Zoological Nomenclature (1999). The name *Hyalomma isaaci indosinense* is a *nomen nudum*.
- 1527 **iscisum** Aragão, 1911, *Amblyomma* (page 194). This name is a *lapsus* for *Amblyomma incisum*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1528 **iwasakii** Sugimoto, 1937a, *Haemaphysalis*. This name is a synonym of *Haemaphysalis hystricis* Supino, 1897 as stated in Hoogstraal *et al.* (1965c) and Camicas *et al.* (1998).

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- 1529 **jacksoni** (Hoogstraal, 1967), *Ceratixodes*. This name is valid in Camicas *et al.* (1998), but it is a synonym of *Ixodes jacksoni*.
- 1530 **jacksoni** Hoogstraal, 1967, *Ixodes*. This name is a synonym of *Ceratixodes jacksoni* in Camicas *et al.* (1998), but *Ixodes jacksoni* is valid.
- 1531 **janneli** Pomerantzev, 1936, *Rhipicephalus*. This name is a *lapsus* for *Rhipicephalus jeanneli* as stated in Doss & Anastos (1977).
- 1532 **japonensis** Asanuma *et al.* [sic] 1956, *Haemaphysalis*. This name is in Doss & Anastos (1977) based on Asanuma *et al.* (1956), but no article of Asanuma *et al.* (1956) was obtained in the literature review. *Haemaphysalis japonensis* Asanuma *et al.*, 1956 is a *nomen dubium* in Camicas *et al.* (1998) and a *nomen nudum* here.
- 1533 **japonensis** Neumann, 1904, *Ixodes*. This name is valid in Neumann (1911a), but it is a synonym of *Ixodes ovatus* as stated in Camicas *et al.* (1998).
- 1534 **japoneusis** Nakamura and Yajima, 1937, *Ixodes* (page 178). This name is a *lapsus* for *Ixodes japonensis* (= *Ixodes ovatus*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1535 **japonica** Warburton, 1908, *Haemaphysalis*. It was originally named *Haemaphysalis japonica* (*lapsus*). The name *Haemaphysalis japonica* has been confused with *Haemaphysalis concinna* as stated in Yamaguti *et al.* (1971). Neumann

- identified as *Haemaphysalis flava* specimens of *Haemaphysalis japonica* according to Yamaguti *et al.* (1971). Camicas *et al.* (1998) and also Horak *et al.* (2002) divided this species into two subspecies: *japonica japonica* (= *Haemaphysalis japonica*) and *japonica douglasi* (= *Haemaphysalis japonica*).
- 1536 *japonica douglasi* Nuttall and Warburton, 1915, *Haemaphysalis*. This name is valid in Camicas *et al.* (1998) and Horak *et al.* (2002), but a synonym of *Haemaphysalis douglasi* in Kitaoka (1985) and Fujita & Takada (2007) and others. The name *Haemaphysalis japonica douglasi* is a synonym of *Haemaphysalis japonica* here.
- 1537 *japonica japonica* Warburton, 1908, *Haemaphysalis*. This name is valid for several authors (i.e., Camicas *et al.* 1998; Horak *et al.* 2002). The name *Haemaphysalis japonica japonica* is a synonym of *Haemaphysalis japonica* here.
- 1538 *japonicum* Tian, Moldenhauer, Li, Zhang, Guo, Wang and Li, 1995, *Haemaphysalis* (page undetermined), This name is a *lapsus* for *Haemaphysalis japonica*, but not included in Camicas *et al.* (1998). This *lapsus* is repeated in Brown & Burgess (2001, page 441) and others.
- 1539 *japonicus* Li, 1987, *Haemaphysalis* (page 185). This name is a *lapsus* for *Haemaphysalis japonica*, but not included in Camicas *et al.* (1998).
- 1540 *japonica* Warburton, 1908, *Haemaphysalis*. This name is a *lapsus* for *Haemaphysalis japonica* in the description of this species and subsequently amended.
- 1541 *javanense* (Supino, 1897), *Amblyomma*. It was originally named *Rhipicephalus javanensis* and given its current status in Schulze (1934), but not included in Doss & Anastos (1977).
- 1542 *javanense* Cooper and Robinson, 1908, *Aponomma*. This name is a synonym of *Amblyomma sublaeve* [= *Amblyomma javanense* (Supino, 1897)] in Robinson (1926) and a synonym of *Amblyomma fuscolineatum* in Santos Dias (1958a) who considers *Rhipicephalus javanensis* [= *Amblyomma javanense* (Supino, 1897)] a synonym of *Amblyomma fuscolineatum*, but both names, *Amblyomma javanense* (Supino, 1897) and *Amblyomma fuscolineatum* are valid. Camicas *et al.* (1998) list the species of Cooper and Robinson under the authority of Supino. The name *Aponomma javanense* Cooper and Robinson (1908) is a synonym of *Amblyomma javanense* (Supino, 1897).
- 1543 *javanense cuneatum* Neumann, 1899, *Amblyomma*. This name used in Schulze (1937d) is a synonym of *Amblyomma compressum* as stated in Anastos (1950) and Camicas *et al.* (1998).
- 1544 *javanense javanense* (Supino, 1897), *Amblyomma*. This name used in Schulze (1937d) is a synonym of *Amblyomma javanense* (Supino, 1897) as stated in Anastos (1950) and Camicas *et al.* (1998).
- 1545 *javanensis* (Supino, 1897), *Amblyomma*. This name is in Doss & Anastos (1977) based on Schulze (1934), but this author used the correct name *Amblyomma javanense*. The name *Amblyomma javanensis* is a synonym of *Amblyomma javanense*, but not included in Camicas *et al.* (1998).
- 1546 *javanensis* (Supino, 1897), *Haemalastor*. This name used in Oudemans (1939) is a synonym of *Amblyomma javanense* (Supino, 1897) as stated in Camicas *et al.* (1998).
- 1547 *javanensis* Supino, 1897, *Rhipicephalus*. This name is a synonym of *Amblyomma javanense* (Supino, 1897) and its original name. The name *Rhipicephalus javanensis* is a synonym of *Amblyomma sublaeve* in Neumann (1911a) and Robinson (1926), but this is questionable because the species of Supino described in 1897 should have priority over the Neumann's species described in 1899. Both *Rhipicephalus javanensis* and *Amblyomma sublaeve*, are synonyms of *Amblyomma javanense* (Supino, 1897) as stated in Anastos (1950).
- 1548 *jeanneli* Neumann, 1913c, *Rhipicephalus*. This name is a synonym of *Rhipicephalus kochi* Dönitz, 1905 in Zumpt (1950, usually cited 1949), but this is not confirmed in Walker *et al.* (2000). The name *Rhipicephalus jeanneli* has been confused for many years with species like *Rhipicephalus hurti* and *Rhipicephalus kochi* Dönitz, 1905 according to Walker *et al.* (2000); additionally, Keirans (1985) found *Rhipicephalus jeanneli* identified as *Rhipicephalus capensis* Koch, 1844a, *Rhipicephalus simus* and *Rhipicephalus ziemanni* in the Nuttall Tick Collection.
- 1549 *jellisoni* Cooley and Kohls, 1938a, *Ixodes*
- 1550 *jezoensis* Ogura and Takada, 1927, *Haemaphysalis*. This name is a synonym of *Haemaphysalis japonica japonica* (= *Haemaphysalis japonica*) in Camicas *et al.* (1998). The name *Haemaphysalis jezoensis* is a synonym of *Haemaphysalis japonica* as stated in Yamaguti *et al.* (1971).
- 1551 *jezonsis* Nakamura and Yajima, 1937, *Haemaphysalis* (page 148). This name is a *lapsus* for *Haemaphysalis jezoensis* (= *Haemaphysalis japonica*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1552 *jonesae* Kohls, Sonenshine and Clifford, 1969, *Ixodes*
- 1553 *jonesei* Klompen, 1999, *Ixodes* (page 352). This name is a *lapsus* for *Ixodes jonesae*.
- 1554 *japonica* Keirans, 1985, *Haemaphysalis* (page 548). This name is a *lapsus* for *Haemaphysalis japonica*, but not included in Camicas *et al.* (1998).
- 1555 *japoneusis* Nakamura and Yajima, 1937, *Ixodes* (page 177). This name is a *lapsus* for *Ixodes japonensis* (= *Ixodes ovatus*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1556 *juvenis* Neumann, 1899, *Ixodes*. This name is *incertae sedis* in Neumann (1911a) and a *nomen dubium* in Camicas *et al.* (1998) and here.
- 1557 *juvensis* Hooker, 1909, *Ixodes* (page 417). This name is a *lapsus* for *Ixodes juvenis* (*nomen dubium*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1558 *juxtakochi* Hoogstraal and Aeschlimann, 1982, *Haemaphysalis* (page 28). This name is a *lapsus* for *Haemaphysalis juxtakochi*, but not included in Camicas *et al.* (1998).
- 1559 *juxtacochi* Kühne, Guglielmonne and Mangold, 1986, *Haemaphysalis* (page 83). This name is a *lapsus* for *Haemaphysalis*

- juxtakochi* repeated in Guglielmo (1991, page 37), but not included in Camicas *et al.* (1998).
- 1560 *juxtakochi* Rawlins, Mahadeo and Martínez, 1993, *Haemaphysalis* (page 9). This name is a *lapsus* for *Haemaphysalis juxtakochi*, but not included in Camicas *et al.* (1998).
- 1561 *juxtakochi* Cooley, 1946a, *Haemaphysalis*
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- 1562 *kadarsani* Hoogstraal and Wassef, 1977, *Haemaphysalis*
- 1563 *kaiseri* Arthur, 1957c, *Ixodes*. This name is a synonym of *Ixodes crenulatus* in Sonenshine *et al.* (1969) and a synonym of *Pholeoixodes kaiseri* (= *Ixodes kaiseri*) in Camicas *et al.* (1998). The name *Ixodes kaiseri* is valid as stated in Filippova & Uspenskaya (1973), who found that it has been confused with *Ixodes canisuga*, *Ixodes crenulatus* and *Ixodes hexagonus*.
- 1564 *kaiseri* (Arthur, 1957c), *Pholeoixodes*. It was originally named *Ixodes kaiseri*. The name *Pholeoixodes kaiseri* used in Morel & Aubert (1975) is valid in Camicas *et al.* (1998), but it is a synonym of *Ixodes kaiseri*.
- 1565 *kamshadulus* Neumann, 1908d, *Dermacentor*. It was originally named *Dermacentor variegatus kamshadulus* and considered to be a synonym of *Dermacentor albipictus*. The name *Dermacentor kamshadulus* was reinstated by Apanaskevich (2013).
- 1566 *kamstchadulus* Neumann, 1908d, *Dermacentor*. It was originally named *Dermacentor variegatus kamshadulus*. The name *Dermacentor kamstchadulus* used in Emel'yanova (1966) is valid in Estrada-Peña (1991) and a certain synonym of *Dermacentor albipictus* in Camicas *et al.* (1998). *Dermacentor kamstchadulus* is a synonym of *Dermacentor kamshadulus* as stated in Apanaskevich (2013).
- 1567 *kraneveldi* Kolonin, 1983, *Aponomma* (page 34). This name is a *lapsus* for *Aponomma kraneveldi* (= *Amblyomma kraneveldi*), but not included in Camicas *et al.* (1998).
- 1568 *kasakstani* Pomerantzev, 1946, *Ixodes* (page 7). This name is a *lapsus* for *Ixodes kazakstani*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1569 *kaschmericus* Rao, Dhanda, Bhat, and Kulkarni, 1973, *Ixodes* (pages 1447, 1449). This name is a *lapsus* for *Ixodes kashmiricus*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1570 *kaschmiricus* Pomerantzev, 1948, *Ixodes*. This name is a *lapsus* in the original description of *Ixodes kashmiricus* (spelled *Ixodes persulcatus kaschmiricus*). The name *Ixodes kaschmiricus* is regarded correct in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1571 *kashmiricus* Horak, Camicas and Keirans, 2002, *Ixodes* (page 37). This name is a *lapsus* for *Ixodes kashmiricus* repeated in Barker & Murrell (2004, 2008).
- 1572 *kashmirensis* Hoogstraal and Varma, 1962, *Haemaphysalis*
- 1573 *kashmiricus* Pomerantzev, 1948, *Ixodes*. It was originally named *Ixodes persulcatus kaschmiricus*, but amended in Pomerantzev (1950) and given its current status in Filippova (1969). The spelling *Ixodes kaschmiricus* is regarded correct in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1574 *kashmirius* Chu, Jiang, Liu, Zhao, Wu, Zhang, Zhan, Yang, and Cao, 2008, *Ixodes* (page 981). This name is a *lapsus* for *Ixodes kashmiricus*.
- 1575 *kazakstani* Olenev and Sorokoumov, 1934, *Ixodes*
- 1576 *kellogi* Nuttall and Warburton, 1908, *Ixodes*. This name is a synonym of *Scaphixodes brunneus* (= *Ixodes brunneus*) in Camicas *et al.* (1998), but *Ixodes kellogi* is a synonym of *Ixodes brunneus* as stated in Keirans & Clifford (1978).
- 1577 *kempi* Nuttall, 1913, *Ixodes*. This name is valid in Anastos (1950), Camicas *et al.* (1998) and others. The name *Ixodes kempi* is a synonym of *Ixodes granulatus* as stated in Sharif (1928), Keirans & Brewster (1981) and Guglielmo *et al.* (2009).
- 1578 *keralensis* Prakasan and Ramani, 2007, *Nosomma*. This is a poorly described species considered provisionally valid in Guglielmo *et al.* (2009, 2010b, 2014).
- 1579 *kerberti* Oudemans, 1927, *Amblyomma*. It was originally named *Aponomma kerberti* (= *Amblyomma rotundatum*). The name *Amblyomma kerberti* used in Santos Dias (1979) is a synonym of *Amblyomma rotundatum* as stated in Camicas *et al.* (1998) who cite 1982 as the year for the study of Santos Dias.
- 1580 *kerberti* Oudemans, 1927, *Aponomma*. This name is a synonym of *Amblyomma fuscomaculatum* in Santos Dias (1993a) and a synonym of *Amblyomma goeldii* in Estrada-Peña & Castellá (1994). The name *Aponomma kerberti* is a synonym of *Amblyomma rotundatum* as stated in Camicas *et al.* (1998) and Guglielmo & Nava (2010).
- 1581 *kerguelenensis* André and Colas-Belcour, 1942, *Ixodes*. It was originally named *Ixodes canisuga kerguelenensis* and given its current status in Zumpt (1952). The name *Ixodes kerguelenensis* is a synonym of *Scaphixodes kerguelenensis* in Camicas *et al.* (1998), but it is valid. *Ixodes percavatus* in André (1947) and *Ixodes auritulus* in Zumpt (1952) are in fact *Ixodes kerguelenensis* according to Wilson (1970).
- 1582 *kerguelenensis* (André and Colas-Belcour, 1942), *Scaphixodes*. It was originally named *Ixodes canisuga kerguelenensis* (= *Ixodes kerguelenensis*). The name *Scaphixodes kerguelenensis* is valid in Camicas *et al.* (1998), but it is a synonym of *Ixodes kerguelenensis*.
- 1583 *kerguelensis* Clifford, Sonenshine, Keirans and Kohls, 1973, *Ixodes*. This name is a synonym of *Ixodes kerguelenensis* in Camicas *et al.* (1998). The name *Ixodes kerguelensis* is a *lapsus* for *Ixodes kerguelenensis* repeated in Doss & Anastos (1977), Pugh (1993, page 336), González-Acuña *et al.* (2005, page 147), Nava *et al.* (2009b, page 2869) and others.
- 1584 *kerri* Rao, 1955, *Ixodes*. This name is a synonym of *Ixodes petauristae* as stated in Rao (1962).

- 1585 **kingi** Bishopp, 1911, *Ixodes*. This name is a synonym of *Pholeoixodes kingi* in Camicas *et al.* (1998), but *Ixodes kingi* is valid.
- 1586 **kingi** (Bishopp, 1911), *Pholeoixodes*. It was originally named *Ixodes kingi*. The name *Pholeoixodes kingi* is valid in Camicas *et al.* (1998) based on Morel & Pérez (1973), who spelt this name *Ixodes kingri* (*lapsus*). *Pholeoixodes kingi* is a synonym of *Ixodes kingi*.
- 1587 **kingri** Morel and Pérez, 1973, *Ixodes* (page 276). This name is a *lapsus* for *Ixodes kingi*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1588 **kinneari** Warburton, 1913, *Haemaphysalis*. This name in Toumanoff (1944) is in fact *Haemaphysalis papuana papuana* Thorell, 1883 (= *Haemaphysalis papuana* Thorell, 1883) as stated in Trapido *et al.* (1964b).
- 1589 **kitaokai** Hoogstraal, 1969, *Haemaphysalis*. This name has been confused with *Haemaphysalis ambigua* (= *Haemaphysalis inermis*), *Haemaphysalis inermis* Birula, 1895 and *Haemaphysalis inermis aponommoides* (= *Haemaphysalis aponommoides*) as stated in Yamaguti *et al.* (1971).
- 1590 **kitaoki** Valero, Hueli and Díaz-Sáez, 1997, *Haemaphysalis* (page 212). This name is a *lapsus* for *Haemaphysalis kitaokai*.
- 1591 **knobigera** Prakasan and Ramani, 2007, *Haemaphysalis*. This is a poorly described species consider provisionally valid in Guglielmone *et al.* (2009, 2010b, 2014).
- 1592 **kochi** Neumann, 1905, *Haemaphysalis*. It was originally named *Haemaphysalis concinna kochi* (= *Haemaphysalis concinna*). The name *Haemaphysalis kochi* Neumann (1905) is used in Santos Dias (1958a) for a valid species. *Haemaphysalis kochi* Neumann (1905) is a synonym of *Haemaphysalis concinna* in Camicas *et al.* (1998) and here.
- 1593 **kochi** Aragão, 1908a, *Haemaphysalis*. This name was preoccupied by *Haemaphysalis concinna kochi* Neumann, 1905 (= *Haemaphysalis concinna*) and replaced by *Haemaphysalis kohlsi* Aragão and Fonseca, 1951b (= *Haemaphysalis juxtakochi*). The name *Haemaphysalis kochi* Aragão, 1908a is valid along with *Haemaphysalis juxtakochi* in Rawlins *et al.* (1993), but the former name is a synonym of the latter.
- 1594 **kochi** Dönitz, 1905, *Rhipicephalus*. The tick *Rhipicephalus near-pravus* in Clifford & Anastos (1962) is in fact *Rhipicephalus kochi* Dönitz, 1905 in Camicas *et al.* (1998). Keirans (1985) found *Rhipicephalus hurti*, *Rhipicephalus jeanneli*, *Rhipicephalus muelhensi*, *Rhipicephalus pravus*, *Rhipicephalus punctatus* Warburton, 1912 and alleged *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition) classified as *Rhipicephalus kochi* Dönitz, 1905 (in some cases identified as *Rhipicephalus neavei*= *Rhipicephalus kochi* Dönitz, 1905), and also found *Rhipicephalus kochi* Dönitz, 1905 identified as *Rhipicephalus appendiculatus* and *Rhipicephalus falcatus* (= *Rhipicephalus longus*) in the Nuttall Collection. *Rhipicephalus masseyi* has also been identified as *Rhipicephalus neavei* (= *Rhipicephalus kochi* Dönitz, 1905) according to Walker *et al.* (2000).
- 1595 **kochi** Kolenati, 1856, *Sarconyssus* (spelled *Sarconissus*). This name is a synonym of *Eschatocephalus vespertilionis* (= *Ixodes vespertilionis*) in Camicas *et al.* (1998), but not included in Doss & Anastos (1977). The name *Sarconyssus kochi* Kolenati, 1856 is a synonym of *Ixodes vespertilionis* as stated in Neumann (1911a).
- 1596 **koenigsbergi** Wells, Beaucournu, Durden, Petney, Lakim and O'Hara, 2012, *Haemaphysalis* (pages 909, 915, 916). This name is a *lapsus* for *Haemaphysalis koningsbergeri*.
- 1597 **kohlesi** Özkan, Ayyildiz and Soysal, 1988, *Boophilus* (page 77). This name is a *lapsus* for *Boophilus kohlsi* Hoogstraal and Kaiser, 1960b [= *Rhipicephalus kohlsi* (Hoogstraal and Kaiser, 1960b)], but not included in Camicas *et al.* (1998).
- 1598 **kohlsi** Hoogstraal and Kaiser, 1960b, *Boophilus*. This name is valid in Camicas *et al.* (1998) and in many studies. The name *Boophilus kohlsi* is a synonym of *Rhipicephalus kohlsi* (Hoogstraal and Kaiser, 1960b) as stated in Horak *et al.* (2002).
- 1599 **kohlsi** Aragão and Fonseca, 1951b, *Haemaphysalis* (spelled *Haemaphisalis*). It was originally named *Haemaphysalis kochi* Aragão (1908a), a name preoccupied by *Haemaphysalis kochi* Neumann, 1905 (= *Haemaphysalis concinna*), and replaced by *Haemaphysalis kohlsi* Aragão and Fonseca, 1951b, a synonym of *Haemaphysalis juxtakochi* as stated in Kohls (1960b).
- 1600 **kohlsi** Arthur, 1955b, *Ixodes*. This name is a synonym of *Scaphixodes kohlsi* (Arthur, 1955b) in Camicas *et al.* (1998), but it is valid. *Ixodes percavatus* in Tubb (1937) is in fact *Ixodes kohlsi* Arthur, 1955b according to Roberts (1960), and in Taylor (1946) partly *Ixodes kohlsi* in the opinion of Halliday (2012).
- 1601 **kohlsi** (Hoogstraal and Kaiser, 1960b), *Rhipicephalus*. It was originally named *Boophilus kohlsi* Hoogstraal and Kaiser, 1960b and given its current status in Horak *et al.* (2002).
- 1602 **kohlsi** (Arthur, 1955b), *Scaphixodes*. It was originally named *Ixodes kohlsi* Arthur, 1955b. The name *Scaphixodes kohlsi* (Arthur, 1955b) used in Camicas *et al.* (1998) is a synonym of *Ixodes kohlsi* Arthur, 1955b.
- 1603 **kolenatii** Oudemans, 1938, *Haemaphysalis*. This name is a new one for *Ixodes crassipes* (Kolenati, 1857) (= *Haemalastor crassipes* Kolenati, 1857) (both *incertae sedis*), but the reason for this change is not clear. The name *Haemaphysalis kolenatii* is a *nomen dubium* in Camicas *et al.* (1998). *Haemaphysalis kolenatii* is a name *incertae sedis* synonym of *Haemalastor crassipes* Kolenati, 1857 (*incertae sedis*) here.
- 1604 **komodoense** (Oudemans, 1928b), *Amblyomma*. It was originally named *Aponomma komodoense*. This tick has usually been considered a member of *Aponomma*, but it is now placed in the genus *Amblyomma* (Horak *et al.* 2002; Klompen *et al.* 2002).
- 1605 **komodoense** Oudemans, 1928b, *Aponomma*. This name is valid in Camicas *et al.* (1998), but it is a synonym of *Amblyomma komodoense* and its original name.
- 1606 **koningsbergeri** Warburton and Nuttall, 1909, *Haemaphysalis*. This name has been confused with *Haemaphysalis leachi*

- as stated in Kohls (1957b). Keirans (1985) found *Haemaphysalis papuana* Thorell, 1883 identified as *Haemaphysalis koningsbergeri*.
- 1607 *koningsbergeri* small form Warburton and Nuttall, 1909, *Haemaphysalis*. This morphological name in Schulze (1934) is in fact *Haemaphysalis bartelsi* as stated in Wilson *et al.* (1968).
- 1608 *kopetdaghica* Kerbabaev, 1962, *Haemaphysalis*. It was originally named *Haemaphysalis warburtoni kopetdaghicus* and amended and given its current status in Hoogstraal & Wassef (1979). The name *Haemaphysalis kopetdaghica* is not included in Doss & Anastos (1977).
- 1609 *kopetdaghicus* Kerbabaev, 1962, *Haemaphysalis*. It was originally named *Haemaphysalis warburtoni kopetdaghicus* (= *Haemaphysalis kopetdaghica*). The name *Haemaphysalis kopetdaghicus* used in Hoogstraal (1965) is a synonym of *Haemaphysalis kopetdaghica* as stated in Camicas *et al.* (1998).
- 1610 *kopetdagica* Kolonin, 2009, *Haemaphysalis* (no page number). This name is a *lapsus* for *Haemaphysalis kopetdaghica*.
- 1611 *kopetdagihca* Balashov, 1997, *Haemaphysalis* (page 626). This name is a *lapsus* for *Haemaphysalis kopetdaghica*.
- 1612 *kopsteini* Oudemans, 1926, *Eschatocephalus*. It was originally named *Eschatocephalus ropsteini (lapsus)* (= *Ixodes kopsteini*) in Oudemans (1925). The name *Eschatocephalus kopsteini* is a synonym of *Lepidixodes kopsteini* (= *Ixodes kopsteini*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes kopsteini*.
- 1613 *kopsteini* (Oudemans, 1926), *Ixodes*. It was originally named *Eschatocephalus ropsteini (lapsus)* in Oudemans (1925) and given its current status in Schulze (1935b). The name *Ixodes kopsteini* is a synonym of *Lepidixodes kopsteini* (= *Ixodes kopsteini*) in Camicas *et al.* (1998), but it is valid.
- 1614 *kopsteini* (Oudemans, 1926), *Lepidixodes*. It was originally named *Eschatocephalus ropsteini (lapsus)* (= *Ixodes kopsteini*) in Oudemans (1925). The name *Lepidixodes kopsteini* used in Camicas & Morel (1977) is valid in Camicas *et al.* (1998), but it is a synonym of *Ixodes kopsteini*.
- 1615 *kozlovi* Olenev, 1931b, *Hyalomma*. This name is a synonym of *Hyalomma asiaticum asiaticum* (= *Hyalomma asiaticum*) in Camicas *et al.* (1998). The name *Hyalomma kozlovi* is a synonym of *Hyalomma asiaticum* as stated in Apanaskevich & Horak (2010).
- 1616 *kraneveldi* (Anastos, 1956), *Amblyomma*. It was originally named *Aponomma kraneveldi*. This tick has usually been considered a member of *Aponomma*, but it is now placed in the genus *Amblyomma* (Horak *et al.* 2002; Klompen *et al.* 2002).
- 1617 *kraneveldi* Anastos, 1956, *Aponomma*. This name is valid in Camicas *et al.* (1998), but it is a synonym of *Amblyomma kraneveldi* and its original name.
- 1618 *krijgmani* Tseng, 1978, *Haemaphysalis* (page 23). This name is a *lapsus* for *Haemaphysalis krijgsmani* Kohls, 1948b (= *Haemaphysalis bancrofti*), but not included in Camicas *et al.* (1998).
- 1619 *krijgsmani* Minning, 1934, *Boophilus*. This name is a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998). The name *Boophilus krijgsmani* Minning, 1934 is a name *incertae sedis* here.
- 1620 *krijgsmani* Kohls, 1948b, *Haemaphysalis*. This name is a new one for *Haemaphysalis novaeguineae* Krijgsman and Ponto, 1932 (= *Haemaphysalis bancrofti*) preoccupied by *Haemaphysalis novaeguineae* Hirst, 1914. The name *Haemaphysalis krijgsmani* Kohls, 1948a is a synonym of *Haemaphysalis bancrofti* as stated in Roberts (1963a).
- 1621 *krijgsmani* (Minning, 1934), *Uroboophilus*. This name used in Kishida (1939b) and by a few other workers, is a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998). The name *Uroboophilus krijgsmani* (Minning, 1934) is *incertae sedis* synonym of *Boophilus krijgsmani* Minning, 1934 (*incertae sedis*) here.
- 1622 *kumaonensis* Geevarghese and Mishra, 2011, *Haemaphysalis*
- 1623 *kumari* Sharif, 1928, *Hyalomma*. Keirans (1985) found *Hyalomma kumari* identified as *Hyalomma aegyptium* in the Nuttall Tick Collection.
- 1624 *kuntzi* Hoogstraal and Kohls, 1965a, *Ixodes*
- 1625 *kutchensis* Hoogstraal and Trapido, 1963b, *Haemaphysalis*. This tick was originally identified as *Haemaphysalis bispinosa intermedia* Warburton and Nuttall, 1909 (= *Haemaphysalis intermedia* Warburton and Nuttall, 1909) in Nuttall & Warburton (1915) as stated in Hoogstraal & Trapido (1963b) and Keirans (1985).
- 1626 *kyasanurensis* Trapido, Hoogstraal and Rajagopalan, 1964c, *Haemaphysalis*
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- 1627 *laceatae* Nakamura and Yajima, 1937, *Ixodes* (page 142). This name is a *lapsus* for *Ixodes lacertae* (= *Ixodes ricinus*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1628 *lacertae* Koch, 1844b, *Ixodes*. This name is a synonym of *Ixodes ricinus* as stated in Camicas *et al.* (1998) and Neumann (1911a).
- 1629 *lacertarum* Contarini, 1847, *Ricinus* in Antonelli (1847). This name is a synonym of *Ixodes ricinus* in Camicas *et al.* (1998), but not included in Neumann (1911a) and Doss & Anastos (1977). However, the description of *Ricinus lacertarum* does not define a tick. The name *Ricinus lacertarum* is a *nomen dubium* not related to any species of Ixodidae and not included in list 3.
- 1630 *laeva* Sharif, 1928, *Aponomma* (page 340). This name is a *lapsus* for *Aponomma laeve (incertae sedis)*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).

- 1631 *laevatum* Schulze, 1936c, *Aponomma*. This name is a probable *lapsus* for *Aponomma latum* (= *Amblyomma latum*) in Estrada-Peña & Castellá (1994), while it is a synonym of *Aponomma latum* (= *Amblyomma latum*) in Santos Dias (1993a) and a probable synonym of the same species in Camicas *et al.* (1998). The description of *Aponomma laevatum* is vague and the type is in the Berlin Museum according to Santos Dias (1993a), but not included in the list of types contained in this Museum (Moritz & Fischer 1981). The name *Aponomma laevatum* is a *nomen nudum* here.
- 1632 *laeve* Neumann, 1899, *Aponomma*. This name is a synonym of *Aponomma latum* (= *Amblyomma latum*) in Kaufman (1972) and Camicas *et al.* (1998). Keirans (1985) found *Aponomma pattoni* (= *Amblyomma pattoni*) identified as *Aponomma laeve* in the Nuttall Collection. This confusion had been anticipated by Kaufman (1972). The name *Aponomma laeve* is *incertae sedis*. Neumann (1911a) divided this name into two subspecies: *laeve laeve* (*incertae sedis*) and *laeve capensis* (= *Amblyomma latum*).
- 1633 *laeve capense* Neumann, 1901, *Aponomma*. This name is a synonym of *Aponomma latum* (= *Amblyomma latum*) in Camicas *et al.* (1998), but it is a synonym of *Amblyomma latum* here.
- 1634 *laeve capensis* Neumann, 1901, *Aponomma*. It was originally named *Aponomma laeve capense* and spelled *Aponomma laeve* var. *capensis* Neumann, 1901 in Neumann (1911a). The name *Aponomma laeve capensis* Neumann, 1901 is a synonym of *Aponomma latum* (= *Amblyomma latum*) in Camicas *et al.* (1998), but not included in Doss & Anastos (1977). *Aponomma laeve capensis* Neumann, 1901 is a synonym of *Amblyomma latum*. Keirans (1985) found *Aponomma laeve capensis* Neumann, 1901 (= *Amblyomma latum*) close to *Aponomma pattoni* (= *Amblyomma pattoni*) in the Nuttall Tick Collection.
- 1635 *laeve laeve* Neumann, 1899, *Aponomma*. This name used in Neumann (1911a) is a synonym of *Aponomma latum* (= *Amblyomma latum*) in Camicas *et al.* (1998) and others. The name *Aponomma laeve laeve* is *incertae sedis* synonym of *Aponomma laeve* (*incertae sedis*).
- 1636 *laeve paradoxum* Wall, 1921, *Aponomma*. This name is a *nomen nudum* in Doss & Anastos (1977), but this is unjustified. The name *Aponomma laeve paradoxum* is a synonym of *Aponomma pattoni* (= *Amblyomma pattoni*) in Kaufman (1972), Santos Dias (1993a) and Camicas *et al.* (1998). *Amblyomma laeve paradoxum* is a synonym of *Amblyomma pattoni*.
- 1637 *laevis* Neumann, 1899, *Ixodes*. This name is a synonym of *Ixodes acutitarsus* as stated in Neumann (1911a).
- 1638 *lagodechiensis* Dzhaparidze, 1950, *Ixodes*. This name is a synonym of *Pholeoixodes arboricola* (= *Ixodes arboricola*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes arboricola* as stated in Filippova (1977).
- 1639 *lagostrophii* Roberts, 1963a, *Haemaphysalis*
- 1640 *lagotis* (Gervais, 1849), *Haemaphysalis*. It was originally named *Ixodes lagotis* (*nomen dubium*). The name *Haemaphysalis lagotis* used in Neumann (1901) is *incertae sedis* in Neumann (1911a), a *nomen nudum* in Camicas *et al.* (1998) and González-Acuña & Guglielmone (2005). The name *Haemaphysalis lagotis* is a *nomen dubium* synonym of *Ixodes lagotis* (*nomen dubium*).
- 1641 *lagotis* Gervais, 1849, *Ixodes*. This name is a synonym of *Haemaphysalis lagotis* (*nomen dubium*) in Neumann (1911a) and a *nomen nudum* in Camicas *et al.* (1998) and González-Acuña & Guglielmone (2005). The name *Ixodes lagotis* is a *nomen dubium*.
- 1642 *lagrangei* Larrousse, 1925a, *Haemaphysalis*
- 1643 *laguri* Olenev, 1929b, *Ixodes*. It was originally named *Ixodes redikorzevi laguriae*, amended to *Ixodes redikorzevi laguri* and given its current status in Olenev (1931a).
- 1644 *laguri americanus* Babos, 1964a, *Ixodes* (pages 207, 407). This name is a *lapsus* for *Ixodes laguri armeniacus* Pomerantzev and Kirschenblatt, 1946 (= *Ixodes laguri*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1645 *laguri armeniacus* Kirschenblatt, 1938, *Ixodes*. This name is a synonym of *Ixodes laguri* in Camicas *et al.* (1998). These authors and Doss & Anastos (1977) name the authority as Kirshenblat. The name *Ixodes laguri armeniacus* Kirschenblatt, 1938 is a *nomen nudum* as stated in Filippova (1977).
- 1646 *laguri armeniacus* Pomerantzev and Kirschenblatt, 1946, *Ixodes*, in Pomerantzev (1946). This name is not included in Doss & Anastos (1977) and Camicas *et al.* (1998). The name *Ixodes laguri armeniacus* Pomerantzev and Kirschenblatt, 1946 is valid in Filippova (2008), but it is a synonym of *Ixodes laguri* here.
- 1647 *laguri armenicus* Tumanyan, Ananyan and Chubkova, 1968, *Ixodes*. This name is a *lapsus* for *Ixodes laguri armeniacus* (= *Ixodes laguri*) as stated in Camicas *et al.* (1998), but not included in Doss & Anastos (1977).
- 1648 *laguri colchicus* Pomerantzev, 1946, *Ixodes*. This name is valid in Filippova (2008), but a synonym of *Ixodes laguri* here.
- 1649 *laguri colchicus* Arthur, 1965, *Ixodes* (page 48). This name is a *lapsus* for *Ixodes laguri colchicus* (= *Ixodes laguri*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1650 *laguri laguri* Olenev, 1929b, *Ixodes*. This name used first in Pomerantzev (1946) is valid in Filippova (1977), but a synonym of *Ixodes laguri* here.
- 1651 *laguri slovacicus* Černý, 1960, *Ixodes*. This name is valid in Filippova (1977), but a synonym of *Ixodes laguri* here.
- 1652 *lama* Hoogstraal, Kaiser and Mitchell, 1970a, *Anomalohimalaya*. This name is a synonym of *Anomalohimalaya lamai* and its original name.
- 1653 *lamai* Hoogstraal, Kaiser and Mitchell, 1970a, *Anomalohimalaya*. It was originally named *Anomalohimalaya lama*, but amended in Camicas *et al.* (1998).
- 1654 *laocayensis* Phan Trong, 1977, *Haemaphysalis*
- 1655 *larve capensis* Neumann, 1901, *Aponomma*. This name is a *lapsus* for *Aponomma laeve capensis* Neumann, 1901 (=

- Amblyomma latum* in Bedford (1936). Doss & Anastos (1977) and Camicas *et al.* (1998) named the authority for this name Bedford, 1936.
- 1656 *lasallei* Méndez Arocha and Ortiz, 1958, *Ixodes*
- 1657 *latepunctatum* Tonelli Rondelli, 1939, *Amblyomma*. This name is a synonym of *Amblyomma scalpturatum* in Camicas *et al.* (1998) and others, but it is valid as stated in Labruna *et al.* (2005), who found *Amblyomma latepunctatum* identified as *Amblyomma incisum* and *Amblyomma scalpturatum*.
- 1658 *laticaudae* Warburton, 1933, *Amblyomma*. This name is valid in Camicas *et al.* (1998), Horak *et al.* (2002) and other workers. The name *Amblyomma laticaudae* is a synonym of *Amblyomma nitidum* Hirst and Hirst, 1910 as stated in Audy *et al.* (1960) and Guglielmone *et al.* (2010b, 2014).
- 1659 *latirostris* Schulze, 1937c, *Ixodes*. This name is a synonym of *Pholeoixodes canisuga* (= *Ixodes canisuga*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes canisuga* as stated in Petney *et al.* (2012a).
- 1660 *laticutatum* Neumann, 1906, *Amblyomma*. This name is valid in Neumann (1911a), but it is a *nomen dubium* in Camicas *et al.* (1998) and here.
- 1661 *latum* Koch, 1844a, *Amblyomma* (page 231). This tick has usually been considered a member of *Aponomma*, but it is now placed again in the genus *Amblyomma* (Horak *et al.* 2002; Klompen *et al.* 2002). However, *Amblyomma latum* in Neumann (1899) is in fact *Amblyomma sylvaticum* according to Neumann (1911a), who treats this name as *incertae sedis*, while *Amblyomma latum* in Neumann (1901) is actually in part *Amblyomma sylvaticum* in the opinion of Camicas *et al.* (1998).
- 1662 *latum* (Koch, 1844a), *Aponomma*. It was originally named *Amblyomma latum*. The name *Aponomma latum* used first in Neumann (1901) is valid in Camicas *et al.* (1998). *Amblyomma latum* is a synonym of *Amblyomma latum* as stated in Horak *et al.* (2002). However, *Aponomma latum* in Neumann (1901) is a synonym of *Amblyomma sublaeve* [(= *Amblyomma javanense* (Supino, 1897))] according to Anastos (1950), while Neumann (1911a) regards *Aponomma latum* partly a synonym of *Amblyomma sublaeve* [= *Amblyomma javanense* (Supino, 1897)] and partly a synonym of *Aponomma latum* (= *Amblyomma latum*).
- 1663 *latum* Koch, 1844a, *Hyalomma* (page 221). This name is a synonym of *Amblyomma sylvaticum* in Neumann (1911a) and Camicas *et al.* (1998). The name *Hyalomma latum* is a synonym of *Amblyomma latum* in Robinson (1926) and here.
- 1664 *latus* Cooley, 1937, *Dermacentor*
- 1665 *latus* Arthur, 1958c, *Ixodes*
- 1666 *laysanensis* Wilson, 1964, *Ixodes*. This name is a synonym of *Scaphixodes laysanensis* in Camicas *et al.* (1998), but it is valid.
- 1667 *laysanensis* (Wilson, 1964), *Scaphixodes*. It was originally named *Ixodes laysanensis*. The name *Scaphixodes laysanensis* used in Camicas & Morel (1977) is valid in Camicas *et al.* (1998), but it is a synonym of *Ixodes laysanensis*.
- 1668 *leachi* (Audouin, 1826), *Haemaphysalis*. It was originally named *Ixodes leachi* and given its current status in Neumann (1897). However, the name *Haemaphysalis leachi* in Neumann (1897) is partly in fact *Haemaphysalis numidiana* (= *Haemaphysalis erinacei* Pavesi, 1884) according to Neumann (1911a), while this name in Roberts (1935) is actually *Haemaphysalis bancroftii* in the opinion of Roberts (1963a). The name *Haemaphysalis leachi* in Toumanoff (1944) is inferred to be *Haemaphysalis asiaticus* (= *Haemaphysalis asiatica*) in Hoogstraal & Trapido (1966), while it in Mitchell *et al.* (1966) is in fact *Haemaphysalis canestrinii* as stated in Hoogstraal (1971a). The name *Haemaphysalis leachi* in Rageau (1953a cited 1954) and Neumann (1897 in part), and *Haemaphysalis leachi leachi* (= *Haemaphysalis leachi*) in Lamontelliere (1960) and Elbl & Anastos (1966d) are actually *Haemaphysalis paraleachi* according to Camicas *et al.* (1998). Keirans (1985) found *Haemaphysalis asiaticus* (= *Haemaphysalis asiatica*), *Haemaphysalis canestrinii*, *Haemaphysalis indica* and *Haemaphysalis koningsbergeri* classified as *Haemaphysalis leachi*, while *Haemaphysalis leachi* has been identified as *Haemaphysalis leachi indica* (= *Haemaphysalis indica*) in the Nuttall Collection. *Haemaphysalis elliptica* has been identified as *Haemaphysalis leachi* for a long period of time as stated in Apanaskevich *et al.* (2007). Neumann (1911a) divided *Haemaphysalis leachi* into two subspecies: *leachi leachi* [= *Haemaphysalis leachi*], but this name in Neumann (1911a) is partly *Haemaphysalis leachi* and partly *Haemaphysalis elliptica* according to Camicas *et al.* (1998)] and *leachi australis* (*incertae sedis*).
- 1669 *leachi* (Audouin, 1826), *Hyalomma*. This name is a *lapsus* for *Haemaphysalis leachi* in Spinage (2012, page 1119).
- 1670 *leachi* Audouin, 1826, *Ixodes*. This name is a synonym of *Haemaphysalis leachi* and its original name.
- 1671 *leachi* (Audouin, 1826), *Rhipicephalus*. This name in Schwetz (1927) is a *lapsus* for *Haemaphysalis leachi*. The authority for *Rhipicephalus leachi* is Schwetz, 1927 in Walker *et al.* (2000), but Schwetz (1927) refers to the species in Audouin (1826).
- 1672 *leachi* (Audouin, 1826), *Rhipidostoma*. It was originally named *Ixodes leachi* (= *Haemaphysalis leachi*). The name *Rhipidostoma leachi* used in Karsch (1879b) and by a few other workers, is a synonym of *Haemaphysalis leachi leachi* (= *Haemaphysalis leachi*) in Neumann (1911a) and a synonym of *Haemaphysalis leachi* in Camicas *et al.* (1998) and here.
- 1673 *leachi* (Audouin, 1826), *Rhipistoma*. It was originally named *Ixodes leachi* (= *Haemaphysalis leachi*). The name *Rhipistoma leachi* used in Koch (1844a) and by a few other workers, is a synonym of *Haemaphysalis leachi leachi* (= *Haemaphysalis leachi*) in Neumann (1911a) and a synonym of *Haemaphysalis leachi* in Camicas *et al.* (1998) and here.
- 1674 *leachi australis* Neumann, 1905, *Haemaphysalis*. This name is a probable synonym of *Haemaphysalis koningsbergeri* in Anastos (1950); if both names are found to be the same, the name *australis* Neumann, 1905 will have priority over *koningsbergeri*. The name *Haemaphysalis leachi australis* Neumann, 1905 is a synonym of *Haemaphysalis leachi* in

- Santos Dias (1958a), partly a synonym of *Haemaphysalis bancrofti* in Roberts (1963a), partly a synonym of *Haemaphysalis bancrofti* and *Haemaphysalis koningsbergeri* in Camicas *et al.* (1998) and a full synonym of *Haemaphysalis bancrofti* in Estrada-Peña (1991). *Haemaphysalis leachi australis* Neumann, 1905 is *incertae sedis*.
- 1675 *leachi humerosoides* Theiler, 1943, *Haemaphysalis*. This name is a synonym of *Haemaphysalis elliptica*. However, *Haemaphysalis leachi humerosoides* in Hoogstraal (1956a), Santos Dias (1958b) and Theiler (1962) is in fact *Haemaphysalis leachi* as stated in Apanaskevich *et al.* (2007c). The name *Haemaphysalis leachi humerosoides* is not included in Doss & Anastos (1977).
- 1676 *leachi humerosoides* Doss and Anastos, 1977, *Haemaphysalis* (page 49). This name is a *lapsus* for *Haemaphysalis leachi humerosoides* (= *Haemaphysalis elliptica*), but not included in Camicas *et al.* (1998).
- 1677 *leachi indica* Warburton, 1910, *Haemaphysalis*. This name is a synonym of *Haemaphysalis indica* and its original name as stated in Hoogstraal (1970a). Keirans (1985) found *Haemaphysalis leachi* identified as *Haemaphysalis leachi indica* (= *Haemaphysalis indica*). The original description of the female and nymph of *Haemaphysalis muhsamae* Santos Dias, 1954d (as *Haemaphysalis muhsami*) corresponds in fact to specimens of *Haemaphysalis leachi indica* (= *Haemaphysalis indica*) as stated in Santos Dias (1955d).
- 1678 *leachi koningsbergeri* Warburton and Nuttall, 1909, *Haemaphysalis*. This name used in Krijgsman & Ponto (1932) is a synonym of *Haemaphysalis koningsbergeri* as stated in Camicas *et al.* (1998).
- 1679 *leachi leachi* (Audouin, 1826), *Haemaphysalis*. This name used first in Neumann (1911a) is widely regarded a synonym of *Haemaphysalis leachi*. However, *Haemaphysalis leachi leachi* in Neumann (1911a) is partly *Haemaphysalis leachi* and partly *Haemaphysalis elliptica*, while this name in Elbl & Anastos (1966d) is partly in fact *Haemaphysalis leachi*, actually in part *Haemaphysalis moreli* and partly in fact *Haemaphysalis paraleachi* according to Camicas *et al.* (1998).
- 1680 *leachi media* Oswald, 1939, *Haemaphysalis*. This name is a synonym of *Haemaphysalis leachi* in Estrada-Peña (1991) and a *nomen dubium* in Camicas *et al.* (1998). The description of *Haemaphysalis leachi media* is vague and type location unknown, a *nomen nudum*.
- 1681 *leachi muhsami* Santos Dias, 1954d, *Haemaphysalis*. This name used first in Hoogstraal (1956c, page 167) is considered the original name of *Haemaphysalis muhsamae* Santos Dias, 1954d in Uilenberg *et al.* (2013), but the original name is *Haemaphysalis muhsami* Santos Dias, 1954d. The name *Haemaphysalis leachi muhsami* Santos Dias, 1954d is a synonym of *Haemaphysalis muhsamae* Santos Dias, 1954d as stated in Camicas *et al.* (1998). However, *Haemaphysalis leachi muhsami* in Hoogstraal (1956a) is in fact simultaneously *Haemaphysalis leachi* and *Haemaphysalis spinulosa* in Estrada-Peña (1991), while Walker (1991) states that *Haemaphysalis leachi muhsami* in Theiler (1962) is actually *Haemaphysalis spinulosa*. The correct spelling for this name should be *Haemaphysalis leachi muhsamae* Santos Dias, 1954d.
- 1682 *leachi* small specimens in Nuttall and Warburton, 1915, *Haemaphysalis*. This name is in fact *Haemaphysalis bequaerti* Hoogstraal, 1956c as stated in Morel (1965b).
- 1683 *leachi* species 1 in Trapido *et al.* (1964a), *Haemaphysalis*, is in fact *Haemaphysalis indica* as stated in Hoogstraal (1970a).
- 1684 *leachu* Tseng, 1978, *Haemaphysalis* (page 24). This name is a *lapsus* for *Haemaphysalis leachi*, but not included in Camicas *et al.* (1998).
- 1685 *lemuris* Hoogstraal, 1953b, *Haemaphysalis*
- 1686 *lemuris* Arthur, 1958b, *Ixodes*
- 1687 *leonis* Conil, 1877, *Ixodes*. This name is a *nomen dubium* in Camicas *et al.* (1998), but it is a name without description or figure, a *nomen nudum* not included in Neumann (1911a).
- 1688 *lepidium* James-Rugu and Jidayi, 2004, *Amblyomma* (page 52). This name is a *lapsus* for *Amblyomma lepidum*, repeated in Ayana *et al.* (2012, pages 14, 16-19, 21), Shiferaw & Onu (2013 as *Amblyomma*, page 292) and others.
- 1689 *lepidu* Sahinduran, 2012, *Amblyomma* (page 478). This name is a *lapsus* for *Amblyomma lepidum*.
- 1690 *lepidum* Dönitz, 1909, *Amblyomma*. Keirans (1985) found *Amblyomma lepidum* identified as *Amblyomma cohaerens*, *Amblyomma eburneum*, *Amblyomma gemma* and *Amblyomma hebraeum* in the Nuttall Tick Collection.
- 1691 *leporis* (Packard, 1869), *Haemaphysalis*. It was originally named *Ixodes leporispalustris* (= *Haemaphysalis leporispalustris*). The name *Haemaphysalis leporis* (Packard, 1869) used first in Neumann (1897) is simultaneously a synonym of *Haemaphysalis chordeilis* and a valid name in Neumann (1911a). *Haemaphysalis leporis* (Packard, 1869) is a synonym of *Haemaphysalis leporispalustris* as stated in Cooley (1946a) and Camicas *et al.* (1998).
- 1692 *leporis* (Packard, 1869), *Rhipistoma*. It was originally named *Ixodes leporispalustris* (= *Haemaphysalis leporispalustris*). The name *Rhipistoma leporis* used in Osborn (1896) is a synonym of *Haemaphysalis leporispalustris* as stated in Cooley (1946a), but not included in Neumann (1911a).
- 1693 *leporis* Pomerantzev, 1946, *Rhipicephalus*. Keirans (1985) found *Rhipicephalus leporis* Pomerantzev, 1946 identified as *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition) in the Nuttall Tick Collection.
- 1694 *leporis proxima* Aragão, 1909, *Haemaphysalis*. This name used in Aragão (1911) is a synonym of *Haemaphysalis leporispalustris* as stated in Camicas *et al.* (1998).
- 1695 *leporispalustis* Baker, 1997, *Haemaphysalis* (page 346). This name is a *lapsus* for *Haemaphysalis leporispalustris*.
- 1696 *leporispalustris* Megaw and Beadle, 1979, *Haemaphysalis* (page 79). This name is a *lapsus* for *Haemaphysalis leporispalustris*, but not included in Camicas *et al.* (1998).
- 1697 *leporispalustris* (Packard, 1869), *Haemaphysalis*. It was originally named *Ixodes leporispalustris* and given its current

- status in Nuttall & Warburton (1915).
- 1698 *leporispalustris* Packard, 1869, *Ixodes*. This name is a synonym of *Haemaphysalis leporis* in Neumann (1911a), but it is a synonym of *Haemaphysalis leporispalustris* and its original name.
- 1699 *leporuspalustris* Brown and Burgess, 2001, *Haemaphysalis* (page 441). This name is a *lapsus* for *Haemaphysalis leporispalustris*.
- 1700 *leptosoma* Schulze, 1937b, *Hyalomma*. This name is a probable synonym of *Hyalomma impeltatum* as stated in Camicas *et al.* (1998) and Apanaskevich & Horak (2009).
- 1701 *leucozomum* Schulze, 1936c, *Amblyomma*. This name is valid in Tonelli Rondelli (1939), but it is a synonym of *Amblyomma calcaratum* as stated in Camicas *et al.* (1998).
- 1702 *lewisi* Schulze, 1936e, *Hyalomma*. This name is a synonym of *Hyalomma truncatum* as stated in Camicas *et al.* (1998) and Apanaskevich & Horak (2008a).
- 1703 *lewisi* (Schulze, 1936e), *Hyalommina*. This name used in Schulze (1950b, page 551) is not included in Doss & Anastos (1977) and Camicas *et al.* (1998). The name *Hyalommina lewisi* (Schulze, 1936e) is a synonym of *Hyalomma truncatum* here.
- 1704 *lewisi* Arthur, 1965, *Ixodes*. The tick *Ixodes* near *pilosus* in Yeoman & Walker (1967) is in fact *Ixodes lewisi* Arthur, 1965 according to Camicas *et al.* (1998). Keirans (1985) found *Ixodes lewisi* Arthur, 1965 identified as *Ixodes pilosus* and *Ixodes ugandanus djaronensis* (= *Ixodes djaronensis*) in the Nuttall Tick Collection.
- 1705 *limbatum* Neumann, 1899, *Amblyomma*
- 1706 *limbatus* Neumann, 1899, *Amblyomma*. This name used in Tseng (1978, page 206) is treated here as a synonym of *Amblyomma limbatum*, but not included in Camicas *et al.* (1998).
- 1707 *limbatus* Koch, 1844a, *Rhipicephalus*. This name is an alleged synonym of *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition) in Neumann (1911a) and Camicas *et al.* (1998). The name *Rhipicephalus limbatus* Koch, 1844a is *incertae sedis* here.
- 1708 *lindbergi* Santos Dias, 1959b, *Ixodes*. This name is a synonym of *Ixodes ovatus* as stated in Camicas *et al.* (1998).
- 1709 *lineatum* (Fabricius, 1775), *Amblyomma*. It was originally named *Acarus lineatus* (*nomen dubium*). The name *Amblyomma lineatum* used in Koch (1844a) is a name *incertae sedis* in Neumann (1911a). *Amblyomma lineatum* is a *nomen dubium* synonym of *Acarus lineatus* (*nomen dubium*) in Camicas *et al.* (1998) and here.
- 1710 *lineatus* Fabricius, 1775, *Acarus*. This name is *incertae sedis* in Neumann (1911a), but a *nomen dubium* in Camicas *et al.* (1998) and here.
- 1711 *lineatus* (Fabricius, 1775), *Amblyomma*. This name is in Doss & Anastos (1977) based on Koch (1844a), but this author used the correct name *Amblyomma lineatum* (= *Acarus lineatus*) (*nomen dubium*). The name *Amblyomma lineatus* is a *nomen dubium* synonym of *Acarus lineatus* (*nomen dubium*), but not included in Camicas *et al.* (1998).
- 1712 *lineatus* (Fabricius, 1775), *Haemalastor*. It was originally named *Acarus lineatus* (*nomen dubium*). The name *Haemalastor lineatus* used in Oudemans (1936, page 499) is a *nomen dubium* synonym of *Acarus lineatus* (*nomen dubium*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1713 *lineatus* (Fabricius, 1775), *Ixodes*. It was originally named *Acarus lineatus* (*nomen dubium*). The name *Ixodes lineatus* used in Fabricius (1805) is a name *incertae sedis* in Neumann (1911a). *Ixodes lineatus* is a *nomen dubium* synonym of *Acarus lineatus* (*nomen dubium*) in Camicas *et al.* (1998) and here.
- 1714 *linnaei* Audouin, 1826, *Ixodes*. This name is a synonym of *Rhipicephalus linnei* (= *Rhipicephalus linnaei*) (*nomen dubium*) in Koch (1847) and Neumann (1911a), and a synonym of *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition) in Camicas *et al.* (1998). The name *Ixodes linnaei* is a *nomen dubium* here.
- 1715 *linnaei* (Audouin 1826), *Rhipicephalus*. It was originally named *Ixodes linnaei* (*nomen dubium*). The name *Rhipicephalus linnaei* is in Doss & Anastos (1977) and regarded here a *nomen dubium* synonym of *Ixodes linnaei* (*nomen dubium*).
- 1716 *linnei* (Audouin, 1826), *Rhipicephalus*. It was originally named *Ixodes linnaei* (*nomen dubium*). The name *Rhipicephalus linnei* is a *lapsus* or an emendation in Koch (1844a, 1847), Neumann (1911a) and others, for *Rhipicephalus linnaei* (*nomen dubium*). The name *Rhipicephalus linnei* is *incertae sedis* in Neumann (1911a) and an alleged synonym of *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition) in Camicas *et al.* (1998). *Rhipicephalus linnei* is a *nomen dubium* synonym of *Ixodes linnaei* (*nomen dubium*).
- 1717 *lipsiensis* Fabricius, 1775, *Acarus*. This name is *incertae sedis* in Neumann (1911a) and a synonym of *Ixodes ricinus* in Camicas *et al.* (1998) who based this decision on Nuttall & Warburton (1911), but these authors listed *Acarus lipsiensis* as doubtful. The name *Acarus lipsiensis* is a *nomen dubium*.
- 1718 *lipsiensis* (Fabricius, 1775), *Ixodes*. It was originally named *Acarus lipsiensis* (*nomen dubium*). The name *Ixodes lipsiensis* used in Fabricius (1805) is a synonym of *Ixodes ricinus* in Camicas *et al.* (1998) and a name *incertae sedis* in Neumann (1911a). *Ixodes lipsiensis* is a *nomen dubium* synonym of *Acarus lipsiensis* (*nomen dubium*) here.
- 1719 *lisphilus* Kishida, 1930, *Ixodes*. This name is a *nomen dubium* because its description is poor and types lost as stated in Yamaguti *et al.* (1971). Keegan & Toshioka (1957) and Camicas *et al.* (1998) cite 1922 the year of description of *Ixodes lisphilus*; however, Kishida (1922) use no name for the tick that was later named *Ixodes lisphilus*.
- 1720 *lividus* Koch, 1844a, *Ixodes*. It was originally named *Ixodes plumbeus* Leach, 1815, a name preoccupied by *Ixodes plumbeus* (Panzer, 1795) in Fabricius (1805) and consequently renamed in Koch (1844a). The name *Ixodes lividus* Koch, 1844a is *incertae sedis* synonym of *Ixodes plumbeus* Leach, 1815 (= *Ixodes lividus* Koch, 1844a) in Neumann (1911a) under the authority of Koch, 1847). *Ixodes lividus* is a synonym of *Pholeoixodes lividus* (Koch, 1844a) in Camicas *et al.*

- (1998), but it is valid. Keirans (1985) found *Ixodes lividus* Koch, 1844a identified as *Ixodes canisuga* and *Ixodes hexagonus* in the Nuttall Tick Collection.
- 1721 *lividus* Van Beneden, 1873, *Ixodes*. This name is *incertae sedis* in Neumann (1911a) and a synonym of *Eschatocephalus vespertilionis* (= *Ixodes vespertilionis*) in Camicas *et al.* (1998). The name *Ixodes lividus* Van Beneden, 1873 is a name without description or figure, a *nomen nudum* as stated in Doss & Anastos (1977).
- 1722 *lividus* (Koch, 1844a), *Pholeoixodes*. It was originally named *Ixodes plumbeus* Leach, 1815. The name *Pholeoixodes lividus* (Koch, 1844a) used in Morel & Pérez (1973) is valid in Camicas *et al.* (1998), but it is a synonym of *Ixodes lividus* Koch, 1844a.
- 1723 *lividus bavaricus* Schulze and Schlottke, 1929b, *Ixodes*. This name is a synonym of *Pholeoixodes lividus* (Koch, 1844a) (= *Ixodes lividus* Koch, 1844a) in Camicas *et al.* (1998), but it is a synonym of *Ixodes lividus* Koch, 1844a here.
- 1724 *lividus crenulatus* Koch, 1844b, *Ixodes*. This name used in Yav'ya *et al.* (1960) is a synonym of *Pholeoixodes crenulatus* (= *Ixodes crenulatus*) in Camicas *et al.* (1998), but not included in Doss & Anastos (1977). The name *Ixodes lividus crenulatus* is a synonym of *Ixodes crenulatus* here.
- 1725 *lividus obotriticus* Schulze and Schlottke, 1929b, *Ixodes*. This name is a synonym of *Pholeoixodes lividus* (Koch, 1844a) (= *Ixodes lividus* Koch, 1844a) in Camicas *et al.* (1998), but it is a synonym of *Ixodes lividus* Koch, 1844a here.
- 1726 *loangicornis* Shi, Yang, Li and Zhao, 2004, *Haemaphysalis* (page 49). This name is a *lapsus* for *Haemaphysalis longicornis*.
- 1727 *lobachovi* Kolonin, 1995a, *Haemaphysalis*
- 1728 *loculosum* Neumann, 1907e, *Amblyomma*
- 1729 *longecoxalis* Doss and Anastos, 1977, *Dermacentor*, derived from *longecoxalis* in Olenev (1927). The name *Dermacentor longecoxalis* is a *nomen nudum* derived from wrong interpretation of an epithet in Olenev (1927) that is not a tick name but a morphological definition that involves more than one species (Apanaskevich D.A., personal communication).
- 1730 *longiceps* Warburton, 1912, *Rhipicephalus*
- 1731 *longicorni* Noh, 1972, *Haemaphysalis* (pages 141, 144, 145, 148, 149, 153). This name is a *lapsus* for *Haemaphysalis longicornis*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1732 *longicornis* Neumann, 1901, *Haemaphysalis*. This name is a synonym of *Haemaphysalis concinna longicornis* (= *Haemaphysalis longicornis*) in Neumann (1911a), doubtful in Nuttall & Warburton (1915), but it is valid. A long confusion existed between *Haemaphysalis longicornis* and *Haemaphysalis bispinosa* as stated in Hoogstraal *et al.* (1968c). Keirans (1985) found *Haemaphysalis longicornis* identified as *Haemaphysalis bispinosa* and *Haemaphysalis hystericis* Supino, 1897 in the Nuttall Tick Collection.
- 1733 *longicoxalis* Camicas, Hervy, Adam and Morel, 1998, *Dermacentor*. This name is a *lapsus* for *Dermacentor longecoxalis* (*nomen nudum*), which is regarded a synonym of *Dermacentor marginatus* (Sulzer, 1776) in Camicas *et al.* (1998).
- 1734 *longicoxatus* Neumann, 1905, *Rhipicephalus*. This name in Rousselot (1953) is in fact *Rhipicephalus aurantiacus* as stated in Camicas *et al.* (1998). Keirans (1985) found *Rhipicephalus camelopardalis* (= *Rhipicephalus longicoxatus*), *Rhipicephalus muehlensi* and *Rhipicephalus pravus* identified as *Rhipicephalus longicoxatus* in the Nuttall Tick Collection.
- 1735 *longipalpis* Warburton, 1910, *Haemaphysalis*. This name is a synonym of *Haemaphysalis aculeata* as stated in Keirans & Hillyard (2001).
- 1736 *longipes* Supino, 1897, *Dermacentor*. This name is *incertae sedis* in Neumann (1911a), a *nomen nudum* in Sharif (1928) and simultaneously a synonym of *Amblyomma supinoi* and a *nomen nudum* in Camicas *et al.* (1998). The name *Dermacentor longipes* Supino, 1897 is *incertae sedis*.
- 1737 *longipes* Lucas, 1872, *Ixodes*. This name is a synonym of *Eschatocephalus vespertilionis* (= *Ixodes vespertilionis*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes vespertilionis* as stated in Neumann (1911a)
- 1738 *longirostra* Patton and Cragg, 1913, *Amblyomma* (page 613). This name is a *lapsus* for *Amblyomma longirostre*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1739 *longirostre* (Koch, 1844a), *Amblyomma*. It was originally named *Haemalastor longirostris* and given its current status in Neumann (1905), but not included in Doss & Anastos (1977).
- 1740 *longirostre* (Koch, 1844a), *Hyalomma*. It was originally named *Haemalastor longirostris* (= *Amblyomma longirostre*). The name *Hyalomma longirostre* used in Neumann (1901) is a synonym of *Amblyomma longirostre* as stated in Neumann (1911a) and Camicas *et al.* (1998), but not included in Doss & Anastos (1977).
- 1741 *longirostris* (Koch, 1844a), *Amblyomma*. This name is in Doss & Anastos (1977) based on Neumann (1901, 1905) and in Camicas *et al.* (1998) based on Neumann (1905), but Neumann used the correct name *Amblyomma longirostre*. The name *Amblyomma longirostris* is a synonym of *Amblyomma longirostre*.
- 1742 *longirostris* Koch, 1844a, *Haemalastor*. This name is a synonym of *Amblyomma longirostre* and its original name.
- 1743 *longirostris* (Koch, 1844a), *Hyalomma*. This name is in Doss & Anastos (1977) based on Neumann (1901), but this author used the name *Hyalomma longirostre*. The name *Hyalomma longirostris* is a synonym of *Amblyomma longirostre*, but not included in Camicas *et al.* (1998).
- 1744 *longirostrum* Cooper and Robinson, 1908, *Amblyomma*. This name is a synonym of *Amblyomma longirostre* in Estrada-Peña & Castellá (1994), but it is a synonym of *Amblyomma humerale* as stated in Robinson (1926) and Camicas *et al.* (1998).
- 1745 *longirostre* Labruna, Onofrio, Beati, Arzua, Bertola, Ribeiro and Barros-Battesti, 2009b, *Amblyomma* (page 244). This

- name is a *lapsus* for *Amblyomma longirostre*.
- 1746 *longiscutatum* Boero, 1944, *Ixodes*. This name is a synonym of *Ixodes longiscutatus* Boero, 1944 and its original name.
- 1747 *longiscutatus* Minning, 1934, *Boophilus*. This name is a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Keirans & Clifford (1984) and Camicas *et al.* (1998), but *Boophilus longiscutatus* Minning, 1934 may also be a synonym of *Rhipicephalus australis* Fuller, 1899 according with the localities cited in Minning (1934). The name *Boophilus longiscutatus* Minning, 1934 is *incertae sedis*.
- 1748 *longiscutatus* Boero, 1944, *Ixodes*. It was originally named *Ixodes longiscutatum*, but amended in Camicas *et al.* (1998).
- 1749 *longiscutatus* (Minning, 1934), *Uroboophilus*. It was originally named *Boophilus longiscutatus* Minning, 1934 (*incertae sedis*). The name *Uroboophilus longiscutatus* (Minning, 1934) used in Kishida (1939b) is a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998), but this name may also be a synonym of *Rhipicephalus australis* Fuller, 1899. The name *Uroboophilus longiscutatus* (Minning, 1934) is *incertae sedis* synonym of *Boophilus longiscutatus* Minning, 1934 (*incertae sedis*).
- 1750 *longoguttatum* Guerrero, 1996, *Amblyomma* (page 21). This name is a *lapsus* for *Amblyomma oblongoguttatum*.
- 1751 *longoides* Zumpt, 1943a, *Rhipicephalus*. It was originally named *Rhipicephalus simus longoides* (= *Rhipicephalus senegalensis*). The name *Rhipicephalus longoides* used in Tendeiro (1952) is a synonym of *Rhipicephalus senegalensis* as stated in Walker *et al.* (2000).
- 1752 *longus* Neumann, 1907a, *Rhipicephalus*. This name in Santos Dias (1955a) is in fact *Rhipicephalus senegalensis* according to Saratsiotis (1977), while Camicas *et al.* (1998) regard *Rhipicephalus longus* a probable synonym of *Rhipicephalus senegalensis*, but it is valid. Keirans (1985) found *Rhipicephalus longus* identified as *Rhipicephalus appendiculatus*, *Rhipicephalus capensis* Koch, 1844a, *Rhipicephalus simus falcatus* (*nomen nudum*) and *Rhipicephalus supertritus* in the Nuttall Collection. Walker *et al.* (2000) state that *Rhipicephalus longus* has been confused with *Rhipicephalus pseudolongus* and *Rhipicephalus senegalensis*.
- 1753 *longyrostre* Pifano, 1941, *Amblyomma* (pages 288, 289). This name is a *lapsus* for *Amblyomma longirostre*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1754 *loricatus* Neumann, 1899, *Ixodes*. The name *Ixodes luciae* in Ivancovich & Luciani (1992) is partly in fact *Ixodes loricatus* as stated in Guglielmone *et al.* (2011); *Ixodes angustus* in Neumann (1901) and Lahille (1905) is actually *Ixodes loricatus* according to Guglielmone *et al.* (2003).
- 1755 *loricatus spinosus* Nuttall, 1910, *Ixodes*. This name was preoccupied by *Ixodes spinosus* Neumann, 1899 (= *Ixodes fuscipes*) and replaced by *Ixodes loricatus vogelsangi* Santos Dias, 1954b (= *Ixodes luciae*). The name *Ixodes loricatus spinosus* is a synonym of *Ixodes luciae* as stated in Camicas *et al.* (1998) and Keirans & Hillyard (2001).
- 1756 *loricatus vogelsangi* Santos Dias, 1954b, *Ixodes*. This name is a new one for *Ixodes loricatus spinosus* Nuttall, 1910 (= *Ixodes luciae*) preoccupied by *Ixodes spinosus* Neumann, 1899 as stated in Keirans & Hillyard (2001). The name *Ixodes loricatus vogelsangi* is a synonym of *Ixodes luciae* as shown in Camicas *et al.* (1998) and Keirans & Hillyard (2001).
- 1757 *lotzkyi* Filippova and Panova, 1978, *Anomalohimalaya*
- 1758 *lounsburyi* Neumann, 1907b, *Margaropus*. This name is valid in Neumann (1911a), but it was subsequently synonymized with *Margaropus winthemi* in Hoogstraal (1956a) as stated in Camicas *et al.* (1998).
- 1759 *lounsburyi* Walker, 1990, *Rhipicephalus*. This tick was originally named *Rhipicephalus follis* in Theiler & Robinson (1953) as stated in Walker *et al.* (2000). The undetermined species of *Rhipicephalus* in Horak *et al.* (1986b) is in fact *Rhipicephalus lounsburyi* Walker, 1990 according to Walker *et al.* (2000).
- 1760 *loveridgei* Arthur, 1958c, *Ixodes*
- 1761 *loveridgi* Clifford, Sonenshine, Keirans and Kohls, 1973, *Ixodes* (page 491). This name is a *lapsus* for *Ixodes loveridgei*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1762 *lucasi* Warburton, 1910, *Aponomma*. It was originally named *Aponomma gervaisi lucasi*. The name *Aponomma lucasi* used first in Schulze (1933a) is a synonym of *Aponomma fuscolineatum* (= *Amblyomma fuscolineatum*) in Santos Dias (1993a) and a valid name in Anastos (1950) and Teng & Jiang (1991), but a synonym of *Aponomma varanense* (= *Amblyomma varanense*) in Kaufman (1972) and Camicas *et al.* (1998). *Aponomma lucasi* is a synonym of *Amblyomma varanense* here.
- 1763 *luciae* Sénevet, 1940, *Ixodes*. This name is regarded a new one for *Ixodes loricatus spinosus* Nuttall, 1910 preoccupied by *Ixodes spinosus* Neumann, 1899 in Keirans & Hillyard (2001). This is a wrong interpretation of Sénevet (1940) who described *Ixodes luciae* without mention to any of those names. The name *Ixodes luciae* in Ivancovich & Luciani (1992) is partly *Ixodes loricatus* and partly *Ixodes auritulus* as stated in Guglielmone *et al.* (2011). Camicas *et al.* (1998) affirm that *Ixodes luciae* was described in 1945.
- 1764 *ludovici* Siuda, 1972, *Aponomma*. This name is a synonym of *Aponomma sphenodonti* (= *Amblyomma sphenodonti*) as stated in Siuda (1982) and Camicas *et al.* (1998).
- 1765 *luguri* Adlan, 1985, *Ixodes* (page 330). This name is a *lapsus* for *Ixodes laguri*, but not included in Camicas *et al.* (1998).
- 1766 *lunatus* Neumann, 1907d, *Ixodes*. The name *Ixodes lunatus* in Colas-Belcour & Grenier (1942) is in fact *Ixodes colasbelcouri* Arthur, 1957b as stated in Uilenberg *et al.* (1979). The name *Ixodes lunatus* in Neumann (1907d) is a probable synonym of *Ixodes schillingsi* according to Colas-Belcour & Grenier (1942), but this statement is erroneous.
- 1767 *lundbladi* Schulze, 1939a, *Rhipicephalus*. This name is a synonym of *Rhipicephalus bursa* in Camicas *et al.* (1998), but *incertae sedis* in Walker *et al.* (2000) and here.
- 1768 *lumulatus* Nuttall, 1914, *Ixodes*. This name is a *lapsus* for *Ixodes lunatus* as stated in Doss & Anastos (1977).

- 1769 *lunulatus* Neumann, 1907b, *Rhipicephalus*. This name is a synonym of *Rhipicephalus tricuspidis* in Neumann (1911a) and several authors after him, while Saratsiotis (1977) treats *Rhipicephalus tricuspidis* as a synonym of *Rhipicephalus lunulatus*. The name *Rhipicephalus lunulatus* in Santos Dias (1955b) is actually *Rhipicephalus tricuspidis* according to Camicas *et al.* (1998). Keirans (1985) found *Rhipicephalus lunulatus* identified as *Rhipicephalus simus* in the Nuttall Collection. The name *Rhipicephalus attenuatus* (= *Rhipicephalus lunulatus*) has been confused with *Rhipicephalus masseyi* as stated in Walker *et al.* (2000). Walker *et al.* (1988) discuss the problems associated with the identification of *Rhipicephalus tricuspidis* and *Rhipicephalus lunulatus*.
- 1770 *lusitanicum* (Koch, 1844a), *Amblyomma*. This name is a *lapsus* for *Hyalomma lusitanicum* in Stella (1938b) as stated in Camicas *et al.* (1998)
- 1771 *lusitanicum* Koch, 1844a, *Hyalomma*. This name in Sénevet (1922) is in fact *Hyalomma anatolicum excavatum* (= *Hyalomma excavatum*) according to Camicas *et al.* (1998). Keirans (1985) found *Hyalomma lusitanicum* identified as *Hyalomma aegyptium* in the Nuttall Collection.
- 1772 *lusitanicum* (Koch, 1844a), *Rhipicephalus*. This name is a *lapsus* for *Hyalomma lusitanicum*, in Dönitz (1905), but the authority for *Rhipicephalus lusitanicum* is Dönitz, 1905 in Walker *et al.* (2000). The name *Rhipicephalus lusitanicum* is not included in Neumann (1911a) and Doss & Anastos (1977).
- 1773 *lusitanicum algericum* Sénevet, 1928, *Hyalomma*. This name is a new one for *Hyalomma lusitanicum* type II in Sénevet (1922) and a synonym of *Hyalomma anatolicum excavatum* (= *Hyalomma excavatum*) in Camicas *et al.* (1998). The name *Hyalomma lusitanicum algericum* is *incertae sedis*.
- 1774 *lusitanicum algericum* Schulze and Schlottke, 1929a, *Hyalomma*. This name is preoccupied by *Hyalomma lusitanicum algericum* Sénevet, 1928 (*incertae sedis*) and regarded a *nomen dubium* in Camicas *et al.* (1998) and here.
- 1775 *lusitanicum berberum* Sénevet, 1922, *Hyalomma*. This name is a synonym of *Hyalomma lusitanicum* as stated in Camicas *et al.* (1998) and Apanaskevich *et al.* (2008a).
- 1776 *lusitanicum cicatricosum* Schulze and Schlottke, 1929a, *Hyalomma*. This name is a synonym of *Hyalomma anatolicum anatolicum* (= *Hyalomma anatolicum*) in Camicas *et al.* (1998). The name *Hyalomma lusitanicum cicatricosum* is a synonym of *Hyalomma lusitanicum* as stated in Apanaskevich *et al.* (2008a).
- 1777 *lusitanicum depressum* Schulze, 1920, *Hyalomma* (usually cited 1919). This name used in Schulze & Schlottke (1929a) and Kratz (1940) is a synonym of *Hyalomma anatolicum anatolicum* (= *Hyalomma anatolicum*) as stated in Camicas *et al.* (1998).
- 1778 *lusitanicum lusitanicum* Koch, 1844a, *Hyalomma*. This name used in Sénevet (1928) and by a few other workers, is a synonym of *Hyalomma lusitanicum* as stated in Camicas *et al.* (1998) and Apanaskevich *et al.* (2008a).
- 1779 *lusitanicum* type II Sénevet, 1922, *Hyalomma*. This name is in fact *Hyalomma lusitanicum algericum* Sénevet, 1928 (*incertae sedis*) as stated in Sénevet (1928).
- 1780 *lustanicum* Hoogstraal and Kaiser, 1960a, *Hyalomma* (page 453). This name is a *lapsus* for *Hyalomma lusitanicum*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1781 *luteus* Koch, 1844a, *Ixodes*. This name is valid in Neumann (1911a), but it is a synonym of *Ixodes pilosus* as stated in Arthur (1965) and Camicas *et al.* (1998).
- 1782 *lutzi* Aragão, 1908a, *Amblyomma*. This name is valid prevailing over *Amblyomma cooperi* in Santos Dias (1958a), but *Amblyomma lutzi* has usually been regarded a synonym of *Amblyomma cooperi* (= *Amblyomma dubitatum*). The name *Amblyomma lutzi* is a synonym of *Amblyomma dubitatum* as stated in Camicas *et al.* (1998) and Estrada-Peña *et al.* (2002).
- 1783 *luxuriosus* (Schulze, 1932c), *Endopalpiger*. This name is in Camicas *et al.* (1998) as a synonym of *Ixodes luxuriosus* Schulze, 1932c (*nomen nudum*) but not included in Doss & Anastos (1977). The name *Endopalpiger luxuriosus* (Schulze, 1932c) is in Camicas *et al.* (1998) based on Schulze (1935b), but this author states that *Endopalpiger* is a subgenus of *Ixodes*. *Endopalpiger luxuriosus* (Schulze, 1932c) is a *nomen nudum* synonym of *Ixodes luxuriosus* Schulze, 1932c (*nomen nudum*).
- 1784 *luxuriosus* Schulze, 1932c, *Ixodes*. This name is valid in Doss & Anastos (1977), Camicas *et al.* (1998) and Guglielmone *et al.* (2010b). The name *Ixodes luxuriosus* Schulze, 1932c has no description, a *nomen nudum* (Guglielmone *et al.* 2014).
- 1785 *luxuriosus* Schulze, 1935b, *Ixodes*. Kohls (1960a) identify as *Ixodes steini* Schulze, 1935b specimens of *Ixodes luxuriosus* Schulze, 1935b. This statement is derived from a *separata* corrected by the author regarded as a valid document here. The name *Ixodes luxuriosus* Schulze, 1935b is not included in Doss & Anastos (1977), Camicas *et al.* (1998) and Guglielmone *et al.* (2010b).
- 1786 *luzonensis* Hoogstraal and Parrish, 1968, *Haemaphysalis*

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- 1787 *macfarlandi* Keirans, Hoogstraal and Clifford, 1973, *Amblyomma*. The name *Amblyomma pilosum* in Robinson (1926) is in fact *Amblyomma macfarlandi* as stated in Keirans & Hillyard (2001).
- 1788 *macfarlanei* Keirans, Clifford and Walker, 1982, *Ixodes*
- 1789 *maciculifer* Vercruyssen, Lafia and Camicas, 1982, *Haemaphysalis* (page 364). This name is a *lapsus* for *Haemaphysalis aciculifer*, but not included in Camicas *et al.* (1998).
- 1790 *macropi* Roberts, 1953, *Amblyomma*
- 1791 *macropis* Schulze, 1936b, *Rhipicephalus*. This name is an alleged synonym of *Rhipicephalus sanguineus* (a taxon with

- uncertain morphological definition) in Camicas *et al.* (1998). The name *Rhipicephalus macropis* is *incertae sedis* here.
- 1792 *macrospis* Pérez-Eid, 2007, *Rhipicephalus* (page 230). This name is a *lapsus* for *Rhipicephalus macropis* (*incertae sedis*)
- 1793 *maculatum* Anderson, Ammerman and Norris, 2004, *Amblyomma* (page 336). This name is a *lapsus* for *Amblyomma maculatum*.
- 1794 *maculata* Graham, Gladney and Beltrán, 1975, *Amblyomma* (page 66). This name is a *lapsus* for *Amblyomma maculatum*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1795 *maculatus* Ferreira and Rosinha, 1986, *Rhipicephalus* (page 92). This name is a *lapsus* for *Rhipicephalus maculatus* Neumann, 1901, but not included in Camicas *et al.* (1998).
- 1796 *maculatum* Koch, 1844a, *Amblyomma*. This name has been confused with *Amblyomma tigrinum* and *Amblyomma triste* as stated in Guglielmone *et al.* (2003). The name *Amblyomma maculatum* in Floch & Abonnenc (1941) and Boero (1957) is in fact *Amblyomma tigrinum*.
- 1797 *maculatum* (Koch, 1844a), *Haemalastor*. It was originally named *Amblyomma maculatum*. The name *Haemalastor maculatum* used in Oudemans (1936, page 504) is a synonym of *Amblyomma maculatum*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1798 *maculatus* Burger, Shao, Beati, Miller and Barker, 2012, *Amblyomma* (page 52). This name is a *lapsus* for *Amblyomma maculatum*.
- 1799 *maculatus* Neumann, 1901, *Rhipicephalus*. The name *Rhipicephalus masseyi* in Theiler (1947) is partly in fact *Rhipicephalus maculatus* Neumann, 1901 as stated in Walker *et al.* (2000). The latter authors regard *Rhipicephalus ecinctus* (*incertae sedis*) a synonym of *Rhipicephalus maculatus* Neumann, 1901. Keirans (1985) found *Rhipicephalus humeralis* identified as *Rhipicephalus maculatus* Neumann, 1901 in the Nuttall Tick Collection.
- 1800 *maculatum* Shah, Khan, Iqbal and Sajid, 2004, *Amblyomma* (page 1162). This name is a *lapsus* for *Amblyomma maculatum*.
- 1801 *madagascariensis* Colas-Belcour and Millot, 1948, *Haemaphysalis*. It was originally named *Haemaphysalis hoodi madagascariensis* and given its current status in Santos Dias (1958a).
- 1802 *magehimaensis* Freitas, Leite, Lopes, Rodrigues, Paz and Oliveira, 2002, *Haemaphysalis* (page 845). This name is a *lapsus* for *Haemaphysalis magehimaensis*.
- 1803 *magehimaensis* Saito and Hoogstraal, 1973, *Haemaphysalis*. Keirans (1985) found *Haemaphysalis magehimaensis* identified as *Haemaphysalis neumanni* Dönitz, 1905 (= *Haemaphysalis longicornis*) in the Nuttall Tick Collection.
- 1804 *maginatus* Yin and Luo, 2007, *Dermacentor* (page S187). This name is a *lapsus* for *Dermacentor marginatus* (Sulzer, 1776).
- 1805 *magishamaensis* Yin and Luo, (2007), *Haemaphysalis* (page S187). This name is a *lapsus* for *Haemaphysalis magehimaensis*.
- 1806 *magnum* Neumann, 1909a, *Amblyomma*. It was originally named *Amblyomma hebraeum magnum*. The name *Amblyomma magnum* used in Santos Dias (1957) is a synonym of *Amblyomma sparsum* as stated in Camicas *et al.* (1998).
- 1807 *makinoi* Kishida, 1925, *Xenoacarus*. This name has no description or figure, a *nomen nudum* as stated in Yamaguti *et al.* (1971). The name *Xenoacarus makinoi* is not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1808 *malayanum* Neumann, 1908b, *Amblyomma*. This name is valid in Neumann (1911a) and Anastos (1950) and a synonym of *Amblyomma caelaturum* (= *Amblyomma geoemydae*) in Robinson (1926). The name *Amblyomma malayanum* is a synonym of *Amblyomma geoemydae* as stated in Camicas *et al.* (1998) and Keirans & Hillyard (2001).
- 1809 *malayensis* Kohls, 1962, *Ixodes*
- 1810 *maloni* Doyle, 1912, *Ixodes*. This name has no description or figure, a *nomen nudum* as stated in Hoogstraal (1972a) and Camicas *et al.* (1998).
- 1811 *mammulatus* Feider and Mironescu, 1970, *Ixodes*. This name is a synonym of *Pholeoixodes canisuga* (= *Ixodes canisuga*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes canisuga*.
- 1812 *mantiguinensa* authority unknown, year unknown, *Amblyomma* (page 2). This name is a *nomen nudum* cited in Liu *et al.* (2005) for an alleged described species unknown to us without further data.
- 1813 *mantiquerense* Pinto, 1945, *Amblyomma* (pages 81, 83). This name is a *lapsus* for *Amblyomma mantiquirensis* (= *Amblyomma naponense*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Guglielmone *et al.* (2003, pages 64, 173) among others.
- 1814 *mantiquirensis* Aragão, 1908b, *Amblyomma*. This name is valid in Robinson (1926) and Rawlins *et al.* (1993). The name *Amblyomma mantiquirensis* is a synonym of *Amblyomma naponense* as stated in Jones *et al.* (1972) and Camicas *et al.* (1998).
- 1815 *margaritae* Méndez Arocha, 1956, *Amblyomma*. This name is a synonym of *Amblyomma bibroni* (Gervais, 1842) (*nomen nudum*) in Camicas *et al.* (1998). The name *Amblyomma margaritae* is a synonym of *Amblyomma dissimile* as stated in Guerrero (1996).
- 1816 *margaropus annulatus* (Say, 1821), *Boophilus*. This name used in Giroud *et al.* (1963) is a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) as stated in Camicas *et al.* (1998).
- 1817 *marginalis* Koch, 1832, *Ixodes*. This name is doubtful in Neumann (1911a) for a species allegedly described by Koch and cited in Hahn (1834). However, Hahn (1834) does not refer to any species described by Koch. Nuttall & Warburton (1911) cited the authority of Koch 1835-1844, while Gervais (1844) names this species under the authority of Koch, 1834. The name *Ixodes marginalis* Koch, 1832 is a *nomen nudum*, but not included in Doss & Anastos (1977) and Camicas *et*

al. (1998).

