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**A REVISED WORLD CATALOGUE
OF GHOST MOTHS (LEPIDOPTERA: HEPIALIDAE)
WITH TAXONOMIC AND BIOLOGICAL ANNOTATIONS**

John R. Grehan, Carlos G.C. Mielke, John R.G. Turner and John E. Nielsen

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**A revised world catalogue of Ghost Moths (Lepidoptera: Hepialidae)
with taxonomic and biological annotations**

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This catalogue is dedicated to the memory of Dr. John E. Rawlins (June 23, 1950 - December 26, 2021), Curator of Invertebrates, Carnegie Museum of Natural History, Pittsburgh, Pennsylvania.

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Abstract

We present a taxonomic list and bibliography for 82 genera and 701 species of Hepialidae *sensu stricto*. The literature survey spans nearly 400 years, from 1634 to the present, and comprises 1,793 references. Genera and species are presented in alphabetical order. Each species record comprises the original taxonomic work, synonyms where applicable, general distribution, type locality and type depository where known, and literature pertaining to illustrations of the adult, morphology, biology, and host plant records (as documented in the literature, regardless of verification). Taxonomic changes are justified, and include several new combinations. There is a brief overview of ecology and conservation issues along with biographies of some past workers in the field, a broad geographic summary of generic distribution, colour illustrations of some selected species, and a summary of fungal and plant food sources. The following taxonomic changes are proposed: **1) Status restored:** *Aenetus cyanochlora* Lower, 1894, **stat. rest.**, *Endoclita pallescens* Tshistjakov, 1996, **stat. rest.**, *Endoclita pfitzneri* (Gaede, 1933), **stat. rest.**; **2) New combinations:** *Gymelloxes costaricensis* (Druce, 1887) (*Phassus*), **comb. n.**, *Philoenia cocama* (Pfitzner, 1914) (*Dalaca*), **comb. n.**, *Philoenia niepelti* (Pfitzner, 1914) (*Dalaca*), **comb. n.**, *Pseudodalaca smithi* (Druce, 1889) (*Phassus*), **comb. n.**, *Vietteogorgopis petropolisiensis* (Viette, 1952) (*Cibyra*), **comb. n.**; **3) New synonymies:** *Dalaca vibicata* Pfitzner, 1914, **syn. n.** of *Dalaca trilinearis* Pfitzner, 1914, *Dalaca manoa* Pfitzner, 1914, **syn. n.** of *Dalaca olivescens* Pfitzner, 1914. **4) Status restored and new combination:** *Philoenia nannophyes* (Pfitzner, 1914) (*Dalaca*), **stat. rest.**, **comb. n.**

Introduction

It is now nearly 200 years since the name Hepialidae was first proposed to encompass a single genus (*Hepialus* Fabricius) and six species, all from the United Kingdom (Stephens 1828). Nearly three decades later, Walker (1856) listed 13 genera and 68 species (as subsequently validated) in the collection of the Natural History Museum, London, adding a further 24 species 10 years later (Walker 1865). By the time of Kirby's (1892) world list, the total had risen to 22 genera and 216 species. Just under 20 years later the world list by Wagner & Pfitzner (1911) presented a similar result with 23 genera and 201 species. Over the following century and to the present, the number of genera and species continued to expand through taxonomic works, including several major regional monographs (Tindale 1935, 1941, 1942, 1958, Nielsen & Robinson 1983, Chu & Wang 195a, b, Nielsen & Kristensen 1989, Dugdale 1994, Zhu *et al.* 2004, Simonsen 2018). Nomenclature issues were also addressed in studies such as Viette's (1951b) review of genera and their type species, and the validity of generic names by Nye & Fletcher (1991).

These various taxonomic contributions were last brought together in a landmark study by Nielsen *et al.* (2000) which presented 59 genera and 587 species for the family. The current listing presents a new total of 82 genera and 701 species. The purpose of our catalogue is to build on the work of Nielsen *et al.* (2000) by incorporating the additional 23 genera and 111 species that include important new taxonomic and geographic discoveries, and for the first time to provide a comprehensive literature record for each species as far as resources of the authors would allow. While published catalogues will, by the nature of new discoveries, be immediately or rapidly out of date, this catalogue will provide a historical resource of taxonomic, nomenclatural, and biological information relevant to future studies of the Hepialidae.

Additions of new genera did not occur without some controversy. Paclt (1957: 51) observed that there are ". . . few families in Lepidoptera which of recent years have been so rapidly enriched by the erection of new genera as the . . . Hepialidae." He attributed this growth due to an overemphasis on differences in genitalic structure that he thought to be rarely informative for more than specific affinity. Apart from the requirements of monophyly, the inclusiveness or scope of generic categories is certainly subjective, and depends much on which differences or similarities are to be emphasized. For example, Mielke & Grehan (2012) reinstated several of Viette's American genera that were previously subsumed by Nielsen *et al.* (2000). This decision was based on the view that internal differences in genital structure and venation were sufficiently informative for recognizing generic limits, even though externally visible features may not show such sharp contrast. It is certainly conceivable that in the future some of the genera recognized here may be combined, should other features be recognized to readily group member species into common generic units, including genomic analysis unavailable to date.

Taxonomy

Both Tindale (1932-58) and Dumbleton (1966) proposed subfamily classifications for the Hepialidae, but these attempts have proven untenable upon closer examination. The principal focus of Nielsen *et al.* (2000) was to clarify the status of many of the generic and species names, accompanied by synonymies. Many of the synonymies were already established in the literature while others appear to represent the authors' estimation based on their personal examination of type material (as evidenced by specimen labels recorded by at least one of the authors). The taxonomic scope of Hepialidae is a subject of current debate (Simonsen *in* Rajaei & Karsholdt 2023). This catalogue follows Nielsen *et al.* (2000), and excludes the hepialoid families Anomosetidae, Palaeosetidae, Prototheoridae, and Neotheoridae. These families were included in the 'Hepialidae' by Reiger *et al.* (2015: 12), who stated, "given the strong molecular and morphological support for the monophyly of Mnesarchaeoidea + Hepialoidea, we think that there is little need for two superfamily names." Furthermore, Reiger *et al.* (2015: 29) presented the view that all hepialoids should be included in a single family Hepialidae, because "ongoing morphological work (Simonsen, unpublished data) indicated that a consistent cladistic systematization of this assemblage might otherwise require an unwieldy proliferation of little-distinctive hepialoid families." Unspecified, emerging morphological and molecular evidence (citing Grehan 2012a and Simonsen unpublished) was seen to agree with Scoble's (1992) proposal that all 'classical' families of Hepialoidea be included in Hepialidae, and that the families Neotheoridae, Anomosetidae, Prototheoridae, and Palaeosetidae be treated as synonyms of Hepialidae.

The choice whether or not to include or exclude the four smaller families within a broader 'Hepialidae' is a subjective preference only. Under the taxonomic system of Nielsen *et al.* (2000), there are five hepialoid families, and it is our subjective view that this number does not represent an unwieldy proliferation. Grehan's (2012a) morphological study did not address the family status of the existing hepialoid families, and in our view there is currently no compelling morphological evidence published in support of submerging the four smaller hepialoid families under an enlarged Hepialidae. Molecular relationships or measures of molecular similarity do not provide decisive evidence as they do not impose any automatic taxonomic rank. Phylogenetic analysis by Simonsen & Kristensen (2017) recognized a clade corresponding to Hepialidae (*sensu* Nielsen *et al.* 2000), but follow Reiger *et al.* (2015) in enlarging the Hepialidae category to include four other hepialid

subfamilies of Nielsen *et al.* (2000). Our choice, in the absence of compelling evidence to the contrary, is to recognize Hepialidae as circumscribed by Nielsen *et al.* (2000), this being a taxonomic category long familiar to biologists as well as taxonomists.

This catalogue presents genera and species in alphabetical sequence, as there remains considerable uncertainty over the phylogenetic sequence within the Hepialidae. There is some agreement about the basal position of several genera (e.g. *Afrotheora* Nielsen & Scoble, 1986, *Antihepialus* Janse, 1942, *Fraus* Walker, 1856, *Gazoryctra* Hübner, [1820]), but other than some morphological and molecular studies of various genera (e.g. Nielsen & Robinson 1983, Brown *et al.* 1999a, b, 2000, Simonsen 2002, Grehan 2010, 2012a-b, Kallies & Farino 2018, Grehan & Mielke 2018d, Simonsen 2018, Simonsen *et al.* 2019a, Wang *et al.* 2022), there is insufficient resolution at this time to allow us to present genera and species in a phylogenetic sequence, or group genera into a subfamily or tribal classification.

Earliest literature records

Our literature survey spans 389 years; from the earliest known illustration of a hepialid (Wottonus *et al.* 1634: fig. 1) to the present. Probable identification of the illustration as a hepialid is supported by its general shape and proportion, and the figure caption that reads (in translation): "number thirteen barely exhibits its minuscule antennae; the whole body is yellow; moreover the eyes, which are tiny and black; and the wings appear whitish." The small antennae and yellow[ish] body and legs and whitish wings are consistent with a male *Hepialus humuli* (Linnaeus, 1758), but the hindlegs are not as long and extended beyond the body as shown by Wottonus *et al.* (1634).

There is a case to be made (Haworth 1803), although sadly not to be proven, that Puck's description in *A Midsummer Night's Dream* (first published 1600), of the "sprites" of the dead leaving their graves and gliding down the roads out of the churchyard, is based on a fanciful notion about the crepuscular flight of *Hepialus humuli* moths, sometimes called wandering "souls" (Wiffen 1859, Le Pard 1980), and later to become widely known in England as "the Ghost Moth"; thus, the origination for the common name of hepialids in English (called "swifts" in Australia). The association of *H. humuli* with graveyards was so strong that it was listed as the species habitat by Harris (1775)! The 1899 diary of Mary De la Beche Nicholl, lepidopterist and alpinist (quoted by Thomas 1979: 105), records "ghost moths" in the Rhodope Mountains of Bulgaria "danc[ing] like wraiths in the twilight." The evening flights of *H. humuli* have sometimes attracted other poetic interpretations such as that by W. H. Hudson (1919: 221):

"The memory of those two evenings . . . brings to mind just now yet another enchanting evening I spent in the valley of the Wiltshire Avon. It was June, just before hay-cutting, and for most of the time, until the last faint underglow had faded and the stars were out, I was standing motionless, knee-deep in the plummy seeded grasses, watching the ghost-moths, as I had never seen them before, in scores and in hundreds, dimly visible in their whiteness all over the dusky meadow, engaged in their quaint, beautiful, rhythmic love-dance. It was the wide silent night and the moths' strange motions and whiteness in the dark that gave it a magic on that occasion. Seen by daylight or lamplight it is Lord de Tabley's 'owl-white moth with mealy wings', or one of them, and nothing more."

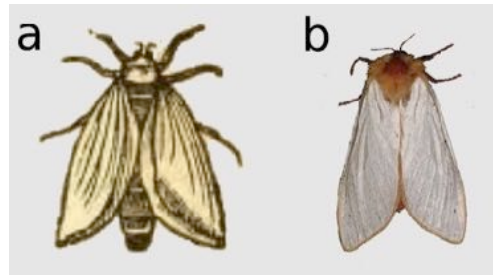


Fig. 1. Illustrations of *Hepialus humuli* (Linnaeus, 1758): (a) a woodcut from Wottonus *et al.* (1634: 92, fig. 13), from a drawing, probably by co-author Thomas Penny (1532-1589) (Whittaker 2021); and (b) dorsal habitus (Malcolm Storey, discoverlife.org)

Hepialids entered the formal taxonomic literature with the work that was later decreed to be the foundation of the modern binomial system: the 10th edition of *Systema Naturae* (Linnaeus 1758) which named the first three species within *Phalaena Noctua*: *humuli*, *lupulina* and *hecta*. The diagnostic descriptions are terse, but he had previously (Linnaeus 1746: 280) published a fuller account of what is now called *Hepialus humuli* which shows that his interest in cataloguing and classifying embraced a keen interest in the species' biology: the larvae wreak devastating destruction by attacking the roots of the hop vine (*Humulus*) "not without the extreme chagrin of the proprietor" (further elaborated in Linnaeus 1761: 305).

The literature cited herein is almost entirely of publications we have been able to directly examine and verify for content. A notable exception is our citation of Sasaki's (1902) monograph on the biology of *Endoclita excrescens* (Butler, 1877), as it is such a major work on this species. It is likely that there is a long-standing and even ancient literature on *Thitarodes Viette*, 1968, and its medically important fungal parasite *Ophiocordyceps*, that is accessible only to readers of Mandarin. The literature covered herein includes articles in about two dozen languages that have been translated or deciphered for relevant content, including in the main language groups: Romance (Catalan, French, Italian, Latin, Portuguese, Romanian, Spanish), Teutonic (Afrikaans, Danish, Dutch, English, Faroese, Flemish, German, Norwegian, Swedish), Slavonic (Bulgarian, Czech, Lithuanian, Polish, Russian [both orthographies]), as well as Finnish, Japanese, Korean, Mandarin, and Magyar.

Authorship for 17th and 18th centuries can be complex, and a worthy field of antiquarian research in itself. We have sometimes deviated from the conventional attributions as a result of recent findings by others, and even ourselves. Thus, the *Theatrum Insectorum* of 1634, often attributed to Thomas Muffet (variously spelled as Moffat, Mouffet, Mufet, or Muffet) will be found under Wottonus *et al.* (1634); the 13th edition of *Systema Naturae* (versus the original 10th edition by Linnaeus 1758) under Gmelin (1789); and the final volume of *Insectes d'Europe* (usually attributed to the long-deceased artist J. J. Ernst 1786) under Carangeot (1790), and some with suggestions for the actual writers and artists in each case. Locating literature was aided by the kindness of colleagues, and access to invaluable electronic resources such as the *Biodiversity Heritage Library* (www.biodiversitylibrary.org), the *Bibliography of New Zealand Terrestrial Invertebrates* (<https://datastore.landcareresearch.co.nz/dataset/bugz>), the *Internet Archive* (www.archive.org), *Afromoths* (Afromoths.net), and Markku Savella's *Tree of Life* (<https://www.funet.fi/pub/sci/bio/life/insecta/lepidoptera/exoporia/>).

Literature scope

Although all major hepialid references are cited in the bibliography, it was impractical to reference everything published on the family, particularly for works that may include Hepialidae as part of more general topics such as faunal catalogues, natural history, agriculture, forestry, pest control, and in field guides or popular books published over the last two centuries. There are many publications with species names that have since been placed under synonymy, and articles with locality and seasonal records only, that may not be included. We have endeavored to maximize coverage of the literature with emphasis on the informational categories listed for each species.

It is certain that some pertinent publications have been missed, particularly for the non-English literature in Europe and Asia. In some countries such as the United Kingdom, it seems as though there are new natural history books or editions being published every few years, often repeating the same content. Unless there are substantial changes in new editions, we cite only one example for such publications, usually the earliest (unless inaccessible to us). Textbooks and encyclopedias of entomology, and even of zoology, are likely to include general and even detailed information on the Hepialidae. Listing them all is impossible with our resources and the mostly brief or repetitive content would be unlikely to provide additional insight.

We do include citations of early literature that may only contain minimal information on biology, while otherwise not referencing similar publications that are much more recent, to give some information on the growth of knowledge for the Hepialidae. While most of the literature on Hepialidae falls within the categories listed for each species (see Format below), some articles focus on general themes for the family that we would draw attention to, such as commercial forestry (Tobi *et al.* 1993), economically important species (Zhang 1994), mating behaviour (Mallet 1984, Wagner & Rosovski 1991, Turner 2015), larval feeding biology (Grehan 1989), biogeography (Grote 1886, Bartholomew *et al.* 1911, Grehan & Rawlins 2003, Grehan 2011, 2018, 2022, Grehan & Mielke 2018b, 2019a, 2020b-c, Grehan & Knyazev 2019, Grehan *et al.* 2022b, Wang & Pierce 2022), and chromosome evolution (Dalíková *et al.* 2017). The mating swarms of a few species, sometimes called leks, which are a much-reported spectacle at twilight, are confined, as far as we know, to species found in the Northern Hemisphere, belonging to the genera *Endoclita* C. & R. Felder, 1874, *Hepialus* Fabricius, 1775, *Phymatopus* Wallengren, 1869, *Sthenopsis* Packard, 1865, and *Zenophassus* Tindale, 1941 (Turner 2015). This phenomenon indeed gave rise to the name of the whole family, the name of the type genus being derived from the Greek for feverish (*ἥπιαλος*/hepialos), referring to the frantic behaviour of the males of *Phymatopus hecta*. This was first noted by Fabricius (1781), but clearly also understood by Linnaeus (1758), who coined the species name *hectica*, also meaning feverish (the contraction to *hecta* was probably an unintended misprint).

There are innumerable catalogues of the Lepidoptera fauna ranging from very local areas including towns, districts or counties, to entire countries or larger geographic regions, such as Römer & Schaudinn (1902) and Knyazev (2019) for northern Eurasia, Nielsen *et al.* (1996) for Australia, Vári *et al.* (2002) for southern Africa, Robinson & Nielsen (1984), Heppner (1984) and Mielke & Grehan (2012) for Mexico to South America, and Neumoegen & Dyar (1893, 1894) and Hodges *et al.* (1993) for North America north of Mexico. As species locality records are not a focus of this catalogue, we do not cite species catalogues or lists unless they contain information pertinent to the informational categories that we include for each species.

Ecology and conservation

Some Hepialidae are classified as economic pests due to their consumption of agricultural or forestry crops. These are subject to various control measures, particularly Southern Hemisphere pasture species in genera such as *Dalaca* Walker, 1856, *Oncopera* Walker, 1856, and *Wiseana* Viette, 1961. Species of Hepialidae are included as potential risk for the importation of unprocessed *Eucalyptus* logs into the United States (Kliejunas *et al.* 2003). The earliest recorded control measure we determined was Fabricius (1781: 207) who noted that *H. humuli* was repelled by pig dung, although without the detail necessary to know the mode of application and whether the measure was actually effective. This method was later reported by Goossens (1912) who was unable to provide verification. A novel approach proposed for pasture feeding species in New Zealand involves so-called 'mob stocking,' whereby a concentration of farm animals would trample early instar larvae on the ground surface before they could tunnel deeper into the soil (French 1973b, French & Savage 1981, Holmes 1981). Fenn (1890) referred to *Korscheltellus lupulina* (Linnaeus, 1758) as a pest around street lights in Britain. On the other side of the 'pest' coin, Harper (1960) expressed the hope that *Triodia sylvina* (Linnaeus, 1761) would be beneficial to help control the growth of bracken fern that was becoming an invasive plant species of Inverness-shire (UK).

The consequences of habitat degradation or obliteration are considered in several early papers on Hepialidae. Over 125 years ago, Lyman (1893) expressed his fear that the population of *Sthenopsis thule* (Strecker, 1875) above the St. Henry swamp on the western outskirts of Montreal, was ". . . doomed to extinction as the Canadian Pacific Railway runs along the crown of the terrace and the swamp at its base is being drained and cultivated and built over in a few years." Williams (1905) noted that the "progress of civilization" wiped out many of the haunts favourite of *Phymatopus californicus* (Boisduval, 1868) that was now a rather rare insect. Keith (1916) noted the destruction of *Sthenopsis argenteomaculatus* (Harris, 1841) habitat in Providence, Rhode Island, as the wetland was:

" . . . fast being converted into a dump heap, with ashes, tin cans, and other refuse of a city . . . never a year that the woods are not set on fire, and this is no exception. Collecting at willows is out of the question as the 'kids' break down and destroy every pussy willow around here. All this is the case around Providence"

Destruction of former breeding places of *S. argenteomaculatus* in red maple and alder swamps near Brooklyn, New York (USA), was noted by Forbes (1926) in the absence of this species for the previous 30 years. On the other side of the world, Sharp (1909) expressed concern that Australian Hepialidae were thus,

". . . rapidly disappearing; we may fear that some are extinct without ever having been discovered, and others, also unpublished but still existing, may disappear only too soon; the wasteful destruction of timber in Australia having been deplorable."

Some authors expressed concern that some habitat restricted species could be threatened by over-collecting. When Denny (1907) reported the capture of 75 specimens of *Sthenopsis thule* in a single evening, the editor included a footnote recording the unanimous opinion of those present at the meeting that "such wholesale captures of this rare moth were most strongly to be deprecated" and that "collectors should be satisfied with a few specimens annually, and not run the risk of exterminating a most interesting species, which is only known to frequent a few very limited

localities." Although collecting alone has never been identified as a verifiable threat to any species of Hepialidae (or any moth for that matter), habitat destruction is certainly the obvious and influential factor that could affect the future survival of any species.

Human modifications of habitat may have a positive influence on some species, such as species that appear to thrive in urban habitats, or at least where remnant or developing habitat is available, and particularly for grassland species that have thrived in the development and expansion of pastures (e.g. *Oxycanus* spp. and *Oncopera* spp. in Australia, *Wiseana* spp. in New Zealand, and *Dalaca* spp. in Chile). Long distance exotic introductions of Hepialidae are rare. The only successful instance we found was *Korscheltellus lupulina* first reported northern Ohio (USA) in the 1950's. This record was followed by a gap of about 40 years when the species became widely reported from Ontario (Canada) in the 1990's (Grehan & Landry 2018). Exotic entry of this species was anticipated by Pierce (1918) and the species was intercepted by the United States quarantine services (McHutchinson *et al.* 1922), including larvae in imported horseradish (USDA 1954). A much earlier and non-commercial incidence is the inadvertent transport of *Thitarodes armoricanus* (Oberthür, 1909) pupae in vegetation or other material used as padding around boxes containing insect specimens sent from China to France (Oberthür 1909b). The British Food and Environment Research Agency (FERA 2005) now expressly prohibits importation of live Hepialidae into the United Kingdom.

It is certain that forest species, particularly in tropical regions, have been severely affected by deforestation. Over a century ago, Harmer & Shipley (1901) noted that wood boring species are rapidly disappearing and some could face extinction without having ever been discovered due to the "wasteful destruction of timber in Australia having been deplorable". Based on observed shifts in larval activity over large distances (De Baar & Hockey 2009), large and contiguous areas of host plants are necessary for the Australian *Zelotypia stacyi* Scott, 1869 and *Aenetus mirabilis* (Rothschild, 1894). This is reflected by the current known distributions of both species, with *Z. stacyi* associated with larger remnants of Cumberland Plain Woodland and protected areas of eucalypt woodland in the Illawarra Escarpment area of New South Wales. Similarly, *A. mirabilis* is primarily associated with areas of World Heritage status 'wet tropical rainforest' in Queensland. The behaviour and current distribution of both species highlights the need for habitat preservation to adequately conserve hepialid moths, especially timber boring species.

Another conservation impact concerns the economic utilization of larvae. This impact has been of concern for the extraction of *Ophiocordyceps* fungus infected larvae of *Thitarodes* species in high elevation shrub and grassland habitats, especially within and around the Tibetan Plateau (Negi *et al.* 2016). Recreational anglers in Australia have used subterranean larvae as a source of fresh bait. Yen (2009) warned that large numbers of recreational anglers using these or other insect larvae, in combination with other environmental threats, could threaten the long-term viability of these insects.

Long-term changes in climate may be an important consideration that has yet to be reported affecting Hepialidae, although Fletcher (2016) noted an "unprecedented" late record for September. In the Czech Republic, several species were identified as 'vulnerable' and one as 'near threatened' (Beneš *et al.* 2017). In the United Kingdom, populations of *H. humuli* are reported to have declined by 73% over a 35 year period (Fox *et al.* 2006), whereas *Triodia sylvina* increased

by 150% over a similar (40 year) period (Fox *et al.* 2013). A wider census (Randle *et al.* 2019) showed that *T. sylvina* had continued to expand, that *H. humuli* had undergone no long term trends, and that *Phymatopus hecta* (Linnaeus, 1758) was in steep decline. The impact on high elevation endemics may also be critical, but at present there are no detailed studies. The alpine and sub-alpine *Oxycaenus oreades* Edwards & Green, 2011 is endemic to elevations above 2,000 m in Kosciuszko National Park of Australia, has a flightless female. Edwards & Green (2011) noted that movement in response to climate change may be slow and populations particularly vulnerable to global warming as higher habitat opportunities are limited to a maximum of 2,228 m on Mt Kosciuszko. Atmospheric pollutants may also have an impact on ghost moth populations, and Pratt (1978) included *T. sylvina* as a test species for sampling the ingestion of lead emissions from automobiles (recording 7 ppm in this species).

Some past contributors to the Hepialidae

An immense number of entomologists have contributed to the biological, taxonomic, and systematic knowledge of Hepialidae. As it is beyond our current time and resources to effectively acknowledge every individual, we present here historical selection of former contributors who have made a broad or sustained study of the Hepialidae as a way to acknowledge the efforts of all who have contributed to our understanding of this group. We refer to published biographies for more detailed information on the lives and works of these researchers. We hope that in the future it may be possible to give an account for everyone who contributed to our knowledge of Hepialidae.



Charles Golding Barrett (5 May 1836 - 11 December 1904)

Employed as a civil servant, Barrett was adept (or lucky) in taking postings to faunistically interesting places. He had a substantial reputation for discovering rare and new (to Britain) species. His monumental *Lepidoptera of the British Islands*, in eleven volumes, was the standard British reference work for many years and was distinguished by the attention paid to variation, biology, habitat, early stages, and behaviour. His collection was incorporated in the Natural History Museum in London. For the Hepialidae, Barrett's accounts represent a significant high point in the expanding knowledge of the biology of the five British species, using his own and others' observations, as well as reviewing already published material (Anon. 1905, 'M.G.' [initials only], Poulton 1905, Walker 1905, Wheeler 1905, Salmon 2000).



Hong-Fu Chu (Zhu) (13 January 1910 - 24 January 2002)

Developed his entomological interest under the influence of Prof. Liu Chong-Le, later going to the United States for his doctoral studies (Univ. of Illinois, 1947). In 1947, he returned to China and joined the Peking Research Institute. In 1950, he established the Institute of Entomology (later part of the Institute of Zoology, Chinese Academy of Sciences, Beijing). Most of his work was on major agricultural pests, especially of cotton, where he lead research programs into their identification, forecasting, prediction and control. His taxonomic work was focused mainly on Lepidoptera, and he established the Lepidoptera working group where he was an inspirational teacher of many entomology students. He was responsible for a major milestone in Chinese moth taxonomy through the start of the *Iconographia Heterocerorum Sinicorum*. In the study of Hepialidae, he was the first to associate the genus *Thitarodes* (as *Hepialus*) with the parasitic fungus widely used in China as a traditional medicinal resource. Chu published (with L.-Y. Wang) two major revisionary

works that clarified Chinese ghost moth taxonomy, and later contributed the Hepialidae part for the *Fauna Sinica* series (Xue & Han 2017).



John Stewart Dugdale (5 April 1934 - 4 September 2020)

Dugdale published a comprehensive taxonomic revision of New Zealand Hepialidae in the Fauna of New Zealand series, with extensive documentation of their biology and morphology. His principle interest was in Lepidoptera, but he also published on cicadas and tachinid flies. Initially, he worked at the New Zealand Forest Service before joining the Entomology Section of the Department of Scientific and Industrial Research. He was well known for his incisive and analytical intellect and exceptional field work skills, for generously sharing his knowledge, and remembered for his erudite conversation, enlivened by an often wicked sense of humor. Dugdale published a landmark catalogue of New Zealand Lepidoptera, and recognized the fundamental importance of the female genitalia for establishing the Exoporia as a monophyletic group (Grehan 2020, Horak & Edwards 2020).



Lionel Jack Dumbleton (1 January 1905 - 25 September 1976)

Dumbleton had an encyclopedic knowledge of entomology. He made major contributions to the biology and systematics of the Aleyrodidae and Ixodoidea (Homoptera), and to Blephariceridae and Simuliidae (Diptera), besides Hepialidae. His knowledge of geology and botany rivaled that of specialists in these fields. He was a dedicated mountaineer. He had a great interest in assisting people with entomological inquires, which was aided by a mental retrieval system that unerringly produced a helpful reprint or reference. During WWII, he worked on malaria control in the Pacific. Dumbleton's major contribution to the Hepialidae was the first revision of the New Zealand fauna (Lowe & Ramsay 1977).



Edward (Ted) David Edwards (12 October 1945 – 7 August 2023)

Edwards grew up on a commercial grape vineyard in the Southern Highlands of Australia where he became fascinated with butterflies and moths in early childhood. His parents were keenly interested in the natural environment, and maintained a garden full of plants to attract native butterflies and moths. He joined the Commonwealth Scientific and Industrial Research Organization (CSIRO) in 1970 and for over 50 years maintained a broad interest in Lepidoptera. He published more than 150 papers, including descriptions of new species of *Abantiades* and *Oxycanus*. He produced the first comprehensive bibliography of the monotypic *Zelotypia stacyi*, and later speculated on the functional significance of its wing morphology. Ted was a strong advocate for taxonomy, noting that “Anyone doubting the importance of taxonomists should cross out all nouns and pronouns in a paragraph. Do that and you're left with a jumble of words that don't make sense.” (The Canberra Times, [insecta.pro/community/9239](https://www.insecta.pro/community/9239), Daniels 2004).

Max Gaede (29 November 1871 - 27 October 1946)

German lepidopterist and engineer who worked on various moth groups, especially African Noctuidae. His collection went to the Kulturhistorisches Museum, Magdeburg, and partly to the Museum für Naturkunde, Berlin, Germany, with which he had long been associated. In the monographic Seitz series he contributed the African hepialid part (1930), the supplemental

Palearctic part (1933), and co-authored with Pfitzner the Australian hepialid part (1933). He produced several catalogues for various moth families and one butterfly group for the original *Lepidopterorum Catalogus* series (Kudrna 1990, Peigler 2004).



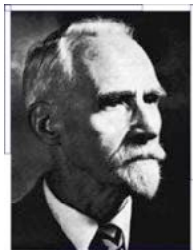
Gottlieb August Wilhelm Herrich-Schäffer (17 December 1799 - 14 April 1874)

A general taxonomist who worked mostly on the European fauna. He was known as an enthusiastic and energetic field worker and collector, although for him collections were not seen as an end in itself. He would say to visitors, "I have no display collection", and he would not hesitate to dissect a specimen if it would provide some insight into a systematic problem. He was regarded by his friends as a person highly distinguished for an unreserved openness and a love of truth, a high level of intellectual acuity, infallible memory and quick determination. Herrich-Schäffer's major multivolume works on the European (*Systematische Bearbeitung der Schmetterlinge von Europa*, 1843-56) and non-European Lepidoptera (*Sammlung neuer oder wenig bekannter aussereuropäischer Schmetterlinge*, 1850-69) included the description and illustration of several Old and New World species of Hepialidae (O. Hofmann 1874).



George Vernon Hudson (20 April 1867 - 5 April 1946)

Born in the United Kingdom, and then moved to New Zealand in 1881. He created many original colour illustrations for his books on New Zealand entomology, particularly *The Butterflies and Moths of New Zealand* (1928), which included the Hepialidae. His field work included a scientific expedition to the subantarctic islands in 1905. His substantial insect collection is now housed at the Museum of New Zealand Te Papa Tongarewa. He is credited with modern-day daylight saving time, which would have allowed him more time to collect insects after the work day. Hudson's work on New Zealand Hepialidae included detailed notes on *Aenetus virescens* (Doubleday, 1843), and clarification of the host species of the vegetable caterpillar fungus (*Cordyceps*) (Salmon 1946, Gibbs 1996, 2020).



Antonie Johannes Theodorus Janse (19 April 1877 - 12 June 1970)

Originally trained as a missionary teacher in The Hague, Janse immigrated to South Africa just before the Boer War. In 1905, he obtained an appointment as lecturer in natural sciences at the Normal College, in Pretoria, and soon specialized in the study of Lepidoptera and which he continued to study for the rest of his life. He started collecting insects in his spare time and he eventually accumulated a private collection of more than 100,000 specimens. The collection, along with his library and equipment, is now housed at the Ditsong Museum of Natural History (formerly the Transvaal Museum), South Africa. Janse's major contribution to the study of Hepialidae was the taxonomic documentation of most of the South African fauna in his incomplete series, *The Moths of South Africa*, in seven volumes from 1932-64 (Lea 1957, Vári 1970, Vári & Diakonoff 1971).

Niels Peder Kristensen (2 March 1943 - 6 December 2014)

Developed an early interest in entomology and started collecting butterflies and moths as a schoolboy in Denmark. Already while in high school, he became a volunteer at the Zoological Museum at the University of Copenhagen (where he was later to become a researcher and

professor), and continued as a regular visitor as a university student. Very early, he developed a sustained interest in the evolution of primitive Lepidoptera and particularly their evolutionary morphology. When working with the British entomologist, insect physiologist and morphologist, Prof. Howard E. Hinton, he recognized the value of scanning electron microscope (SEM) imaging for comparative morphology. Kristensen was an early supporter of cladistics and deeply interested in the morphology and phylogeny of the higher taxonomic categories of insects. He was known as an engaging and inspiring teacher and supervisor, with an intuitive understanding supporting the needs of individual students, and widely recognized for his profound knowledge and insight, his generosity of spirit, conscientiousness and quiet humor. He published extensively on Lepidoptera phylogeny and morphology, especially the primitive groups, such as Micropterigidae, Mnesarchaeidae, and the Hepialoidea (Simonsen *et al.* 2015).



Ebbe Schmidt Nielsen (7 June 1950 - 7 March 2001)

A student of Niels Kristensen in Denmark, Nielsen immigrated to Australia to work at the Australian National Insect Collection. His interests and activities included Lepidoptera, curation, collecting, facilitator, manager, editor, and bio-politician; the latter involving advocacy for the value and relevance of collections and descriptive taxonomy. His major areas of research encompassed lepidopteran taxonomy and morphology within a phylogenetic framework, nomenclature issues, checklists and inventories, and synthetic perspectives on Lepidoptera as a whole. He was notable for his capacity to externalize what started as a boyhood fascination into an effort of global social value. His career was tragically cut short while on a visit to California in 2001. Nielsen's contributions to the study of Hepialidae include two major taxonomic monographs and primary insights into the phylogenetic structure of the Hepialidae (Scoble 2003).



Alpheus Spring Packard (18 February 1839 - 14 February 1905)

Born in Maine, USA, with a love of flowers, animals and natural scenery. He developed a zeal for collecting and by the age of 16 or 17 he was collecting insects in considerable numbers. Packard had a broad range of research interests in entomological, zoological and geological subjects, and he was an ardent evolutionist in the Neo-Lamarckian School. He worked as an assistant under Louis Agassiz at the Museum of Comparative Zoology, Harvard University, and was an assistant surgeon during the American Civil War. Packard published several articles addressing Hepialidae, including notes on *Hepialus* and a review of larval stages (Cockerell 1918).



Rudolf Pfitzner (1864 - 18 March 1921)

Pfitzner was broadly interested in the world's insect fauna and he developed a collection of about 40,000 specimens, including a collection of Hepialidae of outstanding importance. He was regarded as "an original" and esteemed by all for his charitable nature. He made major contributions to the world taxonomy of Hepialidae in the well-known Seitz monographic series, treating the Palearctic fauna (1912) and the American fauna (1937-38) (Gaede did the hepialid African fauna and some hepialid species for the Palearctic supplement); and Pfitzner & Gaede co-authored the hepialid part for the Australian fauna (1933). Pfitzner and H. Wagner, produced the first Hepialidae catalogue in the original *Lepidopterorum Catalogus* series (1911) (Seitz 1921).



Alfred Philpott (1871 - 24 July 1930)

Early in life he developed a keen interest in natural history, especially insects and especially Lepidoptera. He was an enthusiastic bushman and explorer of little-known regions in New Zealand. At the newly formed Cawthron Institute (Nelson), he was the first Assistant Entomologist, where he focused on building up the collection and made major contributions to a successful biological control program, and to the systematics and morphology of New Zealand Lepidoptera. Among his outstanding characteristics was an imperturbable good nature and generosity. Philpott produced several publications on the taxonomy and morphology of Hepialidae, including studies characterizing patterns of venation and the male genitalia (Tillyard 1931).



Gaden Sutherland Robinson (11 April 1949 - 7 September 2009)

Robinson spent much of his childhood in the Malay Peninsula and Fiji, with his entomologist father (the elder Robinson developed the famous Rothamsted, or Robinson, light trap). Robinson later conducted field research in Brunei, Indonesia, Vanuatu, and Malaysia. As a Lepidoptera curator at the Natural History Museum, London, he focused on the systematics and natural history of the Tineoidea and the Exoporia. He was a strong proponent for the creation of general systematic databases. His early faunal surveys included a strong quantitative component involving detailed studies of moth diversity. Robinson's work on Hepialidae includes a revision of the South American genus *Callipielus* Butler, 1882, the first major revision of southern South American Hepialidae, and a global inventory of Exoporia. His life was unfortunately shortened by illness during the same year he retired from his museum post, but not before completion of a world summary of the family Tineidae (Beccaloni *et al.* 2009).



Norman Barnett Tindale (12 October 1900 - 19 November 1993)

Developed an early interest in natural history, and anthropology in particular, through field excursions and visits to Tokyo's Imperial Museum while living for a time as a child in Japan. Butterfly and moth collecting became his passion upon returning to Australia. At the South Australian Museum, Adelaide, he became involved in the collection of aboriginal ethnographic data and artifacts, which would remain a lifelong field of study and publication. His primary entomological focus was on the Hepialidae which led him into paleontology, and discovery of the lepidopteran Triassic fossil *Eoses*. Tindale published several major revisions of Australian Hepialidae that included extensive use of genitalia for species validation (Jones 1995).



Pierre Edmond Léon Viette (29 June 1921 - 30 April 2011)

A broad naturalist who worked intensively on Lepidoptera, and excelled both in the field and in the laboratory. He regarded the classification of collections and identification of taxa as activities no less worthy than formal research and publication. He was one of the world's foremost scholars of his time in the fields of Lepidoptera taxonomy, faunistics and biogeography. At the Muséum national d'Histoire naturelle, Paris, his work encompassed a wide range of subjects such as microlepidoptera fauna of France, the basal lineages of Lepidoptera, the noctuids, Lepidoptera of the Pacific Ocean islands, and especially the Lepidoptera of Madagascar, a region for which he was particularly devoted and the long-running series *Faune de Madagascar*. Viette published

extensively on new genera and species of Hepialidae, particularly the South American fauna (Viette 2004, Aberlenc 2011, Minet & Thiaucourt 2012, 2018).



Thomas Josef Witt (2 September 1947 - 27 January 2019)

Was primarily interested in Lepidoptera and founded his Museum Witt in Munich, Germany. His very large collection is now partially at the Bavarian State collection. He described hundreds of new species for science, financed and organized more than 100 collecting expeditions worldwide, and promoted 22 major research projects. He generously supported numerous young scientists, especially from Russia and eastern European countries, and made it possible for guest researchers to visit his museum in Munich and to other museums. He established one of the world's largest private research collections, comprising about five million Lepidoptera, including digitization of more than 3,400 name-bearing type specimens. He was particularly interested in development of specimen collections of the Hepialidae and published on new species and detailed overviews of the European fauna (Gusenleitner & Schwarz 2019, Hausmann 2019, Hausmann *et al.* 2020).

Geographic list of genera

The following divisions serve to provide a broad regional impression of where genera occur. The current number of species is included for each genus.

1. AFRICA

Continental Africa and nearby islands (Madagascar, etc.), with the northeastern boundary at the Red Sea
Plate 1

Afrotheora	7	Leto	1
Antihepialus	4	Metahepialus	2
Eudalaca	36	Neohepialiscus	1
Gorgopis	33	Neoleto	1

2. LAURASIA

North America north of Mexico, Europe, Asia south to New Guinea
Plates 2 & 3

Aenetus	2	Parahepialiscus	1
Bipectilus	9	Parathitarodes	1
Endoclita	72	Pharmacis	7
Gazoryctra	14	Phymatopus	5
Hepialiscus	7	Sthenopis	4
Hepialus	1	Thitarodes	80
Korscheltellus	4	Triodia	7
Magnificus	7	Xhoaphryx	1
Napialus	6	Zenophasus	1
Palpifer	16		

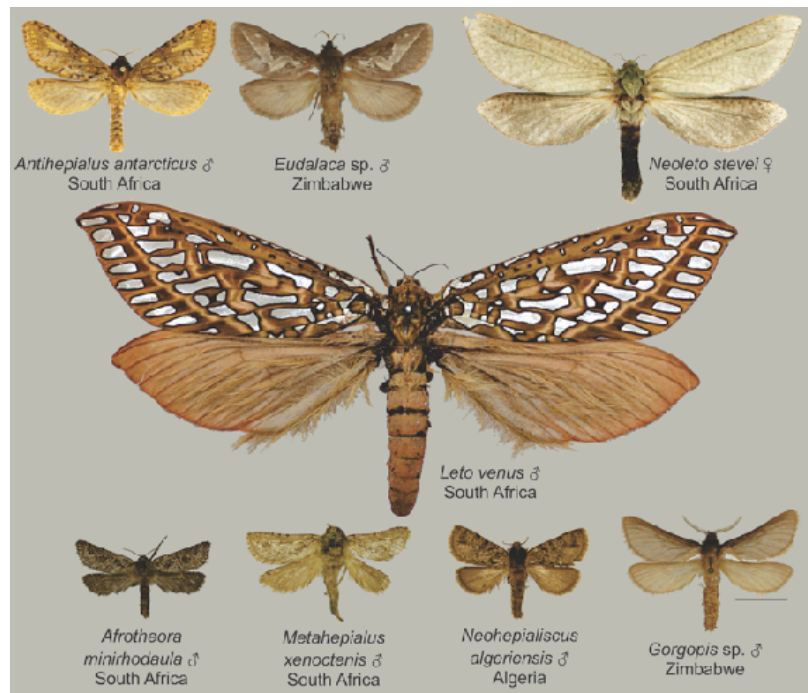


Plate 1. Examples of genera from Africa. Photo credits: *Antihepialus antarcticus* (USNM, Jane Hyland), *Eudalaca* sp., *Gorgopis* sp. (Carlos Mielke), *Neoleto stevei* (Svyatoslav Knyazev), *Afrotheora minirhodaula*, *Leto venus*, *Metahepialus xenoctenis*, *Neohepialiscus algeriensis* (NHMUK). Scale bar = 10 mm.