- 1818 *marginalis* Hahn, 1834, *Ixodes*. This name is a synonym of *Ixodes ricinus* in Camicas *et al.* (1998), but the description of *Ixodes marginalis* Hahn, 1834 is vague and type location unknown. The name *Ixodes marginalis* Hahn, 1834 is a *nomen dubium*, but not included in Neumann (1911a). Doss & Anastos (1977) and Camicas *et al.* (1998) stated that this species was described in 1835.
- 1819 *marginata* Sulzer, 1776, *Acarus*. This name is a synonym of *Dermacentor marginatus* (Sulzer, 1776) and its original name. Arthur (1960a, page 106) states that *Acarus marginata* in the plate 29, figure 7 [only figure of *Acarus marginatus* in Sulzer (1776)] is a synonym of *Dermacentor reticulatus* (Fabricius, 1794). However, on page 146 Arthur (1960a) maintains that the original description of *Dermacentor marginatus* is under the name *Acarus marginata* Sulzer, 1776 being uncertain on his position about both taxa. The name *Acarus marginata* (= *Dermacentor marginatus*) is not included in Neumann (1911a), Doss & Anastos (1977) and Camicas *et al.* (1998). The name *Acarus ricinus* in Camicas *et al.* (1998, page 121) is apparently a *lapsus* for *Acarus marginata* [= *Dermacentor marginatus* (Sulzer, 1776)].
- 1820 *marginatom marginatom* Moshaverinia, Dini and Azizzadeh, 2012, *Hyalomma* (page 232), *Hyalomma*. This name is a *lapsus* for *Hyalomma marginatum marginatum* (= *Hyalomma marginatum*).
- 1821 *marginatos* Harbov, Veljanov and Toschkoff, 1976, *Dermacentor* (as *Dermacenter*, page 110). This name is a *lapsus* for *Dermacentor marginatus* (Sulzer, 1776), but not included in Camicas *et al.* (1998).
- 1822 *marginatum* Koch, 1844a, *Hyalomma*. The synonymy of this species is largely based on Apanaskevich & Horak (2008b). The name *Hyalomma marginatum* is *incertae sedis*, probably a synonym of *Hyalomma aegyptium* in Neumann (1911a), while it is a synonym of *Hyalomma marginatum marginatum* (= *Hyalomma marginatum*) in Camicas *et al.* (1998). Keirans (1985) found *Hyalomma marginatum* identified as *Hyalomma aegyptium* in the Nuttall Collection. Camicas *et al.* (1998) divided this species into four subspecies: *marginatum isaaci* (= *Hyalomma isaaci*), *marginatum marginatum* (= *Hyalomma marginatum*), *marginatum rufipes* (= *Hyalomma rufipes*) and *marginatum turanicum* (= *Hyalomma turanicum*). However, *Hyalomma marginatum turanicum* in Hoogstraal (1956a) is partly in fact *Hyalomma glabrum* as stated in Apanaskevich & Horak (2006), and in Horak & MacIvor (1987) and Horak *et al.* (1991a) is in fact *Hyalomma glabrum*.
- 1823 *marginatum annulipes* Schulze and Schlottke, 1929a, *Hyalomma*. This name is a synonym of *Hyalomma marginatum marginatum* (= *Hyalomma marginatum*) in Camicas *et al.* (1998) and a probable synonym of *Hyalomma truncatum* in Apanaskevich & Horak (2008b). However, the name *Hyalomma marginatum annulipes* is not included in the list of synonyms of *Hyalomma truncatum* in Apanaskevich & Horak (2008a). *Hyalomma marginatum annulipes* is *incertae sedis* here.
- 1824 *marginatum bacuense* Schulze, 1931, *Hyalomma*, in Olenov (1931a). This name is a synonym of *Hyalomma marginatum marginatum* (= *Hyalomma marginatum*) in Camicas *et al.* (1998). The name *Hyalomma marginatum bacuense* is a synonym of *Hyalomma marginatum* as stated in Apanaskevich & Horak (2008b).
- 1825 *marginatum balcanicum* Schulze and Schlottke, 1929a, *Hyalomma*. This name is a probable synonym of *Hyalomma marginatum turanicum* (= *Hyalomma turanicum*) in Camicas *et al.* (1998). The name *Hyalomma marginatum balcanicum* Schulze and Schlottke, 1929a is a synonym of *Hyalomma marginatum* as stated in Apanaskevich & Horak (2008b), who found also *Hyalomma excavatum* in the type series of *Hyalomma marginatum balcanicum*. However, the name *Hyalomma marginatum balcanicum* Schulze and Schlottke, 1929a in Tonelli Rondelli (1938a, b) is probably, in fact *Hyalomma impeltatum* according to Camicas *et al.* (1998) based on Theiler (1962), but this name is not used in the two articles of Tonelli Rondelli (1938a, b). In fact, Theiler (1962) refers to *Hyalomma marginatum balcanicum* Schulze and Schlottke, 1929a in Tonelli Rondelli (1930) along with the studies of Stella (1938b, 1939, 1940), but we were unable to find this name in the two publications of Stella from 1940 available to us.
- 1826 *marginatum balcanicum* Tonelli Rondelli, 1930, *Hyalomma*. This name is doubtful in Camicas *et al.* (1998), but no description of any new taxon under the name *Hyalomma marginatum balcanicum* has been found in Tonelli Rondelli (1930) because this author refers to the name in Schulze & Schlottke (1929a, cited 1927-28). The name *Hyalomma marginatum balcanicum* Tonelli Rondelli, 1930 is a *nomen nudum*, but not included in Doss & Anastos (1977).
- 1827 *marginatum balcanicum brunnipes* Schulze, 1920, *Hyalomma* (usually cited 1919). This name used in Schulze & Schlottke (1929a) is a synonym of *Hyalomma anatolicum anatolicum* (= *Hyalomma anatolicum*) as stated in Camicas *et al.* (1998). The authority for this name is Schulze and Schlottke, 1930, in Doss & Anastos (1977).
- 1828 *marginatum balkanicum* Delpy, 1949b, *Hyalomma* (page 482, 487). This name is a *lapsus* for *Hyalomma marginatum balcanicum* Schulze and Schlottke, 1929a (= *Hyalomma marginatum*) repeated in Tendeiro (1952, page 222), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1829 *marginatum balkanicum brunnipes* Schulze, 1920, *Hyalomma* (usually cited 1919). This name is a *lapsus* for *Hyalomma marginatum balcanicum brunnipes* (= *Hyalomma anatolicum*) in Delpy (1949b, pages 482 and 487) and repeated in Tendeiro (1952, page 222), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1830 *marginatum brionicum* Schulze and Schlottke, 1929a, *Hyalomma*. This name is a synonym of *Hyalomma marginatum marginatum* (= *Hyalomma marginatum*) in Camicas *et al.* (1998). The name *Hyalomma marginatum brionicum* is a synonym of *Hyalomma marginatum* as stated in Apanaskevich & Horak (2008b).
- 1831 *marginatum caspium* Schulze, 1931, *Hyalomma*, in Olenov (1931a). This name is a synonym of *Hyalomma marginatum marginatum* (= *Hyalomma marginatum*) in Camicas *et al.* (1998). The name *Hyalomma marginatum caspium* is a synonym of *Hyalomma marginatum* as stated in Apanaskevich & Horak (2008b).

- 1832 *marginatum espanoli* Gil Collado, 1936, *Hyalomma*. The original spelling *Hyalomma marginatum espanoli* is corrected to *Hyalomma marginatum espanoli*. The name *Hyalomma marginatum espanoli* is a synonym of *Hyalomma marginatum marginatum* (= *Hyalomma marginatum*) in Camicas *et al.* (1998). *Hyalomma marginatum espanoli* is a synonym of *Hyalomma marginatum* as stated in Apanaskevich & Horak (2008b).
- 1833 *marginatum exsul* Delpy, 1949b, *Hyalomma* (page 482). This name is a *lapsus* for *Hyalomma savignyi exsul* (= *Hyalomma anatolicum*) repeated in Tendeiro (1952, page 222), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1834 *marginatum hispanum* (Fabricius, 1787), *Hyalomma*. This name used in Schulze & Schlottko (1929a) is a synonym of *Hyalomma marginatum marginatum* (= *Hyalomma marginatum*) in Camicas *et al.* (1998). The name *Hyalomma marginatum hispanum* (Fabricius, 1787) is a synonym of *Hyalomma marginatum* as stated in Apanaskevich & Horak (2008b).
- 1835 *marginatum impressum* Koch, 1844a, *Hyalomma*. This name used in Pomerantzev (1946) and by a few other workers, cited Pomerantsev (1846) in Doss & Anastos (1977), is a synonym of *Hyalomma marginatum rufipes* Koch, 1844a (= *Hyalomma rufipes* Koch, 1844a) in Camicas *et al.* (1998). The name *Hyalomma marginatum impressum* Koch, 1844a is a synonym of *Hyalomma rufipes* Koch, 1844a as stated in Apanaskevich & Horak (2008b).
- 1836 *marginatum indosinense* Toumanoff, 1944, *Hyalomma*. This name is a new one for *Hyalomma dromedarii indosinensis* in Kolonin (1992b). The name *Hyalomma marginatum indosinense* is a synonym of *Hyalomma marginatum isaaci* (= *Hyalomma isaaci*) in Camicas *et al.* (1998) and a synonym of *Hyalomma isaaci* in Apanaskevich & Horak (2008b). *Hyalomma marginatum indosinense* is poorly justify in Kolonin (1992b, 1995b). Besides, Kolonin (2009) includes the name *Hyalomma isaaci indosinense* also under the authority of Toumanoff, 1944, with even less justification than the name *Hyalomma marginatum indosinense*, which is still maintained. *Hyalomma marginatum indosinense* is a *nomen nudum*.
- 1837 *marginatum isaaci* Sharif, 1928, *Hyalomma*. This name used first in Kaiser & Hoogstraal (1963) is valid in Camicas *et al.* (1998), Horak *et al.* (2002) and several other workers. The name *Hyalomma marginatum isaaci* is a synonym of *Hyalomma isaaci* as stated in Apanaskevich & Horak (2008b).
- 1838 *marginatum marginatum* Koch, 1844a, *Hyalomma*. This name used first in Schulze & Schlottko (1929a) is valid in Camicas *et al.* (1998), Horak *et al.* (2002) and several other workers. The name *Hyalomma marginatum marginatum* is a synonym of *Hyalomma marginatum* as stated in Apanaskevich & Horak (2008b).
- 1839 *marginatum marginatum brunnipes* Schulze, 1920, *Hyalomma* (usually cited 1919). This name used in Kratz (1940) is a synonym of *Hyalomma anatolicum anatolicum* (= *Hyalomma anatolicum*) as stated in Camicas *et al.* (1998).
- 1840 *marginatum olenevi* Schulze and Schlottko, 1929a, *Hyalomma*. This name is a synonym of *Hyalomma marginatum marginatum* (= *Hyalomma marginatum*) in Camicas *et al.* (1998). The name *Hyalomma marginatum olenevi* is a synonym of *Hyalomma marginatum* as stated in Apanaskevich & Horak (2008b).
- 1841 *marginatum rufipes* Koch, 1844a, *Hyalomma*. This name used first in Hoogstraal & Kaiser (1960a) is valid in Camicas *et al.* (1998), Horak *et al.* (2002) and several other workers. The name *Hyalomma marginatum rufipes* Koch, 1844a is a synonym of *Hyalomma rufipes* Koch, 1844a as stated in Apanaskevich & Horak (2008b).
- 1842 *marginatum rufipes* Uilenberg, 1964, *Hyalomma* (page 353). This name is a *lapsus* for *Hyalomma marginatum rufipes* (= *Hyalomma rufipes*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1843 *marginatum turanicum* Siddiqi and Jan, 1986, *Hyalomma* (pages 124, 125). This name is a *lapsus* for *Hyalomma marginatum turanicum* (= *Hyalomma turanicum*) repeated in Sajid *et al.* (2011, page 607), Iqbal *et al.* (2013, page 538) and others, but not included in Camicas *et al.* (1998).
- 1844 *marginatum turanicum* Pomerantzev, 1946, *Hyalomma*. This name is valid in Camicas *et al.* (1998) and several other workers. The name *Hyalomma marginatum turanicum* is a synonym of *Hyalomma turanicum* and its original name as stated in Apanaskevich & Horak (2008b). However, *Hyalomma marginatum turanicum* in Hoogstraal (1956a) is partly in fact *Hyalomma glabrum* as stated in Apanaskevich & Horak (2006) and this name in Horak & MacIvor (1987) and Horak *et al.* (1991a) is also in fact *Hyalomma glabrum*.
- 1845 *marginatus* Sulzer, 1776, *Acarus*. It was originally named *Acarus marginata* [= *Dermacentor marginatus* (Sulzer, 1776)] and amended in Neumann (1911a). The name *Acarus marginatus* Sulzer, 1776 is a synonym of *Dermacentor marginatus* (Sulzer, 1776) in Camicas *et al.* (1998) and here. However, *Acarus marginatus* Sulzer, 1776 is a doubtful species and probably a synonym of *Dermacentor reticulatus reticulatus* (Fabricius, 1794) [= *Dermacentor reticulatus* (Fabricius, 1794)] according to Neumann (1911a).
- 1846 *marginatus* (Sulzer, 1776), *Cynorhaestes*. This name used in Schulze (1929b) is a synonym of *Dermacentor marginatus* (Sulzer, 1776) as stated in Camicas *et al.* (1998).
- 1847 *marginatus* (Sulzer, 1776), *Dermacentor*. It was originally named *Acarus marginata* and given its current status in Brumpt (1913). The name *Dermacentor marginatus* (Sulzer, 1776) in Olenev (1931a) is partly in fact *Dermacentor reticulatus* (Fabricius, 1794) as stated in Filippova (1997). Keirans (1985) found *Dermacentor marginatus* (Sulzer, 1776) identified as *Dermacentor parumapertus* in the Nuttall Tick Collection.
- 1848 *marginatus* (Koch, 1844a), *Haemaphysalis*. This name is a *lapsus* for *Hyalomma marginatum* in Nowak-Chmura (2012, page 401).
- 1849 *marginatus* (Sulzer, 1776), *Ixodes*. This name used in Fabricius (1805) and by a few other workers, is doubtful but probably *Dermacentor reticulatus reticulatus* (Fabricius, 1794) [= *Dermacentor reticulatus* (Fabricius, 1794)] in

- Neumann (1911a). The name *Ixodes marginatus* (Sulzer, 1776) is a synonym of *Dermacentor marginatus* (Sulzer, 1776) as stated in Camicas *et al.* (1998).
- 1850 *marginatus* Hahn, 1834, *Ixodes* (page 75). This name is a *lapsus* for *Ixodes marginalis* Hahn, 1834 (*nomen dubium*), but not included in Neumann (1911a), Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1851 *marginatus* Burmeister, 1837, *Ixodes*. This name is a synonym of *Ixodes ricinus* in Nuttall & Warburton (1911) and Camicas *et al.* (1998, based on Morel & Pérez 1977 cited 1978). However, there is no indication that Burmeister (1837) is describing a new species. The name *Ixodes marginatus* Burmeister, 1837 just mentioned in page 579, is a *nomen nudum*, but not included in Neumann (1911a) and Doss & Anastos (1977).
- 1852 *marginatus daghestanicus* Olenev, 1929c, *Dermacentor*. This name used in Lotozky (1956b) is a synonym of *Dermacentor daghestanicus* (= *Dermacentor niveus*) in Camicas *et al.* (1998), but it is a synonym of *Dermacentor niveus* here.
- 1853 *marginatus gynaecoides* Doss and Anastos, 1977, *Dermacentor*. This name is used in Estrada-Peña & Estrada-Peña (1991) for a synonym of *Dermacentor marginatus* (Sulzer, 1776) under the authority of Olenev, 1927, but *gynaecoides* is a morphological definition involving more than one taxa (Apanaskevich D.A., personal communication). The name *Dermacentor marginatus gynaecoides* is a *nomen nudum*, but not included in Camicas *et al.* (1998).
- 1854 *marginatus lacteolus* Schulze, 1933b, *Dermacentor*. This name is a synonym of *Dermacentor marginatus* as stated in Filippova (1997) and Camicas *et al.* (1998).
- 1855 *marginatus longecoxalis* Doss and Anastos, 1977, *Dermacentor*. This name is used in Estrada-Peña & Estrada-Peña (1991) based on *longecoxalis* in Olenev (1927), that is not a tick name but a morphological definition that involves more than one species (Apanaskevich D.A., personal communication). The name *Dermacentor marginatus longecoxalis* is a synonym of *Dermacentor marginatus* in Estrada-Peña & Estrada-Peña (1991), but it is a *nomen nudum*. *Dermacentor marginatus longecoxalis* is not included in Camicas *et al.* (1998).
- 1856 *marginatus longicoxalis* Camicas, Hervy, Adam and Morel, 1998, *Dermacentor*. This name is a *lapsus* for *Dermacentor marginatus longecoxalis* (*nomen nudum*).
- 1857 *marginatus rotundicoxalis* Doss and Anastos, 1977, *Dermacentor*. This name is a synonym of *Dermacentor marginatus* (Sulzer, 1776) in Camicas *et al.* (1998) under the authority of Olenev, 1927, but *rotundicoxalis* is a morphological definition that involves more than one taxon (Apanaskevich D.A., personal communication). The name *Dermacentor marginatus rotundicoxalis* is a *nomen nudum*, but not included in Doss & Anastos (1977).
- 1858 *marginatus sibiricus* Popov, 1962, *Dermacentor*. This name is a *nomen dubium* in Camicas *et al.* (1998) and a synonym of *Dermacentor marginatus* (Sulzer, 1776) in Estrada-Peña (1991). The name *Dermacentor marginatus sibiricus* is a *nomen nudum* here.
- 1859 *marii* Olenev, 1934, *Ixodes*. This name is a *lapsus* for *Ixodes marxi* as stated in Doss & Anastos (1977).
- 1860 *marmorata* Berlese, 1888b, *Haemaphysalis*. This name is a synonym of *Dermacentor reticulatus reticulatus* (Fabricius, 1794) [= *Dermacentor reticulatus* (Fabricius, 1794)] in Neumann (1911a) and a synonym of *Dermacentor marginatus* (Sulzer, 1776) in Camicas *et al.* (1998). The name *Haemaphysalis marmorata* is *incertae sedis* here.
- 1861 *marmoratus* Risso, 1826, *Ixodes*. This name is a synonym of *Dermacentor reticulatus reticulatus* (Fabricius, 1794) [= *Dermacentor reticulatus* (Fabricius, 1794)] in Neumann (1911a) and a synonym of *Dermacentor marginatus* (Sulzer, 1776) in Camicas *et al.* (1998). The name *Ixodes marmoratus* Risso, 1826 is *incertae sedis* here.
- 1862 *marmoratus* Mégnin, 1880, *Ixodes*. This name is in Camicas *et al.* (1998) for a synonym of *Dermacentor reticulatus*, but not included in Neumann (1911a) and Doss & Anastos (1977). However, Mégnin (1880) refers to *Ixodes marmoratus* Risso, 1826 and not to a new species. The name *Ixodes marmoratus* Mégnin, 1880 is a *nomen nudum*.
- 1863 *marmoreum* Koch, 1844a, *Amblyomma*. This name in Neumann [(1901 originally identified as *Amblyomma hassalli* (*incertae sedis*))] is partly in fact *Amblyomma sparsum* and others specimens correspond to *Amblyomma nuttalli* Dönitz, 1909, while *Amblyomma marmoreum* in Dönitz (1910a) is actually in part *Amblyomma sparsum*, and *Amblyomma marmoreum* in Paoli (1916 cited 1913) is partly in fact *Amblyomma sparsum* and in Robinson (1926) is partly *Amblyomma nuttalli* Dönitz, 1909 and *Amblyomma sparsum* according to Theiler & Salisbury (1959), who performed a detailed study of *Amblyomma marmoreum* and related species. Theiler (1962) states that *Amblyomma marmoreum* group in Hoogstraal (1956a) is a synonym of *Amblyomma sparsum*. The name *Amblyomma marmoreum* in Neumann (1906) is in fact *Amblyomma sparsum* according to Camicas *et al.* (1998). Keirans (1985) found *Amblyomma falsomarmoreum*, *Amblyomma nuttalli* Dönitz, 1909, *Amblyomma rhinocerotis* (De Geer, 1778), *Amblyomma sparsum* and *Amblyomma* sp. identified as *Amblyomma marmoreum*.
- 1864 *marmoreum* (Koch, 1844a), *Haemalastor*. It was originally named *Amblyomma marmoreum*. The name *Haemalastor marmoreum* used in Oudemans (1936, page 510) is a synonym of *Amblyomma marmoreum*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1865 *marmoreus* Pocock, 1900, *Rhipicephalus*. This name is a synonym of *Rhipicephalus pulchellus* (Gerstäcker, 1873) as stated in Neumann (1911a) and Camicas *et al.* (1998).
- 1866 *marmotae* Cooley and Kohls, 1938b, *Ixodes*. This name is a synonym of *Pholeoixodes marmotae* in Camicas *et al.* (1998), but *Ixodes marmotae* is valid.
- 1867 *marmotae* (Cooley and Kohls, 1938b), *Pholeoixodes*. It was originally named *Ixodes marmotae*. The name *Pholeoixodes marmotae* is valid in Camicas *et al.* (1998) based on Morel & Pérez (1973), but it is a synonym of *Ixodes marmotae*.
- 1868 *marxi* Banks, 1908, *Ixodes*. This name is a synonym of *Pholeoixodes marxi* in Camicas *et al.* (1998), but it is valid. The

- name *Ixodes marxi* in Hearle (1938) is in fact *Ixodes hearlei* according to Gregson (1941).
- 1869 *marxi* (Banks, 1908), *Pholeoixodes*. It was originally named *Ixodes marxi*. The name *Pholeoixodes marxi* is valid in Camicas *et al.* (1998) based on Morel & Pérez (1973), but it is a synonym of *Ixodes marxi*.
- 1870 *maryinatus* Teng and Jiang, 1991, *Dermacentor* (page 264). This name is a *lapsus* for *Dermacentor marginatus* (Sulzer, 1776), but not included in Camicas *et al.* (1998).
- 1871 *maskelli* Kirk, 1886, *Ixodes*. This name is *incertae sedis* in Neumann (1911a) and a *nomen dubium* in Camicas *et al.* (1998) and here.
- 1872 *maslovi* Emel'yanova and Kozlovskaya, 1967a, *Ixodes*. This name is a synonym of *Ixodes persulcatus* in Camicas *et al.* (1998) and Kolonin (2009). The name *Ixodes maslovi* is valid in Filippova (1977), Guglielmo *et al.* (2009, 2010b, 2014) and here.
- 1873 *masseyi* Nuttall and Warburton, 1908, *Rhipicephalus*. This name has been confused with *Rhipicephalus neavei* (= *Rhipicephalus kochi* Dönitz, 1905), *Rhipicephalus muelhensi* and *Rhipicephalus attenuatus* (= *Rhipicephalus lunulatus*), while *Rhipicephalus maculatus* Neumann, 1901 has been identified as *Rhipicephalus masseyi* as stated in Walker *et al.* (2000).
- 1874 *massyi* Kolonin, 1984, *Rhipicephalus* (page 58). This name is a *lapsus* for *Rhipicephalus masseyi*, but not included in Camicas *et al.* (1998).
- 1875 *matopi* Spickett, Keirans, Norval and Clifford, 1981, *Ixodes*
- 1876 *maturatus* Castellani and Chalmers, 1919, *Dermacentor*. This name has no description or figure, a *nomen nudum* as stated in Camicas *et al.* (1998).
- 1877 *mauritanicum* Sénevet, 1922, *Hyalomma*. This name is a synonym of *Hyalomma detritum detritum* (= *Hyalomma scupense*) in Camicas *et al.* (1998). The name *Hyalomma mauritanicum* is a synonym of *Hyalomma scupense* as stated in Apanaskevich *et al.* (2010).
- 1878 *mauritanicum annulatum* Sénevet, 1922, *Hyalomma*. This name is a synonym of *Hyalomma detritum detritum* (= *Hyalomma scupense*) in Camicas *et al.* (1998). The name *Hyalomma mauritanicum annulatum* is a synonym of *Hyalomma scupense* as stated in Apanaskevich *et al.* (2010).
- 1879 *megalaimae* Rajagopalan, 1963, *Haemaphysalis*
- 1880 *megaspinosa* Saito, 1969, *Haemaphysalis*
- 1881 *megathyreus* (Leach, 1815), *Cynorhaestes*. It was originally named *Ixodes megathyreus* (= *Ixodes ricinus*). The name *Cynorhaestes megathyreus* used in Risso (1826) is a synonym of *Ixodes ricinus* as stated in Neumann (1911a) and Camicas *et al.* (1998).
- 1882 *megathyreus* Leach, 1815, *Ixodes*. This name is a synonym of *Ixodes ricinus* as stated in Neumann (1911a) and Camicas *et al.* (1998).
- 1883 *melicola* Schulze and Schlotzke, 1929b, *Ixodes*. This name is a synonym of *Pholeoixodes canisuga* (= *Ixodes canisuga*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes canisuga* as stated in Petney *et al.* (2012a).
- 1884 *mellinus* Robineau-Desvoidy, 1836, *Ixodes*. This name is *incertae sedis* in Neumann (1911a) and a *nomen dubium* in Camicas *et al.* (1998). The name *Ixodes mellinus* has no description or figure, a *nomen nudum*.
- 1885 *menglaensis* Pang, Chen and Xiang, 1982, *Haemaphysalis*. This name is not included in Camicas *et al.* (1998).
- 1886 *menui* Toumanoff, 1940, *Haemaphysalis*. This name in Toumanoff (1940) is a *nomen dubium*, while *Haemaphysalis menui* in Toumanoff (1944) is a synonym of *Haemaphysalis hystricis* Supino, 1897 according to Camicas *et al.* (1998), while it is treated as a synonym of *Haemaphysalis hystricis* Supino, 1897 in Kolonin (1995b, as published in 1944). The name *Haemaphysalis menui* is *incertae sedis* here.
- 1887 *meraukensis* Taylor, 1944, *Haemaphysalis*. It was originally named *Haemaphysalis novaeguineae* Krijgsman and Ponto (1932) (= *Haemaphysalis bancrofti*), a name preoccupied by *Haemaphysalis novaeguineae* Hirst, 1914 and renamed *Haemaphysalis meraukensis*. The name *Haemaphysalis meraukensis*, is a synonym of *Haemaphysalis bancrofti* as stated in Roberts (1963a) and Camicas *et al.* (1998).
- 1888 *mesnardi* Toumanoff, 1940, *Haemaphysalis*. This name is treated as close to *Haemaphysalis hystricis* Supino, 1897 in Kolonin (1995b), but not included in Camicas *et al.* (1998). The name *Haemaphysalis mesnardi* is *incertae sedis* here.
- 1889 *mesopotamium* Schulze, 1920, *Hyalomma* (usually cited 1919). This name used in Santos Dias (1958a) is a synonym of *Hyalomma anatolicum anatolicum* (= *Hyalomma anatolicum*) as stated in Camicas *et al.* (1998), but not included in Doss & Anastos (1977).
- 1890 *mexicanus* Cooley and Kohls, 1942c, *Ixodes*
- 1891 *microplus* Merlini and Yamamura, 1998, *Boophilus* (page 39). This name is a *lapsus* for *Boophilus microplus* (= *Rhipicephalus microplus*) repeated in Shoukry *et al.* (2002, page 54) and others.
- 1892 *microplus* Akhtar, Muhammad, Lodhi, Hussain and Anwar, 2011, *Boophilus* (page 11). This name is a *lapsus* for *Boophilus microplus* (= *Rhipicephalus microplus*)
- 1893 *micropa* Sanyal, 2005, *Rhipicephalus* (page 157). This name is a *lapsus* for *Rhipicephalus microplus*.
- 1894 *microphilus* Castellani and Chalmers, 1910, *Margaropus*. This name is a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) and a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Estrada-Peña & Castellá (1994) and Camicas *et al.* (1998), respectively, who based their decisions on Castellani and Chalmers (1910). The name *Margaropus microphilus* is also included as named by Castellani & Chalmers (1910) in Doss & Anastos (1977). However, *Margaropus microphilus* is not included in Castellani

- & Chalmers (1910) and this name is treated here as a *lapsus* for *Margaropus microplus* (= *Rhipicephalus microplus*).
- 1895 *microphis* Ling, Gong, Chai, Lin, Sun, Hou, Wu and Liu, 2013, *Boophilus* (page 20). This name is a *lapsus* for *Boophilus microplus* (= *Rhipicephalus microplus*).
- 1896 *micropilus* Flores-Mendoza, Florin, Felices, Pozo, Graf, Burrus and Richards, 2013, *Rhipicephalus* (page 506). This name is a *lapsus* for *Rhipicephalus microplus*.
- 1897 *micropla* Canestrini, 1888, *Haemaphysalis* (spelled *Haemophysalis*). This name is a synonym of *Rhipicephalus microplus* and its original name, but not included in Doss & Anastos (1977). The name *Haemaphysalis micropla* is *incertae sedis*, synonym of *Margaropus micropla* (= *Rhipicephalus microplus*) in Neumann (1911a) for a tick population from Paraguay. *Haemaphysalis micropla* is treated as a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in many studies.
- 1898 *micropla* (Canestrini, 1888), *Margaropus*. It was originally named *Haemaphysalis* (spelled *Haemophysalis*) *micropla* (= *Rhipicephalus microplus*). The name *Margaropus micropla* is *incertae sedis* in Neumann (1911a) for a tick population from Paraguay, a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998), but not included in Doss & Anastos (1977). The name *Margaropus micropla* is a synonym of *Rhipicephalus microplus*.
- 1899 *microples* Shoukry, El-Kady and Diab, 2002, *Boophilus* (pages 53, 54). This name is a *lapsus* for *Boophilus microplus* (= *Rhipicephalus microplus*).
- 1900 *microplus* (Canestrini, 1888), *Boophilus*. It was originally named *Haemaphysalis* (spelled *Haemophysalis*) *micropla* (= *Rhipicephalus microplus*). The name *Boophilus microplus* used first in Lahille (1905) is valid in Camicas *et al.* (1998) and in many studies, and a synonym of *Rhipicephalus microplus* in Horak *et al.* (2002), but not included in Neumann (1911a). However, *Boophilus microplus* in Clifford *et al.* (1961), Roberts (1965 and others Australian workers), and many authors is in fact *Rhipicephalus australis* Fuller, 1899 as stated in Estrada-Peña *et al.* (2012a). *Boophilus microplus* is partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus* here. The name *Boophilus microplus* in Dios & Knopoff (1930, 1934) is in fact alleged *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition) as stated in Aragão (1935).
- 1901 *microplus* (Canestrini, 1888), *Margaropus*. It was originally named *Haemaphysalis* (spelled *Haemophysalis*) *micropla* (= *Rhipicephalus microplus*). The name *Margaropus microplus* used first in Hunter & Hooker (1907) is a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998), but not included in Neumann (1911a). *Margaropus microplus* is a synonym of *Rhipicephalus microplus*.
- 1902 **microplus** (Canestrini, 1888), *Rhipicephalus*. It was originally named *Haemaphysalis* (spelled *Haemophysalis*) *micropla* (= *Rhipicephalus microplus*) and given its current status first in Canestrini (1890). The name *Rhipicephalus microplus* is *incertae sedis*, synonym of *Margaropus micropla* (= *Rhipicephalus microplus*) in Neumann (1911a), and before the study of Estrada-Peña *et al.* (2012a) was also applied to *Rhipicephalus australis* Fuller, 1899. Santos Dias (1958e) found *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) identified as *Rhipicephalus bursa* in the Museum of Hamburg. Anastos (1950) states that *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) was identified as *Rhipicephalus haemaphysaloides paulopunctatus*. Keirans (1985) found *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) identified as *Ixodes bovis* (= *Rhipicephalus annulatus*) in the Nuttall Collection. The synonym for *Rhipicephalus microplus* is provisional because a new approach is needed to understand it after the study of Estrada-Peña *et al.* (2012a).
- 1903 *microplus* (Canestrini, 1888), *Uroboophilus*. It was originally named *Haemaphysalis* (spelled *Haemophysalis*) *micropla* (= *Rhipicephalus microplus*). The name *Uroboophilus microplus* used in Kishida (1939b) and by a few other workers is a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998). *Uroboophilus microplus* is a synonym of *Rhipicephalus microplus*.
- 1904 *microplus annulatus* (Say, 1821), *Boophilus*. This name used in Floch (1956) is a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) in Estrada-Peña & Castellá (1994) and a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998). The name *Boophilus microplus annulatus* is a synonym of *Rhipicephalus microplus* here.
- 1905 *mimeticus* Dönitz, 1910a *Rhipicephalus*. This name used in Estrada-Peña *et al.* (2012b, page 6) is treated here as a synonym of *Rhipicephalus evertsi*.
- 1906 *mindanensis* Kohls, 1950b, *Ixodes*. This name is a probable synonym of *Scaphixodes eichhorni* (= *Ixodes eichhorni*) in Camicas *et al.* (1998), but it is a probable synonym of *Ixodes eichhorni* as stated in Clifford *et al.* (1973), who spelt this name *Ixodes eichorni* (*lapsus*).
- 1907 *minningi* Kishida, 1936, *Boophilus*. This name is a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998). The name *Boophilus minningi* is a synonym of *Rhipicephalus microplus* here.
- 1908 *minningi* (Kishida, 1936), *Palpoboophilus*. This name used in Kishida (1939b) and by a few other workers is a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998). The name *Palpoboophilus minningi* is a synonym of *Rhipicephalus microplus* here.
- 1909 **minor** Neumann, 1902, *Ixodes*
- 1910 *minua* Santos Dias, 1958a, *Haemaphysalis* (page 536). This name is a *lapsus* for *Haemaphysalis minuta*, but not included

- in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1911 *minuta* Kohls, 1950a, *Haemaphysalis*
- 1912 *minutae* Arthur, 1959b, *Ixodes*
- 1913 *minutum* Aragão, 1909, *Amblyomma*, in Rohr (1909). This name is a synonym of *Amblyomma parvum* Aragão, 1908a in Camicas *et al.* (1998) and Dantas-Torres *et al.* (2009). The name *Amblyomma minutum* is a name without description or figure, a *nomen nudum*.
- 1914 *miroplus* Rajput, Hu, Chen, Arijo and Xiao, 2006, *Boophilus* (page 916). This name is a *lapsus* for *Boophilus microplus* (= *Rhipicephalus microplus*).
- 1915 *mitchelli* Kohls, Clifford and Hoogstraal, 1970, *Ixodes*. This name is a synonym of *Scaphixodes mitchelli* in Camicas *et al.* (1998), but it is valid.
- 1916 *mitchelli* (Kohls, Clifford and Hoogstraal, 1970), *Scaphixodes*. It was originally named *Ixodes mitchelli*. The name *Scaphixodes mitchelli* is valid in Camicas *et al.* (1998), but it is a synonym of *Ixodes mitchelli*.
- 1917 *mixtum* Koch, 1844a, *Amblyomma*. This name has historically been regarded a synonym of *Amblyomma cajennense*, but Dr. Lorenza Beati and one of us (SN) extensively studied species considered to be synonyms of *Amblyomma cajennense* and found that *Amblyomma mixtum* is valid.
- 1918 *mixtum* (Koch, 1844a), *Ixodes*. This name is in Doss & Anastos (1977) based on Moniez (1896), but this author used the correct name *Ixodes mixtus*. The name *Ixodes mixtum* is a synonym of *Amblyomma mixtum*, but not included in Doss & Anastos (1977).
- 1919 *mixtus* (Koch, 1844a), *Ixodes*. This name used in Moniez (1896) and by a few other workers is a synonym of *Amblyomma cajennense* in Neumann (1901) and Camicas *et al.* (1998), but not included in Neumann (1911a) and Doss & Anastos (1977). The name *Ixodes mixtus* is a synonym of *Amblyomma mixtum*.
- 1920 *mjoobergi* Warburton, 1926a, *Haemaphysalis*. The original spelling *Haemaphysalis mjobergi* is corrected to *Haemaphysalis mjoobergi*. Kohls (1957b) spelt this name *Haemaphysalis mjoobergi*, but the correct emendation for *mjoobergi* is *mjoobergi* as stated in International Commission of Zoological Nomenclature (1999).
- 1921 *modestus* Banks, 1908, *Dermacentor*. This name is a synonym of *Dermacentor andersoni* Stiles, 1908 as stated in Keirans & Clifford (1984) and Camicas *et al.* (1998).
- 1922 *molestus* James, 1823, *Ixodes*. This name is a *nomen dubium* in Camicas *et al.* (1998) and here, but not included in Neumann (1911a). Doss & Anastos (1977) stated that the brief description of *Ixodes molestus* is on page 256 of James (1923), but it was found to be on page 338.
- 1923 *molis* Kolonin, 1984, *Rhipicephalus* (page 33). This name is a *lapsus* for *Rhipicephalus follis*, but not included in Camicas *et al.* (1998).
- 1924 *moluccus* Doleschall, 1858, *Ixodes*. This name is *incertae sedis* in Neumann (1911a), and a *nomen dubium* in Camicas *et al.* (1998) and here.
- 1925 *monbata* Cobbold, 1879, *Ixodes*. This name is a *lapsus* for *Ixodes moubata* (incorrect) repeated in Cobbold (1882), but not included in Neumann (1911a).
- 1926 *monospinosa* Krijgsman and Ponto, 1932, *Haemaphysalis*. This name is a synonym of *Haemaphysalis traguli* as stated in Hoogstraal (1964).
- 1927 *monospinosus* Saito, 1968, *Ixodes*. Species N1 of *Ixodes* in Takada & Yamaguchi (1974) and Takada & Fujita (1978) is in fact *Ixodes monospinosus*. This information was obtained with the help of Professor Takeo Yamauchi.
- 1928 *monospinus* Boudes and Parola, *Ixodes*, 2007 (page 28). This name is a *lapsus* for *Ixodes monospinosus* repeated in Dana (2009), page 296) and others.
- 1929 *monotoyensis* Hoogstraal and Aeschlimann, 1982, *Ixodes* (page 25). This name is a *lapsus* for *Ixodes montoyanus*, but not included in Camicas *et al.* (1998).
- 1930 *monstrosum* Nuttall and Warburton, 1908, *Hyalomma*. This name is a synonym of *Nosomma monstrosum* and its original name as stated in Camicas *et al.* (1998) and Keirans & Hillyard (2001).
- 1931 *monstrosum* (Nuttall and Warburton, 1908), *Nosomma*. It was originally named *Hyalomma monstrosum* and given its current status in Schulze (1920 usually cited 1919).
- 1932 *monstrusum* Khan, Naithani and Singh, 1982, *Nosomma* (page 119). This name is a *lapsus* for *Nosomma monstrosum*, but not included in Camicas *et al.* (1998).
- 1933 *montana* Kamensky, 1928, *Haemaphysalis*. This name used in Pospelova-Shtrom (1935a) is a synonym of *Haemaphysalis sulcata* as stated in Camicas *et al.* (1998).
- 1934 *montanus* Filippova and Panova, 1974, *Dermacentor*. This name is not included in Doss & Anastos (1977).
- 1935 *montgomeryi* Nuttall, 1912, *Haemaphysalis*. This name has been confused with *Haemaphysalis flava* in Nuttall & Warburton (1915) as stated in Dhanda & Bhat (1968b). Keirans (1985) found *Haemaphysalis sundrai* identified as *Haemaphysalis montgomeryi*.
- 1936 *montgonervi* Sajid, Iqbal, Khan and Muhammad, 2008, *Haemaphysalis* (page 350). This name is a *lapsus* for *Haemaphysalis montgomeryi* repeated in Sajid *et al.* (2011, page 607), Iqbal *et al.* (2013, page 538) and others.
- 1937 *montgomery* Kumar, Rawat, Saxena and Agarwal, 1994, *Haemaphysalis* (page 228). This name is a *lapsus* for *Haemaphysalis montgomeryi*, but not included in Camicas *et al.* (1998). This *lapsus* is repeated in Ghosh *et al.* (2007, page S213).
- 1938 *montoyanus* Cooley, 1944a, *Ixodes*

- 1939 *montrosum* Shahardar and Narsapur, 2003, *Nosomma* (pages 736-738). This name is a *lapsus* for *Nosomma montrosum*.
- 1940 *moreli* Camicas, Hoogstraal and El Kammah, 1972, *Haemaphysalis*. Camicas *et al.* (1998) regard *Haemaphysalis leachi* in Rageau (1953a cited 1954) and *Haemaphysalis leachi leachi* (= *Haemaphysalis leachi*) in Elbl & Anastos (1966d) partly in fact *Haemaphysalis moreli*.
- 1941 *moreli* Arthur, 1957a, *Ixodes*
- 1942 *moreliae* (Koch, 1867), *Amblyomma*. It was originally named *Ixodes moreliae* and given its current status in Neumann (1899). Keirans (1985) found *Amblyomma moreliae* identified as *Amblyomma albolimbatum* in the Nuttall Tick Collection.
- 1943 *moreliae* (Koch, 1867), *Aponomma*. It was originally named *Ixodes moreliae* (= *Amblyomma moreliae*). The name *Aponomma moreliae* used in Oliver (1965, page 567) is a synonym of *Amblyomma moreliae* in Camicas *et al.* (1998), but it is a *lapsus* for *Amblyomma moreliae*.
- 1944 *moreliae* Koch, 1867, *Ixodes*. This name is a synonym of *Amblyomma moreliae* and its original name as stated in Neumann (1911a).
- 1945 *moscharius* Teng, 1982a, *Ixodes*. Camicas *et al.* (1998) cite 1979 the year for the description of *Ixodes moscharius*.
- 1946 *moschiferi* Nemenz, 1968, *Ixodes*
- 1947 *moschisuga* Teng, 1980b, *Haemaphysalis*
- 1948 *mossambicensis* Santos Dias, 1952b, *Ixodes*. This name is a synonym of *Ixodes ugandanus* as stated in Santos Dias (1958a).
- 1949 *mossambicus* Theiler, 1962, *Ixodes* (page 162). This name is treated as a *lapsus* for *Ixodes mossambicensis* in the original description according to Camicas *et al.* (1998), who based this decision on Theiler (1962). However, the name *Ixodes mossambicus* Theiler, 1962 has been never used in any article of Santos Dias, and it is a *lapsus* for *Ixodes mossambicensis* (= *Ixodes ugandanus*) in Theiler (1962). *Ixodes mossambicus* Theiler, 1962 is not included in Doss & Anastos (1977).
- 1950 *mossambicus* Santos Dias, 1950b, *Rhipicephalus*. This name is a synonym of *Rhipicephalus neavei* (= *Rhipicephalus kochi* Dönitz, 1905) in Santos Dias (1958a), a synonym of *Rhipicephalus punctatus* Warburton, 1912 in Camicas *et al.* (1998) and a synonym of *Rhipicephalus pravus* in Walker *et al.* (2000). The name *Rhipicephalus mossambicus* Santos Dias, 1950b is *incertae sedis* here.
- 1951 *moubata* (Murray, 1877), *Ixodes*. This name used in Neumann (1911a) and by a few other workers, is based on Cobbold (1879, 1882), who spelt this name *Ixodes monbata* (*lapsus*). The name *Ixodes moubata* is an incorrect name for Ixodidae because it is a synonym of *Ornithodoros moubata* (Argasidae) as stated in Neumann (1911a).
- 1952 *moucheti* Morel, 1965d, *Rhipicephalus*
- 1953 *moyi* Roberts, 1953, *Amblyomma*
- 1954 *muchlensi* Kolonin, 1984, *Rhipicephalus* (page 37). This name is a *lapsus* for *Rhipicephalus muehlensi*, but not included in Camicas *et al.* (1998).
- 1955 *mudaliari* Rao, Hiregaudar and Alwar, 1960, *Amblyomma*. This name is a probable synonym of *Amblyomma integrum* in Camicas *et al.* (1998) and a certain synonym of *Amblyomma integrum* in Voltzit & Keirans (2002), but still used by authors as Shahardar & Narsapur (2003). We were unable to locate the publication of Rao *et al.* (1960), but there is a description of *Amblyomma mudaliari* in Rao *et al.* (1964).
- 1956 *mudalliuri* Miranpuri and Naithani, 1978, *Amblyomma* (page vii). This name is a *lapsus* for *Amblyomma mudaliari* (= *Amblyomma integrum*), but not included in Camicas *et al.* (1998).
- 1957 *muechlensi* Kolonin, 2007, *Rhipicephalus* (page 405). This name is a *lapsus* for *Rhipicephalus muehlensi*.
- 1958 *muehlensi* Zumpt, 1943b, *Rhipicephalus*. The original spelling *Rhipicephalus mühlensi* is corrected to *Rhipicephalus muehlensi*, and Santos Dias writes this name *Rhipicephalus muhlensi* (i.e., Santos Dias 1987), but the correct emendation for *mühlensi* is *muehlensi* as stated in International Commission of Zoological Nomenclature (1999). Keirans (1985) found *Rhipicephalus muehlensi* identified as *Rhipicephalus appendiculatus*, *Rhipicephalus kochi* Dönitz, 1905, *Rhipicephalus longicoxatus* and *Rhipicephalus masseyi* in the Nuttall Collection.
- 1959 *muhelensi* Estrada-Peña, Estrada-Sánchez and Estrada-Sánchez, 2012b, *Rhipicephalus* (page 6). This name is a *lapsus* for *Rhipicephalus muehlensi*.
- 1960 *muhsamae* Santos Dias, 1954d, *Haemaphysalis*. Uilenberg *et al.* (2013) state that the original name for this tick is *Haemaphysalis leachi muhsami* Santos Dias, 1954d, but it was originally named *Haemaphysalis muhsami* and amended in Santos Dias (1962b). The name *Haemaphysalis muhsamae* Santos Dias, 1954d has been considered a synonym of *Haemaphysalis spinulosa* for many years (Apanaskevich *et al.* 2007), but reinstated in Camicas *et al.* (1998). Nevertheless, there are some problems for the correct morphological identification of this species because Santos Dias (1954d) described the male, female and the nymph of *Haemaphysalis muhsamae* Santos Dias, 1954d (as *Haemaphysalis mushami*), but Santos Dias (1955d) changed his decision about the female and nymph used in the original description because they were in fact *Haemaphysalis leachi indica* (= *Haemaphysalis indica*). Consequently he redescribed the female and nymph of *Haemaphysalis mushamae* Santos Dias, 1954d with new material collected in Moçambique. *Haemaphysalis muhsamae* Santos Dias, 1954d is not included in Doss & Anastos (1977) and Kolonin (2009) and treated as provisionally valid here.
- 1961 *muhsamae* Morel and Vassiliades, 1965, *Rhipicephalus*. This species has been confused with *Rhipicephalus simus* and *Rhipicephalus senegalensis* according to Morel & Vassiliades (1965) and Uilenberg *et al.* (2013).
- 1962 *muhsami* Santos Dias, 1954d, *Haemaphysalis*. This name is a synonym of *Haemaphysalis muhsamae* Santos Dias, 1954d

and its original name.

- 1963 **multipunctum** Neumann, 1899, *Amblyomma*. This name in Boero & Prosen (1959) is probably *Amblyomma scalpturatum* according to Labruna *et al.* (2013).
- 1964 **muniensis** Arthur and Burrow, 1957, *Ixodes*
- 1965 **muntiacci** Schulze, 1939c, *Ixodes*. This name is a synonym of *Ixodes nuttallianus* as stated in Clifford *et al.* (1973) and Camicas *et al.* (1998).
- 1966 **muris** Bishopp and Smith, 1937, *Ixodes*. This name in Good (1973) is in fact *Ixodes scapularis* Say, 1821 as stated Camicas *et al.* (1998).
- 1967 **murreleti** Cooley and Kohls, 1945, *Ixodes*. This name is a synonym of *Scaphixodes murreleti* in Camicas *et al.* (1998), but *Ixodes murreleti* is valid.
- 1968 **murreleti** (Cooley and Kohls, 1945), *Scaphixodes*. It was originally named *Ixodes murreleti*. The name *Scaphixodes murreleti* is valid in Camicas *et al.* (1998), but it is a synonym of *Ixodes murreleti*.
- 1969 **myospalacis** Teng, 1986, *Ixodes*. This name is a synonym of *Pholeoixodes myospalacis* in Camicas *et al.* (1998), but it is valid.
- 1970 **myospalacis** (Teng, 1986), *Pholeoixodes*. It was originally named *Ixodes myospalacis*. The name *Pholeoixodes myospalacis* is valid in Camicas *et al.* (1998), but it is a synonym of *Ixodes myospalacis*.
- 1971 **myotomys** Clifford and Hoogstraal, 1970, *Ixodes*
- 1972 **myrmecobii** Roberts, 1962b, *Ixodes*. Roberts (1970) states that *Ixodes holocyclus* in Nuttall & Warburton (1911) is most probably partly in fact *Ixodes myrmecobii*.
- 1973 **myrmecophagae** Schulze, 1933d, *Amblyomma*. This name is a synonym of *Amblyomma scalpturatum*. However, Camicas *et al.* (1998) based this synonym on Fonseca & Aragão (1952b), but these authors use the name *Amblyomma myrmecophagium* (= *Amblyomma scalpturatum*).
- 1974 **myrmecophagium** Schulze, 1933d, *Amblyomma*. It was originally named *Amblyomma myrmecophagae* (= *Amblyomma scalpturatum*), but amended to *Amblyomma myrmecophagium* in Fonseca & Aragão (1952b, pages 730, 731). The name *Amblyomma myrmecophagium* is a synonym of *Amblyomma scalpturatum*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).

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- 1975 **nadchatrami** Hoogstraal, Trapido and Kohls, 1965b, *Haemaphysalis*. It was originally named *Haemaphysalis papuana nadchatrami* and given its current status in Hoogstraal *et al.* (1968b). The name *Haemaphysalis nadchatrami* has been confused with *Haemaphysalis hystricis* Supino, 1897 and *Haemaphysalis semermis* as stated in Hoogstraal *et al.* (1965b). Keirans (1985) found *Haemaphysalis nadchatrami* identified as *Haemaphysalis hystricis* Supino, 1897 and *Haemaphysalis papuana* Thorell, 1883 in the Nuttall Tick Collection.
- 1976 **naevei** Campana-Rouget, 1959, *Rhipicephalus* (page 222). This name is a lapsus for *Rhipicephalus naevei* (= *Rhipicephalus kochi* Dönitz, 1905), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1977 **naevi** Campana-Rouget, 1959, *Rhipicephalus* (page 223). This name is a lapsus for *Rhipicephalus naevei* (= *Rhipicephalus kochi* Dönitz, 1905), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1978 **nairobiensis** Nuttall, 1916, *Ixodes*. Keirans (1985) found *Ixodes auriculaelongae* identified as *Ixodes nairobiensis* in the Nuttall Tick Collection.
- 1979 **naponense** (Packard, 1869), *Amblyomma*. It was originally named *Ixodes naponensis* and given its current status in Neumann (1911a), but not included in Doss & Anastos (1977). The name *Amblyomma naponense* is doubtful in Robinson (1926).
- 1980 **naponensis** (Packard, 1869), *Amblyomma*. This name is in Doss & Anastos (1977) based on Neumann (1911a), but this author used the correct name *Amblyomma naponense*. The name *Amblyomma naponensis* is a synonym of *Amblyomma naponense*, but not included in Camicas *et al.* (1998).
- 1981 **naponensis** Packard, 1869, *Ixodes*. This name is a synonym of *Amblyomma naponense* and its original name as stated in Neumann (1911a) and Camicas *et al.* (1998). However, *Ixodes naponensis* is regarded a synonym of *Dermacentor americanus* (Linnaeus, 1758) (= *Dermacentor variabilis*) in Neumann (1897), Nuttall & Warburton (1911) and Estrada-Peña (1991).
- 1982 **nausificum** Koch, 1847, *Amblyomma*. This name is *incertae sedis* in Neumann (1911a), but a *nomen dubium* in Camicas *et al.* (1998) and here.
- 1983 **nausificum** (Koch, 1847), *Indocentor*. It was originally named *Amblyomma nausificum* (*nomen dubium*). The name *Indocentor nausificum* used in Oudemans (1936, page 600) is a *nomen dubium* synonym of *Amblyomma nausificum* (*nomen dubium*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 1984 **nchisiensis** Arthur, 1958c, *Ixodes*
- 1985 **naevei** Warburton, 1912, *Rhipicephalus*. This name is a synonym of *Rhipicephalus kochi* Dönitz, 1905 as stated in Walker *et al.* (2000). However, Walker (1956) regards *Rhipicephalus naevei* a synonym of *Rhipicephalus pravus*, but this decision is unsound according to Walker *et al.* (2000), while this name in Santos Dias (1956a) is in fact *Rhipicephalus pravus* in the opinion of Camicas *et al.* (1998). Keirans (1985) found *Rhipicephalus appendiculatus*, *Rhipicephalus pravus*, *Rhipicephalus punctatus* Warburton, 1912 and *Rhipicephalus ziemanni* under the name *Rhipicephalus naevei* in the Nuttall Tick Collection.

- 1986 *neavei punctatus* Warburton, 1912, *Rhipicephalus*. This name is a synonym of *Rhipicephalus pravus* in Walker (1956), but *Rhipicephalus neavei punctatus* Warburton, 1912 is a synonym of *Rhipicephalus punctatus* Warburton, 1912 and its original name as stated in Walker *et al.* (2000). Keirans (1985) found *Rhipicephalus pravus* identified as *Rhipicephalus neavei punctatus* Warburton, 1912 (= *Rhipicephalus punctatus* Warburton, 1912) in the Nuttall Collection. Warburton (1912) described *Rhipicephalus neavei* and *Rhipicephalus neavei punctatus* in the same publication.
- 1987 *neavi* Moritz and Fischer, 1981, *Rhipicephalus* (page 355). This name is a *lapsus* for *Rhipicephalus neavei* (= *Rhipicephalus kochi* Dönitz, 1905), but not included in Camicas *et al.* (1998).
- 1988 *nectomys* Kohls, 1956a, *Ixodes*. This name is often cited as described in 1957
- 1989 *neglectum* Hirst and Hirst, 1910, *Amblyomma*. This name is a synonym of *Aponomma exornatum* (= *Amblyomma exornatum*) as stated in Kaufman (1972) and Camicas *et al.* (1998).
- 1990 *neglectum* (Hirst and Hirst, 1910), *Aponomma*. It was originally named *Amblyomma neglectum* (= *Amblyomma exornatum*). The name *Aponomma neglectum* used in Bedford (1936) is a synonym of *Aponomma exornatum* (= *Amblyomma exornatum*) in Kaufman (1972), Santos Dias (1993a) and Camicas *et al.* (1998). *Amblyomma neglectum* is a synonym of *Amblyomma exornatum* here, but still used by authors as Bayless (2007).
- 1991 *neitzi* Clifford, Walker and Keirans, 1977, *Ixodes*
- 1992 *neotomae* Cooley, 1944c, *Ixodes*. This name is valid in Camicas *et al.* (1998), but it is a synonym of *Ixodes spinipalpis* as stated in Norris *et al.* (1997).
- 1993 *nepalensis* Hoogstraal, 1962, *Haemaphysalis*
- 1994 *nesomys* Hoogstraal, Uilenberg and Klein, 1966b, *Haemaphysalis*
- 1995 *nesomys* Uilenberg and Hoogstraal, 1969c, *Ixodes*
- 1996 *neuquenensis* Keirans, 1992, *Ixodes* (page 9). This name is a *lapsus* for *Ixodes neuquenensis*, but not included in Camicas *et al.* (1998).
- 1997 *neumani* Aragão, 1935, *Amblyomma* (pages 523-525, 529, 531). This name is a *lapsus* for *Amblyomma neumanni* Ribaga, 1902, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Sampaio *et al.* (1992, page 75), Burger *et al.* (2012, page 52) and others.
- 1998 *neumanni* Ribaga, 1902, *Amblyomma*. This name is doubtful in Robinson (1926), but it is valid as stated in Neumann (1911a) and Santos Dias (1961b). The name *Amblyomma neumanni* Ribaga, 1902 in Pinto & Lins de Almeida (1939) is in fact *Amblyomma cajennense* or a related species according to Guglielmone *et al.* (2003), while in Voltzit (2007) is actually *Amblyomma parvitarsum* as stated in Nava *et al.* (2009a). Keirans (1985) names Dönitz as the authority of *Amblyomma neumanni* Ribaga, 1902.
- 1999 *neumanni* Dönitz, 1905, *Haemaphysalis*. This name is valid in Neumann (1911a), but it is a synonym of *Haemaphysalis longicornis* as stated in Hoogstraal *et al.* (1968c). However, the name *Haemaphysalis neumanni* Dönitz, 1905 in Dhanda & Rao (1964) is in fact *Haemaphysalis davisii* as stated in Hoogstraal *et al.* (1970b). Keirans (1985) found *Haemaphysalis goral* and *Haemaphysalis mageshimaensis* identified as *Haemaphysalis neumanni* Dönitz, 1905 (= *Haemaphysalis longicornis*) in the Nuttall Tick Collection.
- 2000 *neumanni* Nuttall and Warburton, 1911, *Ixodes*. This name is a new one for *Ixodes eudyptidis*, a decision not soundly justified in Nuttall & Warburton (1911). The name *Ixodes neumanni* Nuttall and Warburton, 1911, is a synonym of *Scaphixodes eudyptidis* (= *Ixodes eudyptidis*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes eudyptidis* in Nuttall (1916) and here.
- 2001 *neumanni* Walker, 1990, *Rhipicephalus*. This species has been confused with *Rhipicephalus distinctus* as stated in Walker *et al.* (2000).
- 2002 *neumanni bispinosa* Neumann, 1897, *Haemaphysalis*. This name used in Abramov & Laptev (1966) is simultaneously a synonym of *Haemaphysalis bispinosa* and *Haemaphysalis longicornis* in Estrada-Peña (1991). The name *Haemaphysalis neumanni bispinosa* is a synonym of *Haemaphysalis longicornis* as stated in Hoogstraal *et al.* (1968c) and Camicas *et al.* (1998).
- 2003 *neuquenensis* Ringuet, 1947, *Ixodes*. It was originally named *Ixodes brunneus* in Boero (1945). The name *Ixodes neuquenensis* in Daciuk *et al.* (1981) is in fact *Amblyomma tigrinum* as stated in Guglielmone & Nava (2005). Merino *et al.* (2009) write the authority of *Ixodes neuquenensis* as Ringuet, 1847.
- 2004 *neuquensis* Kolonin, 2007, *Ixodes* (pages 402, 406). This name is a *lapsus* for *Ixodes neuquenensis*.
- 2005 *neveus* Doss, Farr, Roach and Anastos, 1974a, *Dermacentor* (page 328). This name is a *lapsus* for *Dermacentor niveus*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2006 *neveus daghestanicus* Olenov, 1929c, *Dermacentor*. This name is a *lapsus* for *Dermacentor niveus daghestanicus* (= *Dermacentor niveus*) in Doss *et al.* (1974a, page 328), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2007 *nicolasi* Santos Dias, 1982, *Ixodes*. This name is not included in Kolonin (2009).
- 2008 *nicollei* Larrousse, 1925b, *Haemaphysalis*. This name is a synonym of *Haemaphysalis sulcata* as stated in Morel (1963a) and Camicas *et al.* (1998).
- 2009 *nievus* Shi, Yang, Li and Zhao, 2004, *Dermacentor* (page 49). This name is a *lapsus* for *Dermacentor niveus*.
- 2010 *niger* Rudow, 1870, *Rhipicephalus*. This name is a *nomen dubium* in Camicas *et al.* (1998), but *incertae sedis* in Neumann (1911a), Walker *et al.* (2000) and here.
- 2011 *nigra* Cobbold, 1879, *Ixodes*. This name is a probable synonym of *Amblyomma americanum* or a *nomen dubium* in

- Camicas *et al.* (1998), but not included in Neumann (1911a). The name *Ixodes nigra* is a name without description or figure, a *nomen nudum*.
- 2012 *nigricans* Neumann, 1908d, *Ixodes*. It was originally named *Ixodes obscurus* Neumann, 1899, a name preoccupied by *Ixodes obscurus* Fabricius, 1805 (*nomen dubium*) and replaced by *Ixodes nigricans* in Neumann (1908d). The name *Ixodes nigricans* is valid in Neumann (1911a), but it is a synonym of *Ixodes ricinus* as stated in Camicas *et al.* (1998).
- 2013 *nigrolineatus* (Packard, 1869), *Cynorhaestes*. It was originally named *Ixodes nigrolineatus* (= *Dermacentor albipictus*). The name *Cynorhaestes nigrolineatus* used in Schulze (1929b) is a synonym of *Dermacentor nigrolineatus* (= *Dermacentor albipictus*) in Camicas *et al.* (1998), but it is a synonym of *Dermacentor albipictus*.
- 2014 *nigrolineatus* (Packard, 1869), *Dermacentor*. It was originally named *Ixodes nigrolineatus* (= *Dermacentor albipictus*). The name *Dermacentor nigrolineatus* used first in Banks (1907) is valid in Camicas *et al.* (1998), but it is a synonym of *Dermacentor albipictus* as stated in Cooley (1938), Ernst & Gladney (1975) and Guglielmone *et al.* (2003). However, the name *Dermacentor nigrolineatus* in Bequaert (1938) is partly in fact *Dermacentor dissimilis* as stated in Kohls & Dalmat (1952). *Dermacentor nigrolineatus* is not included in Neumann (1911a).
- 2015 *nigrolineatus* Packard, 1869, *Ixodes*. This name is a synonym of *Dermacentor nigrolineatus* (= *Dermacentor albipictus*) in Camicas *et al.* (1998), but it is a synonym of *Dermacentor albipictus*. However, *Ixodes nigrolineatus* is partly a synonym of *Haemaphysalis concinna* in Neumann (1897) and doubtful in Neumann (1911a) who believes that it is probably a *Haemaphysalis*.
- 2016 *nigrum* Tonelli Rondelli, 1939, *Amblyomma*. This name is a synonym of *Amblyomma pacae* as stated in Aragão & Fonseca (1953a) and Camicas *et al.* (1998).
- 2017 *nigua* De Geer, 1778, *Acarus*. This name is a synonym of *Amblyomma americanum* as stated in Neumann (1911a). However, Neumann (1897) lists *Acarus nigua* De Geer, 1778 as a synonym of *Dermacentor americanus* (Linnaeus, 1758) (= *Dermacentor variabilis*).
- 2018 *nigua* (De Geer, 1778), *Argas*. This name is listed under *Amblyomma americanum* as “nov. *nomen nudum* & nov. syn.” in Camicas *et al.* (1998) based on Doss & Anastos (1977) under the authority of Mégnin, 1880, but not included in Neumann (1911a). Mégnin (1880) refers to *Argas americanus*, de Geer [sic] (*lapsus*?) and clearly positioned this name into Argasidae. There is no justification to consider the name *Argas nigua* (De Geer, 1887) in Mégnin (1880) as a synonym of *Amblyomma americanum*. The name *Argas nigua* (De Geer, 1887) is not included in lists 2 or 3.
- 2019 *nigua* (De Geer, 1778), *Ixodes*. It was originally named *Acarus nigua* De Geer, 1778 (= *Amblyomma americanum*). The name *Ixodes nigua* (De Geer, 1778) used in Latreille (1804) and by a few other workers, is a synonym of *Amblyomma americanum* as stated in Neumann (1911a).
- 2020 *nipponensis* Kitaoka and Saito, 1967, *Ixodes*. The species LA and NA of *Ixodes* in Ono (1962 a publication that was not located) are in fact *Ixodes nipponensis* according to Yamaguti *et al.* (1971). The name *Ixodes nipponensis* has been confused prior to its description with *Ixodes ricinus* and *Ixodes persulcatus* as stated in Kitaoka & Saito (1967).
- 2021 *nishiyama* Doss and Anastos, 1977, *Haemaphysalis* (page 60). This name is a *lapsus* for *Haemaphysalis nishiyamai* (= *Haemaphysalis hystricis* Supino, 1897), but not included in Camicas *et al.* (1998).
- 2022 *nishiyamai* Sugimoto, 1935a, *Haemaphysalis*. This name is a synonym of *Haemaphysalis hystricis* Supino, 1897, but it has also been confused with *Haemaphysalis neumanni* Dönitz, 1905 (= *Haemaphysalis longicornis*) as stated in Hoogstraal *et al.* (1965c).
- 2023 *nitens* (Neumann, 1897), *Anocentor*. It was originally named *Dermacentor nitens* Neumann, 1897. The name *Anocentor nitens* (Neumann, 1897) used first in Mohler (1939) is valid in Camicas *et al.* (1998) and Guglielmone *et al.* (2003) among others. The name *Anocentor nitens* is a synonym of *Dermacentor nitens* Neumann, 1897 here.
- 2024 *nitens* Neumann, 1897, *Dermacentor*. This name is a synonym of *Anocentor nitens* (Neumann, 1897) in Camicas *et al.* (1998) and Guglielmone *et al.* (2003), but it is valid.
- 2025 *nitens* (Neumann, 1904), *Eurhipicephalus*. It was originally named *Rhipicephalus nitens* Neumann, 1904. The name *Eurhipicephalus nitens* (Neumann, 1904) used in Lounsbury (1906) is a synonym of *Rhipicephalus nitens* Neumann, 1904 as stated in Camicas *et al.* (1998), but not included in Neumann (1911a).
- 2026 *nitens* Neumann, 1904, *Ixodes*
- 2027 *nitens* (Neumann, 1897), *Otocentor*. It was originally named *Dermacentor nitens* Neumann, 1897. The name *Otocentor nitens* (Neumann, 1897) used first in Cooley (1938) is a synonym of *Anocentor nitens* (Neumann, 1897) in Camicas *et al.* (1998) and a synonym of *Dermacentor nitens* Neumann, 1897 here.
- 2028 *nitens* Neumann, 1904, *Rhipicephalus*. This name is a synonym of *Rhipicephalus appendiculatus* in Neumann (1911a), but it is valid. Keirans (1985) found *Rhipicephalus appendiculatus* identified as *Rhipicephalus nitens* Neumann, 1904 in the Nuttall Collection.
- 2029 *nitidum* Hirst and Hirst, 1910, *Amblyomma*
- 2030 *nitidum* Schulze, 1920, *Hyalomma* (usually cited 1919). Apanaskevich & Horak (2008a) state that *Hyalomma nitidum* Schulze, 1920 may be conspecific with *Hyalomma truncatum*.
- 2031 *nivalis* Tonelli Rondelli, 1928, *Ixodes*. This name is a synonym of *Ixodes trianguliceps* as stated in Camicas *et al.* (1998).
- 2032 *nivalis suecicus* Schulze, 1930a, *Ixodes*. This name is a synonym of *Ixodes trianguliceps* as stated in Camicas *et al.* (1998).
- 2033 *niveus* (Neumann, 1897), *Cynorhaestes*. This name used in Schulze (1929b) is a synonym of *Dermacentor niveus* as stated in Camicas *et al.* (1998).

- 2034 *niveus* Neumann, 1897, *Dermacentor*. It was originally named *Dermacentor reticulatus niveus* and given its current status in Yakimov (1923). The name *Dermacentor niveus* in Olenev (1927) is partly a synonym of *Dermacentor marginatus* (Sulzer, 1776) and partly a synonym of *Dermacentor silvarum* in Filippova (1997), while Camicas *et al.* (1998) regard it in Sénevet (1937) a synonym of *Dermacentor marginatus* (Sulzer, 1776). Estrada-Peña (1991) and Moshaverinia *et al.* (2009) consider *Dermacentor niveus* a synonym of *Dermacentor marginatus* (Sulzer, 1776), while it is a synonym of *Dermacentor daghestanicus* in Kolonin (2009). The name *Dermacentor niveus* is valid in Filippova (1997) and here. Keirans (1985) found *Dermacentor niveus* identified as *Dermacentor reticulatus* (Fabricius, 1794) and *Dermacentor asper* identified as *Dermacentor niveus* in the Nuttall Tick Collection.
- 2035 *niveus daghestanicus* Olenev, 1929c, *Dermacentor*. This name is a synonym of *Dermacentor marginatus* (Sulzer, 1776) in Estrada-Peña (1991), but it is a synonym of *Dermacentor niveus* in Filippova (1997) and here. Doss & Anastos (1977) and Camicas *et al.* (1998) cite 1928 the year for its description.
- 2036 *niveus niveus* Neumann, 1897, *Dermacentor*. This name used in Camicas *et al.* (1998) is a synonym of *Dermacentor niveus*.
- 2037 *nocens* Robinson, 1912, *Amblyomma*. It was originally named *Amblyomma variegatum nocens* (= *Amblyomma pomposum*). The name *Amblyomma nocens* used in Theiler & Salisbury (1959) is valid in Camicas *et al.* (1998), but it is a synonym of *Amblyomma pomposum* in Keirans & Hillyard (2001) and here.
- 2038 *nodosum* Neumann, 1899, *Amblyomma*. This name has been confused with *Amblyomma calcaratum* as stated in Fairchild *et al.* (1966).
- 2039 *nodulipes* (Kolenati, 1858), *Eschatocephalus*. It was originally named *Sarconyssus nodulipes* (= *Ixodes vespertilionis*). The name *Eschatocephalus nodulipes* used in Neumann (1901) is a probable synonym of *Eschatocephalus vespertilionis* (= *Ixodes vespertilionis*) in Camicas *et al.* (1998), but it is a probable synonym of *Ixodes vespertilionis* in Neumann (1911a as described in 1860) and here. *Eschatocephalus nodulipes* is in Doss & Anastos (1977) based on Kolenati (1860) and in Camicas *et al.* (1998) based on Kolenati (1860) and Santos Dias (1961a), but this name is not cited in the articles of Kolenati (1860) and Santos Dias (1961a).
- 2040 *nodulipes* (Kolenati, 1858), *Haemalastor*. It was originally named *Sarconyssus nodulipes* (= *Ixodes vespertilionis*). The name *Haemalastor nodulipes* used in Neumann (1899) is a probable synonym of *Eschatocephalus vespertilionis* (= *Ixodes vespertilionis*) in Camicas *et al.* (1998) and a probable synonym of *Ixodes vespertilionis* in Neumann (1911a, as described in 1860) and here.
- 2041 *nodulipes* (Kolenati, 1858), *Ixodes*. It was originally named *Sarconyssus nodulipes* (= *Ixodes vespertilionis*). The name *Ixodes nodulipes* used in Neumann (1911a, as described in 1860) and by a few other workers, is a probable synonym of *Eschatocephalus vespertilionis* (= *Ixodes vespertilionis*) in Camicas *et al.* (1998), but it is a probable synonym of *Ixodes vespertilionis* in Neumann (1911a) and here.
- 2042 *nodulipes* Kolenati, 1858, *Sarconyssus*. This name is a probable synonym of *Eschatocephalus vespertilionis* (= *Ixodes vespertilionis*) in Camicas *et al.* (1998), a certain synonym of *Ixodes vespertilionis* in Santos Dias & Nuncio (1996) and a probable synonym of *Ixodes vespertilionis* in Neumann (1911a, as described in 1860), Santos Dias (1961a) and here.
- 2043 *norvali* Hoogstraal and Wassef, 1983, *Haemaphysalis*
- 2044 *novaeguineae* Hirst, 1914, *Haemaphysalis*. Keirans (1985) found *Haemaphysalis novaeguineae* Hirst, 1914 identified as *Haemaphysalis spinigera* in the Nuttall Tick Collection.
- 2045 *novaeguineae* Krijgsman and Ponto, 1932, *Haemaphysalis*. It was originally named *Haemaphysalis new-guinea*, a name preoccupied by *Haemaphysalis novaeguineae* Hirst, 1914 and changed to *Haemaphysalis meraukensis* Taylor, 1944 (= *Haemaphysalis bancrofti*) as explained in Roberts (1963a). Therefore, *Haemaphysalis novaeguineae* Krijgsman and Ponto, 1932 is a synonym of *Haemaphysalis bancrofti*. However, the name *Haemaphysalis novaeguineae* Krijgsman and Ponto, 1932 in Toumanoff (1944) is partly in fact *Haemaphysalis anomala* as stated in Hoogstraal *et al.* (1967a).
- 2046 *numidiana* Neumann, 1905, *Haemaphysalis*. This name is valid in Neumann (1911a) and Nuttall & Warburton (1915), and a synonym of *Haemaphysalis erinacei erinacei* Pavesi, 1884 (= *Haemaphysalis erinacei* Pavesi, 1884) in Camicas *et al.* (1998). The name *Haemaphysalis numidiana* is a synonym of *Haemaphysalis erinacei* Pavesi, 1884 as stated in Keirans & Hillyard (2001), but authors as Aydin *et al.* (2012) and Arserim & Mete (2012) still use the name *Haemaphysalis numidiana*. However, *Haemaphysalis numidiana* in Warburton (1933) and Cooley (1934) is in fact *Haemaphysalis pedetes* as stated in Hoogstraal (1972b).
- 2047 *numidiana taurica* Pospelova-Shtrom, 1940, *Haemaphysalis*. This name is a synonym of *Haemaphysalis erinacei taurica* in Camicas *et al.* (1998), but it is a synonym of *Haemaphysalis erinacei* Pavesi, 1884 here.
- 2048 *numidiana turanica* Pospelova-Shtrom, 1940, *Haemaphysalis*. This name is a synonym of *Haemaphysalis erinacei turanica* in Camicas *et al.* (1998), but it is a synonym of *Haemaphysalis erinacei* Pavesi, 1884 here.
- 2049 *nutallii* Merhej and Raoult, 2011, *Dermacentor* (pages 384, 385). This name is a *lapsus* for *Dermacentor nuttalli* Olenev, 1929c.
- 2050 *nuttali* Schwetz, 1927, *Amblyomma* (page 81). This name is a *lapsus* for *Amblyomma nuttalli* Dönitz, 1909 repeated in Bergeon & Balis (1974, pages 297, 298), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2051 *nuttali* Crocker, Bennett, Jackson, Snyder, Smadel, Gauld and Gordon, 1950, *Dermacentor* (page 383). This name is a *lapsus* for *Dermacentor nuttalli* Olenev, 1929c, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Oliveira and Côte-Real (1999, page 314) among others.
- 2052 *nuttali* Murrell, Campbell and Barker, 1999, *Rhipicentor* (pages 83, 85). This name is a *lapsus* for *Rhipicentor nuttalli*

Cooper and Robinson, 1908.

- 2053 *nuttallanus* Tseng, 1978, *Ixodes* (page 26). This name is a *lapsus* for *Ixodes nuttallianus*, but not included in Camicas *et al.* (1998).
- 2054 *nuttalli* Dönitz, 1909, *Amblyomma*. This name is a probable synonym of *Amblyomma dubitatum* according to Santos Dias (1958a), but *Amblyomma nuttalli* Dönitz, 1909 is valid as it is *Amblyomma dubitatum*. Keirans (1985) found *Amblyomma nuttalli* Dönitz, 1909 identified as *Amblyomma marmoreum* in the Nuttall Tick Collection.
- 2055 *nuttalli* Olenev, 1929c, *Dermacentor*. Doss & Anastos (1977), Guglielmone *et al.* (2010b) and others regard 1928 the year for its description.
- 2056 *nuttalli* Lahille, 1913, *Ixodes*
- 2057 *nuttalli* Cooper and Robinson, 1908, *Rhipicentor*.
- 2058 *nuttalli chacassicum* Degtyarev, 1934, *Dermacentor*. This name used in Degtyarev (1939) is a synonym of *Dermacentor nuttalli* Olenev, 1929c as stated in Camicas *et al.* (1998).
- 2059 *nuttallianus* Schulze, 1930d, *Ixodes*. This name is a new one for *Ixodes ricinoides* Nuttall, 1913 in Schulze (1930d). This author considers *Ixodes ricinoides* Nuttall, 1913 preoccupied by “*ricinoides* De Geer” [sic] because he regards the latter name a synonym of *Ixodes ricinus*.

O

- 2060 *obesa* Larrousse, 1925a, *Haemaphysalis*
- 2061 *obese* Geevarghese and Mishra, 2011, *Haemaphysalis* (pages 204, 210). This name is a *lapsus* for *Haemaphysalis obesa*.
- 2062 *obliquus* Koch, 1844a, *Ixodes*. This name is *incertae sedis* in Neumann (1911a) and a *nomen dubium* in Camicas *et al.* (1998) and here.
- 2063 *oblongoguttatum* Koch, 1844a, *Amblyomma*. Onofrio *et al.* (2010) found *Amblyomma oblongoguttatum* identified as *Amblyomma scalpturatum* in a Brazilian tick collection.
- 2064 *oblongum* Koch, 1844a, *Amblyomma*. This name is a synonym of *Amblyomma striatum* (= *Amblyomma aureolatum*) in Neumann (1911a) and Guglielmone & Viñabal (1994), a synonym of *Amblyomma aureolatum* in Aragão & Fonseca (1961) and Camicas *et al.* (1998), and a synonym of *Amblyomma ovale* in Robinson (1926) and Dantas-Torres *et al.* (2009). One of us (SN) examined the type of *Amblyomma oblongum* and confirms that this name is a synonym of *Amblyomma ovale*.
- 2065 *oblonguttatum* Labruna, Homem, Heinemann and Neto, 2000, *Amblyomma* (page 778). This name is a *lapsus* for *Amblyomma oblongoguttatum* repeated in Guglielmone *et al.* (2006, page 96) and Tamekuni *et al.* (2011, page 1528)
- 2066 *obolongoguttatum* Ogrzewalska, Uezu, Ferreira and Labruna, 2007, *Amblyomma* (pages 177, 178). This name is a *lapsus* for *Amblyomma oblongoguttatum*.
- 2067 *obotriticus bavaricus* Schulze and Schlottke, 1929b, *Ixodes*. This name is a synonym of *Pholeoixodes lividus* (Koch, 1844a) (= *Ixodes lividus* Koch, 1844a) in Camicas *et al.* (1998), but it is a synonym of *Ixodes lividus* Koch, 1844a.
- 2068 *obscurus* Fabricius, 1805, *Ixodes*. This name is *incertae sedis* in Neumann (1911a) and a *nomen dubium* in Camicas *et al.* (1998) and here.
- 2069 *obscurus* Neumann, 1899, *Ixodes*. This name was preoccupied by *Ixodes obscurus* Fabricius, 1805, and replaced by *Ixodes nigricans* (= *Ixodes ricinus*) in Neumann (1908d). The name *Ixodes obscurus* Neumann, 1899 is a synonym of *Ixodes nigricans* in Neumann (1911a), but it is a synonym of *Ixodes ricinus* as stated in Camicas *et al.* (1998).
- 2070 *obtusa* Dönitz, 1910a, *Haemaphysalis*
- 2071 *occidentalis* (Minning, 1936), *Boophilus*. It was originally named *Uroboophilus occidentalis* Minning, 1936 (= *Rhipicephalus annulatus*). The name *Boophilus occidentalis* (Minning, 1936) used in Keirans & Clifford (1984 as placed originally in the genus *Boophilus*) is not included in Camicas *et al.* (1998). The name *Boophilus occidentalis* is a synonym of *Rhipicephalus annulatus*.
- 2072 *occidentalis* Marx, 1892, *Dermacentor*, in Curtice (1892). This name is a synonym of *Dermacentor reticulatus occidentalis* Marx, 1892 (= *Dermacentor occidentalis* Marx, 1892) in Neumann (1911a), but it is valid.
- 2073 *occidentalis* Minning, 1936, *Uroboophilus*. This name is a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998) and a synonym of *Boophilus annulatus* (*Rhipicephalus annulatus*) in Keirans & Clifford (1984), who name this tick *Boophilus occidentalis* Minning, 1936 [sic]. The name *Uroboophilus occidentalis* is a synonym of *Rhipicephalus annulatus* here.
- 2074 *occultus* Pomerantzev, 1946, *Ixodes*
- 2075 *ochatonarius* Wan, Zhang and Dou, 1998, *Ixodes* (page 264). This name is a *lapsus* for *Ixodes ochotonarius* (= *Ixodes hyatti*).
- 2076 *ochotonae* Gregson, 1941, *Ixodes*. This name is a synonym of *Pholeoixodes ochotonae* in Camicas *et al.* (1998), but it is valid. Keirans (1985) found *Ixodes ochotonae* identified as *Ixodes angustus* in the Nuttall Tick Collection.
- 2077 *ochotonae* (Gregson, 1941), *Pholeoixodes*. It was originally named *Ixodes ochotonae*. The name *Pholeoixodes ochotonae* is valid in Camicas *et al.* (1998) based on Morel & Pérez (1973), but it is a synonym of *Ixodes ochotonae*.
- 2078 *ochotonarius* Teng, 1973, *Ixodes*. This name is a synonym of *Ixodes hyatti* as stated in Teng (1986) and Camicas *et al.* (1998), but not included in Doss & Anastos (1977).
- 2079 *ochraceum* Neumann, 1901, *Aponomma*. This name is valid in Neumann (1911a) and Santos Dias (1993a), but it is a synonym of *Aponomma latum* (= *Amblyomma latum*) in Kaufman (1972) and Camicas *et al.* (1998). The name

Aponomma ochraceum is a synonym of *Amblyomma latum* here.

- 2080 **oculatus** Neumann, 1901, *Rhipicephalus*. This name has been confused with *Rhipicephalus exophthalmos* as stated in Keirans *et al.* (1993) and Walker *et al.* (2000).
- 2081 **oculatus pravus** Nuttall, no year, *Rhipicephalus*. This name is a synonym of *Rhipicephalus punctatus* Warburton, 1912 in Keirans (1985). The name *Rhipicephalus oculatus pravus* Nuttall, no year, is not included in the tick-lists of other authors, and treated as a *nomen nudum* here.
- 2082 **odontalgiae** Fitch, 1872, *Ixodes*. This name is doubtful in Neumann (1911a) and Camicas *et al.* (1998). The name *Ixodes odontalgiae* is incorrect for Ixodidae because the type for this name is a spider not a tick as stated in Keirans & Barnes (1987).
- 2083 **oedemansi** Mihalca, Gherman and Cozma, 2011, *Bothriocroton* (page 3). This name is a *lapsus* for *Bothriocroton oudemansi*.
- 2084 **okapiae** Arthur, 1956c, *Ixodes*
- 2085 **oldi** Nuttall, 1913, *Ixodes*. Camicas *et al.* (1998) state that *Ixodes vanidicus* in Schulze (1943a) is probably partly in fact *Ixodes oldi* based on Theiler (1962). This statement is not confirmed in Keirans *et al.* (1982), who analyzed *Ixodes oldi* and related species.
- 2086 **oldi** Nuttall, 1913 variant, *Ixodes*. This name is used in Arthur (1958c) and regarded a synonym of *Ixodes vanidicus* in Arthur (1965), but it is in fact *Ixodes brewsterae* as stated in Keirans *et al.* (1982).
- 2087 **oliveri** Apanaskevich and Horak, 2008c, *Haemaphysalis*. This tick was identified as *Haemaphysalis leachi* group before its description as stated in Apanaskevich & Horak (2008c).
- 2088 **omissum** Schulze, 1932e, *Aponomma*. This name is a probable synonym of *Aponomma varanensis* (= *Amblyomma varanense*) in Kaufman (1972), a synonym of *Aponomma fuscolineatum* (= *Amblyomma fuscolineatum*) in Santos Dias (1993a) and a synonym of *Aponomma varanense* (= *Amblyomma varanense*) in Camicas *et al.* (1998). The name *Aponomma omissum* is *incertae sedis* here.
- 2089 **ophiophilum** (Müller, 1831), *Aponomma*. It was originally named *Ixodes ophiophilus (incertae sedis)*. The name *Aponomma ophiophilum* is *incertae sedis* in Neumann (1911a), valid in Santos Dias (1993a) with preeminence over *Aponomma gervaisi* (= *Amblyomma gervaisi*), and a synonym of *Aponomma gervaisi* (= *Amblyomma gervaisi*) in Camicas *et al.* (1998). *Aponomma ophiophilum* is a name *incertae sedis* synonym of *Ixodes ophiophilus (incertae sedis)* here.
- 2090 **ophiophilus** (Müller, 1831), *Aponomma*. This name is in Doss & Anastos (1977) based in Neumann (1911a), but this author used the correct name *Aponomma ophiophilum*. The name *Aponomma ophiophilus* is *incertae sedis*, synonym of *Ixodes ophiophilus (incertae sedis)*, but not included in Camicas *et al.* (1998).
- 2091 **ophiophilus** Müller, 1831, *Ixodes*. This name is *incertae sedis* synonym of *Aponomma ophiophilum (incertae sedis)* in Neumann (1911a), a synonym of the valid *Aponomma ophiophilum* in the opinion of Santos Dias (1993a), but a synonym of *Aponomma gervaisi* (= *Amblyomma gervaisi*) in Camicas *et al.* (1998). The name *Ixodes ophiophilus* is *incertae sedis* with type lost as stated in Kaufman (1972).
- 2092 **ophiophilus** (Müller, 1831), *Ophiodes*. It was originally named *Ixodes ophiophilus (incertae sedis)*. The name *Ophiodes ophiophilus* used in Murray (1877) is *incertae sedis* synonym of *Aponomma ophiophilum* in Neumann (1911a) and a synonym of the valid *Aponomma ophiophilum* in the opinion of Santos Dias (1993a), but a synonym of *Aponomma gervaisi* (= *Amblyomma gervaisi*) in Camicas *et al.* (1998). *Ophiodes ophiophilus* is *incertae sedis* synonym of *Ixodes ophiophilus (incertae sedis)*.
- 2093 **oralus** Chen, Zhang, He *et al.* [sic], 1999, *Ixodes* (page 368). This name is a *lapsus* for *Ixodes ovatus*.
- 2094 **orbicularis** Neumann, 1901, *Ixodes*. This name is a synonym of *Amblyomma americanum* in Camicas *et al.* (1998), but not included in Neumann (1911a). The name *Ixodes orbicularis* has no description or figure, a *nomen nudum*.
- 2095 **orbiculatus** Say, 1821, *Ixodes*. This name is *incertae sedis* in Neumann (1911a) and a synonym of *Amblyomma americanum* in Camicas *et al.* (1998). The name *Ixodes orbiculatus* is a *nomen dubium* here.
- 2096 **oregonensis** Stiles, 1910, *Ixodes*. This name is a synonym of *Dermacentor salmoni* (= *Dermacentor albipictus*) in Nuttall & Warburton (1911) and a synonym of *Dermacentor albipictus* in Arthur (1960a) and Camicas *et al.* (1998). The name *Ixodes oregonensis* has no description or figure, a *nomen nudum*.
- 2097 **oreotragi** Walker and Horak, 2000, *Rhipicephalus*, in Walker *et al.* (2000). *Rhipicephalus simpsoni* in Baker & Keep (1970), and *Rhipicephalus distinctus* in Baker & Keep (1970) and Walker (1991) are in fact *Rhipicephalus oreotragi* as stated in Walker *et al.* (2000).
- 2098 **orientalis** Nuttall and Warburton, 1915, *Haemaphysalis*. It was originally named *Haemaphysalis hoodi orientalis* Nuttall and Warburton, 1915 and given its current status in Hoogstraal (1956c).
- 2099 **orientalis** Kishida, 1934, *Haemaphysalis*. This name is a synonym of *Haemaphysalis flava* Neumann, 1897 in Keegan & Toshioka (1957). The name *Haemaphysalis orientalis* Kishida, 1934 is undescribed, a *nomen nudum* as stated in Yamaguti *et al.* (1971). *Haemaphysalis orientalis* Kishida, 1934 is not included in Doss & Anastos (1977) and Camicas *et al.* (1998). We were unable to locate the publication of Kishida (1934).
- 2100 **orlovi** (Kolonin, 1992a), *Africaniella*. It was originally named *Aponomma orlovi* (= *Amblyomma orlovi*). The name *Africaniella orlovi* used in Santos Dias (1996, pages 51-54) is a synonym for *Amblyomma orlovi*, but not included in Camicas *et al.* (1998).
- 2101 **orlovi** (Kolonin, 1992a), *Amblyomma*. It was originally named *Aponomma orlovi*. The tick *Amblyomma orlovi* was

- considered a member of *Aponomma*, but it is now placed in the genus *Amblyomma* (Horak *et al.* 2002; Klompen *et al.* 2002). The name *Amblyomma orlovi* is provisionally valid in Guglielmone *et al.* (2009, 201b, 2014), but these authors left open the possibility that it is a synonym of *Amblyomma transversale*.
- 2102 *orlovi* Kolonin, 1992a, *Aponomma*. This name is valid in Camicas *et al.* (1998), but it is a synonym of *Amblyomma orlovi* and its original name.
- 2103 *ornatissimum* CSIRO, 1961, *Amblyomma*. This name is a *nomen nudum* in Doss & Anastos (1977) and Camicas *et al.* (1998). These workers consider Gregory, 1961 the authority for this name, but the authority is not defined in the report.
- 2104 *ornithophila* Hoogstraal and Kohls, 1959, *Haemaphysalis*
- 2105 *ornithorhynchi* (Lucas, 1846), *Coxixodes*. It was originally named *Ixodes ornithorhynchi*. The name *Coxixodes ornithorhynchi* used in Schulze (1941a) is a synonym of *Ixodes ornithorhynchi* as stated in Roberts (1960) and Camicas *et al.* (1998).
- 2106 *ornithorhynchi* Lucas, 1846, *Ixodes*
- 2107 *otophila* Schulze, 1919, *Haemaphysalis* (usually cited 1918). This name is a synonym of *Haemaphysalis parva* (Neumann, 1897) as stated in Morel (1963a) and Camicas *et al.* (1998), but still used by Yeruham *et al.* (1996) and Sahinduran (2012).
- 2108 *otophila schulzei* Tonelli Rondelli, 1926b, *Haemaphysalis*. This name is a synonym of *Haemaphysalis parva* (Neumann 1897) as stated in Morel (1963a) and Camicas *et al.* (1998).
- 2109 *oudemansi* (Neumann, 1910b), *Amblyomma*. It was originally named *Aponomma oudemansi* (= *Bothriocroton oudemansi*). The name *Amblyomma oudemansi* used in Horak *et al.* (2002) and Barker & Murrell (2004, 2008) is a synonym of *Bothriocroton oudemansi* (Neumann, 1899) as stated in Beati *et al.* (2008).
- 2110 *oudemansi* Neumann, 1910b, *Aponomma*. This name is a synonym of *Bothriocroton oudemansi* and its original name as stated in Beati *et al.* (2008). However, *Aponomma oudemansi* is regarded a synonym of *Aponomma concolor* Neumann, 1899 [= *Bothriocroton concolor* (Neumann, 1899)] in Kaufman (1972) and Camicas *et al.* (1998), while it in Schulze (1936c) is a partly in fact *Bothriocroton concolor* (Neumann, 1899) as stated in Beati *et al.* (2008). Santos Dias (1993a) affirms that this tick has been confused with *Aponomma hydrosauri* (= *Bothriocroton hydrosauri*).
- 2111 *oudemansi* (Neumann, 1910b), *Bothriocroton*. It was originally named *Aponomma oudemansi*. This tick has usually been considered a member of *Aponomma*, but it is now placed in the genus *Bothriocroton* as stated in Beati *et al.* (2008).
- 2112 *oudemansi galactites* Schulze, 1941e, *Aponomma*. This name is a synonym of *Aponomma concolor* (Neumann, 1899) [= *Bothriocroton concolor* (Neumann, 1899)] in Kaufman (1972) and Camicas *et al.* (1998), and simultaneously a synonym of *Aponomma concolor* (Neumann, 1899) [= *Bothriocroton concolor* (Neumann, 1899)] and *Aponomma hydrosauri* (= *Bothriocroton hydrosauri*) in Santos Dias (1993a). The name *Aponomma oudemansi galactites* is *incertae sedis*.
- 2113 *oudemansi oudemansi* Neumann, 1910b, *Aponomma*. This name used in Schulze (1941e) is a synonym of *Aponomma concolor* (Neumann, 1899) [= *Bothriocroton concolor* (Neumann, 1899)] in Kaufman (1972), but a synonym of *Aponomma oudemansi* (= *Bothriocroton oudemansi*) in Santos Dias (1993a). The name *Aponomma oudemansi oudemansi* is a synonym of *Bothriocroton oudemansi* here.
- 2114 *ovale* Koch, 1844a, *Amblyomma*. This name in Neumann (1899) is a synonym of *Amblyomma auronitens* (= *Amblyomma ovale*) according to Neumann (1911a). However, this statement appears to be a *lapsus* in Neumann (1911a) because *Amblyomma auronitens* is a synonym of *Amblyomma ovale* in Neumann (1899), Aragão & Fonseca (1961), Camicas *et al.* (1998) and also here. Keirans (1985) found *Amblyomma striatum* (= *Amblyomma aureolatum*) identified as *Amblyomma ovale* in the Nuttall Tick Collection.
- 2115 *ovale kriegi* Aragão and Fonseca, 1961, *Amblyomma* (pages 133, 134). This name is a *lapsus* for *Amblyomma ovale kriegi* (= *Amblyomma ovale*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2116 *ovale kriegi* Schulze, 1941e, *Amblyomma*. This name is a synonym of *Amblyomma ovale* as stated in Aragão & Fonseca (1961) and Camicas *et al.* (1998).
- 2117 *ovale striatum* Koch, 1844a, *Amblyomma*. This name used in Fonseca (1934) is a synonym of *Amblyomma aureolatum*. This view is shared with Camicas *et al.* (1998) who based this decision on Aragão & Fonseca (1961), but the name *Amblyomma ovale striatum* is not mentioned in Aragão & Fonseca (1961).
- 2118 *ovata* Murata, Inoue, Taura, Nakama, Abe and Fujisaki, 1995, *Ixodes* (page 111). This name is a *lapsus* for *Ixodes ovatus*, but not included in Camicas *et al.* (1998). This *lapsus* is repeated in Hasegawa (2004, page 111) and others.
- 2119 *ovatum* Koch, 1844a, *Amblyomma*. This name is a synonym of *Amblyomma maculatum* in Neumann (1911a), but it is a synonym of *Amblyomma tigrinum* as stated in Kohls (1956b) and Camicas *et al.* (1998).
- 2120 *ovatus* Neumann, 1899, *Ixodes*. The type series of *Ixodes ovatus* contains also *Ixodes ricinus* according to Neumann (1911a). Morel (1963b) identified those alleged *Ixodes ricinus* as *Ixodes persulcatus*, but Yamaguti *et al.* (1971) state that they might be *Ixodes nipponensis*. The species 6 and 52 in Asanuma & Sekikawa (1952, 1953) and Asanuma (1955) (publications that were not located) are synonyms of *Ixodes ovatus* as stated in Yamaguti *et al.* (1971).
- 2121 *ozarkus* Cooley, 1944b, *Ixodes*. This name is a synonym of *Ixodes scapularis* Say, 1821 as stated in Keirans & Clifford (1978) and Camicas *et al.* (1998).

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2122 *pacae* Aragão, 1911, *Amblyomma*

2123 *pacificum* Murray, 1877, *Amblyomma*. This name is *incertae sedis* in Neumann (1911a), a doubtful name perhaps a

- synonym of *Amblyomma cyprium* (= *Amblyomma breviscutatum*) in Robinson (1926) and a probable synonym of *Amblyomma breviscutatum* in Camicas *et al.* (1998). The name *Amblyomma pacificum* is *incertae sedis* here.
- 2124 *pacificum* (Murray, 1877), *Haemalastor*. It was originally named *Amblyomma pacificum* (*incertae sedis*). The name *Haemalastor pacificum* used in Oudemans (1939) is a probable synonym of *Amblyomma breviscutatum* in Camicas *et al.* (1998). *Haemalastor pacificum* is a name *incertae sedis* synonym of *Amblyomma pacificum* (*incertae sedis*) here.
- 2125 *pacificus* Cooley and Kohls, 1943, *Ixodes*
- 2126 *pacificus* Randolph, 2004, *Ixodes* (page S55). This name is a *lapsus* for *Ixodes pacificus*.
- 2127 *pagurus* (Kolenati, 1859), *Ixodes*. It was originally named *Peplonyssus pagurus* (= *Ixodes vespertilionis*). The name *Ixodes pagurus* is used in Neumann (1911a as described in 1858), who regards it *incertae sedis* probably a synonym of *Ixodes vespertilionis*. *Ixodes pagurus* is probably a synonym of *Eschatocephalus vespertilionis* (= *Ixodes vespertilionis*) in Camicas *et al.* (1998 as described in 1858) and a probable synonym of *Ixodes vespertilionis* here.
- 2128 *pagurus* Kolenati, 1859, *Peplonyssus*. This name is a synonym of *Eschatocephalus vespertilionis* (= *Ixodes vespertilionis*) in Camicas *et al.* (1998 as described in 1858) and a probable synonym of *Ixodes vespertilionis* in Neumann (1911a as described in 1858). The name *Peplonyssus pagurus* is a probable synonym of *Ixodes vespertilionis* here.
- 2129 *palawanensis* Kohls, 1950b, *Haemaphysalis*
- 2130 *palestinensis* Minning, 1934, *Boophilus*. It was originally named *Boophilus calcaratus palestinensis*. The name *Boophilus palestinensis* used in Kishida (1939b) is a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) in Camicas *et al.* (1998). *Boophilus palestinensis* is a synonym of *Rhipicephalus annulatus*.
- 2131 *pallens* (Fabricius, 1805), *Haemalastor*. It was originally named *Ixodes pallens* (*nomen dubium*). The name *Haemalastor pallens* used in Oudemans (1936, page 511) is a *nomen dubium* synonym of *Ixodes pallens* (*nomen dubium*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2132 *pallens* Fabricius, 1805, *Ixodes*. This name is *incertae sedis* in Neumann (1911a), but a *nomen dubium* in Camicas *et al.* (1998) and here.
- 2133 *pallipes* Fabricius, 1781, *Acarus*. This name is a probable synonym of *Ixodes frontalis* in Camicas *et al.* (1998). The name *Acarus pallipes* Fabricius, 1781 is *incertae sedis* in Neumann (1911a with 1794 the year for its description) and here.
- 2134 *pallipes* (Fabricius, 1781), *Ixodes*. It was originally named *Acarus pallipes* Fabricius, 1781 (*incertae sedis*). The name *Ixodes pallipes* (Fabricius, 1781) used in Fabricius (1805), Koch (1847) and by a few other workers, is *incertae sedis* synonym of *Acarus pallipes* Fabricius, 1781 (*incertae sedis*) in Neumann (1911a with 1794 the year for its description) and here. However, this name is simultaneously a probable synonym of *Scaphixodes frontalis* (= *Ixodes frontalis*) and a *nomen nudum* in Camicas *et al.* (1998) and a probable synonym of *Ixodes brunneus* in Nuttall & Warburton (1911). Besides, the name *Ixodes pallipes* (Fabricius, 1781) in Koch (1844b) is in fact *Ixodes frontalis frontalis* (= *Ixodes frontalis*) in the opinion of Neumann (1911a).
- 2135 *pallipes* Koch, 1844b, *Ixodes*. This name is a synonym of *Ixodes frontalis* in Camicas *et al.* (1998, page 69). However, Koch, 1844b refers to *Ixodes pallipes* (Fabricius, 1781) (*incertae sedis*) in Fabricius (1805). The name *Ixodes pallipes* Koch, 1844b is a *nomen nudum*, but not included in Neumann (1911a) and Doss & Anastos (1977).
- 2136 *pallipes* Lucas, 1844a, *Ixodes* (sometimes cited 1836, 1840 or 1836-1844). This name is a *nomen dubium* as stated in Neumann (1911a close to *Hyalomma aegyptium*) and Camicas *et al.* (1998).
- 2137 *panamensis* Apanaskevich and Bermúdez, 2013, *Dermacentor*. Tick specimens from Costa Rica, Guatemala, Honduras and Panama identified as *Dermacentor halli* are in fact *Dermacentor panamensis*, and illustrations of *Dermacentor halli* in Yunker *et al.* (1986) correspond to *Dermacentor panamensis* as stated in Apanaskevich & Bermúdez (2013).
- 2138 *papillipes* Doss, Farr, Roach and Anastos 1974b, *Ixodes* (page 416). This name is a *lapsus* for *Ixodes pallipes* Lucas, 1844a (*nomen dubium*), but not included in Doss & Anastos (1977).
- 2139 *papuana* Hirst, 1914, *Amblyomma*. This name is a synonym of *Amblyomma papuanum* and its original name (Camicas *et al.* 1998).
- 2140 *papuana* Thorell, 1883, *Haemaphysalis*. Roberts (1963a) regards *Haemaphysalis papuana* Thorell, 1883 in Canestrini (1884) and Rainbow (1906) a probable synonym of *Haemaphysalis bancrofti*. Keirans (1985) found specimens of *Haemaphysalis nadchatrami* classified as *Haemaphysalis papuana* Thorell, 1883 and *Haemaphysalis papuana* Thorell, 1883 identified as *Haemaphysalis koningsbergeri* in the Nuttall Collection. Neumann (1911a) states that Thorell described this species in 1882.
- 2141 *papuana kinneari* Warburton, 1913, *Haemaphysalis*. This name used in Trapido *et al.* (1964b) and by a few other workers, is a synonym of *Haemaphysalis kinneari* as stated in Camicas *et al.* (1998).
- 2142 *papuana nadchatrami* Hoogstraal, Trapido and Kohls, 1965b, *Haemaphysalis*. This name is a synonym of *Haemaphysalis nadchatrami* and its original name as stated in Camicas *et al.* 1998).
- 2143 *papuana papuana* Thorell, 1883, *Haemaphysalis*. This name used in Trapido *et al.* (1964b) is a synonym of *Haemaphysalis papuana* Thorell, 1883 as stated in Camicas *et al.* (1998).
- 2144 *papuana toxopei* Warburton, 1927, *Haemaphysalis*. This name used in Hoogstraal (1964) is a synonym of *Haemaphysalis toxopei* as stated in Camicas *et al.* (1998).
- 2145 *papuanum* Hirst, 1914, *Amblyomma*. It was originally named *Amblyomma papuana* Hirst, 1914 and amended in Roberts (1964), but not included in Doss & Anastos (1977).
- 2146 *papuna* Nakamura and Yajima, 1937, *Haemaphysalis* (page 178). This name is a *lapsus* for *Haemaphysalis papuana*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).

- 2147 *parabolicus* Koch, 1844a, *Dermacentor*. This name is *incertae sedis* in Neumann (1911a) and a probable synonym of *Dermacentor reticulatus* (Fabricius, 1794) in Camicas *et al.* (1998). The name *Dermacentor parabolicus* is *incertae sedis*.
- 2148 *paradoxus* Kohls and Clifford, 1961, *Ixodes*. This name is a synonym of *Lepidixodes kopsteini* (= *Ixodes kopsteini*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes kopsteini* as stated in Kohls & Clifford (1968).
- 2149 *paraleachi* Camicas, Hoogstraal and El Kammah, 1983, *Haemaphysalis*. The name *Haemaphysalis leachi* in Rageau (1953a cited 1954) and Neumann (1897 in part), and *Haemaphysalis leachi leachi* (= *Haemaphysalis leachi*) in Lamontelliere (1960) and Elbl & Anastos (1966d) are in fact *Haemaphysalis paraleachi* according to Camicas *et al.* (1998).
- 2150 *paranaensis* Barros-Battesti, Arzua, Pichorim and Keirans, 2003, *Ixodes*
- 2151 *paranensis* Barker and Murrell, 2004, *Ixodes*. This name is a *lapsus* for *Ixodes paranaensis* repeated in Barker & Murrell (2008) as stated in Guglielmone *et al.* (2009).
- 2152 *pararicinus* Keirans and Clifford, 1985, *Ixodes*, in Keirans *et al.* (1985). This name is a synonym of *Ixodes aragoi* in Camicas *et al.* (1998) and Kolonin (2009). The name *Ixodes pararicinus* is valid and long confused with *Ixodes ricinus* as stated in Keirans *et al.* (1985) and Guglielmone *et al.* (2003, 2010b).
- 2153 *paraturturis* Hoogstraal, Trapido and Rebello, 1963, *Haemaphysalis*. This tick was originally identified as *Haemaphysalis bispinosa intermedia* Warburton and Nuttall, 1909 (= *Haemaphysalis intermedia* Warburton and Nuttall, 1909) in Nuttall & Warburton (1915) as stated in Hoogstraal *et al.* (1963).
- 2154 *pardalinus* Koch, 1844a, *Dermacentor*. This name is *incertae sedis*, probably a synonym of *Dermacentor reticulatus reticulatus* (Fabricius, 1794) [= *Dermacentor reticulatus* (Fabricius, 1794)] in Neumann (1911a) and Camicas *et al.* (1998). The name *Dermacentor pardalinus* is *incertae sedis*.
- 2155 *pari* Leach, 1815, *Ixodes*. This name is a probable synonym of *Ixodes brunneus* in Nuttall & Warburton (1911), a synonym of *Ixodes frontalis frontalis* (= *Ixodes frontalis*) in Neumann (1911a), a valid species in Arthur (1963) and a synonym of *Scaphixodes frontalis* (= *Ixodes frontalis*) in Camicas *et al.* (1998). The name *Ixodes pari* is a synonym of *Ixodes frontalis* as stated in Petney *et al.* (2012a). Authors as Schembri (2003) and Visser *et al.* (2011) still used the name *Ixodes pari* as valid.
- 2156 *parkeri* Fonseca and Aragão, 1951, *Amblyomma* (page 300). This name has no description or figure, a *nomen nudum*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2157 *parkeri* Fonseca and Aragão, 1952a, *Amblyomma*. This name is a synonym of *Amblyomma longirostre* in Estrada-Peña & Castellá (1994), but it is valid as stated in Camicas *et al.* (1998), Labruna *et al.* (2009b) and Guglielmone *et al.* (2010b, 2014). The name *Amblyomma parkeri* is not included in Horak *et al.* (2002).
- 2158 *parmata* Neumann, 1905, *Haemaphysalis*. Keirans (1985) found *Haemaphysalis aciculifer* identified as *Haemaphysalis parmata* in the Nuttall Tick Collection.
- 2159 *parumapertus* Neumann, 1901, *Dermacentor*. This name is a synonym of *Dermacentor variabilis parumapertus* (= *Dermacentor parumapertus*) in Neumann (1911a), but it is valid. Keirans (1985) found *Dermacentor parumapertus* identified as *Dermacentor marginatus* (Sulzer, 1776) in the Nuttall Tick Collection.
- 2160 *parumapertus albimarginatum* Schulze, 1929b, *Cynorhaestes*. This name is a *nomen dubium* as stated in Camicas *et al.* (1998).
- 2161 *parumapertus marginatus* (Banks, 1908), *Cynorhaestes*. It was originally named *Dermacentor parumapertus marginatus* (= *Dermacentor parumapertus*). The name *Cynorhaestes parumapertus marginatus* used in Schulze (1929b) is a synonym of *Dermacentor parumapertus* as stated in Camicas *et al.* (1998).
- 2162 *parumapertus marginatus* Banks, 1908, *Dermacentor*. This name is a synonym of *Dermacentor parumapertus* as stated in Cooley (1938) and Camicas *et al.* (1998).
- 2163 *parumpertus* Allred, Stagg and Lavender, 1956, *Dermacentor* (page 144). This name is a *lapsus* for *Dermacentor parumapertus*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Alexander (1994, page 370) and Padgett *et al.* (2009, page 1141) among others.
- 2164 *parva* (Neumann, 1897), *Haemaphysalis*. It was originally named *Dermacentor parvus* Neumann, 1897, but amended and given its current status in Morel (1963a), not in Nuttall & Warburton (1915) as stated in Doss & Anastos [1977 spelled *Haemaphysalis parvus* (Neumann, 1897)]. Keirans (1985) found *Haemaphysalis parva* (Neumann 1897) identified as *Haemaphysalis cinnabarina*, *Haemaphysalis inermis* Birula, 1895 and *Haemaphysalis punctata* Canestrini and Fanzago, 1878, while *Haemaphysalis turturis* was found identified as *Haemaphysalis parva* (Neumann, 1897) in the Nuttall Collection. The name *Haemaphysalis parva* (Neumann, 1897) is not included in Doss & Anastos (1977).
- 2165 *parva* Neumann, 1908d, *Haemaphysalis*. This name was preoccupied by *Haemaphysalis parva* (Neumann 1897) and replaced by *Haemaphysalis intermedia* Warburton and Nuttall, 1909 as stated in Trapido & Hoogstraal (1963). Therefore the name *Haemaphysalis parva* Neumann, 1908d is a synonym of *Haemaphysalis intermedia* Warburton and Nuttall, 1909.
- 2166 *parvirostris* Neumann, 1901, *Ixodes*. This name is a synonym of *Ixodes eudyptidis signatus* (= *Ixodes signatus*) in Neumann (1911a) and a synonym of *Scaphixodes signatus* (= *Ixodes signatus*) in Camicas *et al.* (1998). The name *Ixodes parvirostris* is a synonym of *Ixodes signatus* as stated in Keirans & Clifford (1978).
- 2167 *parviscutatum* Neumann, 1899, *Amblyomma*. This name is a synonym of *Amblyomma cajennense parviscutatum* (*incertae sedis*) in Neumann (1911a) and a synonym of *Amblyomma cajennense* in Robinson (1926), Camicas *et al.* (1998) and Dantas-Torres *et al.* (2009). The description of *Amblyomma parviscutatum* is not precise and type location

unknown and it is treated as a name *incertae sedis* here.

- 2168 *parvitarsum* Tagle, 1976, *Amblyomma* (page 137). This name is a *lapsus* for *Amblyomma parvitarsum*, but not included in Camicas *et al.* (1998).
- 2169 *parvitarsum* Neumann, 1901, *Amblyomma*. The name *Amblyomma neumanni* Ribaga, 1902 in Voltzit (2007) is in fact *Amblyomma parvitarsum* as stated in Nava *et al.* (2009a).
- 2170 *parvu* Venzal and Nava, 2011, *Amblyomma* (page 100). This name is a *lapsus* for *Amblyomma parvum* Aragão, 1908a.
- 2171 *parvum* Aragão, 1908a, *Amblyomma*. Guzmán-Cornejo *et al.* (2011) found *Amblyomma auricularium* identified as *Amblyomma parvum* Aragão, 1908a in a Mexican tick collection.
- 2172 *parvu* Nabian, Rahbari, Shayan and Haddadzadeh, 2007, *Haemaphysalis* (page 13). This name is a *lapsus* for *Haemaphysalis parva* (Neumann, 1897) repeated in Faizi *et al.* (2011, page 7).
- 2173 *parvum carenatus* Ivancovich, 1973, *Amblyomma*. This name is a synonym of *Amblyomma parvum* Aragão, 1908a as stated in Guglielmone & Viñabal (1994), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). The correct name for the subspecific epithet should be *carenum*.
- 2174 *parvus* Harkema, 1936, *Amblyomma* (page 198). This name is a *lapsus* for *Amblyomma parvum* Aragão, 1908a, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2175 *parvus* Neumann, 1897, *Dermacentor*. This name is *incertae sedis* in Neumann (1911a), but it is a synonym of *Haemaphysalis parva* (Neumann, 1897) and its original name as stated in Morel (1963a) and Camicas *et al.* (1998).
- 2176 *parvus* (Neumann, 1897), *Haemaphysalis*. It was originally named *Dermacentor parvus* Neumann, 1897 [= *Haemaphysalis parva* (Neumann, 1897)], and placed in the genus *Haemaphysalis* and amended to *Haemaphysalis parva* in Morel (1963a). Doss & Anastos (1977) stated that *Dermacentor parvus* Neumann, 1897 was placed in the genus *Haemaphysalis* in Nuttall & Warburton (1915), but the latter authors referred to *Haemaphysalis parva* Neumann, 1908d. The name *Haemaphysalis parvus* (Neumann, 1897) is not included in Camicas *et al.* (1998).
- 2177 *pasificus* Çevik, 2006, *Ixodes* (page 57). This name is a *lapsus* for *Ixodes pacificus* repeated in Tsachev (2009, page 68) and others.
- 2178 *passericola* Schulze, 1933c, *Ixodes*. This name is a synonym of *Pholeoixodes arboricola* (= *Ixodes arboricola*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes arboricola* as stated in Haarløv (1962).
- 2179 *passerinus* Berkenhout, 1769, *Acarus*. This name is a probable synonym of *Scaphixodes frontalis* (= *Ixodes frontalis*) in Camicas *et al.* (1998), but not included in Neumann (1911a) and Doss & Anastos (1977). It is not clear from the description if *Acarus passerinus* is a tick. The name *Acarus passerinus* is a *nomen dubium* here.
- 2180 *patagonicum* Schulze, 1936c, *Aponomma*. This name is a synonym of *Aponomma flavomaculatum* (= *Amblyomma flavomaculatum*) in Santos Dias (1993a), and a synonym of *Aponomma gervaisi* (= *Amblyomma gervaisi*) in Kaufman (1972) and Camicas *et al.* (1998). The type of *Aponomma patagonicum* is apparently lost according to Santos Dias (1993a). The name *Aponomma patagonicum* is *incertae sedis* here.
- 2181 *pattoni* (Neumann, 1910a), *Amblyomma*. It was originally named *Aponomma pattoni*. This species has usually been considered a member of *Aponomma*, but it is now placed in the genus *Amblyomma* (Horak *et al.* 2002; Klompen *et al.* 2002).
- 2182 *pattoni* Neumann, 1910a, *Aponomma*. This name is valid in Camicas *et al.* (1998), but it is a synonym of *Amblyomma pattoni* and its original name. Keirans (1985) found *Aponomma pattoni* (= *Amblyomma pattoni*) identified as *Aponomma laeve* (*incertae sedis*).
- 2183 *paulopunctatum* Neumann, 1899, *Amblyomma*. This name is a synonym of *Amblyomma sparsum paulopunctatum* (= *Amblyomma paulopunctatum*) in Neumann (1911a). The name *Amblyomma paulopunctatum* in Rageau (1951) is partly in fact *Amblyomma nuttalli* Dönitz, 1909 according to Theiler & Salisbury (1959), who also state that *Amblyomma paulopunctatum* has been identified as *Amblyomma sparsum*. Morel & Mouchet (1965) state that *Amblyomma paulopunctatum* in Theiler (1962) is partly in fact *Amblyomma tholloni*.
- 2184 *paulopunctatus* Neumann, 1897, *Rhipicephalus*. This name is a synonym of *Rhipicephalus haemaphysaloides* (= *Rhipicephalus haemaphysaloides*) in Neumann (1911a) and Teng & Jiang (1991), and a synonym of *Rhipicephalus haemaphysaloides pilans* (= *Rhipicephalus pilans*) in Camicas *et al.* (1998) among others. The name *Rhipicephalus paulopunctatus* is a synonym of *Rhipicephalus pilans* as stated in Walker *et al.* (2000).
- 2185 *paulopunctatum* Morel and Finelle, 1961, *Amblyomma* (page 191). This name is a *lapsus* for *Amblyomma paulopunctatum*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2186 *pavlovskyi* (Olenev, 1927), *Cynorhaestes*. This name used in Olenev (1931d) is a synonym of *Dermacentor pavlovskyi* Olenev, 1927 as stated in Camicas *et al.* (1998).
- 2187 *pavlovskyi* Olenev, 1927, *Dermacentor*
- 2188 *pavlovskyi* Pospelova-Shtrom, 1935b, *Haemaphysalis*. This name is a probable synonym of *Haemaphysalis doenitzi* in Hoogstraal & Wassef (1973) and a certain synonym of *Haemaphysalis doenitzi* in Camicas *et al.* (1998) and Kolonin (2009). The name *Haemaphysalis pavlovskyi* is valid as stated in Filippova (1997) and Guglielmone *et al.* (2009, 2010b, 2014).
- 2189 *pavlovskyi* Schulze and Schlottke, 1929a, *Hyalomma*. This name used in Olenev (1931b, c) and by a few other workers, is a synonym of *Hyalomma anatolicum anatolicum* (= *Hyalomma anatolicum*) as stated in Camicas *et al.* (1998).
- 2190 *pavlovskyi* Pomerantzev, 1946, *Ixodes*
- 2191 *pavlovskyi occidentalis* Filippova and Panova, 1998, *Ixodes*. This name is a synonym of *Ixodes pavlovskyi* Pomerantzev,

1946.

- 2192 *pavlovskiyi pavlovskiyi* Pomerantzev, 1946, *Ixodes*. This name used in Filippova & Panova (1998) is a synonym of *Ixodes pavlovskiyi* Pomerantzev, 1946.
- 2193 *pavlovskiyi* Filippova and Panova, 1986, *Dermacentor* (page 340). This name is a *lapsus* for *Dermacentor pavlovskiyi* Olenev, 1927, but not included in Camicas *et al.* (1998).
- 2194 *pecarium* Dunn, 1933, *Amblyomma*
- 2195 *pedetes* Hoogstraal, 1972b, *Haemaphysalis*. This tick was originally identified as *Haemaphysalis cooleyi* Bedford, 1929 by this author, and under the name *Haemaphysalis numidiana* (= *Haemaphysalis erinacei* Pavesi, 1884) in Warburton (1933) and Cooley (1934) as shown in Hoogstraal (1972b). The undescribed species of *Haemaphysalis* in Hoogstraal (1955a) is *Haemaphysalis pedetes* as stated in Hoogstraal (1972b).
- 2196 *penetrans* Mégnin, 1880, *Ixodes*. This name is a *nomen dubium* in Camicas *et al.* (1998), but not included in Neumann (1911a). The name *Ixodes penetrans* has no description or figure, a *nomen nudum*.
- 2197 *pentalagi* Pospelova-Shtrom, 1935b, *Haemaphysalis*
- 2198 *percavatus* Neumann, 1906, *Ixodes*. This name is a synonym of *Ixodes auritulus* in Santos Dias (1958a) and a synonym of *Scaphixodes percavatus* in Camicas *et al.* (1998), but it is valid. Roberts (1960) states that *Ixodes percavatus* in Tubb (1937) is actually *Ixodes kohlsi* Arthur, 1955b. Wilson (1970) asserts that *Ixodes percavatus* in André (1947) is in fact *Ixodes kerguelenensis*. Keirans (1985) found *Ixodes rothschildi* and *Ixodes auritulus zealandicus* Dumbleton, 1961 (= *Ixodes auritulus*), spelled *Ixodes auritulus zelandicus* (*lapsus*), identified as *Ixodes percavatus* in the Nuttall Collection, while Halliday (2012) states that *Ixodes percavatus* in Taylor (1946) are partly *Ixodes eudypitidis* and *Ixodes kohlsi*.
- 2199 *percavatus* (Neumann, 1906), *Scaphixodes*. It was originally named *Ixodes percavatus*. The name *Scaphixodes percavatus* is valid in Camicas *et al.* (1998), but it is a synonym of *Ixodes percavatus*.
- 2200 *percavatus rothschildi* Nuttall and Warburton, 1911, *Ixodes*. This name is a synonym of *Ixodes rothschildi* and its original name as stated in Keirans & Hillyard (2001). The name *Ixodes percavatus rothschildi* is a synonym of *Scaphixodes rothschildi* (= *Ixodes rothschildi*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes rothschildi*. However, *Ixodes percavatus rothschildi* in Arthur (1953a) is in fact *Ixodes auritulus* according to Gregson (1956).
- 2201 *perculatus* Lin, Li, Dick, Shope, Feldmann, Barrett and Holbrook, 2003, *Ixodes* (page 88). This name is a *lapsus* for *Ixodes persulcatus*.
- 2202 *peregrina* Pickard-Cambridge, 1889, *Haemaphysalis*. It was originally named *Haemaphysalis peregrinus* (*nomen dubium*) and amended in Neumann (1911a), who regards this name *incertae sedis*. The name *Haemaphysalis peregrina* is simultaneously a *nomen nudum* and a synonym of *Haemaphysalis punctata* Canestrini and Fanzago, 1878 in Camicas *et al.* (1998). *Haemaphysalis peregrina* is a *nomen dubium* synonym of *Haemaphysalis peregrinus* (*nomen dubium*) here. Doss & Anastos (1977) stated that the year of description of *Haemaphysalis peregrina* is 1899.
- 2203 *peregrinus* Pickard-Cambridge, 1889, *Haemaphysalis*. This name is a synonym of *Haemaphysalis peregrina* (*nomen dubium*) in Neumann (1911a) and simultaneously a *nomen nudum* and a synonym of *Haemaphysalis punctata* Canestrini and Fanzago, 1878 in Camicas *et al.* (1998). The description of *Haemaphysalis peregrinus* is poor and type lost as stated in Nuttall & Warburton (1915). The name *Haemaphysalis peregrinus* is a *nomen dubium*, but not included in Doss & Anastos (1977).
- 2204 *perigrinus* Neumann, 1897, *Haemaphysalis* (page 327). This name is a *lapsus* for *Haemaphysalis peregrinus* (*nomen dubium*), but not included in Neumann (1911a) and Doss & Anastos (1977).
- 2205 *peromysci* Auguston, 1940, *Ixodes*
- 2206 *perpulcher* Gerstäcker, 1873, *Rhipicephalus*. This name is a synonym of *Rhipicephalus simus* in Neumann (1911a), but it is a synonym of *Rhipicephalus praetextatus* as stated in Camicas *et al.* (1998) and Walker *et al.* (2000).
- 2207 *perpunctatum* (Packard, 1869), *Amblyomma*. It was originally named *Ixodes perpunctatus* (*nomen dubium*). The name *Amblyomma perpunctatum* used first in Neumann (1911a) as *incertae sedis*, probably a synonym of *Amblyomma geayi*, is valid in Santos Dias (1961b), Camicas *et al.* (1998) and others, prevailing over *Amblyomma geayi*. Robinson (1926) treats *Amblyomma perpunctatum* doubtful and Fairchild *et al.* (1966) state that its description is inadequate. The name *Amblyomma perpunctatum* is a *nomen dubium* synonym of *Ixodes perpunctatus* (*nomen dubium*), but not included in Doss & Anastos (1977).
- 2208 *perpunctatus* (Packard, 1869), *Amblyomma*. This name is in Doss & Anastos (1977) based on Neumann (1911a), but this author used the correct name *Amblyomma perpunctatum* (*nomen dubium*). The name *Amblyomma perpunctatus* is a *nomen dubium* synonym of *Ixodes perpunctatus* (*nomen dubium*), but not included in Camicas *et al.* (1998).
- 2209 *perpunctatus* Packard, 1869, *Ixodes*. This name is a synonym of *Amblyomma perpunctatum* (*nomen dubium*) in Camicas *et al.* (1998). The description of *Ixodes perpunctatus* is poor as stated in Fairchild *et al.* (1966) and treated here as a *nomen dubium*.
- 2210 *perrum* Babos, 1964a (page 169), *Amblyomma*. This name has no figure or description, a *nomen nudum*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2211 *persicus* Minning, 1936, *Boophilus*. This name is a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) as stated in Camicas *et al.* (1998).
- 2212 *persicus* Enigk, 1951, *Dermacentor*. This name is simultaneously a *nomen nudum* and a *lapsus* for an undetermined species in Camicas *et al.* (1998), and also listed in Doss & Anastos (1977). The name *Dermacentor persicus* Enigk, 1951 has not been found in Enigk (1951). *Dermacentor persicus* Enigk, 1951 is a *nomen nudum* here.

- 2213 *personatum* Neumann, 1901, *Amblyomma*
- 2214 *persulatus* Huang, Wang, Lin, Chiu, Kao, Lee, Wang, Hung, Chan, Wu, Chiang and Mu, 2010, *Ixodes* (page 878). This name is a *lapsus* for *Ixodes persulcatus* repeated in Wu *et al.* (2013, page 4) and others.
- 2215 *persulcatus* Schulze, 1930d, *Ixodes*. The type series of *Ixodes ovatus* contains specimens of *Ixodes ricinus* according to Neumann (1911a), but Morel (1963b) identified those *Ixodes ricinus* as *Ixodes persulcatus* and Yamaguti *et al.* (1971) state that they might be *Ixodes nipponensis*. Species 2 and 54 of *Ixodes* in Asanuma & Sakikawa (1952, 1953 publication that were not located) are in fact *Ixodes persulcatus* as stated in Yamaguti *et al.* (1971).
- 2216 *persulcatus cornuatus* Olenev, 1941, *Ixodes*. This name is a synonym of *Ixodes persulcatus* in Camicas *et al.* (1998). The name *Ixodes persulcatus cornuatus* Olenev, 1941 is a name without description, a *nomen nudum* as stated in Guglielmone *et al.* (2009).
- 2217 *persulcatus diversipalpis* Schulze, 1930d, *Ixodes*. This name is a synonym of *Ixodes persulcatus* as stated in Camicas *et al.* (1998) and Filippova (2008).
- 2218 *persulcatus kaschmiricus* Pomerantzev, 1948, *Ixodes*. It is a *lapsus* in the original description of *Ixodes persulcatus kashmiricus* (= *Ixodes kashmiricus*) and amended in Pomerantzev (1950). Doss & Anastos (1977) and Camicas *et al.* (1998) maintained the name of the subspecies as *kaschmiricus*.
- 2219 *persulcatus kashmiricus* Pomerantzev, 1948, *Ixodes*. It was originally named *Ixodes persulcatus kaschmiricus* (= *Ixodes kashmiricus*) and amended in Pomerantzev (1950). The name *Ixodes persulcatus kashmiricus* is a synonym of *Ixodes kashmiricus*. Doss & Anastos (1977) and Camicas *et al.* (1998) spelt the name of the subspecies as *kaschmiricus*.
- 2220 *persulcatus persulcatus* Schulze, 1930d, *Ixodes*. This name used in Schulze (1930d) and by a few other workers, is a synonym of *Ixodes persulcatus* in Yamaguti *et al.* (1971), who also states that *Ixodes persulcatus persulcatus* in Keegan & Toshioka (1957) is in fact *Ixodes nipponensis*
- 2221 *persulcatus* Çevik, 2006, *Ixodes* (page 57). This name is a *lapsus* for *Ixodes persulcatus* repeated in Leedom (2006, page 612) among others.
- 2222 *persuleatus* Yu, Ye and Dong, 1997, *Ixodes* (page 43). This name is a *lapsus* for *Ixodes persulcatus*.
- 2223 *petauristae* Warburton, 1933, *Ixodes*
- 2224 *petersi* Karsch, 1878, *Amblyomma*. This name is valid in Neumann (1911a), but it is a synonym of *Amblyomma rhinocerotis* (De Geer, 1778) as stated in Santos Dias (1958a) and Camicas *et al.* (1998). Keirans (1985) found *Amblyomma sparsum* identified as *Amblyomma petersi* [= *Amblyomma rhinocerotis* (De Geer, 1778)] in the Nuttall Tick Collection.
- 2225 *petrogalis* Roberts, 1970, *Haemaphysalis*
- 2226 *petrus* Alexander, 1984, *Ixodes* (page 369). This name has no description or figure, a *nomen nudum*, but not included in Camicas *et al.* (1998).
- 2227 *phascolomyis* (Macalister, 1871), *Aponomma*. It was originally named *Ixodes phascolomyis* (*nomen dubium*). The name *Aponomma phascolomyis* used in Santos Dias (1958d) is a synonym of *Aponomma auruginans* (= *Bothriocroton auruginans*) in Santos Dias (1993a) and Camicas *et al.* (1998). *Aponomma phascolomyis* is a *nomen dubium* synonym of *Ixodes phascolomyis* (*nomen dubium*).
- 2228 *phascolomyis* Macalister, 1871, *Ixodes*. This name is *incertae sedis* in Neumann (1911a) and Halliday (2012), and simultaneously a synonym of *Aponomma auruginans* (= *Bothriocroton auruginans*) and a *nomen nudum* in Camicas *et al.* (1998). The descriptions of *Ixodes phascolomyis* is vague and types lost as stated in Kaufman (1972). *Ixodes phascolomyis* is a *nomen dubium* here, but Green (2006) treats this name as valid.
- 2229 *phascolymis* Macalister, 1871, *Ixodes* (page 166). This name is a *lapsus* for *Ixodes phascolomyis* (*nomen dubium*), but not included in Neumann (1911a), Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2230 *phasiana* Saito, Hoogstraal and Wassef, 1974, *Haemaphysalis*. This name is a synonym of *Haemaphysalis doenitzi* in Kolonin (2009). The name *Haemaphysalis phasiana* is valid as stated in Camicas *et al.* (1998) and Guglielmone *et al.* (2010b, 2014). The species of *Haemaphysalis incertae sedis* in Keegan & Toshioka (1957) and the undescribed species of *Haemaphysalis* in Hoogstraal & Wassef (1973) are in fact *Haemaphysalis phasiana* as stated in Saito *et al.* (1974). The name *Haemaphysalis phasiana* is not included in Doss & Anastos (1977).
- 2231 *philipi* Cooley and Kohls, 1939, *Amblyomma*. This name is a synonym of *Amblyomma inornatum* as stated in Cooley & Kohls (1944b) and Camicas *et al.* (1998).
- 2232 *philipi* Keirans and Kohls, 1970, *Ixodes*. This name is a synonym of *Scaphixodes philipi* (Keirans & Kohls 1970) in Camicas *et al.* (1998), but it is valid.
- 2233 *philipi* (Keirans and Kohls, 1970), *Scaphixodes*. It was originally named *Ixodes philipi* Keirans and Kohls, 1970. The name *Scaphixodes philipi* (Keirans and Kohls, 1970) is valid in Camicas *et al.* (1998), but it is a synonym of *Ixodes philipi* Keirans and Kohls, 1970.
- 2234 *phthirioides* (Cooper and Robinson, 1907), *Margaropus*. It was originally named *Rhipicephalus phthirioides* (= *Margaropus winthemi*). The name *Margaropus phthirioides* used in Gedoelst (1911) is a synonym of *Margaropus winthemi* as stated in Camicas *et al.* (1998).
- 2235 *phthirioides* Cooper and Robinson, 1907, *Rhipicephalus*. This name is a synonym of *Margaropus lounsburyi* Neumann, 1907b (= *Margaropus winthemi*) in Neumann (1911a), but it is a synonym of *Margaropus winthemi* as stated in Walker *et al.* (2000).
- 2236 *pictum* Neumann, 1906, *Amblyomma*

- 2237 *pictus*, Fennel? [sic] (no year), *Acarus* in Cooper & Busk, 1842 (page 31). This name is in Cooper & Busk (1842) extracted from The Mirror (N° 1805) a publication not located. The name *Acarus pictus* Fennel?, no year, is a *nomen dubium*, but not included in Neumann (1911a), Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2238 *pictus* Hermann, 1804, *Cynorhaestes*. This name is a synonym of *Dermacentor reticulatus* (Fabricius, 1794) [= *Dermacentor reticulatus* (Fabricius, 1794)] in Neumann (1911a). The name *Cynorhaestes pictus* Hermann, 1804 is a synonym of *Dermacentor reticulatus* as stated in Camicas *et al.* (1998).
- 2239 *pictus* (Hermann, 1804), *Dermacentor*. It was originally named *Cynorhaestes pictus* Hermann, 1804 [(= *Dermacentor reticulatus* (Fabricius, 1794))]. The name *Dermacentor pictus* (Hermann, 1804) used in Schulze (1933b) is a synonym of *Dermacentor reticulatus* (Fabricius, 1794) as stated in Camicas *et al.* (1998) and Petney *et al.* (2012a).
- 2240 *pictus* (Hermann, 1804), *Ixodes*. It was originally named *Cynorhaestes pictus* Hermann, 1804 [= *Dermacentor reticulatus* (Fabricius, 1794)]. The name *Ixodes pictus* (Hermann, 1804) used in Gervais (1844) and by a few other workers, is a synonym of *Dermacentor reticulatus reticulatus* (Fabricius, 1794) [= *Dermacentor reticulatus* (Fabricius, 1794)] in Neumann (1911a). *Ixodes pictus* (Hermann, 1804) is a synonym of *Dermacentor reticulatus* as stated in Camicas *et al.* (1998).
- 2241 *pictus* (Fennel, 1841), *Ixodes*. It was originally named *Acarus pictus* Fennel? [sic], no year (*nomen dubium*). The name *Ixodes pictus* (Fennel, 1841) is a synonym of *Haemalastor fennelli* (*nomen dubium*) in Oudemans, 1936, but the year for its description by Fennel is uncertain and presented in Cooper & Busk (1842). The name *Ixodes pictus* (Fennel, 1841) is a name *incertae sedis* probably an *Amblyomma* in Neumann (1911a) and a *nomen dubium* in Camicas *et al.* (1998). *Ixodes pictus* (Fennel, 1841) is a *nomen dubium* synonym of *Acarus pictus* Fennel?, no year (*nomen dubium*), but not included in Doss & Anastos (1977). Gervais (1844), who believes that this name is a *lapsus*, Neumann (1911a) and Camicas *et al.* (1998) name this tick under the authority of Cooper, 1842.
- 2242 *pilans* Schulze, 1935a, *Rhipicephalus*. This name is a synonym of *Rhipicephalus haemaphysaloides pilans* (= *Rhipicephalus pilans*) in Camicas *et al.* (1998), but it is valid as stated in Walker *et al.* (2000).
- 2243 *pilosum* Neumann, 1899, *Amblyomma*. This name in Robinson (1926) is in fact *Amblyomma macfarlandi* as stated in Keirans & Hillyard (2001).
- 2244 *pilosus* Koch, 1844a, *Ixodes*. Keirans (1985) found *Ixodes cavipalpus* Nuttall and Warburton, 1908 and *Ixodes lewisi* Arthur, 1965 identified as *Ixodes pilosus* in the Nuttall Collection. McKay (1994) believes that there are three species under the name *Ixodes pilosus*.
- 2245 *pilosus howardi* Neumann, 1909b, *Ixodes*. This name is partly a synonym of *Eschatocephalus simplex* (= *Ixodes simplex* Neumann, 1906) and *Ixodes pilosus* in Camicas *et al.* (1998). The name *Ixodes pilosus howardi* is a *nomen dubium*.
- 2246 *pilotus* Galli-Valerio, 1909, *Ixodes* (page 539). This name is a *lapsus* for *Ixodes pilosus*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2247 *pinolillo* Doss and Anastos, 1977, *Haemaphysalis*. This name is in Doss & Anastos (1977) based on Dugès (1902) and treated as a *nomen dubium* in Camicas *et al.* (1998). However, Dugès (1902) did not describe a species named *Haemaphysalis pinolillo*, rather it is a vulgar name for the nymph of *Haemaphysalis leporis* (Packard, 1869) (= *Haemaphysalis leporispalustris*). The name *Haemaphysalis pinolillo* allegedly described by Dugès (1902) is a *nomen nudum*, but not included in Neumann (1911a).
- 2248 *piresi* Santos Dias, 1950c, *Rhipicephalus*. This name is a synonym of *Rhipicephalus punctatus* Warburton, 1912 in Camicas *et al.* (1998) and a synonym of *Rhipicephalus kochi* Dönitz, 1905 in Walker *et al.* (2000). The name *Rhipicephalus piresi* is *incertae sedis*.
- 2249 *planum* Schulze, 1920, *Hyalomma* (usually cited 1919). This name is a synonym of *Hyalomma truncatum* as stated in Camicas *et al.* (1998) and Apanaskevich & Horak (2008a).
- 2250 *planum albiparmatum* Schulze, 1920, *Hyalomma* (usually cited 1919). This name is a synonym of *Hyalomma albiparmatum* as stated in Camicas *et al.* (1998) and Apanaskevich & Horak (2008a).
- 2251 *planum rhinocerotis* Schulze and Schlottke, 1929a, *Hyalomma*. This name used in Kratz (1940) is a synonym of *Hyalomma truncatum* according to Camicas *et al.* (1998). This synonymy is provisionally valid because is not included among the synonyms of *Hyalomma truncatum* listed in Apanaskevich & Horak (2008a).
- 2252 *planus* Rudow, 1870, *Dermacentor*. This name is *incertae sedis* in Neumann (1911a), a synonym of *Rhipicephalus planus* Neumann, 1907f in Estrada-Peña (1991) and a probable synonym of *Dermacentor reticulatus* (Fabricius, 1794) in Arthur (1960a) and Camicas *et al.* (1998). The name *Dermacentor planus* Rudow, 1870 is *incertae sedis* here.
- 2253 *planus* Neumann, 1907f, *Rhipicephalus*. It was originally named *Rhipicephalus simus planus* Neumann, 1907f and given the current status in Morel (1969), but not included in Doss & Anastos (1977).
- 2254 *planus* Neumann, 1910a, *Rhipicephalus*. This name was preoccupied by *Rhipicephalus simus planus* Neumann, 1907f (= *Rhipicephalus planus* Neumann, 1907f), and renamed *Rhipicephalus complanatus* in Neumann (1911b). Therefore, *Rhipicephalus planus* Neumann, 1910a is a synonym of *Rhipicephalus complanatus*.
- 2255 *planus complanatus* Neumann, 1911b, *Rhipicephalus*. This name used in Zumpt (1943a) and by a few other workers, is a synonym of *Rhipicephalus complanatus* as stated in Walker *et al.* (2000), but this name in Rageau (1951) is in fact *Rhipicephalus senegalensis* according to Camicas *et al.* (1998).
- 2256 *planus planus* Neumann, 1907f, *Rhipicephalus*. This name used in Zumpt (1943a) and by a few other workers, is a synonym of *Rhipicephalus planus* Neumann, 1910a (= *Rhipicephalus complanatus*) in Walker *et al.* (2000), but Zumpt (1943a) refers to *Rhipicephalus planus* Neumann, 1907f, and Morel (2003) regards *Rhipicephalus planus planus* a

- synonym of *Rhipicephalus planus* Neumann, 1907f. The name *Rhipicephalus planus planus* is a synonym of *Rhipicephalus planus* Neumann, 1907f here, but not included in Camicas *et al.* (1998).
- 2257 *planus typica* Zumpt, 1956, *Rhipicephalus*. This name is a synonym of *Rhipicephalus planus* Neumann, 1907f as stated in Camicas *et al.* (1998), but not included in Doss & Anastos (1977) and Walker *et al.* (2000).
- 2258 plombé Dugès, 1834b, ixode. It was originally named *Ixodes plumbeus* in Dugès (1834a) (*nomen nudum*) and ixode plombé is its vulgar name. Gervais (1844) considers this name preoccupied by *Ixodes plumbeus* Leach, 1815 (= *Ixodes lividus* Koch, 1844a) and *Ixodes plumbeus* (Panzer, 1795) (*incertae sedis*) in Fabricius (1805) and renamed it *Ixodes dugesi* Gervais, 1844 (*incertae sedis*). Camicas *et al.* (1998) spelt this name “*?Ixode plombé*”.
- 2259 *plombé* Dugès, 1834b, *Ixode* [sic]. This name is a synonym of *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition) in Camicas *et al.* (1998) based on Neumann (1897), but this author listed the name without italics as “*Ixode plombé*” not “*Ixode plombé*”. In any situation the name *Ixode plombé* is corrected to *Ixode plombe* and is not included in lists 2 or 3 of this study.
- 2260 *plombe* Dugès, 1834b, *Ixodes*. It was originally spelled ixode plombé in Dugès, 1834b which is the vulgar name of *Ixodes plumbeus* Dugès, 1834a. Doss & Anastos (1977) write this name *Ixodes plombe* Dugès, 1834b giving it the status of a scientific name, but this decision is not validated here. *Ixodes plombe* is a *nomen nudum*.
- 2261 *plumbeum* Grebenyuk and Sartbaev, 1961, *Haemaphysalis*. This name is a *lapsus* and a synonym of *Hyalomma marginatum marginatum* (= *Hyalomma marginatum*) in Camicas *et al.* (1998), but there is no evidence that this name was used in Grebenyuk & Sartbaev (1961) according to Apanaskevich & Horak (2008b). The name *Haemaphysalis plumbeum* Grebenyuk and Sartbaev, 1961, is a *nomen nudum*, but not included in Doss & Anastos (1977).
- 2262 *plumbeum* (Panzer, 1795), *Hyalomma*. It was originally named *Acarus plumbeus* Panzer, 1795 (*incertae sedis*). The name *Hyalomma plumbeum* (Panzer, 1795) used first in Vlasov (1940) as a synonym of *Hyalomma marginatum*, is also *incertae sedis* synonym of *Acarus plumbeus* Panzer, 1795 (*incertae sedis*). However, the name *Hyalomma plumbeum* (Panzer, 1795) used in many studies is in fact *Hyalomma marginatum*.
- 2263 *plumbeum impressum* Koch, 1844a, *Hyalomma*. This name used in Pomerantzev (1950) and by a few other workers, is a synonym of *Hyalomma marginatum rufipes* Koch, 1844a (= *Hyalomma rufipes* Koch, 1844a) in Camicas *et al.* (1998), but it is a synonym of *Hyalomma rufipes* Koch, 1844a as stated in Apanaskevich & Horak (2008b).
- 2264 *plumbeum nigricum* Serdjukova, 1955, *Hyalomma*. This name is a synonym of *Hyalomma marginatum marginatum* (= *Hyalomma marginatum*) in Camicas *et al.* (1998). The name *Hyalomma plumbeum nigricum* is a synonym of *Hyalomma marginatum* as stated in Apanaskevich & Horak (2008b) and Filippova (2008).
- 2265 *plumbeum plumbeum* (Panzer, 1795), *Hyalomma*. It was originally named *Acarus plumbeus* Panzer, 1795 (*incertae sedis*). The name *Hyalomma plumbeum plumbeum* (Panzer, 1795) is also *incertae sedis* and its synonym. However, the name *Hyalomma plumbeum plumbeum* (Panzer, 1795) used in Pomerantzev (1950) and several workers after him, is in fact *Hyalomma marginatum marginatum* (= *Hyalomma marginatum*) in Camicas *et al.* (1998) and *Hyalomma marginatum* in Apanaskevich & Horak (2008b).
- 2266 *plumbeum turanicum* Pomerantzev, 1946, *Hyalomma*. This name used first in Pomerantzev (1950) is a synonym of *Hyalomma marginatum turanicum* (= *Hyalomma turanicum*) in Camicas *et al.* (1998). The name *Hyalomma plumbeum turanicum* is a synonym of *Hyalomma turanicum* as stated in Apanaskevich & Horak (2008b).
- 2267 *plumbeus* Panzer, 1795, *Acarus*. This name is simultaneously a *nomen dubium* and synonym of *Hyalomma marginatum marginatum* (= *Hyalomma marginatum*) in Camicas *et al.* (1998) and a synonym of *Hyalomma marginatum* in Apanaskevich & Horak (2008b), but this is incongruent because *Acarus plumbeus* Panzer, 1795 should have priority over *Hyalomma marginatum* published in Koch (1844a). The name *Acarus plumbeus* Panzer, 1795 is *incertae sedis* synonym of *Rhipicephalus plumbeus* (Panzer, 1795) (*incertae sedis*) and 1805 the year for its description in Neumann (1911a). *Acarus plumbeus* Panzer, 1795 is *incertae sedis* here.
- 2268 *plumbeus* (Panzer, 1795), *Hyalomma*. This name is in Doss & Anastos (1977) based on Vlasov (1940), but this author used the correct name *Hyalomma plumbeum* (Panzer, 1795) (*incertae sedis*). The name *Hyalomma plumbeus* (Panzer, 1795) is *incertae sedis* synonym of *Acarus plumbeus* Panzer, 1795 (*incertae sedis*), but not included in Camicas *et al.* (1998).
- 2269 *plumbeus* (Panzer, 1795), *Ixodes*. It was originally named *Acarus plumbeus* Panzer, 1795 (*incertae sedis*). The name *Ixodes plumbeus* (Panzer, 1795) used in Fabricius (1805) is *incertae sedis* synonym of *Rhipicephalus plumbeus* (Panzer, 1795) (*incertae sedis*) in Neumann (1911a), and a synonym of *Hyalomma marginatum marginatum* (= *Hyalomma marginatum*) in Camicas *et al.* (1998) and a synonym of *Hyalomma marginatum* in Apanaskevich & Horak (2008b). *Ixodes plumbeus* (Panzer, 1795) is *incertae sedis* synonym of *Acarus plumbeus* Panzer, 1795 (*incertae sedis*) here.
- 2270 *plumbeus* Leach, 1815, *Ixodes*. This name was preoccupied by *Ixodes plumbeus* (Panzer 1795) in Fabricius (1805) and changed to *Ixodes lividus* Koch, 1844a. The name *Ixodes plumbeus* Leach, 1815 is *incertae sedis* in Neumann (1911a) and a synonym of *Pholeoixodes lividus* (Koch, 1844a) (= *Ixodes lividus* Koch, 1844a) in Camicas *et al.* (1998). *Ixodes plumbeus* Leach, 1815 is a synonym of *Ixodes lividus* Koch, 1844a.
- 2271 *plumbeus* Dugès, 1834a, *Ixodes* (page 20). This name is *incertae sedis* in Neumann (1911a). The name *Ixodes plumbeus* Dugès, 1834a is a name without description or figure, a *nomen nudum*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). *Ixodes plumbeus* Dugès, 1834a was described later under its vulgar name ixode plombe in Dugès (1834b).
- 2272 *plumbeus* Dugès, 1834b, *Ixodes* named ixode plombé (its vulgar name). It was originally spelled *Ixodes plumbeus* in

- Dugès (1834a) (*nomen nudum*). Gervais (1844) found *Ixodes plumbeus* Dugès, 1834b preoccupied by *Ixodes plumbeus* Leach, 1815 (= *Ixodes lividus* Koch, 1844a), and *Ixodes plumbeus* (Panzer 1795) in Fabricius (1805) (*incertae sedis*) and renamed it *Ixodes dugesi* Gervais, 1844 (*incertae sedis*). The name *Ixodes plumbeus* Dugès, 1834b is a synonym of *Ixodes reduvius* (Linnaeus, 1758) (= *Ixodes ricinus*) in Neumann (1899), a name *incertae sedis* probably a synonym of *Rhipicephalus sanguineus* in Neumann (1911a), while it is an alleged synonym of *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition) in Camicas *et al.* (1998). The name *Ixodes plumbeus* Dugès, 1834b is *incertae sedis* synonym of *Ixodes dugesi* Gervais, 1844 (*incertae sedis*).
- 2273 *plumbeus* (Panzer, 1795), *Phauloixodes*. It was originally named *Acarus plumbeus* Panzer, 1795 (*incertae sedis*). The name *Phauloixodes plumbeus* (Panzer, 1795) used in Berlese (1889b) and by a few other workers, is *incertae sedis* synonym of *Rhipicephalus plumbeus* (Panzer, 1795) (*incertae sedis*) in Neumann (1911a), a synonym of *Hyalomma marginatum marginatum* (= *Hyalomma marginatum*) in Camicas *et al.* (1998) and a synonym of *Hyalomma marginatum* in Apanaskevich & Horak (2008b). *Phauloixodes plumbeus* (Panzer, 1795) is a name *incertae sedis* synonym of *Acarus plumbeus* Panzer, 1795 (*incertae sedis*) here.
- 2274 *plumbeus* (Panzer, 1795), *Rhipicephalus*. It was originally named *Acarus plumbeus* Panzer, 1795 (*incertae sedis*). The name *Rhipicephalus plumbeus* (Panzer, 1795) used in Neumann (1901), Salmon & Stiles (1901) and by a few other workers, is *incertae sedis* in Neumann (1911a) and a probable synonym of *Ixodes lividus* Koch, 1844a in Walker *et al.* (2000), who probably confused this name with *Ixodes plumbeus* Leach, 1815 (= *Ixodes lividus* Koch, 1844a). Undetermined species of *Rhipicephalus* in Neumann (1897) is in fact *Rhipicephalus plumbeus* (Panzer, 1795) according to Neumann (1911a). *Rhipicephalus plumbeus* (Panzer, 1795) in Neumann (1901) is regarded simultaneously a synonym of *Hyalomma marginatum marginatum* (= *Hyalomma marginatum*) and a *nomen nudum* in Camicas *et al.* (1998) and a synonym of *Hyalomma marginatum* in Apanaskevich & Horak (2008b). The name *Rhipicephalus plumbeus* (Panzer, 1795) is a name *incertae sedis* synonym of *Acarus plumbeus* Panzer, 1795 (*incertae sedis*) here. Doss & Anastos (1977) quote Stiles & Hassall (1901) as one of the first authors to cite this name instead of Salmon & Stiles (1901).
- 2275 *plumbeus bavaricus* Schulze and Schlottke, 1929b, *Ixodes*. This name is a synonym of *Pholeoixodes lividus* (Koch, 1844a) (= *Ixodes lividus* Koch, 1844a) in Camicas *et al.* (1998), but it is a synonym of *Ixodes lividus* Koch, 1844a here.
- 2276 *plumbeus obovatus* Schulze and Schlottke, 1929b, *Ixodes*. This name is a synonym of *Pholeoixodes lividus* (Koch, 1844a) (= *Ixodes lividus* Koch, 1844a) in Camicas *et al.* (1998), but it is a synonym of *Ixodes lividus* Koch, 1844a.
- 2277 *plumbeus obturatorius* Babos, 1964a, *Ixodes*. This name is a *lapsus* repeated in Babos (1964b) for *Ixodes plumbeus obovatus* (= *Ixodes lividus* Koch, 1844a) as stated in Camicas *et al.* (1998).
- 2278 *plumbeus plumbeus* Leach, 1815, *Ixodes*. This name used in Schulze & Schlottke (1929b) and by a few other workers, is a synonym of *Pholeoixodes lividus* (Koch, 1844a) (= *Ixodes lividus* Koch, 1844a) in Camicas *et al.* (1998), but it is a synonym of *Ixodes lividus* Koch, 1844a.
- 2279 *poematium* Schulze, 1932e, *Amblyomma*. This name is a synonym of *Amblyomma magnum* (= *Amblyomma sparsum*) in Santos Dias (1958a), but it is a synonym of *Amblyomma sparsum* as stated in Theiler & Salisbury (1959) and Camicas *et al.* (1998).
- 2280 *politum* Neumann, 1899, *Aponomma*. This name is simultaneously a synonym of *Amblyomma sublaeve* [= *Amblyomma javanense* (Supino, 1897)] and *Aponomma latum* (= *Amblyomma latum*) in Neumann (1911a) and a synonym of *Amblyomma javanense* in Camicas *et al.* (1998). The name *Aponomma politum* is a synonym of *Aponomma fuscolineatum* (= *Amblyomma fuscolineatum*) in Santos Dias (1958a), while it is a synonym of *Aponomma latum* (= *Amblyomma latum*) in Estrada-Peña & Castellá (1994), but the name *Amblyomma politum* is ignored in Kaufman (1972) and Santos Dias (1993a). *Aponomma politum* is a name *incertae sedis* here.
- 2281 *pomerantzevi* Serdjukova, 1951, *Dermacentor*
- 2282 *pomerantzevi* Serdjukova, 1941, *Ixodes*. It was originally named *Ixodes pomerantzevi* Serdjukova, 1941 and amended in Pomerantzev (1950). The name *Ixodes pomerantzevi* Serdjukova, 1941 (named *pomerantzevi* Serdjukova, 1941) is a synonym of *Pholeoixodes pomerantzevi* Camicas, Hervy, Adam and Morel, 1998 (*lapsus*) in Camicas *et al.* (1998). *Ixodes pomerantzevi* Serdjukova, 1941 is valid.
- 2283 *pomerantzevi* (Serdjukova, 1941), *Pholeoixodes*. The name *Pholeoixodes pomerantzevi* (Serdjukova, 1971) used in Morel & Pérez (1973) is a synonym of *Ixodes pomerantzevi* Serdjukova, 1941 here.
- 2284 *pomerantzevi* Muratbekov, 1945, *Rhipicephalus*. It was originally spelled *Rhipicephalus pomerantzevi* Muratbekov, 1945 and subsequently amended (Filippova 1997). The name *Rhipicephalus pomerantzevi* Muratbekov, 1945 is a synonym of *Rhipicephalus leporis* Pomerantzev, 1946 as stated in Filippova (1997) and spelled *Rhipicephalus pomerantzevi* in Doss & Anastos (1977), Camicas *et al.* (1998) and Walker *et al.* (2000).
- 2285 *pomerantzi* Kohls, 1956a, *Ixodes*. Keirans (1985) found *Ixodes pomerantzi* identified as *Ixodes dentatus* in the Nuttall Collection. The year for its description is often cited 1957.
- 2286 *pomerantzevi* Serdjukova, 1941, *Ixodes*. This name is a *lapsus* for *Ixodes pomerantzevi* Serdjukova, 1941 in the original description, but maintained in Doss & Anastos (1977), Camicas *et al.* (1998) and Guglielmono *et al.* (2009) among others.
- 2287 *pomerantzevi* Camicas, Hervy, Adam and Morel, 1998, *Pholeoixodes* (page 63). This name is a *lapsus* in Camicas *et al.* (1998), who based their decision on Morel & Pérez (1973), but these authors spelt the specific epithet correctly as *pomerantzevi*. Species of *Ixodes* near-*angustus* in Arthur (1957d) is probably in fact *Pholeoixodes pomerantzevi* Camicas, Hervy, Adam and Morel, 1998 (*lapsus*) in Camicas *et al.* (1998), but it is a probable synonym of *Ixodes pomerantzevi* Serdjukova, 1941 here.

- 2288 *pomeranzevi* Muratbekov, 1945, *Rhipicephalus*. This name is a *lapsus* for *Rhipicephalus pomerantzevi* Muratbekov, 1945 (= *Rhipicephalus leporis* Pomerantzev, 1946) in the original description, but still maintained as valid in Doss & Anastos (1977), Camicas *et al.* (1998) and Walker *et al.* (2000).
- 2289 *pomposum* Dönitz, 1909, *Amblyomma*. This name in Robinson (1926) is in fact *Amblyomma variegatum* as stated in Camicas *et al.* (1998).
- 2290 *poonchensis* Sharma, 1993, *Ixodes* (page 116). This name has no description, a *nomen nudum*, but not included in Camicas *et al.* (1998).
- 2291 *poortmani* Lucas, 1850, *Ixodes*. This name is a synonym of *Amblyomma hebraeum* as stated in Neumann (1911a) and Camicas *et al.* (1998).
- 2292 *pardalinus* Castellani and Chalmers, 1910, *Dermacentor* (page 481). This name is a *lapsus* for *Dermacentor pardalinus* (*incertae sedis*) repeated in Castellani & Chalmers (1919, page 716), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2293 *pospelovae* Emchuk, 1956, *Ixodes*. This name is a synonym of *Eschatocephalus simplex* (= *Ixodes simplex* Neumann, 1906) in Camicas *et al.* (1998), but it is a synonym of *Ixodes simplex* Neumann, 1906 as stated in Beaucournu (1966).
- 2294 *pospelovashtromae* Hoogstraal, 1966b, *Haemaphysalis*. This name has been confused with *Haemaphysalis warburtoni* Nuttall, 1912 as stated in Hoogstraal (1966b).
- 2295 *pospelovashtromi* Belozarov, 2009, *Haemaphysalis* (page 11). This name is a *lapsus* for *Haemaphysalis pospelovashtromae*.
- 2296 *postoculatum* Neumann, 1899, *Amblyomma*
- 2297 *praecoxalis* Neumann, 1899, *Ixodes*. This name is a synonym of *Ixodes neumanni* Nuttall and Warburton, 1911 (= *Ixodes eudyptidis*) in Nuttall & Warburton (1911) and a synonym of *Scaphixodes eudyptidis* (= *Ixodes eudyptidis*) in Camicas *et al.* (1998). The name *Ixodes praecoxalis* is a synonym of *Ixodes eudyptidis* as stated in Neumann (1911a).
- 2298 *praematurus* Schulze, 1935b, *Ixodes*. This name is a *nomen dubium* in Camicas *et al.* (1998) and *incertae sedis* here.
- 2299 *praetextatus* Mekkonen, Hussein and Bedane, 2001, *Rhipicephalus*, (pages 244, 248, 249). This name is a *lapsus* for *Rhipicephalus praetextatus* repeated in Nigist *et al.* (2011, pages 55, 57, 60-63, 66, 67).
- 2300 *praetextatus* Gerstäcker, 1873, *Rhipicephalus*. This name is a synonym of *Rhipicephalus simus* in Neumann (1911a) and several others, but *Rhipicephalus praetextatus* was resurrected in Pegram *et al.* (1987a) as stated in Walker *et al.* (2000). Keirans (1985) found *Rhipicephalus simus* identified as *Rhipicephalus shipleyi* (= *Rhipicephalus praetextatus*).
- 2301 *pratti* Banks, 1908, *Ixodes*. This name in Nuttall & Warburton (1911), Hawden (1913) and Brown (1944) is in fact *Ixodes kingi* according to Gregson (1956), while it is partly a synonym of *Ixodes kingi*, *Ixodes scapularis* Say, 1821 and *Ixodes texanus* Banks, 1909 in Keirans & Clifford (1978) and Camicas *et al.* (1998). The name *Ixodes pratti* is *incertae sedis* here.
- 2302 *pravus* Theiler, 1959b, *Rhipicephalus* (page 71). This name is a *lapsus* for *Rhipicephalus pravus*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2303 *pravus* Dönitz, 1910a *Rhipicephalus*. Keirans (1985) found *Rhipicephalus pravus* misidentified with the following species of *Rhipicephalus*: *appendiculatus*, *capensis* Koch, 1844a, *longicoxatus*, *neavei* (= *kochi* Dönitz, 1905) and *neavei punctatus* (= *punctatus* Warburton, 1912) in the Nuttall Collection, and *Rhipicephalus punctatus* Warburton, 1912 identified as *Rhipicephalus pravus* in the same collection.
- 2304 *pravus pravus* Dönitz, 1910a *Rhipicephalus*. This name used in Santos Dias (1951a) is a synonym of *Rhipicephalus pravus* as stated in Walker *et al.* (2000).
- 2305 *primaculatum* Warburton, 1925, *Amblyomma*. This name is a probable *lapsus* for *Amblyomma trimaculatum* Neumann, 1908d (*incertae sedis*) in Doss & Anastos (1977), while it is a *lapsus* for *Amblyomma paulopunctatum* in Camicas *et al.* (1998, page 107 line 2319). The name *Amblyomma primaculatum* is a *lapsus* for *Amblyomma trimaculatum* (Lucas 1878b).
- 2306 *primaculatum* (Warburton, 1925), *Aponomma*. This name is used in Estrada-Peña & Castellá (1994), who consider that the *lapsus* of *primaculatum* in Warburton (1925) is for *Aponomma trimaculatum* (Lucas, 1878b) [= *Amblyomma trimaculatum* (Lucas, 1878b)]. This *lapsus* is for *Amblyomma trimaculatum* (Lucas, 1878b), because Warburton (1925) treats *Aponomma* as a subgenus of *Amblyomma*.
- 2307 *primitiva* Teng, 1982b, *Haemaphysalis*
- 2308 *priscicollaris* Schulze, 1932c, *Ixodes*
- 2309 *priscicollis* Babos, 1964a, *Ixodes* (pages 176, 407). This name is a *lapsus* for *Ixodes priscicollaris*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2310 *priscicollaris* Clifford, Sonenshine, Keirans and Kohls, 1973, *Ixodes* (page 494). This name is a *lapsus* for *Ixodes priscicollaris*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2311 *procaviae* Arthur and Burrow, 1957, *Ixodes*. Keirans (1985) states that *Ixodes ugandanus djaronensis* (= *Ixodes djaronensis*) in Nuttall & Warburton (1911) is in fact *Ixodes procaviae*, while Morel (1965b) and Camicas *et al.* (1998) identified the same tick as *Ixodes brumpti* Morel, 1965b. Arthur (1965) names the authority of *Ixodes procaviae* as Arthur, 1957.
- 2312 *prokopjevi* (Emel'yanova, 1979), *Ixodes*. It was originally named *Pholeoixodes prokopjevi*. The name *Ixodes prokopjevi* is a synonym of *Pholeoixodes prokopjevi* in Camicas *et al.* (1998), and a probable synonym of *Ixodes crenulatus* in Kolonin (2009), but it is valid.

- 2313 *prokopjevi* Emel'yanova, 1979, *Pholeoixodes*. This name is valid in Camicas *et al.* (1998), but it is a synonym of *Ixodes prokopjevi* here and its original name.
- 2314 *prolongatum* Neumann, 1906, *Amblyomma*. This name is valid in Neumann (1911a), but it is a synonym of *Amblyomma integrum* as stated in Robinson (1926) and Camicas *et al.* (1998).
- 2315 *prolongatum* Chow, Thevasagayam and Tharumarajah, 1954, *Amblyomma* (page 124). This name is a *lapsus* for *Amblyomma prolongatum* (= *Amblyomma integrum*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2316 *proxima* Aragão, 1909, *Haemaphysalis*, in Rohr (1909). This name is a synonym of *Haemaphysalis leporispalustris* in Camicas *et al.* (1998) and Dantas-Torres *et al.* (2009), but there is no formal description for *Haemaphysalis proxima* Aragão, 1909 and the figures are not useful for its diagnosis. The name *Haemaphysalis proxima* Aragão, 1909 is a *nomen dubium*.
- 2317 *proxima* Warburton and Nuttall, 1909, *Haemaphysalis*. This name is a synonym of *Haemaphysalis cornigera* as stated in Nuttall & Warburton (1915) and Camicas *et al.* (1998). Keirans (1985) found *Haemaphysalis shimoga* identified as *Haemaphysalis proxima* Warburton and Nuttall, 1909 (= *Haemaphysalis cornigera*) in the Nuttall Tick Collection.
- 2318 *psalistos* Hoogstraal, Kohls and Parrish, 1967b, *Haemaphysalis*
- 2319 *pseudocobcolor* Rawlins, Mahadeo and Martínez, 1993, *Amblyomma* (page 9). This name is a *lapsus* for *Amblyomma pseudoconcolor*, but not included in Camicas *et al.* (1998).
- 2320 *pseudocolor* Clavijo, Vásquez and Valera, 2009, *Amblyomma* (page 42). This name is a *lapsus* for *Amblyomma pseudoconcolor*.
- 2321 *pseudoconcolor* Aragão, 1908c, *Amblyomma*. This name is a synonym of *Amblyomma auricularium* in Camicas *et al.* (1998), but it is valid as stated in Guglielmone *et al.* (2003, 2009, 2010b, 2014). Keirans (1985) found *Amblyomma pseudoconcolor* identified as *Amblyomma concolor* (= *Amblyomma auricularium*), while Guglielmone & Nava (2006) found *Amblyomma pseudoconcolor* identified as *Amblyomma auricularium*.
- 2322 *pseudoholocyclus* Sénevet, 1969. This name is a synonym of *Ixodes petauristae* as stated in Sénevet (1970).
- 2323 *pseudolaeve* (Schulze, 1935d), *Amblyomma*. It was originally named *Aponomma pseudolaeve* (= *Amblyomma pattoni*). The name *Amblyomma pseudolaeve* used in Chang (1958) is a synonym of *Aponomma pattoni* (= *Amblyomma pattoni*) as stated in Kaufman (1972) and Camicas *et al.* (1998).
- 2324 *pseudolaeve* Schulze, 1935d, *Aponomma*. This name is valid in Teng & Jiang (1991) and Santos Dias (1993a) and a synonym of *Aponomma latum* (= *Amblyomma latum*) in Estrada-Peña & Castellá (1994), but it is a synonym of *Aponomma pattoni* (= *Amblyomma pattoni*) in Kaufman (1972) and Camicas *et al.* (1998). The name *Aponomma pseudolaeve* is a synonym of *Amblyomma pattoni*.
- 2325 *pseudolongus* Santos Dias, 1953a, *Rhipicephalus*. It was originally named *Rhipicephalus capensis pseudolongus* and given its current status in Santos Dias (1955a) as stated in Walker *et al.* (2000, page 33), although the latter authors also affirms on page 24 that it is a synonym of *Rhipicephalus longus*. The name *Rhipicephalus pseudolongus* is a synonym of *Rhipicephalus longus* in Camicas *et al.* (1998) and Santos Dias (1958a), while Walker *et al.* (2000) state that it has been confused with *Rhipicephalus longus* and *Rhipicephalus senegalensis*. *Rhipicephalus pseudolongus* in Clifford & Anastos (1962) is in fact *Rhipicephalus cliffordi* according to Camicas *et al.* (1998), but *bona fide* *Rhipicephalus pseudolongus* in Walker *et al.* (2000). Elb & Anastos (1966c) regard *Rhipicephalus pseudolongus* a synonym of *Rhipicephalus compositus*. The name *Rhipicephalus pseudolongus* is provisionally valid in Walker *et al.* (2000) and here.
- 2326 *pseudoparvum* Guglielmone, Mangold and Keirans, 1990, *Amblyomma*
- 2327 *pseudorasus* Arthur and Burrow, 1957, *Ixodes*. This name is a synonym of *Ixodes cumulatimpunctatus* as stated in Camicas *et al.* (1998). Arthur (1965) names the authority of *Ixodes pseudorasus* as Arthur, 1957.
- 2328 *pterodroma* Murray and Vestjens, 1965, *Ixodes* (page 717). This name is a *lapsus* for *Ixodes pterodromae* (= *Ixodes kerguelenensis*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2329 *pterodromae* Arthur, 1960b, *Ixodes*. This name is a synonym of *Scaphixodes kerguelenensis* (= *Ixodes kerguelenensis*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes kerguelenensis* as stated in Wilson (1970); however, Walker (1991) and Barbosa & Palacios (2009) still use the name *Ixodes pterodromae*.
- 2330 *puchellus* Kuntz and Myers, 1967, *Rhipicephalus* (pages 78, 79, 81). This name is a *lapsus* for *Rhipicephalus pulchellus*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Barker & Murrell (2002, pages 61, 63) among others.
- 2331 *pulchellus* Gerstäcker, 1873, *Dermacentor*. This name is a synonym of *Rhipicephalus pulchellus* (Gerstäcker, 1873) and its original name as stated in Neumann (1911a).
- 2332 *pulchellus* (Gerstäcker, 1873), *Eurhipicephalus*. It was originally named *Dermacentor pulchellus* Gerstäcker, 1873 [= *Rhipicephalus pulchellus* (Gerstäcker, 1873)]. The name *Eurhipicephalus pulchellus* (Gerstäcker, 1873) used in Castellani & Chalmers (1919) is a synonym of *Rhipicephalus pulchellus* (Gerstäcker, 1873) as stated in Camicas *et al.* (1998).
- 2333 *pulchellus* Lucas, 1846, *Ixodes*. This name is a synonym of *Amblyomma bibroni* (Gervais, 1842) (*nomen nudum*) in Camicas *et al.* (1998). The name *Ixodes pulchellus* Lucas, 1846 is a synonym of *Amblyomma dissimile* as stated in Neumann (1911a) and Guglielmone & Nava (2010).
- 2334 *pulchellus* (Gerstäcker, 1873), *Lamellicauda*. It was originally named *Dermacentor pulchellus* Gerstäcker, 1873 [= *Rhipicephalus pulchellus* (Gerstäcker, 1873)]. The name *Lamellicauda pulchellus* (Gerstäcker, 1873) used in

- Pomerantzev (1936) is a synonym of *Rhipicephalus pulchellus* (Gerstäcker, 1873) as stated in Camicas *et al.* (1998).
- 2335 **pulchellus** (Gerstäcker, 1873), *Rhipicephalus*. It was originally named *Dermacentor pulchellus* Gerstäcker, 1873 and given its current status in Neumann (1897). Keirans (1985) found *Rhipicephalus pulchellus* (Gerstäcker, 1873) identified as *Hyalomma aegyptium*.
- 2336 *pulchellus humeralis* Tonelli Rondelli, 1926a, *Rhipicephalus*. This name is a synonym of *Rhipicephalus humeralis* and its original name as stated in Walker *et al.* (2000).
- 2337 *pulchellus pulchellus* (Gerstäcker, 1873), *Rhipicephalus*. This name used in Tonelli Rondelli (1926a) is a synonym of *Rhipicephalus pulchellus* (Gerstäcker, 1873) as stated in Camicas *et al.* (1998).
- 2338 *pulchellus* Tadese, Abadfaji, Girma, Kumsa and Jibat 2012, *Rhipicephalus* (page 2). This name is a *lapsus* for *Rhipicephalus pulchellus*.
- 2339 *pulchelus* Dinka, Eyerusalem and Yacob, 2010, *Rhipicephalus* (pages 499, 500). This name is a *lapsus* for *Rhipicephalus pulchellus* (Gerstäcker, 1873) and repeated in two articles with identical texts in Asrate & Yalew (2012, pages 86, 87) and Kassa & Yalew (2012, pages 35, 37), among others.
- 2340 *pulchrum* Roberts, 1953, *Aponomma*. This name is valid in Santos Dias (1993a), a synonym of *Aponomma gervaisi* (= *Amblyomma gervaisi*) in Camicas *et al.* (1998) and a synonym of *Aponomma flavomaculatum* (= *Amblyomma flavomaculatum*) in Kaufman (1972) after type examination. The name *Aponomma pulchrum* is a synonym of *Amblyomma flavomaculatum* here.
- 2341 *pulehelus* Abou-Ellela, Taher and Diab, 1981, *Rhipicephalus* (page 393). This name is a *lapsus* for *Rhipicephalus pulchellus*, but not included in Camicas *et al.* (1998).
- 2342 *pulchulus* Kassa and Yalew, 2012, *Rhipicephalus* (page 36). This name is a *lapsus* for *Rhipicephalus pulchellus* also in Asrate & Yalew (2012, page 87), an article with identical text that of Kassa & Yalew (2012).
- 2343 **pumilio** Schulze, 1935a, *Rhipicephalus*. The name *Rhipicephalus schulzei* Olenov, 1929a in Zumpt (1939) is in fact *Rhipicephalus pumilio* according to Filippova (1997). The name *Rhipicephalus pumilio* may be identical to *Rhipicephalus rossicus* in the opinion of Zahler *et al.* (1997). *Rhipicephalus pumilio* is provisionally valid here.
- 2344 *pumilis* Roberts, 1965, *Rhipicephalus* (page 492). This name is a *lapsus* for *Rhipicephalus pumilio*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2345 *puncatatus* Tandon, 1991, *Rhipicephalus* (page 140). This name is a *lapsus* for *Rhipicephalus punctatus* Warburton, 1912, but not included in Camicas *et al.* (1998).
- 2346 **punctaleachi** Camicas, Hoogstraal and El Kammah, 1973, *Haemaphysalis*. The name *Haemaphysalis leachi* in Rageau (1953a cited 1954) is partly a synonym of *Haemaphysalis punctaleachi* as stated in Camicas *et al.* (1998). Guglielmone *et al.* (2010b) wrongly state the year 1983 for the description of *Haemaphysalis punctaleachi*.
- 2347 **punctata** Canestrini and Fanzago, 1878, *Haemaphysalis*. This name in Neumann (1897, page 327) is partly in fact *Haemaphysalis birmaniae*, partly *Haemaphysalis peregrinus* (*nomen dubium*), partly *Haemaphysalis sulcata* and actually in part *Rhipicephalus expositicius* (*incertae sedis*) in Neumann (1911a). The name *Haemaphysalis punctata* Canestrini and Fanzago, 1878 in Hawden (1912) is in fact *Haemaphysalis cinnabarina* according to Nuttall & Warburton (1915) and Camicas *et al.* (1998). Keirans (1985) found *Haemaphysalis punctata* Canestrini and Fanzago, 1878 identified as *Haemaphysalis cinnabarina* and *Haemaphysalis cinnabarina punctata* Canestrini and Fanzago, 1878 (*incertae sedis*), while *Haemaphysalis chordeilis* and *Haemaphysalis parva* (Neumann, 1897) were found identified as *Haemaphysalis punctata* Canestrini and Fanzago, 1878 in the Nuttall Collection. Neumann (1911a) divided *Haemaphysalis punctata* into two subspecies: *punctata punctata* (= *Haemaphysalis punctata*) and *punctata cinnabarina* (*incertae sedis*).
- 2348 *punctata* (Canestrini and Fanzago, 1878), *Hyalomma*. This name is a *lapsus* for *Haemaphysalis punctata* Canestrini and Fanzago, 1878 in Alessandrini (1917). Doss & Anastos (1977) and Camicas *et al.* (1998) write this name under the authority of Alessandrini, 1917, but this is unjustified.
- 2349 *punctata autumnalis* Schulze, 1919, *Haemaphysalis* (usually cited Schulze, 1918). This name used in Schulze (1939b) is a *nomen dubium* in Camicas *et al.* (1998). The name *Haemaphysalis punctata autumnalis* Schulze, 1919 is a synonym of *Haemaphysalis punctata* Canestrini and Fanzago, 1878 as stated in Filippova (1997).
- 2350 *punctata cinnabarina* Koch, 1844a, *Haemaphysalis*. This name is usually regarded a synonym of *Haemaphysalis punctata* Canestrini and Fanzago, 1878. The name *Haemaphysalis punctata cinnabarina* is a synonym of *Haemaphysalis cinnabarina* in Hoogstraal (1973) and Camicas *et al.* (1998), while Gregson (1956) states that this name in Neumann (1905 spelled *Haemaphysalis punctata cinnaberina*) is in fact *Haemaphysalis chordeilis*. *Haemaphysalis punctata cinnabarina* is *incertae sedis* here, but not included in Neumann (1911a).
- 2351 *punctata cinnaberina* Koch, 1844a, *Haemaphysalis*. This name used in Neumann (1905, 1911a) is usually spelled *Haemaphysalis punctata cinnabarina*. The name *Haemaphysalis punctata cinnaberina* in Neumann (1905) is a synonym of *Haemaphysalis chordeilis* in Gregson (1956 who spelt this name *Haemaphysalis punctata cinnabarina*), while Camicas *et al.* (1998) consider this name a synonym of *Haemaphysalis cinnabarina*. *Haemaphysalis punctata cinnaberina* is a name *incertae sedis* synonym of *Haemaphysalis punctata cinnabarina* (*incertae sedis*), but not included in Doss & Anastos (1977).
- 2352 *punctata cretica* Sénevet and Caminopetros, 1936, *Haemaphysalis*. This name is a synonym of *Haemaphysalis sulcata* as stated in Camicas *et al.* (1998).
- 2353 *punctata montana* Kamensky, 1928, *Haemaphysalis*. This name is a synonym of *Haemaphysalis punctata* Canestrini and Fanzago, 1878 in Estrada-Peña (1991) and a synonym of *Haemaphysalis sulcata* in Camicas *et al.* (1998). The original

- publication for the name *Haemaphysalis punctata montana* was not located and the information has been obtained from Camicas *et al.* (1998) and this name is a provisional synonym of *Haemaphysalis sulcata* here.
- 2354 *punctata pudentata* Doss, Farr, Roach and Anastos, 1974b, *Haemaphysalis* (page 130). This name is a *lapsus* for *Haemaphysalis cinnabarina punctata perdentata (nomen dubium)*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2355 *punctata punctata* Canestrini and Fanzago, 1878, *Haemaphysalis*. This name used in Neumann (1911a) and by a few other workers, is a synonym of *Haemaphysalis punctata* Canestrini and Fanzago, 1878 as stated in Filippova (1997) and Camicas *et al.* (1998).
- 2356 *punctate* Coipan, Vladimirescu, Ciolpan and Teodorescu, 2011, *Haemaphysalis* (page 305). This name is a *lapsus* for *Haemaphysalis punctata*.
- 2357 *punctatissimus* Gerstäcker, 1873, *Rhipicephalus*. This name is a synonym of *Rhipicephalus sanguineus punctatissimus (incertae sedis)* in Neumann (1911a). The name *Rhipicephalus punctatissimus* is a synonym of *Rhipicephalus sulcatus* Neumann, 1908c in Camicas *et al.* (1998), but this is incongruent because this name should prevail over *Rhipicephalus sulcatus* Neumann, 1908c. *Rhipicephalus punctatissimus* is a synonym of *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition) in Walker *et al.* (2000). The name *Rhipicephalus punctatissimus* is a name *incertae sedis*.
- 2358 *punctatum* Koch, 1844a, *Amblyomma*. This name is *incertae sedis* in Neumann (1911a) and doubtful in Robinson (1926) and Camicas *et al.* (1998). The description of *Amblyomma punctatum* is vague and treated as a *nomen dubium* here.
- 2359 *punctatum* (Koch, 1844a), *Haemalastor*. It was originally named *Amblyomma punctatum (nomen dubium)*. The name *Haemalastor punctatum* used in Oudemans (1936, page 512) is a *nomen dubium* synonym of *Amblyomma punctatum (nomen dubium)*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2360 *punctatus* Warburton, 1912, *Rhipicephalus*. It was originally named *Rhipicephalus neavei punctatus* Warburton, 1912, given its current status in Santos Dias (1951a) and regarded for many years a synonym of *Rhipicephalus pravus* as stated in Walker *et al.* (2000). The name *Rhipicephalus punctatus* Warburton, 1912 is in fact *Rhipicephalus warburtoni* Walker and Horak, 2000 in several South African studies, i.e. Fourie & Horak (1991) and Fourie *et al.* (1996), while *Rhipicephalus punctatus* Warburton, 1912 in Fourie *et al.* (1992) is partly in fact *Rhipicephalus warburtoni* Walker and Horak, 2000 (Horak, I.G., personal communication). Keirans (1985) found *Rhipicephalus punctatus* Warburton, 1912 identified as *Rhipicephalus appendiculatus*, *Rhipicephalus capensis* Koch, 1844a, *Rhipicephalus neavei* (= *Rhipicephalus kochi* Dönitz, 1905) and *Rhipicephalus pravus*; Keirans (1985) also found *Rhipicephalus distinctus* identified as *Rhipicephalus punctatus* Warburton, 1912 in the Nuttall Collection. Camicas *et al.* (1998) consider that *Rhipicephalus punctatus* Warburton, 1912 in Santos Dias (1951a) is in fact *Rhipicephalus kochi* Dönitz, 1905.
- 2361 *punctatus* Bedford, 1929, *Rhipicephalus*. This name was preoccupied by *Rhipicephalus neavei punctatus* Warburton, 1912 (= *Rhipicephalus punctatus* Warburton, 1912) and renamed *Rhipicephalus distinctus* in Bedford (1932). Therefore, *Rhipicephalus punctatus* Bedford, 1929 is a synonym of *Rhipicephalus distinctus* Bedford, 1932 as stated in Camicas *et al.* (1998) and Walker *et al.* (2000).
- 2362 *puncticollis* Koch, 1844a, *Dermacentor*. This name is *incertae sedis* in Neumann (1911a) and a probable synonym of *Dermacentor reticulatus* (Fabricius, 1794) in Camicas *et al.* (1998). The name *Dermacentor puncticollis* is *incertae sedis*.
- 2363 *punctulatus* Say, 1821, *Ixodes*. This name is *incertae sedis* in Neumann (1911a) and a probable synonym of *Dermacentor variabilis* in Camicas *et al.* (1998), but its description is vague and the type lost. The name *Ixodes punctulatus* Say, 1821 is a *nomen dubium*.
- 2364 *punctulatus* Canestrini and Fanzago, 1878, *Ixodes*. This name is a synonym of *Haemaphysalis inermis* Birula, 1895 in Camicas *et al.* (1998). This is incongruent because *Haemaphysalis punctulatus* Canestrini and Fanzago, 1878 should prevail over *Haemaphysalis inermis* Birula, 1895. The name *Ixodes punctulatus* Canestrini and Fanzago, 1878 is a name *incertae sedis* in Neumann (1911a) as described in 1877) and here, but not included in Doss & Anastos (1977).
- 2365 *punt* Hoogstraal, Kaiser and Pedersen, 1969, *Hyalomma*
- 2366 *puntata*, Iori, Gabrielli, Calderini, Moretti, Pietrobelli, Tampieri, Galuppi and Cancrini, 2010, *Haemaphysalis* (page 293). This name is a *lapsus* for *Haemaphysalis punctata* Canestrini and Fanzago, 1878 repeated in Hekimoglu *et al.* (2012, page 79) among others.
- 2367 *purpureus* Samish and Rehacek, 1999, *Ixodes* (page 168). This name has no description or figure, a *nomen nudum*.
- 2368 *pusillum* Schulze, 1920, *Hyalomma* (usually cited 1919). This name is a synonym of *Hyalomma anatolicum anatolicum* (= *Hyalomma anatolicum*) as stated in Camicas *et al.* (1998).
- 2369 *pusillum alexandrinum* Schulze, 1920, *Hyalomma* (usually cited 1919). This name is a synonym of *Hyalomma anatolicum anatolicum* (= *Hyalomma anatolicum*) as stated in Camicas *et al.* (1998).
- 2370 *pusillum ornatipes* Schulze, 1920, *Hyalomma* (usually cited 1919). This name used in Chodziesner (1924) is a synonym of *Hyalomma anatolicum anatolicum* (= *Hyalomma anatolicum*) as stated in Camicas *et al.* (1998).
- 2371 *pusillum pusillum* Schulze, 1920 (usually cited 1919), *Hyalomma*. This name used in Camicas *et al.* (1998) is a provisional synonym of *Hyalomma anatolicum anatolicum* (= *Hyalomma anatolicum*) here because Camicas *et al.* (1998) based their decision on Delpy (1949b) and Hoogstraal & Kaiser (1959a), but the name *Hyalomma pusillum pusillum* is not explicitly included in those articles.
- 2372 *pusillus* Gil Collado, 1936, *Rhipicephalus*. It was originally named *Rhipicephalus bursa pusillus* and given its current status in Gill Collado (1938).