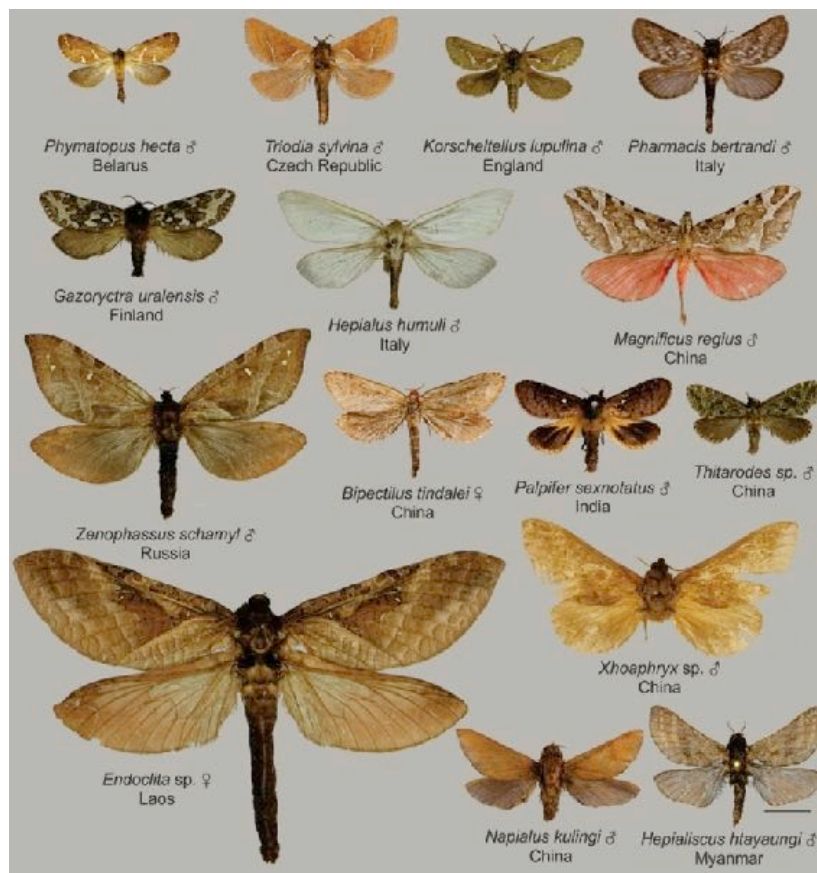


Plate 2. Examples of genera from Eurasia. Photo sources: *Triodia sylvina*, *Korscheltellus lupulina*, *Pharmacis bertrandi*, *Gazoryctra uralensis*, *Endoclita* sp., *Hepialiscus htayaungi*, *Hepialus humuli* (Carlos Mielke), *Magnificus regius* (ZSBS, Ulf Buchsbaum), *Phymatopus hecta*, *Zenophassus schamyl* (Svyatoslav Knyazev), *Napialus kulingi*, *Thitarodes* sp. (MWM, Nicolai Ignatev), *Bipectilus tindalei*, *Palpifer sexnotatus*, *Xhoaphryx lemeei* (NHMUK). Scale bar = 10 mm.

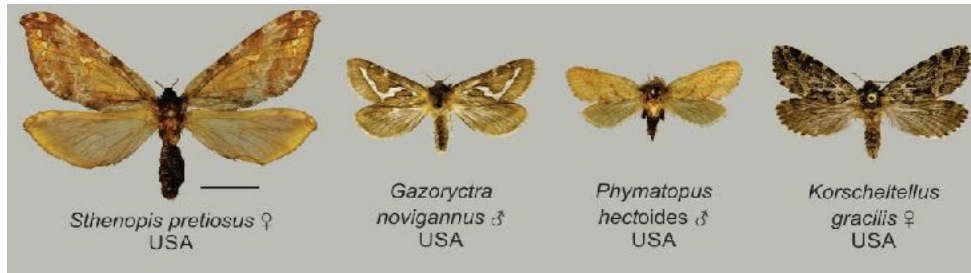


Plate 3. Examples of genera from North America north of Mexico. Photo sources: *Sthenopsis pretiosus* (Carlos Mielke), *Gazoryctra novigannus* (USMN), *Phymatopus hectoides* (Jerry Powell), *Korscheltellus gracilis* (Jane Hyland, Carnegie Museum of Natural History). Scale bar = 10 mm.

3. AUSTRALASIA

New Zealand, New Caledonia, New Guinea, and South Pacific (Fiji, Solomon Islands, Samoa)

Plate 4

Aenetus	23	Elhamma	6
Abantiades	45	Fraus	6
Aoraia	13	Heloxycanus	1
Archaeoanetus	1	Jeana	2
Cladoxycanus	1	Oncopera	13
Dioxycanus	2	Oxycanus	78
Dumbletonius	2	Phassodes	4
Wiseana	7	Zelotypia	1

4. MEXICO-SOUTH AMERICA

Plate 5

Aepytus	5	Pfitzneriana	4
Agripialus	4	Pfitzneriella	8
Alloaepytus	1	Phassus	12
Andeabatis	1	Phialuse	1
Aplatissa	2	Philoenia	11
Blanchardinella	1	Phthius	1
Calada	2	Pseudodalaca	4
Callipielus	10	Pseudophassus	2
Cibyra	18	Pseudophilaenia	1
Dalaca	10	Puermytrans	1
Druceiella	7	Roseala	1
Dugdaleiella	1	Schaefferiana	2
Gymelloxes	5	Schausiana	5
Hampsoniella	2	Trichophassus	1
Hepialyxodes	1	Tricladia	4
Huebneriella	1	Vietteogorgopis	8
Kozloviella	1	Viridigigas	1
Limyra	1	Walkeriella	1
Mutipialus	2	Wallacella	1
Pallas	1	Yleuxas	2
Parapielus	4		



Plate 4. Examples of genera from Australasia. Photo credits: *Aoraia aurimaculata*, *Cladoxycanus minos*, *Dumbletonius characterifer*, *Heloxycanus patricki* (NZAC), *Archaeoaenetus nielsenii* (© Australian National Insect Collection, CSIRO), *Aenetus virescens*, *Oxycanus* sp. (Carlos Mielke), *Oncopera intricoides* (SAMA), *Abantiades latipennis*, *Elhamma australasiae*, *Zelotypia stacyi* (John Nielsen), *Wiseana* sp. (Josef de Freina), *Fraus latistria* (Axel Kallies), *Phassodes vitiensis* (Benny De Groof). Scale bar = 10 mm.

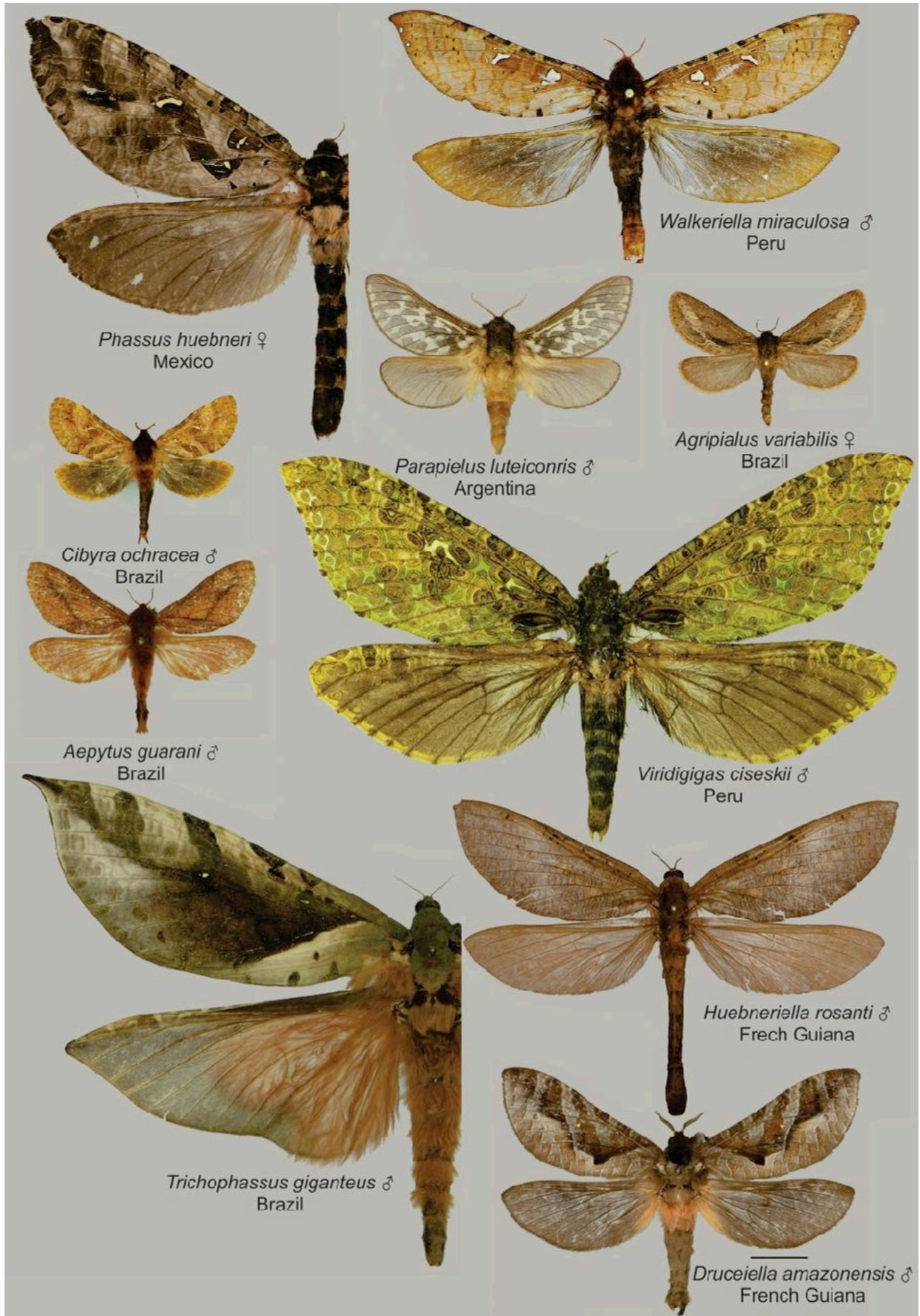


Plate 5. Examples of genera from Mexico-South America. Photo source: Carlos Mielke. Scale bar = 10 mm.

Food sources of Hepialidae by family and genus

The following summary is limited to family and genus names of host fungi and plants because many food sources, especially for plants, cited in the literature are not supported by detailed verification. The following list does not distinguish between native and exotic hosts. The present records show that the host plant range of the Hepialidae includes mosses, ferns, gymnosperms, and angiosperms, but to date there are no records of feeding on liverworts (Marchantiophyta). The number of host plant species recorded for most species of Hepialidae is relatively small, although still often of broad taxonomic range. The range of food sources for detritus and fungal feeding is very poorly documented, especially for detritus feeders. Anyone interested in further characterizing the food sources for the Hepialidae, especially the range of host species, should refer to the original literature that we cite for each species. The species name *Endoclita vietnamensis* aff. (= affinity) refers to Chinese moths that look very similar to *E. vietnamensis* and to which it probably has a close affinity.

(a) Dead - decaying leaves

Dumbletonius characterifer
Dumbletonius unimaculatus
Fraus simulans
Oxycanus dirempta

(b) Fungi

Oncopera brachyphylla
 [mycelia]
Oncopera mitocera [mycelia]

AGARICACEAE

Psalliota
Hepialus humuli

POLYPORACEAE

Poria
Aenetus virescens
Chaetoporus
Aenetus virescens
Echinochaete
Aenetus virescens
Fuscoporia
Aenetus virescens
Heterobasidion
Aenetus virescens

'Irpex'

Aenetus virescens

TREMALLACEAE

Tremella
Aenetus virescens

(c) Plants

BRYOPHYTA

BRYOPSIDA

Aoraia orientalis

MUSCI

Eudalaca rufescens
Korscheltellus gracilis
Phymatopus hecta

SPHAGNACEAE

Sphagnum
Aoraia macropis
Cladoxycanus minos
Heloxycanus patricki

PTERIDOPHYTA

Phymatopus hectoides
Phymatopus californicus

ATHYRIACEAE

Athyrium
Sthenopsis pretiosus
Triodia sylvina

DENNSTAEDTIACEAE

Pteridium
Korscheltellus fusconebulosa
Phymatopus hecta
Triodia sylvina

DRYOPTERIDACEAE

Dryopteris
Sthenopsis pretiosus
Polystichum
Thitarodes balmiya

ONOCLEACEAE

Matteuccia
Phymatopus japonicus
Sthenopsis pretiosus

PTERIDACEAE

Pteris
Phymatopus hecta
Triodia sylvina

EQUISETOPHYTA

EQUISETACEAE

Equisetum
Endoclita excrescens
Triodia sylvina

CONIFEROPHYTA

CUPRESSACEAE

Chamaecyparis
Endoclita excrescens

Cryptomeria

Endoclita auratus
Endoclita excrescens
Endoclita punctimargo
Endoclita purpurescens
Endoclita sinensis

Cunninghamia

Endoclita anhuiensis
Endoclita nodus
Endoclita sinensis

Metasequoia

Endoclita anhuiensis
Endoclita excrescens
Endoclita sinensis

Platycladus

Endoclita nodus

Sabina

Endoclita anhuiensis

PINACEAE

Abies

Korscheltellus gracilis

Picea

Korscheltellus gracilis

Pinus

Dalaca pallens
Endoclita excrescens

TAXACEAE

Torreya

Endoclita fujianodus

MAGNOLIOPHYTA

ACANTHACEAE

Strobilanthes
Endoclita malabaricus

ACERACEAE**Acer***Korscheltellus gracilis**Sthenopis argenteomaculatus***ACORNACEAE****Acorus***Endoclita excrescens***ACTINIDIACEAE****Actinidia***Endoclita actinidae***Actinophora***Endoclita gmelina**Endoclita sericeus***ALANGIACEAE****Alangium***Endoclita nodus**Endoclita vietnamensis* aff.**ALTINGIACEAE****Altingia***Endoclita damor***AMARANTHACEAE****Bassia***Endoclita excrescens***Beta***Hepialus humuli***AMARYLLIDACEAE****Allium***Hepialus humuli**Korscheltellus lupulina***Galanthus***Korscheltellus lupulina***Narcissus***Korscheltellus lupulina***ANACARDIACEAE****Cotinus***Endoclita nodus***Magnifera***Endoclita sinensis***Rhus***Endoclita excrescens***APIACEAE****Apium***Korscheltellus lupulina***Cortia***Thitarodes balmiya***Daucus***Endoclita excrescens**Hepialus humuli**Korscheltellus lupulina**Thitarodes dinggyeensis**Triodia sylvina***Pastinaca***Hepialus humuli**Korscheltellus lupulina***Petroselinum***Korscheltellus lupulina***Selinum***Thitarodes balmiya***ARACEAE****Alocasia***Palpifer sordida***Amorphophallus***Palpifer niponica**Palpifer sordida***Arisaema***Palpifer niponica**Palpifer sexnotatus***Colocasia***Palpifer hopponis**Palpifer niponica**Palpifer pellicia**Palpifer sordida***ARECACEAE****Arenga***Endoclita nodus***ASPARAGACEAE****Asparagus***Hepialus humuli***ASPHODELACEAE****Phormium***Wiseana signata***ASTERACEAE****Arctium***Hepialus humuli**Phymatopus hecta**Triodia sylvina***Artemisia***Endoclita excrescens**Phymatopus hectoides**Thitarodes altaicola***Arum***Palpifer sordida***Aster***Korscheltellus lupulina***Baccharis***Phymatopus californicus**Phymatopus hectoides***Cassinia***Aenetus ligniveren***Chromolaena***Endoclita malabaricus***Chrysanthemum***Endoclita excrescens**Hepialus humuli**Korscheltellus lupulina***Chrysopsis***Phymatopus hectoides***Cirsium***Endoclita excrescens***Cynara***Hepialus humuli**Korscheltellus lupulina***Dahlia***Endoclita excrescens**Hepialus humuli**Korscheltellus lupulina***Eclipta***Endoclita excrescens***Erigeron***Endoclita excrescens***Eriophyllum***Phymatopus californicus**Phymatopus hectoides***Eupatorium***Endoclita gmelina**Endoclita sericeus***Helenium***Phymatopus californicus***Helianthus***Endoclita excrescens**Hepialus humuli***Lactuca***Hepialus humuli**Korscheltellus lupulina**Triodia sylvina***Lamiophlomis***Thitarodes xiaojinensis***Leontopodium***Thitarodes biruensis**Thitarodes xiaojinensis***Keiskeana***Endoclita excrescens***Olearia***Aenetus eximia**Aenetus ligniveren**Aenetus moorei***Petasites***Endoclita excrescens**Hepialus humuli**Phymatopus japonicus***Pyrethrum***Korscheltellus lupulina**Thitarodes armoricanus**Thitarodes gonggaensis**Thitarodes xiaojinensis***Rudbeckia***Korscheltellus lupulina***Saussurea***Thitarodes armoricanus**Thitarodes gonggaensis***Scorzoneroides***Hepialus humuli***Senecio***Phassus triangularis**Schausiana trojesa***Solidago***Korscheltellus lupulina**Triodia sylvina***Symphytum***Triodia sylvina***Taraxacum***Hepialus humuli**Korscheltellus lupulina**Phymatopus hecta**Triodia sylvina***Tussilago***Hepialus humuli***Vernonia***Schausiana trojesa***ATHEROSPERMATAEAE****Daphnandra***Aenetus eximia**Aenetus scotti***Doryphora***Aenetus eximia***BERBERIDACEAE***Thitarodes jinshaensis**Thitarodes renzhiensis*

BETULACEAE**Alnus***Endoclita excrescens**Endoclita auratus**Phassus triangularis**Schausiana trojesa**Sthenopsis argenteomaculatus**Sthenopsis purpurascens***Betula***Gazoryctra uralensis**Korscheltellus gracilis**Sthenopsis argenteomaculatus***Corylus***Zenophassus schamyl***BIGNONIACEAE****Catalpa***Endoclita excrescens**Endoclita sinensis**Endoclita yunnanensis***Jacaranda***Endoclita sericeus***Pandorea***Aenetus splendens***Tabebuia***Gymelloxes terea***BIXACEAE****Bixa***Endoclita sericeus***BORAGINACEAE****Cordia***Endoclita malabaricus***Echium***Hepialus humuli**Triodia sylvina***BRASSICACEAE****Armoracia***Hepialus humuli**Phymatopus hecta**Triodia sylvina***Brassica***Hepialus humuli**Korscheltellus lupulina***CAESALPINACEAE****Cassia***Endoclita malabaricus**Pseudodalaca sarta***Erythrophleum***Endoclita vietnamensis* aff.**CAMPANULACEAE****Cyananthus***Thitarodes pui***CANNABACEAE****Cannabis***Endoclita excrescens**Hepialus humuli***Celtis***Endoclita excrescens***Trema***Aenetus splendens**Endoclita hosei**Endoclita malabaricus**Endoclita sericeus**Endoclita vietnamensis* aff.**CANNACEAE****Canna***Endoclita excrescens***CAPRIFOLIACEAE****Sambucus***Endoclita excrescens**Endoclita sinensis***Scabiosa***Korscheltellus lupulina***Valeriana***Korscheltellus lupulina***CARYOPHYLLACEAE****Arenaria***Thitarodes baimaensis**Thitarodes renzhiensis**Thitarodes xizangensis***CASUARINACEAE****Allocauarina***Aenetus cohici**Aenetus ligniveren***Casuarina***Abantiades leucochiton**Aenetus lewinii**Aenetus ligniveren**Aenetus splendens**Endoclita malabaricus***CELASTRACEAE****Euonymus***Endoclita excrescens***CENTROLEPIDACEAE****Gaimardia***Aoraia oreobolae***CERCIDIPHYLLACEAE****Cercidiphyllum***Endoclita nodus***CHENOPODIACEAE****Chenopodium***Endoclita excrescens***COLCHICACEAE****Colchium***Korscheltellus lupulina***COMBETRACEAE****Terminalia***Phassus triangularis***COMMELINACEAE****Commelina***Endoclita excrescens***CONVOLVULACEAE****Ipomea***Endoclita excrescens***CORNACEAE****Cornus***Endoclita nodus**Schausiana trojesa***Nyssa***Endoclita damor**Endoclita nodus***CRUCIFERAE****Brassica***Endoclita excrescens**Korscheltellus lupulina***Napus***Endoclita excrescens***Raphanus***Endoclita excrescens***CUCURBITACEAE****Bryonia***Hepialus humuli**Korscheltellus lupulina**Triodia sylvina***CUNIONACEAE****Callicoma***Aenetus splendens***CYPERACEAE***Thitarodes jinshaensis**Thitarodes renzhiensis***Carex***Thitarodes armoricanus**Thitarodes balmiya**Thitarodes biruensis**Thitarodes gonggaensis**Thitarodes xiaojinensis**Wiseana umbraculata***Kobresia***Thitarodes biruensis**Thitarodes xiaojinensis***Oreobolus***Aoraia oreobolae***Scirpus.***Korscheltellus fusconebulosa***DILLENACEAE****Dillenia***Endoclita gmelina**Endoclita sericeus***Hibbertia***Aenetus cohici***DIOSCOREACEAE****Dioscorea***Palpifer nipponica**Palpifer sordida**Endoclita excrescens***EBENACEAE****Diospyros***Endoclita excrescens**Endoclita sinensis***ECDEIOCOLEACEAE****Ecdeiocolea***Fraus simulans***Ligustrum***Phassus n-signatus***ELAEAGNACEAE****Elaeagnus***Endoclita excrescens***ELAEOCARPACEAE****Aristotelia***Aenetus virescens***Elaeocarpus***Endoclita excrescens**Endoclita nodus***EPACRIDACEAE****Cyathodes***Aenetus virescens***ERICACEAE***Thitarodes anomopterus**Thitarodes markamensis**Thitarodes renzhiensis*

- Arctostaphylos**
Phymatopus hectoides
- Calluna**
Phymatopus hecta
- Erica**
Phymatopus hecta
- Leucopogon**
Aenetus virescens
- Rhododendron**
Bipectilus yunnanensis
Gazoryctra macilentus
Korscheltellus lupulina
Phymatopus californicus
Thitarodes baimaensis
Thitarodes menyuanicus
Thitarodes xiaojinensis
Thitarodes xizangensis
Thitarodes yeriensis
Thitarodes yushuensis
Thitarodes -zhongzhiensis
- Vaccinium**
Dalaca pallens
Phymatopus hecta
- ESCALLONIACEAE**
- Carpodetus**
Aenetus virescens
- EUPHORBIACEAE**
- Alchornea**
Endoclita vietnamensis aff.
- Aleurites**
Endoclita sericeus
- Bridelia**
Endoclita malabaricus
Endoclita sericeus
Endoclita vietnamensis aff.
- Daphniphyllum**
Endoclita excrescens
- Euphorbia**
Thitarodes balmiya
- Macaranga**
Endoclita gmelina
Endoclita malabaricus
Endoclita hosei
Endoclita sericeus
Endoclita sinensis
Endoclita vietnamensis aff.
- Mallotus**
Endoclita excrescens
Endoclita malabaricus
Endoclita nodus
Endoclita sinensis
Endoclita vietnamensis aff.
- Manihot**
Endoclita sericeus
- Ricinus**
Endoclita sericeus
- FABACEAE**
Aenetus astathes
Aenetus bilineatus
Thitarodes litangensis
- Albizia**
Endoclita excrescens
Endoclita sinensis
- Endoclita sericeus*
- Amorpha**
Endoclita hunanensis
- Astragalus**
Bipectilus yunnanensis
Endoclita excrescens
Thitarodes albipictus
Thitarodes armoricanus
Thitarodes baimaensis
Thitarodes lijiangensis
Thitarodes markamensis
Thitarodes meiliensis
Thitarodes menyuanicus
Thitarodes namensis
Thitarodes pratensis
Thitarodes renzhiensis
Thitarodes xiaojinensis
Thitarodes xizangensis
Thitarodes yeriensis
Thitarodes yulongensis
Thitarodes yunnanensis
Thitarodes yushuensis
Thitarodes zhongzhiensis
- Cajanus**
Endoclita malabaricus
- Callerya**
Aenetus scotti
- Crotolaria**
Endoclita sericeus
- Cyclopia**
Leto venus
- Delonix**
Endoclita malabaricus
- Desmodium**
Endoclita malabaricus
Oncopera brachyphylla
- Erythrina**
Endoclita damor
Endoclita hosei
Endoclita malabaricus
- Falcataria**
Endoclita damor
Endoclita malabaricus
- Gliricidia**
Endoclita hosei
Endoclita malabaricus
- Glycine**
Endoclita excrescens
- Glycyrrhiza**
Endoclita excrescens
- Lolium**
Dalaca chiliensis
Dalaca pallens
Oxycanus antipoda
Wiseana cervinata
- Lotus**
Wiseana cervinata
- Lupinus**
Phymatopus californicus
- Maackia**
Endoclita excrescens
- Medicago**
Dalaca pallens
- Korscheltellus lupulina*
Oncopera fasciculatus
Wiseana cervinata
- Melilotus**
Endoclita excrescens
- Phaseolus**
Hepialus humuli
Korscheltellus lupulina
- Pisum**
Hepialus humuli
Korscheltellus lupulina
- Pueraria**
Endoclita excrescens
Endoclita sinensis
Endoclita vietnamensis aff.
- Robinia**
Endoclita excrescens
Endoclita sinensis
- Securigera**
Triodia sylvina
- Sophora**
Endoclita sinensis
- Trifolium**
Dalaca chiliensis
Dalaca pallens
Eudalaca rufescens
Oncopera fasciculatus
Oxycanus antipoda
Wiseana cervinata
Wiseana copularis
- Vicia**
Korscheltellus lupulina
- Virgilia**
Leto venus
- Wistaria**
Endoclita excrescens
- FAGACEAE**
- Castanea**
Endoclita excrescens
Endoclita nodus
Endoclita sinensis
Napialus hunanensis
Napialus jiangxiensis
Sthenopsis purpurascens
- Castanopsis**
Endoclita sinensis
Napialus hunanensis
Napialus jiangxiensis
- Cyclobalanopsis**
Endoclita vietnamensis aff.
- Lithocarpus**
Phymatopus behrensii
- Quercus**
Aenetus virescens
Endoclita excrescens
Endoclita hunanensis
Endoclita sinensis
Endoclita yunnanensis
Napialus hunanensis
Schausiana trojesa
Sthenopsis argenteomaculatus

GENTIANACEAE

Gentiana
Pharmacis carna
Thitarodes armoricanus
Thitarodes gonggaensis

GERANIACEAE

Geranium
Korscheltellus lupulina
Thitarodes xiaojinensis

GROSSULARIACEAE

Ribes
Korscheltellus lupulina

GYROCARPACEAE

Gyrocarpus
Endoclita malabaricus

HAMAMELIDACEAE

Liquidambar
Napialus hunanensis
Loropetalum
Napialus hunanensis

HYPERICACEAE

Hypericum
Thitarodes balmiya
Thitarodes ferrugineus

IRIDACEAE

Crocasmia
Hepialus humuli
Korscheltellus lupulina
Gladiolus
Korscheltellus lupulina
Iris
Korscheltellus lupulina

JUNCACEAE

Korscheltellus fusconebulosa
Wiseana umbraculata

Juncus
Thitarodes pui

JUNCAGINACEAE

Triglochin
Thitarodes armoricanus
Thitarodes gonggaensis
Thitarodes xiaojinensis

JUGLANDACEAE

Juglans
Endoclita excrescens
Endoclita pallescens
Endoclita sinensis
Palpifer sexnotatus auct.
Sthenopis argenteomaculatus

Pterocarya
Endoclita nodus

LAMIACEAE

Ballota
Hepialus humuli
Korscheltellus lupulina
Clerodendrum
Endoclita hunanensis
Endoclita vietnamensis aff.
Gmelina
Endoclita chalybeatus
Endoclita hosei
Endoclita malabaricus
Endoclita signifer

Gymelloxes terea
Lamium
Hepialus humuli
Korscheltellus lupulina

Leonurus
Endoclita excrescens

Mentha
Hepialus humuli
Korscheltellus lupulina
Triodia sylvina

Ocimum
Endoclita malabaricus

Phlomis
Endoclita nodus

Prostanthera
Aenetus blackburnii
Aenetus eximia
Aenetus ligniveren

Salvia
Triodia sylvina

Tectona
Endoclita aroura
Endoclita chalybeatus
Endoclita damor
Endoclita gmelina
Endoclita malabaricus
Endoclita sericeus
Endoclita signifer

Thymus
Korscheltellus lupulina

Vitex
Aenetus virescens

LAURACEAE

Cinnamomum
Endoclita excrescens
Endoclita sinensis
Endoclita nodus
Litsea
Endoclita nodus
Endoclita sinensis
Endoclita vietnamensis aff.

Machilus
Endoclita sinensis

Phoebe
Endoclita nodus

LILIACEAE

Thitarodes jinshaensis
Thitarodes litangensis
Thitarodes markamensis
Thitarodes renzhiensis
Thitarodes zaliensis

Convallaria
Korscheltellus lupulina

Fritillaria
Hepialiscus ledongensis

Gloriosa
Palpifer sordida

Lilium
Endoclita excrescens

Lloydia
Thitarodes balmiya

Veratrum
Pharmacis carna

LYTHRACEAE

Lagerstroemia
Endoclita malabaricus

MAGNOLIACEAE

Liriodendron
Endoclita excrescens
Endoclita nodus
Endoclita vietnamensis aff.
Endoclita yunnanensis

Magnolia
Endoclita damor
Endoclita nodus

Michelia
Endoclita nodus

MALVACEAE

Abutilon
Endoclita malabaricus

Althaea
Triodia sylvina

Bombacopsis
Gymelloxes terea

Buettneria
Endoclita buettneria

Corchorus
Palpifer sexnotatus auct.

Durio
Endoclita sericeus

Firmiana
Endoclita yunnanensis

Grewia
Aenetus simonseni
Endoclita gmelina
Endoclita malabaricus
Endoclita sericeus
Endoclita vietnamensis aff.

Guzuma
Gymelloxes terea

Hoheria
Aenetus virescens

Lavatera
Triodia sylvina

Malva
Hepialus humuli
Triodia sylvina

Melochia
Endoclita nodus

Sidalcea
Phymatopus hectoides

Sterculia
Endoclita malabaricus

Theobroma
Endoclita hosei
Endoclita sericeus

MELIACEAE

Melia
Endoclita nodus
Endoclita sinensis

Toona
Endoclita nodus
Endoclita sinensis

MIMOSACEAE

Acacia
Aenetus ligniveren

Aenetus moorei
Aenetus tindalei
Endoclita malabaricus
Endoclita sinensis
Endoclita vietnamensis aff.
Oxycanus australis
Oxycanus dirempta
Calliandra
Endoclita malabaricus
MONIMIACEAE
Daphnandra
Aenetus eximia
Aenetus scotti
MORACEAE
Broussonetia
Endoclita excrescens
Endoclita sinensis
Ficus
Endoclita excrescens
Humulus
Endoclita excrescens
Hepialus humuli
Korscheltellus lupulina
Triodia sylvina
Morus
Endoclita excrescens
MNIACEAE
Mnium
Phymatopus hecta
MYRSINACEAE
Maesa
Endoclita vietnamensis aff.
MYRTACEAE
Abantiades labyrinthicus
Oxycanus rosaceus
Acmena
Aenetus eximia
Aenetus ligniveren
Agonis
Aenetus dulcis
Callistemon
Aenetus ligniveren
Aenetus splendens
Endoclita excrescens
Eucalyptus
Abantiades argentata
Abantiades atripalpis
Abantiades hyalinatus
Abantiades latipennis
Abantiades magnificus
Abantiades marcidus
Aenetus eximia
Aenetus ligniveren
Aenetus montanus
Aenetus moorei
Aenetus ombraloma
Aenetus ramsayi
Aenetus scotti
Aenetus splendens
Aenetus virescens
Endoclita auratus
Endoclita hosei
Endoclita malabaricus

Endoclita salvazi
Endoclita vietnamensis
Endoclita vietnamensis aff.
Trichophassus giganteus
Zelotypia stacyi
Eugenia
Aenetus splendens
Endoclita damor
Endoclita malabaricus
Kunzea
Aenetus virescens
Leptospermum
Aenetus lewinii
Aenetus ligniveren
Aenetus moorei
Aenetus tindalei
Aenetus virescens
Lophostemon
Aenetus ligniveren
Melaleuca
Aenetus ligniveren
Aenetus moorei
Syzygium
Aenetus eximia
Aenetus ligniveren
Aenetus ramsayi
Aenetus splendens
Tristania
Aenetus ligniveren
Endoclita sericeus
Tristaniopsis
Aenetus eximia
Ugni
Dalaca pallens
Waterhousea
Aenetus eximia
NOTHOFAGACEAE
Nothofagus
Aenetus cohici
Aenetus eximia
Aenetus virescens
Callipielus perforata
NYSSACEAE
Camptotheca
Endoclita sinensis
Nysa
Napialus hunanensis
OENOTHERACEAE
Oenothera
Endoclita excrescens
OLEACEAE
Fraxinus
Aenetus blackburnii
Aenetus ligniveren
Endoclita excrescens
Endoclita pallescens
Endoclita sinensis
Korscheltellus lupulina
Phassus triangularis
Gymnelea
Aenetus virescens
Ligustrum
Aenetus eximia

Endoclita excrescens
Endoclita nodus
Endoclita sinensis
Endoclita vietnamensis aff.
Korscheltellus lupulina
Phassus n-signatus
Thitarodes armoricanus
Thitarodes gonggaensis
Nestegis
Aenetus virescens
Olea
Endoclita excrescens
Syringa
Endoclita excrescens
Korscheltellus lupulina
PAEONIACEAE
Paeonia
Endoclita excrescens
Hepialus humuli
Korscheltellus lupulina
Phymatopus hecta
Thitarodes altaicola
PANDANACEAE
Pandanus
Endoclita sericeus
PAPAVERACEAE
Corydalis
Thitarodes balmiya
PASSIFLORACEAE
Passiflora
Pseudodalaca sarta
PAULOWNIACEAE
Paulownia
Endoclita excrescens
Endoclita nodus
Endoclita sinensis
Napialus hunanensis
Napialus jiangxiensis
PHYLLANTHACEAE
Bischofia
Endoclita sericeus
Glochidion
Aenetus cyanochlora
Aenetus edwardsi
Aenetus eximia
Endoclita damor
Endoclita sericeus
Endoclita sinensis
Endoclita vietnamensis aff.
Sapium
Endoclita vietnamensis aff.
PHYTOLACCACEAE
Phytolacca
Endoclita excrescens
PLANTAGINACEAE
Digitalis
Korscheltellus lupulina
Plantago
Hepialus humuli
Korscheltellus lupulina
Pharmacis pyrenaicus
Phymatopus hecta
Triodia sylvina

Platanus

Endoclita excrescens
Endoclita fijianodus
Endoclita sinensis

POACEAE

Aoraia orientalis
Aoraia insularis
Fraus simulans [dead leaves]
Gorgopis libania
Oncopera alboguttata
Oncopera intricata
Oncopera rufobrunnea
Oncopera tindalei
Pharmacis aemilianus
Pharmacis anselminae
Pharmacis bertrandi
Phymatopus hectoides
Thitarodes pratensis
Wiseana copularis

Agropyron

Endoclita excrescens
Triodia sylvina

Agrostis

Wiseana cervinata

Anthoxanthum

Wiseana cervinata

Arrhenatherum

Dalaca pallens

Avena

Dalaca pallens
Korscheltellus lupulina

Bromus

Wiseana cervinata

Chloris

Oncopera mitocera

Cynodon

Eudalaca rufescens

Dactylus

Dalaca pallens
Endoclita excrescens
Oncopera fasciculatus
Oxycanus antipoda
Wiseana cervinata

Deyeuxia

Thitarodes armoricanus
Thitarodes gonggaensis

Deyeuxia

Thitarodes xiaojinensis

Elymus

Hepialus humuli
Korscheltellus lupulina

Festuca

Dalaca pallens
Eudalaca rufescens
Pharmacis pyrenaicus
Thitarodes dinggyeensis
Thitarodes gonggaensis
Wiseana cervinata

Harpechloa

Eudalaca rufescens

Heteropogon

Eudalaca rufescens

Holcus

Dalaca pallens

Wiseana cervinata

Hordeum

Endoclita excrescens
Thitarodes namensis

Hordum

Korscheltellus lupulina

Hyparrhenia

Eudalaca rufescens

Miscanthus

Endoclita excrescens

Panicum

Oncopera brachyphylla
Oncopera mitocera

Paspalum

Dalaca pallens
Oncopera mitocera

Pennisetum

Eudalaca rufescens
Oncopera brachyphylla
Oncopera mitocera

Phalaris

Dalaca pallens
Wiseana cervinata

Phleum

Dalaca pallens

Phragmites

Endoclita excrescens

Phyllostachys

Bipectilus zhejiangensis

Poa

Dioxycanus fuscus
Dioxycanus oreas
Oncopera alpina
Oxycanus oreades
Oxycanus oressigenes
Thitarodes balmiya
Thitarodes biruensis
Thitarodes xiaojinensis

Saccharum

Oncopera mitocera

Secale

Endoclita excrescens

Setaria

Oncopera brachyphylla

Sorgum

Endoclita excrescens

Themeda

Eudalaca rufescens

Tristachya

Eudalaca rufescens

Triticum

Dalaca chiliensis
Dalaca pallens
Endoclita excrescens
Hepialus humuli
Korscheltellus lupulina

Zea

Endoclita excrescens

POLEMONIACEAE**Phlox**

Korscheltellus lupulina

POLYGALACEAE**Persicaria**

Thitarodes balmiya

Polygala

Thitarodes balmiya

POLYGONACEAE

Thitarodes anomopterus

Thitarodes callinivalis

Thitarodes deqinensis

Thitarodes litangensis

Thitarodes pratensis

Thitarodes renzhiensis

Thitarodes zaliensis

Bistorta

Thitarodes albipictus

Oxyria

Thitarodes altaicola

Thitarodes armoricanus

Thitarodes gonggaensis

Thitarodes jianchuanensis

Polygonum

Bipectilus yunnanensis

Endoclita excrescens

Gazoryctra ganna

Thitarodes albipictus

Thitarodes altaicola

Thitarodes armoricanus

Thitarodes baimaensis

Thitarodes biruensis

Thitarodes ferrugineus

Thitarodes gonggaensis

Thitarodes jialangensis

Thitarodes lijiangensis

Thitarodes markamensis

Thitarodes menyuanicus

Thitarodes namensis

Thitarodes xiaojinensis

Thitarodes xizangensis

Thitarodes yeriensis

Thitarodes yulongensis

Thitarodes yunnanensis

Thitarodes yushuensis

Thitarodes zhongzhiensis

Rheum

Thitarodes albipictus

Thitarodes armoricanus

Thitarodes baimaensis

Thitarodes meiliensis

Thitarodes menyuanicus

Thitarodes namensis

Thitarodes xiaojinensis

Rumex

Endoclita excrescens

Hepialiscus ledongensis

Hepialus humuli

Korscheltellus lupulina

Phymatopus californicus

Phymatopus hecta

Thitarodes baimaensis

Thitarodes meiliensis

Thitarodes yeriensis

Thitarodes yulongensis

Triodia sylvina

PRIMULACEAE**Polyanthus***Hepialus humuli***Primula***Korscheltellus lupulina**Phymatopus hecta**Thitarodes armoricanus**Thitarodes balmiya**Thitarodes gonggaensis***RANUNCULACEAE***Thitarodes anomopterus**Thitarodes callinivalis**Thitarodes jianchuanensis**Thitarodes jinshaensis**Thitarodes litangensis**Thitarodes renzhiensis**Thitarodes zaliensis***Aconitum***Hepialus humuli***Anemone***Korscheltellus lupulina**Thitarodes balmiya***Aquilegia***Korscheltellus lupulina***Caltha***Thitarodes armoricanus**Thitarodes balmiya**Thitarodes gonggaensis***Clematis***Korscheltellus lupulina***Delphinium***Korscheltellus lupulina***Oxygraphis***Thitarodes armoricanus**Thitarodes balmiya**Thitarodes gonggaensis***Rannunculus***Thitarodes balmiya**Thitarodes gonggaensis**Thitarodes pui**Thitarodes xizangensis***Thactrium***Endoclita excrescens**Thitarodes biruensis**Thitarodes xiaojinensis***RHAMACEAE****Alphitonia***Aenetus lewinii**Aenetus mirabilis***Hovenia***Endoclita nodus***Pomaderris***Aenetus eximia**Aenetus ligniveren**Aenetus moorei***Rhamnella***Endoclita sinensis***Ziziphus***Endoclita malabaricus***ROSACEAE***Palpifer sexnotatus* auct.*Thitarodes renzhiensis***Aruncus***Thitarodes balmiya***Eriobotrya***Endoclita excrescens**Endoclita minanus**Endoclita yunnanensis***Filipendula***Hepialus humuli***Fragaria***Dalaca chiliensis**Dalaca pallens**Hepialus humuli**Korscheltellus lupulina**Oncopera rufobrunnea**Triodia sylvina***Geum***Thitarodes balmiya***Horkelia***Phymatopus hectoides***Malus***Aenetus ligniveren**Endoclita excrescens**Hepialus humuli**Phymatopus californicus***Potentilla***Hepialiscus ledongensis**Magnificus jiuzhiensis**Pharmaxis pyrenaicus**Thitarodes albipictus**Thitarodes armoricanus**Thitarodes balmiya**Thitarodes biruensis**Thitarodes gonggaensis**Thitarodes xiaojinensis***Prunus***Endoclita excrescens**Endoclita vietnamensis* aff.*Pseudodalaca sarta***Pyracantha***Endoclita excrescens***Pyrus***Aenetus ligniveren**Endoclita excrescens**Endoclita malabaricus**Endoclita sinensis**Korscheltellus lupulina**Pseudodalaca sarta***Rosa***Endoclita excrescens**Endoclita malabaricus***Rubus***Aenetus ligniveren**Aenetus splendens**Dalaca pallens**Dalaca variabilis**Endoclita inouei**Endoclita pallescens**Hepialus humuli**Korscheltellus lupulina**Phymatopus californicus**Zenophassus schamyl***Sanguisorba***Dalaca pallens***Sorbus***Korscheltellus gracilis***Spenceria***Thitarodes armoricanus**Thitarodes gonggaensis***Spiraea***Endoclita excrescens**Hepialus humuli***RUBIACEAE****Anthocephalus***Endoclita hosei**Endoclita malabaricus***Cinchona***Endoclita damor**Endoclita purpurescens**Endoclita sericeus***Coffea***Endoclita malabaricus***Gardenia***Endoclita excrescens**Endoclita hosei***RUTACEAE****Citrus***Endoclita minanus**Endoclita nodus***Evodia***Endoclita damor**Endoclita nodus***Melicope***Aenetus scotti***Nematolepis***Aenetus moorei***Phellodendron***Endoclita pallescens***Zieria***Aenetus moorei***SALICACEAE***Thitarodes renzhiensis***Populus***Endoclita excrescens**Endoclita sinensis**Sthenopsis argenteomaculatus**Sthenopsis purpurascens***Salix***Endoclita excrescens**Endoclita hunanensis**Magnificus jiuzhiensis**Sthenopsis argenteomaculatus**Sthenopsis purpurascens**Sthenopsis thule**Thitarodes baimaensis**Thitarodes menyuanicus**Triodia sylvina***SANTALACEAE****Santalum***Endoclita malabaricus***SAPINDACEAE****Alectryon***Aenetus ramsayi**Aenetus virescens***Allophylus***Endoclita sericeus*

Dictamnus
Endoclita excrescens
Dimocarpus
Endoclita sinensis
Diploglottis
Aenetus blackburnii
Aenetus eximia
Aenetus ramsayi
Aenetus scotti
Dodonaea
Aenetus blackburnii
Aenetus djernaesae
Aenetus eximia
Aenetus ligniveren
Aenetus splendens
Aenetus tindalei
Filicium
Endoclita malabaricus
Sapindus
Endoclita malabaricus
SAPOTACEAE
Planchonella
Zelotypia stacyi
SAURURACEAE
Houttuynia
Endoclita excrescens
SAXIFERAGACEAE
Thitarodes litangensis
Thitarodes renzhiensis
Thitarodes zaliensis
Hydrangea
Endoclita excrescens
SCROPHULARIACEAE
Buddleja
Phassus triangularis
Schausiana trojesa
Calceolaria
Phymatopus californicus
Myoporum
Aenetus blackburnii
Aenetus djernaesae
Aenetus tindalei
Aenetus virescens
Penstemon
Phymatopus californicus
Picrorhiza
Thitarodes baimaensis
Scrophularia
Hepialus humuli
Phymatopus hectoides
Verbascum
Triodia sylvina
Veronica
Thitarodes pui
Stachytarpheta

Endoclita gmelina
Endoclita sericeus
Vitex
Aenetus virescens
Endoclita nodus
Endoclita sinensis
SIMAROUBACEAE
Ailanthus
Endoclita sericeus
SOLANACEAE
Lycopersicon
Endoclita excrescens
Korscheltellus lupulina
Nicotiana
Endoclita excrescens
Solanum
Endoclita excrescens
Endoclita malabaricus
Hepialus humuli
Korscheltellus lupulina
Oxycanus antipoda
STYRACACEAE
Alniphyllum
Napialus hunanensis
Helesia
Endoclita nodus
THEACEAE
Endoclita vietnamensis aff.
Camellia
Endoclita malabaricus
Endoclita purpurascens
Endoclita sericeus
Napialus hunanensis
Shima
Endoclita sinensis
Endoclita damor
Napialus hunanensis
THYMELAEACEAE
Daphne
Endoclita nodus
Passerina
Phymatopus hecta
TILIACEAE
Palpifer sexnotatus auct.
ULMACEAE
Ulmus
Aenetus ligniveren
Endoclita nodus
Endoclita sinensis
URTICACEAE
Boehmeria
Endoclita sinensis
Dendrocnide
Aenetus eximia

Aenetus scotti
Laportea
Aenetus scotti
Urtica
Hepialus humuli
Korscheltellus lupulina
Phymatopus hecta
Triodia sylvina
VERBENACEAE
Callicarpa
Endoclita malabaricus
Citharexylum
Endoclita malabaricus
Clerodendrum
Endoclita excrescens
Endoclita malabaricus
Endoclita nodus
Endoclita sericeus
Endoclita sinensis
Lantana
Aenetus eximia
Aenetus ligniveren
Aenetus scotti
Aenetus splendens
Endoclita gmelina
Endoclita malabaricus
Endoclita sericeus
Endoclita vietnamensis aff.
Phassus huebneri
Lippia
Schausiana trojesa
VITACEAE
Cayratia
Endoclita excrescens
Leea
Endoclita gmelina
Endoclita sericeus
Tetrastigma
Endoclita vietnamensis aff.
Vitis
Endoclita excrescens
Endoclita sinensis
Endoclita vietnamensis aff.
Roseala tessellatus
Zenophasus schamyl
WINTERACEAE
Pseudowintera
Aenetus virescens
ZINGIBERACEAE
Zingiber
Endoclita excrescens

Catalogue Format

Genera and species are listed in alphabetical sequence. Where species are incorrectly assigned in the literature, usually due to misidentification, the reference includes an 'error' designation. Where information or images have not been located in published literature we have referred to this as 'unpublished' rather than unknown, as some entries may exist on the Web, particularly for

specimen illustrations. The original page reference and author name is given for each species, along with literature citations for species illustrations, documentation of morphology (adult or immature), and biology, general habitat, and host records. Several taxonomic amendments are made where morphological or molecular sequence evidence support species status. These taxonomic acts are listed in the *Notes on taxonomic clarification and amendments* section, with details presented with each species entry. Supporting molecular sequences are specified in the Supplementary Data section at the end of the Catalogue.