- 2373 *pustularum* Mégnin, 1866, *Ixodes*, in Lucas (1866). This name is a synonym of *Ixodes ricinus* as stated in Neumann (1911a). The authority of *Ixodes pustularum* in Arthur (1963) is Lucas, 1866.
- 2374 *puta* (Pickard-Cambridge, 1876), *Ceratixodes*. This name is listed in Doss & Anastos (1977) based on Neumann (1902), but this author used the name *Ceratixodes putus* (= *Ixodes uriae*). The name *Ceratixodes puta* is a synonym of *Ixodes uriae*, but not included in Neumann (1911a) and Camicas *et al.* (1998).
- 2375 *puta* Pickard-Cambridge, 1876, *Hyalomma*. This name is a synonym of *Ixodes putus* (= *Ixodes uriae*) in Neumann (1911a) and Nuttall & Warburton (1911) and a synonym of *Ceratixodes uriae* (= *Ixodes uriae*) in Camicas *et al.* (1998). The name *Hyalomma puta* is a synonym of *Ixodes uriae* as stated in Keirans & Hillyard (2001).
- 2376 *puta* (Pickard-Cambridge, 1876), *Ixodes*. This name is in Doss & Anastos (1977) based on Neumann (1897), but it is not cited in Neumann (1897). The name *Ixodes puta* is a synonym of *Ixodes uriae*, but not included in Neumann (1911a) and Camicas *et al.* (1998).
- 2377 *putorii* Razoumowski, 1789, *Acarus*. This name is a synonym of *Ixodes reduvius* (Linnaeus, 1758) (= *Ixodes ricinus*) in Oudemans (1929) and a synonym of *Ixodes ricinus* in Camicas *et al.* (1998) based partly on Neumann (1911a), but it is not listed in Neumann (1911a). The name *Acarus putorii* is a *nomen dubium*.
- 2378 *putus* (Pickard-Cambridge, 1876), *Ceratixodes*. It was originally named *Hyalomma puta* (= *Ixodes uriae*). The name *Ceratixodes putus* used first in Neumann (1902) is a synonym of *Ixodes putus* (= *Ixodes uriae*) in Neumann (1911a) and a synonym of *Ceratixodes uriae* (= *Ixodes uriae*) in Camicas *et al.* (1998), but not included in Doss & Anastos (1977). The name *Ceratixodes putus* is a synonym of *Ixodes uriae*.
- 2379 *putus* (Pickard-Cambridge, 1876), *Ixodes*. It was originally named *Hyalomma puta* (= *Ixodes uriae*). The name *Ixodes putus* used first in Neumann (1899) is valid in Neumann (1911a) and a synonym of *Ceratixodes uriae* (= *Ixodes uriae*) in Camicas *et al.* (1998), but not included in Doss & Anastos (1977). *Ixodes putus* is a synonym of *Ixodes uriae* as stated in Keirans & Hillyard (2001).
- 2380 *putus procellariae* (Schulze, 1930b), *Ceratixodes*. It was originally named *Ixodes putus procellariae* (= *Ixodes uriae*). The name *Ceratixodes putus procellariae* used in Schulze (1932a) is a synonym of *Ceratixodes uriae* (= *Ixodes uriae*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes uriae*.
- 2381 *putus procellariae* Schulze, 1930b, *Ixodes*. This name is a synonym of *Ceratixodes uriae* (= *Ixodes uriae*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes uriae* as stated in Santos Dias (1958a).
- 2382 *pygmaeum* (Koch, 1844a), *Amblyomma*. It was originally named *Ixodes pygmaeus (incertae sedis)*. The name *Amblyomma pygmaeum* is *incertae sedis* in Neumann (1911a) and a *nomen dubium* in Camicas *et al.* (1998). The name *Amblyomma pygmaeum* is *incertae sedis* here, synonym of *Ixodes pygmaeus (incertae sedis)*, but not included in Doss & Anastos (1977).
- 2383 *pygmaeus* (Koch, 1844a), *Amblyomma*. This name is in Doss & Anastos (1977) based on Neumann (1911a), but this author used the correct name *Amblyomma pygmaeum* (= *Ixodes pygmaeus*) (*incertae sedis*). The name *Amblyomma pygmaeus* is a name *incertae sedis* synonym of *Ixodes pygmaeus (incertae sedis)*, but not included in Camicas *et al.* (1998).
- 2384 *pygmaeus* (Koch, 1844a), *Haemalastor*. It was originally named *Ixodes pygmaeus (incertae sedis)*. The name *Haemalastor pygmaeus* used in Oudemans (1936, page 514) is also *incertae sedis* synonym of *Ixodes pygmaeus (incertae sedis)*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2385 *pygmaeus* Koch, 1844a, *Ixodes*. This name is *incertae sedis* synonym of *Amblyomma pygmaeum* (= *Ixodes pygmaeus*) (*incertae sedis*) in Neumann (1911a) and a *nomen dubium* in Camicas *et al.* (1998). The name *Ixodes pygmaeus* is *incertae sedis* here.

Q

- 2386 *qigaiensi* Guo, Yuan, Wu, Wang, Ma, and Du, 2002, *Haemaphysalis* (pages S36, S37). This name is a *lapsus* for *Haemaphysalis quinghaiensis*.
- 2387 *qinghaiensis* Teng, 1980b, *Haemaphysalis*. This name is a synonym of *Haemaphysalis quinghaiensis*, and its original name, that was amended to *Haemaphysalis quinghaiensis* in Camicas *et al.* (1998).
- 2388 *quadratum* Cooper and Robinson, 1908, *Aponomma*. This name is valid in Roberts (1970), a synonym of *Aponomma undatum* (= *Bothriocroton undatum*) in Santos Dias (1993a) and a synonym of *Aponomma varanense* (= *Amblyomma varanense*) in Kaufman (1972), Camicas *et al.* (1998) and Keirans & Hillyard (2001). The name *Aponomma quadratum* is *incertae sedis* here.
- 2389 *quadraculeata* Kolonin, 1992b, *Haemaphysalis*. The name *Haemaphysalis darjeeling* in Tanskul & Inlao (1989) is in fact *Haemaphysalis quadraculeata* according to Camicas *et al.* (1998).
- 2390 *quadracavum* (Schulze, 1941c), *Amblyomma*. It was originally named *Aponomma quadracavum* and given its current status in Keirans & Klompen (1996). The name *Amblyomma albopictum* in Morel (1967) is treated partly in fact as *Aponomma quadracavum* (= *Amblyomma quadracavum*) in Santos Dias (1993a).
- 2391 *quadracavum* Schulze, 1941c *Aponomma*. This name is a synonym of *Amblyomma quadracavum* and its original name.
- 2392 *quadriguttatum* Pavesi, 1883, *Amblyomma*. This name is *incertae sedis* in Neumann (1911a), doubtful in Robinson (1926), a synonym of *Amblyomma variegatum* in Estrada-Peña & Castellá (1994) and a synonym of *Amblyomma lepidum* in Camicas *et al.* (1998). The name *Amblyomma quadriguttatum* is *incertae sedis*.
- 2393 *quadrimaculatum* Neumann, 1899, *Amblyomma*. This name is a synonym of *Amblyomma decoratum* (= *Amblyomma*

- helvolum*) in Neumann (1911a). The name *Amblyomma quadrimaculatum* is a synonym of *Amblyomma helvolum* as stated in Robinson (1926) and Camicas *et al.* (1998).
- 2394 *quantini* Martin, 1895, *Amblyomma*. This name is a synonym of *Amblyomma hebraeum splendidum* (= *Amblyomma splendidum*) in Neumann (1911a). The name *Amblyomma quantini* is a synonym of *Amblyomma splendidum* as stated in Robinson (1926) and Camicas *et al.* (1998).
- 2395 *quascyprium* Robinson, 1926, *Amblyomma*. This name is a synonym of *Amblyomma cyprium* (= *Amblyomma breviscutatum*) in Anastos (1950) and others. The name *Amblyomma quascyprium* is a synonym of *Amblyomma breviscutatum* as stated in Santos Dias (1958a) and Camicas *et al.* (1998).
- 2396 *quasistriatum* Tonelli Rondelli, 1937, *Amblyomma*. This name is a synonym of *Amblyomma ovale* as stated in Aragão & Fonseca (1961) and Camicas *et al.* (1998).
- 2397 *queenslandensis* CSIRO, 1961, *Amblyomma*. This name is a *nomen nudum* in Doss & Anastos (1977) and Camicas *et al.* (1998), who consider Gregory, 1961 the authority for this name, but the authority is not defined in the report. The correct spelling for this name should be *Amblyomma queenslandense*.
- 2398 *qinghaiensis* Teng, 1980b, *Haemaphysalis*. It was originally named *Haemaphysalis qinghaiensis* and amended in Camicas *et al.* (1998).
- 2399 *quinquestriatus* Fitch, 1872, *Ixodes*. This name is a synonym of *Dermacentor variabilis variabilis* (= *Dermacentor variabilis*) in Neumann (1911a) and a synonym of *Dermacentor variegatus* Marx and Neumann, 1897 (= *Dermacentor albipictus*) in Nuttall & Warburton (1911). The name *Ixodes quinquestriatus* is a synonym of *Dermacentor variabilis* as stated in Keirans & Barnes (1987) and Camicas *et al.* (1998).

R

- 2400 *racinus* Samlaska, 1994, *Ixodes* (page 190). This name is a *lapsus* for *Ixodes ricinus*, but not included in Camicas *et al.* (1998). This *lapsus* is repeated in McGinley-Smith & Tsao (2003, pages 373, 377).
- 2401 *radfordi* Kohls, 1948a, *Ixodes*
- 2402 *radiatus* Scopoli, 1763, *Acarus*. This name is a *nomen dubium* in Camicas *et al.* (1998) spelled by these authors and Doss & Anastos (1977) as *Acarus radiatus (Amblyomma)* Scopoli, 1763 based on Oudemans (1929), who consider this tick a member of *Amblyomma*. The name *Acarus radiatus* is a *nomen dubium*, but not included in Neumann (1911a).
- 2403 *radiatus* (Scopoli, 1763), *Amblyomma*. It was originally named *Acarus radiatus (nomen dubium)*. The name *Amblyomma radiatus* used in Oudemans (1929, page 210) is also a *nomen dubium* synonym of *Acarus radiatus (nomen dubium)*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). The correct spelling for this name should be *Amblyomma radiatum*.
- 2404 *radiatus* (Scopoli, 1763), *Haemalastor*. It was originally named *Acarus radiatus (nomen dubium)*. The name *Haemalastor radiatus* used in Oudemans (1936, page 515) is a *nomen dubium* synonym of *Acarus radiatus (nomen dubium)*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2405 *radifordi* Tseng, 1978, *Ixodes* (page 26). This name is a *lapsus* for *Ixodes radfordi*, but not included in Camicas *et al.* (1998).
- 2406 *rageaui* Arthur, 1958b, *Ixodes*. Camicas *et al.* (1998) state that *Ixodes schillingsi* in Rageau (1953a cited 1954) is in fact *Ixodes rageaui*, while Uilenberg *et al.* (2013) affirms that *Ixodes rageaui* has been confused with *Ixodes ugandanus*.
- 2407 *ramachandrai* Dhanda, Hoogstraal and Bhat, 1970, *Haemaphysalis*
- 2408 *ramachandrai* Dhanda, 1966, *Rhipicephalus*
- 2409 *randrianasoloi* Uilenberg and Hoogstraal, 1969b, *Ixodes*
- 2410 *randrianasoloi* Barker and Murrell, 2004, *Ixodes*. This name is a *lapsus* for *Ixodes randrianasoloi* repeated in Barker & Murrell (2008) as stated in Guglielmone *et al.* (2009).
- 2411 *rangtangensis* Teng, 1973, *Ixodes*. This name is valid in Horak *et al.* (2002), Barker & Murrell (2004, 2008) and Luo *et al.* (2009), but not included in Doss & Anastos (1977). The name *Ixodes rangtangensis* is a synonym of *Ixodes moschiferi* as stated in Teng (1986), Camicas *et al.* (1998) and Guglielmone *et al.* (2009).
- 2412 *raskemensis* Filippova, 1983, *Dermacentor* (page 292). This name is a *lapsus* for *Dermacentor raskemensis*, but not included in Camicas *et al.* (1998).
- 2413 *raskemensis* Rao, Dhanda, Bhat and Kulkarni, 1973, *Dermacentor* (page 1446). This name is a *lapsus* for *Dermacentor raskemensis*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Moshaverinia *et al.* (2009, page 1126) among others.
- 2414 *raskemensis* Pomerantzev, 1946, *Dermacentor*. This name in Dhanda *et al.* [1971 under the authority of Serdjukova in Pomerantzev (1948)] is partly in fact *Dermacentor ushakovae* as stated in Filippova & Panova (1987). *Dermacentor raskemensis* is under the authority of Pomerantzev, 1948 in Filippova (2008), but we maintain the authority for this species as Pomerantzev, 1946 (pages 16, 17).
- 2415 *raskeminsis* Razmi, Pourhosseini, Yaghfour and Seidabadi, 2013, *Dermacentor* (page 80). This name is a *lapsus* for *Dermacentor raskemensis*.
- 2416 *raskimensis* Siddiqi and Jan, 1986, *Dermacentor* (pages 124, 125). This name is a *lapsus* for *Dermacentor raskemensis*, but not included in Camicas *et al.* (1998). This *lapsus* is repeated in Sajid *et al.* (2011, page 607), Iqbal *et al.* (2013, page 538) and others.
- 2417 *rasus* Neumann, 1899, *Ixodes*. Keirans (1985) found *Ixodes cumulatimpunctatus* identified as *Ixodes rasmus* in the Nuttall

Tick Collection.

- 2418 *rasmus cumulatimpunctatus* Schulze, 1943a, *Ixodes*. This name is a synonym of *Ixodes cumulatimpunctatus* and its original name as stated in Camicas *et al.* (1998).
- 2419 *rasmus eidmanni* Schulze, 1943a, *Ixodes*. This name is a synonym of *Ixodes rasmus* as stated in Theiler (1962) and Camicas *et al.* (1968).
- 2420 **ratti** Kohls, 1948b, *Haemaphysalis*
- 2421 *recinus* Bolwig, 1958, *Ixodes* (page 119). This name is a *lapsus* for *Ixodes ricinus*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Oteo & Estrada, 1992, *Ixodes* (page 467) and Ali *et al.* (2009, page 170), among others.
- 2422 *reticulatus* Yamaguti, Tipton, Keegan and Toshioka, 1971, *Dermacentor* (page 36). This name is a *lapsus* for *Dermacentor reticulatus* (Fabricius, 1794), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Pavločić *et al.* (2008, pages 128-129).
- 2423 *redikorzevi* Kolonin, 1981, *Ixodes* (page 49). This name is a *lapsus* for *Ixodes redikorzevi*, but not included in Camicas *et al.* (1998). This *lapsus* is repeated in Nowak-Chmura (2012, page 401) and others.
- 2424 *redikorzevi* Yin, Ye, Jiao, Ma and Zhang, 2010, *Ixodes* (page 376). This name is a *lapsus* for *Ixodes redikorzevi*.
- 2425 *redikorzev* Erster, Roth, Hadani and Shkap, 2013, *Ixodes* (page 398). This name is a *lapsus* for *Ixodes redikorzevi*.
- 2426 **redikorzevi** Olenov, 1927, *Ixodes*. This name in Starkoff (1958) is in fact *Ixodes acuminatus* according to Camicas *et al.* (1998) based on Morel & Pérez (1977 cited 1978). The name *Ixodes redikorzevi* in Emel'yanova (1963) is in fact *Ixodes pavlovskiyi* Pomerantzev, 1946 according to Camicas *et al.* (1998) based on Kolonin (1981); however, the latter author refers to Emel'yanova *et al.* (1963) and no reference of Emel'yanova (1963) has been found. Filippova (1974) states that some records of *Ixodes redikorzevi* are in fact *Ixodes eldaricus*. Keirans & Hillyard (2001) are dubitative about the validity of *Ixodes redikorzevi*, and Kolonin (2009) considers this name a synonym of *Ixodes acuminatus*. *Ixodes redikorzevi* is a valid name here.
- 2427 *redikorzevi emberizae* Pomerantzev, 1950, *Ixodes*. This name is a synonym *Ixodes acuminatus* in Camicas *et al.* (1998), but it is a synonym of *Ixodes redikorzevi* as stated in Filippova (1977).
- 2428 *redikorzevi laguriae* Olenov, 1929b, *Ixodes*. This name is a synonym of *Ixodes laguri* and its original name as stated in Filippova (2008), that was subsequently amended to *Ixodes redikorzevi laguri*.
- 2429 *redikorzevi laguri* Olenov, 1929b, *Ixodes*. It was originally named *Ixodes redikorzevi laguriae* and subsequently amended. The name *Ixodes redikorzevi laguri* is a synonym of *Ixodes laguri* as stated in Filippova (2008).
- 2430 *redikorzevi redikorzevi* Olenov, 1927, *Ixodes*. This name used first in Pomerantzev (1950) is a synonym of *Ixodes acuminatus* in Camicas *et al.* (1998), but it is a synonym of *Ixodes redikorzevi* as stated in Filippova (1977).
- 2431 *redikorzevi theodori* Warburton, 1927, *Ixodes*. It was originally named *Ixodes theodori*. The name *Ixodes redikorzevi theodori* used in Arthur (1955a) and by a few other workers, is a synonym of *Ixodes acuminatus* in Camicas *et al.* (1998). The name *Ixodes redikorzevi theodori* is a synonym of *Ixodes redikorzevi* as stated in Filippova (1977).
- 2432 *redikorzevi laguriae* Olenov, 1929b, *Ixodes*. This name is a *lapsus* for *Ixodes redikorzevi laguriae* (= *Ixodes laguri*) in Filippova (2008, page 1005).
- 2433 *reduvius* Linnaeus, 1758, *Acarus*. This name is a synonym of *Ixodes ricinus* as stated in Neumann (1911a) and Camicas *et al.* (1998). The name *Acarus reduvius* Linnaeus, 1758 has been widely used in the past for related and unrelated tick species. Oudemans (1929, 1936) regards *Ixodes ricinus* a synonym of *Acarus reduvius*. However, this discussion has been settled by the International Commission on Zoological Nomenclature (1981) giving priority to the name *Acarus ricinus* (= *Ixodes ricinus*) over *Acarus reduvius* with Neumann (1901) as first reviser.
- 2434 *reduvius* (Linnaeus, 1758), *Cynorhaestes*. It was originally named *Acarus reduvius* Linnaeus, 1758 (= *Ixodes ricinus*). The name *Cynorhaestes reduvius* (Linnaeus, 1758) used in Hermann (1804) and by a few other workers, is a synonym of *Ixodes ricinus* as stated in Neumann (1911a). However, the name *Cynorhaestes reduvius* (Linnaeus, 1758) is treated as a *nomen nudum* in Camicas *et al.* (1998) based on Hoogstraal (1958), a view not shared here.
- 2435 *reduvius* Hermann, 1804, *Cynorhaestes*. Hoogstraal (1958) declares *Cynorhaestes reduvius* Hermann, 1804 a *nomen nudum*. However, Hermann (1804) is not referring to a species different from *Acarus reduvius* Linnaeus, 1758 (= *Ixodes ricinus*). Indeed, *Cynorhaestes reduvius* Hermann, 1804 is a *nomen nudum* derived from a wrong name usage in Hoogstraal (1958).
- 2436 *reduvius* (Linnaeus, 1758), *Euixodes*. It was originally named *Acarus reduvius* Linnaeus, 1758 (= *Ixodes ricinus*). The name *Euixodes reduvius* (Linnaeus, 1758) used in Stephens & Christopher (1908) is a synonym of *Ixodes ricinus* as stated in Camicas *et al.* (1998).
- 2437 *reduvius* (Linnaeus, 1758), *Ixodes*. It was originally named *Acarus reduvius* Linnaeus, 1758 (= *Ixodes ricinus*). The name *Ixodes reduvius* (Linnaeus, 1758) is a synonym of *Ixodes ricinus* as stated in Neumann (1901, 1911a), but this name has been widely used in the past to denominate related and unrelated tick species. The name *Ixodes reduvius* (Linnaeus, 1758) in Audouin (1832) is in fact *Ixodes hexagonus* as stated in Nuttall & Warburton (1911), while Neumann (1911a) treats *Ixodes reduvius* (Linnaeus, 1758) in Neumann (1899) as a synonym of *Ixodes plumbeus* Dugès, 1834b (*incertae sedis*), and Keirans & Clifford (1978) treat the same name in Neumann (1899) actually in part *Ixodes scapularis* Say, 1821.
- 2438 *refipus* Shoukry, El-Kady and Diab, 2002, *Hyalomma* (page 54). This name is a *lapsus* for *Hyalomma rufipes*.
- 2439 *reflexus* (Fabricius, 1794), *Ixodes*. This name used in Fabricius (1805) and by a few other workers, is an incorrect name for Ixodidae because it is a synonym of *Argas reflexus* (Argasidae) as stated in Neumann (1911a).

- 2440 *reichenowi* Zumpt, 1943a, *Rhipicephalus*. This name is valid in Santos Dias (1993b), but it is a synonym of *Rhipicephalus planus* Neumann, 1907f as stated in Walker *et al.* (2000).
- 2441 *reiculatus* Estrada-Peña, 1991, *Dermacentor* (page 37). This name is a *lapsus* for *Dermacentor reticulatus* (Fabricius, 1794), but not included in Camicas *et al.* (1998).
- 2442 *reidi* Hoogstraal, 1956a, *Margaropus*
- 2443 *renschii* Schulze, 1933a, *Haemaphysalis*. This name is a synonym of *Haemaphysalis bispinosa* in Anastos (1950), but it is valid.
- 2444 *resinus* Yakhchali, Rostami and Esmailzadeh 2011, *Ixodes* (page 232). This name is a *lapsus* for *Ixodes ricinus*.
- 2445 *reticalutus* Aubert, 1975, *Dermacentor* (page 467). This name is a *lapsus* for *Dermacentor reticulatus*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2446 *reticularis* Anderson, 1909, *Dermacentor*. This name is a *lapsus* for *Dermacentor reticulatus* (Fabricius, 1794) repeated in Jahfari *et al.* (2012, page 6).
- 2447 *reticulates* Nakamura and Yajima, 1937, *Dermacentor* (page 178). This name is a *lapsus* for *Dermacentor reticulatus* (Fabricius, 1794), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Guerra *et al.* (2003, page 181), Chitimia & Cosoroabă (2007, page 42) among others.
- 2448 *reticulatus* Fabricius, 1794, *Acarus*. This name is a synonym of *Dermacentor reticulatus reticulatus* (= *Dermacentor reticulatus*) in Neumann (1911a). The name *Acarus reticulatus* is a synonym of *Dermacentor reticulatus* (Fabricius, 1794) and its original name as stated in Koch (1844a) and Camicas *et al.* (1998).
- 2449 *reticulatus* (Fabricius, 1794), *Dermacentor*. It was originally named *Acarus reticulatus* Fabricius, 1794 and given its current status in Koch (1844a). The name *Dermacentor reticulatus* (Fabricius, 1794) in Neumann (1897) is in fact *Dermacentor reticulatus occidentalis* Marx, 1892 (= *Dermacentor occidentalis* Marx, 1892) according to Neumann (1911a), while *Ixodes marmoratus* Risso, 1826 (*incertae sedis*) in Mégnin (1880) is a synonym of *Dermacentor reticulatus* (Fabricius, 1794) in the opinion of Camicas *et al.* (1998). Keirans (1985) found *Dermacentor niveus* identified as *Dermacentor reticulatus* (Fabricius, 1794) in the Nuttall Collection. Neumann (1911a) divided *Dermacentor reticulatus* (Fabricius, 1794) into three subspecies: *reticulatus reticulatus* [= *Dermacentor reticulatus* (Fabricius, 1794)], *reticulatus niveus* (= *Dermacentor niveus*) and *reticulatus occidentalis* (= *Dermacentor occidentalis*).
- 2450 *reticulatus* (Fabricius, 1794), *Ixodes*. It was originally named *Acarus reticulatus* Fabricius, 1794 [= *Dermacentor reticulatus* (Fabricius, 1794)]. The name *Ixodes reticulatus* (Fabricius, 1794) used first in Fabricius (1805) is a synonym of *Dermacentor reticulatus reticulatus* (Fabricius, 1794) [= *Dermacentor reticulatus* (Fabricius, 1794)] in Neumann (1911a). *Ixodes reticulatus* (Fabricius, 1794) is a synonym of *Dermacentor reticulatus* as stated in Camicas *et al.* (1998). Authors as Anda *et al.* (1993) still use the name *Ixodes reticulatus* (Fabricius, 1794).
- 2451 *reticulatus* Koch, 1856, *Ixodes*, in Rosenhauer (1856). This name is a probable synonym of *Ixodes ricinus* as stated in Neumann (1911a) and Camicas *et al.* (1998).
- 2452 *reticulatus aulicus* Hirst, 1916, *Dermacentor*. This name is a synonym of *Dermacentor marginatus* (Sulzer, 1776) as stated in Camicas *et al.* (1998).
- 2453 *reticulatus niveus* Neumann, 1897, *Dermacentor*. This name is a synonym of *Dermacentor niveus* and its original name as stated in Camicas *et al.* (1998). However, the name *Dermacentor reticulatus niveus* in Olenev (1927) is in fact *Dermacentor reticulatus* (Fabricius, 1794) according to Filippova (1997) and *Dermacentor marginatus* (Sulzer, 1776) in the opinion of Estrada-Peña (1991).
- 2454 *reticulatus occidentalis* Marx, 1892, *Dermacentor*. This name used in Neumann (1905) and by a few other workers, is a synonym of *Dermacentor occidentalis* Marx, 1892 as stated in Camicas *et al.* (1998). However, the name *Dermacentor reticulatus* (Fabricius, 1794) in Neumann (1897) is in fact *Dermacentor reticulatus occidentalis* Marx, 1892 (= *Dermacentor occidentalis* Marx, 1892) as stated in Neumann (1911a).
- 2455 *reticulatus reticulatus* (Fabricius, 1794), *Dermacentor*. This name used in Neumann (1911a) and by a few other workers, is a synonym of *Dermacentor reticulatus* (Fabricius, 1794) as stated in Camicas *et al.* (1998).
- 2456 *reticulatus* Nakamura and Yajima, 1937, *Dermacentor* (page 177). This name is a *lapsus* for *Dermacentor reticulatus*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2457 *rhabdomysae* Arthur, 1959b, *Ixodes*
- 2458 *rhinocerinus* (Denny, 1843), *Amblyocentor*. It was originally named *Ixodes rhinocerinus* (= *Dermacentor rhinocerinus*). The name *Amblyocentor rhinocerinus* used in Schulze (1932e) is a synonym of *Dermacentor rhinocerinus* as stated in Arthur (1960a) and Camicas *et al.* (1998).
- 2459 *rhinocerinus* (Denny, 1843), *Amblyomma*. It was originally named *Ixodes rhinocerinus* (= *Dermacentor rhinocerinus*). The name *Amblyomma rhinocerinus* used in Koch (1844a) and by a few other workers, is a synonym of *Dermacentor rhinocerotis rhinocerotis* (De Geer, 1778) in Neumann (1911a), but this author describes *Dermacentor rhinocerinus* under the name *Dermacentor rhinocerotis rhinocerotis* (De Geer, 1778) as stated in Arthur (1960a). The name *Amblyomma rhinocerinus* is a synonym of *Dermacentor rhinocerinus* as stated in Camicas *et al.* (1998).
- 2460 *rhinocerinus* (Denny, 1843) *Dermacentor*. It was originally named *Ixodes rhinocerinus* and given its current status in Schulze (1920, usually cited 1919). Arthur (1960a) explains that the names *Dermacentor rhinocerotis* (De Geer, 1778) in Neumann (1897, 1907f) and *Dermacentor rhinocerotis rhinocerotis* (De Geer, 1778) in Neumann (1911a) are in fact *Dermacentor rhinocerinus*. The name *Amblyomma rhinocerinus* in Estrada-Peña *et al.* (2012b) appears to refer in fact to *Amblyomma rhinocerotis*.

- 2461 *rhinocerinus* Denny, 1843, *Ixodes*. This name is a synonym of *Dermacentor rhinocerotis rhinocerotis* (De Geer, 1778) in Neumann (1911a), but this author describes *Dermacentor rhinocerinus* under the name *Dermacentor rhinocerotis rhinocerotis* (De Geer, 1778) as stated in Arthur (1960a). The name *Ixodes rhinocerinus* is a synonym of *Dermacentor rhinocerinus* and its original name as stated in Camicas *et al.* (1998).
- 2462 *rhinocerinus otis* Wilson, 1950, *Dermacentor*. This name is a synonym of *Dermacentor rhinocerinus* as stated in Camicas *et al.* (1998).
- 2463 *rhinocerinus permaculatus* Neumann, 1907f, *Dermacentor*. This name is a synonym of *Dermacentor rhinocerinus* in Camicas *et al.* (1998), but it is a *lapsus* for *Dermacentor rhinocerotis permaculatus* (= *Dermacentor rhinocerinus*) in Estrada-Peña (1992).
- 2464 *rhinocerinus schillingsi* Jakob (sometimes cited as Jacob), 1924, *Dermacentor*. This name is a synonym of *Dermacentor rhinocerinus* as stated in Camicas *et al.* (1998).
- 2465 *rhinocerotis* De Geer, 1778, *Acarus*. This name is a synonym of *Amblyomma rhinocerotis* (De Geer, 1778) and its original name as stated in Camicas *et al.* (1998). However, the name *Acarus rhinocerotis* is a synonym of *Dermacentor rhinocerotis rhinocerotis* in Neumann (1911a) but this author describes *Dermacentor rhinocerinus* under the name *Dermacentor rhinocerotis rhinocerotis* (De Geer, 1778) as stated in Arthur (1960a).
- 2466 ***rhinocerotis*** (De Geer, 1778), *Amblyomma*. It was originally named *Acarus rhinocerotis* De Geer, 1778 and given its current status in Koch (1844a). The name *Amblyomma rhinocerotis* (De Geer, 1778) is a synonym of *Dermacentor rhinocerotis rhinocerotis* (De Geer, 1778) [= *Amblyomma rhinocerotis* (De Geer, 1778)] in Neumann (1911a), but this author describes *Dermacentor rhinocerinus* under the name *Dermacentor rhinocerotis rhinocerotis* (De Geer, 1778) as stated in Arthur (1960a). The name *Amblyomma rhinocerinus* in Estrada-Peña *et al.* (2012b) appears to refer in fact to *Amblyomma rhinocerotis*. Keirans (1985) found *Amblyomma sparsum* identified as *Amblyomma petersi* [= *Amblyomma rhinocerotis* (De Geer, 1778)] in the Nuttall Tick Collection.
- 2467 *rhinocerotis* (De Geer, 1778), *Cynorhaestes*. It was originally named *Acarus rhinocerotis* De Geer, 1778 [= *Amblyomma rhinocerotis* (De Geer, 1778)]. The name *Cynorhaestes rhinocerotis* (De Geer, 1778) used in Hermann (1804) is a synonym of *Amblyomma rhinocerotis* (De Geer, 1778) as stated in Camicas *et al.* (1998), but not included in Neumann (1911a).
- 2468 *rhinocerotis* (De Geer, 1778), *Dermacentor*. It was originally named *Acarus rhinocerotis* De Geer, 1778 [= *Amblyomma rhinocerotis* (De Geer, 1778)]. The name *Dermacentor rhinocerotis* (De Geer, 1778) is a synonym of *Amblyomma rhinocerotis* (De Geer, 1778). However, this name in Gerstäcker (1873 who placed it in the genus *Dermacentor*) and Neumann (1907f) is in fact *Dermacentor rhinocerinus* as stated in Camicas *et al.* (1998); Arthur (1960a) also found that *Dermacentor rhinocerotis* (De Geer, 1778) in Neumann (1897) and *Dermacentor rhinocerotis rhinocerotis* (De Geer, 1778) in Neumann (1911a) are in fact *Dermacentor rhinocerinus*. Keirans (1985) found *Dermacentor rhinocerinus* identified as *Dermacentor rhinocerotis* (De Geer, 1778) in the Nuttall Collection. Neumann (1911a) divided this name into two subspecies: *rhinocerotis rhinocerotis* [= *Dermacentor rhinocerinus* as stated in Arthur (1960a)] and *rhinocerotis permaculatus* [= *Dermacentor rhinocerinus* as stated in Camicas *et al.* (1998)].
- 2469 *rhinocerotis* (De Geer, 1778), *Haemalastor*. It was originally named *Acarus rhinocerotis* De Geer, 1778 [= *Amblyomma rhinocerotis* (De Geer, 1778)]. The name *Haemalastor rhinocerotis* used in Oudemans (1936, page 515) is a synonym of *Amblyomma rhinocerotis* (De Geer, 1778), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2470 *rhinocerotis* Schulze and Schlottke, 1929a, *Hyalomma*. This name is a synonym of *Hyalomma truncatum* as stated in Camicas *et al.* (1998) and Apanaskevich & Horak (2008a).
- 2471 *rhinocerotis* (De Geer, 1778), *Ixodes*. It was originally named *Acarus rhinocerotis* De Geer, 1778 [= *Amblyomma rhinocerotis* (De Geer, 1778)]. The name *Ixodes rhinocerotis* (De Geer, 1778) used in Fabricius (1805) and Gervais (1844) is a synonym of *Amblyomma rhinocerotis* (De Geer, 1778) as stated in Camicas *et al.* (1998). However, *Ixodes rhinocerotis* (De Geer, 1778) is a synonym of *Dermacentor rhinocerotis rhinocerotis* (De Geer, 1778) in Neumann (1911a), but this author describes *Dermacentor rhinocerinus* under the name *Dermacentor rhinocerotis rhinocerotis* (De Geer, 1778) as stated in Arthur (1960a).
- 2472 *rhinocerotis arangis* Lewis, 1934, *Dermacentor*. This name is a synonym of *Dermacentor rhinocerinus* as stated in Camicas *et al.* (1998).
- 2473 *rhinocerotis permaculatus* Neumann, 1907f, *Dermacentor*. This name is valid in Neumann (1911a), but it is a synonym of *Dermacentor rhinocerinus* as stated in Arthur (1960a) and Camicas *et al.* (1998).
- 2474 *rhinocerotis rhinocerotis* (De Geer, 1778), *Dermacentor*. This name used in Neumann (1911a) is a synonym of *Amblyomma rhinocerotis* (De Geer, 1778) in Camicas *et al.* (1998). The name *Dermacentor rhinocerotis rhinocerotis* (De Geer, 1778) is a synonym of *Dermacentor rhinocerinus* as stated in Arthur (1960a).
- 2475 *rhinocerotis schillingsi* Jakob (sometimes cited as Jacob), 1924, *Dermacentor*. This name is a *lapsus* for *Dermacentor rhinocerinus schillingsi* (= *Dermacentor rhinocerinus*) in Moritz & Fischer (1981, page 360), but not included in Camicas *et al.* (1998).
- 2476 *rhinocerotis spermaculatus* Doss, Farr, Roach and Anastos, 1974a, *Dermacentor* (page 397). This name is a *lapsus* for *Dermacentor rhinocerotis permaculatus* (= *Dermacentor rhinocerinus*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2477 *rhinocerous* Lwande, Lutomiah, Obanda, Gayuka, Mutisya, Mulwa, Michuki, Chepkorir, Fischer, Venter and Sang, 2013, *Dermacentor* (page 640). This name is a *lapsus* for *Dermacentor rhinocerinus*.

- 2478 *rhinolophi* Canestrini and Fanzago, 1878, *Haemaphysalis*. This name is *incertae sedis* in Neumann (1911a), but it is a synonym of *Haemaphysalis punctata* Canestrini and Fanzago, 1878 as stated in Camicas *et al.* (1998) and Filippova (1997). The latter author spelt this name *Haemaphysalis rhipolophi* (*lapsus*).
- 2479 *rhinozerotis* Karsch, 1878, *Dermacentor*. This name is a *lapsus* for *Dermacentor rhinocerotis* (De Geer, 1778) [= *Amblyomma rhinocerotis* (De Geer, 1778)] as stated in Camicas *et al.* (1998), but not included in Neumann (1911a).
- 2480 *rhipicephali* Estrada-Peña and Jongejan, 1999, *Rhipicephalus* (page 705). This name has no description or figure, a *nomen nudum*.
- 2481 *rhipicephalioides* Patton and Cragg, 1913, *Hyalomma* (page 609). This name is a *lapsus* for *Hyalomma rhipicephaloides*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2482 ***rhipicephaloides*** Neumann, 1901, *Hyalomma*.
- 2483 *rhipicephaloides* (Neumann, 1901), *Rhipicephalus*. It was originally named *Hyalomma rhipicephaloides*. The name *Rhipicephalus rhipicephaloides* used in Jakob (sometimes cited as Jacob) (1924) is a synonym of *Hyalomma rhipicephaloides* as stated in Walker *et al.* (2000).
- 2484 *rhipolophi* Filippova, 1997, *Haemaphysalis* (page 124). This name is a *lapsus* for *Haemaphysalis rhinolophi* (= *Haemaphysalis punctata* Canestrini and Fanzago, 1878).
- 2485 *rhombeatus* Shaw, 1798, *Acarus*, in Shaw & Nodder (1798). This name is not included in Neumann (1911a). The name *Acarus rhombeatus* is a *nomen dubium* in Camicas *et al.* (1998) and here.
- 2486 *rhombeatus* (Shaw, 1798), *Amblyomma*. It was originally named *Acarus rhombeatus* (*nomen dubium*). The name *Amblyomma rhombeatus* used in Oudemans (1936) is a *nomen dubium* synonym of *Acarus rhombeatus* (*nomen dubium*) in Camicas *et al.* (1998) and here. The correct spelling for this name should be *Amblyomma rhombeatum*.
- 2487 *rhombeatus* (Shaw, 1798), *Aponomma*. It was originally named *Acarus rhombeatus* (*nomen dubium*). The name *Aponomma rhombeatus* used in Oudemans (1929) is a *nomen dubium* synonym of *Acarus rhombeatus* (*nomen dubium*) as stated in Camicas *et al.* (1998). The correct spelling for this name should be *Aponomma rhombeatum*.
- 2488 *rhombeatus* (Shaw, 1798), *Haemalastor*. It was originally named *Acarus rhombeatus* (*nomen dubium*). The name *Haemalastor rhombeatus* used in Oudemans (1936, page 417) is also a *nomen dubium* synonym of *Acarus rhombeatus* (*nomen dubium*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2489 *ribicundus* Wall and Shearer, 1997, *Ixodes* (page 111). This name is a *lapsus* for *Ixodes rubicundus* Neumann, 1904 repeated in Ekanem *et al.* (2012, pages 108-112).
- 2490 *ricinoides* De Geer, 1778, *Acarus*. It was originally named *Pediculus ricinoides* Linnaeus, 1758 according to Oudemans (1929) a view endorsed in Doss & Anastos (1977), but not in Neumann (1911a), Camicas *et al.* (1998) and here. The name *Acarus ricinoides* De Geer 1778 is a synonym of *Ixodes ricinus* in Neumann (1911a) and a synonym of *Ixodes ricinus* and a *nomen dubium* in Camicas *et al.* (1998). *Acarus ricinoides* is a name *incertae sedis* here. Doss & Anastos (1977) and Camicas *et al.* (1998) write this name *Acarus (Amblyomma) ricinoides* following Oudemans (1929) who considers that this name belong to *Amblyomma*.
- 2491 *ricinoides* (Linnaeus, 1758), *Amblyomma*. It was originally named *Pediculus ricinoides* Linnaeus, 1758 according to Oudemans (1929), but this opinion is not validated here. The name *Amblyomma ricinoides* (Linnaeus, 1758) used in Oudemans (1929, page 211) is a *nomen nudum*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2492 *ricinoides* (Linnaeus, 1758), *Haemalastor*. It was originally named *Pediculus ricinoides* Linnaeus, 1758 according to Oudemans (1929), but this opinion is not validated here. The name *Haemalastor ricinoides* (Linnaeus, 1758) used in Oudemans (1936, page 518) is a *nomen nudum*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2493 *ricinoides* Nuttall, 1913, *Ixodes*. This name was considered by Schulze (1930d) preoccupied by *Acarus ricinoides* De Geer, 1758 (*incertae sedis*) because he regarded the name “*ricinoides* De Geer” [sic] a synonym of *Ixodes ricinus*, and replaced *Ixodes ricinoides* Nuttall, 1913 for *Ixodes nuttallianus*. Therefore, *Ixodes ricinoides* Nuttall, 1913 is a synonym of *Ixodes nuttallianus*. The name *Ixodes ricinoides* used in Dandria (1995) and Schembri (2003) is most probably a *lapsus* for *Ixodes ricinus*.
- 2494 *ricinoides* Linnaeus, 1758, *Pediculus*. This name in Linnaeus (1758, 10th Edition, page 611) is considered to be a tick in Oudemans (1929) and Doss & Anastos (1977), but not included in Neumann (1911a) and Camicas *et al.* (1998). The name *Pediculus ricinoides* Linnaeus, 1758 is not considered to be a tick and the opinion in Oudemans (1929) is treated as erroneous. *Pediculus ricinoides* Linnaeus, 1758 is not included in lists 2 or 3.
- 2495 *ricinus* Linnaeus, 1758, *Acarus*. This name is a synonym of *Ixodes ricinus* and its original name as stated in Neumann (1911a). However, authors like Oudemans (1929) regard *Acarus ricinus* a synonym of *Acarus reduvius* Linnaeus, 1758, but, this discussion had been settled by the International Commission on Zoological Nomenclature (1981) giving priority to the name *Acarus ricinus* (= *Ixodes ricinus*) over *Acarus reduvius* Linnaeus, 1758 following the opinion of Neumann (1901) as first reviser. This name in Camicas *et al.* (1998, page 121) is apparently a *lapsus* for *Acarus marginata* [= *Dermacentor marginatus* (Sulzer, 1776)].
- 2496 *ricinus* (Linnaeus, 1758), *Boophilus*. This name is a *lapsus* for *Ixodes ricinus* in Idoyaga (1928) as stated in Camicas *et al.* (1998).
- 2497 *ricinus* (Linnaeus, 1758), *Crotonus*. It was originally named *Acarus ricinus* (= *Ixodes ricinus*). The name *Crotonus ricinus* used in Duméril (1829) is a synonym of *Ixodes ricinus* as stated in Neumann (1911a) and Camicas *et al.* (1998).
- 2498 *ricinus* (Linnaeus, 1758), *Cynorhaestes*. It was originally named *Acarus ricinus* (= *Ixodes ricinus*). The name *Cynorhaestes ricinus* used in Hermann (1804) and by a few other workers, is a synonym of *Ixodes ricinus* as stated in

- Neumann (1911a) and Camicas *et al.* (1998).
- 2499 *ricinus* (Linnaeus, 1758), *Dermacentor*. This name is a *lapsus* for *Ixodes ricinus* in Winer & Strakosch (1941) as stated in Camicas *et al.* (1998).
- 2500 *ricinus* (Linnaeus, 1758), *Euixodes*. It was originally named *Acarus ricinus* (= *Ixodes ricinus*). The name *Euixodes ricinus* used in Bonnet (1908) and Castellani & Chalmers (1910) is a synonym of *Ixodes ricinus* as stated in Camicas *et al.* (1998).
- 2501 ***ricinus*** (Linnaeus, 1758), *Ixodes*. It was originally named *Acarus ricinus* and given its current status in Latreille (1804). The International Commission on Zoological Nomenclature (1981) gave priority to the name *Acarus ricinus* (= *Ixodes ricinus*) over *Acarus reduvius* Linnaeus, 1758. The name *Ixodes ricinus* has been widely used in the past to denominate related and unrelated tick species. The synonymy of *Ixodes ricinus* is mainly based on Camicas *et al.* (1998). Filippova (1974) states that some records of *Ixodes ricinus* are in fact *Ixodes eldaricus*, while Keirans (1985) found *Ixodes ricinus* identified as *Ixodes brunneus* and *Ixodes canisuga* in the Nuttall Collection, and Saratsiotis (1970) mentions the confusion of *Ixodes ricinus* with *Ixodes gibbosus*. Kitaoka & Saito (1967) state that *Ixodes nipponensis* has been confused prior to its description with *Ixodes ricinus*. Camicas *et al.* (1998) consider *Ixodes ricinus* in Boero (1957) a synonym of *Ixodes aragaii*, but it is uncertain if it is a synonym of *Ixodes aragaii* or *Ixodes pararicinus*. The name *Ixodes ricinoides* used in Dandria (1995) and Schembri (2003) is most probably a *lapsus* for *Ixodes ricinus*.
- 2502 *ricinus* (Linnaeus, 1758), *Rhipicephalus*. This name is a *lapsus* for *Ixodes ricinus* in Marchoux & Couvy (1912). Doss & Anastos (1977) and Camicas *et al.* (1998) write this name under the authority of Marchoux and Couvy, 1912, but this is unjustified.
- 2503 *ricinus aragaii* Fonseca, 1935a, *Ixodes*. The original spelling *Ixodes ricinus aragãoi* is corrected to *Ixodes ricinus aragaii*. The name *Ixodes ricinus aragaii* (= *Ixodes aragaii*) is a synonym of *Ixodes affinis* in Cooley & Kohls (1945), Durden & Keirans (1996), Keirans & Clifford (1978, 1984) and Guzmán-Cornejo & Robbins (2010), among others. *Ixodes ricinus aragaii* is a synonym of *Ixodes aragaii* and its original name as stated in Camicas *et al.* (1998) and Onofrio *et al.* (2009).
- 2504 *ricinus atypicus* Mikičič, 1949, *Ixodes*. This name is a synonym of *Ixodes gibbosus* as stated in Saratsiotis (1970) and Camicas *et al.* (1998), but not included in Doss & Anastos (1977).
- 2505 *ricinus californicus* Banks, 1904, *Ixodes*. It was originally named *Ixodes californicus* (= *Ixodes brunneus*). The name *Ixodes ricinus californicus* used first in Nuttall & Warburton (1911), is a synonym of *Scaphixodes brunneus* (= *Ixodes brunneus*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes brunneus*.
- 2506 *ricinus gibbosus* Nuttall, 1916, *Ixodes*. This name is a synonym of *Ixodes gibbosus* and its original name as stated in Camicas *et al.* (1998) and Keirans & Hillyard (2001).
- 2507 *ricinus miyazakiensis* Sugimoto, 1937a, *Ixodes*. This name is a probable synonym of *Ixodes persulcatus* in Yamaguti *et al.* (1971), but its description is not useful for its diagnosis and type material lost. The name *Ixodes ricinus miyazakiensis* is a *nomen nudum*. Doss & Anastos (1977) and Camicas *et al.* (1998) named Kishida, 1930 the authority for *Ixodes ricinus miyazakiensis* but Kishida did not describe it.
- 2508 *ricinus onchorhyncha* Schulze, 1939b, *Ixodes*. This name is a synonym of *Ixodes ricinus* as stated in Camicas *et al.* (1998).
- 2509 *ricinus ovatus* Neumann, 1899, *Ixodes*. This name used in Nuttall (1911) and by a few other workers, is a synonym of *Ixodes ovatus* as stated in Yamaguti *et al.* (1971) and Camicas *et al.* (1998).
- 2510 *ricinus rochensis* Calzada, 1936, *Ixodes*. This name is a synonym of *Ixodes aragaii* in Camicas *et al.* (1998), but it is uncertain if *Ixodes ricinus rochensis* is a synonym of *Ixodes aragaii* or *Ixodes pararicinus* as stated in Guglielmone *et al.* (2003). The name *Ixodes ricinus rochensis* is *incertae sedis*.
- 2511 *ricinus scapularis* Say, 1821, *Ixodes*. This name used first in Nuttall & Warburton (1911) is a synonym of *Ixodes scapularis* Say, 1821 as stated in Keirans & Clifford (1978) and Camicas *et al.* (1998).
- 2512 *rifipes* Petney, Skuballa, Muders, Pfäffle, Zetlmeisl and Oehme, 2012b, *Hyalomma* (page 160). This name is a *lapsus* for *Hyalomma rufipes*.
- 2513 *ricinus* Baker and Wharton, 1952, *Ixodes* (page 144). This name is a *lapsus* for *Ixodes ricinus*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Bown *et al.* (2006, page 404) among others.
- 2514 *rinicus* Hovind-Hougen, Asbrink, Stiernstedt, Steere and Hovmark, 1986, *Ixodes* (page 103). This name is a *lapsus* for *Ixodes ricinus*, but not included in Camicas *et al.* (1998). This *lapsus* is repeated in Papa *et al.* (2011, page 540) among others.
- 2515 *rimus* Kim, 1973, *Ixodes* (page 98). This name is a *lapsus* for *Ixodes ricinus*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2516 *robertsi* Camicas, Hervy, Adam and Morel, 1998, *Ixodes*. This name was used to replace *Ixodes cornuatus* Roberts, 1960 because Camicas *et al.* (1998) believe this name occupied by *Ixodes persulcatus cornuatus* Olenov, 1941. This decision is unsound because *Ixodes persulcatus cornuatus* Olenov, 1941 is a *nomen nudum*. The name *Ixodes robertsi* is a junior objective synonym of *Ixodes cornuatus* Roberts, 1960 as stated in Halliday (2012).
- 2517 *robertsoni* Fitch, 1872, *Ixodes*. This name is a synonym of *Dermacentor variabilis variabilis* (= *Dermacentor variabilis*) in Neumann (1911a). The name *Ixodes robertsoni* is a synonym of *Dermacentor variabilis* as stated in Keirans & Barnes (1987) and Camicas *et al.* (1998).
- 2518 ***robinsoni*** Warburton, 1927, *Amblyomma*

- 2519 *rochai* Varela, 1940, *Ixodes*. This name is a synonym of *Ixodes aragaoi* in Camicas *et al.* (1998), but it is probably a *lapsus* or an amendment for *Ixodes ricinus rochensis* (*incertae sedis*). The publication where the name *Ixodes rochai* was first published has not been found and the information was obtained from Camicas *et al.* (1998). The name *Ixodes rochai* is not included in Doss & Anastos (1977). *Ixodes rochai* is arbitrarily considered a *lapsus* for *Ixodes ricinus rochensis* (*incertae sedis*).
- 2520 *romitii* Tonelli Rondelli, 1939, *Amblyomma*. This name is a synonym of *Amblyomma extraoculatum* Neumann, 1899 in Camicas *et al.* (1998), Guglielmone *et al.* (2003) and others, but it is valid as stated in Barros-Battesti *et al.* (2007) and Guglielmone *et al.* (2009, 2010b, 2014).
- 2521 *rondelliae* Santos Dias, 1955c, *Aponomma*. This name is valid in Santos Dias (1993a) and a synonym of *Aponomma exornatum* (= *Amblyomma exornatum*) in Kaufman (1972) and Camicas *et al.* (1998). The name *Aponomma rondelliae* is a synonym of *Amblyomma exornatum* here.
- 2522 *ropsteini* Oudemans, 1925, *Eschatocephalus*. This name is a *lapsus* in the original description, and amended to *kopsteini* (genus not given) in Oudemans (1926). The name *Eschatocephalus ropsteini* is a synonym of *Lepidixodes kopsteini* (= *Ixodes kopsteini*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes kopsteini*.
- 2523 *rosea* Koch, 1844a, *Haemaphysalis*. This name is a synonym of *Margaropus annulatus annulatus* (= *Rhipicephalus annulatus*) in Neumann (1911a) and a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) in Camicas *et al.* (1998). The name *Haemaphysalis rosea* is a synonym of *Rhipicephalus annulatus* here.
- 2524 *rosea* (Koch, 1844a), *Rhipicephalus*. This name used in Salmon & Stiles (1901) is a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) in Camicas *et al.* (1998), but not included in Neumann (1911a). The name *Rhipicephalus rosea* is a *lapsus* for *Haemaphysalis rosea* (= *Rhipicephalus annulatus*) as stated in Walker *et al.* (2000).
- 2525 *rosei* CSIRO, 1961, *Amblyomma*. This name is a *nomen nudum* in Doss & Anastos (1977) and Camicas *et al.* (1998), who consider Gregory, 1961 the authority for this name, but the authority is not defined in the report.
- 2526 *rosmari* Ass, 1935, *Dermacentor*. This name is a synonym of *Hyalomma aegyptium* in Pomerantzev (1950) and a synonym of *Ceratixodes uriae* (= *Ixodes uriae*) in Camicas *et al.* (1998). The name *Dermacentor rosmari* is poorly defined and type depository unknown. *Dermacentor rosmari* is a *nomen nudum*, but still regarded valid in Raga *et al.* (2008).
- 2527 *rossianus* Schulze, 1932c, *Ixodes*. This name is a synonym of *Ixodes holocyclus* in Camicas *et al.* (1998), based on Roberts (1960); however, the latter author cites *Ixodes rossianus* based on Schulze, 1935b. The name *Ixodes rossianus* Schulze, 1932c is a name without description or figure, a *nomen nudum*.
- 2528 *rossianus* Schulze, 1935b, *Ixodes*. This name is a synonym of *Ixodes holocyclus* as stated in Roberts (1960), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2529 *rossianus* (Schulze, 1932c), *Sternalixodes*. The name *Sternalixodes rossianus* (Schulze, 1932c) used in Schulze (1942 without given year for the original description) is a synonym of *Ixodes holocyclus* in Camicas *et al.* (1998), but not included in Doss & Anastos (1977). The name *Sternalixodes rossianus* (Schulze, 1932c) is a *nomen nudum* synonym of *Ixodes rossianus* Schulze, 1932c here.
- 2530 *rossicus* Yakimov and Kohl-Yakimova, 1911, *Rhipicephalus*. The name *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition) in Olenev (1929a) is in fact *Rhipicephalus rossicus* according to Filippova (1997). The name *Rhipicephalus rossicus* may be identical to *Rhipicephalus pumilio* according to Zahler *et al.* (1997).
- 2531 *rostralis* (Dugès, 1888), *Gonixodes*. It was originally named *Ixodes rostralis* (= *Haemaphysalis leporispalustris*). The name *Gonixodes rostralis* used first in Neumann (1897) is a synonym of *Haemaphysalis leporis* (Packard, 1869) (= *Haemaphysalis leporispalustris*) in Neumann (1897, 1911a). The name *Gonixodes rostralis* is a synonym of *Haemaphysalis leporispalustris* as stated in Camicas *et al.* (1998).
- 2532 *rostralis* Dugès, 1888, *Ixodes*. This name is usually consider to belong to the genus *Gonixodes*, but Dugès (1888) states that this species belong to the genus *Ixodes* subgenus *Gonixodes*. The name *Ixodes rostralis* is a synonym of *Haemaphysalis leporispalustris*, but not included in Neumann (1911a) and Camicas *et al.* (1998).
- 2533 *rostratum* (Murray, 1877), *Amblyomma*. It was originally named *Xiphiastor rostratum* (= *Amblyomma splendidum*). The name *Amblyomma rostratum* used in Neumann (1901) is a synonym of *Amblyomma splendidum* as stated in Camicas *et al.* (1998), but not included in Neumann (1911a) and Doss & Anastos (1977).
- 2534 *rostratum* (Murray, 1877), *Haemalastor*. It was originally named *Xiphiastor rostratum* (= *Amblyomma splendidum*). The name *Haemalastor rostratum* used in Oudemans (1939) is a synonym of *Amblyomma splendidum* as stated in Camicas *et al.* (1998).
- 2535 *rostratum* Murray, 1877, *Xiphiastor*. This name is a synonym of *Amblyomma splendidum* as stated in Camicas *et al.* (1998).
- 2536 *rothschildi* Nuttall and Warburton, 1911, *Ixodes*. It was originally named *Ixodes percavatus rothschildi*. The name *Ixodes rothschildi* is a synonym of *Scaphixodes rothschildi* in Camicas *et al.* (1998), but it is valid. *Ixodes rothschildi* in Zumpt (1952) is in fact *Ixodes diomedae* as stated in Arthur (1958d), but Camicas *et al.* (1998) regard it a synonym of *Scaphixodes diomedae* (= *Ixodes diomedae*). Hänel & Heyne (2008) still name as *Ixodes rothschildi* the specimen in Zumpt (1952). Keirans (1985) found *Ixodes rothschildi* identified as *Ixodes percavatus* in the Nuttall Ticks Collection.
- 2537 *rothschildi* (Nuttall and Warburton, 1911), *Scaphixodes*. It was originally named *Ixodes percavatus rothschildi* (= *Ixodes rothschildi*). The name *Scaphixodes rothschildi* is valid in Camicas *et al.* (1998), but it is a synonym of *Ixodes rothschildi*.
- 2538 *rotundatum* Boulard, Paperna, Petit and Landau, 2001, *Amblyomma* (page 598). This name is a *lapsus* for *Amblyomma*

- rotundatum* repeated in Lainson *et al.* (2003, page 1070) among others.
- 2539 *rotschildi* Morel, 1959, *Ixodes* (page 547). This name is a *lapsus* for *Ixodes rothschildi*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Sénevet & Ripert (1967, pages 106, 117), Doby & Bigaignon (1997, pages 854, 856) and others.
- 2540 **rotundatum** Koch, 1844a, *Amblyomma*. This name is *incertae sedis* in Neumann (1911a). *Amblyomma rotundatum* has been confused with *Amblyomma goeldii* as stated in Aragão (1936) because *Amblyomma goeldii* is partly a synonym of *Amblyomma rotundatum* as stated in Guglielmone *et al.* (2003).
- 2541 *rotundatum* (Koch, 1844a), *Haemalastor*. It was originally named *Amblyomma rotundatum*. The name *Haemalastor rotundatum* used in Oudemans (1936, page 519) is a synonym of *Amblyomma rotundatum*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2542 *rotundatum* (Koch, 1844a), *Ixodes*. This name is a *lapsus* for *Amblyomma rotundatum* in Neumann (1892), but not included in Neumann (1911a).
- 2543 **rotundatus** Arthur, 1958c, *Ixodes*
- 2544 *rotundicoxalis* Doss and Anastos, 1977, *Dermacentor*, derived from *rotundicoxalis* in Olenev (1927). This name is a *nomen nudum* repeated in Camicas *et al.* (1998) derived from a wrong interpretation of an epithet in Olenev (1927) that is not a tick name but a morphological definition that involves more than one species (Apanaskevich D.A., personal communication).
- 2545 *rotundiscutatus* Minning, 1934, *Boophilus*. This name is a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998). The name *Boophilus rotundiscutatus* is *incertae sedis* here.
- 2546 *rotundiscutatus* (Minning, 1934), *Uroboophilus*. This name used in Kishida (1939b) is a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998). The name *Uroboophilus rotundiscutatus* is *incertae sedis* synonym of *Boophilus rotundiscutatus* (*incertae sedis*) here.
- 2547 *rotundum* Wysoki and Bolland, 1979, *Amblyomma* (page 77). This name is a *lapsus* for *Amblyomma rotundatum*, but not included in Camicas *et al.* (1998). This *lapsus* is repeated in Socolovschi *et al.* (2009, page 9) and others.
- 2548 **roubaudi** Toumanoff, 1940, *Haemaphysalis*
- 2549 *rouboudi* Tseng, 1978, *Haemaphysalis* (page 22). This name is a *lapsus* for *Haemaphysalis roubaudi*, but not included in Camicas *et al.* (1998).
- 2550 *ruber* Supino, 1897, *Rhipicephalus*. It was originally named *Rhipicephalus haemaphysaloides ruber*. The name *Rhipicephalus ruber* used in Neumann (1897) and by a few other workers, is a synonym of *Rhipicephalus haemaphysaloides haemaphysaloides* (= *Rhipicephalus haemaphysaloides*) in Neumann (1911a) and Camicas *et al.* (1998). *Rhipicephalus ruber* is a synonym of *Rhipicephalus haemaphysaloides* as stated in Walker *et al.* (2000).
- 2551 *rubicundicus* Alexander, 1984 (page 370). This name is a *lapsus* for *Ixodes rubicundus* Neumann, 1904, but not included in Camicas *et al.* (1998).
- 2552 *rubicundis* Mukkherje, Sollod, Wikel and King, 2006, *Ixodes* (page 182). This name is a *lapsus* for *Ixodes rubicundus* Neumann, 1904, repeated in Stich *et al.* (2008, page 265) among others.
- 2553 **rubicundus** Neumann, 1904, *Ixodes*. Keirans (1985) found *Ixodes cavipalpus* Nuttall and Warburton, 1908 identified as *Ixodes rubicundus* Neumann, 1904 in the Nuttall Collection. Neumann (1911a) divided *Ixodes rubicundus* Neumann, 1904 into two species: *rubicundus rubicundus* (= *Ixodes rubicundus* Neumann, 1904) and *rubicundus limbatus* Neumann, 1908b (= *Ixodes cavipalpus*).
- 2554 *rubicundus* Frauenfeld, 1867, *Rhipicephalus*. This name is *incertae sedis*, probably a synonym of *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition) in Neumann (1911a). The name *Rhipicephalus rubicundus* Frauenfeld, 1867 is *incertae sedis* here.
- 2555 *rubicundus limbatus* Neumann, 1908b, *Ixodes*. This name is a synonym of *Ixodes cavipalpus* Nuttall and Warburton, 1908 as stated in Hoogstraal (1956a) and Camicas *et al.* (1998).
- 2556 *rubicundus rubicundus* Neumann, 1904, *Ixodes*. This name used in Neumann (1911a) and by a few other workers, is a synonym of *Ixodes rubicundus* Neumann, 1904 as stated in Camicas *et al.* (1998).
- 2557 *rubidis*, Clifford, Sonenshine, Keirans and Kohls, 1973, *Ixodes*. This name is a *lapsus* for *Ixodes rubidus* as stated in Camicas *et al.* (1998), but not included in Doss & Anastos (1977).
- 2558 **rubidus** Neumann, 1901, *Ixodes*. This name is a synonym of *Pholeoixodes rubidus* in Camicas *et al.* (1998), but it is valid. Keirans (1985) found *Ixodes rubidus* identified as *Ixodes hexagonus* in the Nuttall Tick Collection.
- 2559 *rubidus* (Neumann, 1901), *Pholeoixodes*. It was originally named *Ixodes rubidus*. The name *Pholeoixodes rubidus* is valid in Camicas *et al.* (1998) based on Morel & Pérez (1973), but it is a synonym of *Ixodes rubidus*.
- 2560 *rubiginosus* Kolenati, 1857, *Dermanyssus* (spelled *Dermanissus*). This name is *incertae sedis* in Neumann (1911a). The name *Dermanyssus rubiginosus* is a *nomen dubium* in Camicas *et al.* (1998) and here.
- 2561 *rubiginosus* (Kolenati, 1857), *Ixodes*. It was originally named *Dermanissus* [sic] *rubiginosus* (*nomen dubium*). The name *Ixodes rubiginosus* used in Neumann (1899) is a name *incertae sedis* according to Neumann (1911a). *Ixodes rubiginosus* is a *nomen dubium* synonym of *Dermanyssus rubiginosus* (*nomen dubium*) in Camicas *et al.* (1998) and here.
- 2562 *rubripes* Koch, 1844a, *Amblyomma*. This name is a synonym of *Amblyomma maculatum* in Neumann (1911a) and a synonym of *Amblyomma tigrinum* in Camicas *et al.* (1998) and Dantas-Torres *et al.* (2009), respectively. One of us (SN) examined the types of *Amblyomma rubripes* and confirmed that it is a synonym of *Amblyomma tigrinum*.

- 2563 *rufipes* Gmelin, 1790, *Acarus*. This name is a synonym of *Ixodes ricinus* in Camicas *et al.* (1998) based on Neumann (1911a), but it is not included in Neumann's study. The name *Acarus rufipes* Gmelin, 1790 is a *nomen dubium*.
- 2564 *rufipes* (Koch, 1844a), *Amblyomma*. This name is a *lapsus* for *Hyalomma rufipes* Koch, 1844a in Giroud *et al.* (1957) and Zarnea & Novac (1961). Camicas *et al.* (1998) regard the authors of those articles as different authorities for *Amblyomma marginatum rufipes* (Koch, 1844a), while Doss & Anastos (1977) consider only Giroud, Colas-Belcour, Pfister and Morel, 1957, as the authorities for *Amblyomma rufipes* (Koch, 1844a), but these statements are unjustified.
- 2565 *rufipes* Koch, 1844a, *Hyalomma*. The synonymy of this name is largely based on Apanaskevich & Horak (2008b). The name *Hyalomma rufipes* Koch, 1844a is a synonym of *Hyalomma aegyptium* in Neumann (1911a) and a synonym of *Hyalomma marginatum rufipes* Koch, 1844a (= *Hyalomma rufipes* Koch, 1844a) in Camicas *et al.* (1998). Keirans (1985) found *Hyalomma rufipes* identified as *Hyalomma aegyptium* and *Hyalomma aegyptium impressum* (= *Hyalomma rufipes*).
- 2566 *rufipes* Fabricius, 1805, *Ixodes*. This name is a synonym of *Hyalomma aegyptium* in Neumann (1911a), but a *nomen dubium* in Camicas *et al.* (1998) and here.
- 2567 *rufipes* (Fabricius, 1805), *Rhipicephalus*. It was originally named *Ixodes rufipes* Fabricius, 1805 (*nomen dubium*). The name *Rhipicephalus rufipes* (Fabricius, 1805) used in Oudemans (1936, page 614) is a *nomen dubium* synonym of *Ixodes rufipes* Fabricius, 1805 (*nomen dubium*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2568 *rufipes glabrata* Hoogstraal, 1956a, *Hyalomma*. This name is a synonym of *Hyalomma marginatum marginatum* (= *Hyalomma marginatum*) in Camicas *et al.* (1998). The name *Hyalomma rufipes glabrata* is a *lapsus* or an amendment for *Hyalomma rufipes glabratum* (= *Hyalomma marginatum*). *Hyalomma rufipes glabrata* is treated here as a *lapsus* for *Hyalomma rufipes glabratum* (= *Hyalomma marginatum*), but not included in Doss & Anastos (1977).
- 2569 *rufipes glabratum* Fonseca, Pinto, Colaco, Oliveira, Branco, da Gama, Soares Franco and Lacerda, 1951, *Hyalomma*. This name is a synonym of *Hyalomma marginatum* as stated in Apanaskevich & Horak (2008b), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2570 *rufipes glabrum* Delpy, 1949a, *Hyalomma*. This name is a synonym of *Hyalomma marginatum turanicum* (= *Hyalomma turanicum*) in Camicas *et al.* (1998). The name *Hyalomma rufipes glabrum* is a synonym of *Hyalomma glabrum* and its original name as stated in Apanaskevich & Horak (2006).
- 2571 *rufipes rufipes* Koch, 1844a, *Hyalomma*. This name used in Delpy (1946) and by a few other workers, is a synonym of *Hyalomma marginatum rufipes* Koch, 1844a (= *Hyalomma rufipes* Koch, 1844a) in Camicas *et al.* (1998). The name *Hyalomma rufipes rufipes* Koch, 1844a is a synonym of *Hyalomma rufipes* Koch, 1844a as stated in Apanaskevich & Horak (2008b).
- 2572 *rufitipes* Schroder and Reilly, 2013, *Hyalomma* (page e4). This name is a *lapsus* for *Hyalomma rufipes*.
- 2573 *rufus* Koch, 1844b, *Ixodes*. This name is a synonym of *Ixodes ricinus* as stated in Neumann (1911a, after type examination) and Camicas *et al.* (1998), but Pérez-Eid (2007) lists this name simultaneously as a synonym of *Ixodes ricinus* and *Rhipicephalus bursa*.
- 2574 *rufus* (Koch 1844b), *Phauloixodes*. It was originally named *Ixodes rufus* (= *Ixodes ricinus*) and regarded here a synonym of *Ixodes ricinus*. However, the name *Phauloixodes rufus* used in Berlese (1889b), cited as Berlese, 1899 in Doss & Anastos (1977), is in fact *Rhipicephalus sanguineus sanguineus (incertae sedis)* in Neumann (1911a) and actually *Rhipicephalus bursa* in Camicas *et al.* (1998) under the authority of Berlese, 1889b.
- 2575 *rufus* (Koch, 1844b), *Rhipicephalus*. It was originally named *Ixodes rufus* (= *Ixodes ricinus*) and treated here as a synonym of *Ixodes ricinus* as stated in Walker *et al.* (2000). However, the name *Rhipicephalus rufus* used in Salmon & Stiles (1901) and Oudemans (1936) is regarded a synonym of *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition) by those authors, while Camicas *et al.* (1998) consider that *Rhipicephalus rufus* (under the authority of Salmon and Stiles, 1901) is in fact *Rhipicephalus bursa*. The name *Rhipicephalus rufus* is not included in Neumann (1911a).
- 2576 *rugica* Dolley, 1890, *Ixodes*, in Gould (1890). This name is a *nomen dubium* in Camicas *et al.* (1998), but not included in Neumann (1911a). The name *Ixodes rugica* has no description or figure, a *nomen nudum*.
- 2577 *rugicollis* Schulze and Schlottke, 1929b, *Ixodes*. This name is a synonym of *Pholeoixodes rugicollis* in Camicas *et al.* (1998), but it is valid.
- 2578 *rugicollis* (Schulze and Schlottke, 1929b), *Pholeoixodes*. It was originally named *Ixodes rugicollis*. The name *Pholeoixodes rugicollis* used in Morel & Aubert (1975) is valid in Camicas *et al.* (1998), but it is a synonym of *Ixodes rugicollis*.
- 2579 *rugosa* Santos Dias, 1956b, *Haemaphysalis*. It was originally named *Haemaphysalis aciculifer rugosa* from a specimen identified as *Haemaphysalis aciculifer* as stated in Santos Dias (1956b) and given its current status in Hoogstraal & El Kammah (1972). *Haemaphysalis rugosa* has been misidentified as *Haemaphysalis aciculifer* as stated in Hoogstraal & El Kammah (1972) and Uilenberg *et al.* (2013)
- 2580 *rugosum* Neumann, 1899, *Amblyomma*. This name is a synonym of *Amblyomma marmoreum* in Neumann (1911a) and partly a synonym of *Amblyomma marmoreum* and *Amblyomma sparsum* according to Theiler & Salisbury (1959). Camicas *et al.* (1998) list *Amblyomma rugosum* partly a synonym of *Amblyomma marmoreum* and *Amblyomma nuttalli* Dönitz, 1909. The name *Amblyomma rugosum* is *incertae sedis* here.
- 2581 *rugosus* Bishopp, 1911, *Ixodes*. It was originally named *Ixodes cookei rugosus* and given its current status in Cooley & Kohls (1945). The name *Ixodes rugosus* is a synonym of *Pholeoixodes rugosus* in Camicas *et al.* (1998), but it is valid.

- Keirans (1985) found *Ixodes rugosus* identified as *Ixodes hexagonus* in the Nuttall Tick Collection.
- 2582 *rugosus* (Bishopp, 1911), *Pholeoixodes*. It was originally named *Ixodes cookei rugosus* (= *Ixodes rugosus*). The name *Pholeoixodes rugosus* is valid in Camicas *et al.* (1998) based on Morel & Pérez (1973), but it is a synonym of *Ixodes rugosus*.
- 2583 *rupifēs* Awad, 1962, *Hyalomma* (pages 56, 57). This name is a *lapsus* for *Hyalomma rufipes*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Eduardo & Montano (1988, page 38) among others.
- 2584 *rusae* Kohls, 1950b, *Haemaphysalis*
- 2585 *rutibus* Floch and Fauran, 1959, *Rhipicephalus* (page 403). This name is a *lapsus* for *Rhipicephalus rutilus* (*incertae sedis*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2586 *rutilus* Koch, 1844a, *Rhipicephalus*. This name is a synonym of *Rhipicephalus sanguineus sanguineus* (*incertae sedis*) in Neumann (1911a) and an alleged synonym of *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition) in Camicas *et al.* (1998). The name *Rhipicephalus rutilus* is *incertae sedis* here.

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- 2587 *sabanerae* Stoll, 1894, *Amblyomma*, usually cited Stoll, 1890. This name is a synonym of *Amblyomma humerale* in Santos Dias (1958a), but both names, *Amblyomma sabanerae* and *Amblyomma humerale*, are valid. Keirans (1985) found specimens of *Amblyomma sabanerae* identified as *Amblyomma humerale* in the Nuttall Tick Collection.
- 2588 *sachalinensis* Filippova, 1971, *Ixodes*. This name is a synonym of *Ixodes persulcatus* in Camicas *et al.* (1998) and Kolonin (2009). The name *Ixodes sachalinensis* is valid as stated in Filippova (1977) and Guglielmone *et al.* (2009, 2010b, 2014).
- 2589 *saguineus* Teng and Jiang, 1991, *Rhipicephalus* (page 323). This name is a *lapsus* for *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition), but not included in Camicas *et al.* (1998).
- 2590 *sahanerae* Law, 1903, *Amblyomma* (page 104). This name is a *lapsus* for *Amblyomma sabanerae*, but not included in Neumann (1911a), Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2591 *salmoni* Stiles, 1910, *Dermacentor*. This name is a synonym of *Dermacentor albipictus* as stated in Cooley (1938) and Camicas *et al.* (1998).
- 2592 *sambar* Hoogstraal, 1971b, *Haemaphysalis*. This name was originally identified as *Haemaphysalis campanulata* as stated in Hoogstraal (1971b). The name *Haemaphysalis sambar* is not included in Doss & Anastos (1977).
- 2593 *samber* Miranpuri and Naithani, 1978, *Haemaphysalis* (page 17). This name is a *lapsus* for *Haemaphysalis sambar*, but not included in Camicas *et al.* (1998).
- 2594 *sanginues* Shayegi, Piazak, Yazdi and Abolhasani, 2005, *Rhipicephalus* (page 27). This name is a *lapsus* for *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition).
- 2595 *sangiuneus* Potgieter, De Waal and Posnett, 1992, *Rhipicephalus* (page 142) This name is a *lapsus* for *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition), but not included in Camicas *et al.* (1998). This *lapsus* is repeated in Lak *et al.* (2008, pages 28, 30, 32) among others.
- 2596 *sanguienus* Ogo, Lawal, Okunbanjo, Kamani and Ajayi, 2011, *Rhipicephalus* (page 71). This name is a *lapsus* for *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition).
- 2597 *sanguieus* Burger, Shao, Beati, Miller and Barker, 2012, *Rhipicephalus* (page 52). This name is a *lapsus* for *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition).
- 2598 *sanguineus* Meng, Qiao, Chen, Cai, Wang, Zhang, Zhao, Zhang, Cai, Yang, Wang and Wang, 2012, *Rhipicephalus* (pages 7073-7076). This name is a *lapsus* for *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition).
- 2599 *sanguineos* Silva, 1975, *Rhipicephalus* (page 119). This name is a *lapsus* for *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2600 *sanguineous* Pinkerton, 1942, *Rhipicephalus* (pages 65, 72). This name is a *lapsus* for *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Jameson *et al.* (2010, page 202), Shrestha *et al.* (2011, page 148) and in many other studies.
- 2601 *sanguines* Gilot, Laforge, Pichot and Raoult, 1990, *Rhipicephalus* (page 359). This name is a *lapsus* for *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition), but not included in Camicas *et al.* (1998). This *lapsus* is repeated in Shayegi *et al.* (2005, page 26) among others.
- 2602 *sanguineue* Saxena, Kumar and Rajagopal, 1984, *Rhipicephalus* (page 323). This name is a *lapsus* for *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition), but not included in Camicas *et al.* (1998).
- 2603 *sanguineus* (Latreille, 1806), *Eurhipicephalus*. It was originally named *Ixodes sanguineus* (*incertae sedis*). The name *Eurhipicephalus sanguineus* used in Stephens & Christophers (1908) and by a few other workers, is a synonym of *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition) in Camicas *et al.* (1998), but *incertae sedis* here.
- 2604 *sanguineus* Latreille, 1806, *Ixodes*. This name is a synonym of *Rhipicephalus sanguineus sanguineus* (*incertae sedis*) in Neumann (1911a) and a synonym of *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition) in Camicas *et al.* (1998). The name *Ixodes sanguineus* is *incertae sedis* here.
- 2605 *sanguineus* (Latreille, 1806), *Rhipicephalus*. This name is supported by its usage and given its current status in Koch (1844a). The name *Rhipicephalus sanguineus* has uncertain morphological description (type lost) and it has been applied

to a diversity of tick populations prone to feed on dogs although it is known now that more than one species is included under this name. *Rhipicephalus sanguineus* in Olenev (1929a) is in fact *Rhipicephalus rossicus* as stated in Filippova (1997), while it in Rageau (1951, 1953b) is partly *Rhipicephalus sulcatus* Neumann, 1908c and *Rhipicephalus guilhoni*, respectively, and *Rhipicephalus sanguineus* in Morel & Magimel (1959) are actually in part *Rhipicephalus guilhoni* as stated in Morel & Mouchet (1965). Keirans (1985) found the following species of *Rhipicephalus*: *haemaphysaloides*, *leporis* Pomerantzev, 1946, *simus*, *sulcatus* Neumann, 1908c and alleged *uranicus* Pomerantzev, 1940 identified as *Rhipicephalus sanguineus*; but also found alleged *Rhipicephalus sanguineus* identified as *Hyalomma aegyptium*, *Rhipicephalus falcatus* (= *Rhipicephalus longus*) and *Rhipicephalus kochi* in the Nuttall Collection. Neumann (1911a) divided *Rhipicephalus sanguineus* into three subspecies: *sanguineus brevicollis* (*incertae sedis*), *sanguineus punctatissimus* (*incertae sedis*) and *sanguineus sanguineus* (*incertae sedis*).

- 2606 *sanguineus brevicollis* Neumann, 1897, *Rhipicephalus*. It was originally named *Rhipicephalus brevicollis* (*incertae sedis*). The name *Rhipicephalus sanguineus brevicollis* used in Neumann (1897, 1911a) and by a few other workers is a synonym of *Rhipicephalus sanguineus* in Camicas *et al.* (1998). *Rhipicephalus sanguineus brevicollis* is a name *incertae sedis*, synonym of *Rhipicephalus brevicollis* (*incertae sedis*).
- 2607 *sanguineus punctatissimus* Gerstäcker, 1873, *Rhipicephalus*. It was originally named *Rhipicephalus punctatissimus* (*incertae sedis*). This name used in Neumann (1904, 1911a) and by a few other workers, is a synonym of *Rhipicephalus sulcatus* Neumann, 1908c in Camicas *et al.* (1998) and a synonym of *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition) in Walker *et al.* (2000). The name *Rhipicephalus sanguineus punctatissimus* is *incertae sedis*, synonym of *Rhipicephalus punctatissimus* (*incertae sedis*) here.
- 2608 *sanguineus punctatissimus* Patton and Cragg, 1913, *Rhipicephalus* (page 601). This name is a *lapsus* for *Rhipicephalus punctatissimus* (*incertae sedis*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2609 *sanguineus rossicus* Yakimov and Kohl-Yakimova, 1911, *Rhipicephalus*. This name used in Zumpt (1939) is a synonym of *Rhipicephalus rossicus* as stated in Camicas *et al.* (1998) and Walker *et al.* (2000).
- 2610 *sanguineus sanguineus* (Latreille, 1806), *Rhipicephalus*. This name used first in Neumann (1911a) is usually regarded a synonym of *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition), but it in Lamontellerie (1960) is in fact *Rhipicephalus sulcatus* Neumann, 1908c according to Camicas *et al.* (1998). The name *Rhipicephalus sanguineus sanguineus* is *incertae sedis* here, but still used in Abdalla & Hassan (2010).
- 2611 *sanguineus schulzei* Olenev, 1929a, *Rhipicephalus*. This name used in Zumpt (1940) is a synonym of *Rhipicephalus schulzei* Olenev, 1929a as stated in Camicas *et al.* (1998) and Walker *et al.* (2000), not Zumpt (1939) as expressed in Filippova (1997).
- 2612 *sanguineus simus* Koch, 1844a, *Rhipicephalus*. This name used in Díaz Ungría (1957), Doss & Anastos (1977) and Guglielmone *et al.* (2003) is a synonym of *Rhipicephalus simus* according to Camicas *et al.* (1998) and Walker *et al.* (2000), but it is a *lapsus* for *Rhipicephalus simus simus* (= *Rhipicephalus simus*) in Rivas (1919, page 92).
- 2613 *sanguineus sulcatus* Neumann, 1908c, *Rhipicephalus*. This name used in King (1926) and by a few other workers, is a synonym of *Rhipicephalus sulcatus* Neumann, 1908c as stated in Camicas *et al.* (1998) and Walker *et al.* (2000).
- 2614 *sanguineus* Brayton, 2012, *Rhipicephalus* (page 42). This name is a *lapsus* for *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition).
- 2615 *sanguinius* Coons, Tarnowski and Ourth, 1982, *Rhipicephalus* (pages 331-333, 335, 337-338). This name is a *lapsus* for *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition), but not included in Camicas *et al.* (1998). This *lapsus* is repeated in Tarnowski & Coons (1989, page 283).
- 2616 *sanguinolenta* Koch, 1844a, *Haemaphysalis*. This name is *incertae sedis* in Neumann (1911a), but it is a synonym of *Haemaphysalis cinnabarina* as stated in Hoogstraal (1973) and Camicas *et al.* (1998).
- 2617 *sanguinous* Rao, Dhanda, Bhat and Kulkarni, 1973, *Rhipicephalus* (page 1447). This name is a *lapsus* for *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Shrestha *et al.* (2011, page 149) among others.
- 2618 *sanguirus* Guo, Yuan, Wu, Wang, Ma, and Du, 2002, *Rhipicephalus* (page S37). This name is a *lapsus* for *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition).
- 2619 *sanguinus* Abou-Elela, Taher and Diab, 1981, *Rhipicephalus* (pages 385, 388). This name is a *lapsus* for *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition), but not included in Camicas *et al.* (1998). This *lapsus* is repeated in Kadir *et al.* (2012, page 98) among others.
- 2620 *sanguinus sanguinus* Abou-Elela, Taher and Diab, 1981, *Rhipicephalus* (pages 385, 388). This name is a *lapsus* for *Rhipicephalus sanguineus sanguineus* (*incertae sedis*), but not included in Camicas *et al.* (1998).
- 2621 *sanguisugum* (Linnaeus, 1758), *Amblyomma*. It was originally named *Acarus sanguisugus* (*nomen dubium*). The name *Amblyomma sanguisugum* used in Koch (1844a) is *incertae sedis* in Neumann (1911a) and a synonym of *Ixodes ricinus* in Camicas *et al.* (1998), but not included in Doss & Anastos (1977). The name *Amblyomma sanguisugum* is a *nomen dubium* synonym of *Acarus sanguisugus* (*nomen dubium*).
- 2622 *sanguisugus* Linnaeus, 1758, *Acarus*. This name is *incertae sedis* in Neumann (1911a) and a synonym of *Ixodes ricinus* in Camicas *et al.* (1998). The name *Acarus sanguisugus* is a *nomen dubium* here.
- 2623 *sanguisugus* (Linnaeus, 1758), *Amblyomma*. This name is in Doss & Anastos (1977) based on Koch (1844a), but this author used the correct name *Amblyomma sanguisugum* (*nomen dubium*). The name *Amblyomma sanguisugus* is a *nomen dubium* synonym of *Acarus sanguisugus* (*nomen dubium*), but not included in Camicas *et al.* (1998).

- 2624 *sanguisugus* (Linnaeus, 1758), *Haemalastor*. It was originally named *Acarus sanguisugus* (*nomen dubium*). The name *Haemalastor sanguisugus* used in Oudemans (1936, page 520) is a *nomen dubium* synonym of *Acarus sanguisugus* (*nomen dubium*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2625 *sanguisugus* (Linnaeus, 1758), *Ixodes*. It was originally named *Acarus sanguisugus* (*nomen dubium*). The name *Ixodes sanguisugus* used in Fabricius (1805) and by a few other workers, is *incertae sedis* according to Neumann (1911a) and a synonym of *Ixodes ricinus* in Camicas *et al.* (1998). *Ixodes sanguisugus* is a *nomen dubium* synonym of *Acarus sanguisugus* (*nomen dubium*).
- 2626 *sanguineus* Kumar, Balakrishnan, Katyal and Gill, 2002, *Rhipicephalus* (pages 126, 127). This name is a *lapsus* for *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition).
- 2627 *sanguineus* Rageau, 1972, *Rhipicephalus* (pages 712, 715). This name is a *lapsus* for *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Easton (1983, page 191) and others,
- 2628 *sapularis* Oudemans, 1936, *Ixodes* (page 739). This name is a *lapsus* for *Ixodes scapularis* Say, 1821, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Hoffmann & López-Campos (2000, page 51) and others.
- 2629 *sanguineus* Wen, Cao and Pan, 2003, *Rhipicephalus* (pages 49, 52). This name is a *lapsus* *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition).
- 2630 *savignyi* (Gervais, 1844), *Hyalomma*. It was originally named *Ixodes savignyi* Gervais, 1844, (*incertae sedis*). The name *Hyalomma savignyi* (Gervais, 1844) used first in Schulze (1930c) is a synonym of *Hyalomma anatolicum anatolicum* (= *Hyalomma anatolicum*) in Camicas *et al.* (1998), but this name in Delpy (1946) and Tendeiro (1948) is in fact *Hyalomma lusitanicum* and *Hyalomma truncatum*, respectively, according to Camicas *et al.* (1998). The name *Hyalomma savignyi* (Gervais, 1844) is *incertae sedis* synonym of *Ixodes savignyi* Gervais, 1844 (*incertae sedis*), but used frequently until 1990 and even in recent articles as in Rashidi & Razmi (2013).
- 2631 *savignyi* Gervais, 1844, *Ixodes*. This name is a new one for *Ixodes aegyptius* Audouin, 1826, that was preoccupied by *Ixodes aegyptius* (Linnaeus, 1758) (= *Hyalomma aegyptium*) in Latreille (1804). The name *Ixodes savignyi* Gervais, 1844 is a synonym of *Hyalomma aegyptium aegyptium* (*incertae sedis*) in Neumann (1911a) and a synonym of *Hyalomma anatolicum anatolicum* (= *Hyalomma anatolicum*) in Camicas *et al.* (1998). *Ixodes savignyi* Gervais, 1844 is a name *incertae sedis*.
- 2632 *savignyi armeniorum* Schulze and Schlottke, 1929a, *Hyalomma*. This name is a synonym of *Hyalomma anatolicum anatolicum* (= *Hyalomma anatolicum*) as stated in Camicas *et al.* (1998).
- 2633 *savignyi exsul* Schulze and Schlottke, 1929a, *Hyalomma*. This name is a synonym of *Hyalomma anatolicum anatolicum* (= *Hyalomma anatolicum*) as stated in Camicas *et al.* (1998).
- 2634 *savignyi iberum* Schulze and Schlottke, 1929a, *Hyalomma*. This name is a synonym of *Hyalomma lusitanicum* as stated in Camicas *et al.* (1998) and Apanaskevich *et al.* (2008a).
- 2635 *savignyi impeltatum* Schulze and Schlottke, 1929a, *Hyalomma*. This name is a synonym of *Hyalomma impeltatum* and its original name as stated in Camicas *et al.* (1998) and Apanaskevich & Horak (2009).
- 2636 *savignyi impressa* Rousselot, 1946, *Hyalomma*. This name is a synonym of *Hyalomma marginatum rufipes* Koch, 1844a (= *Hyalomma rufipes* Koch, 1844a) in Camicas *et al.* (1998). The name *Hyalomma savignyi impressa* Rousselot, 1946 is a synonym of *Hyalomma rufipes* Koch, 1844a as stated in Apanaskevich & Horak (2008b).
- 2637 *savignyi intermedia* Rousselot, 1946, *Hyalomma*. This name is a synonym of *Hyalomma impressum* as stated in Camicas *et al.* (1998) and Apanaskevich & Horak (2007).
- 2638 *savignyi mesopotamium* Schulze, 1920, *Hyalomma* (usually cited 1919). This name is a synonym of *Hyalomma anatolicum anatolicum* (= *Hyalomma anatolicum*) as stated in Camicas *et al.* (1998).
- 2639 *savignyi pusillum* Schulze, 1920, *Hyalomma* (usually cited 1919). This name is a synonym of *Hyalomma anatolicum anatolicum* (= *Hyalomma anatolicum*) as stated in Camicas *et al.* (1998).
- 2640 *savignyi savignyi* (Gervais, 1844), *Hyalomma*. This name used in Schulze & Schlottke (1929a) and by a few other workers, is a synonym of *Hyalomma anatolicum anatolicum* (= *Hyalomma anatolicum*) according to Camicas *et al.* (1998). The name *Hyalomma savignyi savignyi* (Gervais, 1844) is *incertae sedis* here synonym of *Ixodes savignyi* Gervais, 1844 (*incertae sedis*).
- 2641 *savignyi typica* Rousselot, 1946, *Hyalomma*. This name is a synonym of *Hyalomma truncatum* as stated in Camicas *et al.* (1998) and Apanaskevich & Horak (2008a).
- 2642 *scaevola* Oudemans, 1905, *Amblyomma*. This name is valid in Neumann (1911a) and a synonym of *Amblyomma cyprium* (= *Amblyomma breviscutatum*) in Robinson (1926). The name *Amblyomma scaevola* is a synonym of *Amblyomma breviscutatum* as stated in Santos Dias (1958a) and Camicas *et al.* (1998).
- 2643 *scalonae* Emel'yanova, 1971, *Ixodes* (page 493). This name has no description, a *nomen nudum*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2644 *scalpturatum* Neumann, 1906, *Amblyomma*. Onofrio *et al.* (2010) discovered *Amblyomma scalpturatum* identified as *Amblyomma oblongoguttatum* in a Brazilian tick collection, and Labruna *et al.* (2005) found *Amblyomma latepunctatum* identified as *Amblyomma scalpturatum*. The latter authors also found *Amblyomma scalpturatum* in the type series of *Amblyomma incisum* confirming a fact anticipated in Aragão & Fonseca (1952b). *Amblyomma multipunctum* in Boero & Prosen (1959) is probably *Amblyomma scalpturatum* according to Labruna *et al.* (2013).

- 2645 *scalpturatus* Santos Dias, 1959a, *Rhipicephalus*
- 2646 *scapluralis* Samish, Ginsberg and Glazer, 2004, *Ixodes* (page S391). This name is a *lapsus* for *Ixodes scapularis* Say, 1821.
- 2647 *scapturatum* Tamekuni, Toledo, Silva Filho, Haydu, Pacheco, Labruna, Dumler and Vidotto, 2011, *Amblyomma* (page 1528). This name is a *lapsus* for *Amblyomma scalpturatum*.
- 2648 *scapularis* Say, 1821, *Ixodes*. This name is doubtful in Neumann (1911a) and Nuttall & Warburton (1911), but *Ixodes scapularis* Say, 1821 is valid. Camicas *et al.* (1998) state that *Ixodes muris* in Good (1973) is in fact *Ixodes scapularis* Say, 1821.
- 2649 *scapularis* Camicas, Hervy, Adam and Morel, 1998, *Ixodes* (page 153). This name is a *lapsus* for *Ixodes scapulatus* (*nomen dubium*).
- 2650 *scapularis dammini* Spielman, Clifford, Piesman and Corwin, 1979, *Ixodes*. This name used in Stich *et al.* (2008, page 263) is treated here as a synonym of *Ixodes scapularis* Say, 1821.
- 2651 *scapulatus* Mégnin, 1880, *Ixodes*. This name is a synonym of *Rhipicephalus bursa* in Camicas *et al.* (1998) and a name *incertae sedis* in Neumann (1911a). The name *Ixodes scapulatus* is a *nomen dubium* here.
- 2652 *scapuralis* Fukunaga, Sohnaka, Nakao and Miyamoto, 1993, *Ixodes* (page 2047). This name is a *lapsus* for *Ixodes scapularis*, but not included in Camicas *et al.* (1998). This *lapsus* is repeated in Miyamoto (2002, page 2) and others.
- 2653 *scharifi* Doss and Anastos, 1977, *Hyalomma* (page 79). This name is a *lapsus* for *Hyalomma sharifi* Schulze and Schlottke, 1929a (= *Hyalomma scupense*), but not included in Camicas *et al.* (1998).
- 2654 *scheepersi* Santos Dias, 1989d, *Boophilus*. This name is a probable synonym of *Boophilus decoloratus* (= *Rhipicephalus decoloratus*) as stated in Camicas *et al.* (1998) and Keirans & Hillyard (2001).
- 2655 *schillingsi* Neumann, 1901, *Ixodes*. This name in Rageau (1953a cited 1954) is in fact *Ixodes rageaui* as stated in Camicas *et al.* (1998). Keirans (1985) found *Ixodes cavipalpus* Nuttall and Warburton, 1908 identified as *Ixodes schillingsi* in the Nuttall Tick Collection.
- 2656 *schlotkei* Schulze, 1932e, *Amblyomma*. This name is a synonym of *Amblyomma sparsum* as stated in Theiler & Salisbury (1959) and Camicas *et al.* (1998).
- 2657 *schultzei* Moshaverinia, Shayan, Nabian and Rahbari, 2009, *Hyalomma* (page 1125). This name is a *lapsus* for *Hyalomma schultzei* Olenev, 1931b.
- 2658 *schultzei* Corn and Nettles 2001, *Rhipicephalus* (page 416). This name is a *lapsus* for *Rhipicephalus schultzei* Olenev, 1929a repeated in Uslu *et al.* (2008, page 142).
- 2659 *schulzei* Minning, 1934, *Boophilus*. This name is a synonym of *Boophilus annulatus* (= *Rhipicephalus annulatus*) as stated in Camicas *et al.* (1998).
- 2660 *schulzei* Olenev, 1931b, *Hyalomma*
- 2661 *schulzei* Aragão and Fonseca, 1951b, *Ixodes*
- 2662 *schulzei* Olenev, 1929a, *Rhipicephalus*. This name in Zumpt (1939) is in fact *Rhipicephalus pumilio* as stated in Filippova (1997).
- 2663 *schulzi* Alexander, 1984, *Rhipicephalus* (page 370). This name is a *lapsus* for *Rhipicephalus schultzei* Olenev, 1929a, but not included in Camicas *et al.* (1998).
- 2664 *schwetzi* Larrousse, 1927, *Rhipicephalus*. This name is a synonym of *Rhipicephalus dux* as stated in Camicas *et al.* (1998) and Walker *et al.* (2000).
- 2665 *sciuri* Kohls, 1950b, *Haemaphysalis*
- 2666 *sciuri* Koch, 1844c, *Ixodes*. This name is a synonym of *Ixodes ricinus* as stated in Neumann (1911a) and Camicas *et al.* (1998).
- 2667 *sciuricola* Schulze, 1932f, *Ixodes*. This name is a synonym of *Pholeoixodes canisuga* (= *Ixodes canisuga*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes canisuga* as stated in Petney *et al.* (2012a).
- 2668 *sculatum* Fiasson, 1949, *Amblyomma* (page 576). This name is a *lapsus* for *Amblyomma scutatum*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Fischer *et al.* (2009, page 402).
- 2669 *sculptum* Berlese, 1888a, *Amblyomma*. This name is *incertae sedis* in Neumann (1911a), but usually regarded a synonym of *Amblyomma cajennense* for many authors, including Neumann (1899). Dr. Lorenza Beati and one of us (SN) extensively studied specimens considered to be synonyms of *Amblyomma cajennense* and found that *Amblyomma sculptum* is valid.
- 2670 *sculpturatum* Aragão, 1911, *Amblyomma* (pages 152, 156, 157). This name is a *lapsus* for *Amblyomma scalpturatum*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2671 *sculpturatus* Schulze, 1929a, *Ixodes*. It was originally named *Ixodes caledonicus sculpturatus* Schulze, 1929a. The name *Ixodes sculpturatus* used in Zumpt (1960) is a synonym of *Scaphixodes caledonicus* (= *Ixodes caledonicus*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes caledonicus*.
- 2672 *sculptus* Neumann, 1904, *Ixodes*. This name is a synonym of *Pholeoixodes sculptus* (Neumann, 1904) in Camicas *et al.* (1998), but it is valid. Keirans (1985) found *Ixodes sculptus* identified as *Ixodes hexagonus cookei* (= *Ixodes cookei*) in the Nuttall Tick Collection.
- 2673 *sculptus* (Neumann, 1904), *Pholeoixodes*. It was originally named *Ixodes sculptus* Neumann, 1904. The name *Pholeoixodes sculptus* (Neumann, 1904) is valid in Camicas *et al.* (1998) based on Morel & Pérez (1973), but it is a synonym of *Ixodes sculptus* Neumann, 1904.

- 2674 **sculptus** Warburton, 1912, *Rhipicephalus*
- 2675 **scupense** Schulze, 1919, *Hyalomma* (usually cited 1918). This name is a synonym of *Hyalomma detritum scupense* (= *Hyalomma scupense*) in Camicas *et al.* (1998). The synonymy of *Hyalomma scupense* is mainly based on Apanaskevich *et al.* (2010). Keirans (1985) found *Hyalomma detritum* (= *Hyalomma scupense*) identified as *Hyalomma aegyptium* in the Nuttall Tick Collection.
- 2676 **scupense detritum** Schulze, 1920, *Hyalomma* (usually cited 1919). The name *Hyalomma scupense detritum* used in Feider (1964) is a synonym of *Hyalomma detritum detritum* (= *Hyalomma scupense*) in Camicas *et al.* (1998). *Hyalomma scupense detritum* is a synonym of *Hyalomma scupense* as stated in Apanaskevich *et al.* (2010).
- 2677 **scupense scupense** Schulze, 1919, *Hyalomma*, (usually cited 1918). This name used in Feider (1964) is a synonym of *Hyalomma detritum detritum* (= *Hyalomma scupense*) in Camicas *et al.* (1998). *Hyalomma scupense scupense* is a synonym of *Hyalomma scupense* as stated in Apanaskevich *et al.* (2010).
- 2678 **scutatum** Maes, Palacios Vargas and Jiménez, 1989, *Amblyomma* (page 32). This name is a *lapsus* for *Amblyomma scutatum*, but not included in Camicas *et al.* (1998).
- 2679 **scutatum** Neumann, 1899, *Amblyomma*
- 2680 **scuticrenatus** Vázquez, 1946, *Ixodes*. This name is a synonym of *Ixodes luciae* as stated in Jones *et al.* (1972) and Camicas *et al.* (1998).
- 2681 **sdromedarii** Cornet, Kittayapong and González, 2004, *Hyalomma* (page 44). This name is a *lapsus* for *Hyalomma dromedarii*.
- 2682 **secundus** Feldman-Muhsam, 1952, *Rhipicephalus*. This name is a synonym of *Rhipicephalus turanicus* Pomerantzev, 1940 in Camicas *et al.* (1998) and Walker *et al.* (2000), but the uncertain morphological definition of most populations of *Rhipicephalus turanicus* Pomerantzev, 1940 makes that decision doubtful. The name *Rhipicephalus secundus* is *incertae sedis*.
- 2683 **segalasi** Euzéby, 1957, *Ixodes*. This name is simultaneously a *nomen nudum* and a *lapsus* for *Ixodes sigalasi* (= *Ixodes frontalis*) in Camicas *et al.* (1998). The name *Ixodes segalasi* is a *lapsus* for *Ixodes sigalasi* (= *Ixodes frontalis*) here.
- 2684 **seidlitzii** Koch, 1872, *Eschatocephalus*. This name is a synonym of *Eschatocephalus vespertilionis* (= *Ixodes vespertilionis*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes vespertilionis* as stated in Neumann (1911a) and Santos Dias (1958a).
- 2685 **semenovi** Olenev, 1929b, *Ixodes*. This name is a synonym of *Scaphixodes semenovi* in Camicas *et al.* (1998) and a synonym of *Scaphixodes berleseii* (= *Ixodes berleseii*) in Morel (2003), but *Ixodes semenovi* is valid.
- 2686 **semenovi** (Olenev, 1929b), *Scaphixodes*. It was originally named *Ixodes semenovi*. The name *Scaphixodes semenovi* is valid in Camicas *et al.* (1998), but it is a synonym of *Ixodes semenovi*.
- 2687 **semermis** Neumann, 1901, *Haemaphysalis*. This name is a synonym of *Haemaphysalis birmaniae* in Neumann (1911a), a synonym of *Haemaphysalis hystricis* Supino, 1897 in Anastos (1950), Nuttall & Warburton (1915) and Krijgsman & Ponto (1932), but this decision is unsound according to Hoogstraal *et al.* (1965b), who also state that *Haemaphysalis semermis* in Anastos (1950) is partly in fact *Haemaphysalis nadchatrami*. Keirans (1985) found *Haemaphysalis semermis* identified as *Haemaphysalis hystricis* Supino, 1897.
- 2688 **senegalensis** Koch, 1844a, *Rhipicephalus*. This name is a synonym of *Rhipicephalus simus* in Neumann (1911a), but it is valid. Walker *et al.* (2000) state that *Rhipicephalus senegalensis* has been confused with *Rhipicephalus longus* and *Rhipicephalus pseudolongus*. Keirans (1985) found *Rhipicephalus senegalensis* identified as *Rhipicephalus appendiculatus*, *Rhipicephalus falcatus* (= *Rhipicephalus longus*) and *Rhipicephalus simus*.
- 2689 **senegalis** Eremeeva, Bosserman, Demma, Zambrano, Blau and Dasch, 2006, *Rhipicephalus* (page 5575). This name is a *lapsus* for *Rhipicephalus senegalensis* repeated in Wood & Arstob (2012, page 70).
- 2690 **senermis** Wells, O'Hara, Pfeiffer, Lakim, Petney and Durden, 2013, *Haemaphysalis* (page 312). This name is a *lapsus* for *Haemaphysalis semermis*.
- 2691 **sermermis** Aroon, Artchawakom, Hill, Kupittayanant and Thanee, 2009, *Haemaphysalis* (page, 279). This name is a *lapsus* for *Haemaphysalis semermis*.
- 2692 **serpentinum** Schulze, 1936c, *Amblyomma*. This name is partly a synonym of *Amblyomma marmoreum* and *Aponomma fuscolineatum* (= *Amblyomma fuscolineatum*) in Santos Dias (1958d) and Camicas *et al.* (1998), and a synonym of *Amblyomma marmoreum* in Voltzit & Keirans (2003). The name *Amblyomma serpentinum* is *incertae sedis* here.
- 2693 **serrafreirei** Amorim, Gazeta, Bossi and Linhares, 2003, *Ixodes*. This name is a *nomen nudum* as stated in Guglielmone *et al.* (2009).
- 2694 **serranoi** Santos Dias, 1950d, *Rhipicephalus*. This name is a probable synonym of *Rhipicephalus punctatus* Warburton, 1912 in Camicas *et al.* (1998), but it is valid as stated in Walker *et al.* (2000).
- 2695 **sewelli** Sharif, 1928, *Haemaphysalis*. This name is a synonym of *Haemaphysalis sulcata* as stated in Filippova (1997) and Camicas *et al.* (1998).
- 2696 **sexpunctatus** Koch, 1844b, *Ixodes*. This name is a synonym of *Pholeoixodes hexagonus* (= *Ixodes hexagonus*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes hexagonus* as stated in Neumann (1911a), who cite 1837 the year for its description.
- 2697 **shahi** Clifford, Hoogstraal and Kohls, 1971, *Ixodes*
- 2698 **sharfi** Siddiqi and Jan, 1986, *Boophilus* (page 124). This name is a *lapsus* for *Boophilus sharifi* Siddiqi and Jan, 1984 (= *Rhipicephalus microplus*), but not included in Camicas *et al.* (1998).

- 2699 *sharifi* Minning, 1934, *Boophilus*. This name is a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998). The name *Boophilus sharifi* Mining, 1934 is *incertae sedis* here.
- 2700 *sharifi* Siddiqi and Jan, 1984, *Boophilus*. This name is a synonym of *Rhipicephalus microplus*, but not included in Camicas *et al.* (1998).
- 2701 *sharifi* Schulze and Schlottke, 1929a, *Hyalomma*. This name is a synonym of *Hyalomma detritum detritum* (= *Hyalomma scupense*) in Camicas *et al.* (1998) among others. The name *Hyalomma sharifi* Schulze and Schlottke, 1929a is a synonym of *Hyalomma scupense* as stated in Apanaskevich *et al.* (2010).
- 2702 *sharifi* (Siddiqi and Jan, 1984), *Rhipicephalus*. This name used in Iqbal *et al.* (2013) is treated here as a synonym of *Rhipicephalus microplus*.
- 2703 *sharifi* (Minning, 1934), *Uroboophilus*. It was originally named *Boophilus sharifi* Minning, 1934 (= *Rhipicephalus microplus*). The name *Uroboophilus sharifi* (Minning, 1934) used in Kishida (1939b) and by a few other workers, is a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998). *Uroboophilus sharifi* (Minning, 1934) is a name *incertae sedis* synonym of *Boophilus sharifi* Minning, 1934 (*incertae sedis*) here.
- 2704 *sharifi isaaci* Sharif, 1928, *Hyalomma*. This name used in Schulze (1950b) is a synonym of *Hyalomma marginatum isaaci* (= *Hyalomma isaaci*) in Camicas *et al.* (1998). The name *Hyalomma sharifi isaaci* is a synonym of *Hyalomma isaaci* as stated in Apanaskevich & Horak (2008b).
- 2705 *shibutamiensis* Yajima, 1955, *Haemaphysalis*. This name is a nomen dubium in Camicas *et al.* (1998). The name *Haemaphysalis shibutamiensis* has never been described and types are not available as stated in Yamaguti *et al.* (1971). *Haemaphysalis shibutamiensis* is a *nomen nudum*.
- 2706 *shillingsi* Clifford and Hoogstraal, 1970, *Ixodes* (page 122). This name is a *lapsus for Ixodes schillingsi*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2707 *shimoga* Trapido and Hoogstraal, 1964, *Haemaphysalis*. It was originally named *Haemaphysalis cornigera shimoga* and given its current status in Hoogstraal & El Kammah (1972). Keirans (1985) found *Haemaphysalis shimoga* identified as *Haemaphysalis proxima* Warburton and Nuttall, 1909 (= *Haemaphysalis cornigera*) in the Nuttall Collection. Kolonin (2009) regards *Haemaphysalis shimoga* a synonym of *Haemaphysalis taiwana*, but it is valid as stated in Camicas *et al.* (1998) and Guglielmone *et al.* (2010b, 2014).
- 2708 *shinchikuensis* Sugimoto, 1937b, *Ixodes*. This name is a probable synonym of *Ixodes ovatus* as stated in Yamaguti *et al.* (1971) and Camicas *et al.* (1998).
- 2709 *shinckikuensis* Luh and Woo, 1959, *Ixodes* (page 19 in the translation). This name is a *lapsus for Ixodes shinckikuensis* (= *Ixodes ovatus*) as stated in Robbins (2005, page 249), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Morel (1963b, page 64) and Kolonin, (1981, page 15).
- 2710 *shipleyi* (Neumann, 1902), *Eurhipicephalus*. It was originally named *Rhipicephalus shipleyi* (= *Rhipicephalus praetextatus*). The name *Eurhipicephalus shipleyi* used in Castellani & Chalmers (1910) is a synonym of *Rhipicephalus praetextatus*, but not included in Camicas *et al.* (1998).
- 2711 *shipleyi* Neumann, 1902, *Rhipicephalus*. This name is a synonym of *Rhipicephalus simus shipleyi* (= *Rhipicephalus praetextatus*) in Neumann (1911a). The name *Rhipicephalus shipleyi* is a synonym of *Rhipicephalus praetextatus* as stated in Camicas *et al.* (1998) and Walker *et al.* (2000). Keirans (1985) found *Rhipicephalus simus* identified as *Rhipicephalus shipleyi* (= *Rhipicephalus praetextatus*) in the Nuttall Tick Collection.
- 2712 *siamensis* Kitaoka and Suzuki, 1983, *Ixodes*. This name is a synonym of *Ixodes ovatus* in Camicas *et al.* (1998), but provisionally valid in Guglielmone *et al.* (2009, 2010b, 2014) and here.
- 2713 *siculifer* Mégnin, 1880, *Ixodes*. This name is a synonym of *Eschatocephalus vespertilionis* (= *Ixodes vespertilionis*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes vespertilionis* as stated in Neumann (1911a).
- 2714 *siculus* Koch, 1844a, *Rhipicephalus*. This name is an alleged synonym of *Rhipicephalus sanguineus sanguineus* (*incertae sedis*) in Neumann (1911a) and a synonym of *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition) in Camicas *et al.* (1998). The name *Rhipicephalus siculus* is *incertae sedis* here.
- 2715 *sigalasi* Lamontellerie, 1954, *Ixodes*. This name is a synonym of *Scaphixodes frontalis* (= *Ixodes frontalis*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes frontalis*. Doss & Anastos (1977) cite 1955 the year for its description.
- 2716 *sigelos* Keirans, Clifford and Corwin, 1976, *Ixodes*. This name is a probable synonym of *Ixodes abrocomae* in Camicas *et al.* (1998), but it is valid as stated in Guglielmone *et al.* (2003, 2009, 2010a,b).
- 2717 *signatus* (Birula, 1895), *Ceratixodes*. It was originally named *Ixodes signatus*. The name *Ceratixodes signatus* used in Banks (1907) and by a few other workers is a synonym of *Scaphixodes signatus* (= *Ixodes signatus*) in Camicas *et al.* (1998), but not included in Neumann (1911a). The name *Ceratixodes signatus* is a synonym of *Ixodes signatus* as stated in Keirans & Clifford (1978).
- 2718 *signatus* Birula, 1895, *Ixodes*. This name is a synonym of *Ixodes eudytydis signatus* (= *Ixodes signatus*) in Neumann (1911a) and a synonym of *Scaphixodes signatus* in Camicas *et al.* (1998), but *Ixodes signatus* is valid.
- 2719 *signatus* (Birula, 1895), *Scaphixodes*. It was originally named *Ixodes signatus*. The name *Scaphixodes signatus* is valid in Camicas *et al.* (1998), but it is a synonym of *Ixodes signatus*.
- 2720 *silacea* Robinson, 1912, *Haemaphysalis*
- 2721 *silaceae* Clifford and Anastos, 1960, *Haemaphysalis* (page 568). This name is a *lapsus for Haemaphysalis silacea*, but not

- included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2722 *silvafelis* Hoogstraal and Trapido, 1963a, *Haemaphysalis*
- 2723 *silvai* Santos Dias, 1951c, *Amblyomma*. This name is a probable synonym of *Amblyomma dubitatum* in Santos Dias (1958a citing 1954 the year for its description) and a parviscutate form of *Amblyomma nuttalli* Dönitz, 1909 in Theiler & Salisbury (1959 citing 1955 the year for its description) and a synonym of *Amblyomma nuttalli* Dönitz, 1909 in Camicas *et al.* (1998). The name *Amblyomma silvai* is *incertae sedis*.
- 2724 *silvarum* (Olenev, 1931a), *Cynorhaestes*. This name used in Olenev (1931d) is a synonym of *Dermacentor silvarum* as stated in Camicas *et al.* (1998).
- 2725 *silvarum* Olenev, 1931a, *Dermacentor*. Doss & Anastos (1977) cite this name as described in Olenev (1931c), but we follow Filippova (2008) who states that this species is described in Olenev (1931a).
- 2726 *silvarum ablutus* Schulze, 1933b, *Dermacentor*. This name is a synonym of *Dermacentor silvarum* as stated in Filippova (1997) and Camicas *et al.* (1998).
- 2727 *silvarum kemerovi* Popov, 1962, *Dermacentor*. This name is a synonym of *Dermacentor silvarum* in Estrada-Peña (1991) and a *nomen dubium* in Camicas *et al.* (1998). The name *Dermacentor silvarum kemerovi* is a *nomen nudum* here.
- 2728 *silvarum niveus* Neumann, 1897, *Dermacentor*. This name used in Kurchatov & Kalmykov (1934) is not objectively associated to any species of tick. The name *Dermacentor silvarum niveus* is a probable synonym of *Dermacentor niveus* in Camicas *et al.* (1998), but not included in Doss & Anastos (1977). *Dermacentor silvarum niveus* is a *nomen nudum*.
- 2729 *silvaum* Merhej and Raoult, 2011, *Dermacentor* (page 384). This name is a *lapsus* for *Dermacentor silvarum*.
- 2730 *silvus* Nakamura and Yajima, 1937, *Rhipicephalus* (page 164). This name has no description or figure, a *nomen nudum*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2731 *simplex* Cooper and Robinson, 1908, *Aponomma*. This name is a synonym of *Aponomma ecinctum* (= *Amblyomma fimbriatum*) in Santos Dias (1958a) and a synonym of *Aponomma fimbriatum* (= *Amblyomma fimbriatum*) in Roberts (1964) and Camicas *et al.* (1998). The name *Aponomma simplex* Cooper and Robinson, 1908 is a synonym of *Amblyomma fimbriatum*.
- 2732 *simplex* (Neumann, 1906), *Eschatocephalus*. This name used in Camicas *et al.* (1998) is a synonym of *Ixodes simplex* Neumann, 1906 here.
- 2733 *simplex* Neumann, 1897, *Haemaphysalis*
- 2734 *simplex* Neumann, 1906, *Ixodes*. This name is a synonym of *Eschatocephalus simplex* (= *Ixodes simplex* Neumann, 1906) in Camicas *et al.* (1998), but it is valid.
- 2735 *simplex africanus* Arthur, 1956a, *Ixodes*. This name is a synonym of *Eschatocephalus simplex* (= *Ixodes simplex* Neumann, 1906) in Camicas *et al.* (1998), but it is a synonym of *Ixodes simplex* Neumann, 1906 as stated in Filippova (1977).
- 2736 *simplex simplex* Neumann, 1906, *Ixodes*. This name used in Arthur (1956a) and by a few other workers, is a synonym of *Eschatocephalus simplex* (= *Ixodes simplex* Neumann, 1906) in Camicas *et al.* (1998), but it is a synonym of *Ixodes simplex* Neumann, 1906 as stated in Filippova (1977).
- 2737 *simplicima* Hoogstraal and Wassef, 1979, *Haemaphysalis*, in Uilenberg *et al.* (1979)
- 2738 *simpsoni* Nuttall, 1910, *Rhipicephalus*. This name in Baker & Keep (1970) is regarded as a synonym of *Rhipicephalus distinctus* in Camicas *et al.* (1998), but it is in fact *Rhipicephalus oreotragi* as stated in Walker *et al.* (2000). Keirans (1985) found *Rhipicephalus simpsoni* identified as *Rhipicephalus simus* in the Nuttall Tick Collection.
- 2739 *simus* (Koch, 1844a), *Eurhipicephalus*. It was originally named *Rhipicephalus simus*. The name *Eurhipicephalus simus* used in Lounsbury (1906) and by a few other workers, is a synonym of *Rhipicephalus simus* as stated in Camicas *et al.* (1998), but not included in Neumann (1911a).
- 2740 *simus* (Koch, 1844a), *Haemaphysalis* (spelled *Hoemaphysalis*). This name is a *lapsus* for *Rhipicephalus simus* in Bück (1948). Doss & Anastos (1977) and Camicas *et al.* (1998) name Bück, 1948 the authority for *Haemaphysalis simus* (Koch, 1844a).
- 2741 *simus* Koch, 1844a, *Rhipicephalus*. This name in Simpson (1914) is in fact *Rhipicephalus senegalensis* according to Saratsiotis (1977) and probably it in Camicas *et al.* (1998), while *Rhipicephalus simus* in Stella (1938a) is actually *Rhipicephalus bursa* as stated in Tonelli Rondelli (1938b). Keirans (1985) found *Rhipicephalus simus* identified as the following species of *Rhipicephalus*: *capensis* Koch, 1844a, *shipleyi* (= *praetextatus*), *sanguineus* (a taxon with uncertain morphological definition) and *supertritus*, while *appendiculatus*, *humeralis*, *hurtii*, *jeanneli*, *lunulatus*, *senegalensis* and *simpsoni* were classified as *Rhipicephalus simus* in the Nuttall Collection. *Rhipicephalus muhsamae* Morel and Vassiliades, 1965 and *Rhipicephalus praetextatus* were often identified as *Rhipicephalus simus* as stated in Walker *et al.* (2000). Neumann (1911a) divided this species into five subspecies: *simus erlangeri* (*incertae sedis*), *simus hilgerti* (= *Rhipicephalus praetextatus*), *simus planus* (= *Rhipicephalus planus* Neumann, 1907f), *simus shipleyi* (= *Rhipicephalus praetextatus*) and *simus simus* [= *Rhipicephalus simus* but in Neumann (1911a) partly in fact *Rhipicephalus muhsamae* Morel and Vassiliades, 1965 according to Camicas *et al.* (1998)].
- 2742 *simus erlangeri* (Neumann, 1902), *Eurhipicephalus*. This name used in Castellani & Chalmers (1910) is a synonym of *Rhipicephalus praetextatus* in Camicas *et al.* (1998). The name *Rhipicephalus simus erlangeri* is *incertae sedis* synonym of *Rhipicephalus erlangeri* (*incertae sedis*) here.
- 2743 *simus erlangeri* Neumann, 1902, *Rhipicephalus*. This name used in Neumann (1904) and by a few other workers, is valid in Neumann (1911a) and a synonym of *Rhipicephalus praetextatus* in Camicas *et al.* (1998), but Walker *et al.* (2000),

- simultaneously, named this taxon “= *Rhipicephalus simus* group” (page 36) and a synonym of *Rhipicephalus simus* (page 416). The name *Rhipicephalus simus erlangeri* is a name *incertae sedis* synonym of *Rhipicephalus erlangeri* (*incertae sedis*) here.
- 2744 *simus falcatus* Nuttall, no year, *Rhipicephalus*, in Keirans (1985, pages 618, 1752). This name has no description or figure, a *nomen nudum*, but not included in Camicas *et al.* (1998) and Walker *et al.* (2000). The name *Rhipicephalus simus falcatus* was applied to specimens identified as *Rhipicephalus longus* in the Nuttall Tick Collection.
- 2745 *simus hilgerti* (Neumann, 1902), *Eurhipicephalus*. This name used in Castellani & Chalmers (1910, 1919) is a synonym of *Rhipicephalus praetextatus* as stated in Camicas *et al.* (1998).
- 2746 *simus hilgerti* Neumann, 1902, *Rhipicephalus*. This name used in Neumann (1904, 1911a) and by a few other workers, is a synonym of *Rhipicephalus praetextatus* as stated in Camicas *et al.* (1998) and Walker *et al.* (2000).
- 2747 *simus longoides* Zumpt, 1943a, *Rhipicephalus*. This name is a synonym of *Rhipicephalus senegalensis* as stated in Saratsiotis (1977), Camicas *et al.* (1998) and Walker *et al.* (2000).
- 2748 *simus lunulatus* Neumann, 1907b, *Rhipicephalus*. This name used in Warburton (1912) and by a few other workers, is a synonym of *Rhipicephalus lunulatus*, but the authority for *Rhipicephalus simus lunulatus* is Warburton, 1912 in Walker *et al.* (2000). The name *Rhipicephalus simus lunulatus* in Lewis (1931) is in fact *Rhipicephalus armatus* according to Walker *et al.* (2000).
- 2749 *simus planus* Neumann, 1907f, *Rhipicephalus*. This name is valid in Neumann (1911a), but it is a synonym of *Rhipicephalus planus* Neumann, 1907f and its original name as stated in Camicas *et al.* (1998) and Walker *et al.* (2000). However, the name *Rhipicephalus simus planus* Neumann, 1907f in Neumann (1913c) is in fact *Rhipicephalus bequaerti* Zumpt, 1950 (usually cited 1949) as stated in Walker *et al.* (2000).
- 2750 *simus senegalensis* Koch, 1844a, *Rhipicephalus*. This name used in Zumpt (1950, usually cited 1949) is a synonym of *Rhipicephalus senegalensis* as stated in Saratsiotis (1977), Camicas *et al.* (1998) and Walker *et al.* (2000).
- 2751 *simus shipleyi* (Neumann, 1902), *Eurhipicephalus*. This name used in Castellani & Chalmers (1910, 1919) is a synonym of *Rhipicephalus praetextatus* as stated in Camicas *et al.* (1998).
- 2752 *simus shipleyi* Neumann, 1902, *Rhipicephalus*. This name is valid in Neumann (1911a), but *Rhipicephalus simus shipleyi* used in Neumann (1904) and by a few other workers, is a synonym of *Rhipicephalus praetextatus* as stated in Camicas *et al.* (1998) and Walker *et al.* (2000).
- 2753 *simus simus* Koch, 1844a, *Rhipicephalus*. This name used first in Neumann (1911a) is a synonym of *Rhipicephalus simus* as stated in Walker *et al.* (2000). However, *Rhipicephalus simus simus* in Neumann (1911a) and Rousset (1953) is partly in fact *Rhipicephalus muhsamae* Morel and Vassiliades, 1965 and *Rhipicephalus simpsoni*, respectively, according to Camicas *et al.* (1998).
- 2754 *simus tricuspis* Dönitz, 1906, *Rhipicephalus*. This name used in Paoli (1916) is a synonym of *Rhipicephalus tricuspis* as stated in Walker *et al.* (2000 under the authority of Dönitz, 1910). The name *Rhipicephalus simus tricuspis* is also used in Stella (1940), but Morel (1976) and Camicas *et al.* (1998) state that this name in Stella (1940) is in fact *Rhipicephalus lunulatus*.
- 2755 *simus typica* Zumpt, 1956, *Rhipicephalus*. This name is a synonym of *Rhipicephalus simus* as stated in Camicas *et al.* (1998).
- 2756 *sinaii* Feldman-Muhsam, 1960a, *Hyalomma*. This name is valid in Camicas *et al.* (1998), Horak *et al.* (2002), but it is a synonym of *Hyalomma impeltatum* as stated in Apanaskevich & Horak (2009).
- 2757 *sinaloa* Kohls and Clifford, 1966, *Ixodes*
- 2758 *sindensis* Bilques and Masood, 1973, *Haemaphysalis*. This name is cited under the authorities of Bilques and Masod in Auffenberg & Auffenberg (1990) in Camicas *et al.* (1998). The name *Haemaphysalis sindensis* is a synonym of *Aponomma gervaisi* (= *Amblyomma gervaisi*) in Auffenberg & Auffenberg (1990) and Camicas *et al.* (1998), but not included in Doss & Anastos (1977). *Haemaphysalis sindensis* is a synonym of *Amblyomma gervaisi*.
- 2759 *sinensis* Minning, 1934, *Boophilus*. This name is a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998) and a probable synonym of *Rhipicephalus australis* Fuller, 1899 in Estrada-Peña *et al.* (2012a). The name *Boophilus sinensis* Minning, 1934 is *incertae sedis*.
- 2760 *sinensis* Zhang, 1981, *Haemaphysalis*. This name is not included in Camicas *et al.* (1998).
- 2761 *sinensis* Teng, 1977, *Ixodes*
- 2762 *sinensis* (Minning, 1934), *Uroboophilus*. It was originally named *Boophilus sinensis* Minning, 1934 (*incertae sedis*). The name *Uroboophilus sinensis* (Minning, 1934) used in Kishida (1939b) and by a few other workers, is a synonym of *Boophilus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Camicas *et al.* (1998), but it may also be a synonym of *Rhipicephalus australis* Fuller, 1899 as stated in Estrada-Peña *et al.* (2012a). The name *Uroboophilus sinensis* (Minning, 1934) is *incertae sedis* synonym of *Boophilus sinensis* Minning, 1934 (*incertae sedis*) here.
- 2763 *sinicus* Schulze, 1932b, *Dermacentor*.
- 2764 *sinicus pallidior* Schulze, 1932b, *Dermacentor*. This name is a synonym of *Dermacentor sinicus* as stated in Camicas *et al.* (1998).
- 2765 *sinicus pallidior* Schulze, 1950b, *Dermacentor* (page 565). This name is a *lapsus* for *Dermacentor sinicus pallidior* (= *Dermacentor sinicus*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2766 *sinicus sinicus* Schulze, 1932b, *Dermacentor*. This name is a synonym of *Dermacentor sinicus* as stated in Camicas *et al.*

- (1998).
- 2767 *sinus* Wysoki and Bolland, 1978, *Rhipicephalus* (page 235). This name is a *lapsus* for *Rhipicephalus sinus*, but not included in Camicas *et al.* (1998). This *lapsus* is repeated in Eduardo & Montano (1988, page 38), Sonenshine (1993, page 463) and others.
- 2768 *soembawense* (Anastos, 1956), *Amblyomma*. It was originally named *Aponomma soembawensis*. This species has usually been considered a member of *Aponomma*, but it is now placed in the genus *Amblyomma* (Horak *et al.* 2002; Klompen *et al.* 2002).
- 2769 *soembawense* Anastos, 1956, *Aponomma*. It was originally named *Aponomma soembawensis* (= *Amblyomma soembawense*), but amended in Camicas *et al.* (1998). The name *Aponomma soembawense* is valid in Camicas *et al.* (1998), but it is a synonym of *Amblyomma soembawense* as stated in Horak *et al.* (2002).
- 2770 *soembawensis* Anastos, 1956, *Aponomma*. This name is a synonym of *Aponomma soembawense* in Camicas *et al.* (1998), but it is a synonym of *Amblyomma soembawense* and its original name.
- 2771 *somalicum* Tonelli Rondelli, 1935, *Hyalomma*. This name is a synonym of *Hyalomma erythraeum* (= *Hyalomma impeltatum*) in Camicas *et al.* (1998) and Kolonin (2009). The name *Hyalomma somalicum* is a valid name, resurrected in Apanaskevich & Horak (2009).
- 2772 *soricis* Gregson, 1942, *Ixodes*. This name is a synonym of *Pholeoixodes soricis* in Camicas *et al.* (1998), but it is valid. Keirans (1985) found *Ixodes soricis* identified as *Ixodes angustus*.
- 2773 *soricis* (Gregson, 1942), *Pholeoixodes*. It was originally named *Ixodes soricis*. The name *Pholeoixodes soricis* is valid in Camicas *et al.* (1998) based on Morel & Pérez (1973), but it is a synonym of *Ixodes soricis*.
- 2774 *sparsum* Estrada-Peña, Estrada-Sánchez and Estrada-Sánchez, 2012b, *Amblyomma* (page 6). This name is a *lapsus* for *Amblyomma sparsum*.
- 2775 *sparsum* Neumann, 1899, *Amblyomma*. This name is a synonym of *Amblyomma marmoreum* in Robinson (1926), while specimens named *Amblyomma sparsum* in the Ziemann and the Vosseler Collections (Berlin Museum) are in fact *Amblyomma paulopunctatum* and *Amblyomma nuttalli* Dönitz, 1909, respectively according to Theiler & Salisbury (1959). Keirans (1985) found *Amblyomma sparsum* identified as *Amblyomma petersi* [= *Amblyomma rhinocerotis* (De Geer, 1778)] and *Amblyomma marmoreum* in the Nuttall Tick Collection. Neumann (1911a) divided this species into two subspecies: *sparsum paulopunctatum* (= *Amblyomma paulopunctatum*) and *sparsum sparsum* (= *Amblyomma sparsum*).
- 2776 *sparsum paulopunctatum* Neumann, 1899, *Amblyomma*. This name used in Neumann (1905, 1911a) and by a few other workers, is a synonym of *Amblyomma paulopunctatum* as stated in Robinson (1926) and Camicas *et al.* (1998).
- 2777 *sparsum sparsum* Neumann, 1899, *Amblyomma*. This name used in Neumann (1911a) is a synonym of *Amblyomma sparsum* as stated in Camicas *et al.* (1998).
- 2778 species *incertae sedis* in Keegan & Toshioka (1957), *Haemaphysalis*, is in fact *Haemaphysalis phasiana* as stated in Saito *et al.* (1974).
- 2779 species of *Dermacentor* in Keegan & Toshioka (1957) is in fact *Dermacentor taiwanensis* as stated in Wassef & Hoogstraal (1986a).
- 2780 species of *Dermacentor* in Yamaguti *et al.* (1971) is in fact *Dermacentor taiwanensis* as stated in Wassef & Hoogstraal (1986a).
- 2781 species of *Rhipicephalus* in Norval *et al.* (1983) is *Rhipicephalus turanicus* Pomerantzev, 1940 in Walker *et al.* (2000), but the uncertain morphological definition of most populations of *Rhipicephalus turanicus* Pomerantzev, 1940 makes that decision doubtful.
- 2782 species 1 in Asanuma & Sekikawa (1952), *Ixodes*, is in fact *Ixodes turdus* as stated in Yamaguti *et al.* (1971). This publication of Asanuma & Sekikawa was not located.
- 2783 species 2 in Asanuma & Sekikawa (1952, 1953), *Ixodes*, is in fact *Ixodes persulcatus* as stated in Yamaguti *et al.* (1971). These publications of Asanuma & Sekikawa were not located.
- 2784 species 3 in Asanuma & Sekikawa (1952) and Asanuma (1955), *Ixodes*, is in fact *Ixodes angustus* as stated in Yamaguti *et al.* (1971). The publications of Asanuma & Sekikawa (1952) and Asanuma (1955) were not located.
- 2785 species 4 in Asanuma & Sekikawa (1952, 1953), *Ixodes*, is in fact *Ixodes granulatus* as stated in Yamaguti *et al.* (1971). These publications of Asanuma & Sekikawa were not located.
- 2786 species 6 in Asanuma & Sekikawa (1952, 1953) and Asanuma (1955), *Ixodes*, is in fact *Ixodes ovatus* as stated in Yamaguti *et al.* (1971). The publications of Asanuma & Sekikawa (1952) and Asanuma (1955) were not located.
- 2787 species 51 in Asanuma & Sekikawa (1952, 1953), *Ixodes*, is in fact *Ixodes granulatus* as stated in Yamaguti *et al.* (1971). These publications of Asanuma & Sekikawa were not located.
- 2788 species 52 in Asanuma & Sekikawa (1952, 1953) and Asanuma (1955), *Ixodes*, is in fact *Ixodes ovatus* as stated in Yamaguti *et al.* (1971). The publications of Asanuma & Sekikawa (1952) and Asanuma (1955) were not located.
- 2789 species 54 in Asanuma & Sekikawa (1952, 1953), *Ixodes*, is in fact *Ixodes persulcatus* as stated in Yamaguti *et al.* (1971). These publications of Asanuma & Sekikawa were not located.
- 2790 species 61 in Asanuma & Sekikawa (1952) and Asanuma (1955), *Ixodes*, is in fact *Ixodes angustus* as stated in Yamaguti *et al.* (1971). The publications of Asanuma & Sekikawa (1952) and Asanuma (1955) were not located.
- 2791 species 101 in Asanuma & Sekikawa (1952, 1953), *Ixodes*, is in fact *Ixodes granulatus* as stated in Yamaguti *et al.* (1971). These publications of Asanuma & Sekikawa were not located.
- 2792 species L1 in Takada & Fujita (1978), *Ixodes*, is in fact *Ixodes columnae* as stated in Takada & Fujita (1992).

- 2793 species N° 1 near *excavatum* in Hoogstraal, 1956a, *Hyalomma*, is in fact *Hyalomma franchinii* as stated in Apanaskevich *et al.* (2008a).
- 2794 species N1 in Takada & Yamaguchi (1974) and Takada & Fujita (1978), *Ixodes*, is in fact *Ixodes monospinosus*. This information was obtained with the help of Prof. Takeo Yamauchi.
- 2795 species N2 in Takada & Fujita (1978), *Ixodes*, is in fact *Ixodes columnae* as stated in Takada & Fujita (1992).
- 2796 species N° 2 near *excavatum* in Hoogstraal, 1956a, *Hyalomma*, is in fact *Hyalomma anatolicum anatolicum* (= *Hyalomma anatolicum*) in Camicas *et al.* (1998).
- 2797 species I in Norval (1985), *Haemaphysalis*, is in fact *Haemaphysalis subterra* as stated in Camicas *et al.* (1998).
- 2798 species II in Yeoman & Walker (1967) and several other workers, *Rhipicephalus*, is in fact *Rhipicephalus zambeziensis* Walker, Norval and Corwin, 1981 as stated in Walker *et al.* (2000).
- 2799 species III in Yeoman & Walker (1967), *Rhipicephalus*, is in fact *Rhipicephalus aquatilis* as stated in Walker *et al.* (2000).
- 2800 species LA in Ono (1962), *Ixodes*, is in fact *Ixodes nipponensis* as stated in Yamaguti *et al.* (1971).
- 2801 species larva B in Morel *et al.* 1969, *Ixodes*, is in fact *Ixodes thomasaе* as stated in Morel (1976).
- 2802 species like-*pravus* in Fourie *et al.* (1988a, b) is in fact *Rhipicephalus warburtoni* Walker and Horak, 2000 as stated in Walker *et al.* (2000).
- 2803 species like-*punctatus* Warburton, 1912 in Fourie & Horak (1990), *Rhipicephalus*, is in fact *Rhipicephalus warburtoni* Walker and Horak, 2000 as stated in Walker *et al.* (2000).
- 2804 species NA in Ono (1962), *Ixodes*, is in fact *Ixodes nipponensis* as stated in Yamaguti *et al.* (1971).
- 2805 species near *angustus* in Arthur, 1957d, *Ixodes*, is probably *Pholeoixodes pomeranzevi* Camicas, Hervy, Adam and Morel, 1998 (*lapsus*) in Camicas *et al.* (1998), but it is a probable synonym of *Ixodes pomerantzevi* Serdjukova, 1941, here.
- 2806 species near *capensis* Koch, 1844a in Horak *et al.* (1986a, 1987), *Rhipicephalus*, is in fact *Rhipicephalus follis* as stated in Walker (1991).
- 2807 species near *oculatus* in Horak *et al.* (1991b), *Rhipicephalus*, is partly in fact *Rhipicephalus exophthalmos* and *Rhipicephalus evertsi evertsi* (= *Rhipicephalus evertsi*) in Camicas *et al.* (1998) based on Keirans *et al.* (1993). Walker *et al.* (2000) treat the species near *oculatus* in Horak *et al.* (1991b) as *Rhipicephalus evertsi evertsi* (= *Rhipicephalus evertsi*), while Keirans *et al.* (1993) found that species near *oculatus* in several African studies are in fact *Rhipicephalus exophthalmos*.
- 2808 species near *pilosus* in Yeoman & Walker (1967), *Ixodes*, is a synonym of *Ixodes lewisi* Arthur, 1965 as stated in Camicas *et al.* (1998).
- 2809 species near *pravus* in Clifford & Anastos (1962), *Rhipicephalus*, is a synonym of *Rhipicephalus kochi* Dönitz, 1905 in Camicas *et al.* (1998).
- 2810 species near *pravus* in Walker *et al.* (2000), *Rhipicephalus*. It is uncertain if this is a new taxon, *Rhipicephalus pravus* or a related known species of the *pravus* group.
- 2811 species near *reticulatus* (Fabricius, 1794) in Schille (1916), *Dermacentor*. A fossil specimen.
- 2812 species near *testudinis* in Lane & Poinar (1986), *Amblyomma*. A fossil specimen.
- 2813 species near *tricuspis* in Walker *et al.* (1988), *Rhipicephalus*, is in fact *Rhipicephalus interventus* as stated in Walker *et al.* (1995).
- 2814 *species nova* in Hoogstraal (1954), *Haemaphysalis*, is *Haemaphysalis bequaerti* Hoogstraal, 1956c as stated in Hoogstraal (1956c).
- 2815 species undetermined in Neumann, 1897, *Rhipicephalus*, is in fact *Rhipicephalus plumbeus* (Panzer, 1795) (*incertae sedis*) in Neumann (1911a).
- 2816 species undetermined in Hoogstraal *et al.* (1968a), *Haemaphysalis*, is in fact *Haemaphysalis heinrichi* Schulze, 1939c as stated in Hoogstraal & Kohls (1968).
- 2817 species undetermined in Horak *et al.* (1986b), *Rhipicephalus*, is *Rhipicephalus lounsburyi* Walker, 1990 as stated in Walker *et al.* (2000).
- 2818 species undescribed in Hoogstraal (1955a), *Haemaphysalis*, is in fact *Haemaphysalis pedetes* as stated in Hoogstraal (1972b).
- 2819 species undescribed in Hoogstraal & Wassef (1973), *Haemaphysalis*, is in fact *Haemaphysalis phasiana* as stated in Saito *et al.* (1974).
- 2820 *sphenodonti* (Dumbleton, 1943), *Amblyomma*. It was originally named *Aponomma sphenodonti*. The name *Amblyomma sphenodonti* has usually been considered a member of *Aponomma*, but it is now placed in the genus *Amblyomma* (Horak *et al.* 2002; Klompen *et al.* 2002). Miller *et al.* (2007) state that *Amblyomma sphenodonti* belong to a new genus of Ixodidae.
- 2821 *sphenodonti* Dumbleton, 1943, *Aponomma*. This name is valid in Camicas *et al.* (1998), but it is a synonym of *Amblyomma sphenodonti* and its original name.
- 2822 *spiculae* Arthur, 1956a, *Ixodes*. This name is a synonym of *Eschatocephalus simplex* (= *Ixodes simplex* Neumann, 1906) in Camicas *et al.* (1998), but it is a synonym of *Ixodes simplex* Neumann, 1906. Walker (1991) treats *Ixodes spiculae* as valid.
- 2823 *spinacoxalis* Hwang and Larivière, 2003, *Ixodes* (page 2). This name is a *lapsus* for *Ixodes spinicoxalis*.
- 2824 *spinae* Arthur, 1958c, *Ixodes*
- 2825 *spiniceps* Warburton and Nuttall, 1909, *Haemaphysalis*. This name is a synonym of *Haemaphysalis cornigera* as stated in

- Camicas *et al.* (1998) and Keirans & Hillyard (2001).
- 2826 *spinicoxalis* Neumann, 1899, *Ixodes*
- 2827 *spinigera* Neumann, 1897, *Haemaphysalis*. This name in Oudemans (1925) is in fact *Haemaphysalis cornigera* as stated in Anastos (1950). Keirans (1985) found *Haemaphysalis novaeguineae* Hirst, 1914 identified as *Haemaphysalis spinigera* in the Nuttall Tick Collection.
- 2828 *spinigera novaeguineae* Hirst, 1914, *Haemaphysalis*. This name used in Nuttall & Warburton (1915) and by a few other workers, is a synonym of *Haemaphysalis novaeguineae* Hirst, 1914 as stated in Roberts (1963a) and Camicas *et al.* (1998).
- 2829 *spinigera spinigera* Neumann, 1897, *Haemaphysalis*. This name used in Santos Dias (1954a) is a synonym of *Haemaphysalis spinigera* here.
- 2830 *spinipalpis* Hadwen and Nuttall, 1916, *Ixodes*, in Nuttall (1916). It was originally named *Ixodes dentatus spinipalpis* and given its current status in Hubbard (1941). The name *Ixodes diversifossus* in Neumann (1911a) and Bishopp (1912) is in fact *Ixodes spinipalpis* according to Gregson (1956) and others. Keirans (1985) found *Ixodes spinipalpis* identified as *Ixodes brunneus* in the Nuttall Tick Collection.
- 2831 *spinipalpus* Carey, McLean and Maupin, 1980, *Ixodes* (page 138). This name is a *lapsus* for *Ixodes spinipalpis*, but not included in Camicas *et al.* (1998). This *lapsus* is repeated in many papers dealing with Powassan virus as in El Khoury *et al.* (2013, page e45) and others.
- 2832 *spinulosa* Al-Khalifa, Al-Lahoo and Hussein, 2006, *Haemaphysalis* (page 39). This name is a *lapsus* for *Haemaphysalis spinulosa*.
- 2833 *spinosa* Scaramella, 1984, *Haemaphysalis* (pages 433-435). This name is a *lapsus* for *Haemaphysalis spinulosa*, but not included in Camicas *et al.* (1998).
- 2834 *spinosum* (Rudow, 1870), *Amblyomma*. It was originally named *Hyalomma spinosum (incertae sedis)* and placed in the genus *Amblyomma* in Neumann (1899). The name *Amblyomma spinosum* is *incertae sedis* synonym of *Hyalomma spinosum* in Neumann (1911a), doubtful in Robinson (1926) and a probable synonym of *Aponomma gervaisi* (= *Amblyomma gervaisi*) in Camicas *et al.* (1998). *Amblyomma spinosum* is a name *incertae sedis* synonym of *Hyalomma spinosum (incertae sedis)* here.
- 2835 *spinosum* Rudow, 1870, *Hyalomma*. This name is *incertae sedis* synonym of *Amblyomma spinosum* in Neumann (1911a) and a probable synonym of *Aponomma gervaisi* (= *Amblyomma gervaisi*) in Camicas *et al.* (1998). The name *Hyalomma spinosum* is *incertae sedis* here.
- 2836 *spinosus* Neumann, 1899, *Ixodes*. This name is a synonym of *Ixodes fuscipes* as stated in Neumann (1911a) and Camicas *et al.* (1998).
- 2837 *spinulosa* Neumann, 1906, *Haemaphysalis*. The name *Haemaphysalis leachi muhsami* (= *Haemaphysalis muhsamae* Santos Dias, 1954d) in Theiler (1962) is in fact *Haemaphysalis spinulosa* according to Walker (1991), who stresses the difficulties to identify *Haemaphysalis spinulosa*.
- 2838 *splendens* Lewis, 1939, *Amblyomma*. This name is a probable synonym of *Amblyomma splendidum* in Camicas *et al.* (1998). The name *Amblyomma splendens* is a *lapsus* for *Amblyomma splendidum* as stated in Voltzit & Keirans (2003).
- 2839 *splendidum* Giebel, 1877, *Amblyomma*. This name is a synonym of *Amblyomma hebraeum splendidum* (= *Amblyomma splendidum*) in Neumann (1911a). The name *Amblyomma splendidum* has been confused with *Amblyomma cohaerens* as stated in Walker (1974).
- 2840 *splendidus* (Giebel, 1877), *Amblyomma*. This name used in Cooreman (1948) is a synonym of *Amblyomma splendidum* as stated in Elbl & Anastos (1996a), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2841 *spodeopsarae* Emel'yanova, 1979, *Ixodes* (page 7). This name has no description, a *nomen nudum*, but not included in Camicas *et al.* (1998).
- 2842 *squamosum* Kohls, 1953a, *Amblyomma*
- 2843 *steineri* Schulze and Gossel, 1936, *Hyalomma*, in Schulze (1936d). This name is a synonym of *Hyalomma scupense* as stated in Apanaskevich *et al.* (2010), but not included in Camicas *et al.* (1998).
- 2844 *steineri codinai* Schulze and Gossel, 1936, *Hyalomma* in Schulze (1936d). This name is a synonym of *Hyalomma detritum detritum* (= *Hyalomma scupense*) in Camicas *et al.* (1998). The name *Hyalomma steineri codinai* is a synonym of *Hyalomma marginatum* as stated in Apanaskevich & Horak (2008b).
- 2845 *steineri enigkianum* Schulze, 1950b, *Hyalomma*. This name is a synonym of *Hyalomma detritum scupense* (= *Hyalomma scupense*) in Camicas *et al.* (1998). The name *Hyalomma steineri enigkianum* is a synonym of *Hyalomma scupense* as stated in Apanaskevich *et al.* (2010).
- 2846 *steineri steineri* Schulze and Gossel, 1936, *Hyalomma*. This name is used in Camicas *et al.* (1998) for a synonym of *Hyalomma detritum detritum* (= *Hyalomma scupense*). The name *Hyalomma steineri steineri* is a synonym of *Hyalomma scupense* as stated in Apanaskevich *et al.* (2010).
- 2847 *steini* (Schulze, 1933b) *Dermacentor*. It was originally named *Indocentor steini* Schulze, 1933b, and redescribed as *Dermacentor steini* (Schulze, 1933b) in Wassef & Hoogstraal (1986b). The name *Dermacentor steini* a synonym of *Dermacentor auratus* Supino, 1897 in Teng & Jiang (1991), while Camicas *et al.* (1998) state that this name in Anastos (1950) is in fact *Dermacentor steini* (Schulze, 1933b).
- 2848 *steini* (Schulze, 1932c), *Endopalpiger*. This name is in Camicas *et al.* (1998) as a synonym of *Ixodes steini* Schulze, 1932c (*nomen nudum*), but not included in Doss & Anastos (1977). The name *Endopalpiger steini* (Schulze, 1932c) is based on

- Schulze (1935b), but the latter author states that *Endopalpiger* is a subgenus of *Ixodes*. *Endopalpiger steini* (Schulze, 1932c) is a *nomen nudum* synonym of *Ixodes steini* Schulze, 1932c (*nomen nudum*) here.
- 2849 *steini* Schulze, 1933b, *Indocentor*. This name is a synonym of *Dermacentor steini* (Schulze, 1933b) and its original name as stated in Wassef & Hoogstraal (1986b) and Camicas *et al.* (1998).
- 2850 *steini* Schulze, 1932c, *Ixodes*. This name is valid in Doss & Anastos (1977), Camicas *et al.* (1998) and Guglielmo *et al.* (2010b), but it is a name without description, a *nomen nudum*.
- 2851 ***steini*** Schulze, 1935b, *Ixodes*. Kohls (1960a) identify as *Ixodes steini* Schulze, 1935b ticks that are in fact *Ixodes luxuriosus* in a *separata* corrected by the author and treated as a valid document here. The name *Ixodes steini* Schulze, 1935b is not included in Doss & Anastos (1977), Camicas *et al.* (1998) and Guglielmo *et al.* (2010b).
- 2852 *steini leviculus* Schulze, 1933b, *Indocentor*. This name is a synonym of *Dermacentor steini* (Schulze, 1933b) as stated in Wassef & Hoogstraal (1986b) and Camicas *et al.* (1998).
- 2853 *steini steini* Schulze, 1933b, *Indocentor*. This name is a synonym of *Dermacentor steini* (Schulze, 1933b) and described by this author in the same article where *Indocentor steini* Schulze, 1933b [= *Dermacentor steini* (Schulze, 1933b)] is named.
- 2854 *sternae* Roberts, 1953, *Amblyomma*. This name is a synonym of *Amblyomma loculosum* as stated in Roberts (1964) and Camicas *et al.* (1998). The name *Amblyomma sternae* in Gregory (1966) is partly a synonym of *Amblyomma loculosum* according to Estrada-Peña & Castellá (1994) who based their decision on Doss & Anastos (1977), but no mention to Gregory (1966) associated with the name *Amblyomma sternae* has been found in Doss & Anastos (1977).
- 2855 *stigmaticus* Gerstäcker, 1873, *Rhipicephalus*. This name is a synonym of *Rhipicephalus sanguineus sanguineus* (*incertae sedis*) in Neumann (1911a) and an alleged synonym of *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition) in Walker *et al.* (2000). The name *Rhipicephalus stigmaticus* is *incertae sedis*.
- 2856 ***stilesi*** Neumann, 1911b, *Ixodes*. It was originally named *Ixodes elegans* Neumann, 1910a, a name preoccupied by *Ixodes elegans* Guérin-Ménéville, 1844 (= *Amblyomma variegatum*) and renamed *Ixodes stilesi* in Neumann (1911b).
- 2857 *stilessi* Tagle, 1971, *Ixodes* (pages 46, 48). This name is a *lapsus* for *Ixodes stilesi*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2858 *stomi* Tseng, 1978, *Ixodes* (page 34). This name is a *lapsus* for *Ixodes stromi*, but not included in Camicas *et al.* (1998).
- 2859 *striatum* Koch, 1844a, *Amblyomma*. This name is valid in Neumann (1911a) and Barker & Murrell (2004, 2008) and a synonym of *Amblyomma ovale* in Robinson (1926). The name *Amblyomma striatum* is a synonym of *Amblyomma aureolatum* as stated in Aragão & Fonseca (1961) and Camicas *et al.* (1998).
- 2860 *striatum fossum* Neumann, 1899, *Amblyomma*. This name used in Reyne (1923) is a synonym of *Amblyomma ovale* as stated in Camicas *et al.* (1998).
- 2861 *strigicola* Schulze and Schlottke, 1929b, *Ixodes*. This name is a synonym of *Pholeoixodes arboricola* (= *Ixodes arboricola*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes arboricola* as stated in Haarløv (1962).
- 2862 *strobili* Berlese and Trouessart, 1889, *Amblyomma*. This name is *incertae sedis* in Neumann (1911a), a doubtful species according to Robinson (1926) and a synonym of *Amblyomma oblongoguttatum* in Camicas *et al.* (1998). The name *Amblyomma strobili* is *incertae sedis*.
- 2863 ***stromi*** Filippova, 1957, *Ixodes*. This name is a synonym of *Pholeoixodes stromi* in Camicas *et al.* (1998), but *Ixodes stromi* is valid.
- 2864 *stromi* (Filippova, 1957), *Pholeoixodes*. It was originally named *Ixodes stromi*. The name *Pholeoixodes stromi* is valid in Camicas *et al.* (1998) based on Morel & Pérez (1973), but it is a synonym of *Ixodes stromi*.
- 2865 *sturni* Pagenstecher, 1861, *Ixodes*. This name is a probable synonym of *Ixodes brunneus* in Nuttall & Warburton (1911), a probable synonym of *Ixodes frontalis* according to Filippova (1977) and a probable synonym of *Scaphixodes frontalis* (= *Ixodes frontalis*) in Camicas *et al.* (1998). The name *Ixodes sturni* is *incertae sedis* in Neumann (1911a) and here.
- 2866 *subanerae* Santos Dias, 1989c, *Amblyomma* (page 101). This name is a *lapsus* for *Amblyomma sabanerae*, but not included in Camicas *et al.* (1998).
- 2867 ***subelongata*** Hoogstraal, 1953b, *Haemaphysalis*
- 2868 *sublaeve* Neumann, 1899, *Amblyomma*. This name is valid in Neumann (1911a), but it is a synonym of *Amblyomma fuscolineatum* in Santos Dias (1958a) who considers *Rhipicephalus javanensis* [= *Amblyomma javanense* (Supino, 1897)] a synonym of *Amblyomma fuscolineatum*. Both names, *Amblyomma fuscolineatum* and *Amblyomma javanense* (Supino, 1897) are valid. The name *Amblyomma sublaeve* is a synonym of *Amblyomma javanense* (Supino, 1897) in Camicas *et al.* (1998) and here. Keirans (1985) found *Amblyomma compressum* identified as *Amblyomma sublaeve* in the Nuttall Tick Collection.
- 2869 *subluteum* Neumann, 1899, *Amblyomma*. This name is a synonym of *Amblyomma crenatum* Neumann, 1899 as stated in Neumann (1911a) and Camicas *et al.* (1998), but treated as valid in Santos Dias (1993c).
- 2870 *sublutum* Howard, 1908, *Amblyomma* (page 145). This name is a *lapsus* for *Amblyomma subluteum* (= *Amblyomma crenatum* Neumann, 1899), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2871 ***subterra*** Hoogstraal, El Kammah and Camicas, 1992, *Haemaphysalis*. Species I of *Haemaphysalis* in Norval (1985) is in fact *Haemaphysalis subterra* according to Camicas *et al.* (1998).
- 2872 ***subterraneus*** Filippova, 1961, *Ixodes*. It was originally named *Ixodes subterraneus*, but subsequently amended in Filippova (1977). The name *Ixodes subterraneus* is a synonym of *Pholeoixodes subterraneus* in Camicas *et al.* (1998) spelled *Pholeoixodes subterraneus*, but it is valid.

- 2873 *subterraneus* (Filippova, 1961), *Pholeoixodes*. It was originally named *Ixodes subterraneus* and subsequently amended in Filippova (1977). The name *Pholeoixodes subterraneus* used in Morel & Pérez (1973 spelled *Pholeoixodes subterraneus*) is valid in Camicas *et al.* (1998 spelled *Pholeoixodes subterraneus*), but it is a synonym of *Ixodes subterraneus*.
- 2874 *subterraneus* Filippova, 1961, *Ixodes*. This name is a *lapsus* for *Ixodes subterraneus* in the original description and amended in Filippova (1977), but repeated in several publications thereafter.
- 2875 *succineus* Weidner, 1964, *Ixodes*. This is a fossil species close to *Ixodes ricinus*, but not included in Horak *et al.* (2002).
- 2876 *suis* Özkan, Ayyildiz and Soysal, 1988, *Haemaphysalis* (page 77). This name is a *lapsus* for *Haematopinus suis* which is not a tick. The name *Haemaphysalis suis* is not included in Camicas *et al.* (1998) and lists 2 or 3.
- 2877 *sulcata* Canestrini and Fanzago, 1878, *Haemaphysalis*. This name is *incertae sedis*, probably in part a synonym of *Haemaphysalis punctata* Canestrini and Fanzago, 1878 in Neumann (1911a), but it is valid. Keirans (1985) found *Haemaphysalis sulcata* identified as *Haemaphysalis cinnabarina punctata* Canestrini and Fanzago, 1878 (*incertae sedis*) in the Nuttall Tick Collection.
- 2878 *sulcata* (Canestrini and Fanzago, 1878), *Herpetobia*. It was originally named *Haemaphysalis sulcata*. The name *Herpetobia sulcata* used in Canestrini (1890) and by a few other workers, is a synonym of *Haemaphysalis sulcata* as stated in Neumann (1911a) and Camicas *et al.* (1998).
- 2879 *sulcata* (Canestrini and Fanzago, 1878), *Hyalomma*. This name is a *lapsus* for *Haemaphysalis sulcata* in Mamikonyan (1950) as stated in Camicas *et al.* (1998) under the authority of Mamikonyan, 1950. This *lapsus* is not printed in the translation of Mamikonyan (1950) and the assertion of Camicas *et al.* (1998) is provisionally valid here. The name *Hyalomma sulcata* is not included in Doss & Anastos (1977).
- 2880 *sulcata otophila* Schulze, 1919, *Haemaphysalis* (usually cited Schulze, 1918). This name used in Schulze & Schlotzke (1927) and by a few other workers, is a synonym of *Haemaphysalis sulcata* in Estrada Peña (1991). The name *Haemaphysalis sulcata otophila* is a synonym of *Haemaphysalis parva* (Neumann 1897) as stated in Camicas *et al.* (1998).
- 2881 *sulcata sulcata* (Canestrini and Fanzago, 1878), *Haemaphysalis*. This name used in Schulze (1927) and by a few other workers is a synonym of *Haemaphysalis sulcata* as stated in Morel (1963a).
- 2882 *sulcata svenigae* Filimonov, 1961, *Haemaphysalis*. This name is a synonym of *Haemaphysalis punctata* Canestrini and Fanzago, 1878 as stated in Camicas *et al.* (1998).
- 2883 *sulcatus* Koch, 1844a, *Ixodes*. This name is a synonym of *Ixodes ricinus* as stated in Neumann (1911a) and Camicas *et al.* (1998).
- 2884 *sulcatus* Neumann, 1908c, *Rhipicephalus*. This name in Morel & Vassiliades (1963) is in fact *Rhipicephalus turanicus* Pomerantzev, 1940 according to Camicas *et al.* (1998) and Walker *et al.* (2000), but under the unclear morphological definition of most populations of *Rhipicephalus turanicus* Pomerantzev, 1940 that decision is doubtful. Keirans (1985) found *Rhipicephalus sulcatus* Neumann, 1908c identified as *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition).
- 2885 *sulcuta* Shayegi, Piazak, Yazdi and Abolhasani, 2005, *Haemaphysalis* (page 27). This name is a *lapsus* for *Haemaphysalis sulcata*.
- 2886 *sumatraensis* Hoogstraal, El Kammah, Kadarsan and Anastos, 1971c, *Haemaphysalis*
- 2887 *sundrai* Sharif, 1928, *Haemaphysalis*. Keirans (1985) found specimens of *Haemaphysalis sundrai* identified as *Haemaphysalis montgomeryi* in the Nuttall Tick Collection.
- 2888 *suntzovi* Kolonin, 1993, *Haemaphysalis*
- 2889 *superbrasiliense* Schulze, 1941d, *Amblyomma*. This name is a synonym of *Amblyomma brasiliense* in Camicas *et al.* (1998), but it is a synonym of *Amblyomma incisum* as stated in Guglielmone *et al.* (2003).
- 2890 *superbum* Santos Dias, 1953c, *Amblyomma*. This name is a synonym of *Amblyomma variegatum* in Estrada-Peña & Castellá (1994) and simultaneously considered a probable synonym of *Amblyomma pomposum* and a valid name in Camicas *et al.* (1998). The name *Amblyomma superbum* is considered here a provisional synonym of *Amblyomma pomposum* following Guglielmone *et al.* (2009), but it is necessary to recognize the strong defense for the validity of *Amblyomma superbum* in Santos Dias (1992a, b).
- 2891 *supertritus* Neumann, 1907b, *Rhipicephalus*. Keirans (1985) found *Rhipicephalus compositus*, *Rhipicephalus longus* and *Rhipicephalus simus* identified as *Rhipicephalus supertritus*, and *Rhipicephalus supertritus* identified as *Rhipicephalus appendiculatus*.
- 2892 *supinae* Arthur, 1960a, *Amblyomma* (page 185). This name is a *lapsus* for *Amblyomma supinoi*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2893 *supinoi* Neumann, 1905, *Amblyomma*. It was originally named *Ixodes testudinis* Supino, 1897, a name preoccupied by *Ixodes testudinis* Leydig, 1855 (= *Hyalomma aegyptium*) and *Ixodes testudinis* Conil, 1877 (= *Amblyomma argentinae*) and renamed *Amblyomma supinoi* in Neumann, 1905. Guglielmone *et al.* (2010b) state 1904 the year of description of *Amblyomma supinoi*.
- 2894 *supurbum* Voltz and Keirans, 2003, *Amblyomma* (page 187). This name is a *lapsus* for *Amblyomma superbum* (= *Amblyomma pomposum*).
- 2895 *susphilippensis* Hoogstraal, Kohls and Parrish, 1968b, *Haemaphysalis*. This tick has been confused with *Haemaphysalis papuana* Thorell, 1883 as stated in Hoogstraal *et al.* (1968b).
- 2896 *syvaticum* Kolonin, 2004, *Amblyomma* (page 179). This name is a *lapsus* for *Amblyomma sylvaticum*.

- 2897 *sylvarum* Feldhamer, 1980, *Dermacentor* (page 4). This name is a *lapsus* for *Dermacentor sylvarum* but not included in Camicas *et al.* (1998). This *lapsus* is repeated in Wood & Arstob (2012, page 69) among others.
- 2898 *sylvaticum* (De Geer, 1778), *Amblyomma*. It was originally named *Acarus sylvaticus* and given its current status in Koch (1844a). The name *Amblyomma sylvaticum* in Neumann (1899) is in fact *Amblyomma latum* according to Robinson (1926).
- 2899 *sylvaticus* De Geer, 1778, *Acarus*. This name is a synonym of *Amblyomma sylvaticum* and its original name as stated in Neumann (1911a) and Camicas *et al.* (1998).
- 2900 *sylvaticus* (De Geer, 1778), *Amblyomma*. This name is in Doss & Anastos (1977) based on Koch (1844a), but this author used the correct name *Amblyomma sylvaticum*. The name *Amblyomma sylvaticus* is a synonym of *Amblyomma sylvaticum*, but not included in Camicas *et al.* (1998).
- 2901 *sylvaticus* (De Geer, 1778), *Cynorhaestes*. It was originally named *Acarus sylvaticus* (= *Amblyomma sylvaticum*). The name *Cynorhaestes sylvaticus* used in Hermann (1804) and by a few other workers, is a synonym of *Amblyomma sylvaticum* as stated in Neumann (1911a) and Camicas *et al.* (1998).
- 2902 *sylvaticus* (De Geer, 1778), *Haemalastor*. It was originally named *Acarus sylvaticus*. The name *Haemalastor sylvaticus* used in Oudemans (1936, page 540) is a synonym of *Amblyomma sylvaticum*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2903 *sylvaticus* (De Geer, 1778), *Ixodes*. It was originally named *Acarus sylvaticus* (= *Amblyomma sylvaticum*). The name *Ixodes sylvaticus* used in Latreille (1804) and by a few other workers, is a synonym of *Amblyomma sylvaticum* as stated in Camicas *et al.* (1998), but not included in Neumann (1911a).
- 2904 *syriacum* Koch, 1844a, *Hyalomma*. This name is valid in Neumann (1911a), but *Hyalomma syriacum* is a synonym of *Hyalomma aegyptium* as stated in Camicas *et al.* (1998).
- 2905 *syriacum punctata* Schulze, 1920, *Hyalomma* (usually cited 1919). This name is a synonym of *Hyalomma aegyptium* as stated in Camicas *et al.* (1998).
- 2906 *syriacum punctatum* Schulze, 1920, *Hyalomma*. This name used in Moritz & Fischer (1981 citing 1919 the year for description) is probably an amendment of *Hyalomma syriacum punctata* Schulze, 1920, and regarded here a synonym of *Hyalomma aegyptium*. The name *Hyalomma syriacum punctatum* is not included in Camicas *et al.* (1998).
- 2907 *syriacum typica* Schulze, 1920, *Hyalomma* (usually cited 1919). This name is a synonym of *Hyalomma anatolicum excavatum* (= *Hyalomma excavatum*) as stated in Camicas *et al.* (1998).

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- 2908 *tachyglossi* Roberts, 1953, *Aponomma*. This name is a synonym of *Aponomma hydrosauri* (= *Bothriocroton hydrosauri*) in Kaufman (1972), Santos Dias (1993a), Camicas *et al.* (1998) and others, but it is valid in Andrews *et al.* (2006). The name *Aponomma tachyglossi* is a synonym of *Bothriocroton tachyglossi* and its original name as stated in Guglielmone *et al.* (2009).
- 2909 *tachyglossi* (Roberts, 1953), *Bothriocroton*. It was originally named *Aponomma tachyglossi* and given its current status in Guglielmone *et al.* (2009).
- 2910 *taglei* Kohls, 1969a, *Ixodes*
- 2911 *taiwana* Sugimoto, 1936, *Haemaphysalis*. It was originally named *Haemaphysalis cornigera taiwana* and given its current status in Hoogstraal & El Kammah (1972). The name *Haemaphysalis taiwana* is a synonym of *Haemaphysalis cornigera* in Teng & Jiang (1991), but it is valid as stated in Guglielmone *et al.* (2010b, 2014).
- 2912 *taiwanensis* Sugimoto, 1935b, *Dermacentor*. The undefined species of *Dermacentor* in Keegan & Toshioka (1957) and Yamaguti *et al.* (1971) is in fact *Dermacentor taiwanensis* as stated in Wassef & Hoogstraal (1986a). Camicas *et al.* (1998) affirm that *Dermacentor atrosignatus* in Arthur (1960a) is in fact *Dermacentor taiwanensis*. Doss & Anastos (1977) state 1936 the year for description of *Dermacentor taiwanensis*.
- 2913 *taiwanensis* Sugimoto, 1936, *Ixodes*. This name is a probable synonym of *Ixodes ovatus* in Yamaguti *et al.* (1971) and a certain synonym of *Ixodes ovatus* in Camicas *et al.* (1998).
- 2914 *talpae* Doles. (presumably for Doleschall), no year, *Ixodes*. This name is cited in Oudemans (1896), but not included in Neumann (1911a) and regarded a *nomen dubium* in Camicas *et al.* (1998), while Doss & Anastos (1977) state that this name is quoted in Oudemans (1892). The name *Ixodes talpae* is a *nomen nudum*.
- 2915 *tamaulipas* Kohls and Clifford, 1966, *Ixodes*
- 2916 *tancitarius* Cooley and Kohls, 1942c, *Ixodes*
- 2917 *tanuki* Saito, 1964, *Ixodes*
- 2918 *tapirellum* Dunn, 1933, *Amblyomma*
- 2919 *tapiri* Tonelli Rondelli, 1937, *Amblyomma*. This name is valid in Rawlins *et al.* (1993), but *Amblyomma tapiri* is a synonym of *Amblyomma cajennense* as stated in Jones *et al.* (1972) and Camicas *et al.* (1998).
- 2920 *tapirus* Kohls, 1956a, *Ixodes*. This name is often cited as described in 1957
- 2921 *tasmani* Neumann, 1899, *Ixodes*
- 2922 *tasmani* (Neumann, 1899), *Endopalpiger*. It was originally named *Ixodes tasmani*. The name *Endopalpiger tasmani* used in Schulze (1943b) is a synonym of *Ixodes tasmani* as stated in Camicas *et al.* (1998).
- 2923 *tasmani tasmani* Neumann, 1899, *Ixodes*. This name used in Schulze (1935b) is a synonym of *Ixodes tasmani* as stated in Roberts (1960) and Camicas *et al.* (1998).

- 2924 *tasmani victoriae* Schulze, 1935b, *Ixodes*. This name used in Schulze (1935b) is a synonym of *Ixodes tasmani* as stated in Roberts (1960) and Camicas *et al.* (1998).
- 2925 *tasmanicus* Tryon, 1916, *Ixodes*. This name is a probable *lapsus* for *Ixodes tasmani* in Doss & Anastos (1977) and a probable synonym of *Ixodes tasmani* or a *nomen nudum* in Camicas *et al.* (1998). The name *Ixodes tasmanicus* is regarded here a *lapsus* for *Ixodes tasmani*.
- 2926 *tasquei* Floch and Abonnenc, 1940, *Amblyomma*. This name is a synonym of *Amblyomma extraoculatum* Neumann, 1899 in Camicas *et al.* (1998) and Guglielmone *et al.* (2003). The name *Amblyomma tasquei* is a synonym of *Amblyomma romitii* as stated in Barros-Battesti *et al.* (2007).
- 2927 *tatei* Arthur, 1959a, *Ixodes*. This name is a synonym of *Ixodes eldaricus* as stated in Filippova (1977) and Camicas *et al.* (1998). Nevertheless, authors as Mohammad *et al.* (2003) still use the name *Ixodes tatei*.
- 2928 *tauffliebi* Morel, 1965a, *Haemaphysalis*
- 2929 *tauranicus* Abdul Hussain, Bitam, Abdul Hussain and Cozma, 2004, *Rhipicephalus* (page 176). This name is a *lapsus* for *Rhipicephalus turanicus* Pomerantzev, 1940.
- 2930 *taurica* Pospelova-Shtrom, 1940, *Haemaphysalis*. This name used in Feldman-Muhsam (1953) and by a few other workers, is a synonym of *Haemaphysalis erinacei taurica* (= *Haemaphysalis erinacei* Pavesi, 1884) in Camicas *et al.* (1998). The name *Haemaphysalis taurica* is a synonym of *Haemaphysalis erinacei* Pavesi, 1884 here.
- 2931 *taurica ornata* Feldman-Muhsam, 1956, *Haemaphysalis*. This name is a synonym of *Haemaphysalis erinacei ornata* (= *Haemaphysalis erinacei* Pavesi, 1884) in Camicas *et al.* (1998). The name *Haemaphysalis taurica ornata* is a synonym of *Haemaphysalis erinacei* Pavesi, 1884 here.
- 2932 *tauricus* Vshivkov, 1956, *Ixodes*. This name has no description, a *nomen nudum*, but not included in Camicas *et al.* (1998).
- 2933 *tauricus* Vshivkov and Filippova, 1957, *Ixodes*. This name is a synonym of *Scaphixodes unicavatus* (= *Ixodes unicavatus*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes unicavatus* as stated in Filippova (2008).
- 2934 *tebetensis* Hoogstraal and Aeschlimann, 1982, *Haemaphysalis* (page 29). This name is a *lapsus* for *Haemaphysalis tibetensis*, but not included in Camicas *et al.* (1998).
- 2935 *tecanensis* Kohls, 1956a, *Ixodes*. This name is often cited as described in 1957.
- 2936 *tellum* Dios and Knopoff, 1930, *Amblyomma* (page 611). This name is a *lapsus* for *Amblyomma tenellum* (= *Amblyomma cajennense* although this synonymy is provisional), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2937 *tendeiroi* Santos Dias, 1950a, *Rhipicephalus*. This name is a synonym of *Rhipicephalus masseyi* as stated in Camicas *et al.* (1998) and Walker *et al.* (2000).
- 2938 *tenellum* Koch, 1844a, *Amblyomma*. This name is a synonym of *Amblyomma cajennense cajennense* (= *Amblyomma cajennense*) as stated in Neumann (1911a) and Camicas *et al.* (1998). Kohls (1958) leave open the possibility that *Amblyomma imitator* is a synonym of *Amblyomma tenellum*. Dr. Lorenza Beati and one of us (SN), are currently studying the types of *Amblyomma tenellum* to confirm its status. In the meantime we treat *Amblyomma tenellum* as a provisional synonym of *Amblyomma cajennense*.
- 2939 *tenimberense* Hirst and Hirst, 1910, *Amblyomma*. This name is a synonym of *Amblyomma helvolum* as stated in Robinson (1926) and Camicas *et al.* (1998).
- 2940 *tenimberense* (Hirst and Hirst, 1910), *Aponomma*. This name used in Taylor (1946) is a synonym of *Aponomma helvolum* (= *Amblyomma helvolum*) in Santos Dias (1993a) and Camicas *et al.* (1998). The name *Aponomma benimberense* is a synonym of *Amblyomma helvolum*.
- 2941 *tenimberense* Tseng, 1978, *Amblyomma* (page 7). This name is a *lapsus* for *Amblyomma benimberense* (= *Amblyomma helvolum*), but not included in Camicas *et al.* (1998).
- 2942 *tenuirostris* Neumann, 1901, *Ixodes*. This name is valid in Neumann (1911a), but it is a synonym of *Ixodes trianguliceps* as stated in Filippova (1977) and Camicas *et al.* (1998). Keirans (1985) found *Ixodes alluaudi* identified as *Ixodes tenuirostris* in the Nuttall Collection.
- 2943 *tertiarius* Scudder, 1885, *Ixodes*. A fossil taxon considered valid in Camicas *et al.* (1998), regarded a *nomen nudum* in Guglielmone *et al.* (2009), but not included in Neumann (1911a). The name *Ixodes tertiaris* is a *nomen dubium* considered described in 1885 by several authors citing a publication of Scudder printed in 1884 that contains no mention to *Ixodes tertiaris* as explained in Dunlop (2011).
- 2944 *testadinarium* Teng and Jiang, 1991, *Amblyomma* (page 281). This name is a *lapsus* for *Amblyomma testudinarium*, but not included in Camicas *et al.* (1998).
- 2945 *testidinarium* Rao, Hiregaudar and Alwar, 1964, *Amblyomma* (page 93). This name is a *lapsus* for *Amblyomma testudinarium*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Gaowa *et al.* (2013, page 340).
- 2946 *testidinis* Olalquiaga Fauré, 1950, *Amblyomma* (page 55). This name is a *lapsus* for *Amblyomma testudinis* (Conil, 1877) (= *Amblyomma argentineae*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2947 *testudinalum* Nakamura and Yajima, 1937, *Amblyomma* (page 184). This name is a *lapsus* for *Amblyomma testudinarium*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2948 *testudinarium* Koch, 1844a, *Amblyomma*.
- 2949 *testudinarium* (Koch, 1844a), *Haemalastor*. It was originally named *Amblyomma testudinarium*. The name *Haemalastor testudinarium* used in Oudemans (1936, page 544) is a synonym of *Amblyomma testudinarium*, but not included in Doss

- & Anastos (1977) and Camicas *et al.* (1998).
- 2950 *testudinarium taivanicum* Schulze, 1935c, *Amblyomma*. This name is a synonym of *Amblyomma testudinarium* as stated in Camicas *et al.* (1998).
- 2951 *testudinarius* Murray, 1877, *Ixodes*. This name is *incertae sedis* probable synonym of *Dermacentor reticulatus reticulatus* (Fabricius, 1794) [= *Dermacentor reticulatus* (Fabricius, 1794)] in Neumann (1911a) and probably a synonym of *Dermacentor reticulatus* (Fabricius, 1794) in Camicas *et al.* (1998). The name *Ixodes testudinarius* is *incertae sedis* here.
- 2952 *testudinarum* Patton and Cragg, 1913, *Amblyomma* (page 615). This name is a *lapsus* for *Amblyomma testudinarium* repeated in Warburton (1926b, page 280) and others, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2953 *testudines* Guerra, Gazêta, Amorim, Duarte and Serra-Freire, 2003, *Amblyomma* (page 181). This name is a *lapsus* for *Amblyomma testudinis* (Conil, 1877) (= *Amblyomma argentinae*).
- 2954 *testudinis* Hasselquist, 1762, *Acarus*. This name is a synonym of *Hyalomma aegyptium* as stated in Camicas *et al.* (1998), but not included in Neumann (1911a).
- 2955 *testudinis* (Conil, 1877), *Acarus*. This name is a *lapsus* for *Ixodes testudinis* Conil, 1877 (= *Amblyomma argentinae*) in Santos Dias (1989b, page 84), but not included in Camicas *et al.* (1998).
- 2956 *testudinis* (Conil, 1877), *Amblyomma*. It was originally named *Ixodes testudinis* Conil, 1877 (preoccupied) (= *Amblyomma argentinae*). The name *Amblyomma testudinis* (Conil, 1877) is *incertae sedis* in Neumann (1911a), probably a synonym of *Amblyomma argentinae* (page 92); simultaneously Neumann (1911a, page 74) asserts that this name in Lahille (1905) is a synonym of *Amblyomma argentinae*. *Amblyomma testudinis* (Conil, 1877) used first in Lahille (1905) is valid in Robinson (1926), Barker & Murrell (2004, 2008) and others. The name *Amblyomma testudinis* (Conil, 1877) is a synonym of *Amblyomma argentinae* as stated in Neumann (1911a), Camicas *et al.* (1998) and Guglielmone *et al.* (2001), but not included in Doss & Anastos (1977).
- 2957 *testudinis* (Supino, 1897), *Amblyomma*. It was originally named *Ixodes testudinis* Supino, 1897 (preoccupied). The name *Amblyomma testudinis* (Supino, 1897) used in Neumann (1902) was renamed *Amblyomma supinoi* in Neumann (1905). Therefore, *Amblyomma testudinis* (Supino, 1897) is a synonym of *Amblyomma supinoi* as stated in Neumann (1911a) and Camicas *et al.* (1998).
- 2958 *testudinis* Koch, 1877, *Amblyomma*. This name used in Tonelli Rondelli (1931, page 6) is a *nomen nudum*, because no species with this name was described by Koch.
- 2959 *testudinis* (Supino, 1897), *Aponomma*. It was originally named *Ixodes testudinis* Supino, 1897 (preoccupied). The name *Aponomma testudinis* (Supino, 1897) used in Neumann (1899), was renamed *Amblyomma supinoi* in Neumann (1905). Therefore, *Aponomma testudinis* (Supino, 1897) is a synonym of *Amblyomma supinoi* as stated in Neumann (1911a) and Camicas *et al.* (1998).
- 2960 *testudinis* (Hasselquist, 1762), *Hyalomma*. It was originally named *Acarus testudinis* Hasselquist, 1762 (= *Hyalomma aegyptium*). The name *Hyalomma testudinis* (Hasselquist, 1762) used in Oudemans (1929) and Buitendijk (1945) is a synonym of *Hyalomma aegyptium* as stated in Camicas *et al.* (1998).
- 2961 *testudinis* Leydig, 1855, *Ixodes*. This name is a synonym of *Hyalomma aegyptium* as stated in Camicas *et al.* (1998), but not included in Neumann (1911a) and Doss & Anastos (1977).
- 2962 *testudinis* Conil, 1877, *Ixodes*. This name was preoccupied by *Ixodes testudinis* Leydig, 1855 (= *Hyalomma aegyptium*) and its correct name is *Amblyomma argentinae* as explained in Guglielmone *et al.* (2001). Therefore *Ixodes testudinis* Conil, 1877 is a synonym of *Amblyomma argentinae* and its original name. However, the name *Ixodes testudinis* Conil, 1877 is probably a synonym of *Amblyomma dissimile* in Neumann (1899) and a synonym of *Amblyomma testudinis* (Conil, 1877) in Neumann (1911a).
- 2963 *testudinis* Supino, 1897, *Ixodes*. This name was preoccupied by *Ixodes testudinis* Leydig, 1855 (= *Hyalomma aegyptium*) and *Ixodes testudinis* Conil, 1877 (= *Amblyomma argentinae*), and renamed *Amblyomma supinoi* in Neumann (1905).
- 2964 **tetracornus** Kitaoka and Suzuki, 1983, *Rhipicephalus*. This name is *incertae sedis* in Walker *et al.* (2000), but the description is appropriate and the holotype is available. The name *Rhipicephalus tetracornus* is valid in Camicas *et al.* (1998), Guglielmone *et al.* (2009, 2010b, 2014) and here.
- 2965 **texanus** Banks, 1909, *Ixodes*. This name is a synonym of *Pholeoixodes texanus* (Banks, 1909) in Camicas *et al.* (1998), but *Ixodes texanus* Banks, 1909 is valid. Keirans (1985) found *Ixodes hearlei* identified as *Ixodes texanus* Banks, 1909 in the Nuttall Tick Collection.
- 2966 **texanus** (Banks, 1909), *Pholeoixodes*. It was originally named *Ixodes texanus* Banks, 1909. The name *Pholeoixodes texanus* (Banks, 1909) is valid in Camicas *et al.* (1998) based on Morel & Pérez (1973), but it is a synonym of *Ixodes texanus* Banks, 1909.
- 2967 **texanus** Banks, 1908, *Rhipicephalus*. This name is an alleged synonym of *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition) in Camicas *et al.* (1998) and Walker *et al.* (2000). The name *Rhipicephalus texanus* Banks, 1908 is *incertae sedis* here.
- 2968 **tezuensis** Geevarghese and Mishra, 2011, *Haemaphysalis* (page 17). This name has no description, a *nomen nudum*.
- 2969 **thalloni** Díaz, De La Vega and Fernández, 1984, *Amblyomma* (page 4). This name is a *lapsus* for *Amblyomma tholloni*, but not included in Camicas *et al.* (1998).
- 2970 **theilerae** Santos Dias, 1947b, *Amblyomma*. It was originally named *Amblyomma theileri* Santos Dias, 1947b and subsequently amended. The name *Amblyomma theilerae* Santos Dias, 1947b is a synonym of *Amblyomma hebraeum* as

- stated in Santos Dias (1962a) and Camicas *et al.* (1998), but not included in Doss & Anastos (1977).
- 2971 *theileriae* Hoogstraal, 1953b, *Haemaphysalis*
- 2972 *theileriae* Arthur, 1953b, *Ixodes*. It was originally named *Ixodes theileri* Arthur, 1953b and amended in Arthur (1958c). The name *Ixodes theileriae* Arthur, 1953b is a synonym of *Scaphixodes theileriae* (Arthur, 1953b) in Camicas *et al.* (1998), but *Ixodes theileriae* is valid.
- 2973 *theileriae* (Arthur, 1953b), *Scaphixodes*. It was originally named *Ixodes theileri* Arthur, 1953b (= *Ixodes theileriae* Arthur, 1953b). The name *Scaphixodes theileriae* (Arthur, 1953b) used in Camicas *et al.* (1998) is a synonym of *Ixodes theileriae* Arthur, 1953b.
- 2974 *theileri* Santos Dias, 1947b, *Amblyomma*. This name is a synonym of *Amblyomma theileriae* Santos Dias, 1947b, but both names are synonyms of *Amblyomma hebraeum*. The name *Amblyomma theileri* Santos Dias, 1947b is not included in Doss & Anastos (1977).
- 2975 *theileri* Arthur, 1953b, *Ixodes*. This name is a *lapsus* for *Ixodes theileriae* Arthur 1953b in the original version. The name *Ixodes theileri* Arthur, 1953b is a synonym of *Scaphixodes theileriae* (Arthur 1953b) (= *Ixodes theileriae* Arthur 1953b), in Camicas *et al.* (1998), but it is a synonym of *Ixodes theileriae* Arthur 1953b and its original name.
- 2976 *theileri* Bedford and Hewitt, 1925, *Rhipicephalus*. This name has been confused with *Rhipicephalus capensis* Koch, 1844a and *Rhipicephalus follis* as stated in Walker *et al.* (2000).
- 2977 *theodori* Warburton, 1927, *Ixodes*. This name is a synonym of *Ixodes acuminatus* in Camicas *et al.* (1998) and Keirans & Hillyard (2001 who are dubitative about the validity of *Ixodes redikorzevi*). The name *Ixodes theodori* is a synonym of *Ixodes redikorzevi* as stated in Filippova (1977).
- 2978 *thollini* Merhej and Raoult, 2011, *Amblyomma* (page 386). This name is a *lapsus* for *Amblyomma tholloni*.
- 2979 *thollini* Voltzit and Keirans, 2003, *Haemalastor* (page 202). This name is a *lapsus* for *Haemalastor tholloni* (= *Amblyomma tholloni*).
- 2980 *thollona* Law, 1903, *Amblyomma* (pages 104, 126). This name is a *lapsus* for *Amblyomma tholloni*. The name *Amblyomma thollona* is not included in Neumann (1911a), Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2981 *tholloni* Neumann, 1899, *Amblyomma*. Morel & Mouchet (1965) state that *Amblyomma paulopunctatum* in Theiler (1962) is partly in fact *Amblyomma tholloni*.
- 2982 *tholloni* (Neumann, 1899), *Haemalastor*. This name used in Oudemans (1939) is a synonym of *Amblyomma tholloni* as stated in Camicas *et al.* (1998).
- 2983 *tholoni*, Puna 1992, *Amblyomma* (pages 539, 540). This name is a *lapsus* for *Amblyomma tholloni*, but not included in Camicas *et al.* (1998). This *lapsus* is repeated in Fyumagwa *et al.* (2007, pages 83, 82).
- 2984 *thomasae* Arthur and Burrow, 1957, *Ixodes*. Species larva B of *Ixodes* in Morel *et al.* (1969) is in fact *Ixodes thomasae* according to Morel (1976). Arthur (1965) names the authority of *Ixodes thomasae* as Arthur, 1957.
- 2985 *thompsoni* Arthur, 1955d, *Ixodes*. This name is a synonym of *Ixodes ventalloi* as stated in Gilot & Pérez (1978) and Camicas *et al.* (1998).
- 2986 *thomsoni* Bailly-Choumara, Morel and Rageau, 1974, *Ixodes* (page 3). This name is a *lapsus* for *Ixodes thompsoni* (= *Ixodes ventalloi*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2987 *thoracicus* (Koch, 1844a), *Haemalastor*. It was originally named *Ixodes thoracicus* Koch, 1844a (*nomen dubium*). The name *Haemalastor thoracicus* (Koch, 1844a) used in Oudemans (1936, page 545) is a *nomen dubium* synonym of *Ixodes thoracicus* Koch, 1844a (*nomen dubium*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2988 *thoracicus* Koch, 1844a, *Ixodes*. This name is *incertae sedis* in Neumann (1911a), and a *nomen dubium* in Camicas *et al.* (1998) and here.
- 2989 *thoracicus* Neumann, 1899, *Ixodes*. This name was preoccupied for *Ixodes thoracicus* Koch, 1844a (*nomen dubium*), and renamed *Ixodes auritulus* in Neumann (1904). The name *Ixodes thoracicus* Neumann, 1899 is a synonym of *Scaphixodes auritulus* in Camicas *et al.* (1998), but it is a synonym of *Ixodes auritulus* and its original name as stated in Neumann (1911a) and Guglielmone *et al.* (2003).
- 2990 *thoracicus* Aragão and Fonseca, 1952, *Ixodes*. This name is a *lapsus* for *Ixodes thoracicus* Koch, 1844a (*nomen dubium*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 2991 *thumbi* Schulze, 1941b, *Aponomma*. This name is a synonym of *Amblyomma testudinis* (Conil, 1877) (= *Amblyomma argentinae*) in Santos Dias (1958d) and a synonym of *Amblyomma bibroni* (Gervais, 1842) (*nomen nudum*) in Camicas *et al.* (1998). The name *Aponomma thumbi* is a synonym of *Amblyomma dissimile* as stated in Guglielmone *et al.* (2001) and Guglielmone & Nava (2010).
- 2992 *tibetensis* Hoogstraal, 1965, *Haemaphysalis*
- 2993 *tieni* Phan Trong, 1977, *Haemaphysalis*. This name is a synonym of *Haemaphysalis hystricis* Supino, 1897 as stated in Camicas *et al.* (1998).
- 2994 *tigrinum* Koch, 1844a, *Amblyomma*. This name is a synonym of *Amblyomma maculatum* in Neumann (1911a), Robinson (1926) and others, but it is valid. *Amblyomma tigrinum* has been confused with *Amblyomma maculatum* and *Amblyomma triste* as stated in Guglielmone *et al.* (2003). Daciuk *et al.* (1981) identified as *Ixodes neuquenensis* specimens of *Amblyomma tigrinum* as shown in Guglielmone & Nava (2005). The authority of *Amblyomma tigrinum* is named Koch, 1884 in Mastropaolo *et al.* (2008).
- 2995 *tiptoni* Hoogstraal, 1953b, *Haemaphysalis*. The name *Haemaphysalis elongata* in Nuttall & Warburton (1915) is partly in fact *Haemaphysalis tiptoni* Hoogstraal, 1953 as stated in Hoogstraal (1953b).