Original authors are given for all species, along with the first page for the species name. The original genus name is given in parentheses, whether or not it is the same name, to identify its past status. To avoid unnecessary confusion and nomenclatural instability (Turner 1966), we have followed Nielsen *et al.* (2000) and most current practice by citing the original species names regardless of grammatically correct gender agreement, either in the original or with subsequent generic transfers; the exception is the New Zealand fauna where names conforming to gender (Dugdale 1994) are in general use. Each species entry includes the following categories:

Synonyms: Synonymies proposed by Nielsen *et al.* (2000) are accepted here unless revised by subsequent publications, or from other evidence for which we have included explanation (see Notes). We have not accepted synonymies proposed by Leraut (1980) due to the absence of specific documented evidence. Synonyms (syn.) are listed by year and designated as subspecies (explicit designation, or prefixed with 'var'. 'v.' and 'form' from the original literature), infrasubspecies (inf.) are labeled with 'ab.', 'a.' as in the original literature. Misspelling (msp.) and emendation (emd.) are identified separately from synonyms. Designation of subspecies and infrasubspecies follows the Zoological Code of Nomenclature (2022, on line) with respect to the following articles:

The rank denoted by a species-group name following a binomen is subspecific, except that

Article 45.6.1. it is infrasubspecific if its author expressly gave it infrasubspecific rank, or if the content of the work unambiguously reveals that the name was proposed for an infrasubspecific entity (see also Article 45.6.4);

Article 45.6.2. it is deemed to be infrasubspecific if its author used one of the terms "aberration", "ab." or "morph";

Article 45.6.4. it is subspecific if first published before 1961 and its author expressly used one of the terms "variety" or "form" (including use of the terms "var.", "forma", "v." and "f."), unless its author also expressly gave it infrasubspecific rank, **or the content of the work unambiguously reveals that the name was proposed for an infrasubspecific entity**, in which case it is infrasubspecific (our emphasis).

Emendations [Art. 33.2] The following ICZN clauses are referenced for our assessment of emendations in this catalogue. Bold text our emphasis:

Any demonstrably intentional change in the original spelling of a name other than a mandatory change is an "emendation", except as provided in Article 33.4.33.2.1. A change in the original spelling of a name is only to be interpreted as "demonstrably intentional" when in the work itself, or in an author's (or publisher's) corrigenda, there is **an explicit statement of intention**, or when both the original and the changed spelling are cited and the latter is adopted in place of the former, or when two or more names in the same work are treated in a similar way. Article 33.2.2. The

correction of an incorrect original spelling **in accordance with Article 32.5** is a "justified emendation", and the name thus corrected retains the authorship and date of the original spelling [Art. 19.2]. Article 33.2.3. Any other emendation is an "unjustified emendation"; the name thus emended is available and it has its own author and date and is a junior objective synonym of the name in its original spelling; it enters into homonymy and can be used as a substitute name, but; Article 33.2.3.1. When an unjustified emendation is in prevailing usage and is attributed to the original author and date it is deemed to be a justified emendation. Article 32.5. **Spellings that must be corrected (incorrect original spellings)**. Article 32.5.1. If there is in the original publication itself, without recourse to any external source of information, clear evidence of an inadvertent error, such as a lapsus calami or a copyist's or printer's error, it must be corrected. **Incorrect transliteration or latinization, or use of an inappropriate connecting vowel, are not to be considered inadvertent errors**

Type locality (TL): Beginning with country, followed by subordinate administrative area where known, and type locality site information.

Type collection (TC): Repository of the type specimen.

Type genus (TG)

Type species (TS): As designated in publication.

Range: Approximate geographic range of the species inferred from published records or type locality if only known by the type specimen. All country names refer to the political status quo.

Illustration: Citations refer to illustrations made of individual plates of figures where a species is illustrated for the whole moth, whether a collected or live specimen, and includes diagrammatic, artistic, and photographic presentations (abbreviations: pl. – plate, fig. – figure, figs. – figures; C.D. – compact disk). Where no plate or figure number is given, the page number is cited.

Morphology: Articles cited include those presenting diagrams or photos illustrating aspects of morphology for adults or immature stages, including variation. Publications that describe detailed features of a species, including immature stages and variation are listed. Minimal or generalized descriptions of appearance are not included, other than for some of the very early literature in order to record these historical developments.

Biology: The biology citations pertain to observations on aspects of development, habitat, behaviour, genetics and host records (even if publications of the latter include no other information). Information limited to individual flight records are usually not included unless characterizing an overall pattern of behaviour. Some cited articles summarize general aspects of biology for the family as a whole or of a particular genus without reference to individual species. The latter usually include some pesticide studies that do not distinguish their target species (e.g. species of *Wiseana*, in New Zealand), but one such study that is of general significance is a report by Ashe (1991) who found 75 specimens of the rarely collected Central American staphylinid genus *Tachiona* (Coleoptera) inside the webs of a stem boring hepialid in Costa Rica where hepialid larvae were active. There were no adults or larvae of *Tachiona* under webs where the adult moth had already emerged, even if very recently.

Habitat: Habitat types described by accompanying citations where available. Australian habitat types include association of the species with the National Vegetation Information System (NVIS) (DCCEE 2018) with additional geographic descriptors. Map coordinates from the Atlas of Living Australia were sorted by species and long/lat, and duplicates removed. Distribution data was plotted out on Google Earth and overlain with the NVIS map to record corresponding habitat

types. General habitat associations for some non-Australian species are noted as 'inferred' from the biology and habitat of closely related species.

Hosts: Host plant records are listed alphabetically for each species, and are treated at face value (unless clearly erroneous), since it is usually not possible to judge their veracity. The term 'host plant' is used to refer to species recorded in the literature either as a food source or a source of food and shelter. Source citations for hosts are included in the "Biology" category. Due to space and duplication we have not appended references to individual host records. Where we have not found any record of a food source, we refer to this as 'unpublished' (to our knowledge).

Notes on taxonomic clarification and amendments

Several taxonomic and nomenclatural changes, or designations, are made for the first time. Justifications are detailed within the catalogue for the following names:

1. *Aenetus cyanochlora* Lower, 1894, **stat. rest.**
2. *Endoclita hunanensis* (Chu & Wang, 1985), **stat. rest.**
3. *Endoclita pallescens* Tshistjakov, 1996, **stat. rest.**
4. *Endoclita pfitzneri* (Gaede, 1933), **stat. rest.**
5. The following species are removed from "*incertae sedis*" listed by Mielke & Grehan (2012) and/or synonymized based on COI in combination with available morphological details or with available morphological details only (see Supplement at the end of the catalogue for the COI sequences). Sequences were obtained by Nick Grishin (University of Texas), following the methodology of Li *et al.* (2019).
 - (a) *Dalaca manoa* Pfitzner, 1914, **syn. n.** of *Dalaca olivescens* Pfitzner, 1914
 - (b) *Dalaca vibicata* Pfitzner, 1914, **syn. n.** of *Dalaca trilinearis* Pfitzner, 1914
 - (c) *Gymeloxes costaricensis* (Druce, 1887), **comb. n.** (*Phassus*)
 - (d) *Philoenia cocama* (Pfitzner, 1914), **comb. n.** (*Dalaca*)
 - (e) *Philoenia nannophyes* (Pfitzner, 1914), **stat. rest., comb. n.** (*Dalaca*)
 - (e) *Philoenia niepelti* (Pfitzner, 1914), **comb. n.** (*Dalaca*)
 - (h) *Pseudodalaca smithi* (Druce, 1889), **comb. n.** (*Phassus*)
 - (f) *Vietteogorgopis petropolisiensis* (Viette, 1952), **comb. n.** (*Cibyra*)

Institutional collections cited

Academy of Natural Sciences Philadelphia, Philadelphia, Pennsylvania, USA
 Albany Museum, Rhodes University, Grahamstown, Eastern Cape, South Africa
 American Museum of Natural History, New York, New York, USA
 Auckland Institute and War Memorial Museum, Auckland, New Zealand
 Australian Museum, Sydney, NSW, Australia
 Australian National Insect Collection, CSIRO, Canberra, ACT, Australia
 Beijing Agricultural University, Beijing, China
 Bernice P. Bishop Museum, Honolulu, Hawai'i, USA
 Biological Museum of Sun Yat-Sen University, Guangzhou, China
 Canterbury Museum, Christchurch, New Zealand
 Carnegie Museum of Natural History, Pittsburgh, Pennsylvania, USA
 Colección Nacional de Insectos, Universidad Nacional Autónoma de México, Mexico City, Mexico
 Collection Father Jesus S. Moure, Dept. de Zoologia, Universidade Federal do Paraná, Curitiba, Paraná, Brazil

Cornell University Insect Collection, Cornell University, Ithaca, New York, USA
Department of Grassland, Agriculture and Animal Husbandry, China University, Xining, Quinghai, China
Ditsong National Museum of Natural History (formerly Transvaal Museum), Pretoria, Gauteng, South Africa
Entomological Collection of Oswaldo Cruz Institute, Rio de Janeiro, Rio de Janeiro, Brazil
Entomological Institute of Hokkaido University, Sapporo, Hokkaido, Japan
Entomological Laboratory, Kyushu University, Kitakyushu, Kyushu, Japan
Field Museum of Natural History, Chicago, Illinois, USA
"Grigore Antipa" National Museum of Natural History, Bucharest, Romania
Hokkaido University, Sapporo, Hokkaido, Japan
Hope Entomological Collections, Oxford University Museum of Natural History, Oxford, UK
Illinois Natural History Survey, Champaign, Illinois, USA
Insect Collection of Southwest University, Chongqing, Sichuan, China
Insect Museum, Jiangxi Agricultural University, Nanchang, Jiangxi, China
Institut Royal des Sciences Naturelles de Belgique, Brussels, Belgium
Institute of Biology and Pedology, Vladivostok, Russia
Institute of Zoology, Academia Sinica, Beijing, China
Instituto Nacional de Biodiversidad, San José, Costa Rica
Iziko Museum of Capetown (formerly South African Museum), Cape Town, South Africa
Kitakyushu Museum of Natural History, Kitakyushu, Kyushu, Japan
Kunming Institute of Zoology, Academia Sinica, Kunming, Yunnan, China
Linnean Society, London, United Kingdom
McGuire Center for Lepidoptera and Biodiversity, Florida Museum of Natural History, University of Florida, Gainesville, Florida, USA
Museo Argentino de Ciencias Naturales Bernardino Rivadavia, Buenos Aires, Argentina
Museo de Historia Natural "Javier Prado", Lima, Peru
Museo Nacional de Historia Natural, Santiago, Chile
Museu de Ciències Naturals de Barcelona, Barcelona, Spain
Museu de Zoologia, São Paulo, São Paulo, Brazil
Museum für Naturkunde, Berlin, Germany
Muséum national d'Historie naturelle, Paris, France
Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts, USA
Museum of Los Angeles County, Los Angeles, California, USA
Museum Ströhle, Weiden, Germany
Museum Victoria, Melbourne, NSW, Australia
Museum Witt, München, Germany
Museum Zoologicum Bogoriensis, Cibinong (Bogor), Java, Indonesia
National Biodiversity Centre, Serbithang, Bhutan
National Centre for Biological Sciences, Tata Institute of Fundamental Research, Bengaluru, India.
National Museum of Natural History, Smithsonian Institution, Washington, D.C., USA
National Museum of Nature Science, Taichung, Taiwan
National Zoological Collections, Zoological Survey of India, Kolkata, India
Natural Laboratory of Insect Systematic and Physiology, Southwest Agricultural University, Chongqing, Sichuan, China
Natural History Museum (formerly British Museum Natural History), London, UK

Naturalis Biodiversity Centre (formerly Rijksmuseum van Natuurlijke Historie), Leiden, The Netherlands
Naturhistoriska Riksmuseet, Stockholm, Sweden
Naturhistorisches Museum Wien, Vienna, Austria
Naturmuseum und Forschungsinstitut Senckenberg, Frankfurt am Main, Germany
Naturwissenschaftliche Sammlungen, Museum Wiesbaden, Germany
New Zealand Arthropod Collection, Auckland, New Zealand
Protection Department, Huazhong Agricultural University, Wuhan, China
Queensland Museum, Brisbane, Queensland, Australia
Sichuan Institute of Chinese Materia Medica, Chongqing, Sichuan, China
Sichuan Plant Quarantine Station, Sichuan Provincial Department of Agriculture and Rural Affairs, Chengdu, Sichuan, China
South Australian Museum, Adelaide, SA, Australia
Te Papa, National Museum of New Zealand, Wellington, New Zealand
Universidad del Valle de Guatemala, Guatemala, Guatemala
West Australia Museum, Perth, WA, Australia
Zoological Institute, Russian Academy of Sciences, St. Petersburg, Russia
Zoological Museum, University of Copenhagen, Copenhagen, Denmark
Zoologische Staatssammlung des bayerischen Staates, Munich, Germany
Zoologisches Forschungsmuseum Alexander Koenig, Bonn, Germany

Catalogue Plates

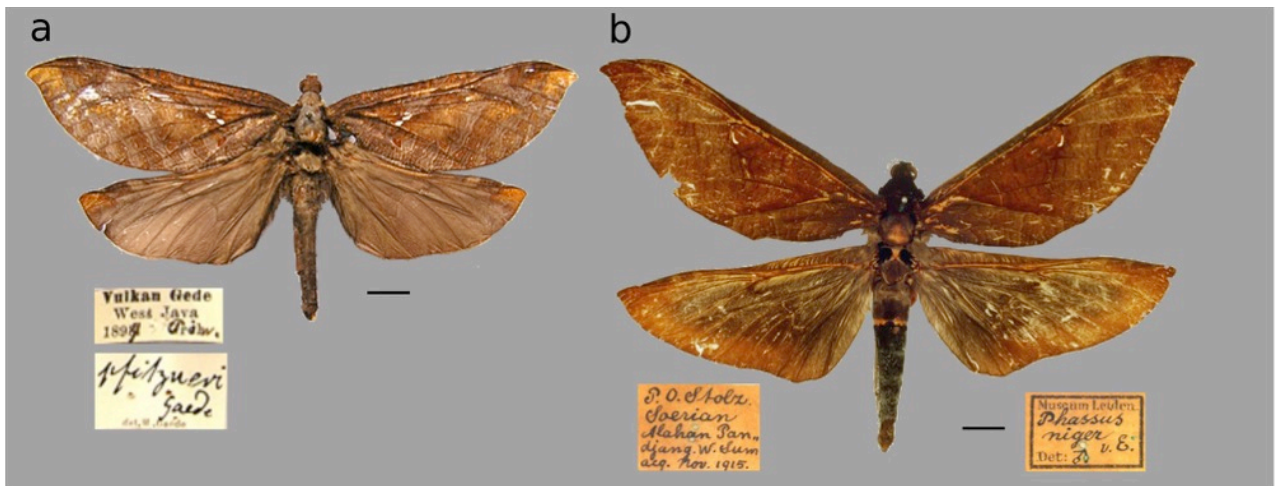


Plate 6. Holotypes of *Endoclita pfitzneri* (a), and *E. niger* (b). Photos by Rob de Vos, Naturalis. Scale bar = 1 cm.

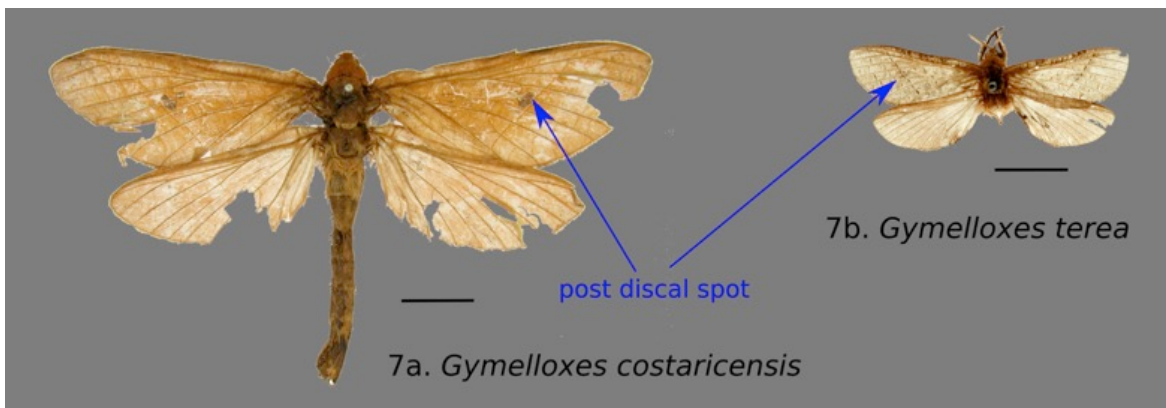


Plate 7. Comparison of the lectotype female of *Gymelloxes costaricensis* (7a) and the holotype male of *G. terea* (7b). Scale bar = 1 cm.

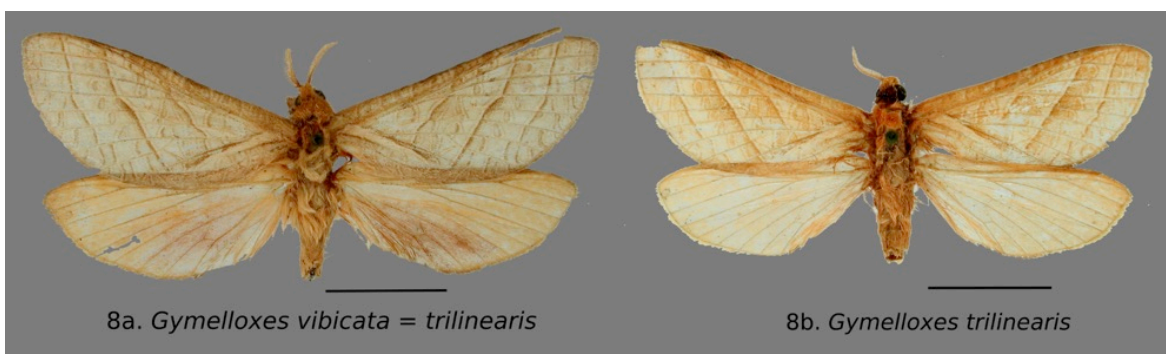


Plate 8. Comparison of the lectotypes male of *Gymelloxes vibicata* (8a) synonymised under *G. trilinearis* (8b). Scale bar = 1 cm.

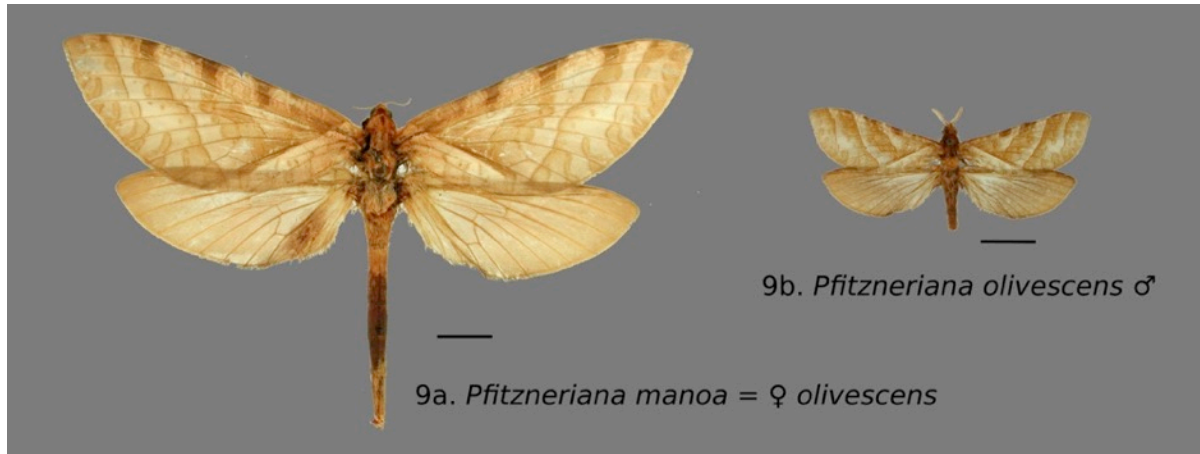


Plate 9. Comparison of holotype female *Pfitzneriana manoa* (9a) and holotype male of *P. olivescens* (9b). Scale bar = 1 cm



Plate 10. Comparison of lectotype female of *Philoenia cocama* (10a) with lectotype male of *P. saguanmachica* (10b) showing shared presence of scattered, dark brown curved to semi-lunar lines on the forewing. Scale bar = 1 cm.



Plate 11. Comparison of lectotype male of *Philoenia nannophyes* (11a) with the holotype male of *P. brasiliensis* (Plate 11b) illustrating presence of post discal stigma. Scale bar = 1 cm

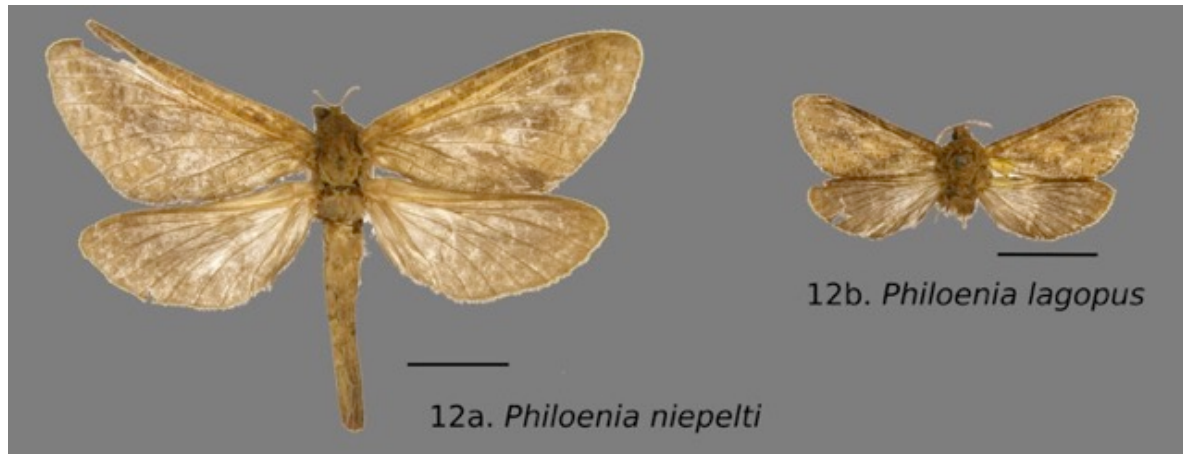


Plate 12 Comparison of lectotype female of *Philoena niepelti* (12a) and a syntype male of *P. lagopus* (12b), both of which do not show clear, contrasting wing pattern features due to scale disturbance, but the curved, inter-vein transverse lines are visible. Scale bar = 1 cm



Plate 13. Comparison of holotype female of *Pseudodalaca smithi* (13a) and holotype male of *P. gugelmanni* (13b) showing shared presence of diffuse dark brown shading in outer discal region. Scale bar = 1 cm.



Plate 14. Comparison of holotype female of *Vietteogorgopsis petropolisiensis* (14a) with a male of *Vietteogorgopsis* sp. (14b) from Bahia, Brazil. Scale bar = 1 cm.

TAXONOMIC CATALOGUE

HEPIALIDAE Stephens, [1828]

Note: Stephens's *Haustellata* Vol II is dated 1829 on the title page, but 1828 is given as the publication year at the bottom of pages 17, 33 (as November 1), and 49, 65 (December 1). These dates represent publication of sections published in 1828, prior to the entire volume in 1829 (see Heppner, 1982). As the Hepialidae appear on page 3, the correct year for this family is 1828.

TG: *Hepialus* Fabricius, 1775

Family name derived from *Hepialus* which automatically becomes the type genus without formal designation prior to 1999 (ICZN Article 16.2).

syn. **EPIALIDAE** Burmeister, 1878: 292

msp. **EPIALOIDAE** (Agassiz 1847: 140)

msp. **HEPIOLIDAE** (Nordström 1947b: 13)

FOSSIL TAXA

General: Tindale (1980), Sohn *et al.* (2012), Simonsen *et al.* (2019b)

Hepialidae [wing fossils In.17464, In.64538, In.64528 cf. *Sthenopsis*] (Simonsen *et al.* 2019b); United Kingdom: England, Isle of Wight, Bembridge Marls (Bouldnor Fm.)/Late Priabonian, Late Eocene; collection of Natural History Museum, London

Illustration: Robinson (1977: 109, figs. 5 [In.17464], 6 [In. 64528]), Jarzembowski (1980: 265, figs. 38 [In.17464], 47 [In.64528], 59 [In.64538])

Morphology: Robinson (1977), Jarzembowski (1980), Simonsen *et al.* (2019b)

Mummified larvae [P16153; P16154 cf. *Oxycanus*]. A.N. Burns *in* Keble (1947)

TC: Museum Victoria (MVM)

TL: Australia: Victoria, Pejark Marsh (unconsolidated sediments)/Late Holocene.

Illustration: Gill (1955: pl. 3)

Morphology: Robinson (1977), Jarzembowski (1980), Simonsen *et al.* (2019b)

EXTANT TAXA

ABANTIADES Herrich-Schäffer, [1855b]: 85

TS: *Epiolus* [*sic*] *hyalinatus* Herrich-Schäffer, [1853c], by subsequent designation (Kirby 1892: 894)

syn. *Pielus* Walker, 1856: 1549, 1576; junior synonym

TS: *Cossus labyrinthicus* Donovan, 1805, by subsequent designation (Kirby 1892: 893)

syn. *Rhizopsyche* Scott, 1864: 4, 11; unavailable

syn. *Trictena* Meyrick, 1890: 1135; junior synonym

TS: *Trictena argentata* Tindale, 1932, by subsequent designation (Tindale 1932: 500)

msp. *Tristena* (Pagenstecher 1909: 448)

syn. *Bordaia* Tindale, 1932: 507; junior synonym

TS: *Bordaia pica* Tindale, 1932: 507, by original designation

1. *Abantiades albofasciatus* (Swinhoe, 1892: 289) (*Pielus*)
TL: Australia: Western Australia, Swan River
TC: Hope Entomological Collections, Oxford University Museum of Natural History
Range: Western and southern Australia (Simonsen 2018: fig. map 536)
Illustration: Tindale (1932: figs. 58, 59), Common (1990: fig. 18.1), Simonsen (2018: pl. 3a-b, 44a)
Morphology: Tindale (1932), Simonsen (2018)
Biology: Simonsen (2018)
Habitat: *Eucalyptus* woodlands/Mallee, shrub understory (Simonsen 2018, DCCEEW 2018)
Hosts: unpublished
2. *Abantiades antenniochrus* Moore, 2014: 224 (*Abantiades*)
TL: Australia: Western Australia, Burracoppin
TC: West Australia Museum, Perth
Range: Western Australia (Simonsen 2018: fig. map 535)
Illustration: Moore (2014: figs. 15, 23-24), Simonsen (2018: pl. 12c)
Morphology: Moore (2014)
Biology: Simonsen (2018)
Habitat: *Eucalyptus* woodland, shrub understory (Simonsen 2018, DCCEEW 2018)
Hosts: unpublished
3. *Abantiades aphenges* (A. Turner, 1904: 247) (*Pielus*)
TL: Australia: New South Wales, Sydney
TC: Australian National Insect Collection, Canberra
Range: New South Wales and southeastern Queensland (Simonsen 2018: fig. map 532)
Illustration: Tindale (1932: figs. 63-64), Simonsen (2018: pl. 1a-b), Grehan & Mielke (2018c: fig. 1)
Morphology: Tindale (1932), Simonsen (2018)
Biology: Tindale (1932), Simonsen (2018)
Habitat: *Eucalyptus* forests/woodland, grass understory (Simonsen 2018, DCCEEW 2018)
Hosts: unpublished
4. *Abantiades argentangulum* Moore & Edwards, 2014: 34 (*Abantiades*)
TL: Australia: Western Australia, Yanchep National Park
TC: Australian National Insect Collection, Canberra
Range: western and southern Western Australia (Simonsen 2018: fig. map 541)
Illustration: Moore & Edwards (2014: figs. 9, 13), Simonsen (2018: pl. 13c, 14a, 43d-e)
Morphology: Moore & Edwards (2014), Simonsen (2018)
Biology: Simonsen (2018)
Habitat: *Eucalyptus* woodlands/Mallee, shrub understory (Simonsen 2018, DCCEEW 2018)
Hosts: unpublished
5. *Abantiades argentata* (Tindale, 1932: 500) (*Trictena*)
TL: Australia: Western Australia, Blackwood State Forest
TC: South Australian Museum, Adelaide
Range: **approximately** southern half of Australia (Simonsen 2018: fig. map 546)

Illustration: Herrich-Schäffer ([1854c]: pl. [31], figs. 47, 48 [as *Abantiades argenteus* of Donovan 1805]), Tindale (1932: figs. 4-7), Pfitzner & Gaede (1933: pl. 75a-b), D'Abrera (1974: 39), Simonsen (2018: pl. 16c, 45e), Simonsen *et al.* (2019a: fig. 1k)

Morphology: Simonsen (2018)

Biology: Tindale (1935), Hawes (1945), Yen (2009: aboriginal food), Simonsen (2018)

Habitat: *Eucalyptus* woodlands/ Mallee, grass understory (Simonsen 2018, DCCEEW 2018)

Hosts: **Myrtaceae** (*Eucalyptus camaldulensis*)

6. *Abantiades argyrosticha* (A. Turner, 1929: 307) (*Trictena*)

TL: Australia: Queensland, Toowoomba (Simonsen 2018: fig. map 548)

TC: Australian National Insect Collection, Canberra

Range: central and southeastern Queensland, eastern New South Wales (Simonsen 2018: fig. map 548)

Illustration: Tindale (1932: fig. 11, 1964: pl. 47, fig. 2), Common (1990: fig. 17.2), Simonsen (2018: pl. 19a-b), Simonsen *et al.* (2019a: fig. 1e)

Morphology: Simonsen (2018)

Biology: Simonsen (2018)

Habitat: *Eucalyptus* forest/woodland, grass/shrub understory (Simonsen 2018, DCCEEW 2018)

Hosts: unpublished

7. *Abantiades atripalpis* (Walker, 1856: 1577) (*Pielus*)

TL: Australia: 'Van Diemen's Land' [=Tasmania].

TC: Natural History Museum, London

Range: central and southern Australia (Simonsen 2018: fig. map 546)

Illustration: Tindale (1932: fig. 8), Common (1990: fig. 17.1), Zborowski & Edwards (2007: 42), Kallies *et al.* (2015: 12, fig. 7; 24, figs. 3-4; 25, figs. 7-10; C.D. *atripalpis*: 1-5), Simonsen (2018: pl. 17a-c, 45f), Simonsen *et al.* (2019a: fig. 1f), McQuillan *et al.* (2019: 36, fig. 1)

Morphology: Tindale (1932), Simonsen (2018)

Biology: Common (1990), Zborowski & Edwards (2007), Kallies *et al.* (2015), Simonsen (2018), McQuillan *et al.* (2019)

Habitat: *Eucalyptus* forest/woodland/Mallee, grass/shrub understory (Simonsen 2018, DCCEEW 2018)

Hosts: **Myrtaceae** (*Eucalyptus camaldulensis*)

8. *Abantiades aurilegulus* Tindale, 1932: 520 (*Abantiades*)

TL: Australia: Western Australia, Goldfields

TC: South Australian Museum, Adelaide

Range: southern Australia (Simonsen 2018: fig. map 535)

Illustration: Tindale (1932: fig. 39), Kallies *et al.* (2015: 21, fig. 1; C.D.: 1), Simonsen (2018: pl. 2c, 33a)

Morphology: Tindale (1932), Moore & Edwards (2014), Simonsen (2018)

Biology: Tindale (1932), Simonsen (2018)

Habitat: *Eucalyptus* woodland/Mallee, grass/shrub understory (Simonsen 2018, DCCEEW 2018)

Hosts: unpublished

9. *Abantiades barcas* (Pfitzner, 1914: 96) (*Pielus*)**TL:** Australia: New South Wales, hinterland of Sydney**TC:** Naturmuseum und Forschungsinstitut Senckenberg, Frankfurt am Main**Range:** southeastern and central eastern Australia (Simonsen 2018: fig. map 536)**Illustration:** Tindale (1932: fig. 57), Pfitzner & Gaede (1933: 75d, e), Common (1990: fig. 17.9), Kallies *et al.* (2015: 20, fig. 3; 21, fig. 6; C.D. *barcas*: 1-2), Simonsen (2018: pl. 5b-c, 43a)**Morphology:** Tindale (1932), Simonsen (2018)**Biology:** Simonsen (2018)**Habitat:** *Eucalyptus* forest/woodland, tussock grass understory (Simonsen 2018, DCCEEW 2018)**Hosts:** unpublished**10. *Abantiades barnardi*** (Tindale, 1941: 43) (*Trictena*)**TL:** Australia: Western Australia, Lake Grace**TC:** Queensland Museum, Brisbane**Range:** southwestern Western Australia (Simonsen 2018: fig. map 545)**Illustration:** Tindale (1941: pl. VI, fig. 64), Simonsen (2018: pl. 16b, 45d, g)**Morphology:** Tindale (1941), Simonsen (2018)**Biology:** Simonsen (2018)**Habitat:** *Eucalyptus* woodland/Mallee, shrub understory (Simonsen 2018, DCCEEW 2018)**Hosts:** unpublished**11. *Abantiades centralia*** Moore & Beaver *in* Moore *et al.*, 2020a: 130 (*Abantiades*)**TL:** Australia: Northern Territory, Hale, 6 km SE of Jessie Gap. 26°46'17.6"S, 134°03'58.3"E**TC:** South Australian Museum, Adelaide**Range:** Alice Springs area west to West MacDonnell Ranges (Moore *et al.* 2020a: fig. map 6)**Illustration:** Moore *et al.* (2020a: fig. 5)**Morphology:** Moore *et al.* (2020a)**Biology:** unpublished**Habitat:** urban/semi-agricultural, seasonal creek/river woodlands (Moore *et al.* 2020a)**Hosts:** unpublished**12. *Abantiades cephalocorvus*** Moore & Beaver *in* Moore *et al.*, 2020b: 73 (*Abantiades*)**TL:** Australia: Goog's Lake, Eyre Peninsula, South Australia**TC:** South Australian Museum, Adelaide**Range:** arid southern and central Australia (Moore *et al.* 2020b: fig. map 10)**Illustration:** Moore *et al.* (2020b: fig. 2a)**Morphology:** Moore *et al.* (2020b)**Biology:** unpublished**Habitat:** arid sparse *Eucalyptus* mallee woodland, understory grass**Hosts:** unpublished**13. *Abantiades concordia*** Moore & Beaver *in* Moore *et al.*, 2022: 214 (*Abantiades*)**TL:** Australia: Western Australia, 2 km west by south of Bullabulling, 31.01S 120.51E**TC:** Australian National Insect Collection, Canberra

Range: Western Australia (Moore *et al.* 2022: fig. map 13)

Illustration: Moore *et al.* (2022: fig. 6)

Morphology: Moore *et al.* (2022)

Biology: Moore *et al.* (2022)

Habitat: drier (250–400 mm rainfall) and rocky ground (Moore *et al.* 2022)

Hosts: unknown

14. *Abantiades equipalpus* Moore, 2014: 217 (*Abantiades*)

TL: Australia: Western Australia, 2 km west of Bullabulling

TC: Australian National Insect Collection, Canberra

Range: southwestern Western Australia and western Victoria (Simonsen 2018: fig. map 538)

Illustration: Moore (2014: figs. 1, 9), Simonsen (2018: pl. 11b-c)

Morphology: Moore (2014)

Biology: Simonsen (2018)

Habitat: *Eucalyptus* woodland, shrub understory (Simonsen 2018, DCCEEW 2018)

Hosts: unpublished

15. *Abantiades fulvomarginatus* Tindale, 1932: 534 (*Abantiades*)

TL: Australia: Western Australia, Lennox

TC: South Australian Museum, Adelaide [not found]

Range: southwestern Western Australia (Simonsen 2018: fig. map 532)

Illustration: Tindale (1932: 60-62), Grehan & Mielke (2018c: fig. 1), Simonsen (2018: pl. 1c-d)

Morphology: Simonsen (2018)

Biology: Simonsen (2018)

Habitat: *Eucalyptus* woodland, shrub understory (Simonsen 2018, DCCEEW 2018)

Hosts: unpublished

16. *Abantiades furva* (Tindale, 1932: 508) (*Bordaia*)

TL: Australia: Western Australia

TC: South Australian Museum, Adelaide

Range: southwestern Western Australia (Simonsen 2018: fig. map 543)

Illustration: Tindale (1932: fig. 18), Simonsen (2018: pl. 20b)

Morphology: Tindale (1932), Simonsen (2018)

Biology: Simonsen (2018)

Habitat: *Eucalyptus* woodland, shrub understory (Simonsen 2018, DCCEEW 2018)

Hosts: unpublished

17. *Abantiades horakae* Simonsen, 2018: 87 (*Abantiades*)

TL: Australia: Western Australia, Eucla

TC: West Australia Museum, Perth

Range: Eucla, Western Australia (Simonsen 2018: fig. map 543)

Illustration: Simonsen (2018: pl. 15a), Simonsen *et al.* (2019a: fig. 1h)

Morphology: Simonsen (2018)

Biology: Simonsen (2018)

Habitat: Mallee, shrub understory (Simonsen 2018, DCCEEW 2018)

Hosts: unpublished

- 18. *Abantiades hutchinsoni*** Moore & Beaver *in* Moore *et al.*, 2020a: 128 (*Abantiades*)
TL: Australia: Western Australia, 29.34°S 121.07°E, 25 km south of Menzies
TC: Australian National Insect Collection, Canberra
Range: Goldfields region, southeastern-central Western Australia (Moore *et al.* 2020: fig. map 6)
Illustration: Moore *et al.* (2020a: fig. 4)
Morphology: Moore *et al.* (2020a)
Biology: unpublished
Habitat: semi-arid open *Eucalyptus* woodland with rocky subsoil (M. Moore pers. comm.)
Hosts: unpublished
- 19. *Abantiades hyalinatus*** (Herrich-Schäffer, [1853c]: 5, pl. [11], fig. 50) (*Epiolus* [*sic*])
TL: Australia: Victoria
TC: South Australian Museum, Adelaide
 syn. *diaphanus* (Herrich-Schäffer, [1855: 5]) (*Abantiades*); replacement name
 syn. *ingens* (Walker, 1865: 596) (*Charagia*); junior synonym
TL: New Zealand [error]; **TC:** Natural History Museum, London [not found]
 syn. *erythrinus* (Walker, 1865: 599) (*Pielus*); junior synonym
TL: Australia; **TC:** Natural History Museum, Canberra [not found (Simonsen 2018: 69)]
 syn. *imperialis* (Olliff & Prince, 1888: 1015) (*Pielus*); junior synonym
TL: Australia: Lawson, New South Wales; **TC:** Australian Museum, Sydney [not found]
 inf. *forma brunneus* (Tindale, 1932: 518) (*Abantiades*); Australia: Tasmania, Eaglehawk Neck. South Australian Museum, Adelaide. "Male examples exhibit several rather distinct colour forms, which differ also in the presence or absence of markings. Some of these forms have received names." (Tindale 1932: 518).
 msp. *diaphanous* (Simonsen 2018: 69)
Range: Eastern Australia, Tasmania (Simonsen 2018: fig. map 537)
Illustration: Herrich-Schäffer ([1853c]: [pl. 11], fig. 50), Olliff & Prince (1888: pl. 39 [as *Pielus imperialis*]), Tindale (1932: figs. 35-38), Pfitzner & Gaede (1933: pl. 75c; pl. 78a [as *Charagia ingens*]), Common (1990: fig. 17.8), Zborowski & Edwards (2007: 41), Kallies *et al.* (2015: 12, fig. 3; 20, figs. 4-5, 7-9; C.D.: 1-4), Simonsen (2018: pl. 3c, 4, 5a, 43c)
Morphology: Philpott (1927), Tindale (1932), Fischer (2015), Simonsen (2018)
Biology: Froggatt (1907), Cunningham (1955), Zborowski & Edwards (2007), Simonsen (2018)
Habitat: *Eucalyptus* forest/ woodland, grass/shrub understory (Simonsen 2018, DCCEEW 2018)
Hosts: **Myrtaceae** (*Eucalyptus amygdalina*)
- 20. *Abantiades hydrographus*** (C. & R. Felder *in* R. Felder, C. Felder & Rogenhofer, 1874: pl. LXXX, fig. 3) (*Pielus*)
TL: Australia
TC: Natural History Museum, London
Range: southwest and southern Western Australia (Simonsen 2018: fig. map 537)
Illustration: Felder *et al.* (1874: pl. 80, fig. 3), Tindale (1932: figs. 52-53), Common (1990: fig. 17.7), Simonsen (2018: pl. 9a-c, 43b)
Morphology: Tindale (1932), Moore & Edwards (2014), Simonsen (2018)