- 2996 **tiptoni** Kohls and Clifford, 1962, *Ixodes*
- 2997 **tordi** Armstrong, 1953, *Ixodes*. This name is simultaneously a *lapsus*, *nomen nudum* and a synonym of *Scaphixodes frontalis* (= *Ixodes frontalis*) in Camicas *et al.* (1998). The name *Ixodes tordi* is a *lapsus* for *Ixodes turdi* (= *Acarus turdi*) (*nomen dubium*).
- 2998 **torrei** Pérez Viguera, 1934, *Amblyomma*. This name is a probable synonym of *Amblyomma cruciferum* in Morel (1967), but it is valid in Camicas *et al.* (1998) and Guglielmone *et al.* (2003).
- 2999 **tovari** Cooley, 1945, *Ixodes*
- 3000 **toxopei** Warburton, 1927, *Haemaphysalis*. This name in Warburton (1927) appears to be partly a synonym of *Haemaphysalis kinneari* even in the original description because Warburton (1927) states that the females of *Haemaphysalis kinneari* and *Haemaphysalis toxopei* are almost identical, and Anastos (1950) regards *Haemaphysalis toxopei* a probable synonym of *Haemaphysalis kinneari*. However, the statement above in Warburton (1927) is a *lapsus* according to Trapido *et al.* (1964b) and *Haemaphysalis toxopei* is regarded valid.
- 3001 **trabeatum** Schulze, 1933d, *Aponomma*. This name is a synonym of *Amblyomma trimaculatum* (Lucas 1878b) in Anastos (1950) and a synonym of *Aponomma fimbriatum* (= *Amblyomma fimbriatum*) in Kaufman (1972), Santos Dias (1993a) and Camicas *et al.* (1998). The name *Aponomma trabeatum* is a synonym of *Amblyomma fimbriatum*.
- 3002 **trabeatus** Audouin, 1832, *Ixodes*. This name is a synonym of *Ixodes ricinus* as stated in Neumann (1911a) and Camicas *et al.* (1998).
- 3003 **trachysauri** (Lucas, 1861), *Aponomma*. It was originally named *Ixodes trachysauri* (= *Bothriocroton hydrosauri*). The name *Aponomma trachysauri* used in Neumann (1899) and by a few other workers, is valid in Neumann (1911a) and a synonym of *Aponomma hydrosauri* (= *Bothriocroton hydrosauri*) in Kaufman (1972) and Camicas *et al.* (1998). The name *Aponomma trachysauri* is a synonym of *Bothriocroton hydrosauri*.
- 3004 **trachysauri** Lucas, 1861, *Ixodes*. This name is a synonym of *Aponomma trachysauri* (= *Bothriocroton hydrosauri*) in Neumann (1911a) and Camicas *et al.* (1998). The name *Ixodes trachysauri* is a synonym of *Bothriocroton hydrosauri*.
- 3005 **traguli** Oudemans, 1928a, *Haemaphysalis*. Keirans (1985) found *Haemaphysalis traguli* identified as *Haemaphysalis hystricis* Supino, 1897 in the Nuttall Collection. Nadchatram *et al.* (1966, page 133) name *Haemaphysalis traguli* as *Haemaphysalis atheruri* (*lapsus*).
- 3006 **trancutum** Luguru, 1991, *Hyalomma* (pages 704, 705). This name is a *lapsus* for *Hyalomma truncatum*, but not included in Camicas *et al.* (1998). This *lapsus* is repeated in Fyumagwa *et al.* (2007, page 83), Munang'andu *et al.* (2012, spelled *Hyaloma*, pages 3, 4) and others.
- 3007 **transcaucasicum** Olenev, 1934, *Hyalomma*. This name is a synonym of *Hyalomma detritum* (= *Hyalomma scupense*) in Hoogstraal (1956a) and a synonym of *Hyalomma detritum detritum* (= *Hyalomma scupense*) in Camicas *et al.* (1998). The name *Hyalomma transcaucasicum* is a synonym of *Hyalomma marginatum* as stated in Apanaskevich & Horak (2008b).
- 3008 **transcaucasicus** Kirschenblatt, 1934, *Ixodes*. This name is a synonym of *Ixodes acuminatus* in Camicas *et al.* (1998), but it is a synonym of *Ixodes redikorzevi* as stated in Filippova (1977). The authority for *Ixodes transcaucasicus* is spelled Kirshenblat in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 3009 **transcaucasicus hystryx** Schulze, 1944a, *Ixodes*. This name is a synonym of *Ixodes acuminatus* in Camicas *et al.* (1998), but it is a synonym of *Ixodes redikorzevi* as stated in Filippova (1977).
- 3010 **transiens** Schulze, 1920, *Hyalomma* (usually cited 1919). It was originally named *Hyalomma aegyptium impressum transiens* (= *Hyalomma truncatum*). The name *Hyalomma transiens* used first in Delpy (1949b) is a synonym of *Hyalomma truncatum* as stated in Camicas *et al.* (1998) and Apanaskevich & Horak (2008a). Hoogstraal (1953a) gives the authority of *Hyalomma transiens* to Delpy (1949b).
- 3011 **transiens oculatus** Neumann, 1901, *Rhipicephalus*. This name is a synonym of *Rhipicephalus oculatus* in Camicas *et al.* (1998) based on Doss & Anastos (1977) who stated that *Rhipicephalus transiens oculatus* is used in Fiedler (1953, page 62). However, there is no mention to *Rhipicephalus transiens oculatus* in Fiedler (1953). *Rhipicephalus transiens oculatus* is a *nomen nudum*.
- 3012 **transvaalensis** Clifford and Hoogstraal, 1966, *Ixodes*
- 3013 **transversale** (Lucas, 1845), *Africaniella*. It was originally named *Ixodes transversalis* Lucas, 1845 (= *Amblyomma transversale*). The name *Africaniella transversale* used in Santos Dias (1996, pages 51-54) is a synonym of *Amblyomma transversale*.
- 3014 **transversale** (Lucas, 1845), *Amblyomma*. It was originally named *Ixodes transversalis* Lucas, 1845. This species has usually been considered a member of *Aponomma*, but it is now placed in the genus *Amblyomma* (Horak *et al.* 2002; Klompen *et al.* 2002).
- 3015 **transversale** (Lucas, 1845), *Aponomma*. It was originally named *Ixodes transversalis* Lucas, 1845 (= *Amblyomma transversale*). The name *Aponomma transversale* used first in Neumann (1899) is valid in Camicas *et al.* (1998), but this name is now a synonym of *Amblyomma transversale* as stated in Horak *et al.* (2002 citing 1844 the year for its description). The name *Aponomma transversale* is not included in Doss & Anastos (1977), while Neumann (1911a) cites 1844 as the year for its description.
- 3016 **transversale** (Lucas, 1845), *Neumanniella*. It was originally named *Ixodes transversalis* Lucas, 1845 (= *Amblyomma transversale*). The name *Neumanniella transversale* used in Lahille (1905) and by a few other workers, is a synonym of *Aponomma transversale* (= *Amblyomma transversale*) as stated in Kaufman (1972) and Camicas *et al.* (1998 spelled *Neumanniella transversale* and 1844 the year for its description), but not included in Neumann (1911a) and Doss &

Anastos (1977).

- 3017 *transversalis* (Lucas, 1845), *Aponomma*. This name is in Doss & Anastos (1977) based on Neumann (1899), but this author used the correct name *Aponomma transversale* (= *Amblyomma transversale*). The name *Aponomma transversalis* (Lucas, 1845) is a synonym of *Amblyomma transversale*, but not included in Camicas *et al.* (1998).
- 3018 *transversalis* Lucas, 1844b, *Ixodes*. This name has no description or figure, a *nomen nudum* as stated in Guglielmone *et al.* (2010b, 2014), but not included in Doss & Anastos (1977). However, the name *Ixodes transversalis* Lucas, 1844b is usually wrongly regarded a synonym of *Aponomma transversale* (= *Amblyomma transversale*) as in Neumann (1911a), Camicas *et al.* (1998) and others.
- 3019 *transversalis* Lucas, 1845, *Ixodes*. This name is a synonym of *Amblyomma transversale* and its original name, but generally wrongly cited as described in 1844 in several studies.
- 3020 *transversalis* (Lucas, 1845), *Neumanniella*. This name is in Doss & Anastos (1977 spelled *Neumaniella transversalis*) based on Lahille (1905). The name *Neumanniella transversalis* (Lucas, 1845) is a synonym of *Amblyomma transversale*, but not included in Neumann (1911a) and Camicas *et al.* (1998).
- 3021 **traubi** Kohls, 1955, *Haemaphysalis*
- 3022 *trianguliceps* Brown and Burgess, 2001, *Ixodes* (page 441). This name is a *lapsus* for *Ixodes trianguliceps*.
- 3023 *triangulatus* Neumann, 1901, *Dermacentor*. This name is *incertae sedis* in Neumann (1911a) and a synonym of *Amblyomma tigrinum* in Camicas *et al.* (1998), but the description is vague and type location unknown. The name *Dermacentor triangulatus* Neumann, 1901 is a *nomen dubium*.
- 3024 *triangulatus* Pavlov, 1962, *Ixodes*. This name is a *lapsus* for *Ixodes trianguliceps* in the opinion of Camicas *et al.* (1998), but not included in Doss & Anastos (1977). The article where *Ixodes triangulatus* Pavlov, 1962 is named has not been located; therefore, the statement in Camicas *et al.* (1998) is regarded valid.
- 3025 *trianguliceps* Janisc, 1973, *Ixodes* (page 516). This name is a *lapsus* for *Ixodes trianguliceps*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 3026 *trianguliceps* (Birula, 1895), *Exopalpiger*. It was originally named *Ixodes trianguliceps*. The name *Exopalpiger trianguliceps* used in Morel (1965c) is a synonym of *Ixodes trianguliceps* as stated in Camicas *et al.* (1998).
- 3027 **trianguliceps** Birula, 1895, *Ixodes*. This name is doubtful in Neumann (1911a) and Nuttall & Warburton (1911) close to *Ixodes tenuirostris* (= *Ixodes trianguliceps*), but it is valid. Keirans (1985) found *Ixodes alluaudi* identified as *Ixodes tenuirostris* (= *Ixodes trianguliceps*).
- 3028 *triangulipes* Schulze, 1933c, *Ixodes* (page 435). This name is a *lapsus* for *Ixodes trianguliceps*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Rechav *et al.* (1991, page 33).
- 3029 *triangulus* Aragão, 1935, *Dermacentor*. This name is a *lapsus* for *Dermacentor triangulatus* Neumann, 1901 (*nomen dubium*).
- 3030 **trichosuri** Roberts, 1960, *Ixodes*
- 3031 **tricuspis** Dönitz, 1906, *Rhipicephalus*. This name is a synonym of *Rhipicephalus lunulatus* according to Saratsiotis (1977), but this statement is unjustified, while Camicas *et al.* (1998) state that *Rhipicephalus tricuspis* in Wilson (1946) and Keirans (1985) is in fact *Rhipicephalus lunulatus*, and in Matthyse & Colbo (1987) actually *Rhipicephalus interventus*. Walker *et al.* (1988) discuss the problems associated with the identification of *Rhipicephalus tricuspis* and *Rhipicephalus lunulatus*.
- 3032 *tigrinum* Floch & Fauran (1958), *Amblyomma* (page 94). This name is a *lapsus* for *Amblyomma tigrinum*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Ivancovich (1980, page 677) and Nava *et al.* (2009d, page 342) among others.
- 3033 **triguttatum** Koch, 1844a, *Amblyomma*. The name *Amblyomma triguttatum* is divided into four subspecies in Camicas *et al.* (1998) and also in Horak *et al.* (2002) following Roberts (1962a): *triguttatum ornatissimum* (= *Amblyomma triguttatum*), *triguttatum queenslandense* (= *Amblyomma triguttatum*), *triguttatum rosei* (= *Amblyomma triguttatum*) and *triguttatum triguttatum* (= *Amblyomma triguttatum*).
- 3034 *triguttatum ornatissimum* Roberts, 1962a, *Amblyomma*. This name is valid in Camicas *et al.* (1998) and Horak *et al.* (2002), but it is a synonym of *Amblyomma triguttatum* here.
- 3035 *triguttatum queenslandense* Roberts, 1962a, *Amblyomma*. This name was originally spelled *Amblyomma triguttatum queenslandensis* Roberts, 1962 (= *Amblyomma triguttatum*) and subsequently amended. The name *Amblyomma triguttatum queenslandense* is valid in Camicas *et al.* (1998) and Horak *et al.* (2002), but it is a synonym of *Amblyomma triguttatum* here. The name *Amblyomma triguttatum queenslandense* is not included in Doss & Anastos (1977).
- 3036 *triguttatum queenslandensis* Roberts, 1962a, *Amblyomma*. It is the original name for *Amblyomma triguttatum queenslandense* (= *Amblyomma triguttatum*).
- 3037 *triguttatum rosei* Roberts, 1962a, *Amblyomma*. This name is valid in Camicas *et al.* (1998) and Horak *et al.* (2002), but it is a synonym of *Amblyomma triguttatum* here.
- 3038 *triguttatum triguttatum* Koch, 1844a, *Amblyomma*. This name used first in Roberts (1962a) is valid in Camicas *et al.* (1998) and Horak *et al.* (2002), but it is a synonym of *Amblyomma triguttatum* here.
- 3039 *trilineatus* (Lucas, 1844a), *Hyalomma* (sometimes cited 1836, 1840 or 1836-1844). It was originally named *Ixodes trilineatus* (*nomen dubium*). The name *Hyalomma trilineatus* used in Oudemans (1936, page 654) is a *nomen dubium* synonym of *Ixodes trilineatus* (*nomen dubium*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 3040 *trilineatus* Lucas, 1844a, *Ixodes* (sometimes cited 1836, 1840 or 1836-1844). This name is doubtful and close to

- Hyalomma aegyptium* in Neumann (1911a), close to *Hyalomma dromedarii* in Camicas *et al.* (1998) and a synonym of *Hyalomma dromedarii* in Apanaskevich *et al.* (2008b). The description of *Ixodes trilineatus* is vague, type location unknown and regarded here as a *nomen dubium*. Authors such as Anda *et al.* (1993) still use the name *Ixodes trilineatus*.
- 3041 **trimaculatum** (Lucas, 1878b), *Amblyomma*. It was originally named *Ixodes trimaculatus*. This tick has usually been considered a member of *Aponomma*, but it is now placed in the genus *Amblyomma* (Horak *et al.* 2002; Klompen *et al.* 2002).
- 3042 *trimaculatum* Neumann, 1908d, *Amblyomma*. This name is a synonym of *Amblyomma paulopunctatum* in Theiler & Salisbury (1959), Camicas *et al.* (1998) and others. The name *Amblyomma trimaculatum* Neumann, 1908d is *incertae sedis* confused with *Amblyomma guianense* (*incertae sedis*) as stated in Guglielmone *et al.* (2003).
- 3043 *trimaculatum* (Lucas, 1878b), *Aponomma*. It was originally named *Ixodes trimaculatus* [= *Amblyomma trimaculatum* (Lucas, 1878b)]. The name *Aponomma trimaculatum* (Lucas, 1878b) used first in Neumann (1899) is valid in Neumann (1911a), Camicas *et al.* (1998) and others. *Aponomma trimaculatum* (Lucas, 1878b) is a synonym of *Amblyomma trimaculatum* (Lucas, 1878b) in Horak *et al.* (2002) and here. However, Schulze (1933a) regards this name a synonym of *Aponomma undatum* (= *Bothriocroton undatum*), but this decision is unsound according to Kaufman (1972), while *Aponomma trimaculatum* (Lucas, 1878b) in Rainbow (1906) is a synonym of *Aponomma fimbriatum* (= *Amblyomma fimbriatum*) in the opinion of Santos Dias (1993a). Roberts (1970) states that *Aponomma trimaculatum* (Lucas, 1878b) [= *Amblyomma trimaculatum* (Lucas, 1878b)] in Roberts (1953) is probably partly in fact *Aponomma fimbriatum* (= *Amblyomma fimbriatum*). Keirans (1985) found *Aponomma trimaculatum* (Lucas, 1878b) [= *Amblyomma trimaculatum* (Lucas, 1878b)] identified as *Aponomma gervaisi lucasi* (= *Amblyomma varanense*) in the Nuttall Collection. Camicas *et al.* (1998) name the authority for this species as Dumbleton, 1943.
- 3044 *trimaculatus* (Lucas, 1878b) *Aponomma*. This name is in Doss & Anastos (1977) based on Neumann (1899), but this author used the correct name *Aponomma trimaculatum* (Lucas, 1878b) [= *Amblyomma trimaculatum* (Lucas, 1878b)]. The name *Aponomma trimaculatus* is a synonym of *Amblyomma trimaculatum* (Lucas, 1878b), but not included in Camicas *et al.* (1998).
- 3045 *trimaculatus* Lucas, 1878b, *Ixodes*. This name is a synonym of *Aponomma trimaculatum* (Lucas, 1878b) [= *Amblyomma trimaculatum* (Lucas, 1878b)] in Camicas *et al.* (1998). The name *Ixodes trimaculatus* is a synonym of *Amblyomma trimaculatum* (Lucas, 1878b) and its original name.
- 3046 *trinitatis* Turk, 1948, *Amblyomma*. This name is valid in Rawlins *et al.* (1993) and Camicas *et al.* (1998), but it is a synonym of *Amblyomma dissimile* as stated in Keirans & Hillyard (2001).
- 3047 *trinitatus* Barker and Murrell, 2004, *Amblyomma*. This name is a *lapsus* for *Amblyomma trinitatis* (= *Amblyomma dissimile*) repeated in Barker & Murrell (2008), as stated in Guglielmone *et al.* (2009).
- 3048 *trispinosa* Toumanoff, 1941, *Haemaphysalis*. This name is a synonym of *Haemaphysalis hystricis* Supino, 1897 as stated in Hoogstraal *et al.* (1965c) and Camicas *et al.* (1998).
- 3049 **triste** Koch, 1844a, *Amblyomma*. This name is a synonym of *Amblyomma maculatum* in Neumann (1911a), Robinson (1926) and others, but *Amblyomma triste* is valid. The name *Amblyomma triste* has been confused with *Amblyomma tigrinum* and *Amblyomma maculatum* as stated in Guglielmone *et al.* (2003).
- 3050 *tristriatus* Panzer, 1798, *Acarus*. This name is a synonym of *Ixodes ricinus* in Oudemans (1896) and Camicas *et al.* (1998), and a name *incertae sedis* according to Neumann (1911a). The name *Acarus tristriatus* is a *nomen dubium* here.
- 3051 *tristriatus* (Panzer, 1798), *Ixodes*. It was originally named *Acarus tristriatus* (*nomen dubium*). The name *Ixodes tristriatus* used in Koch (1844a) is a synonym of *Ixodes ricinus* in Camicas *et al.* (1998), but a name *incertae sedis* in Neumann (1911a). *Ixodes tristriatus* is a *nomen dubium* synonym of *Acarus tristriatus* (*nomen dubium*) here.
- 3052 *troglydites* Schmid, 1853, *Ixodes*, in Fraunfeld (1853). This name is a synonym of *Eschatocephalus vespertilionis* (= *Ixodes vespertilionis*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes vespertilionis* as stated in Neumann (1911a). The authority for *Ixodes troglydites* is spelled Schmidt in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 3053 **tropicalis** Kohls, 1956a, *Ixodes*. This name is often cited as described in 1957.
- 3054 *tropicum* Roberts, 1953, *Aponomma*. This name is a synonym of *Aponomma concolor* (Neumann, 1899) [= *Bothriocroton concolor* (Neumann, 1899)] in Kaufman (1972) and Camicas *et al.* (1998). The name *Aponomma tropicum* is a synonym of *Bothriocroton concolor*.
- 3055 *truguttatum* Guglielmone and Moorhouse, 1986, *Amblyomma* (page 238). This name is a *lapsus* for *Amblyomma triguttatum*, but not included in Camicas *et al.* (1998).
- 3056 **truncatum** Koch, 1844a, *Hyalomma*. The synonymy of this species is mainly based on Apanaskevich & Horak (2008a). The name *Hyalomma truncatum* is a synonym of *Hyalomma aegyptium* in Neumann (1911a), while Apanaskevich & Horak (2008a) state that *Hyalomma albiparmatum* and *Hyalomma nitidum* may be conspecific with *Hyalomma truncatum*. Keirans (1985) found *Hyalomma truncatum* identified as *Hyalomma aegyptium* and *Hyalomma aegyptium impressum* (= *Hyalomma impressum*) in the Nuttall Tick Collection.
- 3057 *truncatum* Morel and Mouchet, 1958, *Hyalomma* (page 107). This name is a *lapsus* for *Hyalomma truncatum*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Shepherd *et al.* (1991, page 377).
- 3058 *truncutrum* Abou-Elala, Taher and Diab, 1983, *Hyalomma* (page 393). This name is a *lapsus* for *Hyalomma truncatum*, but not included in Camicas *et al.* (1998).
- 3059 *truncutum* Abou-Elala, Taher and Diab, 1983, *Hyalomma* (page 388). This name is a *lapsus* for *Hyalomma truncatum*, but not included in Camicas *et al.* (1998).

- 3060 *tuanicum* Al-Khalifa, Al-Lahoo and Hussein, 2006, *Rhipicephalus* (page 40). This name is a *lapsus* for *Rhipicephalus turanicus*.
- 3061 **tuberculatum** Marx, 1894, *Amblyomma*, in Hubbard (1894)
- 3062 *tunanicus* Achuthan, Mahadevan and Lalitha, 1980, *Rhipicephalus* (page 183). This name is a *lapsus* for *Rhipicephalus turanicus* Pomerantzev, 1940, but not included in Camicas *et al.* (1998).
- 3063 *tunesiacum* Schulze and Schlottke, 1929a, *Hyalomma*. This name is a synonym of *Hyalomma anatolicum excavatum* (= *Hyalomma excavatum*) as stated in Camicas *et al.* (1998).
- 3064 *tunesiacum amurense* Schulze, 1931, *Hyalomma*, in Olenev (1931a). This name used in Kratz (1940) is a synonym of *Hyalomma asiaticum asiaticum* (= *Hyalomma asiaticum*) in Camicas *et al.* (1998), but it is a synonym of *Hyalomma asiaticum* as stated in Apanaskevich & Horak (2010).
- 3065 *tunesiacum franchinii* Tonelli Rondelli, 1932b, *Hyalomma*. This name is a synonym of *Hyalomma franchinii* and its original name as stated in Camicas *et al.* (1998) and Apanaskevich *et al.* (2008a).
- 3066 *tunesiacum ganorai* Tonelli Rondelli, 1932b, *Hyalomma*. This name is a synonym of *Hyalomma anatolicum excavatum* (= *Hyalomma excavatum*) as stated in Camicas *et al.* (1998).
- 3067 *tunesianicum pavlovskiyi* Schulze and Schlottke, 1929a, *Hyalomma*. This name is a synonym of *Hyalomma anatolicum excavatum* (= *Hyalomma excavatum*) as stated in Camicas *et al.* (1998).
- 3068 *tunesianicum tunesianicum* Schulze and Schlottke, 1929a, *Hyalomma*. This name used in Kratz (1940) is a synonym of *Hyalomma anatolicum excavatum* (= *Hyalomma excavatum*) as stated in Camicas *et al.* (1998).
- 3069 *tunesianicum turkmeniense* Olenev, 1931c, *Hyalomma*. This name used in Kratz (1940) is a synonym of *Hyalomma anatolicum excavatum* (= *Hyalomma excavatum*) as stated in Camicas *et al.* (1998).
- 3070 *tunicator* Alexander, 1984, *Hyalomma* (page 371). This name has no description or figure, a *nomen nudum*, but not included in Camicas *et al.* (1998).
- 3071 *turanicus* Uzakov, 1964, *Rhipicephalus*. This name is a *lapsus* for *Rhipicephalus turanicus* Pomerantzev, 1940 as stated in Doss & Anastos (1977).
- 3072 **turanicum** Pomerantzev, 1946, *Hyalomma*. It was originally named *Hyalomma marginatum turanicum*. The name *Hyalomma turanicum* is a synonym of *Hyalomma marginatum turanicum* (= *Hyalomma turanicum*) in Camicas *et al.* (1998), but it is valid as stated in Apanaskevich & Horak (2008b). *Hyalomma turanicum* in Hoogstraal (1956a) is partly in fact *Hyalomma glabrum* as shown in Apanaskevich & Horak (2006).
- 3073 *turanicus* Pomerantzev, 1936, *Rhipicephalus*. Doss & Anastos (1977), Walker *et al.* (2000) and others, consider 1936 the year for description of *Rhipicephalus turanicus*, while Camicas *et al.* (1998) treat *Rhipicephalus turanicus* Pomerantzev, 1936 as a synonym of *Rhipicephalus turanicus* Pomerantzev, 1940 (under the authority of Pomerantzev, Matikashvili and Lotozky, 1940). *Rhipicephalus turanicus* Pomerantzev, 1936 is a *nomen nudum* as stated in Filippova (1997).
- 3074 **turanicus** Pomerantzev, 1940, *Rhipicephalus*, in Pomerantzev *et al.* (1940). The morphological definition of this species apart of Russian workers (i.e., Filippova 1997) is uncertain. Pegram *et al.* (1987b), did not clarify the status of *Rhipicephalus turanicus* Pomerantzev, 1940 because it is not certain that *bona fide* *Rhipicephalus turanicus* Pomerantzev, 1940 were involved in their work. Walker *et al.* (2000) consider *bona fide* data on *Rhipicephalus turanicus* Pomerantzev, 1940 in Pegram *et al.* (1987b), but under the uncertain morphological definition of most populations of *Rhipicephalus turanicus* Pomerantzev, 1940 we consider that decision unsound. Camicas *et al.* (1998) consider Pomerantzev, Matikashvili and Lotozky the authorities for *Rhipicephalus turanicus*. Keirans (1985) found alleged *Rhipicephalus turanicus* Pomerantzev, 1940 classified as *Rhipicephalus sanguineus* (a taxon with uncertain morphological definition) in the Nuttall Collection. Walker *et al.* (2000) state that alleged *Rhipicephalus turanicus* were identified as *Rhipicephalus deltoideus* and the unnamed species of *Rhipicephalus* in Norval *et al.* (1983) is in fact alleged *Rhipicephalus turanicus* Pomerantzev, 1940 in the opinion of Walker *et al.* (2000), but these diagnoses are doubtful here.
- 3075 *turdi* Scopoli, 1763, *Acarus*. This name is a probable synonym of *Scaphixodes frontalis* (= *Ixodes frontalis*) in Camicas *et al.* (1998), but its description is not useful for a correct diagnosis. The name *Acarus turdi* is a *nomen dubium*, but not included in Neumann (1911a).
- 3076 *turdi* (Scopoli, 1763), *Ixodes*. It was originally named *Acarus turdi* (*nomen dubium*). The name *Ixodes turdi* used in Oudemans (1929, 1936) is a probable synonym of *Scaphixodes frontalis* (= *Ixodes frontalis*) in Camicas *et al.* (1998). *Ixodes turdi* is a *nomen dubium* synonym of *Acarus turdi* (*nomen dubium*) here.
- 3077 **turdus** Nakatsudi, 1942a, *Ixodes*. This name is a synonym of *Scaphixodes turdus* in Camicas *et al.* (1998), but it is valid. Species 1 of *Ixodes* in Asanuma & Sakikawa (1952 a publication that was not located) is in fact *Ixodes turdus* as stated in Yamaguti *et al.* (1971). Some authors spelt the name of the authority as Nakatsuji.
- 3078 *turdus* (Nakatsudi, 1942a), *Scaphixodes*. It was originally named *Ixodes turdus*. The name *Scaphixodes turdus* used in Camicas *et al.* (1998) is a synonym of *Ixodes turdus*.
- 3079 *turkestanica* Kheisin, 1967, *Hyalomma*. This name is a *lapsus* for *Hyalomma turkmeniense* (= *Hyalomma excavatum*) as stated in Doss & Anastos (1977).
- 3080 *turkmeniense* Olenev, 1931c, *Hyalomma*. This name is a synonym of *Hyalomma anatolicum excavatum* (= *Hyalomma excavatum*) as stated in Camicas *et al.* (1998).
- 3081 **turturis** Nuttall and Warburton, 1915, *Haemaphysalis*. Keirans (1985) found *Haemaphysalis turturis* identified as *Haemaphysalis bispinosa* and *Haemaphysalis parva* (Neumann, 1897).
- 3082 *turturis latipunctata* Toumanoff, 1944, *Haemaphysalis*. This name is simultaneously a probable synonym of

Haemaphysalis turturis and doubtful in Camicas *et al.* (1998). The name *Haemaphysalis turturis latipunctata* is *incertae sedis* here.

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- 3083 **ugandanus** Neumann, 1906, *Ixodes*. This name in Rageau (1953b) is in fact *Ixodes aulacodi* as stated in Morel & Mouchet (1965). Uilenberg *et al.* (2013) affirm that *Ixodes rageaui* has been confused with *Ixodes ugandanus*. Neumann (1911a) divided this species into two subspecies: *ugandanus djaronensis* (= *Ixodes djaronensis*) and *ugandanus ugandanus* (= *Ixodes ugandanus*).
- 3084 *ugandanus djaronensis* Neumann, 1907f, *Ixodes*. This name is a synonym of *Ixodes djaronensis* as stated in Santos Dias (1958a). The name *Ixodes ugandanus djaronensis* in Nuttall & Warburton (1911) is partly in fact *Ixodes brumpti* Morel, 1965b in Morel (1965b) and Camicas *et al.* (1998), while Keirans (1985) identify it as *Ixodes procaviae*. Keirans (1985) found *Ixodes lewisi* Arthur, 1965 identified as *Ixodes ugandanus djaronensis* (= *Ixodes djaronensis*) in the Nuttall Tick Collection.
- 3085 *ugandanus ugandanus* Neumann, 1906, *Ixodes*. This name used in Neumann (1911a) is a synonym of *Ixodes ugandanus* as stated in Camicas *et al.* (1998).
- 3086 *undatum* Nuttall and Warburton, 1908, *Amblyomma*. This name is a synonym of *Amblyomma nodosum* as stated in Robinson (1926) and Camicas *et al.* (1998).
- 3087 *undatum* (Fabricius, 1775), *Aponomma*. It was originally named *Acarus undatus* (= *Bothriocroton undatum*). The name *Aponomma undatum* used first in Schulze (1932e) is a synonym of *Bothriocroton undatum* in Horak *et al.* (2002) and here. However, *Aponomma undatum* is an invalid name in Kaufman (1972) due to a poor description, and a synonym of *Aponomma decorosum* (= *Bothriocroton undatum*) in Camicas *et al.* (1998). Besides, the name *Aponomma undatum* in Schulze (1932e, 1933a, 1941a) is in fact *Amblyomma trimaculatum* (Lucas, 1878b) according to Santos Dias (1993a).
- 3088 **undatum** (Fabricius, 1775), *Bothriocroton*. It was originally named *Acarus undatus*. This tick has usually been considered a member of *Aponomma*, but it is now placed in the genus *Bothriocroton* (Horak *et al.* 2002; Klompen *et al.* 2002).
- 3089 *undatum fimbriatum* (Koch, 1844a), *Aponomma*. This name used in Schulze (1933a) is a synonym of *Aponomma fimbriatum* (= *Amblyomma fimbriatum*) in Santos Dias (1993a) and Camicas *et al.* (1998), but not included in Doss & Anastos (1977). The name *Aponomma undatum fimbriatum* is a synonym of *Amblyomma fimbriatum*.
- 3090 *undatus* Fabricius, 1775, *Acarus*. This name is a synonym of *Bothriocroton undatum* and its original name. However, the name *Acarus undatus* is *incertae sedis* in Neumann (1911a) and a synonym of *Aponomma decorosum* (= *Bothriocroton undatum*) in Camicas *et al.* (1998).
- 3091 *undatus* (Fabricius, 1775), *Aponomma*. This name is in Oudemans (1929), but also in Doss & Anastos (1977) based on Schulze (1932d); however, the latter author used the correct name *Aponomma undatum*. The name *Amblyomma undatus* is a synonym of *Bothriocroton undatum*, but not included in Camicas *et al.* (1998).
- 3092 *undatus* (Fabricius, 1775), *Ixodes*. It was originally named *Acarus undatus* (= *Bothriocroton undatum*). The name *Ixodes undatus* used in Fabricius (1805) is *incertae sedis* synonym of *Acarus undatus* (= *Bothriocroton undatum*) in Neumann (1911a), a synonym of *Aponomma decorosum* (= *Bothriocroton undatum*) in Camicas *et al.* (1998) and a synonym of *Aponomma undatum* (= *Bothriocroton undatum*) in Santos Dias (1993a). *Ixodes undatus* is a synonym of *Bothriocroton undatum* here.
- 3093 *undersoni* Chamberlin, 1937, *Dermacentor* (page 24). This name is a *lapsus* for *Dermacentor andersoni* but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 3094 **unicavatus** Neumann, 1908b, *Ixodes*. This name is a synonym of *Scaphixodes unicavatus* in Camicas *et al.* (1998), but it is valid.
- 3095 *unicavatus* (Neumann, 1908b), *Scaphixodes*. It was originally named *Ixodes unicavatus*. The name *Scaphixodes unicavatus* used in Camicas & Morel (1977) is valid according to Camicas *et al.* (1998), but it is a synonym of *Ixodes unicavatus*.
- 3096 *unipictus* Verrill, 1870, *Ixodes*. This name is a *lapsus* for *Ixodes unipunctata* (= *Amblyomma americanum*) as stated in Doss & Anastos (1977), but not included in Neumann (1911a).
- 3097 *unipuncta* Lewis, 1899, *Ixodes*. This name is a *lapsus* for *Ixodes unipunctata* (= *Amblyomma americanum*) as stated in Doss & Anastos (1977), but not included in Neumann (1911a).
- 3098 *unipunctata* (Packard, 1869), *Amblyomma*. This name is in Doss & Anastos (1977) based on Thurow (1891), but this author used the correct name *Amblyomma unipunctatum* (= *Amblyomma americanum*). The name *Amblyomma unipunctata* is a synonym of *Amblyomma americanum*, but not included in Camicas *et al.* (1998).
- 3099 *unipunctata* Packard, 1869, *Ixodes*. This name is a synonym of *Amblyomma americanum* as stated in Neumann (1911a) and Camicas *et al.* (1998).
- 3100 *unipunctatum* (Packard, 1869), *Amblyomma*. It was originally named *Ixodes unipunctata* (= *Amblyomma americanum*). The name *Amblyomma unipunctatum* used first in Thurow (1891) is a synonym of *Amblyomma americanum* as stated in Camicas *et al.* (1998), but not included in Neumann (1911a) and Doss & Anastos (1977).
- 3101 *unipunctata* Clavijo, Vásquez and Valera, 2009, *Ixodes* (page 43). This name is a *lapsus* for *Ixodes unipunctata* (= *Amblyomma americanum*).
- 3102 *uralense* Schulze and Schlottke, 1929a, *Hyalomma*. This name is a synonym of *Hyalomma detritum detritum* (=

- Hyalomma scupense*) in Camicas *et al.* (1998). The name *Hyalomma uralense* is a synonym of *Hyalomma scupense* as stated in Apanaskevich *et al.* (2010).
- 3103 *ureae* Fujita and Takada, 2007, *Ixodes* (page 55). This name is a *lapsus* for *Ixodes uriae*.
- 3104 *uria* Tagle, 1971, *Ixodes* (pages 46, 48). This name is a *lapsus* for *Ixodes uriae*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998). This *lapsus* is repeated in Engström *et al.* (2000, page 487) among others.
- 3105 *uriae* (White, 1852), *Ceratixodes*. It was originally named *Ixodes uriae*. The name *Ceratixodes uriae* used first in Schulze (1938b) is valid in Camicas *et al.* (1998), but it is a synonym of *Ixodes uriae*.
- 3106 *uriae* White, 1852, *Ixodes*. This name is doubtful in Neumann (1911a) and Nuttall & Warburton (1911) and a synonym of *Ceratixodes uriae* (= *Ixodes uriae*) in Camicas *et al.* (1998), but *Ixodes uriae* is valid.
- 3107 *uriae procellariae* (Schulze, 1930b), *Ceratixodes*. This name used in Schulze (1950b) is a synonym of *Ixodes uriae*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 3108 *uricularium* Clavijo, Vásquez and Valera, 2009, *Acarus* (page 43). This name is a *lapsus* for *Amblyomma auricularium*.
- 3109 *uruguayensis* Kohls and Clifford, 1967, *Ixodes*. This name is valid in Doss & Anastos (1977), Camicas *et al.* (1998) and Barker & Murrell (2004, 2008) and others. The name *Ixodes uruguayensis* is a synonym of *Ixodes longiscutatus* Boero, 1944 as demonstrated in Venzal *et al.* (2001).
- 3110 *ushakovae* Filippova and Panova, 1987, *Dermacentor*. This name is a synonym of *Dermacentor marginatus* (Sulzer, 1776) in Estrada-Peña (1991) and a synonym of *Dermacentor niveus* according to Camicas *et al.* (1998), but it is valid here.
- 3111 *usingeri* Keirans, Hoogstraal and Clifford, 1973, *Amblyomma*
- 3112 *usnakovae* Kolonin, 2007, *Dermacentor* (page 405). This name is a *lapsus* for *Dermacentor ushakovae*.
- 3113 *utriculus* Berlese, 1889a, *Hyalomma*. This name is a synonym of *Hyalomma aegyptium* in Neumann (1911a) and a *nomen dubium* in Camicas *et al.* (1998). The name *Hyalomma utriculus* is *incertae sedis*.
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- 3114 *v-notatum* Nuttall, 1910, *Amblyomma*. This name is a synonym of *Amblyomma perpunctatum* (*nomen dubium*) in Camicas *et al.* (1998). The name *Amblyomma v-notatum* is a synonym of *Amblyomma geayi* as stated in Robinson (1926).
- 3115 *valgense* Ribeiro, 1967, *Hyalomma* (page 43). This name is a *lapsus* for *Hyalomma volgense* (= *Hyalomma scupense*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 3116 *vanidicus* Schulze, 1943a, *Ixodes*. This name is a probably partly a synonym of *Ixodes oldi* in Camicas *et al.* (1998) based on Theiler (1962), but this synonym is not included in Keirans *et al.* (1982), who studied *Ixodes oldi* and related species.
- 3117 *varanense* (Supino, 1897), *Amblyomma*. It was originally named *Ixodes varanensis* (= *Amblyomma varanense*). This tick has usually been considered a member of *Aponomma*, but it is now placed in the genus *Amblyomma* (Horak *et al.* 2002; Klompen *et al.* 2002).
- 3118 *varanense* (Supino, 1897), *Aponomma*. It was originally named *Ixodes varanensis* (= *Amblyomma varanense*). The name *Aponomma varanense* used in Camicas *et al.* (1998) is an emendation of *Aponomma varanensis* in Santos Dias (1958a). *Aponomma varanense* is a synonym of *Aponomma fuscolineatum* (= *Amblyomma fuscolineatum*) in Kolonin (2009), but this statement is not supported here. The name *Aponomma varanense* is a synonym of *Amblyomma varanense* as stated in Horak *et al.* (2002).
- 3119 *varanensis* (Supino, 1897), *Aponomma*. It was originally named *Ixodes varanensis* (= *Amblyomma varanense*). The name *Aponomma varanensis* used first in Santos Dias (1958a) has been long confused with *Aponomma gervaisi* (= *Amblyomma gervaisi*) as stated in Kaufman (1972). *Aponomma varanensis* is a synonym of *Aponomma fuscolineatum* (= *Amblyomma fuscolineatum*) in Santos Dias (1993a), but this statement is not supported here. *Aponomma varanensis* is a synonym of *Amblyomma varanense* here. Keirans (1985) found *Aponomma varanensis* (= *Amblyomma varanense*) identified as *Aponomma gervaisi* (= *Amblyomma gervaisi*) in the Nuttall Tick Collection.
- 3120 *varanensis* Supino, 1897, *Ixodes*. This name is a synonym of *Aponomma gervaisi* (= *Amblyomma gervaisi*) in Neumann (1911a) and Nuttall & Warburton (1911), a synonym of *Aponomma fuscolineatum* (= *Amblyomma fuscolineatum*) in Santos Dias (1993a) and a synonym of *Aponomma varanense* in Camicas *et al.* (1998). The name *Ixodes varanensis* is a synonym of *Amblyomma varanense* and its original name.
- 3121 *varani* (Koch, 1867), *Amblyomma*. It was originally named *Ixodes varani* Koch, 1867 (= *Bothriocroton undatum*). The name *Amblyomma varani* Koch, 1867 is used in Neumann (1901, page 344) for a synonym of *Amblyomma acutangulatum* (*nomen dubium*). Kaufman (1972) also regards *Amblyomma varani* (Koch, 1867) a synonym of *Amblyomma acutangulatum* (*nomen dubium*) based on unpublished data of Anastos. Camicas *et al.* (1998) coincides with Kaufman (1972), but *Amblyomma varani* (Koch, 1867) is a synonym of *Aponomma undatum* (= *Bothriocroton undatum*) in Santos Dias (1993a). The name *Amblyomma varani* (Koch, 1867) is a synonym of *Bothriocroton undatum* here, but not included in Neumann (1911a) and Doss & Anastos (1977).
- 3122 *varani* (Rudow, 1870), *Amblyomma*. It was originally named *Hyalomma varani* Rudow, 1870 (*nomen dubium*). The name *Amblyomma varani* (Rudow, 1870) used in Neumann (1899) is *incertae sedis* synonym of *Hyalomma varani* Rudow, 1870 in Neumann (1911a), but not included in Camicas *et al.* (1998). The name *Amblyomma varani* (Rudow, 1870) is a *nomen dubium* synonym of *Hyalomma varani* Rudow, 1870 (*nomen dubium*) here.
- 3123 *varani* Rudow, 1870, *Hyalomma*. This name is *incertae sedis* in Neumann (1911a), but a *nomen dubium* in Camicas *et al.* (1998) and here.

- 3124 *varani* Koch, 1867, *Ixodes*. This name is a synonym of *Aponomma decorosum* (= *Bothriocroton undatum*) in Neumann (1911a) and Nuttall & Warburton (1911), but Kaufman (1972), based on unpublished information from Anastos, and Camicas *et al.* (1998) regard it a synonym of *Amblyomma acutangulatum* (*nomen dubium*). The name *Ixodes varani* Koch, 1867 is a synonym of *Aponomma undatum* (= *Bothriocroton undatum*) in Santos Dias (1993a). The description of *Amblyomma acutangulatum* in Neumann (1899) does not appear to be applicable to the specimens used to describe *Ixodes varani* Koch, 1867. *Ixodes varani* Koch, 1867 is a synonym of *Bothriocroton undatum* here.
- 3125 *varani* Lewis, 1892a, *Ixodes*. This name is a synonym of *Aponomma flavomaculatum* (= *Amblyomma flavomaculatum*) in Kaufman (1972) and Camicas *et al.* (1998), but a synonym of *Aponomma exornatum* (= *Amblyomma exornatum*) in Neumann (1911a) and Santos Dias (1993a). The name *Ixodes varani* Lewis, 1892a is *incertae sedis*, but not included in Doss & Anastos (1977).
- 3126 *varegatum* Amuamuta, Kassahun and Fenthaun, 2012, *Amblyomma* (page 175). This name is a *lapsus* for *Amblyomma variegatum*.
- 3127 *vareigatum* Shoukry, El-Kady and Diab, 2002, *Amblyomma* (page 53). This name is a *lapsus* for *Amblyomma variegatum* repeated in Ali *et al.* (2013, page 21) among others.
- 3128 *variabilis* Shone, Dillon, Hom and Delgado, 2006, *Dermacentor* (page 156). This name is a *lapsus* for *Dermacentor variabilis*.
- 3129 *variabili* Wen, Cao and Pan, 2003, *Dermacentor* (page 46). This name is a *lapsus* for *Dermacentor variabilis*.
- 3130 *variabilis* (Say, 1821), *Dermacentor*. It was originally named *Ixodes variabilis* and given its current status in Banks (1907). The name *Dermacentor variabilis* is divided into two subspecies in Neumann (1911a): *variabilis parumapertus* (= *Dermacentor parumapertus*) and *variabilis variabilis* (= *Dermacentor variabilis*).
- 3131 *variabilis* Say, 1821, *Ixodes*. This name is a synonym of *Dermacentor variabilis variabilis* (= *Dermacentor variabilis*) in Neumann (1911a) and doubtful in Nuttall & Warburton (1911). The name *Ixodes variabilis* is a synonym of *Dermacentor variabilis* and its original name as stated in Camicas *et al.* (1998).
- 3132 *variabilis parumapertus* Neumann, 1901, *Dermacentor*. This name used in Neumann (1911a) is a synonym of *Dermacentor parumapertus* as stated in Cooley (1938) and Camicas *et al.* (1998).
- 3133 *variabilis variabilis* (Say, 1821), *Dermacentor*. This name used in Neumann (1911a) is a synonym of *Dermacentor variabilis* as stated in Camicas *et al.* (1998).
- 3134 *variagatum* Okaeme and Osakwe, 1985, *Amblyomma* (page 167). This name is a *lapsus* for *Amblyomma variegatum* repeated in Latif *et al.* (1990, page 316), but not included in Camicas *et al.* (1998).
- 3135 *variatus* Oudemans, 1936, *Dermacentor*. This name is a new one for *Crotonus variegatus* (Fabricius, 1798) (*incertae sedis*) under the authority of Duméril, 1829 in Oudemans (1936). The name *Dermacentor variatus* is a synonym of *Dermacentor marginatus* (Sulzer, 1776) in Camicas *et al.* (1998), but it is *incertae sedis* synonym of *Crotonus variegatus* (Fabricius, 1798) (*incertae sedis*) here. *Dermacentor variatus* is not included in Doss & Anastos (1977).
- 3136 *variavilis* Yano, Shiraishi and Uchida, 1989, *Dermacentor* (page 294). This name is a *lapsus* for *Dermacentor variabilis*, but not included in Camicas *et al.* (1998). This *lapsus* is repeated in Okino *et al.* (2007, page 189) and others.
- 3137 *variegatum* (Fabricius, 1798) *Amblyomma*. It was originally named *Acarus variegatus* Fabricius, 1798 and given its current status in Gerstäcker (1873). Keirans (1985) found specimens of *Amblyomma pomposum* identified as *Amblyomma variegatum* and specimens of *Amblyomma variegatum* classified as *Hyalomma aegyptium* in the Nuttall Collection. Camicas *et al.* (1998), Horak *et al.* (2002), Guglielmone *et al.* (2010b), Uilenberg *et al.* (2013) among others, erroneously state 1794 the year of description of this tick.
- 3138 *variegatum* (Fabricius, 1798), *Hyalomma*. This name is a *lapsus* for *Amblyomma variegatum* in Weiss (1911), but Doss & Anastos (1977) and Camicas *et al.* (1998) regard Weiss, 1911 the authority for this name.
- 3139 *variegatum govurensis* Santos Dias, 1950b, *Amblyomma*. This name is a synonym of *Amblyomma pomposum* in Estrada-Peña & Castellá (1994), a synonym of *Amblyomma nocens* (= *Amblyomma pomposum*) in Camicas *et al.* (1998) and a synonym of *Amblyomma variegatum* in Voltzit & Keirans (2003). The name *Amblyomma variegatum govurensis* is *incertae sedis* here.
- 3140 *variegatum nocens* Robinson 1912, *Amblyomma*. This name in Theiler & Salisbury (1959) is a synonym of *Amblyomma nocens* in Camicas *et al.* (1998) and a synonym of *Amblyomma variegatum* in Estrada-Peña & Castellá (1994). The name *Amblyomma variegatum nocens* is a synonym of *Amblyomma pomposum* as stated in Keirans & Hillyard (2001).
- 3141 *variegatum pomposum* Dönitz, 1909, *Amblyomma*. This name used in Tendeiro (1959) is a synonym of *Amblyomma pomposum* in Doss & Anastos (1977), Camicas *et al.* (1998) and here.
- 3142 *variegatum variegatum* (Fabricius, 1798). This name used in Tendeiro (1959) and by a few others is a synonym of *Amblyomma variegatum*.
- 3143 *variegatus* Fabricius, 1798, *Acarus*. This name is a synonym of *Amblyomma variegatum* and its original name as stated in Neumann (1911a). Camicas *et al.* (1998) regard 1794 the year for description of *Acarus variegatus* Fabricius, 1798, but it was described in Fabricius (1798, page 572).
- 3144 *variegatus* (Fabricius, 1798), *Amblyomma*. This name is in Doss & Anastos (1977) based on Gerstäcker (1973), but this author used the correct name, *Amblyomma variegatum*. The name *Amblyomma variegatus* (Fabricius, 1798) is a synonym of *Amblyomma variegatum*, but not included in Camicas *et al.* (1998).
- 3145 *variegatus* (Fabricius, 1798), *Crotonus*. It was originally named *Acarus variegatus* Fabricius, 1798 (= *Amblyomma variegatum*). However, the name *Crotonus variegatus* (Fabricius, 1798) used in Duméril (1829) is a synonym of

Amblyomma variegatum in Estrada-Peña & Castellá (1994), a synonym of *Dermacentor reticulatus reticulatus* (Fabricius, 1794) [= *Dermacentor reticulatus* (Fabricius, 1794)] according to Neumann (1911a) and Filippova (1997), and a synonym of *Dermacentor marginatum* in Camicas *et al.* (1998 under the authority of Duméril, 1829). The information provided in Duméril (1829) is not considered useful for such decisions. The name *Crotonus variegatus* (Fabricius, 1798) is *incertae sedis* here.

- 3146 *variegatus* Marx and Neumann, 1897, *Dermacentor*, in Neumann (1897). This name is a synonym of *Dermacentor albipictus* as stated in Neumann (1911a) and Camicas *et al.* (1998).
- 3147 *variegatus* (Fabricius, 1798), *Ixodes*. It was originally named *Acarus variegatus* Fabricius, 1798 (= *Amblyomma variegatum*). The name *Ixodes variegatus* (Fabricius, 1798) used in Fabricius (1805) and by a few other workers, is a synonym of *Amblyomma variegatum* as stated in Camicas *et al.* (1998), but not included in Neumann (1911a).
- 3148 *variegatus* Lucas, 1852, *Ixodes*. This name was preoccupied by *Ixodes variegatus* (Fabricius 1798) in Fabricius (1805) and replaced by *Amblyomma albopictum* in Neumann (1899). Therefore the name *Ixodes variegatus* Lucas, 1852 is a synonym of *Amblyomma albopictum* as stated in Neumann (1911a), but not included in Doss & Anastos (1977).
- 3149 *variegatus kamshadalu* Pomerantzev, 1950, *Dermacentor* (page 163). This name is a *lapsus* for *Dermacentor variegatus kamtschadalu* (= *Dermacentor kamshadalu*) as stated in Apanaskevich (2013).
- 3150 *variegatus kamschadalu* Neumann, 1908d, *Dermacentor*. It was originally named *Dermacentor variegatus kamshadalu* (= *Dermacentor kamshadalu*). The name *Dermacentor variegatus kamschadalu* used in Yakimoff (1917) is a synonym of *Dermacentor kamshadalu* as stated in Apanaskevich (2013), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 3151 *variegatus kamshadalu* Neumann, 1908d, *Dermacentor*. This name is a synonym of *Dermacentor kamshadalu* and its original name as stated in Apanaskevich (2013).
- 3152 *variegatus kamtschadalu* Neumann, 1908d, *Dermacentor*. It was originally named *Dermacentor variegatus kamshadalu* (= *Dermacentor kamshadalu*). The name *Dermacentor variegatus kamtschadalu* used in Olenev (1931c) is a *nomen dubium* and a probable synonym of *Dermacentor albipictus* in Camicas *et al.* (1998), and a certain synonym of *Dermacentor albipictus* according to Arthur (1960a). *Dermacentor variegatus kamtschadalu* is a synonym of *Dermacentor kamshadalu* as stated in Apanaskevich (2013), but not included in Doss & Anastos (1977).
- 3153 *variegatus kamtschadalu* Neumann, 1908d, *Dermacentor*. It was originally named *Dermacentor variegatus kamshadalu* (= *Dermacentor kamshadalu*). The name *Dermacentor variegatus kamtschadalu* used in Olenev (1931c) is a synonym of *Dermacentor kamshadalu* as stated in Apanaskevich (2013), but not included in Camicas *et al.* (1998).
- 3154 *variegaum* De La Fuente, Estrada-Peña, Venzal, Kocan and Sonenshine, 2008, *Amblyomma* (page 6940). This name is a *lapsus* for *Amblyomma variegatum*.
- 3155 *varigata* Jarvis, 1904, *Amblyomma*. This name is a *lapsus* for *Amblyomma variegatum*, but not included in Neumann (1911a).
- 3156 *varigatum* Abou-Elela, Taher and Diab, 1981, *Amblyomma* (page 393). This name is a *lapsus* for *Amblyomma variegatum*, but not included in Camicas *et al.* (1998). This *lapsus* is repeated in Azrug & Burgu (2011, page 58), Tadesse *et al.* (2012, pages 3, 4) and in two articles with identical texts in Asrate & Yalew (2012, pages 86, 87) and Kassa & Yalew (2012, pages 35, 36), among others.
- 3157 *variolatus* Gervais, 1844, *Ixodes*. This name is *incertae sedis* in Neumann (1911a) and the line 4355 for *Ixodes variolatus* in Camicas *et al.* (1998) is missing. The name *Ixodes variolatus* is a *nomen dubium* here.
- 3158 *varigatum* Kassa and Yalew, 2012 (page 37). This name is a *lapsus* for *Amblyomma variegatum* repeated in Asrate & Yalew (2012, page 87), an article with identical text that of Kassa & Yalew (2012).
- 3159 *varium* Koch, 1844a, *Amblyomma*. Keirans (1985) found *Amblyomma varium* identified as *Amblyomma calcaratum* in the Nuttall Tick Collection.
- 3160 *varium* (Koch, 1844a), *Haemalastor*. It was originally named *Amblyomma varium*. The name *Haemalastor varium* used in Oudemans (1936, page 547) is a synonym of *Amblyomma varium*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 3161 *varium albida* Neumann, 1899. This name is a synonym of *Amblyomma varium* as stated in Camicas *et al.* (1998) and Onofrio *et al.* (2008), but not included in Neumann (1911a).
- 3162 *varius* Amorim and Serra Freire, 1996, *Amblyomma* (pages 67, 68, 72-74). This name is a *lapsus* for *Amblyomma varium*.
- 3163 *varius* Schulze, 1933b, *Dermacentor*. This name is a new one for *Dermacentor variegatus* Marx and Neumann, 1897 (= *Dermacentor albipictus*) because Schulze (1933b) considers this name preoccupied by *Crotonus variegatus* (Fabricius, 1798 *incertae sedis*) in Duméril (1829). The name *Dermacentor varius* Schulze, 1933b is a synonym of *Dermacentor albipictus* as stated in Camicas *et al.* (1998).
- 3164 *varius kamtschadalu* Neumann, 1908d, *Dermacentor*. This name is used in Schulze (1933b) instead of *Dermacentor variegatus kamtschadalu* (= *Dermacentor kamshadalu*) because this author considers the name *Dermacentor variegatus* Marx and Neumann, 1897 (= *Dermacentor albipictus*) preoccupied by *Crotonus variegatus* (Fabricius, 1798) (*incertae sedis*). The name *Dermacentor varius kamtschadalu* is a synonym of *Dermacentor albipictus* and a *nomen dubium* in Camicas *et al.* (1998). *Dermacentor varius kamtschadalu* is a synonym of *Dermacentor kamshadalu* as stated in Apanaskevich (2013), but not included in Doss & Anastos (1977).
- 3165 *varius kamtschadalu* Neumann, 1908d, *Dermacentor* (pages 46, 93). It was originally named *Dermacentor variegatus kamshadalu* (= *Dermacentor kamshadalu*). The name *Dermacentor varius kamtschadalu* used in Doss & Anastos

- (1977) is a synonym of *Dermacentor kamshadali* as stated in Apanaskevich (2013), but not included in Camicas *et al.* (1998).
- 3166 *venezuelensis* Kohls, 1953b, *Ixodes*
- 3167 *ventalloi* Gil Collado, 1936, *Ixodes*. There is confusion about the diagnosis of *Ixodes festai* and *Ixodes ventalloi* as stated in Petney *et al.* (1996). Hoogstraal (1959a) and Arthur (1963) regard *Ixodes ventalloi* as a synonym of *Ixodes festai*, but Gilot & Pérez (1978) show morphological characters to differentiate them.
- 3168 *venustum* Koch, 1844a, *Amblyomma*. This name is a synonym of *Amblyomma variegatum* as stated in Neumann (1911a) and Camicas *et al.* (1998).
- 3169 *venustum* (Koch, 1844a), *Hyalomma*. It was originally named *Amblyomma venustum* (= *Amblyomma variegatum*). The name *Hyalomma venustum* used in Michael (1893 presented by Flower, D.H.) is a synonym of *Amblyomma venustum* (= *Amblyomma variegatum*) and not a *lapsus* as stated in Camicas *et al.* (1998). Doss & Anastos (1977) name Flower, W.H. the authority of this name. *Hyalomma venustum* is a synonym of *Amblyomma variegatum*, but not included in Neumann (1911a).
- 3170 *venustus* (Say, no year), *Cynorhaestes*. This name is in Schulze (1929b) and regarded a synonym of *Dermacentor andersoni* in Camicas *et al.* (1998). We found no species named *venustus* by Say. The name *Cynorhaestes venustus* (Say, no year) is a *nomen nudum*.
- 3171 *venustus* Marx, 1897, *Dermacentor*, in Neumann (1897). This name is a synonym of *Dermacentor andersoni* in Arthur (1960a citing 1892 the year for description), Camicas *et al.* (1998) and others, while Doss & Anastos (1977) regard *Dermacentor venustus* a *nomen nudum* under the authority of Neumann, 1897. The name *Dermacentor venustus* Marx, 1897 is a name suppressed to preserve the name *Dermacentor andersoni* Stiles, 1908 as stated in Keirans (1976), but not included in Neumann (1911a).
- 3172 *venustus* Banks, 1908, *Dermacentor*. This name was suppressed to conserve the name *Dermacentor andersoni* Stiles, 1908 as stated in Keirans (1976). However, the name *Dermacentor venustus* Banks, 1908 in McLeod (1933) is in fact *Dermacentor variabilis* according to Cooley (1938).
- 3173 *verae* Olenev, 1931b, *Hyalomma*. This name is a synonym of *Hyalomma detritum detritum* (= *Hyalomma scupense*) in Camicas *et al.* (1998). The name *Hyalomma verae* is a synonym of *Hyalomma scupense* as stated in Apanaskevich *et al.* (2010).
- 3174 *variabilis* Dumser and Oliver, 1981, *Dermacentor* (page 681). This name is a *lapsus* for *Dermacentor variabilis* repeated in Sonenshine *et al.* (1985, page 363) and others, but not included in Camicas *et al.* (1998).
- 3175 *vespertilionis* Oudemans, 1938, *Ixodes* (page 4). This name is a *lapsus* for *Ixodes vespertilionis*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998)
- 3176 *versicolor* Nuttall and Warburton, 1908, *Amblyomma*. This name has historically been regarded a synonym of *Amblyomma cajennense*, but it is a synonym of *Amblyomma mixtum*.
- 3177 *versicolore* Floch and Fauran, 1958, *Amblyomma* (page 24). This name is a *lapsus* for *Amblyomma versicolor* (= *Amblyomma mixtum*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 3178 *verticalis* Itagaki, Noda and Yamaguchi, 1944, *Haemaphysalis*
- 3179 *vespertilionis* (Koch, 1844c), *Eschatocephalus*. It was originally named *Ixodes vespertilionis*. The name *Eschatocephalus vespertilionis* used in Neumann (1901) and by a few other workers, is valid in Camicas *et al.* (1998). The name *Eschatocephalus vespertilionis* is a synonym of *Ixodes vespertilionis* as stated in Neumann (1911a).
- 3180 *vespertilionis* (Koch, 1844c), *Haemalastor*. It was originally named *Ixodes vespertilionis*. The name *Haemalastor vespertilionis* used in Neumann (1899) is a synonym of *Eschatocephalus vespertilionis* (= *Ixodes vespertilionis*) in Camicas *et al.* (1998). *Haemalastor vespertilionis* is a synonym of *Ixodes vespertilionis* as stated in Neumann (1911a).
- 3181 *vespertilionis* Koch, 1844c, *Ixodes*. This name is a synonym of *Eschatocephalus vespertilionis* (= *Ixodes vespertilionis*) in Camicas *et al.* (1998), but *Ixodes vespertilionis* is valid.
- 3182 *vespertillonis* Guglielmone, Venzal, Amico, Mangod and Keirans, 2004, *Ixodes* (pages 212-217). This name is a *lapsus* for *Ixodes vespertilionis*.
- 3183 *vespertilionis* Chu, Jiang, Liu, Zhao, Wu, Zhang, Zhan, Yang and Cao, 2008, *Ixodes* (page 982). This name is a *lapsus* for *Ixodes vespertilionis*.
- 3184 *vestitus* Neumann, 1908b, *Ixodes*
- 3185 *vetulum* Poinar and Buckley, 2008, *Compluriscutula*. This is a fossil species.
- 3186 *vibrans* Fabricius, 1787, *Acarus*. This name is *incertae sedis* as stated in Neumann (1911a), but a *nomen dubium* in Camicas *et al.* (1998) and here.
- 3187 *vibrans* (Fabricius, 1787), *Ixodes*. It was originally named *Acarus vibrans* (*nomen dubium*). The name *Ixodes vibrans* used in Fabricius (1805) is a *nomen dubium* synonym of *Acarus vibrans* (*incertae sedis*) here.
- 3188 *vicinus* Verrill, 1870, *Ixodes*. This name is a synonym of *Ixodes ricinus* in Camicas *et al.* (1998), but not included in Neumann (1911a). Camicas *et al.* (1998) based their decision on Oudemans (1896), but this author just wrote “*Ixodes vicinus* Gerv.” with no reference to Verrill (1870). Salmon & Stiles (1901, page 466) stated “?: *Ixodes vicinus* Gervais”. *Ixodes vicinus* Verrill, 1870 (page 118) is a name without description, a *nomen nudum*.
- 3189 *vicinus* Cieniuch, Stańczak and Ruczaj, 2009, *Ixodes* (pages 233, 235). This name is a *lapsus* for *Ixodes ricinus* repeated in Hagi *et al.* (2013, pages 6, 7) and others.
- 3190 *vicinus* Neumann, 1908a, *Rhipicentor*. This name is a synonym of *Rhipicentor nuttalli* Cooper and Robinson, 1908 as

- stated in Camicas *et al.* (1998) and Keirans & Hillyard (2001 citing 1911 the year for its description).
- 3191 *victoriae* Schulze, 1935b, *Ixodes*. This name is a *lapsus* for *Ixodes tasmani victoriae* (= *Ixodes tasmani*) in Doss & Anastos (1977, page 94), but not included in Camicas *et al.* (1998).
- 3192 *victoriensis* Nuttall, 1916, *Ixodes*
- 3193 *victoriensis* Hirst, 1930, *Ixodes*. This name was preoccupied by *Ixodes victoriensis* Nuttall, 1916 and renamed *Ixodes hirsti* in Hassall (1931). Therefore, the name *Ixodes victoriensis* Hirst, 1930 is a synonym of *Ixodes hirsti*.
- 3194 *vidua* Warburton and Nuttall, 1909, *Haemaphysalis*
- 3195 *vietnamensis* Hoogstraal and Wilson, 1966, *Haemaphysalis*. This name is valid in Estrada-Peña (1991), Teng & Jiang (1991), Barker & Murrell (2004, 2008) and Kolonin (2009). The name *Haemaphysalis vietnamensis* is a synonym of *Haemaphysalis colasbelcouri* (Santos Dias, 1958c) as stated in Camicas *et al.* (1998) and Guglielmo *et al.* (2010b, 2014).
- 3196 *vikirri* Keirans, Bull and Duffield, 1996, *Amblyomma*.
- 3197 *vikkiri* Burger, Shao and Barker, 2013, *Amblyomma* (page 269). This name is a *lapsus* for *Amblyomma vikirri*.
- 3198 *viperarum* Koch, 1844a, *Ixodes*. This name is *incertae sedis* in Neumann (1911a) and a synonym of *Ixodes ricinus* in Arthur (1963). The name *Ixodes viperarum* is a *nomen dubium* in Camicas *et al.* (1998) and here.
- 3199 *viperorum* Neumann, 1901, *Ixodes*. This name is a *lapsus* for *Ixodes viperarum* (*nomen dubium*), but not included in Neumann (1911a) and Camicas *et al.* (1998).
- 3200 *vittatum* Neumann, 1899, *Amblyomma*. This name is a synonym of *Amblyomma oblongoguttatum* as stated in Neumann (1911a) and Camicas *et al.* (1998).
- 3201 *vogelsangi* Santos Dias, 1954b, *Ixodes*. This name used in Morel & Pérez (1977 cited 1978) is a synonym of *Ixodes luciae* as stated in Camicas *et al.* (1998), but not included in Doss & Anastos (1977).
- 3202 *volgense* Schulze and Schlotke, 1929a, *Hyalomma*. This name is a synonym of *Hyalomma detritum detritum* (= *Hyalomma scupense*) in Camicas *et al.* (1998). The name *Hyalomma volgense* is a synonym of *Hyalomma scupense* as stated in Apanaskevich *et al.* (2010).
- 3203 *vriegatum* Cooley, 1934, *Amblyomma* (page 33). This name is a *lapsus* for *Amblyomma variegatum*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 3204 *vulgaris* Fabricius, 1794, *Acarus*. This name is a synonym of *Ixodes ricinus* in Camicas *et al.* (1998) based on Neumann (1911a), but *Acarus vulgaris* is not included in Neumann's work, and it is not included either in Doss & Anastos (1977). The name *Acarus vulgaris* has not been found in Fabricius (1794) or in other studies from the same author. *Acarus vulgaris* is a *nomen nudum*.
- 3205 *vulgaris* Fabricius, 1805, *Ixodes*. This name is a synonym of *Ixodes ricinus* as stated in Neumann (1911a) and Camicas *et al.* (1998).
- 3206 *vulpicola* Schulze, 1937c, *Ixodes*. This name is a synonym of *Pholeioxodes canisuga* (= *Ixodes canisuga*) in Camicas *et al.* (1998), but it is a synonym of *Ixodes canisuga* as stated in Petney *et al.* (2012a).
- 3207 *vulpinus* Schulze, 1937c, *Ixodes*. This name is a synonym of *Pholeioxodes canisuga* (= *Ixodes canisuga*) according to Camicas *et al.* (1998), but it is a synonym of *Ixodes canisuga* as stated in Petney *et al.* (2012a). However, *Ixodes vulpinus* in Babos (1964a) is in fact *Pholeioxodes kaiseri* (= *Ixodes kaiseri*) according to Morel & Aubert (1975) and Camicas *et al.* (1998).
- 3208 *vulpis* Pagenstecher, 1861, *Ixodes*. This name is a synonym of *Ixodes hexagonus* in Neumann (1911a) and a synonym of *Pholeioxodes canisuga* (= *Ixodes canisuga*) in Camicas *et al.* (1998). The name *Ixodes vulpis* is a synonym of *Ixodes canisuga* as stated in Petney *et al.* (2012a).
- 3209 *vulpis hungaricus* Babos, 1964a, *Ixodes*. This name is a synonym of *Pholeioxodes filippovae* (= *Ixodes filippovae*) as stated in Camicas *et al.* (1998).

W

- 3210 *walckenaeri* (Gervais, 1844), *Amblyomma*. It was originally named *Ixodes walckenaeri* Gervais, 1844 (= *Amblyomma rhinocerotis*). The name *Amblyomma walckenaeri* (Gervais, 1844) used in Neumann (1899) is a synonym of *Amblyomma rhinocerotis* (De Geer, 1778) as stated in Camicas *et al.* (1998). *Amblyomma walckenaeri* (Gervais, 1844) is not included in Neumann (1911a).
- 3211 *walckenaeri* (Gervais, 1844), *Hyalomma*. It was originally named *Ixodes walckenaeri* Gervais, 1844 [= *Amblyomma rhinocerotis* (De Geer, 1778)]. The name *Hyalomma walckenaeri* (Gervais, 1844) used in Bequaert (1933) is a synonym of *Amblyomma rhinocerotis* (De Geer, 1778) in Camicas *et al.* (1998), who consider it a *lapsus* for *Amblyomma walckenaeri* (Gervais, 1844) in Bequaert (1933). However, Bequaert (1937) applies the name *Hyalomma walckenaeri* (Gervais, 1844) for an intentional change in its generic status. *Hyalomma walckenaeri* (Gervais, 1844) is a synonym of *Amblyomma rhinocerotis* (De Geer, 1778).
- 3212 *walckenaeri* Gervais, 1842, *Ixodes*. This name is *incertae sedis* in Neumann (1911a). The name *Ixodes walckenaeri* is simultaneously a synonym of *Amblyomma rhinocerotis* (De Geer, 1778) and a *nomen nudum* in Camicas *et al.* 1998) and a probably synonym of *Amblyomma rhinocerotis* (De Geer, 1778) in Santos Dias (1958a). *Ixodes walckenaeri* Gervais, 1842 is a *nomen nudum* as stated in Doss & Anastos (1977).
- 3213 *walckenaeri* Gervais, 1844, *Ixodes*. This name is a synonym of *Amblyomma rhinocerotis* (De Geer, 1778) as stated in Camicas *et al.* (1998), but not included in Neumann (1911a).

- 3214 *walckenaeri* (Gervais, 1842), *Rhipicephalus*. This name is a *lapsus* for *Hyalomma walckenaeri* in Doss & Anastos (1977) and Camicas *et al.* (1998) based on Kratz (1940), but ignoring that Kratz (1940) spelt the specific epithet as *walkeneari* (*lapsus*). In any situation, *Rhipicephalus walckenaeri* (Gervais, 1842) is a *nomen nudum* synonym of *Ixodes walckenaeri* Gervais, 1842 (*nomen nudum*).
- 3215 *walkenaeri* Kratz, 1940, *Ixodes* (page 560). This name is a *lapsus* for *Ixodes walckenaeri* Gervais, 1842 (*nomen nudum*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 3216 *walkenaeri* Kratz, 1940, *Rhipicephalus* (page 560). This name is a *lapsus* for an alleged synonym of *Ixodes walckenaeri* Gervais, 1842 (*nomen nudum*), but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 3217 *walkerae* Clifford, Kohls and Hoogstraal, 1968, *Ixodes*
- 3218 *walkerae* Horak, Apanaskevich and Kariuki, 2013, *Rhipicephalus*
- 3219 *warburconi* Chu, Jiang, Liu, Zhao, Wu, Zhang, Zhan, Yang and Cao 2008, *Haemaphysalis* (page 981). This name is a *lapsus* for *Haemaphysalis warburtoni* Nuttall, 1912 repeated in Zhan *et al.* (2009, page 1904).
- 3220 *warburtoni* Nuttall, 1912, *Haemaphysalis*. Hoogstraal (1966b) found *Haemaphysalis formosensis* and *Haemaphysalis pospelovashstromae* identified as *Haemaphysalis warburtoni* Nuttall, 1912. The name *Haemaphysalis warburtoni* Nuttall, 1912 in Pospelova-Shtrom (1949) and Pomerantzev (1950) is in fact *Haemaphysalis pospelovashstromae* as stated in Filippova (1997).
- 3221 *warburtoni* Zimina, 1962, *Ixodes*. This name is a probable synonym of *Haemaphysalis warburtoni* Nuttall, 1912, a *nomen nudum* or a *lapsus* in Camicas *et al.* (1998). The name *Ixodes warburtoni* Zimina, 1962 is a *nomen nudum* here.
- 3222 *warburtoni* Walker and Horak, 2000, *Rhipicephalus*, in Walker *et al.* (2000). The species like-*pravus* in Fourie *et al.* (1988a, b) and the species like-*punctatus* Warburton, 1912 in Fourie & Horak (1990) are in fact *Rhipicephalus warburtoni* Walker and Horak, 2000 as stated in Walker *et al.* (2000). The name *Rhipicephalus warburtoni* Walker and Horak, 2000 has been confused with *Rhipicephalus appendiculatus*, *Rhipicephalus pravus* and *Rhipicephalus punctatus* Warburton, 1912 as stated in Walker *et al.* (2000). *Rhipicephalus appendiculatus* in Tonetti *et al.* (2009) is in fact *Rhipicephalus warburtoni* as stated in Tonetti & Walters (2010).
- 3223 *warburtoni kopetdaghicus* Kerbabaev, 1962, *Haemaphysalis*. This name is a synonym of *Haemaphysalis kopetdaghica* and its original name as stated in Camicas *et al.* (1998) and Filippova (2008).
- 3224 *watanabei* Yajima, 1942, *Haemaphysalis*. This name is *incertae sedis* in Keegan & Toshioka (1957) and a probable synonym of *Haemaphysalis flava* in Camicas *et al.* (1998). The name *Haemaphysalis watanabei* is a synonym of *Haemaphysalis flava* Neumann, 1897 as stated in Yamaguti *et al.* (1971).
- 3225 *weidneri* Santos Dias, 1958e, *Haemaphysalis*. This name is a synonym of *Haemaphysalis doenitzi* as stated in Hoogstraal & Wassef (1973) and Camicas *et al.* (1998).
- 3226 *welliyloni* Chen, Zhang, He *et al.* [sic], 1999, *Haemaphysalis* (page 368). This name is a *lapsus* for *Haemaphysalis wellingtoni*.
- 3227 *wellingtoni* Nuttall and Warburton, 1908, *Haemaphysalis*. The alleged type series of *Haemaphysalis heinrichi* Schulze, 1939c contains also *Haemaphysalis wellingtoni* as stated in Hoogstraal & Kohls (1968). Keirans (1985) found *Haemaphysalis bancrofti* identified as *Haemaphysalis wellingtoni* in the Nuttall Collection.
- 3228 *wernerii* Schulze, 1932e, *Amblyomma*. This name is a probable synonym of *Amblyomma dubitatum* in Santos Dias (1958a). The name *Amblyomma wernerii* is a synonym of *Amblyomma nuttalli* Dönitz, 1909 as stated in Theiler & Salisbury (1959) and Camicas *et al.* (1998).
- 3229 *wernerii* Kohls, 1950b, *Ixodes*
- 3230 *wernerii poematum* Schulze, 1932e, *Amblyomma*. This name is a synonym of *Amblyomma sparsum* as stated in Theiler & Salisbury (1959) and Camicas *et al.* (1998).
- 3231 *wernerii schlotkei* Schulze, 1932e, *Amblyomma*. This name is a synonym of *Amblyomma sparsum* as stated in Camicas *et al.* (1998).
- 3232 *wernerii typicum* Schulze, 1932e, *Amblyomma*. This name is a synonym of *Amblyomma sparsum* in Estrada-Peña & Castellá (1994). The name *Amblyomma wernerii typicum* is a synonym of *Amblyomma nuttalli* Dönitz, 1909 as stated in Hoogstraal (1956a) and Camicas *et al.* (1998).
- 3233 *wernerii wernerii* Schulze, 1932e, *Amblyomma*. This name is a synonym of *Amblyomma nuttalli* Dönitz, 1909 as stated in Hoogstraal (1956a) and Camicas *et al.* (1998).
- 3234 *werniri* Kolonin, 2003, *Ixodes* (page S190). This name is a *lapsus* for *Ixodes wernerii* Kohls, 1950b.
- 3235 *wileyi* Walker and Laurence, 1973, *Margaropus*
- 3236 *williamsi* Banks, 1924, *Amblyomma*
- 3237 *willingtoni* Tseng, 1978, *Haemaphysalis* (page 17). This name is a *lapsus* for *Haemaphysalis wellingtoni*, but not included in Camicas *et al.* (1998).
- 3238 *wintemi* Tagle, 1971, *Margaropus* (pages 46, 48). This name is a *lapsus* for *Margaropus winthemi*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 3239 *winthemi* (Karsch, 1879a), *Boophilus*. This name used in Jack (1928) is a synonym of *Margaropus winthemi* as stated in Camicas *et al.* (1998).
- 3240 *winthemi* Karsch, 1879a, *Margaropus*. The name *Rhipicephalus annulatus microplus* (partly a synonym of *Rhipicephalus australis* Fuller, 1899 and *Rhipicephalus microplus*) in Neumann (1901) is partly in fact *Margaropus winthemi* according to Neumann (1911a), who treats this name as *incertae sedis*.

- 3241 *withemi* Bedford, 1920, *Margaropus* (pages 330, 336, 337, 340). This name is a *lapsus* for *Margaropus withemi*, but not included in Doss & Anastos (1977) and Camicas *et al.* (1998).
- 3242 **woodi** Bishopp, 1911, *Ixodes*. It was originally named *Ixodes angustus woodi* and given its current status in Cooley & Kohls (1945). The name *Ixodes woodi* is a synonym of *Pholeoixodes woodi* in Camicas *et al.* (1998), but it is valid.
- 3243 *woodi* (Bishopp, 1911), *Pholeoixodes*. It was originally named *Ixodes angustus woodi* (= *Ixodes woodi*). The name *Pholeoixodes woodi* is valid in Camicas *et al.* (1998) based on Morel & Pérez (1973), but it is a synonym of *Ixodes woodi*.

X

- 3244 *xinjiangensis* Teng, 1980a, *Haemaphysalis*. This name is valid in Camicas *et al.* (1998), Horak *et al.* (2002) and Barker & Murrell (2004, 2008). The name *Haemaphysalis xinjiangensis* is a synonym of *Haemaphysalis danieli* as stated in Teng & Jiang (1991) and Guglielmone *et al.* (2010b, 2014).

Y

- 3245 *yajimae* Teng and Jiang, 1991, *Amblyomma* (page 278). This name is a *lapsus* not an emendation for *Amblyomma yajimai* (= *Amblyomma testudinarium*), but not included in Camicas *et al.* (1998).
- 3246 *yajimai* Kishida, 1935, *Amblyomma*. This name is a synonym of *Amblyomma testudinarium* as stated in Yamaguti *et al.* (1971) and Camicas *et al.* (1998).
- 3247 *yakimovi* Olenev, 1931c, *Hyalomma*. This name is a synonym of *Hyalomma dromedarii* as stated in Camicas *et al.* (1998) and Apanaskevich *et al.* (2008b).
- 3248 *yakimovi persiacum* Olenev, 1931c, *Hyalomma*. This name is a synonym of *Hyalomma dromedarii* as stated in Camicas *et al.* (1998) and Apanaskevich *et al.* (2008b).
- 3249 *yalvaci* Özkan, 1978, *Haemaphysalis*. This name is provisionally valid in Bursali *et al.* (2012), but regarded here a synonym of *Haemaphysalis erinacei* Pavesi, 1884 as stated in Guglielmone *et al.* (2014). The name *Haemaphysalis yalvaci* is not included in Camicas *et al.* (1998).
- 3250 *yeli* Wu, Na, Wei, Zhu and Peng, 2013, *Haemaphysalis* (page 4). This name is a *lapsus* for *Haemaphysalis yeni*.
- 3251 **yeni** Toumanoff, 1944, *Haemaphysalis*
- 3252 *yijimai* Volzit and Keirans, 2002, *Amblyomma* (page 115). This name is a *lapsus* for *Amblyomma yajimai* (= *Amblyomma testudinarium*).
- 3253 *ypsilophorum* Sinkoc, Brum, Müller, Begrow and Paulsen, 1997, *Amblyomma* (pages 119-121). This name is a *lapsus* for *Amblyomma ypsilophorum* (= *Amblyomma dubitatum*).
- 3254 *ypsilophorum* Schulze, 1941d, *Amblyomma*. This name is a synonym of *Amblyomma cooperi* in Fonseca & Aragão (1952b), Estrada-Peña & Castellá (1994) and others. The name *Amblyomma ypsilophorum* is a synonym of *Amblyomma dubitatum* as stated in Camicas *et al.* (1998) and Estrada-Peña *et al.* (2002).
- 3255 *yuxtakochi* Massi Pallarés and Benítez Usher, 1982, *Haemaphysalis* (page 51). This name is a *lapsus* for *Haemaphysalis juxtakochi*, but not included in Camicas *et al.* (1998).

Z

- 3256 *zabeziensis* Estrada-Peña, Gortázar and Calvete, 1992, *Rhipicephalus* (page 201). This name is a *lapsus* *Rhipicephalus zambeziensis* Walker, Norval and Corwin, 1981, but not included in Camicas *et al.* (1998).
- 3257 **zaglossi** Kohls, 1960a, *Ixodes*
- 3258 **zairensis** Keirans, Clifford and Walker, 1982, *Ixodes*
- 3259 *zamberiensis* Kolonin, 1984, *Rhipicephalus* (page 47). This name is a *lapsus* for *Rhipicephalus zambeziensis* Walker, Norval and Corwin, 1981, but not included in Camicas *et al.* (1998).
- 3260 *zambesianum* Schulze and Schlotke, 1929a, *Hyalomma*. This name is a synonym of *Hyalomma truncatum* as stated in Camicas *et al.* (1998) and Apanaskevich & Horak (2008a).
- 3261 *zambesiensis* Sonenshine, 1993, *Rhipicephalus*. This name is a *lapsus* for *Rhipicephalus zambeziensis* Walker, Norval and Corwin, 1981, and others, as stated in Walker *et al.* (2000), but not included in Camicas *et al.* (1998).
- 3262 *zambeziae* Santos Dias, 1953b, *Haemaphysalis*. This name is a synonym of *Haemaphysalis orientalis* Nuttall and Warburton, 1915 as stated in Hoogstraal (1956c).
- 3263 *zambeziensis* Lawrence and Norval, 1979, *Rhipicephalus*. This name is a *nomen nudum* as stated in Camicas *et al.* (1998) and Walker *et al.* (2000). The article of Lawrence & Norval (1979) was published again in Lawrence & Norval (1987) and the name *Rhipicephalus zambeziensis* Lawrence and Norval, 1979, included on page 89.
- 3264 **zambeziensis** Walker, Norval and Corwin, 1981, *Rhipicephalus*. The species II of *Rhipicephalus* in Yeoman & Walker (1967) and in other studies in Africa is in fact *Rhipicephalus zambeziensis* Walker, Norval and Corwin, 1981 as detailed in Walker *et al.* (2000). The name *Rhipicephalus zambeziensis* Walker, Norval and Corwin, 1981 has been confused with *Rhipicephalus appendiculatus* as shown in Walker *et al.* (2000).
- 3265 *zealandicus* Dumbleton, 1953, *Ixodes*. This name is valid in Barker & Murrell (2004, 2008) as a new status of *Ixodes auritulus zealandicus* Dumbleton, 1953 (*nomen nudum*). However, *Ixodes auritulus zealandicus* was described by Dumbleton (1961) not Dumbleton (1953). The name *Ixodes zealandicus* Dumbleton, 1953 is a *nomen nudum* synonym *Ixodes auritulus zealandicus* Dumbleton, 1953 (*nomen nudum*) here.
- 3266 *zealandicus* (Dumbleton, 1953), *Scaphixodes*. This name used in Camicas *et al.* (1998) is treated as valid and *Ixodes*

- auritulus zealandicus* Dumbleton, 1953 its synonym. Camicas *et al.* (1998) is repeating an error in Clifford *et al.* (1973) who consider *Ixodes auritulus zealandicus* Dumbleton, 1961 described in Dumbleton (1953). Therefore, the name *Scaphixodes zealandicus* (Dumbleton, 1953) is a *nomen nudum* synonym of *Ixodes auritulus zealandicus* Dumbleton, 1953 (*nomen nudum*) here.
- 3267 *zelandicum* Keirans and Hillyard, 2001, *Amblyomma* (page 55). This name is a *lapsus* for *Amblyomma zeylanicum* (= *Amblyomma clypeolatum*).
- 3268 *zeylanicum* Neumann, 1908b, *Amblyomma*. This name is valid in Neumann (1911a), but it is synonym of *Amblyomma clypeolatum* as stated in Robinson (1926) and Camicas *et al.* (1998).
- 3269 *ziemanni* Kolonin, 1984, *Rhipicephalus* (page 47). This name is a *lapsus* for *Rhipicephalus ziemanni*, but not included in Camicas *et al.* (1998).
- 3270 ***ziemanni*** Neumann, 1904, *Rhipicephalus*. Keirans (1985) found *Rhipicephalus ziemanni* identified as *Rhipicephalus neavei* (= *Rhipicephalus kochi* Dönitz, 1905), and *Rhipicephalus jeanneli* identified as *Rhipicephalus ziemanni* in the Nuttall Tick Collection.
- 3271 *ziemanni aurantiacus* Neumann, 1907d, *Rhipicephalus*. It was originally named *Rhipicephalus aurantiacus*. The name *Rhipicephalus ziemanni aurantiacus* used in Rageau (1951) and Morel & Mouchet (1958) is a probable synonym of *Rhipicephalus ziemanni* in Walker *et al.* (2000). *Rhipicephalus ziemanni aurantiacus* is a synonym of *Rhipicephalus aurantiacus* in Camicas *et al.* (1998) and here.
- 3272 *ziemanni brevicoxatus* Morel and Mouchet, 1958, *Rhipicephalus*. This name is a synonym of *Rhipicephalus ziemanni* as stated in Camicas *et al.* (1998), but not included in Doss & Anastos (1977).
- 3273 ***zumpti*** Hoogstraal and El Kammah, 1974, *Haemaphysalis*
- 3274 *zumpti* Arthur, 1960b, *Ixodes*. This name is valid in Horak *et al.* (2002) and Hänel & Heyne (2008), and a synonym of *Scaphixodes kerguelenensis* (= *Ixodes kerguelenensis*) in Camicas *et al.* (1998). The name *Ixodes zumpti* Arthur, 1960b is a synonym of *Ixodes kerguelenensis* as stated in Wilson (1970).
- 3275 ***zumpti*** Santos Dias, 1950b, *Rhipicephalus*. This name is a synonym of *Rhipicephalus planus* Neumann, 1907f in Camicas *et al.* (1998) and a synonym of *Rhipicephalus reichenowi* (= *Rhipicephalus planus* Neumann, 1907f) according to Santos Dias (1993b), but it is valid as stated in Walker *et al.* (2000).

List 2: Alphabetical list of valid species of Ixodidae driven by valid genus in Guglielmo *et al.* (2010b, 2014), with synonymies and lapsus.

1. *Amblyomma albolimbatum* Neumann, 1907c
2. *Amblyomma albopictum* Neumann, 1899
Synonym: *Amblyomma haitianum*, *Ixodes variegatus* Lucas, 1852
3. *Amblyomma americanum* (Linnaeus, 1758)
Synonyms: *Acarus americanus* Linnaeus, 1758, *Acarus nigua* De Geer, 1778, *Amblyomma americana*, *Amblyomma americanus* (Linnaeus, 1758), *Amblyomma unipunctata*, *Amblyomma unipunctatum*, *Euthesius americanus* (Linnaeus, 1758), *Haemalastor americanus* (Linnaeus, 1758), *Ixodes americanus* (Linnaeus, 1758), *Ixodes nigua* (De Geer, 1778), *Ixodes unipunctata*, *Rhynchopriion americanum*, *Rhynchopriion americanus* (Linnaeus, 1758)
Lapsus: *Amblyomma amblyomma*
Lapsus for a synonym: *Ixodes unipictus*, *Ixodes unipuncta* and *Ixodes unipunctata* for *Ixodes unipunctata*
4. *Amblyomma antillorum* Kohls, 1969b
Lapsus: *Amblyomma antillonim*
5. *Amblyomma arcanum* Karsch, 1879b
Synonym: *Aponomma arcanum*
6. *Amblyomma argentinae* Neumann, 1905
Synonyms: *Amblyomma diemeniae*, *Amblyomma testudinis* (Conil, 1877), *Haemalastor argentinae*, *Ixodes testudinis* Conil, 1877
Lapsus for synonyms: *Acarus testudinis* (Conil, 1877) for *Ixodes testudinis* Conil, 1877, *Amblyomma testidinis* and *Amblyomma testudines* for *Amblyomma testudinis* (Conil, 1877)
7. *Amblyomma astrion* Dönitz, 1909
8. *Amblyomma aureolatum* (Pallas, 1772)
Synonyms: *Acarus aureolatus*, *Amblyomma aureolatus*, *Amblyomma ovale striatum*, *Amblyomma striatum*, *Haemalastor aureolatus*, *Ixodes aureolatus*
9. *Amblyomma auricularium* (Conil, 1878)
Synonyms: *Amblyomma auriculare*, *Amblyomma auricularius*, *Amblyomma concolor* Neumann, 1899, *Amblyomma curruca*, *Ixodes auricularius*
Lapsus: *Amblyomma auricularum*, *Amblyomma uricularium*
Lapsus for synonyms: *Amblyomma concoloro* for *Amblyomma concolor* Neumann, 1899, *Amblyomma curruca* for *Amblyomma curruca*
10. *Amblyomma australiense* Neumann, 1905
11. *Amblyomma babirussae* Schulze, 1933d
12. *Amblyomma beaurepairei* Vogelsang and Santos Dias, 1953
13. *Amblyomma boeroi* Nava, Mangold, Mastropaolo, Venzal, Oscherov and Guglielmo, 2009c
14. *Amblyomma boulengeri* Hirst and Hirst, 1910
15. *Amblyomma brasiliense* Aragão, 1908a
Synonym: *Amblyomma brasiliensis*
Lapsus: *Amblyomma braziliense*, *Amblyomma brasiliensis*
16. *Amblyomma breviscutatum* Neumann, 1899
Synonyms: *Amblyomma breviscutatum aeratipes* Schulze, 1933d, *Amblyomma cyprium*, *Amblyomma cyprium aeratipes* Schulze, 1933d, *Amblyomma cyprium cyprium*, *Amblyomma dammermani*, *Amblyomma quasicyprium*, *Amblyomma scaevola*
Lapsus for synonyms: *Amblyomma cyprinum* for *Amblyomma cyprium*, *Amblyomma cyprium aetipes* for *Amblyomma cyprium aeratipes* Schulze, 1933d, *Amblyomma dommermani* for *Amblyomma dammermani*
17. *Amblyomma cajennense* (Fabricius, 1787)
Synonyms: *Acarus cajennense*, *Acarus cajennensis*, *Amblyomma cajennense cajennense*, *Amblyomma finitimum*, *Amblyomma tapiri*, *Amblyomma tenellum*, *Ixodes cajennense*, *Ixodes cajennensis*
Lapsus: *Amblyomma cajamense*, *Amblyomma cajanense*, *Amblyomma cajannense*, *Amblyomma cajennese*, *Amblyomma cajenneense*, *Amblyomma cajennense*, *Amblyomma cajennens*, *Amblyomma cajennensi*, *Amblyomma cajennesse*, *Amblyomma cajennse*, *Amblyomma cajeunense*, *Amblyomma canjennense*, *Amblyomma cayannense*, *Amblyomma cayenense*, *Amblyomma cayennense*
Lapsus for synonyms: *Acarus cajennesis* for *Acarus cajennensis*, *Amblyomma tellum* for *Amblyomma tenellum*, *Ixodes cajennesis* and *Ixodes cayenensis* for *Ixodes cajennensis*
18. *Amblyomma calabyi* Roberts, 1963b
19. *Amblyomma calcaratum* Neumann, 1899
Synonyms: *Amblyomma calcaratum calcaratum*, *Amblyomma calcaratum leucozomum*, *Amblyomma calcaratum venezuelense*, *Amblyomma fossum intermedium*, *Amblyomma leucozomum*
20. *Amblyomma chabaudi* Rageau, 1964
21. *Amblyomma clypeolatum* Neumann, 1899

- Synonyms:** *Amblyomma atrogenatum*, *Amblyomma zeylanicum*
Lapsus for a synonym: *Amblyomma zelanicum* for *Amblyomma zeylanicum*
22. *Amblyomma coelebs* Neumann, 1899
Synonym: *Amblyomma bispinosum*
Lapsus: *Amblyomma collebs*
23. *Amblyomma cohaerens* Dönitz, 1909
Synonym: *Amblyomma anceps*
Lapsus: *Amblyomma choarence*, *Amblyomma chohaerens*, *Amblyomma choherense*, *Amblyomma cohaeren*, *Amblyomma cohaerence*, *Amblyomma cohaerense*, *Amblyomma coharens*, *Amblyomma cohearens*, *Amblyomma coherence*, *Amblyomma coherens*
24. *Amblyomma compressum* (Macalister, 1872)
Synonyms: *Adenopleura compressum*, *Amblyomma cuneatum*, *Amblyomma javanense cuneatum*, *Haemalastor compressum*
25. *Amblyomma cordiferum* Neumann, 1899
26. *Amblyomma crassipes* (Neumann, 1901)
Synonym: *Aponomma crassipes* Neumann, 1901
27. *Amblyomma crassum* Robinson, 1926
Lapsus: *Amblyomma erassum*
28. *Amblyomma crenatum* Neumann, 1899
Synonyms: *Amblyomma subluteum*, *Haemalastor crenatum* (Neumann, 1899)
Lapsus for a synonym: *Amblyomma sublutum* for *Amblyomma subluteum*
29. *Amblyomma cruciferum* Neumann, 1901
30. *Amblyomma darwini* Hirst and Hirst, 1910
Synonym: *Amblyomma darwini wollebaeki*
31. *Amblyomma dissimile* Koch, 1844a
Synonyms: *Amblyomma adpersum*, *Amblyomma cubanum*, *Amblyomma deminutivum*, *Amblyomma infumatum*, *Amblyomma irroratum*, *Amblyomma margaritae*, *Amblyomma trinitatis*, *Aponomma thumbi*, *Haemalastor dissimile*, *Ixodes boarum*, *Ixodes pulchellus* Lucas, 1846
Lapsus: *Amblyomma dissimili*, *Amblyomma dissimilis*
Lapsus for synonyms: *Amblyomma diminutivum* for *Amblyomma deminutivum*, *Amblyomma infutum* for *Amblyomma infumatum*, *Amblyomma trinitatus* for *Amblyomma trinitatis*
32. *Amblyomma dubitatum* Neumann, 1899
Synonyms: *Amblyomma cajennense chacoensis*, *Amblyomma cooperi*, *Amblyomma lutzi*, *Amblyomma ypsilophorum*
Lapsus for a synonym: *Amblyomma ypsilophorum* for *Amblyomma ypsilophorum*
33. *Amblyomma eburneum* Gerstäcker, 1873
Synonyms: *Amblyomma barbaricum*, *Amblyomma hebraeum eburneum*
Lapsus: *Amblyomma ebruneum*, *Amblyomma eburnum*
Lapsus for a synonym: *Amblyomma haebraeum eburneum* and *Amblyomma hebraeum eburnum* for *Amblyomma hebraeum eburneum*
34. *Amblyomma echidnae* Roberts, 1953
35. *Amblyomma elaphense* (Price, 1959)
Synonyms: *Aponomma elaphense*, *Aponomma elaphensis*
36. *Amblyomma exornatum* Koch, 1844a
Synonyms: *Amblyomma neglectum*, *Aponomma exornatum*, *Aponomma neglectum*, *Aponomma rondelliae*
Lapsus: *Amblyomma enornatum*
37. *Amblyomma extraoculatum* Neumann, 1899
38. *Amblyomma falsomarmoreum* Tonelli Rondelli, 1935
39. *Amblyomma fimbriatum* Koch, 1844a
Synonyms: *Aponomma ecinctum*, *Aponomma fimbriatum*, *Aponomma simplex* Cooper and Robinson, 1908, *Aponomma trabeatum*, *Aponomma undatum fimbriatum*
40. *Amblyomma flavomaculatum* (Lucas, 1846)
Synonyms: *Aponomma flavomaculatum*, *Aponomma halli* Tendeiro, 1948, *Aponomma pulchrum*, *Ixodes flavomaculatum*, *Ixodes flavomaculatus*, *Ophiodes flavomaculatum*, *Ophiodes flavomaculatus*
Lapsus for a synonym: *Aponomma flavamaculatum* for *Aponomma flavomaculatum*
41. *Amblyomma fulvum* Neumann, 1899
42. *Amblyomma fuscolineatum* (Lucas, 1847)
Synonyms: *Amblyomma fuscolineatus*, *Aponomma fuscolineatum*, *Aponomma fuscolineatus*, *Ixodes fuscolineatus*
43. *Amblyomma fuscum* Neumann, 1907d
44. *Amblyomma geayi* Neumann, 1899
Synonym: *Amblyomma v-notatum*
Lapsus: *Amblyomma geayi*

45. *Amblyomma gemma* Dönitz, 1909
Lapsus: *Amblyomma gema*, *Amblyomma gemina*
46. *Amblyomma geochele* Durden, Keirans and Smith, 2002
47. *Amblyomma geoemydae* (Cantor, 1847)
Synonyms: *Amblyomma boucaudi*, *Amblyomma caelaturum*, *Amblyomma caelaturum perfectum*, *Amblyomma formosanum*, *Amblyomma malayanum*, *Haemalastor geoemydae*, *Ixodes geoemydae*
Lapsus: *Amblyomma geomydae*
Lapsus for synonyms: *Amblyomma coelaturum* for *Amblyomma caelaturum*, *Amblyomma coelaturum perfectum* for *Amblyomma caelaturum perfectum*
48. *Amblyomma gervaisi* (Lucas, 1847)
Synonyms: *Aponomma gervaisi*, *Aponomma gervaisi gervaisi*, *Aponomma gervaisi toreuma*, *Aponomma gervaisi typica* Sharif, 1928, *Haemaphysalis sindensis*, *Ixodes gervaisi*, *Ophiodes gervaisi*
Lapsus for synonyms: *Aponomma gervarsii* for *Aponomma gervaisi*, *Ixodes gerveasii* for *Ixodes gervaisi*
49. *Amblyomma glauerti* Keirans, King and Sharrad, 1994
Lapsus: *Amblyomma glauteri*
50. *Amblyomma goeldii* Neumann, 1899
Synonym: *Amblyomma ininii*
51. *Amblyomma hainanense* Teng, 1981
Lapsus: *Amblyomma haiananense*
52. *Amblyomma hebraeum* Koch, 1844a
Synonyms: *Amblyomma annulipes*, *Amblyomma hebraeum hebraeum*, *Amblyomma theileri* Santos Dias, 1947b, *Amblyomma theileri* Santos Dias, 1947b, *Haemalastor hebraeum*, *Ixodes poortmani*
Lapsus: *Amblyomma haebreum*, *Amblyomma hebraem*, *Amblyomma hebraum*, *Amblyomma hebreum*
53. *Amblyomma helvolum* Koch, 1844a
Synonyms: *Amblyomma decoratum*, *Amblyomma feuerborni* Schulze 1933a, *Amblyomma furcosum*, *Amblyomma quadrimaculatum*, *Amblyomma tenimberense*, *Aponomma tenimberense*, *Haemalastor helvolum*
Lapsus: *Amblyomma helvalum*
Lapsus for synonyms: *Amblyomma decoloratum* for *Amblyomma decoratum*, *Amblyomma feuerbornia* for *Amblyomma feuerborni* Schulze 1933a, *Amblyomma tenimberense* for *Amblyomma tenimberense*, *Rhipicephalus furcosum* for *Amblyomma furcosum*
54. *Amblyomma hirtum* Neumann, 1906
55. *Amblyomma humerale* Koch, 1844a
Synonyms: *Amblyomma brimonti*, *Amblyomma gypsatum*, *Amblyomma gypsatus*, *Amblyomma longirostrum*, *Haemalastor humerale*
Lapsus: *Amblyomma humeralae*, *Amblyomma humerali*, *Amblyomma humerli*
56. *Amblyomma imitator* Kohls, 1958
Lapsus: *Amblyomma imitador*, *Amblyomma immitator*
57. *Amblyomma incisum* Neumann, 1906
Synonyms: *Amblyomma brasiliense superbrasiliense*, *Amblyomma superbrasiliense*
Lapsus: *Amblyomma iscisum*
58. *Amblyomma inopinatum* (Santos Dias, 1989a)
Synonym: *Aponomma inopinatum* Santos Dias, 1989a
59. *Amblyomma inornatum* (Banks, 1909)
Synonyms: *Amblyomma inornata*, *Amblyomma philipi* Cooley and Kohls, 1939, *Aponomma inornata*
Lapsus: *Amblyomma inoratum*, *Amblyomma inortatum*
60. *Amblyomma integrum* Karsch, 1879c
Synonyms: *Amblyomma mudaliari*, *Amblyomma prolongatum*
Lapsus for synonyms: *Amblyomma mudalliari* for *Amblyomma mudaliari*, *Amblyomma prolongatum* for *Amblyomma prolongatum*
61. *Amblyomma javanense* (Supino, 1897)
Synonyms: *Amblyomma badium*, *Amblyomma compressum javanense* (Supino, 1897), *Amblyomma indicum*, *Amblyomma javanense javanense* (Supino, 1897), *Amblyomma javanensis*, *Amblyomma sublaeve*, *Aponomma capponii*, *Aponomma javanense* Cooper and Robinson, 1908, *Dermacentor indicus*, *Haemalastor javanensis*, *Rhipicephalus javanensis*
62. *Amblyomma komodoense* (Oudemans, 1928b)
Synonyms: *Amblyomma draconis*, *Aponomma komodoense*
63. *Amblyomma kraneveldi* (Anastos, 1956)
Synonym: *Aponomma kraneveldi*
Lapsus for synonym: *Aponomma karneveldi*
64. *Amblyomma latepunctatum* Tonelli Rondelli, 1939
65. *Amblyomma latum* Koch, 1844a
Synonyms: *Aponomma falsolaeve*, *Aponomma laeve capense*, *Aponomma laeve capensis* Neumann, 1901, *Aponomma*

- latum*, *Aponomma ochraceum*, *Hyalomma latum*
Lapsus for a synonym: *Aponomma larve capensis* Neumann, 1901 for *Aponomma laeve capensis* Neumann, 1901
66. *Amblyomma lepidum* Dönitz, 1909
Synonym: *Amblyomma hebraeum lepidum*
Lapsus: *Amblyomma lepidium*, *Amblyomma lepidu*
Lapsus for a synonym: *Amblyomma haebraeum lepidum*
67. *Amblyomma limbatum* Neumann, 1899
Synonym: *Amblyomma limbatus* Neumann, 1899
68. *Amblyomma loculosum* Neumann, 1907e
Synonym: *Amblyomma sterna*
69. *Amblyomma longirostre* (Koch, 1844a)
Synonyms: *Amblyomma avecolens*, *Amblyomma avicola*, *Amblyomma giganteum*, *Amblyomma longirostris*, *Haemalastor crassitarsus*, *Haemalastor longirostris*, *Hyalomma crassitarsus*, *Hyalomma longirostre*, *Hyalomma longirostris*
Lapsus: *Amblyomma longirostra*, *Amblyomma longirostre*, *Amblyomma longyrostre*
Lapsus for a synonym: *Amblyomma avecolense* for *Amblyomma avecolens*
70. *Amblyomma macfarlandi* Keirans, Hoogstraal and Clifford, 1973
71. *Amblyomma macropi* Roberts, 1953
72. *Amblyomma maculatum* Koch, 1844a
Synonym: *Haemalastor maculatum*
Lapsus: *Amblyomma immaculatum*, *Amblyomma macuatum*, *Amblyomma maculata*, *Amblyomma maculatus* Burger, Shao, Beati, Miller and Barker, 2012, *Amblyomma macuolatum*
73. *Amblyomma marmoreum* Koch, 1844a
Synonym: *Haemalastor marmoreum*
74. *Amblyomma mixtum* Koch, 1844a
Synonyms: *Amblyomma mixtus*, *Amblyomma versicolor*, *Ixodes mixtus*
Lapsus for a synonym: *Amblyomma versicolore* for *Amblyomma versicolor*
75. *Amblyomma moreliae* (Koch, 1867)
Synonym: *Ixodes moreliae*
Lapsus: *Aponomma moreliae*
76. *Amblyomma moyi* Roberts, 1953
77. *Amblyomma multipunctum* Neumann, 1899
78. *Amblyomma naponense* (Packard, 1869)
Synonyms: *Amblyomma mantiquirensis*, *Amblyomma naponensis*, *Ixodes naponensis*
Lapsus for a synonym: *Amblyomma mantiquerense* for *Amblyomma mantiquirensis*
79. *Amblyomma neumanni* Ribaga, 1902
Synonym: *Amblyomma furcula*
Lapsus: *Amblyomma eumanni*, *Amblyomma neumani*
Lapsus for a synonym: *Amblyomma fuscula*
80. *Amblyomma nitidum* Hirst and Hirst, 1910
Synonym: *Amblyomma laticaudae*
81. *Amblyomma nodosum* Neumann, 1899
Synonym: *Amblyomma uncatum*
82. *Amblyomma nuttalli* Dönitz, 1909
Synonyms: *Amblyomma weneri* Schulze, 1932e, *Amblyomma weneri typicum*, *Amblyomma weneri weneri* Schulze, 1932e
Lapsus: *Amblyomma nuttali*
83. *Amblyomma oblongoguttatum* Koch, 1844a
Synonyms: *Amblyomma darlingi*, *Amblyomma vittatum*
Lapsus: *Amblyomma longoguttatum*, *Amblyomma oblonguttatum*, *Amblyomma obolongoguttatum*
84. *Amblyomma orlovi* (Kolonin, 1992a)
Synonyms: *Africaniella orlovi*, *Aponomma orlovi*
85. *Amblyomma ovale* Koch, 1844a
Synonyms: *Amblyomma auronitens*, *Amblyomma beccarii* Tonelli Rondelli, 1939, *Amblyomma confine*, *Amblyomma fossum*, *Amblyomma oblongum*, *Amblyomma ovale kriegi*, *Amblyomma quasistriatum*, *Amblyomma striatum fossum*
Lapsus for a synonym: *Amblyomma ovale krieg* for *Amblyomma ovale kriegi*
86. *Amblyomma pacae* Aragão, 1911
Synonyms: *Amblyomma fiebrigi*, *Amblyomma nigrum*
87. *Amblyomma papuanum* Hirst, 1914
Synonym: *Amblyomma papuana* Hirst, 1914
88. *Amblyomma parkeri* Fonseca and Aragão, 1952a
89. *Amblyomma parvitarsum* Neumann, 1901

- Synonym:** *Amblyomma altiplanum*
Lapsus: *Amblyomma parvitansum*
90. *Amblyomma parvum* Aragão, 1908a
Synonyms: *Amblyomma carenatum*, *Amblyomma parvum carenatus*
Lapsus: *Amblyomma parvu*, *Amblyomma parvus* Harkema, 1936
91. *Amblyomma pattoni* (Neumann, 1910a)
Synonyms: *Amblyomma pseudolaeve*, *Aponomma laeve paradoxum*, *Aponomma pattoni*, *Aponomma pseudolaeve*
92. *Amblyomma paulopunctatum* Neumann, 1899
Synonym: *Amblyomma sparsum paulopunctatum*
Lapsus: *Amblyomma paulopunctatum*
93. *Amblyomma pecarium* Dunn, 1933
94. *Amblyomma personatum* Neumann, 1901
95. *Amblyomma pictum* Neumann, 1906
Synonym: *Amblyomma conspicuum*
96. *Amblyomma pilosum* Neumann, 1899
97. *Amblyomma pomposum* Dönitz, 1909
Synonyms: *Amblyomma nocens*, *Amblyomma superbum*, *Amblyomma variegatum nocens*, *Amblyomma variegatum pomposum*
Lapsus for a synonym: *Amblyomma superbum* for *Amblyomma superbum*
98. *Amblyomma postoculatum* Neumann, 1899
99. *Amblyomma pseudoconcolor* Aragão, 1908c
Lapsus: *Amblyomma pseudocobcolor*, *Amblyomma pseudocolor*
100. *Amblyomma pseudoparvum* Guglielmone, Mangold and Keirans, 1990
101. *Amblyomma quadricavum* (Schulze, 1941c)
Synonyms: *Amblyomma arianae*, *Aponomma quadricavum*
102. *Amblyomma rhinocerotis* (De Geer, 1778)
Synonyms: *Acarus rhinocerotis* De Geer, 1778, *Amblyomma aureum*, *Amblyomma foai*, *Amblyomma petersi*, *Amblyomma walckenaeri* (Gervais, 1844), *Cynorhaestes rhinocerotis* (De Geer, 1778), *Dermacentor rhinocerotis* (De Geer, 1778), *Haemalastor rhinocerotis* (De Geer, 1778), *Hyalomma walckenaeri* (Gervais, 1844), *Ixodes rhinocerotis* (De Geer, 1778), *Ixodes walckenaeri* Gervais, 1844
Lapsus for a synonym: *Dermacentor rhinocerotis* for *Dermacentor rhinocerotis* (De Geer, 1778)
103. *Amblyomma robinsoni* Warburton, 1927
104. *Amblyomma romitii* Tonelli Rondelli, 1939
Synonym: *Amblyomma tasquei*
105. *Amblyomma rotundatum* Koch, 1844a
Synonyms: *Amblyomma agamum*, *Amblyomma fuscomaculatum*, *Amblyomma goeldii*, *Amblyomma ininii*, *Amblyomma kerberti*, *Aponomma kerberti*, *Haemalastor rotundatum*, *Ixodes fuscomaculatus*
Lapsus: *Amblyomma rotundatum*, *Amblyomma rotundum*, *Ixodes rotundatum*
Lapsus for synonyms: *Amblyomma agamun* and *Amblyomma agamum* for *Amblyomma agamum*, *Ixodes flavomaculatus* for *Ixodes fuscomaculatus*
106. *Amblyomma sabanerae* Stoll, 1894
Lapsus: *Amblyomma sahanerae*, *Amblyomma subanerae*
107. *Amblyomma scalpturatum* Neumann, 1906
Synonyms: *Amblyomma beccarii* Tonelli Rondelli, 1939, *Amblyomma brasiliense guyanense*, *Amblyomma myrmecophagae*, *Amblyomma myrmecophagium*
Lapsus: *Amblyomma scapturatum*, *Amblyomma sculpturatum*
Lapsus for a synonym: *Amblyomma brasiliense guianense* Jones, Clifford, Keirans and Kohls, 1972 for *Amblyomma brasiliense guyanense*
108. *Amblyomma sculptum* Berlese, 1888a
Lapsus: *Amblyomma esculptum*
109. *Amblyomma scutatatum* Neumann, 1899
Synonyms: *Amblyomma boneti*, *Amblyomma castanedai*
Lapsus: *Amblyomma sculatum*, *Amblyomma scutatum*
Lapsus for a synonym: *Amblyomma castaneidae* for *Amblyomma castanedai*
110. *Amblyomma soembawense* (Anastos, 1956)
Synonyms: *Aponomma soembawense*, *Aponomma soembawensis*
111. *Amblyomma sparsum* Neumann, 1899
Synonyms: *Amblyomma faiai*, *Amblyomma hebraeum magnum*, *Amblyomma magnum*, *Amblyomma poematium*, *Amblyomma schlottkei*, *Amblyomma sparsum sparsum*, *Amblyomma weneri poematium*, *Amblyomma weneri schlottkei*
Lapsus: *Amblyomma sparum*
Lapsus for a synonym: *Amblyomma faifai* for *Amblyomma faiai*

112. *Amblyomma sphenodonti* (Dumbleton, 1943)
Synonyms: *Aponomma ludovici*, *Aponomma sphenodonti*
113. *Amblyomma splendidum* Giebel, 1877
Synonyms: *Amblyomma hebraeum splendidum*, *Amblyomma quantini*, *Amblyomma rostratum*, *Haemalastor splendidus*, *Haemalastor rostratum*, *Xiphiastor rostratum*
Lapsus: *Amblyomma splendens*
114. *Amblyomma squamosum* Kohls, 1953a
115. *Amblyomma supinoi* Neumann, 1905
Synonyms: *Amblyomma annandalei*, *Amblyomma testudinis* (Supino 1897), *Aponomma testudinis* (Supino 1897), *Ixodes testudinis* Supino 1897
Lapsus: *Amblyomma supinae*
116. *Amblyomma sylvaticum* (De Geer, 1778)
Synonyms: *Acarus sylvaticus*, *Amblyomma sylvaticus*, *Cynorhaestes sylvaticus*, *Haemalastor sylvaticus*, *Ixodes sylvaticus*
Lapsus: *Amblyomma syvaticum*
117. *Amblyomma tapirellum* Dunn, 1933
118. *Amblyomma testudinarium* Koch, 1844a
Synonyms: *Amblyomma compactum*, *Amblyomma fallax* Schulze, 1932e, *Amblyomma infestum*, *Amblyomma infestum borneense*, *Amblyomma infestum infestum*, *Amblyomma infestum taivanicum*, *Amblyomma infestum testudinarium*, *Amblyomma testudinarium taivanicum*, *Amblyomma yajimai*, *Haemalastor infestum*, *Haemalastor infestum testudinarium*, *Haemalastor testudinarium*, *Ixodes auriscutellatus*
Lapsus: *Amblyomma testadinarium*, *Amblyomma testidinarium*, *Amblyomma testudinalum*, *Amblyomma testudinarum*
Lapsus for synonyms: *Amblyomma borneense infestum* for *Amblyomma infestum borneense*, *Amblyomma campactum* for *Amblyomma compactum*, *Amblyomma yajimae* and *Amblyomma yijimai* for *Amblyomma yajimai*
119. *Amblyomma tholloni* Neumann, 1899
Synonym: *Haemalastor tholloni*
Lapsus: *Amblyomma thalloni*, *Amblyomma thollini*, *Amblyomma thollona*, *Amblyomma tholoni*
Lapsus for synonym: *Haemalastor thollini*
120. *Amblyomma tigrinum* Koch, 1844a
Synonyms: *Amblyomma bouthieri*, *Amblyomma ovatum*, *Amblyomma rubripes*
Lapsus: *Amblyomma trigrinum*
121. *Amblyomma torrei* Pérez Vigueras, 1934
122. *Amblyomma transversale* (Lucas, 1845)
Synonyms: *Africaniella transversale*, *Aponomma globulus*, *Aponomma transversale*, *Aponomma transversalis* (Lucas, 1845), *Ixodes globulus*, *Ixodes transversalis* Lucas, 1845, *Neumanniella transversale*, *Neumanniella transversalis* (Lucas, 1845)
123. *Amblyomma triguttatum* Koch, 1844a
Synonyms: *Amblyomma triguttatum ornatissimum* Roberts, 1962a, *Amblyomma triguttatum queenslandense* Roberts, 1962a, *Amblyomma triguttatum queenslandensis* Roberts, 1962a, *Amblyomma triguttatum rosei* Roberts, 1962a, *Amblyomma triguttatum triguttatum*
Lapsus: *Amblyomma truguttatum*
124. *Amblyomma trimaculatum* (Lucas, 1878b)
Synonyms: *Aponomma trimaculatum* (Lucas, 1878b), *Aponomma trimaculatus*, *Ixodes trimaculatus*
Lapsus: *Amblyomma primaculatum*, *Aponomma primaculatum*
125. *Amblyomma triste* Koch, 1844a
126. *Amblyomma tuberculatum* Marx, 1894
127. *Amblyomma usingeri* Keirans, Hoogstraal and Clifford, 1973
Lapsus: *Amblyomma asingeri*
128. *Amblyomma varanense* (Supino, 1897)
Synonyms: *Aponomma barbouri*, *Aponomma fraudigerum*, *Aponomma gervaisi lucasi*, *Aponomma lucasi*, *Aponomma varanense*, *Aponomma varanensis*, *Ixodes varanensis*
129. *Amblyomma variegatum* (Fabricius, 1798)
Synonyms: *Acarus variegatus* Fabricius, 1798, *Amblyomma elegans* (Guérin-Méneville 1844), *Amblyomma variegatum variegatum*, *Amblyomma variegatus* (Fabricius, 1798), *Amblyomma venustum*, *Haemalastor elegans* (Guérin-Méneville, 1844), *Hyalomma venustum*, *Ixodes elegans* Guérin-Méneville 1844, *Ixodes variegatus* (Fabricius 1798)
Lapsus: *Amblyomma varegatum*, *Amblyomma vareigatum*, *Amblyomma variagatum*, *Amblyomma variegaum*, *Amblyomma varigata*, *Amblyomma varigatum*, *Amblyomma varirgatum*, *Amblyomma vriegatum*, *Hyalomma variegatum*
130. *Amblyomma varium* Koch, 1844a
Synonyms: *Amblyomma crassipunctatum*, *Amblyomma gertschi*, *Amblyomma varium albida*, *Haemalastor varium*
Lapsus: *Amblyomma varius* Amorim and Serra Freire, 1996
Lapsus for a synonym: *Amblyomma crassipunctatus* for *Amblyomma crassipunctatum*
131. *Amblyomma vikirri* Keirans, Bull and Duffield, 1996

Lapsus: Amblyomma vikkiri

132. *Amblyomma williamsi* Banks, 1924

1. *Anomalohimalaya cricetuli* Teng and Huang, 1981
2. *Anomalohimalaya lamai* Hoogstraal, Kaiser and Mitchell, 1970a
Synonym: *Anomalohimalaya lama*
3. *Anomalohimalaya lotozkyi* Filippova and Panova, 1978

1. *Bothriocroton auruginans* (Schulze, 1936c)
Synonym: *Aponomma auruginans*
Lapsus for synonym: *Aponomma auruginosus*
2. *Bothriocroton concolor* (Neumann, 1899)
Synonyms: *Aponomma concolor* Neumann, 1899, *Aponomma tropicum*
Lapsus for a synonym: *Aponomma concolor* for *Aponomma concolor* Neumann, 1899
3. *Bothriocroton glebopalma* (Keirans, King and Sharrad, 1994)
Synonym: *Aponomma glebopalma*
4. *Bothriocroton hydrosauri* (Denny, 1843)
Synonyms: *Amblyomma hydrosauri*, *Aponomma hydrosauri*, *Aponomma trachysauri*, *Ixodes hydrosauri*, *Ixodes trachysauri*
Lapsus for a synonym: *Aponomma hydrosauri* for *Aponomma hydrosauri*
5. *Bothriocroton oudemansi* (Neumann, 1910b)
Synonyms: *Amblyomma oudemansi*, *Aponomma oudemansi*, *Aponomma oudemansi oudemansi*
Lapsus: *Bothriocroton oedemansi*
6. *Bothriocroton tachyglossi* (Roberts, 1953)
Synonym: *Aponomma tachyglossi*
7. *Bothriocroton undatum* (Fabricius, 1775)
Synonyms: *Acarus undatus*, *Amblyomma decorosum*, *Amblyomma varani* (Koch, 1867), *Aponomma decorosum*, *Aponomma decorosus*, *Aponomma undatum*, *Aponomma undatus*, *Ixodes decorosus*, *Ixodes undatus*, *Ixodes varani* Koch, 1867

1. *Compluriscutula vetulum* Poinar and Buckley, 2008

1. *Cornupalpatum burmanicum* Poinar and Brown, 2003

1. *Cosmiomma hippopotamensis* (Denny, 1843)
Synonyms: *Amblyomma hippopotamense*, *Amblyomma hippopotami*, *Cosmiomma bimaculatum*, *Cosmiomma bimaculatus*, *Dermacentor hippopotamensis*, *Hyalomma hippopotamense*, *Ixodes bimaculatus*, *Ixodes hippopotamensis*

1. *Dermacentor abaensis* Teng, 1963
2. *Dermacentor albipictus* (Packard, 1869)
Synonyms: *Cynorhaestes albipictus*, *Cynorhaestes nigrolineatus*, *Dermacentor albipictus nigrolineata*, *Dermacentor albipictus nigrolineatus*, *Dermacentor erraticus albipictus*, *Dermacentor nigrolineatus*, *Dermacentor salmoni*, *Dermacentor variegatus* Marx and Neumann, 1897, *Dermacentor varius* Schulze, 1933b, *Ixodes albipictus*, *Ixodes nigrolineatus*
Lapsus: *Dermacentor albitpictus*, *Dermacentor albopictus*
3. *Dermacentor andersoni* Stiles, 1908
Synonym: *Dermacentor modestus*
Lapsus: *Dermacentor undersoni*
4. *Dermacentor asper* Arthur, 1960a
5. *Dermacentor atrosignatus* Neumann, 1906
Synonym: *Indocentor atrosignatus*
Lapsus: *Dermacentor astrosignatus*, *Dermacentor atrosignatus*
6. *Dermacentor auratus* Supino, 1897
Synonyms: *Dermacentor auratus auratus* Supino, 1897, *Dermacentor auratus sumatranus*, *Indocentor auratus* (Supino, 1897), *Indocentor auratus sumatranus*
Lapsus: *Dermacentor amratus*
7. *Dermacentor circumguttatus* Neumann, 1897
Synonyms: *Amblyocentor circumguttatus*, *Dermacentor circumguttatus circumguttatus*, *Dermacentor circumguttatus cunhasilvai*
Lapsus: *Dermacentor cricumguttatus*
Lapsus for a synonym: *Amblyocentor circumguttatus* for *Amblyocentor circumguttatus*

8. *Dermacentor compactus* Neumann, 1901
Synonyms: *Dermacentor auratus compactus*, *Indocentor compactus*, *Indocentor compactus compactus*
9. *Dermacentor confragus* (Schulze, 1933b)
Synonym: *Indocentor confragus*
Lapsus: *Dermacentor confractus*, *Indocentor confractus*, *Indocentor confragtus*
10. *Dermacentor dispar* Cooley, 1937
11. *Dermacentor dissimilis* Cooley, 1947
Synonym: *Anocentor dissimilis*
12. *Dermacentor everestianus* Hirst, 1926
Synonyms: *Cynorhaestes everestianus*, *Dermacentor birulai* Olenev, 1927
13. *Dermacentor halli* McIntosh, 1931
14. *Dermacentor hunteri* Bishopp, 1912
15. *Dermacentor imitans* Warburton, 1933
16. *Dermacentor kamshadalus* Neumann, 1908d
Synonyms: *Dermacentor albipictus kamshadalus*, *Dermacentor albipictus kamschadalus*, *Dermacentor albipictus kamshadalus*, *Dermacentor kamschadalus*, *Dermacentor variegatus kamschadalus*, *Dermacentor variegatus kamshadalus*, *Dermacentor variegatus kamschadalus*, *Dermacentor variegatus kamshadalus*, *Dermacentor varius kamschadalus*, *Dermacentor varius kamschadalus*
Lapsus for a synonym: *Dermacentor variegatus kamchadalus* for *Dermacentor variegatus kamshadalus*
17. *Dermacentor latus* Cooley, 1937
18. *Dermacentor marginatus* (Sulzer, 1776)
Synonyms: *Acarus marginata*, *Acarus marginatus* Sulzer, 1776, *Cynorhaestes marginatus* (Sulzer, 1776), *Dermacentor antrorum*, *Dermacentor aulicus*, *Dermacentor dentipes*, *Dermacentor marginatus lacteolus*, *Dermacentor reticulatus aulicus*, *Ixodes marginatus* (Sulzer, 1776)
Lapsus: *Dermacentor maginatus*, *Dermacentor marginatos*, *Dermacentor maryinatus*
Lapsus for a synonym: *Acarus ricinus* for *Acarus marginata*
19. *Dermacentor montanus* Filippova and Panova, 1974
20. *Dermacentor nitens* Neumann, 1897
Synonyms: *Anocentor columbianus*, *Anocentor nitens* (Neumann, 1897), *Otocentor nitens* (Neumann, 1897)
Lapsus for a synonym: *Anocentor colombianus* for *Anocentor columbianus*
21. *Dermacentor niveus* Neumann, 1897
Synonyms: *Cynorhaestes niveus*, *Dermacentor daghestanicus*, *Dermacentor daghestanicus daghestanicus*, *Dermacentor marginatus daghestanicus*, *Dermacentor niveus daghestanicus*, *Dermacentor niveus niveus*, *Dermacentor reticulatus niveus*
Lapsus: *Dermacentor hiveus*, *Dermacentor neveus*, *Dermacentor nievus*
Lapsus for synonyms: *Dermacentor daghestanicus* for *Dermacentor daghestanicus*, *Dermacentor neveus daghestanicus* for *Dermacentor niveus daghestanicus*
22. *Dermacentor nuttalli* Olenev 1929c
Synonyms: *Dermacentor birulai kukunoriensis*, *Dermacentor chacassicus*, *Dermacentor nuttalli chacassicum*
Lapsus: *Dermacentor nutallii*, *Dermacentor nuttali*
23. *Dermacentor occidentalis* Marx, 1892
Synonym: *Dermacentor reticulatus occidentalis* Marx, 1892
24. *Dermacentor panamensis* Apanaskevich and Bermúdez, 2013
25. *Dermacentor parumapertus* Neumann, 1901
Synonyms: *Cynorhaestes parumapertus marginatus* (Banks, 1908), *Dermacentor electus parumapertus*, *Dermacentor parumapertus marginatus* Banks, 1908, *Dermacentor variabilis parumapertus*
Lapsus: *Dermacentor arumapertus*, *Dermacentor parumpertus*
26. *Dermacentor pavlovskiyi* Olenev, 1927
Synonym: *Cynorhaestes pavlovskiyi* (Olenev, 1927)
Lapsus: *Dermacentor pawlovskiyi*
27. *Dermacentor pomerantzevi* Serdjukova, 1951
28. *Dermacentor raskemensis* Pomerantzev, 1946
Lapsus: *Dermacentor rasckemensis*, *Dermacentor raskamensis*, *Dermacentor raskeminsis*, *Dermacentor raskimensis*
29. *Dermacentor reticulatus* (Fabricius, 1794)
Synonyms: *Acarus reticulatus* Fabricius, 1794, *Cynorhaestes pictus* Hermann, 1804, *Dermacentor ferrugineus*, *Dermacentor pictus* (Hermann, 1804), *Dermacentor reticulatus reticulatus* (Fabricius, 1794), *Ixodes pictus* (Hermann, 1804), *Ixodes reticulatus* (Fabricius, 1794)
Lapsus: *Dermacentor reticulatus*, *Dermacentor reiculatus*, *Dermacentor reticalutus*, *Dermacentor reticularis*, *Dermacentor reticulates*, *Dermacentor reticulutus*
30. *Dermacentor rhinocerinus* (Denny, 1843)
Synonyms: *Amblyocentor rhinocerinus*, *Amblyomma rhinocerinus*, *Dermacentor rhinocerinus otis*, *Dermacentor*

rhinocerinus schillingsi, *Dermacentor rhinocerotis arangis*, *Dermacentor rhinocerotis permaculatus*, *Dermacentor rhinocerotis rhinocerotis* (De Geer, 1778), *Ixodes rhinocerinus*

Lapsus: *Dermacentor rhinocerous*

Lapsus for synonyms: *Dermacentor rhinocerinus permaculatus* and *Dermacentor rhinocerotis spermaculatus* for *Dermacentor rhinocerotis permaculatus*, *Dermacentor rhinocerotis schillingsi* for *Dermacentor rhinocerinus schillingsi*

31. *Dermacentor silvarum* Olenev, 1931a

Synonyms: *Cynorhaestes silvarum*, *Dermacentor asiaticus* Emel'yanova and Kozlovskaya, 1967b, *Dermacentor silvarum ablutus*

Lapsus: *Dermacentor sylvarum*, *Dermacentor silvaum*

32. *Dermacentor sinicus* Schulze, 1932b

Synonyms: *Dermacentor sinicus pallidior*, *Dermacentor sinicus sinicus*

Lapsus for a synonym: *Dermacentor sinicus pallidior* for *Dermacentor sinicus pallidior*

33. *Dermacentor steini* (Schulze, 1933b)

Synonyms: *Dermacentor steini leviculus*, *Indocentor ater*, *Indocentor steini* Schulze, 1933b, *Indocentor steini steini* Schulze, 1933b

34. *Dermacentor taiwanensis* Sugimoto, 1935b

35. *Dermacentor ushakovae* Filippova and Panova, 1987

Lapsus: *Dermacentor usnakovae*

36. *Dermacentor variabilis* (Say, 1821)

Synonyms: *Dermacentor americanus* (Linnaeus, 1758), *Dermacentor electus*, *Dermacentor variabilis variabilis*, *Ixodes quinquestriatus*, *Ixodes robertsoni*, *Ixodes variabilis*

Lapsus: *Dermacentor variabilis*, *Dermacentor variabilis*, *Dermacentor variabilis*, *Dermacentor variabilis*

1. *Haemaphysalis aborensis* Warburton, 1913

Lapsus: *Haemaphysalis arborensis*

2. *Haemaphysalis aciculifer* Warburton, 1913

Synonym: *Haemaphysalis aciculifer aciculifer*

Lapsus: *Haemaphysalis maciculifer*

3. *Haemaphysalis aculeata* Lavarra, 1904

Synonym: *Haemaphysalis longipalpis* Warburton, 1910

Lapsus: *Haemaphysalis aculeate*

4. *Haemaphysalis adleri* Feldman-Muhsam, 1951

5. *Haemaphysalis anomala* Warburton, 1913

Synonym: *Haemaphysalis cornigera anomala*

Lapsus for synonym: *Haemaphysalis cornigera anomola*

6. *Haemaphysalis anomaloceraea* Teng, 1984

7. *Haemaphysalis anoplos* Hoogstraal, Uilenberg and Klein, 1967c

8. *Haemaphysalis aponommoides* Warburton, 1913

Synonym: *Haemaphysalis inermis aponommoides*

Lapsus for synonym: *Haemaphysalis internis aponommoides*

9. *Haemaphysalis asiatica* (Supino, 1897)

Synonyms: *Haemaphysalis asiaticus* (Supino, 1897), *Haemaphysalis dentipalpis*, *Haemaphysalis gestroi*, *Opisthodon asiaticus* Supino, 1897, *Opisthodon gestroi*, *Prosopodon asiaticus* (Supino, 1897), *Prosopodon gestroi*

10. *Haemaphysalis atheruri* Hoogstraal, Trapido and Kohls, 1965a

Synonym: *Haemaphysalis atherurus*

11. *Haemaphysalis bancrofti* Nuttall and Warburton, 1915

Synonyms: *Haemaphysalis krijgsmani* Kohls, 1948b, *Haemaphysalis meraukensis*, *Haemaphysalis novaeguineae* Krijgsman and Ponto, 1932

Lapsus for a synonym: *Haemaphysalis krijgmani* for *Haemaphysalis krijgsmani* Kohls, 1948b

12. *Haemaphysalis bandicota* Hoogstraal and Kohls, 1965b

13. *Haemaphysalis bartelsi* Schulze, 1938a

14. *Haemaphysalis bequaerti* Hoogstraal, 1956c

15. *Haemaphysalis birmaniae* Supino, 1897

16. *Haemaphysalis bispinosa* Neumann, 1897

Synonym: *Haemaphysalis bispinosa bispinosa*

Lapsus: *Haemaphysalis bispinosis*, *Haemaphysalis hispinosa*

17. *Haemaphysalis borneata* Hoogstraal, 1971c

18. *Haemaphysalis bremneri* Roberts, 1963a

Lapsus: *Haemaphysalis bremeri*

19. *Haemaphysalis calcarata* Neumann, 1902

20. *Haemaphysalis calva* Nuttall and Warburton, 1915

- Synonym:** *Haemaphysalis calvus*
21. *Haemaphysalis campanulata* Warburton, 1908
Synonym: *Haemaphysalis campanulata hoeppliana*
22. *Haemaphysalis canestrinii* (Supino, 1897)
Synonyms: *Opisthodon canestrinii*, *Prosopodon canestrinii*
Lapsus: *Hyalomma canestrinii*
23. *Haemaphysalis capricornis* Hoogstraal, 1966a
24. *Haemaphysalis caucasica* Olenov, 1928
25. *Haemaphysalis celebensis* Hoogstraal, Trapido and Kohls, 1965e
26. *Haemaphysalis chordeilis* (Packard, 1869)
Synonym: *Ixodes chordeilis*
Lapsus: *Haemaphysalis chordeiles*, *Haemaphysalis chordeilus*
27. *Haemaphysalis cinnabarina* Koch, 1844a
Synonyms: *Haemaphysalis cinnaberina*, *Haemaphysalis sanguinolenta*
28. *Haemaphysalis colasbelcouri* (Santos Dias, 1958c)
Synonyms: *Amblyomma colasbelcouri* (Santos Dias, 1958c), *Aponomma colasbelcouri* Santos Dias, 1958c, *Haemaphysalis vietnamensis*
Lapsus: *Haemaphysalis coulasbelcouri*
29. *Haemaphysalis colesbergensis* Apanaskevich and Horak, 2008c
Lapsus: *Haemaphysalis colasbergensis*
30. *Haemaphysalis concinna* Koch, 1844a
Synonyms: *Haemaphysalis concinna concinna*, *Haemaphysalis concinna kochi* Neumann, 1905, *Haemaphysalis kochi* Neumann, 1905, *Ixodes chelififer*
Lapsus: *Haemaphysalis concinnae*, *Haemaphysalis conicinna*
31. *Haemaphysalis cooleyi* Bedford, 1929
Lapsus: *Hyalomma cooleyi* (Bedford, 1929)
32. *Haemaphysalis cornigera* Neumann, 1897
Synonyms: *Haemaphysalis cornigera cornigera*, *Haemaphysalis cornigera typica* Sharif, 1928, *Haemaphysalis proxima* Warburton and Nuttall 1909, *Haemaphysalis spiniceps*
33. *Haemaphysalis cornupunctata* Hoogstraal and Varma, 1962
Lapsus: *Haemaphysalis cormupunctata*
34. *Haemaphysalis cuspidata* Warburton, 1910
35. *Haemaphysalis dangi* Phan Trong, 1977
36. *Haemaphysalis danieli* Černý and Hoogstraal, 1977
Synonym: *Haemaphysalis xinjiangensis*
37. *Haemaphysalis darjeeling* Hoogstraal and Dhanda, 1970
Lapsus: *Haemaphysalis darjiling*, *Haemaphysalis drajeeling*
38. *Haemaphysalis davisi* Hoogstraal, Dhanda and Bhat, 1970b
39. *Haemaphysalis demidovae* Emel'yanova, 1978
40. *Haemaphysalis doenitzi* Warburton and Nuttall, 1909
Synonyms: *Haemaphysalis centropi*, *Haemaphysalis weidneri*
Lapsus: *Haemaphysalis doenitzi*
41. *Haemaphysalis elliptica* (Koch, 1844a)
Synonyms: *Haemaphysalis humerosoides*, *Haemaphysalis leachi humerosoides*, *Rhipicephalus ellipticum*, *Rhipicephalus ellipticus*, *Rhipistoma ellipticum*
Lapsus for synonyms: *Haemaphysalis humerosoides* for *Haemaphysalis humerosoides*, *Haemaphysalis leachi humerosoides* for *Haemaphysalis leachi humerosoides*
42. *Haemaphysalis elongata* Neumann, 1897
43. *Haemaphysalis erinacei* Pavesi, 1884
Synonyms: *Haemaphysalis erinacei* Feldman-Muhsam 1951, *Haemaphysalis erinacei erinacei* Pavesi 1884, *Haemaphysalis erinacei ornata*, *Haemaphysalis erinacei taurica*, *Haemaphysalis erinacei turanica*, *Haemaphysalis numidiana*, *Haemaphysalis numidiana taurica*, *Haemaphysalis numidiana turanica*, *Haemaphysalis taurica*, *Haemaphysalis taurica ornata*, *Haemaphysalis yalvaci*
Lapsus: *Haemaphysalis erinacci*
44. *Haemaphysalis eupleres* Hoogstraal, Kohls and Trapido, 1965d
45. *Haemaphysalis filippovae* Bolotin, 1979
46. *Haemaphysalis flava* Neumann, 1897
Synonyms: *Haemaphysalis flava armata*, *Haemaphysalis flava flava* Neumann, 1897, *Haemaphysalis watanabei*
Lapsus: *Haemaphysalis flavii*
47. *Haemaphysalis formosensis* Neumann, 1913b
Lapsus: *Haemaphysalis farmosensis*

48. *Haemaphysalis fossae* Hoogstraal, 1953b
49. *Haemaphysalis fujisana* Kitaoka, 1970
50. *Haemaphysalis garhwalensis* Dhanda and Bhat, 1968a
51. *Haemaphysalis goral* Hoogstraal, 1970b
52. *Haemaphysalis grochovskajae* Kolonin, 1992b
Lapsus: Haemaphysalis grochovskaja
53. *Haemaphysalis heinrichi* Schulze, 1939c
54. *Haemaphysalis hirsuta* Hoogstraal, Trapido and Kohls, 1966a
55. *Haemaphysalis hispanica* Gill Collado, 1938
Synonym: *Haemaphysalis campanulata hispanica*
56. *Haemaphysalis hoodi* Warburton and Nuttall, 1909
Synonyms: *Haemaphysalis africana*, *Haemaphysalis hoodi hoodi*
57. *Haemaphysalis hoogstraali* Kohls, 1950b
58. *Haemaphysalis houyi* Nuttall and Warburton, 1915
Synonym: *Haemaphysalis calcarata houyi*
59. *Haemaphysalis howletti* Warburton, 1913
60. *Haemaphysalis humerosa* Warburton and Nuttall, 1909
61. *Haemaphysalis hylobatis* Schulze, 1933a
Lapsus: Rhipicephalus hylobatis
62. *Haemaphysalis hyracophila* Hoogstraal, Walker and Neitz, 1971b
63. *Haemaphysalis hystricis* Supino, 1897
Synonyms: *Haemaphysalis genevrayi*, *Haemaphysalis iwasakii*, *Haemaphysalis nishiyamai*, *Haemaphysalis tieni*, *Haemaphysalis trispinosa*
Lapsus: *Haemaphysalis histricis*, *Haemaphysalis hystericis*, *Haemaphysalis hystricus*, *Haemaphysalis hystriticis*, *Haemaphysalis hystris*
Lapsus for a synonym: *Haemaphysalis nishiyama* for *Haemaphysalis nishiyamai*
64. *Haemaphysalis ias* Nakamura and Yajima, 1937
Synonym: *Haemaphysalis cornigera ias*
65. *Haemaphysalis indica* Warburton, 1910
Synonym: *Haemaphysalis leachi indica*
66. *Haemaphysalis indoflava* Dhanda and Bhat, 1968b
67. *Haemaphysalis inermis* Birula, 1895
Synonyms: *Alloceraea inermis* (Birula, 1895), *Alloceraea inermis inermis* (Birula, 1895), *Haemaphysalis ambigua*, *Haemaphysalis ibrikliensis*
Lapsus: *Hyalomma inermis* (Birula, 1895), *Rhipicephalus inermis* (Birula, 1895)
68. *Haemaphysalis intermedia* Warburton and Nuttall, 1909
Synonyms: *Haemaphysalis bispinosa intermedia* Warburton and Nuttall, 1909, *Haemaphysalis parva* Neumann 1908d
69. *Haemaphysalis japonica* Warburton, 1908
Synonyms: *Haemaphysalis douglasi*, *Haemaphysalis japonica douglasi*, *Haemaphysalis japonica japonica*, *Haemaphysalis jezoensis*
Lapsus: *Haemaphysalis japonicum*, *Haemaphysalis japonicus*, *Haemaphysalis japonica*, *Haemaphysalis japonica*
Lapsus for a synonym: *Haemaphysalis jezoensis* for *Haemaphysalis jezoensis*
70. *Haemaphysalis juxtakochi* Cooley, 1946a
Synonyms: *Haemaphysalis kochi* Aragão 1908a, *Haemaphysalis kohlsi* Aragão and Fonseca, 1951b
Lapsus: *Haemaphysalis juxtackochi*, *Haemaphysalis juxtacochi*, *Haemaphysalis juxtakichi*, *Haemaphysalis yuxtakochi*
71. *Haemaphysalis kadarsani* Hoogstraal and Wassef, 1977
72. *Haemaphysalis kashmirensis* Hoogstraal and Varma, 1962
73. *Haemaphysalis kinneari* Warburton, 1913
Synonym: *Haemaphysalis papuana kinneari*
74. *Haemaphysalis kitaokai* Hoogstraal, 1969
Lapsus: *Haemaphysalis kitaoki*
75. *Haemaphysalis knobigera* Prakasan and Ramani, 2007
76. *Haemaphysalis koningsbergeri* Warburton and Nuttall, 1909
Synonym: *Haemaphysalis leachi koningsbergeri*
Lapsus: *Haemaphysalis koenigsbergi*
77. *Haemaphysalis kopetdaghica* Kerbabaev, 1962
Synonyms: *Haemaphysalis kopetdaghicus*, *Haemaphysalis warburtoni kopetdaghicus*
Lapsus: *Haemaphysalis kopetdagica*, *Haemaphysalis kopetdagihca*
78. *Haemaphysalis kumaonensis* Geevarghese and Mishra, 2011
79. *Haemaphysalis kutchensis* Hoogstraal and Trapido, 1963b
80. *Haemaphysalis kyananurensis* Trapido, Hoogstraal and Rajagopalan, 1964c

81. *Haemaphysalis lagostrophi* Roberts, 1963a
82. *Haemaphysalis lagrangei* Larrousse, 1925a
Synonym: *Haemaphysalis hystricis indochinensis*
83. *Haemaphysalis laocayensis* Phan Trong, 1977
84. *Haemaphysalis leachi* (Audouin, 1826)
Synonyms: *Haemaphysalis leachi leachi*, *Ixodes leachi*, *Rhipidostoma leachi*, *Rhipistoma leachi*
Lapsus: *Haemaphysalis leachu*, *Hyalomma leachi*, *Rhipicephalus leachi*
85. *Haemaphysalis lemuris* Hoogstraal, 1953b
86. *Haemaphysalis leporispalustris* (Packard, 1869)
Synonyms: *Gonixodes rostralis*, *Haemaphysalis leporis* (Packard, 1869), *Haemaphysalis leporis proxima* Aragão, 1909, *Ixodes leporispalustris*, *Ixodes rostralis*, *Rhipistoma leporis* (Packard, 1869)
Lapsus: *Haemaphysalis leporispalustis*, *Haemaphysalis leporispalustria*, *Haemaphysalis leporuspalustris*
87. *Haemaphysalis lobachovi* Kolonin, 1995a
88. *Haemaphysalis longicornis* Neumann, 1901
Synonyms: *Haemaphysalis bispinosa neumanni* Dönitz, 1905, *Haemaphysalis concinna longicornis*, *Haemaphysalis neumanni* Dönitz, 1905, *Haemaphysalis neumanni bispinosa*
Lapsus: *Haemaphysalis loangicornis*, *Haemaphysalis longicorni*
89. *Haemaphysalis luzonensis* Hoogstraal and Parrish, 1968
90. *Haemaphysalis madagascariensis* Colas-Belcour and Millot, 1948
Synonym: *Haemaphysalis hoodi madagascariensis*
91. *Haemaphysalis mageshimaensis* Saito and Hoogstraal, 1973
Synonym: *Haemaphysalis bamunensis*
Lapsus: *Haemaphysalis magehimaensis*, *Haemaphysalis magishimaensis*
Lapsus for synonym: *Haemaphysalis bamunensis*
92. *Haemaphysalis megalaimae* Rajagopalan, 1963
93. *Haemaphysalis megaspinosa* Saito, 1969
94. *Haemaphysalis menglaensis* Pang, Chen and Xiang, 1982
95. *Haemaphysalis minuta* Kohls, 1950a
Lapsus: *Haemaphysalis minua*
96. *Haemaphysalis mjoebergi* Warburton, 1926a
97. *Haemaphysalis montgomeryi* Nuttall, 1912
Lapsus: *Haemaphysalis montgonervi*, *Haemaphysalis montgomeryi*
98. *Haemaphysalis moreli* Camicas, Hoogstraal and El Kammah, 1972
99. *Haemaphysalis moschisuga* Teng, 1980b
100. *Haemaphysalis muhsamae* Santos Dias, 1954d
Synonyms: *Haemaphysalis leachi muhsami*, *Haemaphysalis muhsami*
101. *Haemaphysalis nadchatrami* Hoogstraal, Trapido and Kohls, 1965b
Synonym: *Haemaphysalis papuana nadchatrami*
102. *Haemaphysalis nepalensis* Hoogstraal, 1962
103. *Haemaphysalis nesomys* Hoogstraal, Uilenberg and Klein, 1966b
104. *Haemaphysalis norvali* Hoogstraal and Wassef, 1983
105. *Haemaphysalis novaeguineae* Hirst, 1914
Synonym: *Haemaphysalis spinigera novaeguineae* Hirst, 1914
106. *Haemaphysalis obesa* Larrousse, 1925a
Lapsus: *Haemaphysalis besa*, *Hamaphysalis obese*
107. *Haemaphysalis obtusa* Dönitz, 1910a
108. *Haemaphysalis oliveri* Apanaskevich and Horak, 2008c
109. *Haemaphysalis orientalis* Nuttall and Warburton, 1915
Synonyms: *Haemaphysalis hoodi orientalis* Nuttall and Warburton, 1915, *Haemaphysalis zambeziae*
110. *Haemaphysalis ornithophila* Hoogstraal and Kohls, 1959
Synonym: *Haemaphysalis bacthaiensis*
Lapsus for synonym: *Haemaphysalis bacthaensis*
111. *Haemaphysalis palawanensis* Kohls, 1950b
112. *Haemaphysalis papuana* Thorell, 1883
Synonym: *Haemaphysalis papuana papuana* Thorell, 1883
Lapsus: *Haemaphysalis papuna*
113. *Haemaphysalis paraleachi* Camicas, Hoogstraal and El Kammah, 1983
114. *Haemaphysalis paraturturis* Hoogstraal, Trapido and Rebello, 1963
115. *Haemaphysalis parmata* Neumann, 1905
116. *Haemaphysalis parva* (Neumann, 1897)
Synonyms: *Dermacentor parvus* Neumann, 1897, *Haemaphysalis otophila*, *Haemaphysalis otophila schulzei* Tonelli

- Rondelli, 1926b, *Haemaphysalis parvus* (Neumann, 1897), *Haemaphysalis sulcata otophila*
Lapsus: *Haemaphysalis parvum* Faizi, Rastegar-Pouyani and Yarani, 2011
117. *Haemaphysalis pavlovskiyi* Pospelova-Shtrom, 1935b
118. *Haemaphysalis pedetes* Hoogstraal, 1972b
119. *Haemaphysalis pentalagi* Pospelova-Shtrom, 1935b
120. *Haemaphysalis petrogalis* Roberts, 1970
121. *Haemaphysalis phasiana* Saito, Hoogstraal and Wassef, 1974
122. *Haemaphysalis pospelovashtroniae* Hoogstraal, 1966b
Synonym: *Haemaphysalis aksarensis*
Lapsus: *Haemaphysalis pospelovashtroni*
123. *Haemaphysalis primitiva* Teng, 1982b
124. *Haemaphysalis psalistos* Hoogstraal, Kohls and Parrish, 1967b
125. *Haemaphysalis punctaleachi* Camicas, Hoogstraal and El Kammah, 1973
126. *Haemaphysalis punctata* Canestrini and Fanzago, 1878
Synonyms: *Haemaphysalis crassa*, *Haemaphysalis punctata autumnalis* Schulze, 1919, *Haemaphysalis punctata punctata* Canestrini and Fanzago, 1878, *Haemaphysalis rhinolophi*, *Haemaphysalis sulcata svenigae*
Lapsus: *Haemaphysalis punctate*, *Haemaphysalis puntata*, *Hyalomma punctata* (Canestrini and Fanzago, 1878)
Lapsus for a synonym: *Haemaphysalis rhipolophi* for *Haemaphysalis rhinolophi*
127. *Haemaphysalis quadriaculeata* Kolonin, 1992b
128. *Haemaphysalis quinghaiensis* Teng, 1980b
Synonym: *Haemaphysalis qinghaiensis*
Lapsus: *Haemaphysalis ginghaiensis*, *Haemaphysalis qigaiensi*
129. *Haemaphysalis ramachandrai* Dhanda, Hoogstraal and Bhat, 1970
130. *Haemaphysalis ratti* Kohls, 1948b
131. *Haemaphysalis renschi* Schulze, 1933a
132. *Haemaphysalis roubaudi* Toumanoff, 1940
Lapsus: *Haemaphysalis rouboudi*
133. *Haemaphysalis rugosa* Santos Dias, 1956b
Synonym: *Haemaphysalis aciculifer rugosa*
134. *Haemaphysalis rusae* Kohls, 1950b
135. *Haemaphysalis sambar* Hoogstraal, 1971b
Lapsus: *Haemaphysalis samber*
136. *Haemaphysalis sciuri* Kohls, 1950b
137. *Haemaphysalis semermis* Neumann, 1901
Lapsus: *Haemaphysalis senermis*, *Haemaphysalis sermermis*
138. *Haemaphysalis shimoga* Trapido and Hoogstraal, 1964
Synonyms: *Haemaphysalis cornigera shimoga*, *Haemaphysalis cornigera vietnama*
139. *Haemaphysalis silacea* Robinson, 1912
Lapsus: *Haemaphysalis silaceae*
140. *Haemaphysalis silvafelis* Hoogstraal and Trapido, 1963a
141. *Haemaphysalis simplex* Neumann, 1897
142. *Haemaphysalis simplicima* Hoogstraal and Wassef, 1979
143. *Haemaphysalis sinensis* Zhang, 1981
144. *Haemaphysalis spinigera* Neumann, 1897
Synonym: *Haemaphysalis spinigera spinigera*
145. *Haemaphysalis spinulosa* Neumann, 1906
Synonym: *Haemaphysalis ethiopica*
Lapsus: *Haemaphysalis spinulosa*, *Haemaphysalis spinosa*
146. *Haemaphysalis subelongata* Hoogstraal, 1953b
147. *Haemaphysalis subterra* Hoogstraal, El Kammah and Camicas, 1992
148. *Haemaphysalis sulcata* Canestrini and Fanzago, 1878
Synonyms: *Haemaphysalis angorensis*, *Haemaphysalis angorensis*, *Haemaphysalis beneditoi*, *Haemaphysalis cholodkovskiyi*, *Haemaphysalis cinnabarina punctata musimonis*, *Haemaphysalis cretica*, *Haemaphysalis montana*, *Haemaphysalis nicollei*, *Haemaphysalis punctata cretica*, *Haemaphysalis punctata montana*, *Haemaphysalis sewelli*, *Haemaphysalis sulcata sulcata*, *Herpetobia sulcata*
Lapsus: *Haemaphysalis sulcata*, *Hyalomma sulcata*
Lapsus for synonyms: *Haemaphysalis choldokovsky* and *Haemaphysalis cholodkovskiyi* for *Haemaphysalis cholodkovskiyi*, *Haemaphysalis cinnabarina cretica* for *Haemaphysalis punctata cretica*
149. *Haemaphysalis sumatraensis* Hoogstraal, El Kammah, Kadarsan and Anastos, 1971c
150. *Haemaphysalis sundrai* Sharif, 1928
Synonym: *Haemaphysalis himalaya*

151. *Haemaphysalis suntzovi* Kolonin, 1993
 152. *Haemaphysalis susphilippensis* Hoogstraal, Kohls and Parrish, 1968b
 153. *Haemaphysalis taiwana* Sugimoto, 1936
Synonym: *Haemaphysalis cornigera taiwana*
 154. *Haemaphysalis tauffliebi* Morel, 1965a
 155. *Haemaphysalis theileriae* Hoogstraal, 1953b
 156. *Haemaphysalis tibetensis* Hoogstraal, 1965
Lapsus: *Haemaphysalis tebetensis*
 157. *Haemaphysalis tiptoni* Hoogstraal, 1953b
 158. *Haemaphysalis toxopei* Warburton, 1927
Synonym: *Haemaphysalis papuana toxopei*
 159. *Haemaphysalis traguli* Oudemans, 1928a
Synonym: *Haemaphysalis monospinosa*
Lapsus: *Haemaphysalis atheruri*
 160. *Haemaphysalis traubi* Kohls, 1955
 161. *Haemaphysalis turturis* Nuttall and Warburton, 1915
 162. *Haemaphysalis verticalis* Itagaki, Noda and Yamaguchi, 1944
 163. *Haemaphysalis vidua* Warburton and Nuttall, 1909
 164. *Haemaphysalis warburtoni* Nuttall, 1912
Lapsus: *Haemaphysalis warburconi*
 165. *Haemaphysalis wellingtoni* Nuttall and Warburton, 1908
Lapsus: *Haemaphysalis wellihyloni*, *Haemaphysalis willingtoni*
 166. *Haemaphysalis yeni* Toumanoff, 1944
Lapsus: *Haemaphysalis yeli*
 167. *Haemaphysalis zumpti* Hoogstraal and El Kammah, 1974

1. *Hyalomma aegyptium* (Linnaeus, 1758)

Synonyms: *Acarus aegyptius* Linnaeus, 1758, *Acarus testudinis* Hasselquist 1762, *Cynorhaestes aegyptius* (Linnaeus, 1758), *Hyalomma aegyptium syriacum*, *Hyalomma aegyptius* (Linnaeus, 1758), *Hyalomma affine*, *Hyalomma syriacum*, *Hyalomma syriacum punctata* Schulze, 1920, *Hyalomma syriacum punctatum* Schulze, 1920, *Hyalomma testudinis* (Hasselquist, 1762), *Ixodes aegyptius* (Linnaeus, 1758), *Ixodes testudinis* Leydig, 1855

Lapsus: *Amblyomma aegyptius* (Linnaeus, 1758), *Hyalomma aegyptiaca*, *Hyalomma aegypticum*, *Hyalomma agegyptium*, *Hyalomma aegyptium*, *Hyalomma egypticum*, *Hyalomma egyptium*

2. *Hyalomma albiparmatum* Schulze, 1920

Synonyms: *Hyalomma aegyptium albiparmatum*, *Hyalomma albiparmata*, *Hyalomma brunneiparmatum*, *Hyalomma impressum brunneiparmatum*, *Hyalomma planum albiparmatum*

3. *Hyalomma anatolicum* Koch, 1844a

Synonyms: *Hyalomma aegyptium aegyptium brunnipes*, *Hyalomma aegyptium excavata*, *Hyalomma aegyptium excavatum*, *Hyalomma aegyptium mesopotamium*, *Hyalomma aegyptium ornatipes*, *Hyalomma anatolicum anatolicum*, *Hyalomma armeniorum*, *Hyalomma depressum*, *Hyalomma detritum albipictum ornatipes*, *Hyalomma lusitanicum depressum*, *Hyalomma marginatum balcanicum brunnipes*, *Hyalomma marginatum marginatum brunnipes*, *Hyalomma mesopotamium*, *Hyalomma pavlovskyi* Schulze and Schlottke, 1929a, *Hyalomma pusillum*, *Hyalomma pusillum alexandrinum*, *Hyalomma pusillum ornatipes*, *Hyalomma pusillum pusillum*, *Hyalomma savignyi armeniorum*, *Hyalomma savignyi exsul*, *Hyalomma savignyi mesopotamium*, *Hyalomma savignyi pusillum*

Lapsus: *Hyalomma anatolicum*, *Hyalomma anatolicum*, *Rhipicephalus anatolicum*

Lapsus for synonyms: *Amblyomma depressum* for *Hyalomma depressum*, *Haemaphysalis anatolicum anatolicum*, *Hyalomma anatolicum anatolicum*, *Hyalomma anatolicum anatolicum*, *Hyalomma anatolicum anatolicum*, *Hyalomma anatolicum anaatolicum* and *Hyalomma antolicum antolicum* for *Hyalomma anatolicum anatolicum*, *Hyalomma marginatum balcanicum brunnipes* for *Hyalomma marginatum balcanicum brunnipes*, *Hyalomma marginatum exsul* for *Hyalomma savignyi exsul*

4. *Hyalomma arabica* Pegram, Hoogstraal and Wassef, 1982

5. *Hyalomma asiaticum* Schulze and Schlottke, 1929a

Synonyms: *Hyalomma amurense*, *Hyalomma anatolicum asiaticum*, *Hyalomma asiaticum asiaticum*, *Hyalomma asiaticum caucasicum* Pomerantzev, 1940, *Hyalomma asiaticum citripes*, *Hyalomma asiaticum kozlovi*, *Hyalomma dromedarii asiaticum*, *Hyalomma dromedarii citripes*, *Hyalomma kozlovi*, *Hyalomma tunesiacum amurense*

Lapsus: *Haemaphysalis asiaticum*, *Hyalomma asciatum*

Lapsus for synonyms: *Hyalomma ascaticumi asciaticum* and *Hyalomma ascatum asciaticum* for *Hyalomma asiaticum asiaticum*, *Hyalomma asiaticum kolzovi* and *Hyalomma asiaticum koslovi* for *Hyalomma asiaticum kozlovi*

6. *Hyalomma brevipunctatum* Sharif, 1928

Synonyms: *Hyalomma brevipunctata*, *Hyalomma hussaini brevipunctata*

Lapsus for a synonym: *Hyalomma brevipunctata* for *Hyalomma brevipunctata*

7. *Hyalomma dromedarii* Koch, 1844a
Synonyms: *Hyalomma aegyptium margaropoides*, *Hyalomma delpyi*, *Hyalomma dromedarii canariense*, *Hyalomma dromedarii dromedarii*, *Hyalomma yakimovi*, *Hyalomma yakimovi persiacum*, *Ixodes arenicola*, *Ixodes camelinus*
Lapsus: *Hyalomma dromadarii*, *Hyalomma dromaderii*, *Hyalomma dromdareii*, *Hyalomma dromedarri*, *Hyalomma dromedaii*, *Hyalomma dromedanii*, *Hyalomma dromedarri*, *Hyalomma dromedary*, *Hyalomma dromederii*, *Hyalomma dromedrii*, *Hyalomma dromerdarii*, *Hyalomma sdromedarii*
8. *Hyalomma excavatum* Koch, 1844a
Synonyms: *Hyalomma aegyptium typica* Schulze, 1920, *Hyalomma anatolicum excavatum*, *Hyalomma anatolicum zavattarii*, *Hyalomma detritum pavlovskiyi* Schulze and Schlottke, 1929a, *Hyalomma syriacum typica* Schulze, 1920, *Hyalomma tunesiacum*, *Hyalomma tunesiacum ganorai*, *Hyalomma tunesianicum pavlovskiyi* Schulze and Schlottke, 1929a, *Hyalomma tunesianicum tunesianicum*, *Hyalomma tunesianicum turkmeniense*, *Hyalomma turkmeniense*
Lapsus: *Hyalomma escavatum*, *Hyalomma exavatum*, *Hyalomma excowatum*
Lapsus for synonyms: *Haemaphysalis anatolicum excevatum*, *Hyalomma anatolicum escavatum*, *Hyalomma anatolicum excavacum* and *Hyalomma anatolieum excavatum* for *Hyalomma anatolicum excavatum*, *Hyalomma turkestanica* for *Hyalomma turkmeniense*
9. *Hyalomma franchinii* Tonelli Rondelli, 1932b
Synonym: *Hyalomma tunesiacum franchinii*
10. *Hyalomma glabrum* Delpy, 1949a
Synonym: *Hyalomma rufipes glabrum*
11. *Hyalomma hussaini* Sharif, 1928
Synonym: *Hyalomma hussaini typica* Sharif, 1928
12. *Hyalomma hystricis* Dhanda and Raja, 1974
13. *Hyalomma impeltatum* Schulze and Schlottke, 1929a
Synonyms: *Hyalomma brumpti* Delpy, 1946, *Hyalomma dromedarii leptosoma*, *Hyalomma erythraeum*, *Hyalomma fezzanensis*, *Hyalomma impeltatum impeltatum*, *Hyalomma leptosoma*, *Hyalomma savignyi impeltatum*, *Hyalomma sinaii*
Lapsus: *Hyalomma impelatium*, *Hyalomma implatum*
Lapsus for a synonym: *Hyalomma erythraeum* and *Hyalomma erythreum* for *Hyalomma erythraeum*
14. *Hyalomma impressum* Koch, 1844a
Synonyms: *Hyalomma aegyptium impressum*, *Hyalomma aegyptium impressum typica* Schulze, 1920, *Hyalomma dromedarii impressa* Koch, 1844a, *Hyalomma dromedarii impressum*, *Hyalomma impressum impressum*, *Hyalomma savignyi intermedia* Rousselot, 1946
15. *Hyalomma isaaci* Sharif, 1928
Synonyms: *Hyalomma aegyptium isaaci*, *Hyalomma dromedarii indosinensis*, *Hyalomma marginatum isaaci*, *Hyalomma sharifi isaaci*
16. *Hyalomma kumari* Sharif, 1928
17. *Hyalomma lusitanicum* Koch, 1844a
Synonyms: *Hyalomma aegyptium lusitanicum*, *Hyalomma excavatum lusitanicum*, *Hyalomma iberum*, *Hyalomma lusitanicum berberum*, *Hyalomma lusitanicum cicatricosum*, *Hyalomma lusitanicum lusitanicum*, *Hyalomma savignyi iberum*
Lapsus: *Amblyomma lusitanicum*, *Hyalomma lustanicum*, *Rhipicephalus lusitanicum*
18. *Hyalomma marginatum* Koch, 1844a
Synonyms: *Hyalomma aegyptium marginatum*, *Hyalomma cypriacum*, *Hyalomma dentatum*, *Hyalomma marginatum bacuense*, *Hyalomma marginatum balcanicum* Schulze and Schlottke, 1929a, *Hyalomma marginatum brionicum*, *Hyalomma marginatum caspium*, *Hyalomma marginatum espanoli*, *Hyalomma marginatum hispanum* (Fabricius, 1787), *Hyalomma marginatum marginatum*, *Hyalomma marginatum olenevi*, *Hyalomma plumbeum nigricum*, *Hyalomma rufipes glabratum*, *Hyalomma steineri codinai*, *Hyalomma transcaucasicum*
Lapsus: *Haemaphysalis marginatus* (Koch, 1844a)
Lapsus for synonyms: *Hyalomma marginatom marginatom* for *Hyalomma marginatum marginatum*, *Hyalomma marginatum balkanicum* for *Hyalomma marginatum balcanicum* Schulze and Schlottke, 1929a, *Hyalomma rufipes glabrata* for *Hyalomma rufipes glabratum*
19. *Hyalomma nitidum* Schulze, 1920
Synonym: *Hyalomma impressum nitidum* Schulze, 1920
20. *Hyalomma punt* Hoogstraal, Kaiser and Pedersen, 1969
21. *Hyalomma rhipicephaloides* Neumann, 1901
Synonym: *Rhipicephalus rhipicephaloides*
Lapsus: *Hyalomma rhipicephaliodes*
22. *Hyalomma rufipes* Koch, 1844a
Synonyms: *Hyalomma aegyptium impressum rufipes* Koch, 1844a, *Hyalomma aequipunctatum*, *Hyalomma impressum rufipes* Koch, 1844a, *Hyalomma marginatum impressum*, *Hyalomma marginatum rufipes* Koch, 1844a, *Hyalomma plumbeum impressum*, *Hyalomma rufipes rufipes* Koch, 1844a, *Hyalomma savignyi impressa* Rousselot, 1946
Lapsus: *Amblyomma rufipes* (Koch, 1844a), *Hyalomma fufipes*, *Hyalomma refipus*, *Hyalomma rifipes*, *Hyalomma*

rufitipes, *Hyalomma rupifex*

Lapsus for a synonym: *Hyalomma marginatum rupifex* for *Hyalomma marginatum rufipes* Koch, 1844a

23. *Hyalomma schulzei* Olenev, 1931b

Lapsus: *Hyalomma schultzei*

24. *Hyalomma scupense* Schulze, 1919

Synonyms: *Hyalomma aegyptium ferozedini*, *Hyalomma dardanicum*, *Hyalomma detritum*, *Hyalomma detritum albipictum*, *Hyalomma detritum annulatum*, *Hyalomma detritum damascenium*, *Hyalomma detritum dardanicum*, *Hyalomma detritum detritum*, *Hyalomma detritum mauritanicum*, *Hyalomma detritum perstrigatum*, *Hyalomma detritum rubrum*, *Hyalomma detritum scupense*, *Hyalomma mauritanicum*, *Hyalomma mauritanicum annulatum*, *Hyalomma scupense detritum*, *Hyalomma scupense scupense*, *Hyalomma sharifi* Schulze and Schlottke, 1929a, *Hyalomma steineri*, *Hyalomma steineri enigkianum*, *Hyalomma steineri steineri*, *Hyalomma uralense*, *Hyalomma verae*, *Hyalomma volgense*

Lapsus for synonyms: *Haemaphysalis detritum* for *Hyalomma detritum*, *Hyalomma dardanicum* for *Hyalomma dardanicum*, *Hyalomma detritum*, *Hyalomma detericum* and *Hyalomma deteritum* for *Hyalomma detritum*, *Hyalomma scharifi* for *Hyalomma sharifi* Schulze and Schlottke, 1929a, *Hyalomma valgense* for *Hyalomma volgense*

25. *Hyalomma somalicum* Tonelli Rondelli, 1935

Synonym: *Hyalomma impeltatum somalicum*

26. *Hyalomma truncatum* Koch, 1844a

Synonyms: *Hyalomma aegyptium impressum transiens*, *Hyalomma impressum luteipes*, *Hyalomma impressum planum*, *Hyalomma impressum planum rhinocerotis* Schulze and Schlottke, 1929a, *Hyalomma impressum transiens*, *Hyalomma lewisi* Schulze, 1936e, *Hyalomma planum*, *Hyalomma planum rhinocerotis* Schulze and Schlottke, 1929a, *Hyalomma rhinocerotis* Schulze and Schlottke, 1929a, *Hyalomma savignyi typica* Rousselot, 1946, *Hyalomma transiens*, *Hyalomma zambesianum*, *Hyalommima lewisi* (Schulze, 1936e)

Lapsus: *Hyalomma truncutum*, *Hyalomma truncatum*, *Hyalomma truncutum*, *Hyalomma truncutum*

27. *Hyalomma turanicum* Pomerantzev, 1946

Synonyms: *Hyalomma marginatum turanicum*, *Hyalomma plumbeum turanicum*

Lapsus for a synonym: *Hyalomma marginatum toranicum* for *Hyalomma marginatum turanicum*

1. *Ixodes abrocomae* Lahille, 1916

Lapsus: *Ixodes abrocoma*

2. *Ixodes acuminatus* Neumann, 1901

Synonyms: *Ixodes dorriensmithi*, *Ixodes guernseyensis*

Lapsus for a synonym: *Ixodes gerneyensis*

3. *Ixodes acutitarsus* (Karsch, 1880)

Synonyms: *Eschatocephalus acutitarsus*, *Haemalastor acutitarsus*, *Ixodes gigas*, *Ixodes laevis*

Lapsus: *Ixodes actitarsus*, *Ixodes acutitarsis*, *Ixodes acutitarsus*

4. *Ixodes affinis* Neumann, 1899

5. *Ixodes albignaci* Uilenberg and Hoogstraal, 1969a

6. *Ixodes alluaudi* Neumann, 1913c

7. *Ixodes amarali* Fonseca, 1935b

Lapsus: *Ixodes amaralli*

8. *Ixodes amersoni* Kohls, 1966

Synonym: *Scaphixodes amersoni*

9. *Ixodes anatis* Chilton, 1904

10. *Ixodes andinus* Kohls, 1956a

Lapsus: *Ixodes andicus*

11. *Ixodes angustus* Neumann, 1899

Synonym: *Pholeoixodes angustus*

Lapsus: *Ixodes anqustus*, *Ixodes augustus*

12. *Ixodes antechini* Roberts, 1960

13. *Ixodes apronophorus* Schulze, 1924

Synonyms: *Ixodes arvicolae*, *Ixodes arvicolae danicae*

Lapsus: *Ixodes apranophorus*, *Ixodes apronophoros*

Lapsus for a synonym: *Ixodes arvalis* for *Ixodes arvicolae*

14. *Ixodes arabukiensis* Arthur, 1959b

Lapsus: *Ixodes arabukeiensis*

15. *Ixodes aragaoi* Fonseca, 1935a

Synonym: *Ixodes ricinus aragaoi*

16. *Ixodes arboricola* Schulze and Schlottke, 1929b

Synonyms: *Eschatocephalus dryadis*, *Ixodes arboricola arboricola*, *Ixodes arboricola bogatschevi*, *Ixodes arboricola domesticus*, *Ixodes arboricola muscicapae*, *Ixodes dryadis*, *Ixodes lagodechiensis*, *Ixodes passericola*, *Ixodes strigicola*, *Pholeoixodes arboricola*