Biology: Tindale (1932), Simonsen (2018)

Habitat: *Eucalyptus* forest/ woodland, shrub understory (Simonsen 2018, DCCEEW 2018)

Hosts: unpublished

21. *Abantiades inexpecta* Simonsen, 2018: 88 (*Abantiades*)

TL: Australia: Western Australia, Balladonia

TC: West Australia Museum, Perth

Range: southern Goldfields region of Western Australia (Simonsen 2018: fig. map 544)

Illustration: Simonsen (2018: pl. 15b), Simonsen *et al.* (2019a: fig. 1c)

Morphology: Simonsen (2018)

Biology: Simonsen (2018)

Habitat: *Eucalyptus* woodland, chenopod understory (Simonsen 2018, DCCEEW 2018)

Hosts: unpublished

22. *Abantiades karnka* (Tindale, 1941: 44) (*Bordaia*)

TL: Australia: Western Australia, Balladonia

TC: West Australia Museum, Perth

Range: southwestern Western Australia (Simonsen 2018: fig. map 547)

Illustration: Tindale (1941: pl. VI, fig. 65), Simonsen (2018: pl. 21d, 45b)

Morphology: Simonsen (2018)

Biology: Simonsen (2018)

Habitat: *Eucalyptus* forest, shrub understory (Simonsen 2018, DCCEEW 2018)

Hosts: unpublished

23. *Abantiades kayi* Moore & Beaver *in* Moore *et al.*, 2020a: 118 (*Abantiades*)

TL: Australia: Western Australia, Zuytdorp Reserve, Rest Area, 45 km South of Billa Bong

TC: West Australia Museum, Perth

Range: central-western Western Australia (Moore *et al.* 2020a: fig. map 6)

Illustration: Moore *et al.* (2020a: fig. 2)

Morphology: Moore *et al.* (2020a)

Biology: unpublished

Habitat: *Eucalyptus* and *Acacia* woodlands on sandy soil (Moore *et al.* 2020a)

Hosts: unpublished

24. *Abantiades kristenseni* Simonsen, 2018: 86 (*Abantiades*)

TL: Australia: Western Australia, Eucla

TC: West Australia Museum, Perth

Range: southeastern Western Australia (2018: fig. map 542)

Illustration: Simonsen (2018: pl. 14b-c), Simonsen *et al.* (2019a: fig. 1b)

Morphology: Simonsen (2018)

Biology: Simonsen (2018)

Habitat: Mallee woodland/shrubland, shrub understory (Simonsen 2018, DCCEEW 2018)

Hosts: unpublished

25. *Abantiades labyrinthicus* (Donovan, 1805: pl. 38) (*Cossus*)

TL: unknown

TC: South Australian Museum, Adelaide

syn. *argenteus* (Donovan, 1805: pl. 38, fig. 2) (*Cossus*); junior synonym

TL: unknown; **TC:** unknown

msp. *argenteus* (Donovan 1805)

syn. *tasmaniae* (Walker, 1856: 1577) (*Pielus*); junior synonym

TL: Australia: Tasmania; **TC:** Natural History Museum, London

syn. *swainsoni* (Scott, 1864: 11, pl. 4) (*Pielus*); junior synonym

TL: Australia: New South Wales, Ash Island; **TC:** Australian Museum, Sydney

syn. *diversata* (Lucas, 1898: 62) (*Pielus*); junior synonym

TL: Australia: Victoria, Melbourne; **TC:** South Australian Museum, Adelaide

Range: central and southeastern Australia, Tasmania (Simonsen 2018: fig. map 538)

Illustration: Donovan (1805: pl. 38 [as *Cossus labyrinthicus* and *C. argenteus*]), Scott (1864: pl. 4), Tindale (1932: figs. 42-47), Pfitzner & Gaede (1933: 75a, c), Common (1990: fig. 17.5), Fischer (2015: 61), Kallies *et al.* (2015: 12, fig. 6; 22, figs. 1-3, 23, figs. 7, 9; C.D. *labyrinthicus*: 1-4), Grehan & Mielke (2018b: fig. 1c), Simonsen (2018: pl. 6c, 7a-c, 44b), Moore *et al.* (2021: fig. 3)

Morphology: Quail (1900a), Comstock (1918), Eyer (1921), Philpott (1926, 1927a), Simonsen (2018)

Biology: Tindale (1932), Simonsen (2018), Moore *et al.* (2021)

Habitat: *Eucalyptus* forest, shrub understory (Simonsen 2018, DCCEEW 2018)

Hosts: Myrtaceae

26. *Abantiades latipennis* Tindale, 1932: 530 (*Abantiades*)

TL: Australia: Victoria, Lorne

TC: Museum Victoria, Melbourne

Range: central and southeastern Australia, Tasmania (Simonsen 2018: fig. map 539)

Illustration: Tindale (1932: 54-56), Common (1990: fig. 18.2), Kallies *et al.* (2015: 22, fig. 6; 23, figs. 8, 11; C.D. *latipennis*: 1-3), Simonsen (2018: pl. 8, 44c)

Morphology: Birket-Smith (1974), Simonsen (2018)

Biology: Kile *et al.* (1979), Elliott & DeLittle (1985), Common (1990), Simonsen (2018)

Habitat: *Eucalyptus* forest, grass understory (Simonsen 2018, DCCEEW 2018)

Hosts: Myrtaceae (*Eucalyptus obliqua*, *E. regnans*)

27. *Abantiades leucochiton* (Pfitzner, 1914: 95) (*Pielus*)

TL: Australia: New South Wales, hinterland of Sydney

TC: Naturmuseum und Forschungsinstitut Senckenberg, Frankfurt am Main

Range: southeastern Australia (Simonsen 2018: fig. map 540)

Illustration: Tindale (1932: figs. 48-49), Pfitzner & Gaede (1933: pl. 75a), Kallies *et al.* (2015: 21, fig. 2; C.D. *leucochiton*: 1), Simonsen (2018: pl. 10a-b)

Morphology: Tindale (1932), Simonsen (2018)

Biology: Tindale (1932), Simonsen (2018)

Habitat: Casuarina forests/woodlands, Mulga woodland

Hosts: Casuarinaceae (*Casuarina luehmannii*)

28. *Abantiades lineacurva* Moore & Edwards, 2014: 30 (*Abantiades*)

TL: Australia: Western Australia, Kojonup

TC: Australian National Insect Collection, Canberra

Range: southwest and southern Western Australia (Simonsen 2018: fig. 539, Moore *et al.* 2021: fig. map 14)

Illustration: Moore & Edwards (2014: figs. 1, 5), Simonsen (2018: pl. 12a-b, pl. 44d), Moore *et al.* (2021: fig. 8)

Morphology: Moore & Edwards (2014), Moore *et al.* (2021)

Biology: Simonsen (2018)

Habitat: *Eucalyptus* woodland/Mallee

Hosts: unpublished. Most likely *Allocasuarina* (M. Moore pers. comm.)

29. *Abantiades macropusinsulariae* Simonsen, 2018: 89 (*Abantiades*)

TL: Australia: South Australia, Kangaroo Island, Vivonne Bay

TC: South Australian Museum, Adelaide

Range: Kangaroo Island (Simonsen 2018: fig. map 545)

Illustration: Simonsen (2018: pl. 15c-d), Simonsen *et al.* (2019a: fig. 1d)

Morphology: Simonsen (2018)

Biology: Simonsen (2018)

Habitat: *Eucalyptus* woodland/Mallee

Hosts: unpublished

30. *Abantiades magnificus* (Lucas, 1898: 61) (*Pielus*)

TL: Australia: Victoria, Melbourne

TC: South Australian Museum, Adelaide

Range: southeastern and central eastern Australia (Simonsen 2018: fig. map 541)

Illustration: Tindale (1932: figs. 50, 51), Common (1970: fig. 36.14J), Common (1990: fig. 17.6), Nielsen & Common (1991: pl. 41.17K), Fischer (2015: 61), Kallies *et al.* (2015: 24, fig. 1; C.D. *magnificus*: 1-2), Simonsen (2018: pl. 13a-b)

Morphology: Moore & Edwards (2014), Simonsen (2018)

Biology: Simonsen (2018)

Habitat: *Eucalyptus* forest/woodland, grass understory

Hosts: Myrtaceae (*Eucalyptus* spp.)

31. *Abantiades malleus* Moore & Beaver in Moore *et al.* 2022: 209 (*Abantiades*)

TL: Australia: Western Australia, Peak Charles National Park, 32°53'56.4"S 121°11'01.0"E

TC: Australian National Insect Collection, Canberra

Range: Western Australia (Moore *et al.* 2022: fig. map 13)

Illustration: Moore *et al.* (2022: fig. 2)

Morphology: Moore *et al.* (2022)

Biology: Moore *et al.* (2022)

Habitat: *Allocasuarina*, *Acacia*, and *Eucalyptus* woodland (Moore *et al.* 2022)

Hosts: unknown

32. *Abantiades marcidus* Tindale, 1932: 515 (*Abantiades*)

TL: Australia: Victoria, Melbourne

TC: South Australian Museum, Adelaide

Range: Eastern Australia (Simonsen 2018: fig. map 533)

Illustration: Tindale (1932: figs. 31-32), Common (1990: fig. 17.4), Kallies *et al.* (2015: 22, figs. 4-5; 23, fig. 10; C.D. *marcidus*: 1-3), Simonsen (2018: pl. 2a-b), McQuillan *et al.* (2019: 37, fig. 6)

Morphology: Simonsen (2018)

Biology: Tindale (1932), Kallies *et al.* (2015), Simonsen (2018)

Habitat: *Eucalyptus* forest

Hosts: **Myrtaceae** (*Eucalyptus* spp.). Likely *Eucalyptus camaldulensis* (M. Moore pers. comm.)

33. *Abantiades mcquillani* Simonsen, 2018: 72 (*Abantiades*)

TL: Australia: Tasmania, Corrina

TC: Australian National Insect Collection, Canberra

Range: Tasmania (Simonsen 2018: fig. map 534)

Illustration: Simonsen (2018: pl. 6a-b)

Morphology: Simonsen (2018)

Biology: unpublished

Habitat: *Eucalyptus* forest, shrub understory

Hosts: unpublished

34. *Abantiades moesta* (Tindale, 1932: 508) (*Bordaia*)

TL: Australia: Western Australia, Merredin

TC: South Australian Museum, Adelaide

Range: southern Goldfields region of Western Australia (Simonsen 2018: fig. map 549)

Illustration: Tindale (1932: fig. 17), Simonsen (2018: pl. 21C, 33b)

Morphology: Tindale (1932), Moore & Edwards (2014), Simonsen (2018)

Biology: unpublished

Habitat: *Eucalyptus* forest, shrub understory

Hosts: unpublished

35. *Abantiades mysteriella* Simonsen, 2018: 99 (*Abantiades*)

TL: Australia

TC: Naturalis Biodiversity Centre, Leiden

Range: unknown (Simonsen 2018)

Illustration: Simonsen (2018: pl. 20c)

Morphology: Simonsen (2018)

Biology: unpublished

Habitat: Exact location of species unknown (Simonsen 2018)

Hosts: unpublished

36. *Abantiades neglecta* Simonsen, 2018: 79 (*Abantiades*)

TL: Australia: Western Australia, Hines Hill, 22 km west southwest of Merredin

TC: Australian National Insect Collection, Canberra

Range: southwestern Western Australia (Simonsen 2018: fig. map 540) and Erye Peninsula of South Australia (M. Moore, pers. comm.)

Illustration: Simonsen (2018: pl. 10c, 11a)

Morphology: Simonsen (2018)

Biology: Simonsen (2018)

Habitat: *Eucalyptus* woodland, shrub understory

Hosts: unpublished. Most likely *Allocasuarina* (M. Moore, pers. comm.)

37. *Abantiades obscura* Simonsen, 2018: 91 (*Abantiades*)
TL: Australia: Western Australia, Millstream National Park
TC: West Australia Museum, Perth
Range: northwestern Western Australia (Simonsen 2018: fig. map 547)
Illustration: Simonsen (2018: pl. 18), Simonsen *et al.* (2019a: fig. 1i-j)
Morphology: Simonsen (2018)
Biology: Simonsen (2018)
Habitat: *Eucalyptus* woodland/Mulga, grass/shrub understory
Hosts: unpublished
38. *Abantiades ocellatus* Tindale, 1932: 514 (*Abantiades*)
TL: Australia: Western Australia, Wilson Inlet, Denmark [town]
TC: unknown
Range: southwestern Western Australia (Simonsen 2018: fig. map 533)
Illustration: Tindale (1932: figs. 29-30), Common (1990: fig. 17.3), Simonsen (2018: pl. 1e-f, 45a)
Morphology: Simonsen (2018)
Biology: Tindale (1932), Simonsen (2018)
Habitat: *Eucalyptus* woodlands, shrub understory
Hosts: unpublished
39. *Abantiades pallida* Simonsen, 2018: 90 (*Abantiades*)
TL: Australia: South Australia, Border Village
TC: South Australian Museum, Adelaide
Range: southern Western Australia (Simonsen 2018: fig. 549; Moore *et al.* 2020b: fig. map 11)
Illustration: Simonsen (2018: pl. 16a), Simonsen *et al.* (2019a: fig. 1a), Moore *et al.* (2020b: fig. 8)
Morphology: Simonsen (2018)
Biology: Tindale (1932), Simonsen (2018)
Habitat: Mallee, shrubby understory
Hosts: unpublished
40. *Abantiades paradoxa* (Tindale, 1932: 509) (*Bordaia*)
TL: Australia: Western Australia, Lake Grace
TC: Queensland Museum, Brisbane
Range: southwest Western Australia (Simonsen 2018: fig. map 543, Moore *et al.* 2022: fig. map 13)
Illustration: Tindale (1932: fig. 19), Simonsen (2018: pl. 21e, 33c, 45c), Moore *et al.* (2022: figs. 9, 15a)
Morphology: Simonsen (2018)
Biology: Simonsen (2018)
Habitat: *Eucalyptus* woodland, shrub understory
Hosts: unpublished
41. *Abantiades penneshawensis* Moore & Beaver in Moore *et al.*, 2021: 585 (*Abantiades*)
TL: Australia: South Australia, University Baudin Conservation Park, Kangaroo Island
TC: South Australian Museum, Adelaide
Range: Kangaroo Island (Moore *et al.* 2021: fig. map 15)

Illustration: Moore *et al.* (2021: figs. 7, 13)

Morphology: Moore *et al.* (2021)

Biology: Moore *et al.* (2021)

Habitat: *Allocasuarina* woodland

Hosts: unpublished

42. *Abantiades pica* (Tindale, 1932: 507) (*Bordaia*)

TL: Australia: South Australia, Cape Borda, Kangaroo Island

TC: South Australian Museum, Adelaide

Range: southwestern Western and South Australia (Simonsen 2018: fig. map 542)

Illustration: Tindale (1932: fig. 16), Kallies *et al.* (2015: 24, figs. 5-6; *C.D. pica*: 1), Simonsen (2018: pl. 21a-b)

Morphology: Tindale (1932), Simonsen (2018)

Biology: Simonsen (2018)

Habitat: *Eucalyptus* woodland/Mallee, shrub understory

Hosts: unpublished

43. *Abantiades rubrus* Moore & Beaver in Moore *et al.*, 2021: 573 (*Abantiades*)

TL: Australia: South Australia, Western Caravan Park, Kangaroo Island

TC: South Australian Museum, Adelaide

Range: Kangaroo Island (Moore *et al.* 2021: fig. map 15)

Illustration: Moore *et al.* (2021: fig. 2)

Morphology: Moore *et al.* (2021)

Biology: Moore *et al.* (2021)

Habitat: *Eucalyptus* woodland

Hosts: unpublished

44. *Abantiades sericatus* Tindale, 1932: 513 (*Abantiades*)

TL: Australia: Western Australia, Lake Grace

TC: unknown

Range: southwestern Western Australia (Simonsen 2018: fig. map 534)

Illustration: Tindale (1932: figs. 27, 28), Simonsen (2018: pl. 1g-h)

Morphology: Simonsen (2018)

Biology: Tindale (1932), Simonsen (2018)

Habitat: *Eucalyptus* woodland, shrub understory

Hosts: unpublished

45. *Abantiades sui* Simonsen, 2018: 97 (*Abantiades*)

TL: Australia: Queensland, four miles West of Paluma

TC: Australian National Insect Collection, Canberra

Range: northeastern Australia (Simonsen 2018: fig. map 548)

Illustration: Simonsen (2018: pl. 19c, 20a), Simonsen *et al.* (2019a: fig. 1g)

Morphology: Simonsen (2018)

Biology: Simonsen (2018)

Habitat: Tropical *Eucalyptus* forest/woodland

Hosts: unpublished

46. *Abantiades tembyi* Moore & Beaver in Moore *et al.* 2020b: 80 (*Abantiades*)
TL: Australia: South Australia, Ceduna, Eyre Peninsula
TC: South Australian Museum, Adelaide
Range: southern South Australia, western Victoria (Moore *et al.* 2020b: fig. map 11)
Illustration: Moore *et al.* (2020b: fig. 2b)
Morphology: Moore *et al.* (2020b)
Biology: unpublished
Habitat: *Eucalyptus* mallee woodland, shrub understory (M. Moore pers. comm.)
Hosts: unpublished
47. *Abantiades zonatricum* Moore & Beaver in Moore *et al.*, 2020a: 122 (*Abantiades*)
TL: Australia: Wheatbelt, Koorda Caravan Park, Koorda, 30°48'18", 117°29'12"
TC: Western Australian Museum, Perth
Range: southwestern Western Australia (Moore *et al.* 2020: fig. map 6)
Illustration: Moore *et al.* (2020a: fig. 3)
Morphology: Moore *et al.* (2020a)
Biology: unpublished
Habitat: *Eucalyptus* and *Acacia* woodlands on sandy soil (Moore *et al.* 2020a)
Hosts: unpublished
- AENETUS* Herrich-Schäffer, [1855b]: 85
TS: *Hepialus ligniveren* Lewin, 1805, by subsequent designation (Kirby 1892: 891)
 syn. *Charagia* Walker, 1856: 1569
TS: *Hepialus virescens* Doubleday, 1843, by subsequent designation (Dumbleton 1966: 928)
 syn. *Phloiopsyche* Scott, 1864: pl. 2; preoccupied
 msp. *Oenetus* (Kirby 1892: 891)
 msp. *Choragia* (Pagenstecher 1909: 448)
 msp. *Oenetes* (Oke 1953: 160)
1. *Aenetus albadamanteum* Beaver & Grehan in Beaver *et al.*, 2020a: 461 (*Aenetus*)
TL: Papua New Guinea: Morobe, Mount Kaindi
TC: Australian National Insect Collection, Canberra
Range: Morobe (Beaver *et al.* 2020a: fig. map 58)
Illustration: Beaver *et al.* (2020a: figs. 44-45)
Morphology: Beaver *et al.* (2020a)
Biology: unpublished
Habitat: Lower montane *Nothofagus* dominated rainforest (Beaver *et al.* 2020a)
Hosts: unpublished
2. *Aenetus arfaki* Bethune-Baker, 1910: 458 (*Oenetus* [*sic*])
TL: Indonesia: Papua, Arfak Mountains, 4000 ft
TC: Natural History Museum, London
 syn. *ninayana* (Pfitzner, 1914: 95) (*Charagia*); junior synonym
TL: Indonesia, Papua, Central Arfak Mountains, Ninay Valley, **TC:** unknown
Range: Indonesian Papua, Vogelcop (Bethune-Baker 1910)
Illustration: Pfitzner & Gaede (1933: pl. 76a [as *Charagia ninayana*])
Morphology: unpublished
Biology: unpublished

Habitat: upland rainforest (inferred by location and genus biology)

Hosts: unpublished

3. *Aenetus astathes* (A. Turner, 1915: 56) (*Hepialus*)

TL: Australia: Western Australia, Hamel

TC: South Australian Museum, Adelaide

Range: southwestern Western Australia (Simonsen 2018: fig. map 558)

Illustration: Tillyard (1926: pl. 27, fig. 2), Simonsen (2018: pl. 24g-h)

Morphology: Philpott (1927a), Simonsen (2018)

Biology: Simonsen (2018)

Habitat: *Eucalyptus* woodlands with shrubby understory

Hosts: Fabaceae

4. *Aenetus bilineatus* Beaver, 2019a: 47 (*Aenetus*)

TL: New Guinea

TC: South Australian Museum

Range: Precise range within New Guinea unknown (Beaver 2019)

Illustration: Beaver (2019a: figs. 1-2)

Morphology: Beaver (2019a)

Biology: unpublished

Habitat: forest (inferred by location and genus biology)

Hosts: Fabaceae

5. *Aenetus blackburnii* (Lower, 1892: 5) (*Hepialus*)

TL: Australia: South Australia, Port Lincoln

TC: South Australian Museum, Adelaide

msp. *blackburnii* (Pfitzner & Gaede 1933)

Range: southeastern Australia (Simonsen 2018: fig. map 561)

Illustration: Kallies *et al.* (2015: 14, figs. 3-4; 15, fig. 11; C.D. *blackburnii*: 1-2), Beaver & Grehan (2018: figs. 1c-d), Simonsen (2018: pl. 26c-d, 41a), McQuillan *et al.* (2019: 38, fig. 1)

Morphology: Simonsen (2018)

Biology: McFarland (1972), Kallies *et al.* (2015), Beaver & Grehan (2018), Simonsen (2018), McQuillan *et al.* (2019)

Habitat: mallee and *Eucalyptus* woodlands with shrubby understory

Hosts: **Lamiaceae** (*Prostanthera rotundifolia*), **Oleaceae** (*Fraxinus angustifolia*), **Sapindaceae** (*Dodonaea humilis* [E. Beaver, pers. comm.], *D. viscosa*), **Scrophulariaceae** (*Myoporum insulare* [E. Beaver, pers. comm.], *M. viscosum* [E. Beaver, pers. comm.])

6. *Aenetus cohici* Viette, 1961a [34th note]: 106 (*Aenetus*)

TL: New Caledonia: Dumbéa, Mont Koghi (south province)

TC: Muséum national d'Historie naturelle, Paris

Range: New Caledonia (Salesne 2010)

Illustration: Viette (1961a 34th note: fig. 1), Boudinot (1991: figs. 1-2, 6), Salesne (2010: 9, 11-12), Grehan & Mielke (2018b: fig. 1b)

Morphology: Grehan (1983a), Boudinot (1991)

Biology: Grehan (1988b), Boudinot (1991), Salesne (2010)

Habitat: low to high elevation rainforest on ultramafic soil (Thierry Salesne pers. comm.)

Hosts: **Dilleniaceae** (*Hibbertia lucens*, *H. pancheri*, *H. moratii* [T. Salesne pers. comm.]), **Nothofagaceae** (*Nothofagus aequilateralis*, *N. balansae* [Thierry Salesne pers. comm.], *N. codonandra*, *N. discoidea*)

7. *Aenetus crameri* Viette, 1956b [32nd note]: 42 (*Aenetus*)

TL: Indonesia: Papua, Mist Camp

TC: Naturalis Biodiversity Centre, Leiden

Range: Indonesian Papua (Beaver *et al.* 2020a: fig. map 58)

Illustration: unpublished

Morphology: Viette (1956b [32nd note])

Biology: unpublished

Habitat: upland rainforest (inferred by location and genus biology)

Hosts: unpublished

8. *Aenetus cyanochlora* (Lower, 1894: 77) (*Hepialus*), **stat. rest.**

Taxonomic amendment: In recent literature this species has been referred to as *Aenetus tegulatus* and *A. thermistis* (Grehan *et al.* 2018, Simonsen 2018). The type of *A. tegulatus* is from the Indonesian island of Ambon, and the species is not currently confirmed for any other locality. Lower (1894) proposed two names on the same page for the Australian species: *cyanochlora* and *thermistis*. The latter was proposed by Grehan *et al.* (2018), but this overlooked an earlier determination in favor of *cyanochlora* by Turner (1904) (Ted Edwards, pers. comm.), which is recognized here.

TL: Australia: Queensland, MacKay

TC: South Australian Museum, Adelaide

syn. *thermistis* (Lower, 1894: 77) (*Hepialus*); junior synonym

TL: Australia: Queensland, MacKay; **TC:** South Australian Museum, Adelaide

syn. *walsinghami* (Olliff, 1895: 116) (*Charagia*); junior synonym

TL: Australia: Mt. Bartle Frere; **TC:** Australian Museum, Sydney

msp. *canochlora* (Pfitzner & Gaede 1933: pl. 73d)

Range: northern and northeastern Australia (Simonsen 2018: fig. map 563 [as *A. tegulatus*], Beaver *et al.* 2020a: fig. map 56 [as *A. thermistis*])

Illustration: Pfitzner & Gaede (1933: pl. 73d [as *Charagia canochlora*], pl. 74b [as *Charagia tegulatus*], pl. 76b [as *Charagia thermistis* and *C. cyanochlora*]), Grehan *et al.* (2018: figs. 2a-c [as *A. thermistis*]), Simonsen (2018: pl. 29c-d, 30a [as *A. tegulatus*]), Beaver *et al.* (2020a, figs. 3-4, 8 [as *A. thermistis*])

Morphology: Simonsen (2018 [as *A. tegulatus*]), Beaver *et al.* (2020a)

Biology: Simonsen (2018) [as *A. tegulatus*]

Habitat: wet rainforest, monsoon forest (DCCEEW 2018)

Hosts: **Casuarinaceae** (*Allocasuarina littoralis*), **Euphorbiaceae** (*Glochidion disparipes*)

9. *Aenetus djernaesae* Simonsen, 2018: 142 (*Aenetus*)

TL: Australia: Western Australia, Yanchep National Park

TC: Australian National Insect Collection, Canberra

Range: western Western Australia (Simonsen, 2018: fig. map 561)

Illustration: Simonsen (2018: pl. 27c-d), Grehan *et al.* (2020: fig. 6), Kay *et al.* (2020, figs. 1, 4, 15)

Morphology: Simonsen (2018)

Biology: Simonsen (2018), Grehan *et al.* (2020), Kay *et al.* (2020)

Habitat: *Eucalyptus* woodlands and open forests with shrubby understory (Kay *et al.* 2020)

Hosts: **Sapindaceae** (*Dodonaea hackettiana*), **Scrophulariaceae** (*Myoporum insulare*)

10. *Aenetus dulcis* (Swinhoe, 1892: 288) (*Charagia*)

TL: Australia: Western Australia, Swan River

TC: Hope Entomological Collections, Oxford

syn. *celcissima* (Olliff, 1895: 116) (*Charagia*); junior synonym

TL: Northern Territory, Port Darwin [error]; **TC:** Australian Museum, Sydney

syn. *jordani* (Pfitzner, 1909: 138) (*Charagia*); junior synonym

TL: Western Australia, Mornington; **TC:** Naturmuseum und Forschungsinstitut Senckenberg, Frankfurt am Main

Range: southwestern Western Australia (Simonsen 2018: fig. map 563)

Illustration: Pfitzner & Gaede (1933: pl. 73b as *Charagia jordani*), Common (1990: pl. 1.4), Simonsen (2018: pl. 28a-b, 42b)

Morphology: Simonsen (2018)

Biology: Grehan (1987), Common (1990), Simonsen (2018)

Habitat: *Eucalyptus* woodlands and open forests with shrubby understory

Hosts: **Myrtaceae** (*Agonis flexuosa*, *A. juniperina*)

11. *Aenetus edwardsi* Simonsen, 2018: 139 (*Aenetus*)

TL: Australia: Queensland, 0.5km west southwest of Mt Bellenden-Ker Centre Peak

TC: Australian National Insect Collection, Canberra

Range: northeastern Australia (Simonsen 2018: fig. map 560)

Illustration: Simonsen (2018: pl. 27a-b)

Morphology: Simonsen (2018)

Biology: Simonsen (2018)

Habitat: rainforest (inferred by location and genus biology)

Hosts: **Euphorbiaceae** (*Glochidion* sp. [E. Beaver pers. comm.])

12 *Aenetus eugyna* (Rothschild & Jordan, 1907: 198) (*Charagia*)

TL: Papua New Guinea: Owen Stanley Mountains

TC: Natural History Museum, London

Range: Owen Stanley Mountains (Rothschild & Jordan 1907)

Illustration: unpublished

Morphology: unpublished

Biology: unpublished

Habitat: upland forest (inferred from location and genus biology)

Hosts: unpublished

13. *Aenetus eximia* (Scott, 1869a: 35) (*Charagia*)

TL: Australia: New South Wales, Newcastle

TC: South Australian Museum, Adelaide

syn. *hilaris* (Lucas, 1891: 284) (*Hepialus*); junior synonym

TL: Australia: Victoria; **TC:** South Australian Museum, Adelaide

syn. *pomalis* (Swinhoe, 1892: 288) (*Charagia*); junior synonym

TL: Australia: Queensland; **TC:** Natural History Museum, London

syn. *coreeba* (Olliff, 1895: 116) (*Charagia*); junior synonym

TL: Australia: New South Wales, Ash Island; **TC:** Australian Museum, Sydney [not found]

Range: eastern and southeastern Australia (Simonsen 2018: fig. map 564)

Illustration: Scott (1890: pl. 11), Swinhoe (1892: pl. 8: fig. 3 [as *Charagia pomalis*]), Pfitzner & Gaede (1933: pl. 73c), Common (1990: pl. 1.3, 1.5, 23.3-4), Britton (2011: 20), Kallies et al. (2015: 14, figs. 5-6; C.D. *eximia*: 1-3), Grehan & Care (2017: fig. 16), Beaver & Grehan (2018: Fig. 1a), Simonsen (2018: pl. 31c-d)

Morphology: Illidge & Quail (1901, 1903), Tillyard (1917, 1919), Simonsen (2018)

Biology: Scott (1869a), King (1900), Illidge & Quail (1901), Quail (1902), Froggatt (1907), Common (1970, 1990), Kleijunas et al. (2003), Jones et al. (2015), Kallies et al. (2015), Beaver & Grehan (2018), Simonsen (2018), Grehan & Beaver (2019)

Habitat: Rainforest, *Eucalyptus* forest (Simonsen 2018, DCCEEW 2018)

Hosts: **Atherospermataceae** (*Daphnandra micrantha*, *Doryphora sassafras* [E. Beaver pers. comm.]), **Asteraceae** (*Olearia argophylla*), **Euphorbiaceae** (*Glochidion ferdinandi*), **Lamiaceae** (*Prostanthera lasianthos*), **Myrtaceae** (*Acmena* sp., *Eucalyptus grandis*, *E. pilularis*, *E. saligna*, *Syzygium smithii*, *Tristaniopsis* sp., *Waterhousea floribunda*), **Nothofagaceae** (*Nothofagus moorei*), **Oleaceae** (*Ligustrum lucidum* [E. Beaver pers. comm.]), **Rhamnaceae** (*Pomaderris aspera*), **Sapindaceae** (*Dodonaea viscosa*, *Diploglottis australis*), **Urticaceae** (*Dendrocnide excelsa*), **Verbenaceae** (*Lantana camara*)

14. *Aenetus hamptoni* (Joicey & Noakes, 1914: 282) (*Charagia*)

TL: Indonesia: Papua, Angi Lakes, Arfak Mountains

TC: Natural History Museum, London

Range: Indonesian Papua (Beaver et al. 2020a: fig. map 58)

Illustration: Joicey & Noakes (1914: pl. 14)

Morphology: unpublished

Biology: unpublished

Habitat: upland rainforest (inferred by location and genus biology)

Hosts: unpublished

15. *Aenetus lewinii* (Walker, 1856: 1570) (*Charagia*)

TL: Australia: New South Wales, Sydney

TC: Natural History Museum, London

syn. *lamberti* (Walker, 1856: 1571) (*Charagia*); junior synonym

TL: Australia; **TC:** Natural History Museum, London

Range: eastern Australia (Simonsen 2018: fig. map 557)

Illustration: Pfitzner & Gaede (1933: pl. 76b), Common (1990: pl. 2, fig. 12), Zborowski & Edwards (2007: 41), Beaver & Grehan (2018: figs. 1g-h), Simonsen (2018: pl. 24c-d), Beaver et al. (2020a: figs. 31, 63)

Morphology: Simonsen (2018)

Biology: Scott (1869a), King (1900), Illidge & Quail (1901), Common (1990), Zborowski & Edwards (2007), Beaver & Grehan (2018), Simonsen (2018)

Habitat: *Eucalyptus* forest & shrub, grass or sclerophyll understory; heathland; rainforest (DCCEEW 2018)

Hosts: Casuarinaceae (*Casuarina* sp.), Myrtaceae (*Leptospermum flavescens*), Rhamnaceae (*Alphitonia excelsa*)

16. *Aenetus ligniveren* (Lewin, 1805: 17) (*Hepialus*)

TL: Australia: New South Wales, Wilton

TC: Australian National Insect Collection, Canberra

msp. *lignivorus* (Boisduval 1832: 234) (*Hepialus*)

msp. *lignivora* (Walker 1856: 1570) (*Charagia*)

syn. *venusta* (Scott, 1864: pl. 2) (*Phloiopsyche*); preoccupied

Range: eastern Australia and Tasmania (Simonsen 2018: fig. map 558)

Illustration: Lewin (1822: pl. 16), Duncan (1841: pl. 8, figs. 1-2), Scott (1864: pl. 2), Kirby (1897b: pl. 126, figs. 1-2), French (1904: figs. 3-5), Pfitzner & Gaede (1933: pl. 74b, 76c), Common (1990: pl. 2, figs. 10-11), Kallies et al. (2015: 12, fig. 1; 14, figs. 1-2, 12; C.D. *ligniveren*: 1-3), Beaver & Grehan (2018: figs. 1e-f), Simonsen (2018: pl. 24e-f, 41c-d), Beaver (2019b: figs. 3, 7), Grehan & Beaver (2019: fig. 2), McQuillan et al. (2019: Fig. 2), Beaver et al. (2020a: fig. 33)

Morphology: Quail (1903), Philpott (1926), Birket-Smith (1974), Common (1990), Simonsen (2018)

Biology: Lewin (1822), Boisduval (1832), Duncan (1841), Scott (1869a), Kirby (1897), King (1900), Quail (1900a), Illidge & Quail (1901), French (1904), Moore (1961), Common (1970), Kleijunas et al. (2003), Jones et al. (2015), Kallies et al. (2015), Beaver & Grehan (2018), Simonsen (2018)

Habitat: *Eucalyptus* forest, urban forest (DCCEEW 2018)

Hosts: Asteraceae (*Cassinia aculeata*, *Olearia lirata*), Casuarinaceae (*Allocasuarina* sp., *Casuarina* sp.), Fabaceae (*Acacia* sp.), Lamiaceae (*Prostanthera nivea*), Myrtaceae (*Acmena* sp., *Callistemon* sp., *Eucalyptus delegatensis*, *E. globulus*, *E. grandis*, *E. obliqua*, *E. pilularis*, *E. regnans*, *E. rossii*, *E. saligna*, *E. viminalis*, *Leptospermum* sp., *Lophostemon* sp., *Melaleuca lanceolata* [E. Beaver pers. comm.], *M. squarrosa*, *Syzygium* sp., *Tristania* sp.), Oleaceae (*Fraxinus angustifolia*), Rhamnaceae (*Pomaderris* sp.), Rosaceae (*Malus domestica*, *M. pumila*, *Pyrus* sp., *Rubus idaeus*), Sapindaceae (*Dodonaea* sp.), Ulmaceae (*Ulmus* sp.), Verbenaceae (*Lantana camara*)

17. *Aenetus maiasinus* Beaver & Moore in Beaver et al., 2020a: 455 (*Aenetus*)

TL: Australia: Western Australia, Kimberly Region, Maia Cove

TC: Australian National Insect Collection, Canberra

Range: northern Western Australia (Beaver et al. 2020a: fig. map 56)

Illustration: Beaver et al. 2020a: figs. 5-6)

Morphology: Beaver et al. (2020a)

Biology: unpublished

Habitat: monsoon rainforest (Beaver et al. 2020a)

Hosts: unpublished

18. *Aenetus marginatus* (Rothschild, 1896: 326) (*Oenetus* [sic])

TL: Papua New Guinea, Trobriand Islands, Kiriwini Island

TC: Natural History Museum, London

syn. *misimanus* (Rothschild, 1898: 219) (*Oenetus* [sic]); subspecies

TL: Papua New Guinea: Trobriand Islands; **TC:** unknown

syn. *saturationior* (Rothschild, 1915: 145) (*Oenetus* [*sic*]); subspecies

TL: Papua New Guinea, Uta-Kawa River, Base Camp, Sea level; **TC:** unknown

syn. *eugynoides* (Strand, 1912c: 186) (*Charagia*); junior synonym

TL: Indonesia: Papua; **TC:** unknown

Range: Papua New Guinea, type locality (Strand 1912a)

Illustration: Strand (1914: pl. IV, fig. 13 [as *Charagia eugynoides*]), Pfitzner & Gaede (1933: pl. 73a [as *Charagia eugynoides*], pl. 78d), Beaver (2019a: fig. 8)

Morphology: Beaver (2019a)

Biology: unpublished

Habitat: forest (inferred by location and genus biology)

Hosts: unpublished

19. *Aenetus mirabilis* (Rothschild, 1894: 440) (*Oenetus* [*sic*])

TL: Australia: Queensland, Cedar Bay

TC: Natural History Museum, London

Range: northern Queensland (Simonsen 2018: fig. map 564)

Illustration: Pfitzner & Gaede (1933: pl. 73d, 74a), Common (1990: pl. 2, figs. 1, 9), Zborowski & Edwards (2007: 1), Edwards (2018: 37), Simonsen (2018: pl. 31a-b, 41b)

Morphology: Simonsen (2018)

Biology: Zborowski & Edwards (2007), Simonsen (2018)

Habitat: tropical rainforest (Common 1990)

Hosts: **Rhamnaceae** (*Alphitonia* sp.)

20. *Aenetus montanus* (Tindale, 1953: 79) (*Oenetus* [*sic*])

TL: Australia: Australian Capital Territory, Mt Gingera

TC: Australian National Insect Collection, Canberra

Range: southeastern and central eastern Australia (Simonsen 2018: fig. map 559)

Illustration: Common (1990: pl. 2, figs. 2-3), Kallies *et al.* (2015: 14, figs. 7-8; 15, fig. 13; *C.D. montanus*: 1-3), Simonsen (2018: pl. 25d-e, 42a), Grehan & Mielke (2018c: fig. 3)

Morphology: Simonsen (2018)

Biology: Tindale (1953), Simpson (1972), Common (1990), Kallies *et al.* (2015), Simonsen (2018)

Habitat: sub alpine *Eucalyptus* forest

Hosts: **Myrtaceae** (*Eucalyptus pauciflora*)

21. *Aenetus moorei* Beaver, 2019b: 126 (*Aenetus*)

TL: Australia: Tasmania, Tyenna, 7 km Northeast of Maydena, 42°43'45.7"S 146°39'48.1"E

TC: South Australian Museum, Adelaide

Range: Tasmania (Beaver 2019b: fig. map 30)

Illustration: Beaver (2019b: figs. 1-2, 5, 32-33)

Morphology: Beaver (2019b)

Biology: Beaver (2019b)

Habitat: temperate rainforest and wet *Eucalyptus* forest, often riparian (Beaver 2019b)

Hosts: **Asteraceae** (*Olearia lirata*), **Fabaceae** (*Acacia dealbata*), **Myrtaceae** (*Eucalyptus regnans*, *Letospermum scoparium* sp., *Melaleuca* sp.), **Rhamnaceae** (*Pomaderris apetala*), **Rutaceae** (*Nematolepis squamea*, *Zieria arborescens*)

22. *Aenetus ombraloma* (Lower, 1902: 212) (*Hepialus*)**TL:** Australia: South Australia, Port Lincoln [error]**TC:** Museum Victoria, Melbournesyn. *taggi* (Oke, 1953: 160) (*Oenetes* [*sic*]); junior synonym**TL:** Australia: Tasmania, Ridgeway; **TC:** Museum Victoria, Melbournesyn. *paradiseus* (Tindale, 1953: 77) (*Oenetes* [*sic*]); junior synonym**TL:** Australia: Tasmania, Ridgeway; **TC:** Museum Victoria, Melbourne**Range:** Tasmania (Simonsen 2018: fig. map 559)**Illustration:** Tindale (1953: figs. 3-4), Grehan & Mielke (2018c: fig. 3), Simonsen (2018: pl. 25f-g)**Morphology:** Simonsen (2018)**Biology:** Tindale (1953), Simonsen (2018)**Habitat:** *Eucalyptus* wet sclerophyll forest, open forest/woodland, shrubby understory (DCCEEW 2018)**Hosts:** **Myrtaceae** (*Eucalyptus johnstonii*, *E. obliqua*, *E. regnans*)**23. *Aenetus ramsayi*** (Scott, 1869a: 32) (*Charagia*)**TL:** Australia: New South Wales, Ash Island**TC:** Australian Museum, Sydneysyn. v. *chrysomallon* (Pfitzner, 1914: 95) (*Charagia*); subspecies**TL:** Australia: Brisbane, **TC:** unknown**Range:** central and northeastern Australia (Simonsen 2018: fig. map 565)**Illustration:** Pfitzner & Gaede (1933: pl. 73a, 73b [as *Charagia chrysomallon*]), Common (1990: pl. 1, figs. 6-7), Simonsen (2018: pl. 30b-c)**Morphology:** Quail (1903), Philpott (1927a), Simonsen (2018)**Biology:** Scott (1869a), King (1900), Illidge & Quail (1901), Common (1990), Simonsen (2018)**Habitat:** *Eucalyptus* rainforest forest (Common 1990, DCCEEW 2018)**Hosts:** **Myrtaceae** (*Eucalyptus grandis*, *Syzygium smithii*), **Sapindaceae** (*Diploglottis australis*, *Alectryon* sp.)**24. *Aenetus scotti*** (Scott, 1869a: 34) (*Charagia*)**TL:** Australia: Queensland, Binna Burra, Lamington National Park**TC:** Australian National Insect Collection, Canberrasyn. *daphnandrae* (Lucas, 1891: 284) (*Hepialus*); junior synonym**TL:** Australia: Queensland, Brisbane; **TC:** South Australian Museum, Adelaide [not found]msp. *daphnandri* (Dodd 1902: 73)msp. *daphnandriae* (Pfitzner 1907: 215)inf. ab. *swinhoei* (Pfitzner & Gaede, 1933: 829) (*Charagia*); Queensland**Range:** eastern New South Wales and eastern Queensland (Simonsen 2018: fig. map 560)**Illustration:** Pfitzner & Gaede (1933: 829, pl. 74b [as *rosatus*]; pl. 76a), Tindale (1953: figs. 1-2), Common (1990: pl. 2, fig. 13), Fischer (2015), Beaver & Grehan (2018: fig. 1b), Simonsen (2018: pl. 26a-b)**Morphology:** Illidge & Quail (1901), Simonsen (2018)**Biology:** Scott (1869a), King (1900), Illidge & Quail (1901), Dodd (1902), Common (1990), Fischer (2015: 60), Beaver & Grehan (2018), Simonsen (2018)

Habitat: *Eucalyptus* forest, rainforest

Hosts: **Atherospermataceae** (*Daphnandra micrantha*), **Fabaceae** (*Callerya megasperma*), **Myrtaceae** (*Eucalyptus* sp.), **Rutaceae** (*Melicope micrococca*), **Sapindaceae** (*Diploglottis australis*), **Urticaceae** (*Dendrocnide excelsa*, *Laportea gigas*), **Verbenaceae** (*Lantana camara*)

25. *Aenetus scripta* (Scott, 1869a: 33) (*Charagia*)

TL: Australia: Western Australia, Albany, as King George Sound

TC: Australian National Insect Collection, Canberra

syn. *argyrographa* (C. Felder, R. Felder & Rogenhofer, 1874: pl. 81, fig. 2) (*Charagia*); junior synonym

TL: Australia; **TC:** unknown

syn. *argyrodines* (Pfitzner, 1914: 95) (*Charagia*); junior synonym

TL: Fiji, Ovalau [error]; **TC:** Museum für Naturkunde, Berlin

Range: southwestern Western Australia (Simonsen 2018: fig. map 562)

Illustration: Felder *et al.* (1874: pl. 80, fig. 2 [as *Charagia argyrographa*]), Pfitzner & Gaede (1933: pl. 73c [as *Charagia argyrodines*], 76c [as *C. argyrographus*]), Watson *et al.* (1975: pl. 7b [as *Charagia daphnandra*; msp.], Common (1990: pl. 1, fig. 2), Grehan & Care (2017: fig. 15), Edwards (2018: 37), Simonsen (2018: pl. 28c-d, 42c)

Morphology: Quail (1903 [as *Hepialus daphnandrae*]), Simonsen (2018)

Biology: Simonsen (2018)

Habitat: *Eucalyptus* forests with shrubby understory

Hosts: unpublished

26. *Aenetus sibelae* (Roepke, 1935: 102) (*Phassus*)

TL: Indonesia: Moluccas, Bacan Island, 2,000m

TC: Naturalis Biodiversity Centre, Leiden

Range: Eastern Indonesia, Bacan Island (location of type)

Illustration: Roepke (1935: fig. 12), Beaver (2019a: fig. 9)

Morphology: unpublished

Biology: Roepke (1935)

Habitat: forest (Roepke 1935)

Hosts: unpublished

27. *Aenetus simonseni* Beaver & Moore *in* Beaver *et al.*, 2020a: 452 (*Aenetus*)

TL: Australia: East Point, near Darwin, Northern Territory

TC: Australian National Insect Collection, Canberra

Range: Coastal Northern Territory (Beaver *et al.* 2020a: fig. map 56)

Illustration: Beaver *et al.* (2020a: figs. 1-2, 59-61)

Morphology: Beaver *et al.* (2020a)

Biology: Beaver *et al.* (2020a)

Habitat: Riparian-associated monsoon rainforest (Beaver *et al.* 2020a)

Hosts: **Malvaceae** (*Grewia breviflora*)

28. *Aenetus sordida* (Rothschild & Jordan, 1905: 478) (*Charagia*)

TL: Papua New Guinea, Angabunga River (tributary of St. Joseph River), 6000'

TC: Natural History Museum, London

Range: southern Papua New Guinea, type locality (Rothschild & Jordan, 1905)

Illustration: unpublished

Morphology: unpublished

Biology: unpublished

Habitat: forest (inferred by location and genus biology)

Hosts: unpublished

29. *Aenetus splendens* (Scott, 1864: 6, pl. 2) (*Charagia*)

TL: Australia: New South Wales, Kooragang Island, Ash Island, Hunter River

TC: Australian Museum, Sydney

syn. *acaciae* (Pfitzner & Gaede, 1933: 828) (*Charagia*); junior synonym

TL: unknown; **TC:** unknown

Range: eastern New South Wales and southeastern Queensland (Simonsen 2018: fig. map 556)

Illustration: Scott (1864: pl. 2), Tillyard (1926: pl. 27, fig. 1), Pfitzner & Gaede (1933: pl. 76c), Common (1990: pl. 2, figs. 14-15), Zborowski & Edwards (2007: 40), Simonsen (2018: figs. 24a-b)

Morphology: Philpott (1927a), Simonsen (2018)

Biology: Scott (1869a), King (1900), Illidge & Quail (1901), Simonsen (2018: pl. 24a-b)

Habitat: rainforest and *Eucalyptus* forests (Common 1990, Beaver *et al.* 2020a)

Hosts: **Bignoniaceae** (*Pandorea pandorana*), **Casuarinaceae** (*Casuarina* sp.), **Cunionaceae** (*Callicoma serratifolia*), **Myrtaceae** (*Callistemon*, sp., *Eucalyptus* sp., *Eugenia* sp., *Syzygium smithii*), **Rosaceae** (*Rubus* sp.), **Sapindaceae** (*Dodonaea* sp.), **Ulmaceae** (*Trema aspera*), **Verbenaceae** (*Lantana camara*)

30. *Aenetus sumatraensis* Grehan, Witt & Ignatev, 2018: 851 (*Aenetus*)

TL: Indonesia: Seulawah Agam, 600 m, E. Banda-Aceh

TC: Museum Witt, München

Range: northern Sumatra (Grehan *et al.* 2018: fig. map 10)

Illustration: Grehan *et al.* (2018: figs. 1, 3)

Morphology: Grehan *et al.* (2018)

Biology: unpublished

Habitat: forest (inferred by location and genus biology)

Hosts: unpublished

31. *Aenetus tegulatus* (Pagenstecher, 1888: 127) (*Hepialus*)

TL: Indonesia: Ambon

TC: Naturwissenschaftlich Sammlung, Museum Weisbaden

syn. *rosatus* (Pagenstecher, 1888: 127) (*Hepialus*); junior synonym

TL: Indonesia: Ambon; **TC:** unknown

Range: Ambon (Beaver *et al.* 2020a: fig. map 56)

Illustration: Pfitzner & Gaede (1933: pl. 73d, 74b [as *Charagia rosatus*])

Morphology: unpublished

Biology: unpublished

Habitat: forest (inferred by location and genus biology)

Hosts: unpublished

32. *Aenetus tephroptilus* (A. Turner, 1915: 57) (*Hepialus*)
TL: Australia: Western Australia, Albany
TC: South Australian Museum, Adelaide
Range: southwestern most Western Australia (Simonsen 2018: fig. map 557)
Illustration: Simonsen (2018: pl. 29a-b)
Morphology: Simonsen (2018)
Biology: unpublished
Habitat: *Eucalyptus* forests and woodlands with shrub understory (DCCEEW 2018)
Hosts: unpublished
33. *Aenetus tindalei* Simonsen, 2018: 134 (*Aenetus*)
TL: Australia: South Australia, Kangaroo Island, Vivonne Bay
TC: South Australian Museum, Adelaide
Range: Kangaroo Island (Simonsen 2018: fig. 556, Beaver 2019: fig. map 31)
Illustration: Simonsen (2018: pl. 25a-c), Beaver (2019b: figs. 4, 6, 8, 9-10)
Morphology: Simonsen (2018)
Biology: unpublished
Habitat: mallee and *Eucalyptus* forest with shrub understory (DCCEEW 2018)
Hosts: **Fabaceae** (*Acacia leiophylla*, *A. paradoxa*, *A. provincialis* [E. Beaver, pers. comm.]), **Myrtaceae** (*Leptospermum continentale*, *L. lanigerum* [E. Beaver, pers. comm.]), **Sapindaceae** (*Dodonaea viscosa*), **Scrophulariaceae** (*Myoporum viscosum* [E. Beaver, pers. comm.]
34. *Aenetus toxopeusi* Viette, 1956b [32nd note]: 44 (*Aenetus*)
TL: Indonesia: Papua, Iebele Camp
TC: Naturalis Biodiversity Centre, Leiden
Range: Indonesian Papua (Beaver *et al.* 2020a: fig. map 58)
Illustration: unpublished
Morphology: Viette (1956b [32nd note])
Biology: unpublished
Habitat: forest (inferred by location and genus biology)
Hosts: unpublished
35. *Aenetus trigonogrammus* Beaver & Moore *in* Beaver *et al.*, 2020a: 460 (*Aenetus*)
TL: Australia: Queensland, Tree Creek, 27.5 km SW of Gin Gin
TC: Australian National Insect Collection, Canberra
Range: southeastern Queensland (Beaver *et al.* 2020a: fig. map 57, 62)
Illustration: Beaver *et al.* (2020a: fig. 30)
Morphology: Beaver *et al.* (2020a)
Biology: unpublished
Habitat: subtropical *Eucalyptus* woodland (Beaver *et al.* 2020a)
Hosts: unpublished
36. *Aenetus virescens* (Doubleday, 1843: 284) (*Hepialus*)
TL: New Zealand: North Island, Waitemata
TC: Natural History Museum, London [type not located, Dugdale 1994]
 syn. *rubroviridans* (Walker, 1856: 1570) (*Charagia*); junior synonym
TL: New Zealand; **TC:** Natural History Museum, London

syn. *fischeri* (C. Felder, R. Felder & Rogenhofer, 1874: pl. 80, fig. 1) (*Charagia*); junior synonym

TL: unknown; **TC:** Natural History Museum, London

syn. *hectori* (Butler, 1877b: 380) (*Charagia*); junior synonym

TL: unknown; **TC:** unknown

inf. *abberatio alboextremis* (Quail, 1902: 252) (*Charagia*); "Unlike the majority of its [*Charagia virescens*] sex, one male which I have taken has all those usually pale-green markings of the forewings distinctly and decidedly white in colour. I propose for this aberration the name "*albo-extremis*."

Range: North Island, New Zealand (Dugdale 1994, map 1)

Illustration: Taylor (1855: pl. 1, fig. 1 [as *Hepialus rubroviridans*], fig. 6), Wood (1867: 530), Felder *et al.* (1874: pl. LXXX, fig. 1), Hudson (1892: pl. IX, fig. 1, 1898: pl. XIII, figs. 16-17, 1928: pl. XLII, figs. 13-14; pl. XLIII, figs. 13-14), Miller (1925, fig. 101), Pfitzner & Gaede (1933: pl. 74a, 76a [as *Charagia hectori*], 78c [as *Charagia fischeri*]), Gaskin (1966, pl. 26, figs. 3-4, pl. 27, figs. 1-3), Alma (1977, fig. 3), Grehan & Winstanley (1980: 30), Dugdale (1994, figs. 1-3), Grehan (2009: 20), Martin (2010, figs. 1-8), McKenzie (2010, fig. 1), Glime (2017: fig. 81), Grehan & Care (2017: figs. 1-14), Yule & Burns (2017a,b: fig. 1a), Gibbs (2020: book cover)

Morphology: Packard (1895c), Quail (1899a, 1900a-b, 1902), Philpott (1927a), Hudson (1928), Dumbleton (1966), Flower & Helson (1976), Grehan (1979, 1981, 1982, 1983b), Dugdale (1994)

Biology: Wood (1867, 1885), Scott (1869a), Gossett (1878), Spicer (1878), Hoffmann (1885b), Hudson (1885, 1892, 1894, 1898, 1900, 1906, 1928), Wood (1885), Skuse (1891), Stott (1891 [error]), Quail (1900a, 1902), Illidge & Quail (1901), Quail (1902), Miller (1925), Collett (1930), Dumbleton (1937), Watt (1964) Gaskin (1966), Wardle (1967, 1984), Daniel (1973), Milligan (1974), Harrison (1976), Alma (1977), Dugdale (1977, 1994), Grehan (1979, 1981, 1982, 1983b, 1984a, 1988a-c, 1989), Grehan & Winstanley (1980), King & Moody (1982), Moeed & Meads (1983), Grehan & Wigley (1984), Meads (1988), Common (1990), Martin (2010), McKenzie (2010), Yule & Burns (2013, 2017a-b, 2019, 2020), Glime (2017), Grehan & Care (2018)

Habitat: lowland to mid elevation temperate forest (Dugdale 1994)

Hosts: Fungi – **Polyporaceae** (*Poria nothofagi*, *P. correyana*, *Chaetoporus euporus*, *Fuscoporia ferrea*, *Echinochaete russiceps*, *Heterobasidion hemitephrum*, '*Irpex*' sp.), **Tremellaceae** (*Tremella* sp.). Plants – **Elaeocarpaceae** (*Aristotelia serrata*), **Ericaceae** (*Leucopogon fasciculatus*), **Escalloniaceae** (*Carpodetus serratus*), **Fagaceae** (*Quercus rubra*), **Lamiaceae** (*Vitex lucens*), **Malvaceae** (*Hoheria populnea*, *H. sexstylosa*), **Myrtaceae** (*Eucalyptus saligna*, *Kunzea ericoides*, *L. scoparium*), **Oleaceae** (*Gymnelea apetala*, *Nestegis cunninghamii*), **Nothofagaceae** (*Nothofagus fusca*, *N. menziesii*, *N. solandri*, *N. truncata*), **Sapindaceae** (*Alectryon excelsus*), **Scrophulariaceae** (*Myoporum laetum*), **Winteraceae** (*Pseudowintera colorata*)

37. *Aenetus wollastoni* Rothschild, 1915: 146 (*Oenetus* [sic])

TL: Indonesia: Papua, Snow Mountains, Uta-Kawa River

TC: Natural History Museum, London

Range: Indonesian Papua, type locality (Rothschild 1915)

Illustration: Rothschild (1915)

Morphology: unpublished

Biology: unpublished

Habitat: forest (inferred by location and genus biology)

Hosts: unpublished

AEPYTUS Herrich-Schäffer, [1855b]: 5

TS: *Epialus* [*sic*] *exclamans* (Herrich-Schäffer, [1854c]), by subsequent designation (Kirby 1892: 887)

1. *Aepytus biedermanni* (Viette, 1950c [15th note]: 60) (*Schaefferiana*)

TL: Brazil: Minas Gerais, Catas Altas

TC: Muséum national d'Historie naturelle, Paris

Range: central-eastern Minas Gerais (Mielke & Grehan 2015a: fig. map 42)

Illustration: Mielke & Grehan (2015a, fig. 6)

Morphology: Viette (1950c [15th note]), Mielke & Grehan (2015a)

Biology: unpublished

Habitat: Transition of Cerrado and Atlantic forest 800-1900 m (Mielke & Grehan 2015a)

Hosts: unpublished

2. *Aepytus cataguas* C. Mielke & Grehan, 2015a: 71 (*Aepytus*)

TL: Brazil: Minas Gerais, Conceição dos Ouros, 800 m

TC: Collection Father Jesus S. Moure, Curitiba

Range: southeastern Minas Gerais

Illustration: Mielke & Grehan (2015a, fig. 7)

Morphology: Mielke & Grehan (2015a)

Biology: unpublished

Habitat: Atlantic, dense ombrophilous forest (Mielke & Grehan 2015a)

Hosts: unpublished

3. *Aepytus exclamans* (Herrich-Schäffer, [1854c]: wrapper + pl. [31], fig. 145 (*Epialus* [*sic*]))

TL: Brazil

TC: Muséum national d'Historie naturelle, Paris

Range: southeastern Brazil (Mielke & Grehan 2015a: fig. map 42)

Illustration: Herrich-Schäffer ([1854c]: pl. [31], fig. 145), Pfitzner (1937: pl. 185a), Mielke & Grehan (2015a, figs. 1-5)

Morphology: Mielke & Grehan (2015a)

Biology: unpublished

Habitat: Atlantic, dense ombrophilous forest (Mielke & Grehan 2015a)

Hosts: unpublished

4. *Aepytus guarani* (Pfitzner, 1914: 105) (*Dalaca*)

TL: Brazil: Santa Catarina

TC: Naturmuseum und Forschungsinstitut Senckenberg, Frankfurt am Main
syn. *jeanneli* (Viette, 1950c: 59 [15th note]) (*Schaefferiana*); junior synonym

TL: Brazil, Curitiba; **TC:** Muséum national d'Historie naturelle, Paris

Range: São Paulo to Rio Grande do Sul and inland Paraná (Mielke & Grehan 2015a: fig. map 42)

Illustration: Pfitzner (1937: pl. 100c), Mielke & Grehan (2015a, figs. 8-20), Mielke *et al.* (2020b: figs. 2-3)

Morphology: Viette (1950: 59 [15th note]), Mielke & Grehan (2015a)

Biology: unpublished

Habitat: Atlantic forest 400-900 m (Mielke & Grehan 2015a)

Hosts: unpublished

5. *Aepytus tupi* C. Mielke & Grehan, 2015a: 75 (*Aepytus*)

TL: Brazil: Santa Catarina, São Bento do Sul, Rio Natal, 500 m

TC: Collection Father Jesus S. Moure, Curitiba

Range: northeastern Santa Catarina Mielke & Grehan (2015a: fig. map 42)

Illustration: Mielke & Grehan (2015a, figs. 21-24)

Morphology: Mielke & Grehan (2015)

Biology: unpublished

Habitat: dense ombrophilous forest (Mielke & Grehan 2015)

Hosts: unpublished

AFROTHEORA Nielsen & Scoble, 1986: 30

TS *Afrotheora argentimaculata* Nielsen & Scoble, 1986: 46 (*Afrotheora*)

TL: South Africa: Natal, Cathedral Peak

TC: Ditsong National Museum of Natural History, Pretoria

Range: eastern South Africa (Nielsen & Scoble 1986: fig. map 44)

Illustration: Nielsen & Scoble (1986: fig. 4)

Morphology: Nielsen & Scoble (1986)

Biology: unpublished

Habitat: unknown (Nielsen & Scoble 1986)

Hosts: unpublished

2. *Afrotheora brevivalva* Nielsen & Scoble, 1986: 51 (*Afrotheora*)

TL: Tanzania: Ruvuma, Songea, 'Matengo', 1,500-2,000 m

TC: Naturhistorisches Museum Wien

Range: southwestern Tanzania (Nielsen & Scoble 1986: fig. map 43)

Illustration: Nielsen & Scoble (1986: fig. 11)

Morphology: Nielsen & Scoble (1986)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

3. *Afrotheora flavimaculata* Nielsen & Scoble, 1986: 46 (*Afrotheora*)

TL: Angola: Huambo, Luimbale, Mt. Moco, 1,800-1,900m

TC: Natural History Museum, London

Range: western Angola (Nielsen & Scoble 1986: fig. 43)

Illustration: Nielsen & Scoble (1986: fig. map 5)

Morphology: Nielsen & Scoble (1986)

Biology: unpublished

Habitat: montane forest (Nielsen & Scoble 1986)

Hosts: unpublished

4. *Afrotheora jordani* (Viette, 1956a [31st note]: 373) (*Eudalaca*)
TL: Angola: Huambo, Luimbale, Mt Moco, 1,800-1,900 m
TC: Natural History Museum, London
Range: western Angola (Nielsen & Scoble 1986: fig. map 43)
Illustration: Nielsen & Scoble (1986: fig. 6)
Morphology: Viette (1956a [31st note]), Nielsen & Scoble (1986)
Biology: unpublished
Habitat: forest (Nielsen & Scoble 1986)
Hosts: unpublished
5. *Afrotheora minirhodaula* Nielsen & Scoble, 1986: 45 (*Afrotheora*)
TL: South Africa: Natal, probably Durban, Malvern, 7-800 ft
TC: Hope Entomological Collections, Oxford
Range: eastern South Africa (Nielsen & Scoble 1986: fig. map 44)
Illustration: Nielsen & Scoble (1986, figs. 2-3)
Morphology: Nielsen & Scoble (1986)
Biology: unpublished
Habitat: scrub forest (Nielsen & Scoble 1986)
Hosts: unpublished
6. *Afrotheora rhodaula* (Meyrick, 1926: 350) (*Dalaca*)
TL: South Africa: Cape Colony, Cape Town & Kalk Bay
TC: Natural History Museum, London
Range: southwestern South Africa (Nielsen & Scoble (1986: fig. map 44)
Illustration: Janse (1942: pl. LIX, fig. 11), Nielsen & Scoble (1986, fig. 1)
Morphology: Janse (1942), Nielsen & Scoble (1986)
Biology: unpublished
Habitat: unknown
Hosts: unpublished
7. *Afrotheora thermodes* (Meyrick, 1921a: 143) (*Hepialus*)
TL: South Africa: Transkei, Port St John's
TC: Ditsong National Museum of Natural History, Pretoria
 syn. *pardalias* (Janse, 1942: 36 [incorrectly attributed to Meyrick]) (*Hepialus*); junior synonym
TL: Eastern Transvaal, Pilgrim's Rest; **TC:** Ditsong National Museum of Natural History, Pretoria
Range: eastern South Africa (Nielsen & Scoble 1986: fig. map 44)
Illustration: Janse (1942: pl. LIX, figs. 6 [as *Hepialus pardalias*], 8), Nielsen & Scoble (1986: figs. 7-10), Mey (2019: pl. 2, fig. 1)
Morphology: Janse (1942), Nielsen & Scoble (1986)
Biology: unpublished
Habitat: forest or forest edge (Nielsen & Scoble 1986)
Hosts: unpublished
- AGRIPIALUS** C. Mielke, Grehan & Koike, 2021: 562
TS: *Agripialus itatiaia*, C. Mielke, Grehan & Koike, 2021, by original designation

1. *Agripialus campos* C. Mielke, Grehan & Koike, 2021: 564 (*Agripialus*)
TL: Brazil: São Paulo, Campos do Jordão, 1,900 m.
TC: Collection Father Jesus S. Moure, Curitiba
Range: Southern Brazil (Mielke *et al.* 2021: fig. map 58)
Illustration: Mielke *et al.* (2021: fig. 1)
Morphology: Mielke *et al.* (2021)
Biology: unpublished
Habitat: grassland (Mielke *et al.* 2021)
Hosts: unpublished
2. *Agripialus caparao* C. Mielke, Grehan & Koike, 2021: 566 (*Agripialus*)
TL: Brazil: Minas Gerais, Espera Feliz, nr. Pedra Menina (ES), Casa Queimada, 2.200 m
TC: Collection Father Jesus S. Moure, Curitiba
Range: Southern Brazil (Mielke *et al.* 2021: fig. map 58)
Illustration: Mielke *et al.* (2021: fig. 7)
Morphology: Mielke *et al.* (2021)
Biology: unpublished
Habitat: grassland (Mielke *et al.* 2021)
Hosts: unpublished
3. *Agripialus itatiaia* C. Mielke, Grehan & Koike, 2021: 566 (*Agripialus*)
TL: Brazil: Rio de Janeiro, Itatiaia, Itatiaia National Park
TC: Collection Father Jesus S. Moure, Curitiba
Range: Southern Brazil (Mielke *et al.* 2021: fig. map 58)
Illustration: Mielke *et al.* (2021: figs. 5-6)
Morphology: Mielke *et al.* (2021)
Biology: unpublished
Habitat: grassland (Mielke *et al.* 2021)
Hosts: unpublished
4. *Agripialus variabilis* C. Mielke, Grehan & Koike, 2021: 564 (*Agripialus*)
TL: Brazil: Santa Catarina, Urubici, Santa Bárbara, 1,360 m.
TC: Collection Father Jesus S. Moure, Curitiba
Range: Southern Brazil (Mielke, Grehan & Koike 2021: fig. map 58)
Illustration: Mielke *et al.* (2021: figs. 2-4)
Morphology: Mielke *et al.* (2021)
Biology: unpublished
Habitat: grassland (Mielke *et al.* 2021)
Hosts: unpublished

ALLOAEPYTUS Viette, 1951a [13th note]: 2

TS: *Dalaca tesselloides* Schaus, 1901, by original designation

1. *Alloaepythus tesselloides* (Schaus, 1901: 76) (*Dalaca*)
TL: Paraguay
TC: National Museum of Natural History, Washington

syn. *coscinophora* (Pfitzner, 1914: 105) (*Dalaca*); junior synonym

TL: Brazil, Mato Grosso; **TC:** Naturmuseum und Forschungsinstitut Senckenberg, Frankfurt am Main

Range: Central-western Brazil, Bolivia, Paraguay (Viette 1951a [13th note])

Illustration: Pfitzner (1938: pl. 100b [as *Dalaca coscinophora*])

Morphology: Viette (1951a), Grehan (2010)

Biology: unpublished

Habitat: forest (inferred from location and stem boring biology of other cibyrene genera)

Hosts: unpublished

ANDEABATIS Nielsen & Robinson, 1983: 108

TS: *Xyleutes chilensis* Ureta, 1951, by original designation

1. *Andeabatis chilensis* (Ureta, 1951: 75) (*Xyleutes*)

TL: Chile, Malleco, Curacautín, Termas de Río Blanco

TC: Museo Nacional de Historia Natural, Santiago

Range: southern Andean Argentina and Chile (Nielsen & Robinson 1983: fig. map 431)

Illustration: Nielsen & Robinson (1983, fig. 212)

Morphology: Nielsen & Robinson (1983)

Biology: unpublished

Habitat: humid forest (Nielsen & Robinson 1983)

Hosts: unpublished

ANTIHEPIALUS Janse, 1942: 32

TS: *Hepiolus [sic] antarcticus* Wallengren, 1860, by subsequent designation (Janse 1942: 32)

syn. *Ptycholoma* C. & R. Felder in Felder, Felder & Rogenhofer, 1874: pl. 82; preoccupied (Janse 1942: 33)

TS: *Ptycholoma aurifaber* C. & R. Felder in Felder, Felder & Rogenhofer, 1874, by monotypy

1. *Antihepialus antarcticus* (Wallengren, 1860: 43) (*Hepiolus [sic]*)

TL: unknown

TC: Naturhistoriska Riksmuseet, Stockholm

syn. *aurifaber* C. & R. Felder in Felder, Felder & Rogenhofer, 1874 pl. LXXXII, fig. 11; (*Ptycholoma (Epialus [sic])*)

TL: South Africa; **TC:** unknown

Range: northeastern South Africa (Janse 1942)

Illustration: Felder et al. (1874: pl. LXXXII fig. 11 [as *Ptycholoma aurifaber*]), Gaede (1930: pl. 80e [as *Hepialus aurifaber*]), Janse (1942: pl. LIX, fig. 5), Pinhey (1975: pl. 3, fig. 6)

Morphology: Janse (1942)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

2. *Antihepialus capeneri* Janse, 1948: 181 (*Antihepialus*)

TL: South Africa: KwaZulu-Natal, Mtunzini

TC: Ditsong National Museum of Natural History, Pretoria

Range: northeastern South Africa (Janse 1948)

Illustration: Janse (1948, pl. XCIV, figs. 5-6)

Morphology: Janse (1948)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

3. *Antihepialus keniae* (Holland, 1892: 94) (*Hepialus*)

TL: Tanzania: Zanzibar

TC: National Museum of Natural History, Washington

syn. *tanganyicus* (Rebel, 1914: 291) (*Hepialus*); junior synonym

TL: Tanzania: northwest Tanganyika;

TC: unknown

Range: eastern Tanzania-Uganda (Holland 1892, Rebel 1914)

Illustration: Holland (1892: pl. VII, fig. 6), Rebel (1914: pl. 23, fig. 57 [as *H. tanganyicus*]), Gaede (1930: pl. 80b [also as *Hepialus tanganyicus*])

Morphology: Holland (1896), Viette (1947b)

Biology: unpublished

Habitat: cultivated lowlands (Aurivillius 1910)

Hosts: unpublished

4. *Antihepialus vansoni* (Janse, 1942: 28) (*Dalaca*)

TL: South Africa: Limpopo, Marieskop, Marieps Mountain

TC: Ditsong National Museum of Natural History, Pretoria

Range: southeastern South Africa (Janse 1942)

Illustration: Janse (1942: pl. LIX, fig. 2)

Morphology: Janse (1942)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

AORAIA Dumbleton, 1966: 930

TS: *Porina dinodes* Meyrick, 1890, by original designation

syn. *Trioxycanus* Dumbleton, 1966: 943

TS: *Porina enysii* Butler, 1877, by original designation

1. *Aoraia aspina* Dugdale, 1994: 41 (*Aoraia*)

TL: New Zealand: South Island, Central Otago, Umbrella Mountains, Gem Lake, 1,300 m

TC: New Zealand Arthropod Collection, Auckland

Range: South Island, Central Otago (Dugdale 1994: map 2)

Illustration: Dugdale (1994: figs. 4-6), Patrick (2018: fig. 2)

Morphology: Dugdale (1994)

Biology: Dugdale (1994), Peat & Patrick (1996)

Habitat: penalpine grassland (Dugdale 1994)

Hosts: unpublished

2. *Aoraia aurimaculata* (Philpott, 1914: 121) (*Porina*)

TL: New Zealand: South Island, Mount Cook National Park, Gov. Bush

TC: Canterbury Museum, Christchurch

Range: Fiordland, Southern Alps (Dugdale 1994: map 3)

Illustration: Hudson (1928: pl. XLII, fig. 12), Dumbleton (1966: fig. 96), Dugdale (1994: figs. 7-9)

Morphology: Dumbleton (1966), Dugdale (1994)

Biology: Hudson (1928)

Habitat: cool temperate to subalpine forest and penalpine shrubland (Dugdale 1994)

Hosts: unpublished

3. *Aoraia dinodes* (Meyrick, 1890: 206) (*Porina*)

TL: New Zealand: South Island, Invercargill

TC: Canterbury Museum, Christchurch

Range: southwestern South Island (Dugdale 1994: map 4)

Illustration: Hudson (1898: pl. XIII, fig. 8; 1928: pl. XLII, figs. 6-7, 1950: pl. IV, fig. 9), Dumbleton (1966: fig. 97), Dugdale (1994: figs. 10-14)

Morphology: Philpott (1927a), Hudson (1928), Viette (1950h [22nd note]), Dugdale (1994)

Biology: Hudson (1906), Patrick (2014)

Habitat: beech and podocarp forest, sea level to treeline (B.H. Patrick, pers. comm.)

Hosts: unpublished

4. *Aoraia enysii* (Butler, 1877b: 381) (*Porina*)

TL: New Zealand: North Island

TC: Natural History Museum, London

syn. *leonina* (Philpott, 1927b: 709) (*Porina*)

TL: New Zealand: Mount Arthur Tableland; **TC:** New Zealand Arthropod Collection, Auckland

Range: central-southwestern North Island, western South Island (Dugdale 1994: map 5)

Illustration: Butler (1877: pl. XLII, fig. 7), Hudson (1950: pl. VI fig. 3 [as *Porina leonina*]), Dumbleton (1966: fig. 98 [as *Aoraia leonina*]), Dugdale (1994: figs. 15-17), Glime (2017: fig. 66)

Morphology: Dumbleton (1966), Dugdale (1994)

Biology: Dugdale (1994)

Habitat: lowland to tree-line forest (Dugdale 1994)

Hosts: unpublished

5. *Aoraia flavida* Dugdale, 1994: 44 (*Aoraia*)

TL: New Zealand: South Island, Central Otago, Umbrella Mountains, Gem Lake, 1,300 m

TC: New Zealand Arthropod Collection, Auckland

Range: central Otago (Dugdale 1994: map 6)

Illustration: Dugdale (1994: figs. 18-19), Peat & Patrick (1999: 12)

Morphology: Dugdale (1994)

Biology: unpublished

Habitat: cushion bogs (Dugdale 1994)

Hosts: unpublished

6. *Aoraia hespera* Dugdale, 1994: 45 (*Aoraia*)

TL: New Zealand: South Island, Fiordland, 2 km north of Mount George

TC: New Zealand Arthropod Collection, Auckland

Range: western Fiordland (Dugdale 1994: map 7)

Illustration: unpublished

Morphology: Dugdale (1994)

Biology: unpublished

Habitat: penalpine (Dugdale 1994)

Hosts: unpublished

7. *Aoraia insularis* Dugdale, 1994: 45 (*Aoraia*)

TL: New Zealand: South Island, Big South Cape

TC: New Zealand Arthropod Collection, Auckland

Range: southwestern Stewart Island (Dugdale 1994: map 8)

Illustration: Dugdale (1994: fig. 20)

Morphology: Dugdale (1994)

Biology: unpublished

Habitat: lowland forest (Dugdale 1994)

Hosts: **Poaceae** (*Poa foliosa*)

8. *Aoraia lenis* Dugdale, 1994: 46 (*Aoraia*)

TL: New Zealand: South Island, Gordon Range, Gordon's Knob

TC: Te Papa, Wellington

Range: northern South Island (Dugdale 1994: map 9)

Illustration: Dugdale (1994: fig. 21)

Morphology: Dugdale (1994)

Biology: unpublished

Habitat: penalpine (Dugdale 1994)

Hosts: unpublished

9. *Aoraia macropis* Dugdale, 1994: 47 (*Aoraia*)

TL: New Zealand: South Island, Central Otago, south end of Old Man Range

TC: New Zealand Arthropod Collection, Auckland

Range: central Otago (Dugdale 1994: map 10)

Illustration: Dugdale (1994: figs. 22-23), Patrick (2004: fig. 3), Glime (2017: fig. 82), Patrick (2018: fig. 4)

Morphology: Dugdale (1994)

Biology: Patrick (2004), Glime (2017)

Habitat: cushion bogs (Dugdale 1994)

Hosts: **Sphagnaceae** (*Sphagnum* sp.)

10. *Aoraia oreobolae* Dugdale, 1994: 48 (*Aoraia*)

TL: New Zealand: South Island, Southland, Tapanui Blue Mountains

TC: New Zealand Arthropod Collection, Auckland

Range: eastern Southland (Dugdale 1994: map 11)

Illustration: Dugdale (1994: fig. 24)

Morphology: Dugdale (1994)

Biology: Grehan (1989 [as *Aoraia* sp.]), Peat & Patrick (1999)

Habitat: cushion bogs, 1,000 m (Dugdale 1994)

Hosts: **Centrolepidaceae** (*Gaimardia setacea*), **Cyperaceae** (*Oreobolus pectinatus*)

11. *Aoraia orientalis* Dugdale, 1994: 49 (*Aoraia*)

TL: New Zealand: South Island, Central Otago, McPhees Rock, 1,300 m

TC: New Zealand Arthropod Collection, Auckland

Range: Central Otago (Dugdale 1994: map 12)

Illustration: Dugdale (1994: figs. 25-26), Peat & Patrick (1995: 124; 2014: 124)

Morphology: Dugdale (1994)

Biology: Peat & Patrick (1995)

Habitat: grasslands 1000-1300 m (Dugdale 1994)

Hosts: Moss – **Bryopsida**. Plants – **Poaceae**

12. *Aoraia rufivena* Dugdale, 1994: 49 (*Aoraia*)

TL: New Zealand: South Island, Dunedin, Swampy Summit

TC: New Zealand Arthropod Collection, Auckland

Range: southwestern South Island (Dugdale 1994: map 13)

Illustration: Dugdale (1994, figs. 27-29), Peat & Patrick (1995: 76, 2014: 93), Grehan (2018: fig. 3), Grehan & Mielke (2018b: fig. 1f), Patrick (2018: fig. 3)

Morphology: Dugdale (1994)

Biology: Peat & Patrick (1995, 2014), Patrick (2014)

Habitat: cool temperate lowland forest to subalpine grasslands (Dugdale 1994)

Hosts: unpublished

13. *Aoraia senex* (Hudson, 1908: 107) (*Porina*)

TL: New Zealand: South Island, Central Otago, Old Man Range, 4,000 ft

TC: Te Papa, Wellington

syn. *annulata* (Hamilton, 1909: 48) (*Porina*); junior synonym

TL: New Zealand: Mount Arum; **TC:** Te Papa, Wellington

Range: western Central Otago (Dugdale 1994: map 14)

Illustration: Hudson (1908: pl. 15, fig. 4; 1928: pl. XLII, fig. 1, pl. XLIX, fig. 20), Dumbleton (1966: fig. 95), Dugdale (1994, figs. 30-32), Peat & Patrick (1999: 74), Heads & Patrick (2013: fig. 58), Patrick (2018: fig. 1)

Morphology: Dugdale (1994)

Biology: Hamilton (1909), Sattler (1991), Peat & Patrick (1999)

Habitat: penalpine (Dugdale 1994)

Hosts: unpublished

APLATISSA Viette, 1953b [29th note]: 81

TS: *Aplatissa strangoides* Viette, 1953, by original designation

1. *Aplatissa michaelis* (Pfitzner, 1914: 105) (*Dalaca*)

TL: Peru: Chanchamayo, upper Amazonas, 1,000 m

TC: Naturmuseum und Forschungsinstitut Senckenberg, Frankfurt am Main
msp. *michaeli* (Pfitzner 1937: 1294)

Range: Peruvian Amazon (Viette 1953)

Illustration: Pfitzner (1937: fig. 99d [as *Dalaca michaeli*])

Morphology: unpublished

Biology: unpublished

Habitat: forest (inferred from location and stem boring biology of other cibyrine genera)

Hosts: unpublished

2. *Aplatissa strangoides* Viette, 1953b [29th note]: 81 (*Aplatissa*)

TL: Brazil: Amazonas, Fonte Boa

TC: Natural History Museum, London

Range: Brazilian Amazon

Illustration: unpublished

Morphology: Viette (1953b [29th note])

Biology: unpublished

Habitat: forest (inferred from location and stem boring biology of other cibyrine genera)

Hosts: unpublished

ARCHAEOAENETUS Simonsen, 2018: 153

TS: *Archaeoaenetus nielsenii* Simonsen, 2018, by original designation

1. *Archaeoaenetus nielsenii* Simonsen, 2018: 154 (*Archaeoaenetus*)

TL: Australia: New South Wales, Barrington Tops State Forest, Gummi Falls

TC: Australian National Insect Collection, Canberra

Range: central eastern Australia (Simonsen 2018: fig. 565)

Illustration: Simonsen (2018: pl. 32c-e)

Morphology: Simonsen (2018)

Biology: unpublished

Habitat: forest (Simonsen, 2018)

Hosts: unpublished

BIPECTILUS Chu & Wang, 1985: 131

TS: *Bipectilus yunnanensis* Chu & Wang, 1985a, by original designation

1. *Bipectilus gracilirami* Nielsen, 1988: 194 (*Bipectilus*)

TL: Nepal: Chautara District, Coche Lekh, 2,500 m

TC: Natural History Museum, London

Range: eastern Himalaya (Nielsen 1988: fig. map 39)

Illustration: Nielsen (1988: figs. 11-12)

Morphology: Nielsen (1988)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

2. *Bipectilus latirami* Nielsen, 1988: 193 (*Bipectilus*)

TL: Nepal: Kathmandu District, Phulchoki, 2,000-2,500 m

TC: Natural History Museum, London

Range: eastern Himalaya (Nielsen 1988: fig. map 39)

Illustration: Nielsen (1988: fig. 10)

Morphology: Nielsen (1988)

Biology: unpublished

Habitat: montane oak-laurel forest (Nielsen 1988)

Hosts: unpublished

3. *Bipectilus omaiensis* Nielsen, 1988: 190 (*Bipectilus*)

TL: China: Szechuan, Mount Omai, Shin Kai Si, 1,340 m

TC: National Museum of Natural History, Washington

Range: central southwestern China (Nielsen 1988: fig. map 39)

Illustration: Nielsen (1988: fig. 5)

Morphology: Nielsen (1988)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

4. *Bipectilus paraunimacula* Nielsen, 1988: 189 (*Bipectilus*)

TL: China: Hunan, Hoeng-shan, 900 m

TC: Museum Witt, München

Range: southeastern China (Nielsen 1988: fig. map 39)

Illustration: Daniel (1940: pl. XXXI, fig. 7 [as *Gorgopis unimacula*]), Nielsen (1988: figs. 4-5)

Morphology: Nielsen (1988)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

5. *Bipectilus perfuscus* Nielsen, 1988: 191 (*Bipectilus*)

TL: China: Xizang Tropde, 3350 m

TC: Natural History Museum, London

Range: southwestern China (Nielsen 1988: fig. map 39)

Illustration: Nielsen (1988: fig. 7)

Morphology: Nielsen (1988)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

6. *Bipectilus tindalei* Nielsen, 1988: 192 (*Bipectilus*)

TL: Vietnam: Mau-Son, 600-900 m

TC: Natural History Museum, London

Range: northern Indo-China (Nielsen 1988: fig. map 39)

Illustration: Nielsen (1988: figs. 8-9)

Morphology: Nielsen (1988)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

7. *Bipectilus unimacula* (Daniel, 1940: 1022) (*Gorgopis*)

TL: China: Kiangsu, Nanching, Lungtan

TC: Zoologisches Forschungsmuseum Alexander Koenig, Bonn

Range: eastern China (Nielsen 1988: fig. map 39)

Illustration: Daniel (1940: pl. 31, fig. 13), Nielsen (1988: figs. 1-2)

Morphology: Nielsen (1988)

Biology: unpublished

Hosts: unpublished

8. *Bipectilus yunnanensis* Chu & Wang, 1985a: 131, 134 (*Bipectilus*)

TL: China: Yunnan, Lijiang, 3,200 m

TC: Institute of Zoology, Academia Sinica, Beijing

Range: southwestern China (Nielsen 1988: fig. map 39)

Illustration: Nielsen (1988: fig. 6), Zhu *et al.* (2004: pl. 5, fig. 4)

Morphology: Chu & Wang (1985a), Nielsen (1988), Zhu *et al.* (2004)

Biology: Zhu *et al.* (2004)

Habitat: unpublished

Hosts: **Ericaceae** (*Rhododendron capitatum*), **Fabaceae** (*Astragalus floridus*, *A. frigidus*), Polygonaceae (*Polygonum viviparum*)

9. *Bipectilus zhejiangensis* Wang in Wang *et al.*, 2001: 348 (*Bipectilus*)

TL: China: Zhejiang, Anji

TC: Institute of Zoology, Academia Sinica, Beijing

Range: eastern China (Wang *et al.* (2001)

Illustration: Zhu *et al.* (2004: pl. 4, fig. 5)

Morphology: Wang *et al.* (2001), Zhu *et al.* (2004)

Biology: Wang *et al.* (2001), Zhu *et al.* (2004), Wu (2007), Du *et al.* (2011)

Habitat: bamboo forest (Du *et al.* 2011)

Hosts: **Poaceae** (*Phyllostachys viridis*)

Phyllostachys viridis

BLANCHARDINELLA Nielsen, Robinson & Wagner, 2000: 840

TS: *Hepialus venosus* Blanchard, 1852, by original designation (Viette 1950e [19th note]: 145)

Blanchardina Viette, 1950e [19th note]: 145; preoccupied

1. *Blanchardinella venosus* (Blanchard, 1852: 70) (*Hepialus*)

TL: Chile: Coquimbo

TC: Muséum national d'Historie naturelle, Paris

Range: Curicó to Valparaíso (Nielsen & Robinson 1983: fig. map 428)

Illustration: Nielsen & Robinson (1983: figs. 187-191)

Morphology: Viette (1950e [19th note]), Nielsen & Robinson (1983), Grehan (2010)

Biology: unpublished

Habitat: lowland (Nielsen & Robinson 1983)

Hosts: unpublished

CALADA Nielsen & Robinson, 1983: 91

TS: *Calada fuegensis* Nielsen & Robinson, 1983, by original designation

1. *Calada fuegensis* Nielsen & Robinson, 1983: 17, 93 (*Calada*)

TL: Argentina: Tierra del Fuego, Isla Grande, west of Ushuaia, Lapataia, 20 m

TC: Naturalis Biodiversity Centre, Leiden

Range: Magallanes-Tierra del Fuego (Nielsen & Robinson 1983: fig. map 429)

Illustration: Nielsen & Robinson (1983: figs. 192-196)

Morphology: Nielsen & Robinson (1983)