- Lapsus:** *Ixodes arbovicola*
- Lapsus for synonyms:** *Ixodes arboricola bogatschewi* for *Ixodes arboricola bogatschewi*, *Ixodes dryalis* for *Ixodes dryadis*
17. *Ixodes arebiensis* Arthur, 1956c
18. *Ixodes asanumai* Kitaoka, 1973
Lapsus: *Ixodes assanumai*
19. *Ixodes aulacodi* Arthur, 1956c
20. *Ixodes auriculaelongae* Arthur, 1958c
Lapsus: *Ixodes auriculongae*
21. *Ixodes auritulus* Neumann, 1904
Synonyms: *Ixodes auritulus auritulus*, *Ixodes auritulus zealandicus* Dumbleton, 1961, *Ixodes thoracicus* Neumann, 1899, *Scaphixodes auritulus*
Lapsus for a synonym: *Ixodes auritulus zealandicus* and *Ixodes auritulus zelandicus* for *Ixodes auritulus zealandicus* Dumbleton, 1961
22. *Ixodes australiensis* Neumann, 1904
23. *Ixodes baergi* Cooley and Kohls, 1942b
Synonym: *Pholeoixodes baergi*
24. *Ixodes bakeri* Arthur and Clifford, 1961
25. *Ixodes banksi* Bishopp, 1911
Synonym: *Pholeoixodes banksi*
Lapsus: *Ixodes banksi*
26. *Ixodes bedfordi* Arthur, 1959b
27. *Ixodes bequaerti* Cooley and Kohls, 1945
28. *Ixodes berlesei* Birula, 1895
Synonyms: *Cardioshesis berlesei*, *Scaphixodes berlesei*
29. *Ixodes bivari* Santos Dias, 1990
30. *Ixodes boliviensis* Neumann, 1904
Synonym: *Ixodes bicornis* Neumann, 1906
31. *Ixodes brewsterae* Keirans, Clifford and Walker, 1982
32. *Ixodes browningi* Arthur, 1956c
33. *Ixodes brumpti* Morel, 1965b
34. *Ixodes brunneus* Koch, 1844a
Synonyms: *Ixodes californicus*, *Ixodes frontalis brunneus*, *Ixodes kellogi*, *Ixodes ricinus californicus*, *Scaphixodes brunneus*
35. *Ixodes calcarhebes* Arthur and Zulu, 1980
36. *Ixodes caledonicus* Nuttall, 1910
Synonyms: *Ixodes caledonicus sculpturatus*, *Ixodes gussevi*, *Ixodes sculpturatus*, *Scaphixodes caledonicus*
Lapsus for a synonym: *Ixodes caledonicus sculpturatus* for *Ixodes caledonicus sculpturatus*
37. *Ixodes canisuga* Johnston, 1849
Synonyms: *Ixodes autumnalis vulpis*, *Ixodes barbarossae*, *Ixodes hexagonus inchoatus*, *Ixodes inermis* Neumann, 1901, *Ixodes latirostris*, *Ixodes mammulatus*, *Ixodes melicola*, *Ixodes sciuricola*, *Ixodes vulpicola*, *Ixodes vulpinus*, *Ixodes vulpis*, *Pholeoixodes canisuga*
Lapsus: *Ixodes canisagu*
Lapsus for synonyms: *Ixodes barbossae* for *Ixodes barbarossae*, *Ixodes hexagonus inchoastus* for *Ixodes hexagonus inchoatus*
38. *Ixodes capromydis* Černý, 1966
39. *Ixodes catherinei* Keirans, Clifford and Walker, 1982
40. *Ixodes cavipalpus* Nuttall and Warburton, 1908
Synonym: *Ixodes rubicundus limbatus* Neumann, 1908b
41. *Ixodes ceylonensis* Kohls, 1950a
Lapsus: *Ixodes ceylenensis*, *Ixodes ceylonicus*
42. *Ixodes chilensis* Kohls, 1956a
Synonym: *Pholeoixodes chilensis*
43. *Ixodes colasbelcouri* Arthur, 1957b
44. *Ixodes collocaliae* Schulze, 1937a
Synonyms: *Scaphixodes collocaliae*, *Xiphixodes collocaliae*
Lapsus: *Ixodes collocoliae*
45. *Ixodes columnae* Takada and Fujita, 1992
46. *Ixodes conepati* Cooley and Kohls, 1943
Synonym: *Pholeoixodes conepati*
47. *Ixodes confusus* Roberts, 1960

- Lapsus: Ixodes confuses*
48. *Ixodes cookei* Packard, 1869
Synonyms: *Ixodes cruciarius*, *Ixodes hexagonus cookei*, *Ixodes hexagonus longispinosus*, *Pholeoixodes cookei*
Lapsus: Ixodes cokei, *Ixodes cookie*
Lapsus for a synonym: Ixodes angustus cookei and *Ixodes hexagonus coolei* for *Ixodes hexagonus cookei*
49. *Ixodes cooleyi* Aragão and Fonseca, 1951b
50. *Ixodes copei* Wilson, 1980
Synonym: *Scaphixodes copei*
51. *Ixodes cordifer* Neumann, 1908d
Synonyms: *Ixodes cordifer bibax*, *Sternalixodes cordifer*, *Sternalixodes cordifer bibax*
52. *Ixodes cornuae* Arthur, 1960b
Synonym: *Scaphixodes cornuae*
53. *Ixodes cornuatus* Roberts, 1960
Synonym: *Ixodes robertsi*
Lapsus: Ixodes cornatus
54. *Ixodes cornutus* Lotozky, 1956a
55. *Ixodes corwini* Keirans, Clifford and Walker, 1982
56. *Ixodes crenulatus* Koch, 1844b
Synonyms: *Ixodes crenulatus terecus*, *Ixodes lividus crenulatus*, *Pholeoixodes crenulatus*
57. *Ixodes cuernavacensis* Kohls and Clifford, 1966
58. *Ixodes cumulatimpunctatus* Schulze, 1943a
Synonyms: *Ixodes pseudorasus*, *Ixodes rasmus cumulatimpunctatus*
59. *Ixodes dampfi* Cooley, 1943
Synonym: *Pholeoixodes dampfi*
60. *Ixodes daveyi* Nuttall, 1913
Synonym: *Scaphixodes daveyi*
61. *Ixodes dawesi* Arthur, 1956c
Lapsus: Ixodes davesi
62. *Ixodes dendrolagi* Wilson, 1967
63. *Ixodes dentatus* Marx, 1899
Lapsus: Ixodes dnetatus
64. *Ixodes dicei* Keirans and Ajohda, 2003
65. *Ixodes diomedae* Arthur, 1958d
Synonym: *Scaphixodes diomedae*
66. *Ixodes diversifossus* Neumann, 1899
67. *Ixodes djaronensis* Neumann, 1907f
Synonym: *Ixodes ugandanus djaronensis*
68. *Ixodes domerguei* Uilenberg and Hoogstraal, 1965
Synonyms: *Ixodes domergui*, *Scaphixodes domerguei*
69. *Ixodes downsi* Kohls, 1957a
Synonym: *Scaphixodes downsi*
70. *Ixodes drakensbergensis* Clifford, Theiler and Baker, 1975
Lapsus: Ixodes dkensbergensis, *Ixodes drankensbergensis*
71. *Ixodes eadsi* Kohls and Clifford, 1964
72. *Ixodes eastoni* Keirans and Clifford, 1983
Synonym: *Pholeoixodes eastoni*
73. *Ixodes eichhorni* Nuttall, 1916
Synonyms: *Ixodes mindanensis*, *Scaphixodes eichhorni*
Lapsus: Ixodes eichorni
74. *Ixodes eldaricus* Dzhaparidze, 1950
Synonym: *Ixodes tatei*
75. *Ixodes elongatus* Bedford, 1929
76. *Ixodes eudyptidis* Maskell, 1885
Synonyms: *Ixodes eudyptidis eudyptidis*, *Ixodes intermedius* Neumann, 1899, *Ixodes neumanni* Nuttall and Warburton, 1911, *Ixodes praecoxalis*, *Scaphixodes eudyptidis*
77. *Ixodes euplecti* Arthur, 1958c
Synonym: *Scaphixodes euplecti*
78. *Ixodes evansi* Arthur, 1956c
79. *Ixodes fecialis* Warburton and Nuttall, 1909
Synonym: *Ixodes fecialis aegrifossus*
80. *Ixodes festai* Tonelli Rondelli, 1926b

- Lapsus: Ixodes festae*
81. *Ixodes filippovae* Černý, 1961
Synonyms: *Ixodes danyi*, *Ixodes vulpis hungaricus* Babos 1964a, *Pholeoixodes filippovae*
82. *Ixodes fossulatus* Neumann, 1899
83. *Ixodes frontalis* (Panzer, 1798)
Synonyms: *Acarus frontalis*, *Euixodes frontalis*, *Ixodes apronatus*, *Ixodes avisugus*, *Ixodes frontalis frontalis*, *Ixodes pari*, *Ixodes sigalasi*, *Scaphixodes frontalis*
Lapsus for synonyms: *Ixodes avisuga* for *Ixodes avisugus*, *Ixodes segalasi* for *Ixodes sigalasi*
84. *Ixodes fuscipes* Koch, 1844a
Synonyms: *Haemalastor fuscipes*, *Ixodes spinosus*
Lapsus: *Ixodes fucipes*
85. *Ixodes fynbosensis* Apanaskevich, Horak, Matthee and Matthee, 2010
86. *Ixodes galapagoensis* Clifford and Hoogstraal, 1980
Lapsus: *Ixodes galapagoensi*
87. *Ixodes ghilarovi* Filippova and Panova, 1988
88. *Ixodes gibbosus* Nuttall, 1916
Synonyms: *Ixodes candavius*, *Ixodes hexagonus dardanicus*, *Ixodes ricinus atypicus*, *Ixodes ricinus gibbosus*
Lapsus for a synonym: *Ixodes gibbosus ricinus* for *Ixodes ricinus gibbosus*
89. *Ixodes granulatus* Supino, 1897
Synonym: *Ixodes kempi*
Lapsus: *Ixodes glamulatus*
90. *Ixodes gregsoni* Lindquist, Wu and Redner, 1999
91. *Ixodes guatemalensis* Kohls, 1956a
Lapsus: *Ixodes guatamalensis*
92. *Ixodes hearlei* Gregson, 1941
Synonym: *Pholeoixodes hearlei*
93. *Ixodes heinrichi* Arthur, 1962a
94. *Ixodes hexagonus* Leach, 1815
Synonyms: *Euixodes hexagonus*, *Ixodes autumnalis* Leach, 1815, *Ixodes erinacei* Audouin 1832, *Ixodes hexagonus hexagonus*, *Ixodes hexagonus hungaricus* Babos 1964a, *Ixodes hexagonus pacata*, *Ixodes hexagonus rarus*, *Ixodes sexpunctatus*, *Pholeoixodes hexagonus*
Lapsus: *Ixodes exagonus*, *Ixodes hegxa*, *Ixodes hexaporus*, *Ixodes hexoganus*
Lapsus for a synonym: *Ixodes erinaces* and *Ixodes erinaceus* for *Ixodes erinacei* Audouin 1832
95. *Ixodes himalayensis* Dhanda and Kulkarni, 1969
Lapsus: *Ixodes hymalayensis*
96. *Ixodes hirsti* Hassall, 1931
Synonym: *Ixodes victoriensis* Hirst 1930
97. *Ixodes holocyclus* Neumann, 1899
Synonyms: *Ixodes rossianus* Schulze, 1935b, *Sternalixodes holocyclus*
Lapsus: *Ixodes holocyclous*, *Ixodes holocystus*
98. *Ixodes hoogstraali* Arthur, 1955c
99. *Ixodes howelli* Cooley and Kohls, 1938a
Synonym: *Scaphixodes howelli*
100. *Ixodes hyatti* Clifford, Hoogstraal and Kohls, 1971
Synonym: *Ixodes ochotonarius*
Lapsus for synonym: *Ixodes ochatonarius*
101. *Ixodes hydromyidis* Swan, 1931
102. *Ixodes jacksoni* Hoogstraal, 1967
Synonym: *Ceratixodes jacksoni*
103. *Ixodes jellisoni* Cooley and Kohls, 1938a
104. *Ixodes jonesae* Kohls, Sonenshine and Clifford, 1969
Lapsus: *Ixodes jonesei*
105. *Ixodes kaiseri* Arthur, 1957c
Synonyms: *Ixodes bakonyensis*, *Pholeoixodes kaiseri*
Lapsus for a synonym: *Ixodes bekonyensis* for *Ixodes bakonyensis*
106. *Ixodes kashmiricus* Pomerantzev, 1948
Synonym: *Ixodes persulcatus kashmiricus*
Lapsus: *Ixodes kaschmericus*, *Ixodes kaschmiricus*, *Ixodes kashimiricus*, *Ixodes kashmirius*
Lapsus for synonym: *Ixodes persulcatus kaschmiricus* for *Ixodes persulcatus kashmiricus*
107. *Ixodes kazakstani* Olenov and Sorokoumov, 1934
Lapsus: *Ixodes kasakstani*

108. *Ixodes kerguelenensis* André and Colas-Belcour, 1942
Synonyms: *Ixodes canisuga kerguelenensis*, *Ixodes pterodromae*, *Ixodes zumpti* Arthur, 1960b, *Scaphixodes kerguelenensis*
Lapsus: *Ixodes kerguelensis*
Lapsus for synonyms: *Ixodes canisuga kerguelensis* for *Ixodes canisuga kerguelenensis*, *Ixodes pterodroma* for *Ixodes pterodromae*
109. *Ixodes kingi* Bishopp, 1911
Synonym: *Pholeoixodes kingi*
Lapsus: *Ixodes kingri*
110. *Ixodes kohlsi* Arthur, 1955b
Synonym: *Scaphixodes kohlsi* (Arthur, 1955b)
111. *Ixodes kopsteini* (Oudemans, 1926)
Synonyms: *Eschatocephalus kopsteini*, *Ixodes paradoxus*, *Lepidixodes kopsteini*
Lapsus: *Eschatocephalus ropsteini*
112. *Ixodes kuntzi* Hoogstraal and Kohls, 1965a
113. *Ixodes laguri* Olenev, 1929b
Synonyms: *Ixodes laguri armeniacus* Pomerantzev and Kirschenblatt, 1946, *Ixodes laguri colchicus*, *Ixodes laguri laguri*, *Ixodes laguri slovacicus*, *Ixodes redikorzevi lagurae*, *Ixodes redikorzevi laguri*
Lapsus: *Ixodes luguri*
Lapsus for synonyms: *Ixodes armenicus*, *Ixodes laguri americanus* and *Ixodes laguri armenicus* for *Ixodes laguri armeniacus* Pomerantzev and Kirschenblatt, 1946, *Ixodes laguri colchius* for *Ixodes laguri colchicus*, *Ixodes redukorzevi lagurae* for *Ixodes redikorzevi lagurae*
114. *Ixodes lasallei* Méndez Arocha and Ortiz, 1958
115. *Ixodes latus* Arthur, 1958c
116. *Ixodes laysanensis* Wilson, 1964
Synonym: *Scaphixodes laysanensis*
117. *Ixodes lemuris* Arthur, 1958b
118. *Ixodes lewisi* Arthur, 1965
119. *Ixodes lividus* Koch, 1844a
Synonyms: *Ixodes hirundinicola*, *Ixodes lividus bavaricus*, *Ixodes lividus obotriticus*, *Ixodes obotriticus bavaricus*, *Ixodes plumbeus* Leach, 1815, *Ixodes plumbeus bavaricus*, *Ixodes plumbeus obotriticus*, *Ixodes plumbeus plumbeus* Leach, 1815, *Pholeoixodes lividus* (Koch, 1844a)
Lapsus for a synonym: *Ixodes plumbeus obturatorius* for *Ixodes plumbeus obotriticus*
120. *Ixodes longiscutatus* Boero, 1944
Synonyms: *Ixodes longiscutatum*, *Ixodes uruguayensis*
121. *Ixodes loricatus* Neumann, 1899
Synonyms: *Ixodes coxaeufurcatus*, *Ixodes didelphidis* Fonseca and Aragão, 1952a
Lapsus for a synonym: *Ixodes didephidis* for *Ixodes didelphidis* Fonseca and Aragão, 1952a
122. *Ixodes loveridgei* Arthur, 1958c
Lapsus: *Ixodes loveridgi*
123. *Ixodes luciae* Sénevet, 1940
Synonyms: *Ixodes loricatus spinosus*, *Ixodes loricatus vogelsangi*, *Ixodes scuticrenatus*, *Ixodes vogelsangi*
124. *Ixodes lunatus* Neumann, 1907d
Lapsus: *Ixodes lunulatus*
125. *Ixodes luxuriosus* Schulze, 1935b
126. *Ixodes macfarlanei* Keirans, Clifford and Walker, 1982
127. *Ixodes malayensis* Kohls, 1962
128. *Ixodes marmotae* Cooley and Kohls, 1938b
Synonym: *Pholeoixodes marmotae*
129. *Ixodes marxi* Banks, 1908
Synonyms: *Ixodes hexagonus inchoatus*, *Ixodes inchoatus*, *Pholeoixodes marxi*
Lapsus: *Ixodes marii*
Lapsus for a synonym: *Ixodes hexagonus inchoastus* for *Ixodes hexagonus inchoatus*
130. *Ixodes maslovi* Emel'yanova and Kozlovskaya, 1967a
131. *Ixodes matopi* Spickett, Keirans, Norval and Clifford, 1981
132. *Ixodes mexicanus* Cooley and Kohls, 1942c
133. *Ixodes minor* Neumann, 1902
Synonym: *Ixodes bishoppi*
134. *Ixodes minutae* Arthur, 1959b
135. *Ixodes mitchelli* Kohls, Clifford and Hoogstraal, 1970
Synonym: *Scaphixodes mitchelli*

136. *Ixodes monospinosus* Saito, 1968
Lapsus: *Ixodes monospinus*
137. *Ixodes montoyanus* Cooley, 1944a
Lapsus: *Ixodes monotoyensis*
138. *Ixodes moreli* Arthur, 1957a
139. *Ixodes moscharius* Teng, 1982a
140. *Ixodes moschiferi* Nemenz, 1968
Synonym: *Ixodes rangtangensis*
141. *Ixodes muniensis* Arthur and Burrow, 1957
142. *Ixodes muris* Bishopp and Smith, 1937
143. *Ixodes murreleti* Cooley and Kohls, 1945
Synonym: *Scaphixodes murreleti*
144. *Ixodes myospalacis* Teng, 1986
Synonym: *Pholeoixodes myospalacis*
145. *Ixodes myotomys* Clifford and Hoogstraal, 1970
146. *Ixodes myrmecobii* Roberts, 1962b
147. *Ixodes nairobiensis* Nuttall, 1916
148. *Ixodes nchisiensis* Arthur, 1958c
149. *Ixodes nectomys* Kohls, 1956a
150. *Ixodes neitzi* Clifford, Walker and Keirans, 1977
Synonym: *Ixodes donarthuri*
151. *Ixodes nesomys* Uilenberg and Hoogstraal, 1969c
152. *Ixodes neuquenensis* Ringuelet, 1947
Lapsus: *Ixodes neuguenensis*, *Ixodes neuquensis*
153. *Ixodes nicolasi* Santos Dias, 1982
154. *Ixodes nipponensis* Kitaoka and Saito, 1967
155. *Ixodes nitens* Neumann, 1904
156. *Ixodes nuttalli* Lahille, 1913
157. *Ixodes nuttallianus* Schulze, 1930d
Synonyms: *Ixodes muntiacci*, *Ixodes ricinoides* Nuttall 1913
Lapsus: *Ixodes nuttallanus*
158. *Ixodes occultus* Pomerantzev, 1946
159. *Ixodes ochotonae* Gregson, 1941
Synonyms: *Ixodes holdenriedi*, *Pholeoixodes holdenriedi*, *Pholeoixodes ochotonae*
Lapsus for a synonym: *Ixodes holdendriedi* and *Ixodes holdenreidi* for *Ixodes holdenriedi*
160. *Ixodes okapiae* Arthur, 1956c
161. *Ixodes oldi* Nuttall, 1913
162. *Ixodes ornithorhynchi* Lucas, 1846
Synonym: *Coxixodes ornithorhynchi*
163. *Ixodes ovatus* Neumann, 1899
Synonyms: *Ixodes carinatus* Kishida, 1930, *Ixodes frequens*, *Ixodes japonensis* Neumann, 1904, *Ixodes lindbergi*, *Ixodes ricinus ovatus*, *Ixodes shinchikuensis*, *Ixodes taiwanensis*
Lapsus: *Ixodes oralus*, *Ixodes ovata*
Lapsus for synonyms: *Ixodes frequens* for *Ixodes frequens*, *Ixodes japoneusis* and *Ixodes juponeusis* for *Ixodes japonensis* Neumann, 1904, *Ixodes shinchikuensis* for *Ixodes shinchikuensis*
164. *Ixodes pacificus* Cooley and Kohls, 1943
Lapsus: *Ixodes pacifucus*, *Ixodes pasificus*
165. *Ixodes paranaensis* Barros-Battesti, Arzua, Pichorim and Keirans, 2003
Lapsus: *Ixodes paranensis*
166. *Ixodes pararicinus* Keirans and Clifford, 1985
167. *Ixodes pavlovskyi* Pomerantzev, 1946
Synonyms: *Ixodes pavlovskyi occidentalis* Filippova and Panova, 1998, *Ixodes pavlovskyi pavlovskyi* Pomerantzev, 1946
168. *Ixodes percavatus* Neumann, 1906
Synonym: *Scaphixodes percavatus*
169. *Ixodes peromysci* Auguston, 1940
170. *Ixodes persulcatus* Schulze, 1930d
Synonyms: *Ixodes persulcatus diversipalpis*, *Ixodes persulcatus persulcatus*
Lapsus: *Ixodes perculatus*, *Ixodes persulatus*, *Ixodes persulcutus*, *Ixodes persuleatus*
171. *Ixodes petauristae* Warburton, 1933
Synonyms: *Ixodes kerri*, *Ixodes pseudoholocyclus*
Lapsus for a synonym: *Ixodes esendoholocyclus* for *Ixodes pseudoholocyclus*

172. *Ixodes philipi* Keirans and Kohls, 1970
Synonym: *Scaphixodes philipi* (Keirans and Kohls, 1970)
173. *Ixodes pilosus* Koch, 1844a
Synonym: *Ixodes luteus*
Lapsus: *Ixodes pilosus*
174. *Ixodes pomerantzevi* Serdjukova, 1941
Synonym: *Pholeoixodes pomerantzevi* (Serdjukova, 1941)
Lapsus: *Ixodes pomeranzevi* Serdjukova, 1941
Lapsus for synonym: *Pholeoixodes pomeranzevi* Camicas, Hervy, Adam and Morel, 1998
175. *Ixodes pomerantzi* Kohls, 1956a
176. *Ixodes priscicollaris* Schulze, 1932c
Lapsus: *Ixodes priscicollis*, *Ixodes prisciocollaris*
177. *Ixodes procaviae* Arthur and Burrow, 1957
178. *Ixodes prokopjevi* (Emel'yanova, 1979)
Synonym: *Pholeoixodes prokopjevi*
179. *Ixodes radfordi* Kohls, 1948a
Lapsus: *Ixodes radfordi*
180. *Ixodes rageaui* Arthur, 1958b
181. *Ixodes randrianasoloi* Uilenberg and Hoogstraal, 1969b
Lapsus: *Ixodes randriansoloi*
182. *Ixodes rasmus* Neumann, 1899
Synonyms: *Ixodes eidmanni*, *Ixodes rasmus eidmanni*
183. *Ixodes redikorzevi* Olenov, 1927
Synonyms: *Ixodes diversicoxalis*, *Ixodes redikorzevi emberizae*, *Ixodes redikorzevi redikorzevi*, *Ixodes redikorzevi theodori*, *Ixodes theodori*, *Ixodes transcaucasicus*, *Ixodes transcaucasicus hystrix*
Lapsus: *Ixodes redicorzevi*, *Ixodes redikorzeui*, *Ixodes redikorzev*
Lapsus for a synonym: *Ixodes diverticoxalis* for *Ixodes diversicoxalis*
184. *Ixodes rhabdomysae* Arthur, 1959b
185. *Ixodes ricinus* (Linnaeus, 1758)
Synonyms: *Acarus caraborum*, *Acarus reduvius* Linnaeus, 1758, *Acarus ricinus*, *Crotonus ricinus*, *Cynorhaestes hermanni*, *Cynorhaestes megathyreus*, *Cynorhaestes reduvius* (Linnaeus, 1758), *Cynorhaestes ricinus*, *Euixodes reduvius* (Linnaeus, 1758), *Euixodes ricinus*, *Ixodes areolaris*, *Ixodes bipunctatus*, *Ixodes fodiens*, *Ixodes fouisseur*, *Ixodes fuscus* Koch, 1844b, *Ixodes lacertae*, *Ixodes megathyreus*, *Ixodes nigricans*, *Ixodes obscurus* Neumann 1899, *Ixodes pustularum*, *Ixodes reduvius* (Linnaeus, 1758), *Ixodes reticulatus* Koch 1856, *Ixodes ricinus onchorhyncha*, *Ixodes rufus*, *Ixodes sciuri* Koch, 1844c, *Ixodes sulcatus* Koch, 1844a, *Ixodes trabeatus*, *Ixodes vulgaris* Fabricius, 1805, *Phauloixodes rufus*, *Rhipicephalus rufus*
Lapsus: *Boophilus ricinus*, *Dermacentor ricinus*, *Ixodes racinus*, *Ixodes recinus*, *Ixodes resinus*, *Ixodes rincinus*, *Ixodes rinicus*, *Ixodes rinus*, *Ixodes vicinus* Cieniuch, Stańczak and Ruczaj, 2009, *Rhipicephalus ricinus*
Lapsus for synonyms: *Ixodes areololaris* for *Ixodes areolaris*, *Ixodes laceatae* for *Ixodes lacertae*
186. *Ixodes rothschildi* Nuttall and Warburton, 1911
Synonyms: *Ixodes percavatus rothschildi*, *Scaphixodes rothschildi*
Lapsus: *Ixodes rotschildi*
187. *Ixodes rotundatus* Arthur, 1958c
188. *Ixodes rubicundus* Neumann, 1904
Synonym: *Ixodes rubicundus rubicundus* Neumann, 1904
Lapsus: *Ixodes ribicundus*, *Ixodes rubicundicus*, *Ixodes rubicundis*
189. *Ixodes rubidus* Neumann, 1901
Synonym: *Pholeoixodes rubidus*
Lapsus: *Ixodes rubidis*
190. *Ixodes rugicollis* Schulze and Schlottke, 1929b
Synonym: *Pholeoixodes rugicollis*
191. *Ixodes rugosus* Bishopp, 1911
Synonyms: *Ixodes cookei rugosus*, *Pholeoixodes rugosus*
192. *Ixodes sachalinensis* Filippova, 1971
193. *Ixodes scapularis* Say, 1821
Synonyms: *Ixodes dammini*, *Ixodes fuscous* Say, 1821, *Ixodes fuscus* Say, 1821, *Ixodes ozarkus*, *Ixodes ricinus scapularis* Say, 1821, *Ixodes scapularis dammini*
Lapsus: *Ixodes escapularis*, *Ixodes sapularis*, *Ixodes scaphuralis*, *Ixodes scapuralis*
Lapsus for a synonym: *Ixodes damini* and *Ixodes daminii* for *Ixodes dammini*
194. *Ixodes schillingsi* Neumann, 1901
Lapsus: *Ixodes shillingsi*

195. *Ixodes schulzei* Aragão and Fonseca, 1951b
196. *Ixodes sculptus* Neumann, 1904
Synonyms: *Ixodes aequalis* Banks, 1910, *Pholeoixodes sculptus* (Neumann, 1904)
197. *Ixodes semenovi* Olenov, 1929b
Synonym: *Scaphixodes semenovi*
198. *Ixodes shahi* Clifford, Hoogstraal and Kohls, 1971
199. *Ixodes siamensis* Kitaoka and Suzuki, 1983
200. *Ixodes sigelos* Keirans, Clifford and Corwin, 1976
201. *Ixodes signatus* Birula, 1895
Synonyms: *Ceratixodes signatus*, *Ixodes arcticus*, *Ixodes eudyptidis signata*, *Ixodes eudyptidis signatus*, *Ixodes parvirostris*, *Scaphixodes signatus*
202. *Ixodes simplex* Neumann, 1906
Synonyms: *Eschatocephalus simplex* (Neumann, 1906), *Ixodes africanus* Arthur, 1956a, *Ixodes audyi*, *Ixodes chiropterorum*, *Ixodes pospelovae*, *Ixodes simplex africanus* Arthur, 1956a, *Ixodes simplex simplex* Neumann, 1906, *Ixodes spiculae*
Lapsus for a synonym: *Ixodes chiropterarum*, *Ixodes chiropteratum* and *Ixodes chiropterum* for *Ixodes chiropterorum*
203. *Ixodes sinaloa* Kohls and Clifford, 1966
204. *Ixodes sinensis* Teng, 1977
205. *Ixodes soricis* Gregson, 1942
Synonym: *Pholeoixodes soricis*
206. *Ixodes spinae* Arthur, 1958c
207. *Ixodes spinicoxalis* Neumann, 1899
Lapsus: *Ixodes spinacoxalis*
208. *Ixodes spinipalpis* Hawden and Nuttall, 1916
Synonyms: *Ixodes dentatus spinipalpis*, *Ixodes neotomae*
Lapsus: *Ixodes spinipalpus*
209. *Ixodes steini* Schulze, 1935b
210. *Ixodes stilesi* Neumann, 1911b
Synonym: *Ixodes elegans* Neumann 1910a
Lapsus: *Ixodes stilessi*
211. *Ixodes stromi* Filippova, 1957
Synonym: *Pholeoixodes stromi*
Lapsus: *Ixodes stomi*
212. *Ixodes subterraneus* Filippova, 1961
Synonym: *Pholeoixodes subterraneus*
Lapsus: *Ixodes subterraneus*
213. *Ixodes succineus* Weidner, 1964
214. *Ixodes taglei* Kohls, 1969a
215. *Ixodes tamaulipas* Kohls and Clifford, 1966
216. *Ixodes tancitaris* Cooley and Kohls, 1942c
217. *Ixodes tanuki* Saito, 1964
218. *Ixodes tapirus* Kohls, 1956a
219. *Ixodes tasmani* Neumann, 1899
Synonyms: *Endopalpiger tasmani*, *Ixodes tasmani tasmani*, *Ixodes tasmani victoriae*
Lapsus: *Ixodes tasmanicus*
Lapsus for a synonym: *Ixodes victoriae* for *Ixodes tasmani victoriae*
220. *Ixodes tecpanensis* Kohls, 1956a
221. *Ixodes texanus* Banks, 1909
Synonym: *Pholeoixodes texanus* (Banks, 1909)
222. *Ixodes theilerae* Arthur, 1953b
Synonyms: *Ixodes theileri* Arthur, 1953b, *Scaphixodes theilerae* (Arthur, 1953b)
223. *Ixodes thomasa* Arthur and Burrow, 1957
224. *Ixodes tiptoni* Kohls and Clifford, 1962, *Ixodes*
225. *Ixodes tovari* Cooley, 1945
226. *Ixodes transvaalensis* Clifford and Hoogstraal, 1966
227. *Ixodes trianguliceps* Birula, 1895
Synonyms: *Endopalpiger heroldi*, *Exopalpiger trianguliceps*, *Ixodes nivalis*, *Ixodes nivalis suecicus*, *Ixodes tenuirostris*
Lapsus: *Ixodes trianguliceps*, *Ixodes triangulatus* Pavlov, 1962, *Ixodes trianguliceps*, *Ixodes triangulipes*
Lapsus for synonyms: *Endopalpiger heraldi* for *Endopalpiger heroldi*, *Exopalpiger heroldi* for *Endopalpiger heroldi*
228. *Ixodes trichosuri* Roberts, 1960
229. *Ixodes tropicalis* Kohls, 1956a

230. *Ixodes turdus* Nakatsudi, 1942a
Synonym: *Scaphixodes turdus*
231. *Ixodes ugandanus* Neumann, 1906
Synonyms: *Ixodes ampullaceus*, *Ixodes mossambicensis*, *Ixodes ugandanus ugandanus*
Lapsus for a synonym: *Ixodes mossambicus* Theiler, 1962 for *Ixodes mossambicensis*
232. *Ixodes unicavatus* Neumann, 1908b
Synonyms: *Ixodes tauricus* Vshivkov and Filippova, 1957, *Scaphixodes unicavatus*
233. *Ixodes uriae* White, 1852
Synonyms: *Ceratixodes borealis*, *Ceratixodes puta*, *Ceratixodes putus*, *Ceratixodes putus procellariae*, *Ceratixodes uriae*, *Ceratixodes uriae procellariae*, *Hyalomma puta*, *Ixodes borealis*, *Ixodes fimbriatus*, *Ixodes hirsutus*, *Ixodes puta*, *Ixodes putus*, *Ixodes putus procellariae*
Lapsus: *Ixodes ureae*, *Ixodes uria*
234. *Ixodes vanidicus* Schulze, 1943a
235. *Ixodes venezuelensis* Kohls, 1953b
236. *Ixodes ventalloi* Gill Collado, 1936
Synonym: *Ixodes thompsoni*
Lapsus for synonym: *Ixodes thomsoni*
237. *Ixodes vespertilionis* Koch, 1844c
Synonyms: *Eschatocephalus exaratus*, *Eschatocephalus flavipes*, *Eschatocephalus frauenfeldi*, *Eschatocephalus gracilipes*, *Eschatocephalus nodulipes*, *Eschatocephalus seidlitzii*, *Eschatocephalus vespertilionis*, *Haemalastor exaratus*, *Haemalastor gracilipes*, *Haemalastor nodulipes*, *Haemalastor vespertilionis*, *Ixodes exaratus*, *Ixodes flavipes*, *Ixodes longipes* Lucas, 1872, *Ixodes nodulipes*, *Ixodes pagurus*, *Ixodes siculifer*, *Ixodes troglodytes*, *Peplonyssus pagurus*, *Sarconyssus exaratus*, *Sarconyssus flavidus* Kolenati, 1856, *Sarconyssus flavipes*, *Sarconyssus hispidulus*, *Sarconyssus kochi* Kolenati, 1856, *Sarconyssus nodulipes*
Lapsus: *Ixodes vespertilionis*, *Ixodes vespertillonis*, *Ixodes vespertlionis*
Lapsus for synonyms: *Sarconyssus exaratus* for *Sarconyssus exaratus*, *Ixodes flavipes* for *Ixodes flavipes*
238. *Ixodes vestitus* Neumann, 1908b
239. *Ixodes victoriensis* Nuttall, 1916
240. *Ixodes walkerae* Clifford, Kohls and Hoogstraal, 1968
241. *Ixodes werneri* Kohls, 1950b
Lapsus: *Ixodes werniri*
242. *Ixodes woodi* Bishopp, 1911
Synonyms: *Ixodes angustus woodi*, *Pholeoixodes woodi*
243. *Ixodes zaglossi* Kohls, 1960a
244. *Ixodes zairensis* Keirans, Clifford and Walker, 1982
1. *Margaropus reidi* Hoogstraal, 1956a
2. *Margaropus wileyi* Walker and Laurence, 1973
3. *Margaropus winthemi* Karsch, 1879a
Synonyms: *Boophilus winthemi*, *Margaropus lounsburyi* Neumann, 1907b, *Margaropus phthirioides*, *Rhipicephalus phthirioides*
Lapsus: *Margaropus wintemi*, *Margaropus withemi*
1. *Nosomma keralensis* Prakasan and Ramani, 2007
2. *Nosomma monstrosum* (Nuttall and Warburton, 1908)
Synonym: *Hyalomma monstrosum*
Lapsus: *Nosomma montrosum*, *Nosomma monstrusum*
1. *Rhipicentor bicornis* Nuttall and Warburton, 1908
Synonyms: *Rhipicentor gladiger*, *Rhipicephalus gladiger*
Lapsus: *Rhipicephalus bicornis* (Nuttall and Warburton, 1908)
2. *Rhipicentor nuttalli* Cooper and Robinson, 1908
Synonym: *Rhipicentor vicinus* Neumann 1908a
Lapsus: *Rhipicentor nuttali*
1. *Rhipicephalus annulatus* (Say, 1821)
Synonyms: *Boophilus annulatus*, *Boophilus annulatus affinis*, *Boophilus annulatus annulatus*, *Boophilus annulatus calcarata*, *Boophilus annulatus calcaratus*, *Boophilus bovis*, *Boophilus calcaratus*, *Boophilus calcaratus balcanicus*, *Boophilus calcaratus calcaratus*, *Boophilus calcaratus hispanicus*, *Boophilus calcaratus palestinensis*, *Boophilus calcaratus persicus* Minning, 1936, *Boophilus congolensis* Minning, 1934, *Boophilus decoloratus calcaratus*, *Boophilus intraoculatus*, *Boophilus margaropus annulatus*, *Boophilus occidentalis* (Minning, 1936), *Boophilus palestinensis*,

Boophilus persicus Minning, 1936, *Boophilus schulzei* Minning, 1934, *Haemaphysalis rosea*, *Ixodes annulatus*, *Ixodes bovis*, *Ixodes calcaratus*, *Ixodes dugesi* Mégnin 1880, *Ixodes indentatus*, *Margaropus annulatus*, *Margaropus annulatus annulatus*, *Margaropus annulatus calcarata*, *Margaropus annulatus calcaratus*, *Margaropus annulatus dugesi* (Mégnin, 1880), *Margaropus bovis*, *Margaropus calcaratus*, *Margaropus dugesi* (Mégnin, 1880), *Rhipicephalus annulatus calcarata*, *Rhipicephalus annulatus calcaratus*, *Rhipicephalus annulatus dugesi* (Mégnin, 1880), *Rhipicephalus bovis*, *Rhipicephalus calcaratus*, *Rhipicephalus decoloratus calcaratus*, *Rhipicephalus dugesi* (Mégnin, 1880), *Uroboophilus occidentalis* Minning, 1936

Lapsus: *Ornithodoros annulatus*, *Rhipicephalus annulatus*

Lapsus for synonyms: *Boophilus annalatus*, *Boophilus annualtus*, *Boophilus annulata* and *Boophilus annulatum* for *Boophilus annulatus*, *Boophilus calcaratus balanicus* for *Boophilus calcaratus balcanicus*, *Ixodes indentatus* for *Ixodes indentatus*, *Rhipicephalus rosea* for *Haemaphysalis rosea*

2. ***Rhipicephalus appendiculatus*** Neumann, 1901

Synonym: *Eurhipicephalus appendiculatus*

Lapsus: *Rhipicephalus appenciculatus*, *Rhipicephalus appendicalatus*, *Rhipicephalus appendicularius*, *Rhipicephalus appendiculatis*, *Rhipicephalus appendjculatus*, *Rhipicephalus appenidiculatus*

3. ***Rhipicephalus aquatilis*** Walker, Keirans and Pegram, 1993

4. ***Rhipicephalus armatus*** Pocock, 1900

5. ***Rhipicephalus arnoldi*** Theiler and Zumpt, 1950

6. ***Rhipicephalus aurantiacus*** Neumann, 1907d

Synonyms: *Rhipicephalus cuneatus*, *Rhipicephalus ziemanni aurantiacus*

7. ***Rhipicephalus australis*** Fuller, 1899

Synonyms (provisional): *Boophilus annulatus australis* (Fuller, 1899), *Boophilus annulatus caudatus*, *Boophilus annulatus microplus*, *Boophilus australis* (Fuller, 1899), *Boophilus microplus*, *Margaropus annulatus australis* (Fuller, 1899), *Margaropus annulatus caudatus*, *Margaropus annulatus microplus*, *Margaropus australis* (Fuller, 1899), *Rhipicephalus annulatus australis* (Fuller, 1899), *Rhipicephalus annulatus caudatus*, *Rhipicephalus annulatus microplus*, *Uroboophilus australis* (Fuller, 1899)

Lapsus: *Boophilus australia*, *Ixodes australis* (Fuller, 1899)

8. ***Rhipicephalus bequaerti*** Zumpt, 1950

9. ***Rhipicephalus bergeoni*** Morel and Balis, 1976

10. ***Rhipicephalus boueti*** Morel, 1957

11. ***Rhipicephalus bursa*** Canestrini and Fanzago, 1878

Synonyms: *Digineus bursa*, *Eurhipicephalus bursa*

Lapsus: *Rhipicephalus burea*

12. ***Rhipicephalus camicasi*** Morel, Mouchet and Rodhain, 1976

13. ***Rhipicephalus capensis*** Koch, 1844a

Synonyms: *Eurhipicephalus capensis* (Koch, 1844a), *Rhipicephalus capensis capensis* Koch, 1844a

Lapsus: *Rhipicephalus capencis*

14. ***Rhipicephalus carnivorales*** Walker, 1966

15. ***Rhipicephalus cliffordi*** Morel, 1965e

16. ***Rhipicephalus complanatus*** Neumann, 1911b

Synonyms: *Rhipicephalus planus* Neumann 1910a, *Rhipicephalus planus complanatus*

Lapsus: *Amblyomma complanatum* (Neumann, 1911b)

17. ***Rhipicephalus compositus*** Neumann, 1897

Synonyms: *Rhipicephalus ayrei*, *Rhipicephalus capensis composita*, *Rhipicephalus capensis compositus*

18. ***Rhipicephalus congolensis*** Apanaskevich, Horak and Mulumba-Mfumum, 2013

19. ***Rhipicephalus cuspidatus*** Neumann, 1906

Lapsus: *Rhipicephalus cuspidalis*

20. ***Rhipicephalus decoloratus*** Koch, 1844a

Synonyms: *Boophilus annulatus decoloratus*, *Boophilus capensis* Massey, 1908, *Boophilus decoloratus*, *Boophilus floriae*, *Boophilus scheepersi*, *Eurhipicephalus decoloratus*, *Margaropus annulatus decoloratus*, *Margaropus decoloratus*, *Palpoboophilus decoloratus*, *Rhipicephalus annulatus decoloratus*

Lapsus for a synonym: *Boophilus decloratus*, *Boophilus decloratus*, *Boophilus decolaratus*, *Boophilus docoloratus* for *Boophilus decoloratus*

21. ***Rhipicephalus deltoideus*** Neumann, 1910b

22. ***Rhipicephalus distinctus*** Bedford, 1932

Synonym: *Rhipicephalus punctatus* Bedford 1929

23. ***Rhipicephalus duttoni*** Neumann, 1907a

24. ***Rhipicephalus dux*** Dönitz, 1910b

Synonym: *Rhipicephalus schwetzi*

25. ***Rhipicephalus evertsi*** Neumann, 1897

Synonyms: *Eurhipicephalus evertsi*, *Rhipicephalus evertsi albigeniculatus*, *Rhipicephalus evertsi evertsi*, *Rhipicephalus*

- evertsi mimeticus*, *Rhipicephalus mimeticus*
Lapsus: *Rhipicephalus evertsi*, *Rhipicephalus everti*, *Rhipicephalus evetsi*
26. *Rhipicephalus exophthalmos* Keirans and Walker, 1993
Lapsus: *Rhipicephalus exophthalmos*, *Rhipicephalus exophthalmos*,
27. *Rhipicephalus follis* Dönitz, 1910a
Lapsus: *Rhipicephalus molis*
28. *Rhipicephalus fulvus* Neumann, 1913a
Synonym: *Pterygodes fulvus*
29. *Rhipicephalus geigy* (Aeschlimann and Morel, 1965)
Synonym: *Boophilus geigy*
Lapsus: *Rhipicephalus geiyi*
Lapsus for synonym: *Boophilus geigeyi*, *Boophilus geiyi*
30. *Rhipicephalus gertrudae* Feldman-Muhsam, 1960b
Lapsus: *Rhipicephalus gertrudae*
31. *Rhipicephalus glabroscutatus* Du Toit, 1941
Synonym: *Rhipicephalus glabroscutatum*
32. *Rhipicephalus guilhoni* Morel and Vassiliades, 1963
33. *Rhipicephalus haemaphysaloides* Supino, 1897
Synonyms: *Rhipicephalus expeditus*, *Rhipicephalus haemaphysaloides expedita*, *Rhipicephalus haemaphysaloides expeditus*, *Rhipicephalus haemaphysaloides haemaphysaloides*, *Rhipicephalus haemaphysaloides niger*, *Rhipicephalus haemaphysaloides ruber*, *Rhipicephalus ruber*
Lapsus: *Boophilus haemaphysaloides*, *Rhipicephalus haemaphysalides*, *Rhipicephalus haemaphysalis*, *Rhipicephalus haemaphysaloides*, *Rhipicephalus haemaphysaloides*
34. *Rhipicephalus humeralis* Tonelli Rondelli, 1926a
Synonym: *Rhipicephalus pulchellus humeralis*
35. *Rhipicephalus hurti* Wilson, 1954
36. *Rhipicephalus interventus* Walker, Pegram and Keirans, 1995
37. *Rhipicephalus jeanneli* Neumann, 1913c
Lapsus: *Rhipicephalus janneli*
38. *Rhipicephalus kochi* Dönitz, 1905
Synonym: *Rhipicephalus naevei*
Lapsus for synonym: *Rhipicephalus naevei*, *Rhipicephalus naevi*, *Rhipicephalus neavi*
39. *Rhipicephalus kohlsi* (Hoogstraal and Kaiser, 1960b)
Synonym: *Boophilus kohlsi* Hoogstraal and Kaiser, 1960b
Lapsus for synonym: *Boophilus kohlesi*
40. *Rhipicephalus leporis* Pomerantzev, 1946
Synonym: *Rhipicephalus pomerantzevi* Muratbekov, 1945
Lapsus for synonym: *Rhipicephalus pomeranzevi* Muratbekov, 1945
41. *Rhipicephalus longiceps* Warburton, 1912
42. *Rhipicephalus longicoxatus* Neumann, 1905
Synonym: *Rhipicephalus camelopardalis*
43. *Rhipicephalus longus* Neumann, 1907a
Synonyms: *Rhipicephalus capensis longus*, *Rhipicephalus confusus* Santos Dias, 1956c, *Rhipicephalus falcatus*
44. *Rhipicephalus lounsburyi* Walker, 1990
45. *Rhipicephalus lunulatus* Neumann, 1907b
Synonyms: *Rhipicephalus attenuatus*, *Rhipicephalus glyphis*, *Rhipicephalus simus lunulatus*
46. *Rhipicephalus maculatus* Neumann, 1901
Lapsus: *Rhipicephalus maculatos*
47. *Rhipicephalus masseyi* Nuttall and Warburton, 1908
Synonym: *Rhipicephalus tendeiroi*
Lapsus: *Rhipicephalus massyi*
48. *Rhipicephalus microplus* (Canestrini, 1888)
Synonyms (provisional): *Boophilus annulatus argentinus*, *Boophilus annulatus australis* (Fuller, 1899), *Boophilus annulatus caudatus*, *Boophilus annulatus microplus*, *Boophilus argentinus*, *Boophilus australis* (Fuller, 1899), *Boophilus caudatus*, *Boophilus cyclops*, *Boophilus distans*, *Boophilus microplus*, *Boophilus microplus annulatus*, *Boophilus minningi*, *Boophilus sharifi* Siddiqi and Jan, 1984, *Haemaphysalis micropla*, *Margaropus annulatus argentinus*, *Margaropus annulatus australis* (Fuller, 1899), *Margaropus annulatus caudatus*, *Margaropus annulatus mexicanus*, *Margaropus annulatus microplus*, *Margaropus argentinus*, *Margaropus australis* (Fuller, 1899), *Margaropus caudatus*, *Margaropus micropla*, *Margaropus microplus*, *Palpoboophilus brachyuris*, *Palpoboophilus minningi*, *Rhipicephalus annulatus argentinus*, *Rhipicephalus annulatus australis* Fuller, 1899, *Rhipicephalus annulatus caudatus*, *Rhipicephalus annulatus microplus*, *Rhipicephalus argentinus*, *Rhipicephalus caudatus*, *Rhipicephalus sharifi* (Siddiqi and Jan, 1984),

Uroboophilus australis (Fuller, 1899), *Uroboophilus caudatus*, *Uroboophilus cyclops*, *Uroboophilus distans*, *Uroboophilus indicus*, *Uroboophilus microplus*

Lapsus: *Rhipicephalus micropa*, *Rhipicephalus micropilus*

Lapsus for synonyms: *Boophilus annulatus microdus* for *Boophilus annulatus microplus*, *Boophilus cautatus* for *Boophilus caudatus*, *Boophilus micoplus*, *Boophilus microlpus*, *Boophilus microphis*, *Boophilus microples* and *Boophilus miroplus* for *Boophilus microplus*, *Boophilus sharfi* for *Boophilus sharifi* Siddiqi and Jan, 1984, *Margaropus annulatus microphilis* and *Margaropus annulatus microphilus* for *Margaropus annulatus microplus*, *Margaropus microphilus* for *Margaropus microplus*, *Rhipicephalus annulatus argentina* and *Rhipicephalus annulatus argentinensis* for *Rhipicephalus annulatus argentinus*, *Rhipicephalus annulatus micropus* for *Rhipicephalus annulatus microplus*

49. *Rhipicephalus moucheti* Morel, 1965d

50. *Rhipicephalus muehlensi* Zumpt, 1943b

Lapsus: *Rhipicephalus muchlensi*, *Rhipicephalus muechlensi*, *Rhipicephalus muhelensi*

51. *Rhipicephalus muhsamae* Morel and Vassiliades, 1965

52. *Rhipicephalus neumanni* Walker, 1990

53. *Rhipicephalus nitens* Neumann, 1904

Synonym: *Eurhipicephalus nitens* (Neumann, 1904)

54. *Rhipicephalus oculatus* Neumann, 1901

55. *Rhipicephalus oreotragi* Walker and Horak, 2000

56. *Rhipicephalus pilans* Schulze, 1935a

Synonyms: *Rhipicephalus haemaphysaloides paulopunctata*, *Rhipicephalus haemaphysaloides paulopunctatus*, *Rhipicephalus haemaphysaloides pilans*, *Rhipicephalus paulopunctatus*

57. *Rhipicephalus planus* Neumann 1907f

Synonyms: *Rhipicephalus planus planus* Neumann, 1907f, *Rhipicephalus planus typica* Zumpt, 1956, *Rhipicephalus reichenowi*, *Rhipicephalus simus planus* Neumann 1907f

58. *Rhipicephalus praetextatus* Gerstäcker, 1873

Synonyms: *Eurhipicephalus hilgerti*, *Eurhipicephalus shipleyi*, *Eurhipicephalus simus hilgerti*, *Eurhipicephalus simus shipleyi*, *Rhipicephalus hilgerti*, *Rhipicephalus perpulcher*, *Rhipicephalus shipleyi*, *Rhipicephalus simus hilgerti*, *Rhipicephalus simus shipleyi*

Lapsus: *Rhipicephalus praetexatus*

59. *Rhipicephalus pravus* Dönitz, 1910a

Synonym: *Rhipicephalus pravus pravus*

Lapsus: *Rhipicephalus pravus*

60. *Rhipicephalus pseudolongus* Santos Dias, 1953a

Synonym: *Rhipicephalus capensis pseudolongus*

61. *Rhipicephalus pulchellus* (Gerstäcker, 1873)

Synonyms: *Dermacentor pulchellus* Gerstäcker, 1873, *Eurhipicephalus pulchellus* (Gerstäcker, 1873), *Lamellicauda pulchellus* (Gerstäcker, 1873), *Rhipicephalus marmoreus*, *Rhipicephalus pulchellus pulchellus* (Gerstäcker, 1873)

Lapsus: *Rhipicephalus puchellus*, *Rhipicephalus pulchelluss*, *Rhipicephalus pulchelus*, *Rhipicephalus pulehelus*, *Rhipicephalus puluchulus*

63. *Rhipicephalus pumilio* Schulze, 1935a

Lapsus: *Rhipicephalus pumilis*

63. *Rhipicephalus punctatus* Warburton, 1912

Synonym: *Rhipicephalus neavei punctatus* Warburton, 1912

Lapsus: *Rhipicephalus punctatus*

64. *Rhipicephalus pusillus* Gill Collado, 1936

Synonym: *Rhipicephalus bursa pusillus*

65. *Rhipicephalus ramachandrai* Dhanda, 1966

Synonym: *Rhipicephalus arakeri*

66. *Rhipicephalus rossicus* Yakimov and Kohl-Yakimova, 1911

Synonym: *Rhipicephalus sanguineus rossicus*

67. *Rhipicephalus sanguineus* Latreille, 1806

Synonyms: there are many names considered to be synonym of *Rhipicephalus sanguineus*, a name with no morphological definition and supported by its usage. Therefore, we do not list synonyms for this name.

Lapsus: *Rhipicephalus saguineus*, *Rhipicephalus sanginues*, *Rhipicephalus sangiuneus*, *Rhipicephalus sanguienus*, *Rhipicephalus sanguieus*, *Rhipicephalus sanguineus*, *Rhipicephalus sanguineos*, *Rhipicephalus sanguineous*, *Rhipicephalus sanguines*, *Rhipicephalus sanguineue*, *Rhipicephalus sanguineeus*, *Rhipicephalus sanguinieus*, *Rhipicephalus sanguinius*, *Rhipicephalus sanguinous*, *Rhipicephalus sanguinrus*, *Rhipicephalus sanguinus*, *Rhipicephalus sangunineus* *Rhipicephalus sanquineus*, *Rhipicephalus sauguineus*

68. *Rhipicephalus scalpturatus* Santos Dias, 1959a

69. *Rhipicephalus schulzei* Olenev, 1929a

Synonym: *Rhipicephalus sanguineus schulzei* Olenev, 1929a

- Lapsus: Rhipicephalus schultzei, Rhipicephalus schulzi*
70. *Rhipicephalus sculptus* Warburton, 1912
71. *Rhipicephalus senegalensis* Koch, 1844a
Synonyms: Rhipicephalus longoides, Rhipicephalus simus longoides, Rhipicephalus simus senegalensis
Lapsus: Rhipicephalus senegalis
72. *Rhipicephalus serranoi* Santos Dias, 1950d
73. *Rhipicephalus simpsoni* Nuttall, 1910
74. *Rhipicephalus simus* Koch, 1844a
Synonyms: Eurhipicephalus simus, Rhipicephalus simus simus, Rhipicephalus simus typica Zumpt, 1956
Lapsus: Haemaphysalis simus, Rhipicephalus simus
Lapsus for a synonym: Rhipicephalus sanguineus simus for Rhipicephalus simus simus
75. *Rhipicephalus sulcatus* Neumann, 1908c
Synonym: Rhipicephalus sanguineus sulcatus Neumann, 1908c
76. *Rhipicephalus supertritus* Neumann, 1907b
Synonym: Rhipicephalus coriaceus
Lapsus for synonym: Rhipicephalus cariaceus
77. *Rhipicephalus tetracornus* Kitaoka and Suzuki, 1983
78. *Rhipicephalus theileri* Bedford and Hewitt, 1925
79. *Rhipicephalus tricuspis* Dönitz, 1906
Synonym: Rhipicephalus simus tricuspis
80. *Rhipicephalus turanicus* Pomerantzev, 1940
Lapsus: Rhipicephalus tauranicus, Rhipicephalus tuanicus, Rhipicephalus tunanicus, Rhipicephalus turamicus
81. *Rhipicephalus walkerae* Horak, Apanaskevich and Kariuki, 2013
82. *Rhipicephalus warburtoni* Walker and Horak, 2000
83. *Rhipicephalus zambeziensis* Walker, Norval and Corwin, 1981
Lapsus: Rhipicephalus zabeziensis, Rhipicephalus zamberiensis, Rhipicephalus zambesiensis
84. *Rhipicephalus ziemanni* Neumann, 1904
Synonyms: Rhipicephalus brevicoxatus, Rhipicephalus ziemanni brevicoxatus
Lapsus: Rhipicephalus ziemann
85. *Rhipicephalus zumpti* Santos Dias, 1950b

List 3: Alphabetical list of names (including *lapsus* and synonyms) *incertae sedis*, *nomina dubia*, *nomina nuda*, incorrect names for Ixodidae and suppressed names, driven by genus (valid and invalid).

Incertae sedis

1. *Acarus elephantinus* Linnaeus, 1758
Synonyms: *Amblyomma elephantinum*, *Amblyomma elephantinus*, *Haemalastor elephantinus*, *Ixodes elephantinus*
2. *Acarus fuscus* Vallot, 1801
3. *Acarus holsatus* Fabricius, 1787
Synonyms: *Ixodes holsatus*, *Pseudoixodes holsatus*
4. *Acarus pallipes* Fabricius, 1781
Synonym: *Ixodes pallipes* (Fabricius, 1781)
5. *Acarus plumbeus* Panzer, 1795
Synonyms: *Hyalomma plumbeum* (Panzer, 1795), *Hyalomma plumbeum plumbeum* (Panzer, 1795), *Hyalomma plumbeus* (Panzer, 1795), *Ixodes plumbeus* (Panzer 1795), *Phauloixodes plumbeus* (Panzer, 1795), *Rhipicephalus plumbeus* (Panzer, 1795)
6. *Acarus ricinoides* De Geer, 1778
7. *Amblyomma calcaris* Nakatsudi, 1942b
8. *Amblyomma complanatum* Berlese, 1888a
9. *Amblyomma distinctum* Karsch, 1879c
10. *Amblyomma foreli* Stoll, 1894
11. *Amblyomma guianense* Neumann, 1907d
Synonym: *Amblyomma guianensis*
12. *Amblyomma hassalli* Marx and Neumann, 1899
13. *Amblyomma inflatum* Neumann, 1901
14. *Amblyomma pacificum* Murray, 1877
Synonym: *Haemalastor pacificum*
15. *Amblyomma parviscutatum* Neumann, 1899
Synonym: *Amblyomma cajennense parviscutatum*
16. *Amblyomma quadriguttatum* Pavesi, 1883
17. *Amblyomma rugosum* Neumann, 1899
18. *Amblyomma serpentinum* Schulze, 1936c
19. *Amblyomma silvai* Santos Dias, 1951c
20. *Amblyomma strobili* Berlese and Trouessart, 1889
21. *Amblyomma trimaculatum* Neumann, 1908d
22. *Amblyomma variegatum govurensis* Santos Dias, 1950b
23. *Aponomma bourreti* Toumanoff, 1944
Synonyms: *Dermacentonomma bourreti*, *Dermacentor bourreti*
24. *Aponomma exornatum flavomaculatum* (Lucas, 1846)
25. *Aponomma laeve* Neumann, 1899
Synonym: *Aponomma laeve laeve*
Lapsus: *Aponomma laeva*
26. *Aponomma omissum* Schulze, 1932e
27. *Aponomma oudemansi galactites* Schulze, 1941e
Synonym: *Aponomma galactites* Schulze, 1941e
28. *Aponomma patagonicum* Schulze, 1936c
29. *Aponomma politum* Neumann, 1899
30. *Aponomma quadratum* Cooper and Robinson, 1908
31. *Boophilus fallax* Minning, 1934
Synonym: *Uroboophilus fallax* (Minning, 1934)
32. *Boophilus krijgsmani* Minning, 1934
Synonym: *Uroboophilus krijgsmani* (Minning, 1934)
33. *Boophilus longiscutatus* Minning, 1934
Synonym: *Uroboophilus longiscutatus* (Minning, 1934)
34. *Boophilus rotundiscutatus* Minning, 1934
Synonym: *Uroboophilus rotundiscutatus*
35. *Boophilus sharifi* Minning, 1934
Synonym: *Uroboophilus sharifi* (Minning 1934)
36. *Boophilus sinensis* Minning, 1934
Synonym: *Uroboophilus sinensis* (Minning, 1934)
37. *Crotonus variegatus* (Fabricius, 1798)

- Synonym:** *Dermacentor variatus*
38. *Dermacentor coreus* Itagaki, Noda and Yamaguchi, 1944
39. *Dermacentor cruentus* Koch, 1844a
40. *Dermacentor daghestanicus sillemi* Schulze, 1933b
41. *Dermacentor feai* Supino, 1897
Lapsus: *Dermacentor feae*
42. *Dermacentor longipes* Supino, 1897
43. *Dermacentor parabolicus* Koch, 1844a
44. *Dermacentor pardalinus* Koch, 1844a
Lapsus: *Dermacentor pordalinus*
45. *Dermacentor planus* Rudow, 1870
46. *Dermacentor puncticollis* Koch, 1844a
47. *Eschatocephalus crassipes* Joseph, 1882
Synonyms: *Eschatocephalus brevipes* (Neumann, 1899), *Haemalastor brevipes* Neumann, 1899
48. *Eurhipicephalus sanguineus* (Latreille, 1806)
49. *Haemalastor crassipes* Kolenati, 1857
Synonyms: *Eschatocephalus crassipes* (Kolenati, 1857), *Haemaphysalis kolenatii*, *Ixodes crassipes* (Kolenati, 1857)
50. *Haemaphysalis choprai* Sharif, 1928
Lapsus: *Haemaphysalis cheprai*
51. *Haemaphysalis cinnabarina punctata* Canestrini and Fanzago, 1878
52. *Haemaphysalis concinna hirudo* Koch, 1878
53. *Haemaphysalis hirudo* Koch, 1878
54. *Haemaphysalis leachi australis* Neumann, 1905
55. *Haemaphysalis marmorata* Berlese, 1888b
56. *Haemaphysalis menui* Toumanoff, 1940
57. *Haemaphysalis mesnardi* Toumanoff, 1940
58. *Haemaphysalis punctata cinnabarina* Koch, 1844a
Synonym: *Haemaphysalis punctata cinnaberina*
59. *Haemaphysalis turturis latipunctata* Toumanoff, 1944
60. *Hyalomma aegyptium aegyptium* (Linnaeus, 1758)
61. *Hyalomma aegyptium aegyptium excavatum* Koch, 1844a
62. *Hyalomma aegyptium dromedarii* Koch, 1844a
63. *Hyalomma devium* Koch, 1844a
Synonyms: *Amblyomma devium*, *Aponomma devium*
Lapsus: *Hyalomma derium*
64. *Hyalomma grossum* Koch, 1844a
65. *Hyalomma lusitanicum algericum* Sénevet, 1928
66. *Hyalomma marginatum annulipes* Schulze and Schlottke, 1929a
67. *Hyalomma spinosum* Rudow, 1870
Synonym: *Amblyomma spinosum*
68. *Hyalomma utriculus* Berlese, 1889a
69. *Indocentor bellulus* Schulze, 1935c
Synonym: *Dermacentor bellulus*
70. *Indocentor compactus tricuspis* Schulze, 1933b
71. *Ixodes algeriensis* Mégnin, 1880
Synonyms: *Hyalomma algeriense*, *Hyalomma algeriensis*
72. *Ixodes angulatus* Kishida, 1939a
Lapsus: *Ixodes angutatus*
73. *Ixodes birmanensis* Supino, 1897
74. *Ixodes cinctus* Fabricius, 1805
Synonym: *Dermacentor cinctus* (Fabricius, 1805)
75. *Ixodes cornuger* Kolenati, 1857
Synonym: *Hyalomma cornuger*
76. *Ixodes dugesi* Gervais, 1844
Synonyms: *Boophilus dugesi* (Gervais, 1844), *Ixodes plumbeus* Dugès 1834b, *Rhipicephalus dugesi* (Gervais, 1844)
Lapsus: *Ixodes dughessi*
77. *Ixodes flavidus* Koch, 1844a
Synonyms: *Amblyomma flavidum*, *Amblyomma flavidus* Koch, 1844a
78. *Ixodes frontalis sulcatus* Neumann, 1911a
79. *Ixodes globulosus* Supino, 1897
80. *Ixodes gracilentus* Lucas, 1846

- Synonyms:** *Hyalomma gracilentum*, *Hyalomma gracilentus*, *Ophiodes gracilentus*
81. *Ixodes humanus* Koch, 1844a
Synonyms: *Amblyomma humanum*, *Amblyomma humanus* (Koch, 1844a)
Lapsus: *Ixodes hominis*
82. *Ixodes hungaricus* Karpelles, 1893
Lapsus: *Ixodes hunyarcicus*
83. *Ixodes marmoratus* Risso, 1826
84. *Ixodes ophiophilus* Müller, 1831
Synonyms: *Aponomma ophiophilum*, *Aponomma ophiophilus*, *Ophiodes ophiophilus*
85. *Ixodes praematurus* Schulze, 1935b
86. *Ixodes pratti* Banks, 1908
87. *Ixodes punctulatus* Canestrini and Fanzago, 1878
88. *Ixodes pygmaeus* Koch, 1844a
Synonyms: *Amblyomma pygmaeum*, *Amblyomma pygmaeus*, *Haemalastor pygmaeus*
89. *Ixodes ricinus rochensis* Calzada, 1936
Lapsus: *Ixodes rochai*
90. *Ixodes sanguineus* Latreille, 1806
91. *Ixodes savignyi* Gervais, 1844
Synonyms: *Hyalomma detritum savignyi* (Gervais, 1844), *Hyalomma savignyi* (Gervais, 1844), *Hyalomma savignyi savignyi* (Gervais, 1844), *Ixodes aegyptius* Audouin, 1826
92. *Ixodes sturni* Pagenstecher, 1861
93. *Ixodes testudinarius* Murray, 1877
94. *Ixodes varani* Lewis, 1892a
95. *Opisthodon cuscobius* Canestrini, 1897b
Synonyms: *Haemaphysalis cuscobia*, *Haemaphysalis cuscobius*, *Prosopodon cuscobius*
96. *Phauloixodes intermedius* Neumann, 1897
Synonym: *Rhipicephalus intermedius* (Neumann, 1897)
97. *Rhipicephalus beccarii* Pavesi, 1883
Lapsus: *Rhipicephalus beccarii*
98. *Rhipicephalus bhamensis* Supino, 1897
99. *Rhipicephalus bilenus* Pavesi, 1883
Synonym: *Eurhipicephalus bilenus*
100. *Rhipicephalus breviceps* Warburton, 1910
101. *Rhipicephalus brevicollis* Neumann, 1897
Synonym: *Rhipicephalus sanguineus brevicollis*
102. *Rhipicephalus carinatus* Frauenfeld, 1867
103. *Rhipicephalus ecinctus* Neumann, 1901
104. *Rhipicephalus erlangeri* Neumann, 1902
Synonyms: *Eurhipicephalus erlangeri*, *Eurhipicephalus simus erlangeri*, *Rhipicephalus simus erlangeri*
105. *Rhipicephalus expositicius* Koch, 1877
Synonym: *Haemaphysalis expositicius*
106. *Rhipicephalus flavus* Supino, 1897
107. *Rhipicephalus limbatus* Koch, 1844a
108. *Rhipicephalus lundbladi* Schulze, 1939a
109. *Rhipicephalus macropis* Schulze, 1936b
Lapsus: *Rhipicephalus macropsis*
110. *Rhipicephalus mossambicus* Santos Dias, 1950b
111. *Rhipicephalus niger* Rudow, 1870
112. *Rhipicephalus piresi* Santos Dias, 1950c
113. *Rhipicephalus punctatissimus* Gerstäcker, 1873
Synonym: *Rhipicephalus sanguineus punctatissimus* Gerstäcker, 1873
Lapsus for synonym: *Rhipicephalus sanguineus punctissimus*
114. *Rhipicephalus rubicundus* Frauenfeld, 1867
115. *Rhipicephalus rutilus* Koch, 1844a
Lapsus: *Rhipicephalus rutibus*
116. *Rhipicephalus sanguineus sanguineus* (Latreille, 1806)
Lapsus: *Rhipicephalus sanguinus sanguinus*
117. *Rhipicephalus secundus* Feldman-Muhsam, 1952
118. *Rhipicephalus siculus* Koch, 1844a
119. *Rhipicephalus stigmaticus* Gerstäcker, 1873
120. *Rhipicephalus texanus* Banks, 1908

Nomina dubia

1. *Acarus ambulantium* Gmelin, 1802
2. *Acarus auratus* Shaw, 1793
Synonyms: *Aponomma auratus* (Shaw, 1793), *Haemalastor auratus* (Shaw, 1793)
3. *Acarus collurionis* Scopoli, 1763
Synonym: *Ixodes collurionis*
4. *Acarus grossus* Pallas, 1772
Synonyms: *Amblyomma grossum* (Pallas, 1772), *Amblyomma grossus* (Pallas, 1772)
5. *Acarus hirudo* Fabricius, 1781
6. *Acarus hispanus* Fabricius, 1787
Synonyms: *Hyalomma hispanum* (Fabricius, 1787), *Hyalomma hispanus* (Fabricius, 1787), *Ixodes hispanus* (Fabricius, 1787)
Lapsus for a synonym: *Hyalomma hispanicum* and *Rhipicephalus hispanum* (Fabricius, 1787) for *Hyalomma hispanum* (Fabricius, 1787)
7. *Acarus histrio* Fabricius, 1798
Synonyms: *Amblyomma histrio*, *Dermacentor histrio*, *Ixodes histrio*
8. *Acarus iguanae* Fabricius, 1794
Synonyms: *Amblyomma iguanae*, *Ixodes iguanae*
9. *Acarus indus* Linnaeus, 1767
Synonyms: *Amblyomma indum*, *Amblyomma indus*, *Haemalastor indus*, *Ixodes indus*
10. *Acarus lineatus* Fabricius, 1775
Synonyms: *Amblyomma lineatum*, *Amblyomma lineatus*, *Haemalastor lineatus*, *Ixodes lineatus*
11. *Acarus lipsiensis* Fabricius, 1775
Synonym: *Ixodes lipsiensis*
12. *Acarus passerinus* Berkenhout, 1769
13. *Acarus pictus* Fennel? [sic], no year
Synonyms: *Haemalastor fennelli*, *Ixodes pictus* (Fennell, 1841)
14. *Acarus putorii* Razoumowski, 1789
15. *Acarus radiatus* Scopoli, 1763
Synonyms: *Amblyomma radiatus*, *Haemalastor radiatus*
16. *Acarus rhombeatus* Shaw, 1798
Synonyms: *Amblyomma rhombeatus*, *Aponomma rhombeatus*, *Haemalastor rhombeatus*
17. *Acarus rufipes* Gmelin, 1790
18. *Acarus sanguisugus* Linnaeus, 1758
Synonyms: *Amblyomma sanguisugum*, *Amblyomma sanguisugus*, *Haemalastor sanguisugus*, *Ixodes sanguisugus*
19. *Acarus tristriatus* Panzer, 1798
Synonym: *Ixodes tristriatus*
20. *Acarus turdi* Scopoli, 1763
Synonym: *Ixodes turdi*
Lapsus for synonym: *Ixodes tordi*
21. *Acarus vibrans* Fabricius, 1787
Synonym: *Ixodes vibrans*
22. *Amblyomma acutangulatum* Neumann, 1899
Lapsus: *Amblyomma acutangulum*
23. *Amblyomma arteriosum* Koch, 1878
24. *Amblyomma bengalense* Rudow, 1870
25. *Amblyomma cordatum* Rudow, 1870
26. *Amblyomma denticulatum* Koch, 1844a
27. *Amblyomma laticutatum* Neumann, 1906
28. *Amblyomma nausificum* Koch, 1847
Synonym: *Indocentor nausificum*
29. *Amblyomma punctatum* Koch, 1844a
Synonym: *Haemalastor punctatum*
30. *Boophilus decoloratus calcitrans* Theiler, 1910
31. *Cynorhaestes parumapertus albimarginatum* Schulze, 1929b
32. *Dermacentor albicollis* Koch, 1844a
33. *Dermacentor clathratus* Koch, 1844a

34. *Dermacentor triangulatus* Neumann, 1901
Lapsus: *Dermacentor triangulus*
35. *Dermanyssus rubiginosus* Kolenati, 1857
Synonym: *Ixodes rubiginosus*
36. *Haemaphysalis cinnabarina punctata autumnalis* Schulze, 1919
37. *Haemaphysalis cinnabarina punctata perdentata* Schulze, 1919
Lapsus: *Haemaphysalis punctata pudentata*
38. *Haemaphysalis peregrinus* Pickard-Cambridge, 1889
Synonym: *Haemaphysalis peregrina*
Lapsus: *Haemaphysalis perigrinus*
39. *Haemaphysalis proxima* Aragão, 1909
40. *Hyalomma aegyptium caucasicum* Kamensky, 1928
41. *Hyalomma aegyptium marginatum fucosa* Chodziesner, 1924
42. *Hyalomma cycluræ* Pagenstecher, 1861
Synonym: *Amblyomma cycluræ*
43. *Hyalomma impressum albiparmatum* Schulze, 1920
44. *Hyalomma impressum nitidum brevipes* Schulze and Schlottke, 1929a
45. *Hyalomma lusitanicum algericum* Schulze and Schlottke, 1929a
46. *Hyalomma varani* Rudow, 1870
Synonym: *Amblyomma varani* (Rudow, 1870)
47. *Indocentor hahni* Oudemans, 1936
Lapsus: *Dermacentor hahni*
48. *Ixodes acanthoglossi* Lucas, 1878a
Lapsus: *Ixodes acanthoglossus*
49. *Ixodes africanus* Mégnin, 1876
Synonyms: *Hyalomma africanum*, *Hyalomma africanus* (Mégnin, 1876)
50. *Ixodes ameivæ* Pagenstecher, 1861
51. *Ixodes aptericola* Maskell, 1897
52. *Ixodes apteridis* Maskell, 1897
Synonym: *Scaphixodes apteridis*
53. *Ixodes australasiae* Fabricius, 1805
54. *Ixodes bengalensis* Supino, 1897
55. *Ixodes bibroni* Gervais, 1844
56. *Ixodes bifurcatus* Neumann, 1899
Synonym: *Dermacentor bifurcatus*
57. *Ixodes birulai* Yakimov, Saikovich and Vasilevskaya, 1926
58. *Ixodes brevipes* Murray, 1877
59. *Ixodes cinctus* Lucas, 1844a
60. *Ixodes cinereolus* Lucas, 1844a
Lapsus: *Ixodes cenereolus*
61. *Ixodes colenaty* Zapletal and Grulik, 1963
62. *Ixodes cordiformis* Yakimov, Saikovich and Vasilevskaya, 1926
63. *Ixodes coxalis* Gervais, 1844
Synonym: *Dermacentor coxalis* (Gervais, 1844)
64. *Ixodes crenatus* Say, 1821
Synonym: *Amblyomma crenatum* (Say, 1821)
Lapsus for synonym: *Amblyomma creatum*
65. *Ixodes erraticus* Say, 1821
Synonym: *Dermacentor erraticus*
66. *Ixodes exilipes* Lucas, 1846
67. *Ixodes fabricii* Audouin, 1826
Synonym: *Hyalomma fabricii*
68. *Ixodes forskælii* Audouin, 1826
Synonyms: *Argas forskælii*, *Hyalomma forskælii*
Lapsus for a synonym: *Hyalomma forskælii*
69. *Ixodes garhwalicus* Mathai, 1959
70. *Ixodes herrerae* Dugès, 1891
Lapsus: *Ixodes herreroe*
71. *Ixodes imperfectus* Neumann, 1899
72. *Ixodes juvenis* Neumann, 1899
Lapsus: *Ixodes juvenis*

73. *Ixodes lagotis* Gervais, 1849
Synonym: *Haemaphysalis lagotis*
74. *Ixodes linnaei* Audouin, 1826
Synonyms: *Rhipicephalus linnaei*, *Rhipicephalus linnei*
75. *Ixodes lisphilus* Kishida, 1930
76. *Ixodes marginalis* Hahn, 1834
Lapsus: *Ixodes marginatus* Hahn, 1834
77. *Ixodes maskelli* Kirk, 1886
78. *Ixodes molestus* James, 1823
79. *Ixodes moluccus* Doleschall, 1858
80. *Ixodes obliquus* Koch, 1844a
81. *Ixodes obscurus* Fabricius, 1805
82. *Ixodes orbiculatus* Say, 1821
83. *Ixodes pallens* Fabricius, 1805
Synonym: *Haemalastor pallens*
84. *Ixodes pallipes* Lucas, 1844a
Lapsus: *Ixodes papillipes*
85. *Ixodes perpunctatus* Packard, 1869
Synonyms: *Amblyomma perpunctatum*, *Amblyomma perpunctatus*
86. *Ixodes phascolomyis* Macalister, 1871
Synonym: *Aponomma phascolomyis*
Lapsus: *Ixodes phascolymis*
87. *Ixodes pilosus howardi* Neumann, 1909b
88. *Ixodes punctulatus* Say, 1821
89. *Ixodes rufipes* Fabricius, 1805
Synonym: *Rhipicephalus rufipes* (Fabricius, 1805)
90. *Ixodes scapulatus* Mégnin, 1880
Lapsus: *Ixodes scapularis* Camicas, Hervy, Adam and Morel, 1998
91. *Ixodes tertiaris* Scudder, 1885
92. *Ixodes thoracicus* Koch, 1844a
Synonym: *Haemalastor thoracicus* (Koch, 1844a)
Lapsus: *Ixodes thoracicus*
93. *Ixodes trilineatus* Lucas, 1844a
Synonym: *Hyalomma trilineatus*
94. *Ixodes variolatus* Gervais, 1844
95. *Ixodes viperarum* Koch, 1844a
Lapsus: *Ixodes viperorum*
96. *Pediculus acaroides* Pallas, 1784
Synonyms: *Haemaphysalis acaroides* (Pallas, 1784), *Pediculi acaroides*
97. *Rhipicephalus bursa americanus* Neumann, 1897
98. *Ricinus caninus* Valmont de Bomare, 1791
Lapsus: *Ricinus caninis*

Nomina nuda

1. *Acarus vulgaris* Fabricius, 1794
2. *Amblyomma babirussae* Schulze, 1932d
3. *Amblyomma breviscutatum aeratipes* Schulze, 1932d
4. *Amblyomma cajennense imitator* Kohls, 1958
5. *Amblyomma cayenensi* Rodríguez González and Lujambio, 1954
Lapsus: *Amblyomma cayanensi*
6. *Amblyomma coelognesi* Doss and Anastos, 1977
7. *Amblyomma coriaceum* Newstead, 1909
8. *Amblyomma coronatum* Lewis, 1892b
Lapsus: *Ixodes coronatum*
9. *Amblyomma crenatum* Van Saceghen, no year
10. *Amblyomma cyprum aeratipes* Schulze, 1932d
11. *Amblyomma exophthalmum* Méndez Arocha and Ortiz, 1958
Lapsus: *Amblyomma exophthalmum*
12. *Amblyomma extraoculatum* Tonelli Rondelli, 1939

13. *Amblyomma feuerborni* Schulze, 1932d
14. *Amblyomma flava* Jarvis, 1904
15. *Amblyomma flavum* Estrada-Peña, Estrada-Sánchez and Estrada-Sánchez, 2012b
16. *Amblyomma hebraeum variegatum* (Fabricius, 1798)
17. *Amblyomma hebraeum variegatus* (Fabricius, 1798)
18. *Amblyomma inopinatum* Santos Dias, 1955
19. *Amblyomma mantiguinensa* authority unknown, year unknown
20. *Amblyomma minutum* Aragão, 1909
21. *Amblyomma ornatissimum* CSIRO, 1961
22. *Amblyomma parkeri* Aragão and Fonseca, 1951
23. *Amblyomma perrum* Babos, 1964a
24. *Amblyomma queenslandensis* CSIRO, 1961
25. *Amblyomma ricinoides* (Linnaeus, 1758)
26. *Amblyomma rosei* CSIRO, 1961
27. *Amblyomma testudinis* Koch, 1877
28. *Aponomma fimbriatum trabeatum* Schulze, 1933d
29. *Aponomma gibsoni* Harkare, Gawande, Baviskar, Latha, Hippargi, Jayraw and Maske, 2007
30. *Aponomma laevatum* Schulze, 1936c
31. *Boophilus balcanicus* Minning, 1934
32. *Cynorhstes reduvius* Hermann, 1804
33. *Cynorhaestes venustus* (Say, no year)
34. *Dermacentor albipictus nigromaculata* Schulze, 1941a
35. *Dermacentor andersoni* Stiles, 1905
36. *Dermacentor approximans* Doss and Anastos, 1977
37. *Dermacentor gynaecoides* Doss and Anastos, 1977
38. *Dermacentor longecoxalis* Doss and Anastos, 1977
- Lapsus:** *Dermacentor longicoxalis*
39. *Dermacentor marginatus gynaecoides* Doss and Anastos, 1977
40. *Dermacentor marginatus longecoxalis* Doss and Anastos, 1977
- Lapsus:** *Dermacentor marginatus longicoxalis*
41. *Dermacentor marginatus rotundicoxalis* Doss and Anastos, 1977
42. *Dermacentor marginatus sibiricus* Popov, 1962
43. *Dermacentor maturatus* Castellani and Chalmers, 1919
44. *Dermacentor persicus* Enigk, 1951
45. *Dermacentor rosmari* Ass, 1935
46. *Dermacentor rotundicoxalis* Doss and Anastos, 1977
47. *Dermacentor silvarum kemerovi* Popov, 1962
48. *Dermacentor silvarum niveus* Neumann, 1897
49. *Haemalastor ricinoides* (Linnaeus, 1758)
50. *Haemaphysalis cholodkovsky recta* Oswald, 1941
51. *Haemaphysalis cinnabarina punctata longicornis* Neumann, 1901
52. *Haemaphysalis cinnabarina punctata recta* Oswald, 1939
- Synonym:** *Haemaphysalis cinnabarina recta* Oswald, 1939
53. *Haemaphysalis fusca* Christophers, 1907
54. *Haemaphysalis i* Kishida, 1922
55. *Haemaphysalis ias* Kishida, 1936
56. *Haemaphysalis japonensis* Asanuma *et al.* [sic], 1956
57. *Haemaphysalis leachi media* Oswald, 1939
58. *Haemaphysalis orientalis* Kishida, 1934
59. *Haemaphysalis pinolillo* Doss and Anastos, 1977
60. *Haemaphysalis plumbeum* Grebenyuk and Sertbaev, 1961
61. *Haemaphysalis shibutamiensis* Yajima, 1955
62. *Haemaphysalis tezuensis* Geevarghese and Mishra, 2011
63. *Hyalomma aegyptium albiparmatum transiens* Schulze, 1920
64. *Hyalomma aegyptium brunnipes* Schulze, 1920
65. *Hyalomma aegyptium punctata* Schulze, 1920
66. *Hyalomma aegyptium rufipes* Koch, 1844a
67. *Hyalomma bubi* Sharma, 1993
68. *Hyalomma cholodkovskii* Delpy, 1937
69. *Hyalomma dromedarii detritum* Schulze, 1920
70. *Hyalomma hispanum* Koch, 1844a

71. *Hyalomma isaaci indosinense* Toumanoff, 1944
72. *Hyalomma marginatum balcanicum* Tonelli Rondelli, 1930
73. *Hyalomma marginatum indosinense* Toumanoff, 1944
74. *Hyalomma tunicator* Alexander, 1984
75. *Indocentor compactus sumatranus* Schulze, 1939c
76. *Ixodes aegyptius* Savigny, 1817
77. *Ixodes aequalis* Wherry and Wellman, 1909
78. *Ixodes americanus humanus* Wagner, 1876
79. *Ixodes aquilae* Neumann, 1899
80. *Ixodes aubiensis* Arthur, 1958c
81. *Ixodes auricularis* Robineau-Desvoidy, 1836
82. *Ixodes auritulus zealandicus* Dumbleton, 1953
Synonyms: *Ixodes zealandicus* Dumbleton, 1953; *Scaphixodes zealandicus* (Dumbleton, 1953)
83. *Ixodes bibroni* Gervais, 1842
Synonym: *Amblyomma bibroni* (Gervais, 1842)
84. *Ixodes bufonicola* Schomburgk, 1848
85. *Ixodes canisuga obotriticus* Schulze and Schlottke, 1929b
86. *Ixodes carapato* Cobbold, 1879
87. *Ixodes cardinalis* Conil, 1877
88. *Ixodes cavipalpus* Massey, 1908
89. *Ixodes cervi* Conil, 1877
90. *Ixodes communis* Marx, 1901
91. *Ixodes coreensis* Kishida, 1933
92. *Ixodes cornuata* Roberts, 1959
Synonym: *Ixodes cornuatus* Roberts, 1959
93. *Ixodes coxalis* Gervais, 1842
94. *Ixodes desertus* Serdjukova, 1960
95. *Ixodes diacomus* Kolenati, 1857
96. *Ixodes didelphidis* Fonseca and Aragão, 1951
97. *Ixodes distipes* Murray, 1877
98. *Ixodes eburneus* Kolenati, 1857
99. *Ixodes grossus* Conil, 1877
100. *Ixodes happinus* Yajima, 1955
101. *Ixodes hayashii* Nakatsudi, 1942a
102. *Ixodes hexagonus sanguineus* Latreille, 1806
103. *Ixodes hispanus* Kolenati, 1857
104. *Ixodes laguri armeniacus* Kirschenblatt, 1938
105. *Ixodes leonis* Conil, 1877
106. *Ixodes lividus* Van Beneden, 1873
107. *Ixodes luxuriosus* Schulze, 1932c
Synonym: *Endopalpiger luxuriosus* (Schulze, 1932c)
108. *Ixodes maloni* Doyle, 1912
109. *Ixodes marginalis* Koch, 1832
110. *Ixodes marginatus* Burmeister, 1837
111. *Ixodes marmoratus* Mégnin, 1880
112. *Ixodes mellinus* Robineau-Desvoidy, 1836
113. *Ixodes nigra* Cobbold, 1879
114. *Ixodes orbicularis* Neumann, 1901
115. *Ixodes oregonensis* Stiles, 1910
116. *Ixodes pallipes* Koch, 1844b
117. *Ixodes penetrans* Mégnin, 1880
118. *Ixodes persulcatus cornuatus* Olenov, 1941
Synonym: *Ixodes cornuatus* Olenov, 1941
119. *Ixodes petrus* Alexander, 1984
120. *Ixodes plumbe* Dugès, 1834b
121. *Ixodes plumbeus* Dugès, 1834a
122. *Ixodes poonchensis* Sharma, 1993
123. *Ixodes purpureus* Samish and Rehacek, 1999
124. *Ixodes ricinus miyazakiensis* Sugimoto, 1937a
125. *Ixodes rossianus* Schulze, 1932c
Synonym: *Sternalixodes rossianus* (Schulze, 1932c)

126. *Ixodes rugica* Dolley, 1890
 127. *Ixodes scalonae* Emel'yanova, 1971
 128. *Ixodes serrafreirei* Amorim, Gazeta, Bossi and Linhares, 2003
 129. *Ixodes spodeopsarae* Emel'yanova, 1979
 130. *Ixodes steini* Schulze, 1932c
Synonym: *Endopalpiger steini* (Schulze, 1932c)
 131. *Ixodes talpae* Doles. (presumably for Doleschall), no year
 132. *Ixodes tauricus* Vshivkov, 1956
 133. *Ixodes transversalis* Lucas, 1844b
 134. *Ixodes vicinus* Verrill, 1870,
 135. *Ixodes walckenaeri* Gervais, 1842
Lapsus: *Ixodes walkenaeri*, *Rhipicephalus walckenaeri* (Gervais, 1842), *Rhipicephalus walkenaeri*
 136. *Ixodes warburtoni* Zimina, 1962
 137. *Pediculus acaroides* Pallas, 1772
Synonyms: *Haemaphysalis acaroides* (Pallas, 1772), *Pediculi acaroidis*, *Pediculus acaroides* Pallas, 1772
 138. *Pholeioxodes arboricola deserta* Emel'yanova, 1978
 139. *Pholeioxodes arboricola koshikinae* Emel'yanova, 1978
 140. *Pholeioxodes canisuga alauda* Emel'yanova, 1978
 141. *Pholeioxodes hoogstraalae* Emel'yanova, Vasil'ev, Vershinina, Derevshchikov, Prokop'ev, Sonin, Sheremet'eva and Shikhorb'eev, 1978
 142. *Rhipicephalus hoogstraali* Kolonin, 2009
 143. *Rhipicephalus houlatus* Dana, 2009
 144. *Rhipicephalus oculatus pravus* Nuttall, no year
 145. *Rhipicephalus rhipicephali* Estrada-Peña and Jongejan, 1999
 146. *Rhipicephalus silvus* Nakamura and Yajima, 1937
 147. *Rhipicephalus simus falcatus* Nuttall, no year
 148. *Rhipicephalus transiens oculatus* Neumann, 1901
 149. *Rhipicephalus turanicus* Pomerantzev, 1936
 150. *Rhipicephalus zambeziensis* Lawrence and Norval, 1979
 151. *Xenoacarus makinoi* Kishida, 1925

Incorrect names for Ixodidae

1. *Ixodes columbae* (Hermann, 1804) is a synonym of *Argas reflexus* (Argasidae)
Lapsus: *Ixodes colmbae*
2. *Ixodes espagnol* Brébisson, 1827 is a synonym of *Argas reflexus* (Argasidae)
3. *Ixodes hispanus* Brébisson, 1827 is a synonym of *Argas reflexus* (Argasidae)
4. *Ixodes moubata* (Murray, 1877) is a synonym of *Ornithodoros moubata* (Argasidae)
Lapsus: *Ixodes monbata*
5. *Ixodes odontalgiae* Fitch, 1872 is a spider
6. *Ixodes reflexus* (Fabricius, 1794) is a synonym of *Argas reflexus* (Argasidae)

Suppressed names

1. *Dermacentor venustus* Marx, 1897
2. *Dermacentor venustus* Banks, 1908

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