Biology: unpublished

Habitat: fuegian, *Nothofagus* dominated forest (Nielsen & Robinson 1983)

Hosts: unpublished

2. *Calada migueli* Nielsen & Robinson, 1983: 17, 94 (*Calada*)

TL: Argentina: Lago Nahuel Huapi, Rio Negro, Porto Blest, 770 m

TC: Naturalis Biodiversity Centre, Leiden

Range: western Rio Negro (Nielsen & Robinson 1983: fig. map 429)

Illustration: Nielsen & Robinson (1983: fig. 197)

Morphology: Nielsen & Robinson (1983)

Biology: unpublished

Habitat: humid *Nothofagus* forest with bamboo understory (Nielsen & Robinson 1983)

Hosts: unpublished

CALLIPIELUS Butler, 1882: 23

TS: *Callipielus arenosus* Butler, 1882, by monotypy
syn. *Stachyocera* Ureta, 1957: 159

TS: *Stachyocera izquierdoi* Ureta, 1957: 159, by original designation
msp. *Calliepielus* (Dumbleton 1966: 924)

1. *Callipielus arenosus* Butler, 1882: 24 (*Callipielus*)

TL: Chile: Valdivia

TC: Natural History Museum, London

syn. *antarcticus* (Staudinger, 1899: 42) (*Hepialus*); preoccupied. Argentina: Ostküste

Feuerlands, [Peninsula El] Paramo, North of Sebastians-Bay; Naturhistorika Riksmuseet, Stockholm

syn. *staudingeri* Wagner & Pfitzner, 1911: 10 (*Callipielus*); replacement name

syn. *leukogramma* Bryk, 1944: 26 (*Callipielus*); junior synonym

TL: Argentina: Nahuel Huapi, Peninsula Llau Llau, N of Puerto Nuevo, Patagonia; **TC:** Naturhistorika Riksmuseet, Stockholm

syn. *chiliensis* Viette, 1950h [22nd note]: 74 (*Callipielus*); junior synonym

TL: Chile: Valdivia; **TC:** Naturalis Biodiversity Centre, Leiden

Range: southwestern Argentina and southern Chile (Nielsen & Robinson 1983: fig. map 424)

Illustration: Bryk (1944: pl. 2, figs. 15-16 [as *C. leukogramma*]), Viette (1950h [22nd note]: fig. 16 [as *C. chiliensis*]), Robinson (1977: pl. 1, fig. 1, 2 [as *C. chiliensis*]), Nielsen & Robinson (1983: figs. 159-165)

Morphology: Butler (1882), Viette (1950c, h [22nd note]), Robinson (1977), Nielsen & Robinson (1983), Simonsen (2002), Grehan (2010)

Biology: unpublished

Habitat: forest (Nielsen & Robinson 1983)

Hosts: unpublished

2. *Callipielus argentata* Ureta, 1957: 162 (*Callipielus*)

TL: Chile: Talca, Laguna del Maule, 1,800 m

TC: Museo Nacional de Historia Natural, Santiago

Range: Ñuble, Talca (Nielsen & Robinson 1983: fig. map 427)

Illustration: Ureta (1957: pl. 1, fig. 9), Robinson (1977: pl. 1, fig. 8), Nielsen & Robinson (1983: fig. 177)

Morphology: Ureta (1957), Nielsen & Robinson (1983)

Biology: unpublished

Habitat: forest (Nielsen & Robinson 1983)

Hosts: unpublished

3. *Callipielus digitata* Robinson, 1977: 114 (*Callipielus*)

TL: Chile

TC: Museum für Naturkunde, Berlin

syn. *brunnescens* Robinson, 1977: 115 (*Callipielus*); junior synonym

TL: Chile; **TC:** Museum für Naturkunde, Berlin

syn. *castilloi* Robinson, 1977: 116 (*Callipielus*); junior synonym

TL: Chile: Cautín, Temuco, Carillanca Experimental Station; **TC:** Natural History Museum, London

msp. *digitatus* (Pastrana 2004: 5) (*Callipielus*)

Range: southwestern Argentina, southern Chile (Nielsen & Robinson 1983: fig. map 425)

Illustration: Pfitzner (1938: pl. 185e [as *C. arenosus* – misidentification, see Robinson 1977), Robinson (1977: pl. 1, figs. 3, 4 [as *C. brunnescens*], 5 [as *C. castilloi*]), Nielsen & Robinson (1983: figs. 166-168)

Morphology: Robinson (1977)

Biology: unpublished

Habitat: humid forest (Nielsen & Robinson 1983)

Hosts: unpublished

4. *Callipielus fumosa* Nielsen & Robinson, 1983: 17, 83 (*Callipielus*)

TL: Chile: Ñuble, SW side of Vulcan Chillan, Shangri-la, 1,600 m

TC: National Museum of Natural History, Washington

Range: central-southern Chile, Ñuble (Nielsen & Robinson 1983: fig. map 426)

Illustration: Nielsen & Robinson (1983: fig. 176)

Morphology: Nielsen & Robinson (1983)

Biology: unpublished

Habitat: forest (Nielsen & Robinson 1983)

Hosts: unpublished

5. *Callipielus gentilii* Nielsen & Robinson, 1983: 17, 82 (*Callipielus*)

TL: Argentina: Neuquén, Paso Carrirrine, 1,000 m

TC: Naturalis Biodiversity Centre, Leiden

Range: southwestern Argentina, southeastern Chile (Nielsen & Robinson 1983: fig. map 426)

Illustration: Nielsen & Robinson (1983: figs. 174-175)

Morphology: Nielsen & Robinson (1983)

Biology: unpublished

Habitat: *Nothofagus* forest with bamboo (Nielsen & Robinson 1983)

Hosts: unpublished

6. *Callipielus izquierdoi* (Ureta, 1957: 159) (*Stachyocera*)
TL: Chile: Arauco, Caramávida, 1,000 m
TC: Museo Nacional de Historia Natural, Santiago
Range: Central Chile (Nielsen & Robinson 1983: fig. map 427)
Illustration: Ureta (1957: pl. 1, fig. 10), Robinson (1977: pl. 1, fig. 7), Nielsen & Robinson (1983: figs. 179-181)
Morphology: Ureta (1957), Robinson (1977), Nielsen & Robinson (1983)
Biology: unpublished
Habitat: forest (Nielsen & Robinson 1983)
Hosts: unpublished
7. *Callipielus krahmeri* Nielsen & Robinson, 1983: 17, 85 (*Callipielus*)
TL: Chile: Valdivia
TC: Naturalis Biodiversity Centre, Leiden
Range: western Valdivia (Nielsen & Robinson 1983: fig. map 427)
Illustration: Nielsen & Robinson (1983: fig. 178)
Morphology: Nielsen & Robinson (1983)
Biology: unpublished
Habitat: *Nothofagus* forest (Nielsen & Robinson 1983)
Hosts: unpublished
8. *Callipielus perforata* Nielsen & Robinson, 1983: 17, 81 (*Callipielus*)
TL: Argentina: Rio Negro, S of San Carlos de Bariloche, Pampa del Toro, 900 m
TC: Naturalis Biodiversity Centre, Leiden
Range: central-southwestern Argentina (Nielsen & Robinson 1983: fig. map 426)
Illustration: Nielsen & Robinson (1983: figs. 172-173)
Morphology: Nielsen & Robinson (1983)
Biology: Nielsen & Robinson (1983)
Habitat: *Nothofagus* forest (Nielsen & Robinson 1983)
Hosts: *Nothofagaceae* (*Nothofagus antarctica* – implied by associated pupal exuviae)
9. *Callipielus salasi* Robinson, 1977: 117 (*Callipielus*)
TL: Chile: Cautín, Temuco, Carillanca Experimental Station
TC: Natural History Museum, London
Range: central-southern Argentina-Chile (Nielsen & Robinson 1983: fig. map 425)
Illustration: Robinson (1977: pl. 1, fig. 6), Nielsen & Robinson (1983: figs. 169-171)
Morphology: Robinson (1977), Nielsen & Robinson (1983)
Biology: unpublished
Habitat: *Nothofagus* forest (Nielsen & Robinson 1983)
Hosts: unpublished
10. *Callipielus vulgaris* Nielsen & Robinson, 1983: 17, 87 (*Callipielus*)
TL: Argentina: Chubut, Esquel, Lago Menendez, El Sagrario Puerto, 600 m
TC: Naturalis Biodiversity Centre, Leiden
Range: Andes and Isla de Chiloé (Nielsen & Robinson 1983: fig. map 428)
Illustration: Nielsen & Robinson (1983: figs. 182-186)

Morphology: Nielsen & Robinson (1983), Simonsen (2002)

Biology: unpublished

Habitat: forest with bamboo (Nielsen & Robinson 1983)

Hosts: unpublished

CIBYRA Walker, 1856: 1770

TS: *Cibyra ferruginosa* Walker, 1856, by monotypy

syn. *Xytrops* Viette, 1951d [25th note]: 1277

TS: *Xytrops monoargenteus* Viette, 1951a [13th note], by original designation

1. *Cibyra danieli* (Viette, 1961b [34th=35th note]: 2) (*Aepytus*)

TL: Argentina: Jujuy, Yala, 1,450 m

TC: Zoologische Staatssammlungen des bayerischen Staates, Munich

Range: northwestern Argentina (Viette 1961b [34th=35th note])

Illustration: unpublished

Morphology: Viette (1961b [34th=35th note])

Biology: unpublished

Habitat: forest (inferred from location and stem boring biology of other cibyrine genera)

Hosts: unpublished

2. *Cibyra dorita* Schaus, 1901: 76 (*Cibyra*)

TL: Brazil: Paraná, Castro

TC: National Museum of Natural History, Washington

syn. *helga* (Schaus, 1929: 55) (*Aepytus*); junior synonym

TL: Brazil: St. Catharina; **TC:** National Museum of Natural History, Washington

syn. *poltrona* Schaus, 1901: 77 (*Cibyra*); junior synonym

TL: Brazil: Castro, Parana; **TC:** National Museum of Natural History, Washington

Range: southeastern and southern Brazil, Paraná (Schaus 1901)

Illustration: Schaus (1929: fig. 22)

Morphology: unpublished

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

3. *Cibyra endyra* C. Mielke, 2015: 12 (*Cibyra*)

TL: Brazil: São Paulo, São Bento do Sapucaí, Pedra do Baú, 1,800 m

TC: Collection Father Jesus S. Moure, Curitiba

Range: eastern São Paulo, Brazil (Mielke 2015: fig. map 23)

Illustration: Mielke (2015: figs. 1-2)

Morphology: Mielke (2015)

Biology: unpublished

Habitat: forest 800 to 1,800 m (Mielke 2015)

Hosts: unpublished

4. *Cibyra ferruginosa* Walker, 1856: 1770 (*Cibyra*)

TL: Brazil

TC: Natural History Museum, London

syn. *dormita* Schaus, 1901: 77 (*Cibyra*); junior synonym (Viette 1951c [24th note])

TL: Brazil: [Rio de Janeiro], Petrópolis; **TC:** National Museum of Natural History, Washington

syn. *schausi* (Viette, 1952b [23rd note]: 142) (*Paragorgopis*); junior synonym (Mielke & Casagrande 2013)

TL: Brazil: São Paulo, Araras; **TC:** Naturhistorisches Museum Wien

Range: Rio de Janeiro State (Mielke & Casagrande 2013: fig. map 1)

Illustration: Mielke & Casagrande (2015: figs. 5-9)

Morphology: Viette (1951c [24th note], 1952b [23rd note]: [as *Paragorgopis schausi*]), Grehan (2010)

Biology: unpublished

Habitat: forest (Mielke & Casagrande 2013)

Hosts: unpublished

5. *Cibyra forsteri* (Viette, 1961b [34=35th note]: 1) (*Aepytus*)

TL: Bolivia: Cochabamba, 2600 m

TC: Zoologische Staatssammlungen des bayerischen Staates, Munich

Range: western Bolivia (Viette 1961b)

Illustration: unpublished

Morphology: Viette (1961b [34=35th note])

Biology: unpublished

Habitat: forest (inferred from location and stem boring biology of other cibyrine genera)

Hosts: unpublished

6. *Cibyra meridionalis* C. Mielke & Casagrande, 2013: 74 (*Cibyra*)

TL: Brazil: Santa Catarina, Urubici, Morro da Igreja, 1,250 m

TC: Collection Father Jesus S. Moure, Curitiba

Range: southern Brazil (Mielke & Casagrande 2013: fig. map 1)

Illustration: Mielke & Casagrande (2013: figs. 1-4)

Morphology: Grehan (2010), Mielke & Casagrande (2013)

Biology: unpublished

Habitat: mixed Ombrophilous forest up to 1,400 m (Mielke & Casagrande 2013)

Hosts: unpublished

7. *Cibyra monoargenteus* (Viette, 1951a [13th note]: 2) (*Aepytus*)

TL: Brazil: Paraná, Curitiba

TC: Muséum national d'Historie naturelle, Paris

Range: eastern Paraná and Santa Catarina states (Mielke 2014: fig. map 1)

Illustration: Mielke (2014: figs. 2-4)

Morphology: Viette (1951a [13th note]), Grehan (2010), Mielke (2014), Mielke *et al.* (2017)

Biology: unpublished

Habitat: mixed ombrophilous forest, 700-1,400 m (Mielke 2014)

Hosts: unpublished

8. *Cibyra munona* (Schaus, 1929: 56) (*Aepytus*)

TL: Brazil: Santa Catarina

TC: National Museum of Natural History, Washington

Range: southern Brazil (Schaus 1929)

Illustration: Schaus (1929: fig. 21)

Morphology: unpublished

Biology: unpublished

Habitat: forest (inferred from location and stem boring biology of other cibyrine genera)

Hosts: unpublished

9. *Cibyra ochracea* C. Mielke, 2014: 214 (*Cibyra*)

TL: Brazil: Santa Catarina, São Bento do Sul, 800 m

TC: Collection Father Jesus S. Moure, Curitiba

Range: southeastern and southern Brazil (Mielke 2014: fig. map 1)

Illustration: Mielke (2014: figs. 14-16), Mielke *et al.* (2020b: fig. 4)

Morphology: Mielke (2014)

Biology: unpublished

Habitat: mixed ombrophilous forest (Mielke 2014)

Hosts: unpublished

10. *Cibyra oreas* (Schaus, 1892: 330) (*Dalaca*)

TL: Brazil: Rio de Janeiro [Petrópolis]

TC: National Museum of Natural History, Washington

Range: southeastern Brazil (Schaus 1892)

Illustration: unpublished

Morphology: unpublished

Biology: unpublished

Habitat: forest (inferred from location and stem boring biology of other cibyrine genera)

Hosts: unpublished

11. *Cibyra pluriargenteus* (Viette, 1956a [31st note]: 378) (*Xytrops*)

TL: Brazil: São Paulo, [Santo André], Alto da Serra

TC: Natural History Museum, London

Range: southeastern Brazil (Mielke *et al.* 2017: fig. map 32)

Illustration: Mielke *et al.* (2017: figs. 2-10)

Morphology: Viette (1956a [31st note]), Mielke *et al.* (2017)

Biology: unpublished

Habitat: forest 800-1,600 m (Mielke *et al.* 2017)

Hosts: unpublished

12. *Cibyra stigmatica* (Pfitzner, 1937: 1296) (*Dalaca*)

TL: Brazil: Santa Catarina

TC: Naturmuseum und Forschungsinstitut Senckenberg, Frankfurt am Main

Range: southern Brazil (Pfitzner 1937)

Illustration: Pfitzner (1937: pl. 100b)

Morphology: unpublished

Biology: unpublished

Habitat: forest (inferred from location and stem boring biology of other cibyrine genera)

Hosts: unpublished

13. *Cibyra tessellata* C. Mielke, 2014: 214 (*Cibyra*)
TL: Brazil: Paraná, Guaratuba, Serra do Itararé, 1,000 m
TC: Collection Father Jesus S. Moure, Curitiba
Range: southern Brazil (Mielke 2014: fig. map 1)
Illustration: Mielke (2014: fig. 10)
Morphology: Mielke (2014)
Biology: unpublished
Habitat: mixed ombrophilous forest (Mielke 2014)
Hosts: unpublished
14. *Cibyra verresi* (Schaus, 1929: 56) (*Aepytus*)
TL: Brazil: Santa Catarina
TC: National Museum of Natural History, Washington
Range: southern Brazil (Schaus 1929)
Illustration: Schaus (1929: fig. 23)
Morphology: unpublished
Biology: unpublished
Habitat: forest (inferred from location and stem boring biology of other cibyrine genera)
Hosts: unpublished
15. *Cibyra ybyra* C. Mielke, 2015: 13 (*Cibyra*)
TL: Brazil: Santa Catarina, Urubici, Morro da Igreja, 1,250 m
TC: Collection Father Jesus S. Moure, Curitiba
Range: southern Brazil (Mielke 2015: fig. map 23)
Illustration: Mielke (2015: figs. 8-13)
Morphology: Mielke (2015)
Biology: unpublished
Habitat: forest 1,000-1,400 m (Mielke 2015)
Hosts: unpublished
16. *Cibyra ykeyra* C. Mielke, 2015: 13 (*Cibyra*)
TL: Brazil: Santa Catarina, São Bento do Sul, Rio Vermelho, 700 m
TC: Collection Father Jesus S. Moure, Curitiba
Range: southern Brazil (Mielke 2015: fig. map 23)
Illustration: Mielke (2015: figs. 3-7)
Morphology: Mielke (2015)
Biology: unpublished
Habitat: forest 600-1,000 m (Mielke 2015)
Hosts: unpublished
17. *Cibyra yungas* (Viette, 1961b [34=35th note]: 3) (*Xytrops*)
TL: Bolivia: Cochabamba, 2,600 m
TC: Zoologische Staatssammlungen des bayerischen Staates, Munich
Range: eastern Andean Bolivia (Viette 1961b)
Illustration: unpublished
Morphology: Viette (1961b [34=35th note])
Biology: unpublished
Habitat: forest (inferred from location and stem boring biology of other cibyrine genera)

Hosts: unpublished

18. *Cibyra zischkai* (Viette, 1961b [34=35th note]: 2) (*Aepytus*)

TL: Bolivia: Cochabamba, 2,600 m

TC: Zoologische Staatssammlungen des bayerischen Staates, Munich

Range: eastern Andean Bolivia (Viette 1961b [34=35th note])

Illustration: unpublished

Morphology: Viette (1961b [34=35th note])

Biology: unpublished

Habitat: forest (inferred from location and stem boring biology of other cibyrine genera)

Hosts: unpublished

CLADOXYCANUS Dumbleton, 1966: 948

TS: *Porina minos* Hudson, 1905, by original designation

1. *Cladoxycanus minos* (Hudson, 1905: 357) (*Porina*)

TL: New Zealand: South Island, Central Otago, Ophir

TC: Te Papa, Wellington

syn. *autumnata* (Hudson, 1920a: 277) (*Porina*); junior synonym

TL: New Zealand: Lower Hutt; **TC:** Te Papa, Wellington

Range: South Island, southern North Island (Dugdale 1994: map 15)

Illustration: Hudson (1905: pl. XXII, fig. 5, 1928: pl. XLII, figs. 3-5, pl. XLIII, fig. 12), Dumbleton (1966: fig. 104, 105 [as *C. autumnata*]), Dugdale (1994: figs. 33-36), Glime (2017: fig. 64), Grehan & Mielke (2018b: fig. 1e)

Morphology: Philpott (1927a), Dumbleton (1966), Dugdale (1994), Grehan (2011),

Biology: Grehan & Patrick (1984), Dugdale (1994), Patrick (2014), Glime (2017)

Habitat: wet forests and exposed moss bogs (Dugdale 1994)

Hosts: **Sphagnaceae** (*Sphagnum cristatum*)

DALACA Walker, 1856: 1549

TS: *Dalaca nigricornis* Walker, 1856, by subsequent designation (Druce 1887: 232)

syn. *Huapina* Bryk, 1944: 28; junior synonym

TS: *Huapina parviguttata* Bryk, 1944, by monotypy

syn. *Maculella* Viette, 1950c [15th note]: 55; junior synonym

TS: *Dalaca noctuides* Pfitzner, 1914, by original designation

syn. *Toenga* Tindale, 1954: 13; junior synonym

TS: *Toenga oceanica* Tindale, 1954, by original designation

1. *Dalaca chiliensis* (Viette, 1950c [15th note]: 57) (*Maculella*)

TL: Chile: Valdivia

TC: Muséum national d'Historie naturelle, Paris

Range: southern Chile, Coastal Range, Central Valley (Nielsen & Robinson 1983: fig. 418)

Illustration: Nielsen & Robinson (1983: figs. 77-81), Cisternas (2000a: photo 1)

Morphology: Viette (1950c [15th note]), Nielsen & Robinson (1983)

Biology: Cisternas (1987, 1989, 1992, 2000), González (1989), Cisternas *et al.* (2007)

Habitat: improved pastures (Cisternas 1989)

Hosts: Fabaceae (*Trifolium pratense*), Poaceae (*Lolium* sp., *Triticum* sp.), Rosaceae (*Fragaria* sp.)

2. *Dalaca crocatus* (Ureta, 1956: 284) (*Hepialus*)

TL: Chile: Araucanía [Cautín and Malleco]

TC: Museo Nacional de Historia Natural, Santiago

Range: Valdivia and Araucania (Nielsen & Robinson 1983: fig. 418)

Illustration: Ureta (1957: pl. 1, fig. 8), Nielsen & Robinson (1983: fig. 76)

Morphology: Ureta (1956), Nielsen & Robinson (1983)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

3. *Dalaca laminata* Nielsen & Robinson, 1983: 17, 67 (*Dalaca*)

TL: Chile: Malleco, Cordillera Nahuelbuta, Cabrería

TC: Naturalis Biodiversity Centre, Leiden

Range: eastern Ñuble, Cordillera de Nahuelbuta (Nielsen & Robinson 1983: fig. 421)

Illustration: Nielsen & Robinson (1983: figs. 129-132)

Morphology: Nielsen & Robinson (1983)

Biology: unpublished

Habitat: forest (Nielsen & Robinson 1983)

Hosts: unpublished

4. *Dalaca nigricornis* Walker, 1856: 1560 (*Dalaca*)

TL: Chile

TC: Natural History Museum, London

Range: Ñuble, Curicó (Nielsen & Robinson 1983: fig. 420)

Illustration: Nielsen & Robinson (1983: figs. 124-126)

Morphology: Viette (1950e [19th note]), Nielsen & Robinson (1983)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

5. *Dalaca pallens* (Blanchard, 1852: 69) (*Hepialus*)

TL: Chile: Coquimbo

TC: unknown

syn. *dimidiatus* (Berg, 1882: 220) (*Aepytus*); junior synonym

TL: Chile: Concepcion; **TC:** unknown

syn. *hemileuca* Butler, 1882: 27 (*Dalaca*); junior synonym

TL: Chile; **TC:** Natural History Museum, London

syn. *marmorata* Butler, 1882: 26 (*Dalaca*); junior synonym

TL: Chile: Las Zonas; **TC:** Natural History Museum, London

syn. *subfervens* Butler, 1882: 25 (*Dalaca*); junior synonym

TL: Chile: Las Zonas; **TC:** Natural History Museum, London

syn. *violacea* Butler, 1882: 26 (*Dalaca*); junior synonym

TL: Chile; **TC:** Natural History Museum, London

syn. *noctuides* Pfitzner, 1914: 105 (*Dalaca*); junior synonym

TL: Chile: Valdivia; **TC:** Naturmuseum und Forschungsinstitut Senckenberg, Frankfurt am Main

syn. *parviguttata* (Bryk, 1944: 28) (*Huapina*); junior synonym

TL: Argentina: Rio Negro, San Carlos de Bariloche; **TC:** Naturhistoriska Riksmuseet, Stockholm

syn. *pseudodimiata* (Paclt, 1953: 145) (*Lossbergiana*); junior synonym

TL: Argentina: Rio Negro, San Carlos de Bariloche; **TC:** Naturhistoriska Riksmuseet, Stockholm [type not found]

syn. *oceanica* (Tindale, 1954: 15) (*Toenga*); junior synonym.

TL: Rarotonga [error]; **TC:** Natural History Museum, London

Range: central-southern Chile/western Patagonia (Nielsen & Robinson 1983: fig. 419)

Illustration: Blanchard (1852: pl. 4, fig. 5), Pfitzner (1937: 99e [as *Dalaca noctuides*]), Bryk (1944: pl. 2, fig. 17 [as *Huapina parviguttata*]), Nielsen & Robinson (1983: figs. 82-99), Cisternas & Torres (1990: 24), Cisternas & Norambuena (1991: photo 1), Cisternas (1992: fig. 1; 1994: fig. 4, 2000a: photo 1)

Morphology: Viette (1950e [19th note] [as *Dalaca parviguttata*]), Tindale (1954), Nielsen & Robinson (1983), Simonsen (2002)

Biology: Ihl (1947), Caballero (1955), Marco (1959), Lloyd & Blackman (1966), Lloyd et al. (1967), Carrillo (1974), Durán (1976), Rodríguez et al. (1980 [as *Maculella noctuides*]), Sandoval (1982), Nielsen & Robinson (1983), Cisternas (1987, 1989, 1992, 1994, 2001, 2000a-b, 2013), Cisternas & Torres (1990), Cisternas & Norambuena (1991), Artigas (1994), Aguilera et al. (1996), Gerding & Devotto (2000), Cisternas et al. (2003, 2007), Pastrana (2004), Devotto (2006), Devotto et al. (2007, 2008), Aguilera et al. (2009), Larraín Widmer (2009), Gantz (2010), Maldonado et al. (2012), Medina (2022)

Habitat: forest, shrubland, steppe, pasture (Nielsen & Robinson 1983)

Hosts: **Ericaceae** (*Vaccinium corymbosum*), **Pinaceae** (*Pinus radiata*), **Poaceae** (*Arrhenatherum elatius*, *Dactylus glomerata*, *Festuca arundinacea*, *Holcus lanatus*, *Lolium multiflorum*, *Paspalum vaginatum*, *Phalaris aquatica*, *Phleum pratense*, *Triticum* sp.), **Fabaceae** (*Medicago sativa*, *Trifolium incarnatum*, *T. pratense*), **Myrtaceae** (*Ugni molinae*), **Rosaceae** (*Fragaria* sp., *Rubus idaeus*, *Sanguisorba* sp.)

6. *Dalaca parafuscus* Nielsen, Robinson & Wagner, 2000: 89 (*Dalaca*)

TL: Chile: Tierra del Fuego, Isla Hoste, Peninsula Hardy, Bahia Orange

TC: unknown

syn. *fuscus* (Mabille 1888: 56) (*Hepialus*); Chile; preocc.

msp. *fusca* (Pfitzner 1937: 1295)

Range: southern Chile-Argentina (Nielsen & Robinson 1983: fig. map 422)

Illustration: Mabille (1888: fig. 6 [as *H. fuscus*]), Pfitzner (1937: fig. 185b [as *D. fusca*]), Nielsen & Robinson (1983: figs. 133-135 [as *D. fuscus*])

Morphology: Nielsen & Robinson (1983)

Biology: unpublished

Habitat: shrubland and meadow (Nielsen & Robinson 1983)

Hosts: unpublished

7. *Dalaca patriciae* Nielsen & Robinson, 1983: 17, 66 (*Dalaca*)

TL: Argentina: Neuquén, San Martín de los Andes, Cerro Chapelco, 1,400-1,650 m

TC: Naturalis Biodiversity Centre, Leiden

Range: western Neuquén (Nielsen & Robinson 1983: fig. map 421)

Illustration: Nielsen & Robinson (1983: figs. 127-128)

Morphology: Nielsen & Robinson (1983)

Biology: unpublished

Habitat: high elevation forest, shrubland, pasture (Nielsen & Robinson 1983)

Hosts: unpublished

8. *Dalaca postvariabilis* Nielsen & Robinson, 1983: 17, 69 (*Dalaca*)

TL: Argentina: Neuquén, Lago Lacar, Pucara

TC: Naturalis Biodiversity Centre, Leiden

Range: central-southern Chile/western Patagonia (Nielsen & Robinson 1983: fig. map 422)

Illustration: Nielsen & Robinson (1983: 137-143)

Morphology: Nielsen & Robinson (1983), Simonsen (2002)

Biology: unpublished

Habitat: forest, wet pasture, steppe (Nielsen & Robinson 1983)

Hosts: unpublished

9. *Dalaca quadricornis* Nielsen & Robinson, 1983: 17, 62 (*Dalaca*)

TL: Argentina: Chubut, Esquel, Lago Menendez, El Sagrario Puerto, sta. 50, 600 m

TC: Naturalis Biodiversity Centre, Leiden

Range: Andean Patagonia, central-southern Chile (Nielsen & Robinson 1983: fig. map 420)

Illustration: Nielsen & Robinson (1983: figs. 100-123)

Morphology: Nielsen & Robinson (1983)

Biology: unpublished

Habitat: forest (Nielsen & Robinson 1983)

Hosts: unpublished

10. *Dalaca variabilis* (Viette, 1950c [15th note]: 57) (*Maculella*)

TL: Chile: Valdivia

TC: Muséum national d'Historie naturelle, Paris

msp. *variables* (Cisternas 2000a: 4)

Range: Andean Patagonia, central-southern Chile (Nielsen & Robinson 1983: fig. map 423)

Illustration: Nielsen & Robinson (1983: figs. 144-158)

Morphology: Viette (1950c [1th note]), Nielsen & Robinson (1983)

Biology: Lloyd *et al.* (1967), Cisternas (2000b), Cisternas *et al.* (2007)

Habitat: forest, meadow and pasture (Nielsen & Robinson 1983)

Hosts: Rosaceae (*Rubus idaeus*)

DIOXYCANUS Dumbleton, 1966: 951

TS: *Porina fuscus* Philpott, 1914, by original designation

1. *Dioxycanus fuscus* (Philpott, 1914: 121) (*Porina*)

TL: unknown

TC: Te Papa, Wellington

Range: southern South Island (Dugdale 1994: map 16)

Illustration: Hudson (1928: pl. XLII, figs. 10-11; 1950: pl. 8, fig. 11), Dumbleton (1966: fig. 103), Dugdale (1994: fig. 37)

Morphology: Philpott (1927a), Dumbleton (1966), Dugdale (1994), Grehan (2011)

Biology: Dugdale (1994)

Habitat: grasslands (Dugdale 1994)

Hosts: Poaceae (*Poa* spp.)

2. *Dioxycanus oreas* (Hudson, 1920a: 277) (*Porina*)

TL: New Zealand: North Island, Mount Taranaki (Dugdale 1994: map 17)

TC: Te Papa, Wellington

syn. *ascendens* (Meyrick, 1921b: 336) (*Porina*); junior synonym

TL: New Zealand, Mt Arthur; **TC:** Natural History Museum, London

syn. *descendens* (Hudson, 1923: 180) (*Porina*); junior synonym

TL: New Zealand, Arthurs Pass; **TC:** Te Papa, Wellington

syn. *gourlayi* (Philpott, 1931: 36) (*Porina*); junior synonym

TL: New Zealand, Flora Camp; **TC:** New Zealand Arthropod Collection, Auckland

Range: northern South Island, southeastern North Island (Dugdale 1994: map 17)

Illustration: Hudson (1928: pl. XLIX, fig. 21 [as *Porina ascendens*]; pl. XLIV, figs. 19-20; 1939 pl. LXII, figs. 5-6 [as *Porina gourlayi*]), Dumbleton (1966: fig. 99, 100 [as *D. descendens*], 101 [as *D. ascendens*], 102 [as *gourlayi*]), Dugdale (1994: figs. 38-39)

Morphology: Dumbleton (1966), Dugdale (1994)

Biology: Dugdale (1994)

Habitat: tussock grassland (Dugdale 1994)

Hosts: Poaceae (*Poa* spp.)

DRUCEIELLA Viette, 1949a [4th note]: 52

TS: *Hepialus momus* Druce, 1890, by original designation

1. *Druceiella amazonensis* Viette, 1950 [20th note]: 168 (*Druceiella*)

TL: Brazil: Pará, Óbidos

TC: Muséum national d'Historie naturelle, Paris

Range: northern Brazil, French Guiana (Grehan & Rawlins 2018: fig. 25b)

Illustration: Grehan & Rawlins (2018: fig. 1)

Morphology: Viette (1950f [20th note]), Grehan & Rawlins (2018)

Biology: unpublished

Habitat: forest (Grehan & Rawlins 2018)

Hosts: unpublished

2. *Druceiella beckeri* Grehan & Rawlins, 2018: 177 (*Druceiella*)

TL: Brazil: Goiás, 500 m

TC: Carnegie Museum of Natural History, Pittsburgh

Range: central to northeastern Brazil (Grehan & Rawlins 2018: fig. 25a)

Illustration: Grehan & Rawlins (2018: fig. 2)

Morphology: Grehan & Rawlins (2018)

Biology: unpublished

Habitat: Cerrado [tropical savana] (Grehan & Rawlins 2018)

Hosts: unpublished

3. *Druceiella hillmani* Grehan & Rawlins, 2018: 178 (*Druceiella*)

TL: Ecuador: Napo Simon Bolivar, Coca River canyon, 600 m

TC: Carnegie Museum of Natural History, Pittsburgh

Range: Ecuador (Grehan & Rawlins 2018: fig. 25a)

Illustration: Grehan & Rawlins (2018: fig. 3)

Morphology: Grehan & Rawlins (2018)

Biology: unpublished

Habitat: forest (Grehan & Rawlins 2018)

Hosts: unpublished

4. *Druceiella metellus* (Druce, 1890: 509) (*Hepialus*)

TL: Ecuador: Sarayacu

TC: Natural History Museum, London

syn. *basirubra* (Schaus, 1901: 76) (*Dalaca*); junior synonym

TL: Peru; **TC:** National Museum of Natural History, Washington

Range: Costa Rica-Guyana highlands-eastern Peru (Grehan & Rawlins 2018: fig. 25c)

Illustration: Druce (1890: XLIII, fig. 2), Pfitzner (1938: pl. 99g), Grehan & Rawlins (2018: fig. 4)

Morphology: Viette (1949a [4th note], 1950f [20th note]), Grehan & Rawlins (2018)

Biology: unpublished

Habitat: forest (Grehan & Rawlins 2018)

Hosts: unpublished

5. *Druceiella mielkei* Grehan & Rawlins, 2018: 183 (*Druceiella*)

TL: Bolivia

TC: Naturmuseum und Forschungsinstitut Senckenberg, Frankfurt am Main

Range: eastern Peru and Ecuador (Grehan & Rawlins 2018: fig. 25e)

Illustration: Grehan & Rawlins (2018: fig. 5)

Morphology: Grehan & Rawlins (2018)

Biology: unpublished

Habitat: forest (Grehan & Rawlins 2018)

Hosts: unpublished

6. *Druceiella momus* (Druce, 1890: 508) (*Hepialus*)

TL: Ecuador: Sarayacu

TC: Natural History Museum, London

Range: south of Amazon River east of the Andes (Grehan & Rawlins 2018: fig. 25d)

Illustration: Druce (1890: XLIII, fig. 3), Pfitzner (1938: pl. 185e), Grehan & Rawlins (2018: fig. 6)

Morphology: Viette (1949a [4th note]), Grehan & Rawlins (2018)

Biology: unpublished

Habitat: forest (Grehan & Rawlins 2018)

Hosts: unpublished

7. *Druceiella songoensis* (Pfitzner, 1914: 110) (*Pseudophassus*)

TL: Bolivia

TC: Naturmuseum und Forschungsinstitut Senckenberg, Frankfurt am Main

Range: south of Amazon River and east of the Andes (Grehan & Rawlins 2018: fig. 25f)

Illustration: Pfitzner (1937: pl. 99g), Nielsen & Robinson (1983: fig. 213), Grehan & Rawlins (2018: figs. 7-8)

Morphology: Viette (1949a [4th note] [as *D. metellus*, error], 1950f [20th note] [as *D. basirubra*]), Nielsen & Robinson (1983 [as *D. basirubra*]), Grehan & Rawlins (2018)

Biology: unpublished

Habitat: forest (Grehan & Rawlins 2018)

Hosts: unpublished

DUGDALEIELLA Grehan & C. Mielke, 2018d: 19

TS: *Triodia monticola* Maassen, 1890, by original designation

1. **Dugdaleiella monticola** (Maassen in Weymer & Maassen, 1890: 136) (*Triodia*)

TL: Ecuador: Sincholagua, 4,200 m

TC: Museum für Naturkunde, Berlin

Range: Andean Ecuador (Grehan & Mielke 2018d, fig. map 27a)

Illustration: Weymer & Maassen (1890: pl. IV, fig. 14), Pfitzner (1938: pl. 185b), Grehan & Mielke (2018d: fig. 8)

Morphology: Stübel (1890), Grehan (2010), Grehan & Mielke (2018d)

Biology: unpublished

Habitat: High elevation subalpine shrublands/Paramos (Grehan & Mielke 2018)

Hosts: unpublished

DUMBLETONIUS Dugdale, 1994: 56

TS: *Dumbletonius sylvicola* Dugdale, 1986: 56, by original designation
syn. *Trioxycanus* auct. (Dugdale 1986)

1. **Dumbletonius characterifer** (Walker, 1865: 594) (*Hepialus*)

TL: New Zealand, North Island, Auckland

TC: Natural History Museum, London

syn. *impletus* (Walker, 1865: 598) (*Oxycanus*); junior synonym

TL: New Zealand: Auckland; **TC:** Natural History Museum, London
msp. *characterifera* (Tillyard 1926: pl. 31, fig. 1)

Range: North Island, northern South Island (Dugdale 1994: map 18)

Illustration: Hudson (1898: pl. XIII, fig. 11; 1928: pl. XLI, figs. 11-12), Tillyard (1926: pl. 31, fig. 1), Dumbleton (1966: figs. 106 [as *Trioxycanus enysii*], 107), Dugdale (1994: figs. 40-41)

Morphology: Philpott (1927a), Viette (1950h [22nd note]), Dugdale (1994)

Biology: King & Moody (1982), Grehan *et al.* (1988), Dugdale (1994, 1996)

Habitat: lowland to montane forest (Dugdale 1994)

Hosts: decaying leaves

2. **Dumbletonius unimaculatus** (Salmon, 1948: 309) (*Porina*)

TL: New Zealand: Three Kings, Great Island

TC: Auckland Institute and War Memorial Museum

syn. *sylvicola* (Dugdale, 1986: 49) (*Dumbletonius*); junior synonym

TL: Wellington; **TC:** Auckland Institute and War Memorial Museum
syn. *enysii* auct. (Dugdale 1994: 58)

Range: North Island (Dugdale 1994: map 19)

Illustration: Hudson (1898: pl. XIII, figs. 9-10 [as *Porina enysii*], 1928: pl. XLI, figs. 9-10 [as *Porina enysii*], 1939: pl. LXII, fig. 12 [as *Porina enysii*]), Pfitzner & Gaede (1933: pl. 74e), Dumbleton (1966: fig. 108), Gaskin (1966: pl. 25, fig. 6, pl. 26, figs. 1-2 [as *Oxycanus enysii*]), Miller (1971: fig. 8A [as *Trioxycanus enysii*]), Dugdale (1994: figs. 42-44)

Morphology: Philpott (1927a [as *P. enysii*]), Flower & Helson (1976 [as *Trioxycanus enysii*]), Dugdale (1994), Grehan (2011)

Biology: Hudson (1906 [as *Porina enysii*]), Salmon (1951 [as *P. enysii*]), Gaskin (1966 [as *P. enysii*]), Dumbleton (1966), Dugdale (1994)

Habitat: warm temperate forest and urban forest remnants (Dugdale 1994)

Hosts: dead leaves, including **Araucariaceae** (*Agathis australis* [Dugdale pers. comm.]])

ELHAMMA Walker 1856: 1561

TS: *Elhamma inconcluso* Walker, 1856, by subsequent designation (Kirby 1892: 887)
syn. *Perissectis* Meyrick 1890: 1118

TS: *Hepialus australasiae* Walker, 1856, by monotypy
msp. *Elhausma* (Pagenstecher 1909: 448)

msp. *Pericentris* (Pagenstecher 1909: 448)

syn. *Zauxieus* Viette, 1952c [28th note]: 257

TS: *Zauxieus toxopeusi* Viette, 1952 c [28th note], by original designation
syn. *Theaxieus* Viette, 1952c [28th note]: 259

TS: *Theaxieus diakonoffi* Viette, 1952 c [28th note], by original designation

1. ***Elhamma australasiae*** (Walker, 1856: 1562) (*Hepialus*)

TL: Australia: New South Wales, Sydney

TC: Natural History Museum, London

syn. *inconcluso* Walker, 1856: 1562 (*Elhamma*); junior synonym

TL: Australia: Sydney, New South Wales; **TC:** Natural History Museum, London

syn. *banghaasii* (Pfitzner, 1914: 96) (*Porina*); junior synonym

TL: Australia: Parramatta, New South Wales; **TC:** Natural History Museum, London
msp. *inconclusa* auct. (e.g. Nye & Fletcher 1991: 105)

Range: eastern Australia (Simonsen 2015: fig. map 76)

Illustration: Pfitzner & Gaede (1933: pls. 76e, 78e [as *Porina banghaasii*]), Tindale (1935: figs. 5-8), Common (1990: fig. 19.1), Zborowski & Edwards (2007: 41), Fischer (2015: 60), Kallies et al. (2015: 12, figs. 4-5; 16, figs. 15-16; 17, figs. 20-22; C.D. *australasiae*: 1-4), Simonsen (2015: figs. 1-4), Grehan & Mielke (2018b: fig. 1g)

Morphology: Tillyard (1919), Eyer (1925), Philpott (1926, 1927a), Bourgogne (1949), Nielsen & Scoble (1986), Grehan (2011), Simonsen (2015)

Biology: Zborowski & Edwards (2007)

Habitat: grasslands (Simonsen 2015)

Hosts: unpublished

2. ***Elhamma diakonoffi*** (Viette, 1952c [28th note]: 260) (*Theaxieus*)

TL: Indonesia: Papua, Iebele Camp, 2,250m

TC: Naturalis Biodiversity Centre, Leiden

Range: Baliem Valley, Central Highlands (Simonsen 2015: fig. map 77)

Illustration: Simonsen (2015: fig. 5)

Morphology: Viette (1952c), Simonsen (2015)

Biology: unpublished

Habitat: unpublished (Simonsen 2018)

Hosts: unpublished

3. *Elhamma grehani* Simonsen, 2015: 317 (*Elhamma*)

TL: Indonesia: Papua, Abmisibil, Star Mountains

TC: Naturalis Biodiversity Centre, Leiden

Range: Abmisibil/River Sibil Area in the Star Mountains (Simonsen 2015: fig. map 77)

Illustration: Simonsen (2015: figs. 7-8)

Morphology: Simonsen (2015)

Biology: unpublished

Habitat: disturbed montane forest (Simonsen 2015)

Hosts: unpublished

4. *Elhamma roepkei* (Viette, 1952c [28th note]: 261) (*Theaxieus*)

TL: Indonesia: Papua, Mist Camp, 1,800 m

TC: Naturalis Biodiversity Centre, Leiden

Range: northern edge of the central highlands (Simonsen 2015: fig. 77)

Illustration: Simonsen (2015: fig. 6)

Morphology: (Viette, 1952c [28th note]), Simonsen (2015)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

5. *Elhamma toxopeusi* (Viette, 1952c [28th note]: 258) (*Zauxieus*)

TL: Indonesia: Papua, Scree Valley Camp

TC: Naturalis Biodiversity Centre, Leiden

Range: Baliem Valley of the Central Highlands (Simonsen 2015: fig. map 77)

Illustration: Simonsen (2015: figs. 11-12)

Morphology: Viette (1952c [28th note]), Simonsen (2015)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

6. *Elhamma viettei* Simonsen, 2015: 318 (*Elhamma*)

TL: Indonesia: Papua, Walmak, Kecamatan Nipsan

TC: Naturalis Biodiversity Centre, Leiden

Range: central Highlands and Biak Island (Simonsen 2015: fig. map 77)

Illustration: Simonsen (2015: figs. 9-10)

Morphology: Simonsen (2015)

Biology: unpublished

Habitat: lowland to upland disturbed forest (Simonsen, 2015)

Hosts: unpublished

ENDOCLITA C. & R. Felder *in* Felder, Felder & Rogenhofer, 1874: pl. 81, fig. 3

Taxonomic note: The authorship of *Endoclita* has had a variable and inconsistent history, which was clarified by Nässig & Speidel (2007). They note that most problems arose with plates 75-107 and 108-140, where the name Felder is indicated, leaving it unclear whether the author was meant to be Cajetan Felder or his son Rudolf Felder alone, or, both Felder together. Rudolf Felder died in 1871 and out of grief, ill health, and regional political strife, Cajetan Felder delayed completion of the work until the involvement of Alois F. Rogenhofer. In his foreword, originally in 'Heft 5' in 1875, Cajetan Felder explicitly wrote (p. V) that the first 33 Heterocera plates (75-108) and the nomenclature within, were worked out by the two Felder together before Rudolf's death. Naessig & Speidel (2007) noted that even if the bulk of the work had been carried out by Rudolf, Cajetan's involvement would still justify the formal coauthorship of father and son in the 'Novara' series. Traditionally, the order of the two was always with the father Cajetan listed first followed by Rudolf as junior author. Nässig & Speidel (2007) concluded that the names of new taxa in Heft 4 (in plates 75-107), should take C & R. Felder as authors (unless indicated otherwise in the legends of individual plates or the explanations), and C & R. Felder & Rogenhofer as the editors - not authors - of Heft 4.

TS: *Endoclita similis* C. & R. Felder *in* Felder, Felder & Rogenhofer, 1874, by subsequent designation (Kirby 1892: 889)

msp. *Endoclyta* (C. & R. Felder *in* Felder, Felder & Rogenhofer 1875: 4)

syn. *Hypophassus* Le Cerf, 1919: 470

TS: *Phassus signifer* Walker, 1856, by original designation

syn. *Nevina* Tindale, 1941: 39

TS: *Phassus aboe* Moore, [1860], by original designation

syn. *Sahyadrassus* Tindale, 1942: 151

TS: *Phassus malabaricus* Moore, 1879, by original designation

syn. *Procharagia* Viette, 1949b: 84 [5th note]

TS: *Procharagia coomani* Viette, 1949, by original designation

General (species unspecified): Gardner (1941), Zeya (1980, 1985), Chung *et al.* (2008)

1. *Endoclita aboe* (Moore, [1860: 437]) (*Phassus*)

TL: India: Sikkim [West Bengal], Darjeeling

TC: Natural History Museum, London

Range: northeastern India (Grehan & Ismavel 2017: image 3b)

Illustration: Butler (1886: pl. CIX, fig. 1), Pfitzner & Gaede (1933: pl. 76d), Tindale (1941: pl. VI, fig. 74), Ueda (2000: fig. 1431, pl. 169, fig. 13), Gielis & Wangdi (2017: fig. 4 [error - unknown species]), Grehan & Ismavel (2017: fig. 3a), Grehan *et al.* (2022a: fig. 2h)

Morphology: Tindale (1941), Ueda (2000)

Biology: unpublished

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: unpublished

2. *Endoclita absurdus* (Daniel, 1940: 1023) (*Phassus*)

TL: China: North Yunnan, Li-Kiang

TC: Museum Witt, Munich

Range: western China, known from type locality only

Illustration: Daniel (1940: pl. XXXI, fig. 1)

Morphology: unpublished

Biology: unpublished

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: unpublished

3. *Endoclita actinidae* (Yang & Wang, 1992: 14) (*Phassus*)

TL: China: Fujian, Sangang, Wuyi Mountains

TC: Beijing Agricultural University

Range: southeastern China, known from type locality only (Yang & Wang 1992)

Illustration: unpublished

Morphology: Yang & Wang (1992)

Biology: Lin *et al.* (1995)

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: Actinidiaceae (*Actinidia* sp.)

4. *Endoclita aikasama* Tindale, 1958: 170 (*Endoclita*)

TL: Indonesia: Java, Vulkan Gede

TC: Museum für Naturkunde, Berlin

Range: Java (Tindale 1958)

Illustration: Tindale (1958: pl. XVII, fig. 2)

Morphology: Tindale (1958)

Biology: unpublished

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: unpublished

5. *Endoclita albofasciatus* (Moore, 1879: 413) (*Phassus*)

TL: India: Tamil Nadu, Western Ghats, Nilgiri Hills

TC: Natural History Museum, London

Range: southeastern India, known only from type locality

Illustration: Moore (1879: pl. XXXIV, fig. 8), Tindale (1942: pl. IX, figs. 78-79)

Morphology: Tindale (1942)

Biology: unpublished

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: unpublished

6. *Endoclita albosignata* Tindale, 1941: 32 (*Endoclita*)

TL: India: Assam

TC: South Australian Museum, Perth

Range: northeastern India (Grehan & Ismavel 2017: image map 4b)

Illustration: Tindale (1941: pl. VI, fig. 62), Grehan & Ismavel (2017: image 4a), Grehan *et al.* (2022a: fig. 2f)

Morphology: Tindale (1941)

Biology: unpublished

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: unpublished

7. *Endoclita anhuiensis* (Chu & Wang, 1985b: 295) (*Phassus*)

TL: China: Anhui, Yuexi

TC: Institute of Zoology, Academia Sinica, Beijing

Range: eastern China, known only from type locality (Chu & Wang 1985b)

Illustration: Chu & Wang (1985b: pl. 1, fig. 6), Zhu *et al.* (2004 pl. 1, fig. 5)

Morphology: Chu & Wang (1985b), Zhu *et al.* (2004)

Biology: Zhu *et al.* (2004)

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: **Cupressaceae** (*Cunninghamia lanceolata*, *Metasequoia glyptostroboides*, *Sabina squamata*)

8. *Endoclita annae* (Le Cerf, 1933: 131) (*Hypophassus*)

TL: China: Sichuan, vicinity of Tat-sien-lou

TC: Muséum national d'Historie naturelle, Paris

Range: southern China, known only from type locality

Illustration: unpublished

Morphology: unpublished

Biology: unpublished

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: unpublished

9. *Endoclita aroura* Tindale, 1958: 177 (*Endoclita*)

TL: Indonesia: Sumatra, Lebong Sandai, Benkoelen

TC: Natural History Museum, London

Range: Sumatra, known only from type locality

Illustration: Tindale (1958: pl. XIX figs. 1-2), Grehan & Mielke (2016a: fig. 11)

Morphology: Tindale (1958), Gotoh *et al.* (2003)

Biology: Gotoh *et al.* (2003)

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: **Lamiaceae** (*Tectona grandis*)

10. *Endoclita atayala* Buchsbaum & Hsu in Buchsbaum *et al.*, 2018: 442 (*Endoclita*)

TL: Miaoli County, Meiyun Village, Kuan Wu Dalu Forest Road East Branch, 2,360 m

TC: National Museum of Nature Science, Taichung

Range: northern Taiwan (Buchsbaum *et al.* 2018: fig. map 12, Grehan *et al.* 2019: fig. map 2)

Illustration: Buchsbaum *et al.* (2018: fig. 1), Buchsbaum & Grehan (2019: fig. 3e), Grehan *et al.* (2019: fig. 1)

Morphology: Buchsbaum *et al.* (2018)

Biology: unpublished

Habitat: temperate upland rain forest (Buchsbaum *et al.* 2018)

Hosts: unpublished

11. *Endoclita auratus* (Hampson, [1893]: 321) (*Phassus*)

TL: Myanmar: Bernardmyo, 5,500-7,000ft

TC: Natural History Museum, London

Range: northeast of India, Burma and Laos (Grehan & Ismavel 2017: image 5b)

Illustration: Pfitzner & Gaede (1933: pl. 76d [identity uncertain, see Tindale 1941: 37]), Daniel (1940: pl. XXXI, fig. 4), Tindale (1941: pl. VII, fig. 69, 1958: pl. XX, fig. 1), Grehan & Ismavel (2017: image 5a), Grehan *et al.* (2022a: fig. 2g)

Morphology: Tindale (1941)

Biology: Beeson (1941)

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: **Betulaceae** (*Alnus nepalensis*), **Cupressaceae** (*Cryptomeria japonica*), **Myrtaceae** (*Eucalyptus* sp.)

12. *Endoclita aurifer* Tindale, 1958: 173 (*Endoclita*)

TL: Indonesia: Java

TC: Natural History Museum, London

Range: Java, known only from type locality

Illustration: Tindale (1958: pl. XVII, fig. 1)

Morphology: Tindale (1958)

Biology: unpublished

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: unpublished

13. *Endoclita bromia* Tindale, 1958: 175 (*Endoclita*)

TL: Indonesia: Java, Besoeki Residency 1,300-2,500ft

TC: Natural History Museum, London

Range: Java, known only from type locality

Illustration: Tindale (1958: pl. 1XVII, figs. 2-3)

Morphology: Tindale (1958)

Biology: unpublished

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: unpublished

14. *Endoclita buettneria* Tindale, 1941: 34 (*Endoclita*)

TL: Burma, Shwebo, Nanhlaing Reserve

TC: Natural History Museum, London

Range: Burma (Tindale 1941)

Illustration: Tindale (1941: pl. VII, fig. 75)

Morphology: Tindale (1941)

Biology: Tindale (1941)

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: **Malvaceae** (*Buettneria pilosa*)

15. *Endoclita chalybeatus* (Moore, 1879: 412) (*Phassus*)

TL: India: Sikkim [West Bengal], Darjeeling

TC: Natural History Museum, London

Range: northeastern India-Myanmar (Grehan & Ismavel 2017: image 6b)

Illustration: Tindale (1941: pl. V, figs. 58-59), Barlow & D'Abrera (1982: fig. 1), Grehan & Ismavel (2017: image 6a), Grehan *et al.* (2022a: fig. 2c, 2023: fig. 2)

Morphology: Tindale (1941), Grehan *et al.* (2023)

Biology: Tindale (1941), Smetacek (1998)

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: **Lamiaceae** (*Gmelina arborea*, *Tectona grandis*)

16. *Endoclita chrysoptera* Tindale, 1941: 36 (*Endoclita*)

TL: India: Sikkim [West Bengal], Senchal Range, Darjeeling

TC: American Museum of Natural History, New York

Range: northeastern India, known from type locality only

Illustration: Tindale (1941: pl. VI, fig. 67)

Morphology: Tindale (1941)

Biology: unpublished

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: unpublished

17. *Endoclita collardi* Grehan, Ignatev & De Groof *in* Grehan *et al.* 2019: 277 (*Endoclita*)

TL: Laos: Houaphanh, Mt. Phu Phan ca. 2,060m

TC: Naturalis Biodiversity Centre, Leiden

Range: northern Laos

Illustration: Grehan *et al.* (2019: fig. 2)

Morphology: Grehan *et al.* (2019)

Habitat: forest (Grehan *et al.* 2019)

Hosts: unpublished

18. *Endoclita coomani* (Viette, 1949b [5th note]: 85) (*Procharagia*)

TL: Vietnam: Tonkin, Hoa Binh

TC: Muséum national d'Historie naturelle, Paris

Range: northern Vietnam, known from type locality only

Illustration: Grehan *et al.* (2019: fig. 6)

Morphology: Viette (1949b), Grehan *et al.* (2019)

Biology: unpublished

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: unpublished

19. *Endoclita crenilimbata* (Le Cerf, 1919: 471) (*Hypophassus*)

TL: China: Ghizhou, Region of Pin-Fa, Kouy Tcheou

TC: Muséum national d'Historie naturelle, Paris

Range: eastern China (Buchsbaum *et al.* 2018: fig. map 17)

Illustration: Tindale (1958: pl. XX, fig. 3), Buchsbaum *et al.* (2018: fig. 2)

Morphology: Tindale (1958)

Biology: unpublished

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: unpublished

20. *Endoclita damor* (Moore, [1860]: 437) (*Phassus*)

TL: India: Sikkim [West Bengal], Darjeeling

TC: Natural History Museum, London

syn. *similis* (C. Felder, R. Felder & Rogenhofer, 1874: pl. 81, fig. 3) (*Endoclita*); junior synonym

TL: Himalaya; **TC:** unknown

Range: northeastern India (Grehan & Ismavel 2017: image 7b)

Illustration: Felder *et al.* (1874: pl. LXXXI, fig. 3 [as *E. similis*]), Butler (1886: pl. CIX, fig. 3), Pfitzner & Gaede (1933: pl. 77b), Tindale (1941: pl. V, figs. 53-54), Ueda (2000: figs. 1427,

1429 [as *E. similis*], pl. 169, fig. 12), Grehan & Ismavel (2017: image 7a), Grehan *et al.* (2022a: fig. 2e)

Morphology: Ueda (2000)

Biology: Ritzema Bos & Staes (1891), Paerels (1924), Beeson (1941)

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: **Altingiaceae** (*Altingia excelsa*), **Cornaceae** (*Nyssa javanica*), **Euphorbiaceae** (*Glochidion* sp.), **Fabaceae** (*Erythrina* sp., *Falcataria moluccana*), **Lamiaceae** (*Tectona grandis*), **Magnoliaceae** (*Magnolia* sp.), **Myrtaceae** (*Eugenia* sp.), **Rubiaceae** (*Cinchona* sp.), **Rutaceae** (*Evodia* sp.), **Theaceae** (*Schima noronhae*)

21. *Endoclita daenlao* Grehan, Witt & Ignatev in Grehan *et al.*, 2019: 278 (*Endoclita*)

TL: Thailand: Chang Mai province, (Mt) Doi Pha Hom Pok, 16 km NW of Fang, 2,000m,

TC: Museum Witt, Munich

Range: northern Thailand

Illustration: Grehan *et al.* (2019: fig. 3)

Morphology: Grehan *et al.* (2019)

Habitat: forest (Grehan *et al.* 2019)

Hosts: unpublished

22. *Endoclita davidi* (Poujade, 1886: 92) (*Hepialus*)

TL: China: Sichuan, Moupin

TC: Muséum national d'Historie naturelle, Paris

syn. *nankingi* (Daniel, 1940: 1024) (*Phassus*); junior synonym

TL: China: Nanking, Lungtan district; **TC:** Zoologisches Forschungsmuseum Alexander Koenig, Bonn

syn. *giganodus* (Chu & Wang, 1985b: 299) (*Phassus*); junior synonym

TL: China: Guangxi; **TC:** Institute of Zoology, Academia Sinica, Beijing

Range: eastern China

Illustration: Daniel (1940: pl. XXXI, fig. 5 [as *E. nankingi*]), Tindale (1958: pl. XXI, fig. 1), Chu & Wang (1985b: pl. 1, fig. 9 [as *Phassus giganodus*]), Zhu *et al.* (2004: pl. 2, fig. 1 [as *Phassus giganodus*], pl. 4, fig. 7 [error, not *Endoclita*])

Morphology: Tindale (1958), Zhu *et al.* (2004)

Biology: unpublished

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: unpublished

23. *Endoclita excrescens* (Butler, 1877a: 482) (*Hepialus*)

TL: Japan: Yokohama

TC: Natural History Museum, London

syn. *aemulus* (Butler, 1877a: 482) (*Hepialus*); junior synonym

TL: Yokohama; **TC:** Natural History Museum, London

syn. *camphorae* (Sasaki, 1908: 81) (*Phassus*); junior synonym

TL: unknown; **TC:** unknown

syn. *satsumanis* (Yazaki, 1926: 22) (*Phassus*); junior synonym

TL: Satsuma; **TC:** unknown

Range: northeastern China, Korea, Japan, Taiwan

Illustration: Butler (1878: pl. XXVII, figs. 7, 8 [as *Phassus aemulus*]), Sasaki (1908: 81), Matsumura (1911: pl. XXXIV, fig. 10 [as *Phassus signifer*]; 1931: unnumbered figure), Pfitzner (1912: pl. 54a [as *Phassus herzi*]), Yazaki (1926: pl. 4, fig. 1), Pfitzner & Gaede (1933: pl. 78c [as *Phassus camphorae*]), Daniel (1949a: pl. 1, fig. 1), Li (1952: fig. 68), Esaki et al. (1957: pl. 1, figs 7-8 [as *P. signifer*]), Tindale (1958: pl. XVI, fig. 2, pl. XVII, fig. 1 [as *E. camphorae*]), Inoue (1982: pl. 3, figs. 9-10), Chu & Wang (1985b: pl. 1, fig. 4), Wang (1996: 130-131), Zhu et al. (2004: pl. 1, figs. 3, 9 [as *E. herzi*], pl. 2, fig. 2 [as *Phassus camphorae*]), Hirowatari et al. (2013: cover, pl. 3-02-26-27)

Morphology: Yazaki (1926), Tindale (1958), Matsuzawa et al. (1963), Hattori (1969), Ueda (1978, 1980), Chu & Wang (1985b, 1988), Zhu et al. (2004)

Biology: Sasaki (1908), Clausen (1931 [includes *Phassus camphorae*]), Shiraki (1952), Toyomura & Matsuzawa (1965), Matsuzawa et al. (1963), Saitoo (1968), Ochi (1971), Nishi & Yoshi (1979), Ueda (1979), Ando & Tanaka (1980), Guan (1980), Maeto (1990), Chi et al. (2000), Jeon et al. (2000), Briscoe & Chittka (2001), Kan et al. (2002a-b), Zhu et al. (2004), Kitajima et al. (2006a-b), Utsumi & Ohgushi (2007), Li et al. (2009), Matsushashi et al. (2010), Charles et al. (2014), Fujie & Mateo (2022), Jing et al. (2022, 2023)

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: **Acoraceae** (*Acorus calamus*), **Amaranthaceae** (*Bassia scoparia*), **Anacardiaceae** (*Rhus trichocarpa*), **Apiaceae** (*Daucus carota*), **Asteraceae** (*Artemisia annua*, *A. integrifolia*, *A. keiskeana*, *A. lavandulaefolia*, *A. scoparia*, *A. vulgaris*, *Chrysanthemum morifolium*, *Cirsium japonicum*, *C. nipponicum*, *Dahlia pinnata*, *Eclipta prostrata*, *Erigeron annuus*, *E. bonariensis*, *Helianthus annuus*, *H. tuberosus*, *Petasites japonicus*), **Betulaceae** (*Alnus firma*, *A. hirsuta*), **Bignoniaceae** (*Catalpa bungei*), **Cannabaceae** (*Cannabis sativa*, *Celtis sinensis*), **Cannaceae** (*Canna generalis*), **Caprifoliaceae** (*Sambucus sieboldiana*), **Celastraceae** (*Euonymus japonica*), **Chenopodiaceae** (*Chenopodium album*, *C. giganteum*), **Commelinaceae** (*Commelina communis*), **Cruciferae** (*Brassica campestris*, *Napus nippo-oleifera*, *Raphanus acanthiformis*, *R. sativus*), **Convolvulaceae** (*Ipomea batatas*), **Cupressaceae** (*Chamaecyparis obtusa*, *Cryptomeria japonica*, *Metasequoia glyptostroboides*), **Dioscoreaceae** (*Dioscorea japonica*), **Ebenaceae** (*Diospyros kaki*), **Elaeagnaceae** (*Elaeagnus multiflora*), **Elaeocarpaceae** (*Elaeocarpus decipiens*), **Equisetaceae** (*Equisetum arvense*), **Euphorbiaceae** (*Daphniphyllum macropodum*, *Mallotus japonicus*), **Fabaceae** (*Albizia julibrissin*, *Astragalus chinensis*, *Glycyrrhiza pallidiflora*, *Glycine max*, *Maackia amurensis*, *Melilotus suaveolens*, *Pueraria lobata*, *P. thumbergiana*, *Robinia pseudoacacia*, *Wistaria floribunda*), **Fagaceae** (*Castanea crenata*, *C. mollissima*, *Quercus acutissima*, *Q. glauca*, *Q. phillyreoides*, *Q. serrata*), **Juglandaceae** (*Juglans ailantifolia*, *J. mandshurica*, *J. regia*), **Lamiaceae** (*Leonurus sibiricus*), **Lauraceae** (*Cinnamomum camphora*), **Liliaceae** (*Lilium* sp.), **Magnoliaceae** (*Liriodendron tipulifera*), **Moraceae** (*Broussonetia kazinoki*, *Ficus erecta*, *Humulus lupulus*, *H. lupulus* var. *cordifolius*, *Morus nigra*), **Myrtaceae** (*Callistemon speciosus*), **Oenotheraceae** (*Oenothera odorata*), **Oleaceae** (*Fraxinus japonica*, *Ligustrum japonicum*, *Olea europae*, *Syringa vulgaris*), **Paeniaceae** (*Paeonia albiflora*, *P. hortensis*), **Paulowniaceae** (*Paulownia kawakamii*, *P. tomentosa*), **Phytolaccaceae** (*Phytolacca esculenta*), **Pinaceae** (*Pinus thunbergii*), **Platanaceae** (*Platanus orientalis*), **Poaceae** (*Agropyron kamoji*, *Dactylus glomerata*, *Hordeum vulgare*, *Miscanthus sinensis*, *Phragmites australis*, *Secale cereale*, *Sorghum bicolor*, *Triticum aestivum*, *Zea mays*), **Polygonaceae** (*Polygonum cuspidatum*, *P. orientale*, *Rumex japonicus*), **Ranunculaceae** (*Thalictrum thumbergii*), **Rosaceae** (*Eriobotrya japonica*, *Malus tshonoski*, *Prunus persica*, *P. pumila*, *P. yedoensis*, *Pyracantha angustifolia*,

Pyrus bretschneideri, *P. mume*, *P. persica*, *P. pyrifolia*, *P. communis*, *P. pseudocerasus*, *P. crataegifolius*, *Rosa hybrida*, *Rubus coptophyllus*, *Spiraea cantoniensis*), **Rubiaceae** (*Gardenia jasminoides*), **Rutaceae** (*Dictamnus albus*), **Salicaceae** (*Populus nigra*, *P. maximowiczii*, *Salix babylonica*, *S. chaenomeloides*, *S. eriocarpa*, *S. gracilistyla*, *S. gilgiana*, *S. integra*, *S. koriyanagi*, *S. matsudana*, *S. serissaefolia*), **Saururaceae** (*Houttuynia cordata*), **Saxiferaaceae** (*Hydrangea macrophylla*), **Solanaceae** (*Lycopersicon esculentum*, *Nicotiana tabacum*, *Solanum melongena*, *S. tuberosum*), **Verbenaceae** (*Clerodendrum trichotomum*), **Vitaceae** (*Cayratia japonica*, *Vitis vinifera*), **Zingiberaceae** (*Zingiber mioga*, *Z. officinale*)

24. *Endoclita fahringeri* Grehan & C. Mielke, 2016a: 19 (*Endoclita*)

TL: Indonesia: Aceh, Gayo Lues, Gunung Leuser, 3,000 m

TC: Museum Zoologicum Bogoriensis, Cibinong

Range: Leuser Mountains, known from type locality only (Grehan & Mielke 2016a)

Illustration: Fahringer (2016: 48-49), Grehan & Mielke (2016a: fig. 1)

Morphology: Grehan & Mielke (2016a)

Biology: unpublished

Habitat: upland forest (Grehan & Mielke 2016a)

Hosts: unpublished

25. *Endoclita fujianodus* (Chu & Wang, 1985b: 299) (*Phassus*)

TL: China: Fujian, Wuyishan

TC: Institute of Zoology, Academia Sinica, Beijing

Range: eastern China, known from type locality only

Illustration: Chu & Wang (1985b: pl. 1, fig. 10), Zhu *et al.* (2004: pl. 2, fig. 3)

Morphology: Chu & Wang (1985b), Zhu *et al.* (2004)

Biology: Zhu *et al.* (2004)

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: **Platanaceae** (*Platanus orientalis*), **Taxaceae** (*Torreya grandis*)

26. *Endoclita gmelina* Tindale, 1941: 26 (*Endoclita*)

TL: Myanmar: Namtu [Namyu], Panyhai Reserve

TC: Natural History Museum, London

Range: Myanmar

Illustration: Tindale (1941: pl. VI, fig. 72), Barlow & D'Abrera (1982: fig. 1), Buchsbaum *et al.* (2022: fig. 29b)

Morphology: Tindale (1941)

Biology: Dhanarajan (1976)

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: **Asteraceae** (*Eupatorium*), **Dilleniaceae** (*Dillenia* sp.), **Euphorbiaceae** (*Macaranga* sp.), **Lamiaceae** (*Tectona grandis*), **Malvaceae** (*Actinophora* sp., *Grewia* sp.), **Verbenaceae** (*Lantana* sp., *Stachytarpheta* sp.), **Vitaceae** (*Leea* sp.)

27. *Endoclita heads* Grehan & C. Mielke, 2019c: 2 (*Endoclita*)

TL: Philippines: Busanga Island, 4 km north of San Nicolas

TC: Bernice P. Bishop Museum, Hawaii

Range: Busanga Island (Grehan & Mielke 2019c: fig. map 11)

Illustration: Grehan & Mielke (2019c: fig. 1)

Morphology: Grehan & Mielke (2019c)

Biology: unpublished

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: unpublished

28. *Endoclita hoenei* (Daniel, 1949a: 228) (*Phassus*)

TL: China: northern Yunnan, Li-Kiang

TC: Zoologisches Forschungsmuseum Alexander Koenig, Bonn

Range: southwestern China, known from type locality only (Daniel 1949a)

Illustration: Daniel (1949a: pl. 1, fig. 3)

Morphology: unpublished

Biology: unpublished

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: unpublished

29. *Endoclita hosei* Tindale, 1958: 193 (*Endoclita*)

TL: Indonesia: Sarawak, Baram District

TC: Natural History Museum, London

Range: Sarawak (Tindale 1958)

Illustration: Tindale (1958: pl. XXII, fig. 3), Yasuda & Abe (1986: fig. 422)

Morphology: Tindale (1958), Yasuda & Abe (1986 [immature stages])

Biology: Smith (1972), Yasuda & Abe (1986), Dell *et al.* (2012), Kuan *et al.* (2015)

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: **Euphorbiaceae** (*Macaranga* spp.), **Fabaceae** (*Erythrina* sp., *Gliricidia maculata*), **Lamiaceae** (*Gmelina arborea*), **Malvaceae** (*Theobroma cacao*), **Myrtaceae** (*Eucalyptus deglupta*), **Rubiaceae** *Anthocephalus cadamba*, *Neolamarckia cadamba*), **Ulmaceae** (*Trema cannabina*)

30. *Endoclita hunanensis* (Chu & Wang, 1985b: 294) (*Phassus*), **stat. rest.**

Taxonomic note: This species name was subsumed under *E. signifer* by Nielsen *et al.* (2000), but without justification. At this time, the distribution of *E. signifer* is verified for Meghalaya of northeastern India and northern Bangladesh only. The external appearance of *E. hunanensis* **stat. rest.**, as illustrated by Zhu *et al.* (2004), shows no particular similarity to the type of *E. signifer* (see Grehan *et al.* 2023). The male genitalia of *E. signifer* are not described and cannot provide for direct comparison with the male genitalia of *E. hunanensis* illustrated by Chu & Wang (1985b). Pending future assessment, we treat *E. hunanensis* **stat. rest.** as a distinct taxonomic entity.

TL: China: Hunan

TC: Institute of Zoology, Academia Sinica, Beijing

Range: southeastern China, known from type locality only (Chu & Wang 1985b)

Illustration: Chu & Wang (1985b: pl. 1, fig. 3), Zhu *et al.* (2004: pl. 1, fig. 2)

Morphology: Chu & Wang (1985b), Zhu *et al.* (2004)

Biology: Zhu *et al.* (2004)

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: **Fabaceae** (*Amorpha fruticosa*), **Fagaceae** (*Quercus acutissima*), **Lamiaceae** (*Clerodendrum trichotomum*), **Salicaceae** (*Salix babylonica*)

31. *Endoclita ijereja* Tindale, 1958: 195 (*Endoclita*)

TL: Indonesia: Borneo, Mt Kina Balu

TC: Museum für Naturkunde, Berlin

Range: Borneo, known from type locality only (Tindale 1958)

Illustration: Tindale (1958: pl. XXIII, fig. 1)

Morphology: Tindale (1958)

Biology: unpublished

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: unpublished

32. *Endoclita inouei* Ueda, 1987: 103 (*Endoclita*)

TL: Taiwan: Fenchihu, Chiayi Hsien

TC: Entomological Institute of Hokkaido University, Sapporo

Range: southwestern Taiwan, known from type locality only

Illustration: Ueda (1987: fig. 1), Buchsbaum & Grehan (2019: fig. 3f)

Morphology: Ueda (1987)

Biology: unpublished

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: **Rosaceae** (*Rubus piptopetalus* [C.Y. Liang, pers. comm.])

33. *Endoclita javaensis* Viette, 1950g [21st note]: 1 (*Endoclita*)

TL: Indonesia: East Java, Nongkodjadar, Tengger, 1,220 m

TC: Institut Royal des Sciences Naturelles de Belgique, Brussels

Range: Java, known from type locality only

Illustration: unpublished

Morphology: Viette (1950g)

Biology: unpublished

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: unpublished

34. *Endoclita jianglingensis* (Zeng & Zhao, 1991: 340) (*Phassus*)

TL: China: Hubei, Jiangling

TC: Plant Protection Department, Huazhong Agricultural University, Wuhan

msp. *jiangling* (Zeng & Zhao 1991: 341)

Range: eastern China, known from type locality only

Illustration: unpublished

Morphology: Zeng & Zhao (1991)

Biology: unpublished

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: unpublished

35. *Endoclita jingdongensis* (Chu & Wang, 1985b: 298) (*Phassus*)

TL: China: Yunnan, Jingdong

TC: Institute of Zoology, Academia Sinica, Beijing

Range: southwestern China, known from type locality only

Illustration: Chu & Wang (1985b: pl. 1, fig. 8), Zhu *et al.* (2004: pl. 1, fig. 7)

Morphology: Chu & Wang (1985b), Zhu *et al.* (2004)

Biology: unpublished

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: unpublished

36. *Endoclita kara* Tindale, 1958: 194 (*Endoclita*)
TL: Indonesia: Java, Vulkan Gede
TC: Museum für Naturkunde, Berlin
Range: Java, known from type locality only
Illustration: Tindale (1958: pl. 2XXII, fig. 4)
Morphology: Tindale (1958)
Biology: unpublished
Habitat: forest (inferred from locality and biology of other species in the genus)
Hosts: unpublished
37. *Endoclita kosemponis* (Strand, 1916a: 150) (*Phassus*)
TL: Taiwan, Kaohsiung City Jiasian district [Kosempo]
TC: Museum für Naturkunde, Berlin
Range: Taiwan, known from type locality only
Illustration: Sonan (1938: fig. 1 [as *Phassus signifer*]), Tindale (1958: pl. XXI, figs. 2-3)
Buchsbaum & Grehan (2019: fig. 2), Buchsbaum *et al.* (2022: fig. 28f)
Morphology: Tindale (1958), Buchsbaum & Grehan (2019)
Biology: Sonan (1938)
Habitat: forest (inferred from locality and biology of other species in the genus)
Hosts: unpublished
38. *Endoclita laosensis* Grehan & C. Mielke *in* Grehan *et al.*, 2019: 275 (*Endoclita*)
TL: Laos: Luang Prabang, Kiew Mak Nao, 900 m
TC: Naturalis Biodiversity Centre, Leiden
Range: northern Laos
Illustration: Grehan *et al.* (2019: fig. map 1)
Morphology: Grehan *et al.* (2019)
Habitat: forest (Grehan *et al.* 2019)
Hosts: unpublished
39. *Endoclita magnus* (Tindale, 1942: 154) (*Sahyadrassus*)
TL: India: Tamil Nadu, Palni Hills
TC: Natural History Museum, London
Range: southwestern India, type locality record only (Grehan & Mielke 2017a: fig. 11)
Illustration: Tindale (1958: pl. XXIII, fig. 2), Grehan & Mielke (2017a: figs. 8-9)
Morphology: Tindale (1942)
Biology: unpublished
Habitat: forest (inferred from locality and biology of other species in the genus)
Hosts: unpublished
40. *Endoclita makundae* Grehan, C. Mielke & Kunte *in* Grehan *et al.*, 2022a: 2 (*Endoclita*)
TL: India: Assam, Karimganj, Patharkandi, campus of the Makunda Christian Leprosy and General Hospital, GPS 23.434227 N, 92.324692 E.
TC: National Centre for Biological Science, Bengaluru
Range: northeastern India, type locality (Grehan *et al.* 2022a: fig. map 7)
Illustration: Grehan *et al.* (2022a: fig. 1a-f, 2a; 2023: fig. 3), Goswami (2022: habitus, web page)

Morphology: Grehan *et al.* (2022a, 2023)

Biology: unknown

Habitat: forest (Grehan *et al.* 2022a)

Hosts: unpublished

41. *Endoclita malabaricus* (Moore, 1879: 412) (*Phassus*)

TL: India: India, Karnataka, Sirsi, Uttara Kannada; Tamil Nadu, Ooty, Nilgiri Hills

TC: Natural History Museum, London

Range: southwestern India Grehan & Mielke (2017a: fig. 11)

Illustration: Maxwell-Lefroy & Howelett (1909: fig. 346), Fletcher (1914: fig. 344), Tindale (1942: pl. IX, figs. 76-77, pl. X, fig. 81), Ayyar (1963: fig. 5), Nair (1982: fig. 14), Nair (2007: fig. 10.44), Grehan & Mielke (2017a: fig. 1 [nr. *E. malabaricus*], 6-7), Rishi *et al.* (2018: fig. 1f), Vaylure (2018: fig. 1 nr. *E. malabaricus*), Valappil (2022: fig. 037)

Morphology: Philpott (1926, 1927a), Tindale (1942), Ayyar (1963), Nair (1982, 1987), Tintumol *et al.* (2014), Grehan & Mielke (2017 [nr. *E. malabaricus*])

Biology: Maxwell-Lefroy & Howelett (1909), Fletcher (1914, 1940), Beeson (1941), Tindale (1942), Ayyar (1963), Crosskey (1976), Nair (1982, 1987), Devasahayam *et al.* (1987), Mohamed Ali & Mathew (1989), Nair (2007), Varma *et al.* (2007), Mathew (2014), Tintumol *et al.* (2014), Rishi *et al.* (2018)

Habitat: forest, urban forest (Grehan & Mielke 2017)

Hosts: **Acanthaceae** (*Strobilanthes callosa*), **Asteraceae** (*Chromolaena odorata*), **Boraginaceae** (*Cordia myxa*), **Caesalpiniaceae** (*Cassia hirsuta*), **Casuarinaceae** (*Casuarina equisetifolia*), **Euphorbiaceae** (*Macaranga indica*, *M. roxburghii*, *M. tomentosa*, *Mallotus philippensis*), **Fabaceae** (*Acacia mearnsii*, *A. pennata*, *A. intsia*, *Cajanus cajan*, *Calliandra calothyrsus*, *Delonix regia*, *Erythrina* sp., *E. indica*, *Falcataria moluccana*, *Gliricidia maculata*), **Gyocarpaceae** (*Gyrocarpus americanus*), **Lamiaceae** (*Ocimum gratissimum*, *Tectona grandis*), **Lythraceae** (*Lagerstroemia lanceolata*, *L. macrocarpa*), **Malvaceae** (*Abutilon crispum*, *Grewia tiliaefolia*, *Sterculia companulata*), **Myrtaceae** (*Eucalyptus grandis*, *E. multiflora*, *E. robusta*, *E. tereticornis*, *Eugenia caryophyllata*), **Fabaceae** (*Desmodium cephalotus*), **Lamiaceae** (*Gmelina arborea*, *G. falcataria*), **Phyllanthaceae** (*Bridelia retusa*), **Rhamnaceae** (*Ziziphus horrida*), **Rosaceae** (*Pyrus communis*, *Rosa* sp.), **Rubiaceae** (*Anthocephalus chinensis*, *Coffea arabica*, *C. canephora*), **Sapindaceae** (*Filicium decipiens*, *Sapindus trifoliatus*), **Santalaceae** (*Santalum album*), **Solanaceae** (*Solanum indicum*, *S. melongena*, *S. torvum*, *S. verbascifolium*), **Ulmaceae** (*Trema orientalis*), **Verbenaceae** (*Callicarpa lanata*, *Citharexylum spinosum*, *Clerodendrum infumatum*, *C. viscosum*, *Lantana aculeata*, *L. indica*)

42. *Endoclita marginenotatus* (Leech, 1898: 356) (*Phassus*)

TL: China: Sichuan, Omei-Shan [Emei Shan, Mt. Emei], 3,500 ft

TC: Natural History Museum, London

Range: western China, known from type locality only

Illustration: Tindale (1941: pl. VII, fig. 68)

Morphology: Tindale (1941)

Biology: unpublished

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: unpublished

43. *Endoclita meifenga* Buchsbaum & Grehan, 2019: 434 (*Endoclita*)
TL: Taiwan: Central Taiwan, near Puli, Nantou Co, Meifeng, 2,100 m, 24°05'19 N, 21°10'26 E
TC: National Museum of Nature Science, Taichung
Range: Taiwan, known from type locality only (Buchsbaum & Grehan 2019: fig. map 13)
Illustration: Buchsbaum & Grehan (2019: fig. 1), Buchsbaum *et al.* (2022: fig. 28g)
Morphology: Buchsbaum & Grehan (2019)
Biology: unpublished
Habitat: forest (inferred from locality and biology of other species in the genus)
Hosts: unpublished
44. *Endoclita metallica* Tindale, 1941: 34 (*Endoclita*)
TL: India: Sikkim [West Bengal], Darjeeling
TC: Natural History Museum, London
Range: northeastern India, type locality record (Tindale 1941)
Illustration: Tindale (1941: pl. VI, fig. 71)
Morphology: Tindale (1941)
Biology: unpublished
Habitat: forest (inferred from locality and biology of other species in the genus)
Hosts: unpublished
45. *Endoclita microscripta* Tindale, 1941: 37 (*Endoclita*)
TL: India: Tamil Nadu, Chennai
TC: South Australian Museum, Adelaide
Range: southeastern India, known from type locality only
Illustration: Tindale (1942: pl. X, fig. 80)
Morphology: Tindale (1941)
Biology: unpublished
Habitat: forest (inferred from locality and biology of other species in the genus)
Hosts: unpublished
46. *Endoclita minanus* (Yang *in* Yang & Wang, 1992: 11) (*Phassus*)
TL: China: Fujian, Nanping
TC: Beijing Agricultural University, Beijing
Range: eastern China, known from type locality only (Yang & Wang 1992)
Illustration: Qi (1992: fig. 1)
Morphology: Qi (1992), Yang & Wang (1992),
Biology: unpublished
Habitat: forest and cultivated orchards (Qui 1992)
Hosts: **Rosaceae** (*Eriobotrya japonica*), **Rutaceae** (*Citrus sinensis*), **Theaceae** (*Camellia sinensis*)
47. *Endoclita mingiganteus* (Yang & Wang, 1992: 12) (*Phassus*)
TL: China: Schaxian, Fujian
TC: Beijing Agricultural University, Beijing
Range: eastern China, known from type locality only
Illustration: unpublished
Morphology: Yang & Wang (1992)
Biology: unpublished

Habitat: type collected from tea plantation (Yang & Wang 1992)

Hosts: unpublished

48. *Endoclita niger* (van Eecke, 1915: 248) (*Phassus*)

TL: Indonesia: Sumatra, Vulkan Gede

TC: Naturalis Biodiversity Centre, Leiden

Range: Sumatra, known from type locality only

Illustration: Van Eecke (1915: pl. 10), Tindale (1958: pl. XX, fig. 2), Grehan & Mielke (2016a: fig. 11)

Morphology: Tindale (1958)

Biology: unpublished

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: unpublished

49. *Endoclita nodus* (Chu & Wang, 1985b: 299) (*Phassus*)

TL: China: Anhui, Yuexi

TC: Institute of Zoology, Academia Sinica, Beijing

Range: eastern China (Li *et al.* 1997, Buchsbaum *et al.* 2018 fig. map 17)

Illustration: Chu & Wang (1985b: pl. 1, fig. 11), Zhu *et al.* (2004: pl. 2, fig. 4)

Morphology: Chu & Wang (1985b), Zhu *et al.* (2004)

Biology: Chu & Wang (1985), Li *et al.* (1997), Wen *et al.* (2013), Hu (2015)

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: **Alangiaceae** (*Alangium chinense*), **Anacardiaceae** (*Cotinus coggygria*), **Arecaceae** (*Arenga pinnata*), **Cercidiphyllaceae** (*Cercidiphyllum japonicum*), **Cornaceae** (*Cornus kousa*, *Nyssa sinensis*), **Cupressaceae** (*Cunninghamia lanceolata*, *Platycladus orientalis*), **Eleocarpaceae** (*Elaeocarpus sylvestris*), **Euphorbiaceae** (*Mallotus japonicus*), **Fagaceae** (*Castanea mollissima*), **Juglandaceae** (*Pterocarya stenoptera*), **Lamiaceae** (*Phlomis umbrosa*), **Lauraceae** (*Cinnamomum camphora*, *Litsea coreana*, *Phoebe namu*), **Magnoliaceae** (*Liriodendron chinense*, *Magnolia amoena*, *M. denudata*, *Michelia champaca*, *M. fuscata*), **Malvaceae** (*Melochia corchorifolia*), **Meliaceae** (*Melia azedarach*, *Toona sinensis*), **Oleaceae** (*Ligustrum quihoui*), **Paulowniaceae** (*Paulownia fortunei*), **Rhamnaceae** (*Hovenia dulcis*), **Rutaceae** (*Citrus nobilis*, *Evodia rutaecarpa*), **Styracaceae** (*Helesia macgregorii*), **Thymelaeaceae** (*Daphne genkwa*), **Ulmaceae** (*Ulmus davidiana*, *U. changii*), **Verbenaceae** (*Clerodendrum cyrtophyllum*), **Vitaceae** (*Vitex canescens*)

50. *Endoclita pallescens* Tshistjakov, 1996b: 247, **stat. rev.** (*Endoclyta* [*sic*])

Taxonomic amendment: *E. pallescens* was synonymized under *E. excrescens* (Butler, 1877) by Nielsen *et al.* (2000). Tshistjakov (1996) treated *E. pallescens* as a subspecies of *E. excrescens*, but he also noted differences in the structure of the male genitalia. Pending future comparison with *E. excrescens*, we treat *E. pallescens* as a distinct entity.

TL: Russia: Primorskii Krai, Amurskii saliv station, near Vladivostok

TC: Institute of Biology and Pedology, Vladivostok

Range: Russian Far East

Illustration: Tshistjakov (1996b: figs. 1-2)

Morphology: Tshistjakov (1966b)

Biology: Tshistjakov (1996b), Leleja (2016)

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: **Juglandaceae** (*Juglans mandshurica*), **Oleaceae** (*Fraxinus* sp.), **Rosaceae** (*Rubus* sp.), **Rutaceae** (*Phellodendron amurense*)

51. *Endoclita paraja* Tindale, 1958: 162 (*Endoclita*)

TL: unpublished

TC: Natural History Museum, London

Range: Borneo? (Tindale 1958)

Illustration: Tindale (1958: pl. XVI, fig. 1), Buchsbaum *et al.* (2022: fig. 29d)

Morphology: Tindale (1958)

Biology: unpublished

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: unpublished

52. *Endoclita pfitzneri* (Gaede in Pfitzner & Gaede, 1933: 843), **stat. rest.** (*Phassus*)

Taxonomic amendment: Placement of *E. pfitzneri* under *E. niger* (van Eecke, 1915) by Nielsen *et al.* (2000) was not explained. Examination of holotype specimen photos (from Naturalis Biodiversity Centre) show that the wing shape and patterns are different between *E. pfitzneri* (Plate 6a) and *E. niger* (Plate 6b) and we therefore retain the two names as valid pending future analysis.

TL: Indonesia: Java

TC: Museum für Naturkunde, Berlin

Range: Java, known from type locality only (Pfitzner & Gaede 1933)

Illustration: this catalogue

Morphology: unpublished

Biology: unpublished

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: unpublished

53. *Endoclita punctimargo* (Swinhoe, 1892: 319) (*Phassus*)

TL: India: Sikkim [West Bengal], Senchel Range, Darjeeling

TC: Natural History Museum, London

Range: Bengal Himalayas (Beeson 1941)

Illustration: unpublished

Morphology: unpublished

Biology: Beeson (1941)

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: **Cupressaceae** (*Cryptomeria japonica*)

54. *Endoclita purpurescens* (Moore, [1883]: 156) (*Phassus*)

TL: Sri Lanka

TC: Natural History Museum, London

Range: Sri Lanka (Tindale 1941)

Illustration: Moore ([1883]: pl. 143. fig. 4), Stebbing (1899), Pfitzner & Gaede (1933: pl. 78d), Philips (1938: pl. 1), Tindale (1941: pl. V, figs. 56-57)

Morphology: Tindale (1941)

Biology: Philips (1938)

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: Cupressaceae (*Cryptomeria japonica*), Rubiaceae (*Cinchona* sp.), Theaceae (*Camellia sinensis*)

55. *Endoclita raapi* Tindale, 1958: 178 (*Endoclita*)

TL: Indonesia: Palau Nias (Raap)

TC: Natural History Museum, London

Range: Palau Nias (Nias Island), known from type locality only

Illustration: Tindale (1958: pl. XIX, fig. 3), Grehan & Mielke (2016a: fig. 11)

Morphology: Tindale (1958)

Biology: unpublished

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: unpublished

56. *Endoclita rustica* Tindale, 1941: 33 (*Endoclita*)

TL: India: Assam, Shillong

TC: Natural History Museum, London

Range: northeastern India (Grehan & Ismavel 2017: image 8b)

Illustration: Tindale (1941: pl. VI, figs. 63, 66), Grehan & Ismavel (2017: image 8a), Grehan *et al.* (2022a: fig. 2d)

Morphology: Tindale (1941)

Biology: unpublished

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: unpublished

57. *Endoclita salsettensis* (Moore, 1879: 412) (*Phassus*)

TL: India: Maharashtra, Mumbai

TC: Natural History Museum, London

Range: southeastern India, known from type locality only

Illustration: Moore (1879: pl. XXXIV, fig. 5)

Morphology: unpublished

Biology: unpublished

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: unpublished

58. *Endoclita salvazi* Tindale, 1958: 176 (*Endoclita*)

TL: Laos, Thado

TC: Cornell University Insect Collection, Ithaca

Range: northern Laos and Vietnam (Buchsbaum *et al.* 2022)

Illustration: Tindale (1958: pl. XVII, fig. 4), Grehan *et al.* (2019: fig. 4), Buchsbaum *et al.* (2022: figs. 2a-f, 29a)

Morphology: Tindale (1958)

Biology: Buchsbaum *et al.* (2022)

Habitat: forest (Buchsbaum *et al.* (2022))

Hosts: Myrtaceae (*Eucalyptus urophylla* x *E. grandis*)

59. *Endoclita sericeus* (Swinhoe, 1901: 469) (*Phassus*)**TL:** Indonesia: Java, Malang**TC:** Natural History Museum, London**Range:** Java (Tindale 1958, Kalshoven 1965)**Illustration:** Tindale (1958: pl. XVII, fig. 3)**Morphology:** Viette (1950h [22nd note]), Tindale (1958)**Biology:** Kalshoven (1951, 1965)**Habitat:** forest (inferred from locality and biology of other species in the genus)**Hosts:** **Asteraceae** (*Eupatorium pallescens*), **Bignoniaceae** (*Jacaranda* sp.), **Bixaceae** (*Bixa* sp.), **Dilleniaceae** (*Dillenia* sp.), **Euphorbiaceae** (*Aleurites* sp., *Bridelia* sp., *Glochidion* sp., *Macaranga* sp., *Manihot utilissima*, *Ricinus communis*), **Fabaceae** (*Albizia* sp., *Crotalaria* sp.), **Lamiaceae** (*Tectona grandis*), **Malvaceae** (*Actinophora* sp., *Durio* sp., *Grewia* sp., *Theobroma cacao*), **Myrtaceae** (*Tristania* sp.), **Pandanaceae** (*Pandanus* sp.), **Phyllanthaceae** (*Bischofia* sp.), **Rubiaceae** (*Cinchona* sp.), **Sapindaceae** (*Allophylus* sp.), **Simaroubaceae** (*Ailanthus altissima*), **Theaceae** (*Camellia sinensis*), **Ulmaceae** (*Trema* sp.), **Verbenaceae** (*Lantana camara* *Stachytarpheta* sp.), **Vitaceae** (*Leea* sp.)**60. *Endoclita signifer*** (Walker, 1856: 1568) (*Phassus*)**TL:** Bangladesh, Sylhet [NHMUK female specimen BMNH(E)1626946]**TC:** Natural History Museum, London**Range:** northeastern Bangladesh and India (Grehan & Ismavel 2017: image 9c)**Illustration:** Butler (1886: pl. CIX, fig. 2), Hampson ([1893]: fig. 219), Pfitzner (1912: pl. 54a), Atkinson (1931: pl. IV), Tindale (1941: pl. VI, figs. 60-61), Grehan & Ismavel (2017: image 9a-b), Grehan et al. (2022a: fig. 2b; 2023: fig. 1)**Morphology:** Tindale (1941), Grehan et al. (2022a, 2023)**Biology:** Atkinson (1931), Clausen (1931), Beeson (1941), Gerasimov (1952), Kondo (1961)**Habitat:** forest (inferred from locality and biology of other species in the genus)**Hosts:** **Lamiaceae** (*Gmelina arborea*, *Tectona grandis*), **Verbenaceae** (*Clerodendrum infortunatum*)**61. *Endoclita sinensis*** (Moore, 1877: 94) (*Phassus*)**TL:** China, Shanghai**TC:** Natural History Museum, Londonsyn. *herzi* (Fixsen, 1887: 335) (*Phassus*); junior synonym**TL:** Korea: **TC:** Zoological Institute, St Petersburgsyn. *formosanus* (Shiraki, 1913: 381) (*Phassus*); junior synonym**TL:** Taiwan, Taipei; **TC:** unknown**Range:** China, Japan, Taiwan (Li et al. 1997, Inoue 1982)**Illustration:** Fixsen (1887: pl. XV, fig. 3 [as *Phassus herzi*]), Matsumura (1911: pl. XXXIV, fig. 17 [as *Phassus excrescens*]), Pfitzner (1912: pl. 54A [as *P. herzi*]), Matsumura (1931a: unnumbered figure [as *P. signifer*]), Daniel (1940: pl. XXXI, fig. 2), Tindale (1958: pl. XVI, figs. 3-4), Inoue (1982: pl. 3, figs. 11-12), Chu & Wang (1985b: pl. 1, fig. 2 [as *P. signifer sinensis*]), Wang (1996: 132-133), Ueda et al. (2000: fig. 5), Zhu et al. (2004: pl. 1, fig. 1), Hirowatari et al. (2013: pl. 3-02-28-29), Buchsbaum & Grehan (2019: fig. 3a-d), Buchsbaum et al. (2022: figs. 28b-e)

Morphology: Sonan (1938), Chu & Wang (1985), Kawazoé (1987 [chromosomes]), Zhu *et al.* (2004), Buchsbaum & Grehan (2019)

Biology: Kondo (1961), Ando & Tanaka (1980 [as *E. signifer*]), Tanaka *et al.* (1985), Li *et al.* (1997), Zhu *et al.* (2004), Liang & Lee (2011)

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: **Adoxaceae** (*Sambucus racemosa*), **Anacardiaceae** (*Magnifera indicata*), **Bignoniaceae** (*Catalpa bignonioides*), **Cornaceae** (*Camptotheca acuminata*), **Cupressaceae** (*Cryptomeria japonica*, *Cunninghamia lanceolata*, *Metasequoia glyptostroboides*), **Ebenaceae** (*Diospyros kaki*), **Euphorbiaceae** (*Macaranga tanarius*, *Mallotus japonicus* [for *P. formosana*], *M. paniculatus*), **Fabaceae** (*Acacia confusa*, *Pueraria phaseoloides*, *Robinia pseudoacacia*, *Sophora japonica*), **Fabaceae** (*Albizia julibrissin*) **Fagaceae** (*Castanea seguinii*, *Castanopsis cuspidata*, *Quercus fabri*), **Juglandaceae** (*Juglans regia*), **Lamiaceae** (*Vitex negundo*), **Lauraceae** (*Cinnamomum camphora*, *Litsea kostermansii*, *Machilus zuihoensis*), **Meliaceae** (*Melia azedarach*, *Toona sinensis*), **Moraceae** (*Broussonetia papyrifera*), **Oleaceae** (*Fraxinus chinensis*, *Ligustrum japonicum*, *L. ovalifolium*), **Paulowniaceae** (*Paulownia fortuneii*, *P. tomentosa*), **Phyllanthaceae** (*Glochidion philippicum*, *G. puberum*), **Platanaceae** (*Platanus orientalis*), **Rhamnaceae** (*Rhamnella franguloides*), **Rosaceae** (*Pyrus bretschneideri*), **Salicaceae** (*Populus canadensis*), **Sapindaceae** (*Dimocarpus longan*), **Theaceae** (*Schima superba*), **Ulmaceae** (*Ulmus pumila*), **Urticaceae** (*Boehmeria nivea*), **Verbenaceae** (*Clerodendrum cyrtophyllum*, *C. trichotomum*), **Vitaceae** (*Vitis vinifera*)

62. *Endoclita strobilanthes* (Tindale, 1942: 157) (*Sahyadrassus*)

TL: India: North Kanara, Anshi

TC: Natural History Museum, London

Range: southeastern India, known from type locality only

Illustration: Tindale (1942: pl. X, figs. 82-83)

Morphology: unpublished

Biology: unpublished

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: unpublished

63. *Endoclita taranu* Tindale, 1958: 192 (*Endoclita*)

TL: Indonesia: Sumatra, Lebong Sandi, Benkoelen

TC: Natural History Museum, London

Range: Sumatra, known from type locality only (Tindale 1958)

Illustration: Tindale (1958: pl. XXII, fig. 2), Robinson *et al.* (1995: pl. 1, fig. 1), Grehan & Mielke (2016a: fig. 13)

Morphology: Tindale (1958)

Biology: unpublished

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: unpublished

64. *Endoclita topeza* Tindale, 1958: 185 (*Endoclita*)

TL: Laos, Xiangkhouang, Kiang Kong (= Xiang Khong)

TC: Cornell University Insect Collection, Ithaca

Range: southeastern Asia, known from type locality only

Illustration: Tindale (1958: pl. XX, fig. 4), Grehan *et al.* (2019: fig. 5)

Morphology: Tindale (1958)

Biology: unpublished

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: unpublished

65. *Endoclita tosa* Tindale, 1958: 180 (*Endoclita*)

TL: Indonesia: Java, Sinolangoe, Tengger, 5,000 ft

TC: Natural History Museum, London

Range: Java, known from type locality only

Illustration: Tindale (1958: pl. XIX, fig. 4)

Morphology: Tindale (1958)

Biology: unpublished

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: unpublished

66. *Endoclita undulifer* (Walker, 1869: 102) (*Phassus*)

TL: India: Uttar Pradesh, Benares (= Varanasi) ['lectotype' label, NHMUK]

TC: Natural History Museum, London

syn. *damajanti* (Pfitzner & Gaede, 1933: 843) (*Phassus*); junior synonym

TL: Assam; **TC:** unknown

Range: northeastern India-Myanmar (Grehan & Ismavel 2017: image 10c)

Illustration: Pfitzner & Gaede (1933: pl. 76d [as *Phassus damajanti*]), Tindale (1941: pl. V, fig. 55), Grehan & Ismavel (2017: image 10a-b), Grehan *et al.* (2022a: fig. 2i)

Morphology: Tindale (1941)

Biology: unpublished

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: unpublished

67a. *Endoclita vietnamensis* Buchsbaum & Grehan *in* Buchsbaum *et al.*, 2022: 268 (*Endoclita*)

TL: Vietnam: Cao Bang Prov., vic. Tinh Tuc, Nguyen Binh, Phia Oac-Phia Den National Park], 850-1300 m

TC: Zoologische Staatssammlung München

Range: Buchsbaum *et al.* (2022: fig. map 27)

Illustration: Buchsbaum *et al.* (2022: figs. 1a-d, 28a)

Morphology: Buchsbaum *et al.* (2022)

Biology: Buchsbaum *et al.* (2022)

Habitat: forest and forest plantations (Buchsbaum *et al.* 2022)

Hosts: **Fabaceae** (*Acacia mangium*, *A. mangium* x *A. auriculiformis*), **Myrtaceae** (*Eucalyptus urophylla* x *E. grandis*)

67b. *Endoclita vietnamensis* affinity

Note: Moths from southeastern China, currently assigned to *Endoclita signifer*, do not conform to the type of *E. signifer* with respect to a smooth forewing costal margin (see Hu *et al.* 2022 Fig. 1a) instead of a costal flange being present as in the type of *E. signifer* (Fig. 6a). Instead, the forewing pattern of the Chinese species is not discernibly different from that of *E. vietnamensis*. We therefore list the Chinese population here as *E. vietnamensis* affinity pending future taxonomic assessment.

Range: southeastern China, Guangxi Province (Yang *et al.* 2015b: fig. map 1)

Illustration: Yang *et al.* (2013a: fig. 1b [as *E. signifer*], 2013b: figs. 2h-k [as *E. signifer*]), Hu *et al.* 2022: fig. 1a [as *E. signifer*])

Morphology: Yang *et al.* (2015a [mtDNA]) as *E. signifer*)

Biology: Zhang *et al.* (2012), Yang *et al.* (2013a, b, 2015b), Zheng *et al.* (2016), Yang *et al.* (2018), Hu *et al.* (2022), Xu *et al.* (2022)

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: **Alangiaceae** (*Alangium chinense*), **Caesalpiniaceae** (*Erythrophleum fordii*), **Canabaceae** (*Trema tomentosa*), **Euphorbiaceae** (*Alchornea trewioides*, *Bridelia tomentosa*), **Fabaceae** (*Acacia auriculaeformis*, *A. confusa*, *Albizia chinensis*), **Fagaceae** (*Cyclobalanopsis glauca*), **Lauraceae** (*Litsea glutinosa*), **Magnoliaceae** (*Liriodendron chinense*), **Malvaceae** (*Grewia sessiliflora*), **Myrsinaceae** (*Maesa japonica*), **Myrtaceae** (*Eucalyptus grandis*, *E. saligna*, *E. urophylla*), **Oleaceae** (*Ligustrum quihoui*, *L. sinense*), **Papilionaceae** (*Pueraria lobata*), **Phyllanthaceae** (*Glochidion eriocarpum*, *Macaranga denticulata*, *Mallotus apelta*, *M. barbatus*, *Sapium sebiferum*), **Rosaceae** (*Prunus* sp.), **Theaceae** (*Schima wallichii*), **Verbenaceae** (*Clerodendrum canescens*, *C. cyrtophyllum*, *Lantana camara*), **Vitaceae** (*Tetrastigma planicaule*, *Vitis vinifera*)

68. *Endoclita viridis* (Swinhoe, 1892: 321) (*Phassus*)

TL: India, Tamil Nadu, Nilgiri Hills

TC: Hope Entomological Collections, Oxford

Range: southwestern India, known from type locality only

Illustration: unpublished

Morphology: Tindale (1942)

Biology: unpublished

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: unpublished

69. *Endoclita warawita* Tindale, 1958: 190 (*Endoclita*)

TL: Indonesia: North Borneo, Mt Kina Balu, 1,200-1,500m

TC: Museum für Naturkunde, Berlin

Range: Borneo, known from type locality only

Illustration: Tindale (1958: pl. XXI, fig. 4), Buchsbaum *et al.* (2022: fig. 29c)

Morphology: Tindale (1958)

Biology: unpublished

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: unpublished

70. *Endoclita williamsi* Tindale, 1958: 191 (*Endoclita*)

TL: Philippines: Luzon, Los Banos, Laguna

TC: National Museum of Natural History, Washington

Range: northern Philippines, known from type locality only (Grehan & Mielke 2019c: fig. map 11)

Illustration: Tindale (1958: pl. 2XXII, fig. 1), Grehan & Mielke (2019c: fig. 2)

Morphology: Tindale (1958), Grehan & Mielke (2019c)

Biology: unpublished

Habitat: forest (inferred from locality and biology of other species in the genus)

Hosts: unpublished

71. *Endoclita xizangensis* (Chu & Wang, 1985b: 297) (*Phassus*)**TL:** China: Xizang, Zhangmu**TC:** Institute of Zoology, Academia Sinica, Beijing**Range:** western China, known from type locality only**Illustration:** Chu & Wang (1985b: pl. 1, fig. 7), Zhu *et al.* (2004: pl. 1, fig. 6)**Morphology:** Chu & Wang (1985), Zhu *et al.* (2004)**Biology:** unpublished**Habitat:** forest (inferred from locality and biology of other species in the genus)**Hosts:** unpublished**72. *Endoclita yunnanensis*** (Chu & Wang, 1985b: 295) (*Phassus*)**TL:** China: Yunnan, Mengla County, Menglun**TC:** Institute of Zoology, Academia Sinica, Beijing**Range:** southeastern China, Yunnan (Chu & Wang 1985b)**Illustration:** Chu & Wang (1985b: pl. 1, fig. 5), Zhu *et al.* (2004: pl. 1, fig. 4)**Morphology:** Chu & Wang (1985b), Zhu *et al.* (2004)**Biology:** Zhu *et al.* (2004)**Habitat:** forest (inferred from locality and biology of other species in the genus)**Hosts:** **Bignoniaceae** (*Catalpa bungei*), **Fagaceae** (*Quercus acutissima*), **Magnoliaceae** (*Liriodendron chinense*), **Malvaceae** (*Firmiana plantanifolia*), **Rosaceae** (*Eriobotrya japonica*)***EUDALACA*** Viette, 1950e [19th note]: 146**TS:** *Epiolus* [*sic*] *exul* Herrich-Schäffer, [1853c], by original designation
syn. *Eudalacina* Paclt, 1953: 145**TS:** *Hepiolus* [*sic*] *ammon* Wallengren, 1860, by original designation**General, species unspecified.** Grehan & Rebelo (2021); possibly *Eudalaca* or *Gorgopis*.**1. *Eudalaca aequifascia*** (Gaede, 1930: 555) (*Dalaca*)**TL:** East Africa**TC:** Museum für Naturkunde, Berlin**Range:** East Africa, known only from the type locality (Gaede 1930)**Illustration:** Gaede (1930: pl. 80e)**Morphology:** Viette (1947b)**Biology:** unpublished**Habitat:** unpublished**Hosts:** unpublished**2. *Eudalaca albiplumis*** (Warren, 1914: 506) (*Gorgopis*)**TL:** South Africa: Western Cape, Mossel Bay Division**TC:** Iziko Museum of Capetown**Range:** southern South Africa, type locality (Warren 1914)**Illustration:** Warren (1914: pl. 41, fig. 27), Gaede (1930: pl. 80c), Janse (1942: pl. LX, fig. 1)**Morphology:** Janse (1942)**Biology:** unpublished**Hosts:** unpublished**3. *Eudalaca albistriata*** (Hampson, 1910a: 159) (*Dalaca*)**TL:** South Africa: Natal, Howick (Cregoe)

TC: Natural History Museum, London

Range: Natal, known from the type locality only

Illustration: Gaede (1930: pl. 80f)

Morphology: Viette (1947b)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

4. *Eudalaca ammon* (Wallengren, 1860: 43) (*Hepiolus* [sic])

TL: South Africa: Eastern Cape [Caffraria oriental]

TC: Naturhistoriska Riksmuseet, Stockholm

syn. *fuscescens* (Hampson, 1910a: 156) (*Dalaca*); junior synonym

TL: South Africa: Orange R. Colony, Bloemfontein; **TC:** Natural History Museum, London

syn. *goniophora* (Hampson, 1910a: 157) (*Dalaca*); junior synonym

TL: South Africa: Transvaal, Waterval-Onder; **TC:** Natural History Museum, London

syn. *rhodesiensis* (Hampson, 1910a: 157) (*Dalaca*); junior synonym

TL: Zimbabwe: Mashonaland, Salisbury; **TC:** Natural History Museum, London

inf. *ab. hampsoni* (Strand, 1917: 11) (*Dalaca*); South Africa: Mashonaland

Museum für Naturkunde, Berlin

Range: southern Africa (Janse 1942, Pinhey 1975)

Illustration: Gaede (1930: pl. 80e), Janse (1942: pl. LVIII, fig. 1), Pinhey (1975: pl. 3, fig. 3)

Morphology: Janse (1942)

Biology: Taylor (1963)

Habitat: unpublished

Hosts: unpublished

5. *Eudalaca amphiarma* (Meyrick, 1926: 350) (*Dalaca*)

TL: South Africa: Cape, Dunbrody

TC: Iziko Museum of Capetown

Range: southern South Africa (Janse 1942)

Illustration: Janse (1942: pl. LVIII, fig. 2)

Morphology: Janse (1942)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

6. *Eudalaca aurifuscalis* (Janse, 1942: 10) (*Dalaca*)

TL: South Africa: Eastern Cape, Port Elizabeth

TC: Ditsong National Museum of Natural History, Pretoria

Range: southern South Africa, type locality record (Janse 1942)

Illustration: Janse (1942: pl. LVIII, fig. 3)

Morphology: Janse (1942)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

7. *Eudalaca bacotii* (Quail, 1900a: 421) (*Gorgopis*)

TL: South Africa: Gauteng, Florida, near Roodpoort

TC: Natural History Museum, London

Range: South Africa (Janse 1942)

Illustration: Quail (1900a: pl. V, fig. 1), Gaede (1930: pl. 80f), Janse (1942: pl. LVIII, fig. 4)

Morphology: Quail (1900a), Janse (1942)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

8. *Eudalaca cipollai* Ignatev & De Groof *in* Grehan *et al.*, 2021a: 2 (*Eudalaca*)

TL: South Africa: Kwa Zulu-Natal Province, Karkloof, Rockwood Forest Lodge, 29°18'05"S, 30°13'17"E

TC: Naturalis Biodiversity Centre, Leiden

Range: known from the type locality only (Grehan *et al.* 2021a: fig. map 12c)

Illustration: Grehan *et al.* (2021a: fig. 1)

Morphology: Grehan *et al.* (2021a)

Biology: unpublished

Habitat: Mistbelt forest (Grehan *et al.* 2021a)

Hosts: unpublished

9. *Eudalaca cretata* (Distant, 1897: 211) (*Dalaca*)

TL: South Africa: Gauteng, Pretoria

TC: Natural History Museum, London

Range: eastern South Africa (Janse 1942)

Illustration: Janse (1942: pl. LVIII, fig. 5)

Morphology: Janse (1942)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

10. *Eudalaca crossosema* (Meyrick, 1921a: 143) (*Dalaca*)

TL: South Africa: KwaZulu-Natal, Willowmore

TC: not located (Janse 1942)

Range: southern South Africa (Janse 1942)

Illustration: unpublished

Morphology: unpublished

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

11. *Eudalaca crudeni* (Janse, 1942: 12) (*Dalaca*)

TL: South Africa: Eastern Cape, Alicedale

TC: Ditsong National Museum of Natural History, Pretoria

Range: southern South Africa (Grehan *et al.* 2021a: fig. map 12c)

Illustration: Janse (1942: pl. LVIII, fig. 6)

Morphology: Janse (1942), Hardenberg (1919)

Biology: Cruden (1917)

Habitat: unpublished

Hosts: unpublished

12. *Eudalaca eriogastra* (Meyrick, 1921a: 143) (*Dalaca*)
TL: South Africa: Natal, Willowmore [verbatim from publication]
TC: Ditsong National Museum of Natural History, Pretoria
Range: southern South Africa, type locality record (Janse 1942)
Illustration: Janse (1942, pl. LVIII, fig. 7)
Morphology: Janse (1942)
Biology: unpublished
Habitat: unpublished
Hosts: unpublished
13. *Eudalaca exul* (Herrich-Schäffer [1853c]: pl. [10], fig. 43) (*Epiolus* [sic])
TL: Africa
TC: Zoological Institute, St. Petersburg
 syn. *libratus* (Walker, 1856: 593) (*Hepialus*); junior synonym
TL: South Africa; **TC:** Natural History Museum, London
 syn. *metaleuca* (Hampson, 1910a: 158) (*Dalaca*); junior synonym
TL: South Africa: Pondoland, Uggeleni; **TC:** Natural History Museum, London
 syn. *tumidifascia* (Hampson, 1910a: 157) (*Dalaca*); junior synonym
TL: South Africa: Cape Colony; **TC:** Natural History Museum, London
Range: southern and southeastern South Africa (Janse 1942)
Illustration: Herrich-Schäffer ([1853c]: [pl. 10], fig. 43), Gaede (1930: pl. 80e [as *Dalaca tumidifascia*]), Janse (1942: pl. LVIII, fig. 8), Mey (2019: pl. 1, figs. 1-2)
Morphology: Janse (1942), Mey (2019)
Biology: unpublished
Habitat: unpublished
Hosts: unpublished
14. *Eudalaca gutterata* Janse, 1942: 15 (*Dalaca*)
TL: South Africa: Limpopo, Haenertsburg
TC: Ditsong National Museum of Natural History, Pretoria
Range: northeastern South Africa (Janse 1942)
Illustration: Janse (1942: pl. LVIII, fig. 10)
Morphology: Janse (1942)
Biology: unpublished
Habitat: unpublished
Hosts: unpublished
15. *Eudalaca hololeuca* (Hampson, 1910a: 160) (*Dalaca*)
TL: South Africa: KwaZulu-Natal, Estcourt
TC: Natural History Museum, London
 inf. *ab. brunneotincta* (Strand, 1917: 11) (*Dalaca*); South Africa, Museum für Naturkunde, Berlin
Range: eastern South Africa (Janse 1942)
Illustration: Gaede (1930: pl. 80g), Janse (1942: pl. LVIII, fig. 11)
Morphology: Janse (1942)
Biology: Taylor (1963)

Habitat: unpublished

Hosts: unpublished

16. *Eudalaca holophaea* (Hampson, 1910b: 508) (*Dalaca*)

TL: Democratic Republic of the Congo, southeast Katanga [Congo district]

TC: Natural History Museum, London

Range: southeastern Congo, type locality record (Hampson 1910b)

Illustration: Hampson (1910b: pl. LXI, fig. 20), Gaede (1930: pl. 80g)

Morphology: unpublished

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

17. *Eudalaca homoterma* (Meyrick, 1921a: 142) (*Dalaca*)

TL: South Africa: Eastern Cape, Alicedale

TC: Ditsong National Museum of Natural History, Pretoria

Range: southern South Africa (Janse 1942)

Illustration: Janse (1942: pl. LVIII, fig. 12)

Morphology: Janse (1942), Mey (2019)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

18. *Eudalaca ibex* (Wallengren, 1860: 43) (*Hepiolus* [*sic*])

TL: South Africa: Eastern Caffraria [Kaffraria] (= Eastern Cape Province)

TC: Naturhistoriska Riksmuseet, Stockholm

syn. *albirivula* (Hampson, 1910a: 159) (*Dalaca*); junior synonym

TL: South Africa: Cafferland; **TC:** Natural History Museum, London

Range: central and eastern South Africa (Janse 1942)

Illustration: Gaede (1930: pl. 80e), Janse (1942: pl. LVIII, fig. 13)

Morphology: Janse (1942)

Biology: Taylor (1963)

Habitat: unpublished

Hosts: unpublished

19. *Eudalaca infumata* (Janse, 1942: 18) (*Dalaca*)

TL: Zimbabwe: southern Zimbabwe, Chirinda Forest

TC: Ditsong National Museum of Natural History, Pretoria

Range: southern Zimbabwe, known from the type locality only

Illustration: Janse (1942: pl. LVIII, fig. 14)

Morphology: Janse (1942)

Biology: unpublished

Habitat: forest (Janse 1942)

Hosts: unpublished

20. *Eudalaca isorrhoea* (Meyrick, 1921a: 142) (*Dalaca*)

TL: South Africa: Mpumalanga, Barberton

TC: Ditsong National Museum of Natural History, Pretoria

Range: northeastern South Africa, type locality record (Janse 1942)

Illustration: unpublished

Morphology: unpublished

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

21. *Eudalaca krooni* Mey, 2019: 41 (*Eudalaca*)

TL: South Africa: [Free State], Oranjekrag, H.F. Verwoerd Dam

TC: Ditsong National Museum of Natural History, Pretoria

Range: northeastern South Africa, type locality record (Janse 1942)

Illustration: Mey (2019: pl. 1, figs. 3-4)

Morphology: Mey (2019)

Biology: unpublished

Habitat: pastures and seasonally wet meadows (Mey 2019)

Hosts: unpublished

22. *Eudalaca leniflua* (Janse, 1942: 19) (*Dalaca*)

TL: Zimbabwe, Harare [Salisbury]

TC: Ditsong National Museum of Natural History, Pretoria

Range: northern Zimbabwe, type locality record (Janse 1942)

Illustration: Janse (1942: pl. LVIII, fig. 15)

Morphology: Janse (1942)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

23. *Eudalaca leucocyma* (Hampson, 1910a: 159) (*Dalaca*)

TL: South Africa: Eastern Cape, Deelfontein

TC: Natural History Museum, London

Range: central-eastern South Africa (Janse 1942, Pinhey 1975)

Illustration: Janse (1942: pl. LVIII, fig. 19, pl. LIX, fig. 14), Pinhey (1975, pl. 3, fig. 4), Scoble (1986: fig. 25.13)

Morphology: Janse (1942)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

24. *Eudalaca leucophaea* (Janse, 1919: 243) (*Dalaca*)

TL: South Africa: Eastern Cape, Mimosa

TC: Ditsong National Museum of Natural History, Pretoria

Range: southwestern South Africa (Janse 1942)

Illustration: Janse (1942: pl. LVIII, fig. 16)

Morphology: Janse (1942)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

25. *Eudalaca minuscula* (Janse, 1942: 22) (*Dalaca*)
TL: South Africa: Eastern Cape, Port Elizabeth
TC: Ditsong National Museum of Natural History, Pretoria
Range: southern South Africa, type locality record (Janse 1942)
Illustration: Janse (1942: pl. LVIII, fig. 17)
Morphology: Janse (1942)
Biology: unpublished
Habitat: unpublished
Hosts: unpublished
26. *Eudalaca nomaqua* (Walker, 1856: 1560) (*Dalaca*)
TL: South Africa
TC: Natural History Museum, London
Range: southeastern Cape (Janse 1942)
Illustration: Gaede (1930: pl. 80f), Janse (1942: pl. LVIII, fig. 18), Mey (2019: 48, pl. 1, fig. 5)
Morphology: Janse (1942), Scoble (1986), Mey (2019)
Biology: Taylor (1963)
Habitat: unpublished
Hosts: unpublished
27. *Eudalaca orthocosma* (Janse, 1942: 24) (*Dalaca*)
TL: South Africa: Western Cape, Capetown
TC: Ditsong National Museum of Natural History, Pretoria
Range: southwestern South Africa (Janse 1942, Pinhey 1975)
Illustration: Janse (1942: pl. LVIII, fig. 21), Pinhey (1975, pl. 3 fig. 5)
Morphology: Janse (1942)
Biology: unpublished
Habitat: unpublished
Hosts: unpublished
28. *Eudalaca rivula* (Janse, 1942: 26) (*Dalaca*)
TL: South Africa: Eastern Cape, Hogs; Back
TC: Ditsong National Museum of Natural History, Pretoria
Range: southern South Africa, type locality record (Janse 1942)
Illustration: Janse (1942: pl. LVIII, fig. 20)
Morphology: Janse (1942)
Biology: unpublished
Habitat: unpublished
Hosts: unpublished
29. *Eudalaca rufescens* (Hampson, 1910a: 158) (*Dalaca*)
TL: South Africa: Free State, Bethlehem
TC: Natural History Museum, London
syn. *furva* (Hampson, 1910a: 158) (*Dalaca*); junior synonym
TL: South Africa: Transvaal, Mpumalanga, White River; **TC:** Natural History Museum, London
Range: northeastern South Africa (Janse 1942)

Illustration: Gaede (1930: pl. 80f), Janse (1942: pl. LVIII, fig. 22), Joubert (1975: fig. 10)

Morphology: Janse (1919, 1942), Viette (1947b), Joubert (1975, 1978)

Biology: Joubert (1975), Scoble (1986)

Habitat: natural veld grassland, improved pasture (Joubert 1975)

Hosts: **Bryophyta** (moss), **Fabaceae** (*Trifolium* sp.), **Poaceae** (*Cynodon dactylon*, *Festua arundinacea*, *Harpechloa falx*, *Heteropogon contortus*, *Hyparrhenia hirta*, *Pennisetum clandestinum*, *Themeda triandra*, *Tristachya hispida*)

30. *Eudalaca sanctahelena* Viette, 1951d [25th note]: 1281 (*Eudalaca*)

TL: Saint Helena [error]

TC: Natural History Museum, London

Range: southern Africa, no locality known (Nielsen *et al.* 2000)

Illustration: unpublished

Morphology: Viette (1951d)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

31. *Eudalaca semicanus* (Janse, 1919: 244) (*Dalaca*)

TL: South Africa: KwaZulu-Natal, Tongaat

TC: Ditsong National Museum of Natural History, Pretoria

Range: eastern South Africa, type locality record (Janse 1942)

Illustration: Janse (1942: pl. LIX, fig. 1)

Morphology: Janse (1942)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

32. *Eudalaca strictigrapha* (Hampson, 1910b: 506) (*Dalaca*)

TL: DRC: southeast Katanga; Zambia, Serenji and Petauke districts (syntypes)

TC: Natural History Museum, London

Range: Katanga region of Zambia and Congo

Illustration: Hampson (1910b: pl. LXI, fig. 13), Gaede (1930: pl. 80g)

Morphology: unpublished

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

33. *Eudalaca troglodytis* (Janse, 1919: 241) (*Dalaca*)

TL: South Africa: Eastern Cape, Alicedale

TC: Ditsong National Museum of Natural History, Pretoria

msp. *troglydites* (Janse 1942: 28)

Range: southeastern Africa, type locality record (Janse 1919)

Illustration: unpublished

Morphology: unpublished

Biology: Janse (1919)

Habitat: unpublished

Hosts: unpublished

34. *Eudalaca vaporalis* (Meyrick, 1921a: 142) (*Dalaca*)**TL:** South Africa: Mpumalanga, Pilgrims Rest**TC:** Ditsong National Museum of Natural History, Pretoriasyn. *homostola* (Janse, 1942: 16) (*Dalaca*); junior synonym**TL:** South Africa; **TC:** Ditsong National Museum of Natural History, Pretoria**Range:** northeastern South Africa (Janse 1942)**Illustration:** Janse (1942: pl. LVIII, fig. 9 [as *Dalaca homostola*])**Morphology:** Janse (1942)**Biology:** unpublished**Hosts:** unpublished**35. *Eudalaca vindex*** (Meyrick, 1939: 62) (*Dalaca*)**TL:** South Africa: Western Cape, Capetown**TC:** Ditsong National Museum of Natural History, Pretoria**Range:** southwestern South Africa, type locality record (Janse 1942)**Illustration:** Janse (1942: pl. LIX, fig. 3)**Morphology:** Janse (1942)**Biology:** unpublished**Habitat:** unpublished**Hosts:** unpublished**36. *Eudalaca zernyi*** (Viette, 1950i [10th note]: 202) (*Dalaca*)**TL:** Tanzania: Matengo highlands, WSW of Songea, Mbinga, 1,300-1,400 m**TC:** Naturhistorisches Museum Wien**Range:** southwestern Tanzania, known from type locality only (Viette 1950i [10th note])**Illustration:** unpublished**Morphology:** Viette (1950i)**Biology:** unpublished**Hosts:** unpublished***FRAUS*** Walker, 1856: 1549, 1564**TS:** *Fraus simulans* Walker, 1856, by subsequent designation (Kirby 1892: 887)syn. *Hectomanes* Meyrick, 1890: 1118; replacement namemsp. *Praus* (Pagenstecher 1909: 294)**1. *Fraus basicornis*** Nielsen & Kristensen, 1989: 127 (*Fraus*)**TL:** Australia: Western Australia, 27 km southeast of Coolgardie**TC:** Australian National Insect Collection, Canberra**Range:** southwestern Western Australia (Nielsen & Kristensen 1989: fig. 425)**Illustration:** Nielsen & Kristensen (1989: figs. 246-247)**Morphology:** Nielsen & Kristensen (1989)**Biology:** unpublished**Habitat:** *Eucalyptus* woodlands with shrubby understory (DCCEEW 2018)**Hosts:** unpublished**2. *Fraus basidispina*** Nielsen & Kristensen, 1989: 145 (*Fraus*)**TL:** Australia: Western Australia, Drumond Cove, 11 km north of Geraldton**TC:** Australian National Insect Collection, Canberra

Range: southwestern Western Australia (Nielsen & Kristensen 1989: fig. 430)
Illustration: Nielsen & Kristensen (1989: figs. 274-275), Beaver & Moore (2020: fig. 3)
Morphology: Nielsen & Kristensen (1989)
Biology: unpublished
Habitat: *Eucalyptus* woodlands with shrubby understory (DCCEEW 2018)
Hosts: unpublished

3. *Fraus bilineata* Walker, 1865: 595 (*Fraus*)

TL: Australia: South Australia, Adelaide
TC: Natural History Museum, London
Range: southeastern Australia, Tasmania (Nielsen & Kristensen 1989: fig. 424)
Illustration: Nielsen & Kristensen (1989: figs. 244-245), Kallies *et al.* (2015: 8, figs. 1-3; C.D. *bilineata*: 1-2)
Morphology: Philpott (1927a), Nielsen & Kristensen (1989)
Biology: unpublished
Habitat: *Eucalyptus* woodlands with chenopod or diverse grass-based understory (DCCEEW 2018)
Hosts: unpublished

4. *Fraus biloba* Nielsen & Kristensen, 1989: 143 (*Fraus*)

TL: Australia: Western Australia, Drummond Cove, 11 km N. of Geraldton
TC: Australian National Insect Collection, Canberra
Range: southwestern Western Australia (Nielsen & Kristensen 1989: fig. 429)
Illustration: Nielsen & Kristensen (1989: figs. 272-273)
Morphology: Nielsen & Kristensen (1989)
Biology: unpublished
Habitat: *Eucalyptus* woodlands with shrubby understory (DCCEEW 2018)
Hosts: unpublished

5. *Fraus crocea* (Lucas, 1891: 283) (*Hectomanes*)

TL: Australia: Queensland, Brisbane
TC: South Australian Museum, Adelaide
Range: eastern Australia (Nielsen & Kristensen 1989: fig. 432)
Illustration: D'Abrera (1974: 39), Nielsen & Kristensen (1989: figs. 290-293), Common (1990: pl. 2, fig. 6), Kallies *et al.* (2015: 8, figs. 1-3; C.D. *crocea*: 1-2), Grehan & Mielke (2018b: fig. 1j)
Morphology: Turner (1922), Philpott (1927a), Nielsen & Kristensen (1989), Common (1990)
Biology: unpublished
Habitat: rainforest, *Eucalyptus* open forests and woodlands with diverse understory types (DCCEEW 2018)
Hosts: unpublished

6. *Fraus distispina* Nielsen & Kristensen, 1989: 141 (*Fraus*)

TL: Australia: Western Australia, 4 km NE by E. of Gracetown
TC: Australian National Insect Collection, Canberra
Range: southwestern Western Australia (Nielsen & Kristensen 1989: fig. 429)
Illustration: Nielsen & Kristensen (1989: figs. 268-269)

Morphology: Nielsen & Kristensen (1989)

Biology: unpublished

Habitat: *Eucalyptus* open forests with shrubby understory (DCCEEW 2018)

Hosts: unpublished

7. *Fraus extremapodus* Beaver & Moore, 2020: 42 (*Fraus*)

TL: Australia: Western Australia, Walpole, 34°58'35.4"S 116°42'38.9"

TC: West Australia Museum, Perth

Range: southern Western Australia (Beaver & Moore 2020: fig. map 23)

Illustration: Beaver & Moore (2020: fig. 1)

Morphology: Beaver & Moore (2020)

Biology: unpublished

Habitat: *Eucalyptus* woodland (Beaver & Moore 2020)

Hosts: unpublished

8. *Fraus furcata* Nielsen & Kristensen, 1989: 148 (*Fraus*)

TL: Australia: Western Australia, 7 km S. by E. of Albany

TC: Australian National Insect Collection, Canberra

Range: southwestern Western Australia (Nielsen & Kristensen 1989: fig. 431)

Illustration: Nielsen & Kristensen (1989: figs. 280-283)

Morphology: Nielsen & Kristensen (1989)

Biology: unpublished

Habitat: *Eucalyptus* open tall forests with shrubby understory (DCCEEW 2018)

Hosts: unpublished

9. *Fraus fusca* (Lucas, 1891: 283) (*Hectomanes*)

TL: Australia: Victoria, Gippsland, Moe

TC: South Australian Museum, Adelaide

syn. *rufula* (Turner, 1927: 163) (*Hectomanes*); junior synonym

TL: Australia: Victoria, Melbourne, Gisborne; **TC:** Australian National Insect Collection, Canberra

Range: southeastern Australia, Tasmania (Nielsen & Kristensen 1989: fig. 431)

Illustration: D'Abrera (1974: 39), Nielsen & Kristensen (1989: figs. 288-289), Kallies *et al.* (2015: 6, fig. 1; 10, figs. 4-5; C.D. *fusca*: 1-2)

Morphology: Quail (1900a), Philpott (1927a), Nielsen & Kristensen (1989)

Biology: Kallies *et al.* (2015)

Habitat: *Eucalyptus* open forests and woodlands with diverse understory types (DCCEEW 2018)

Hosts: unpublished

10. *Fraus griseomaculata* Nielsen & Kristensen, 1989: 161 (*Fraus*)

TL: Australia: Victoria, Moe

TC: Australian National Insect Collection, Canberra

Range: southeastern Australia (Nielsen & Kristensen 1989: fig. 435, Kallies *et al.* 2015)

Illustration: Nielsen & Kristensen (1989: figs. 302-303), Kallies *et al.* (2015: 6, figs. 4-5; 8, fig. 18; 10, figs. 17-18, 21-22.; C.D. *griseomaculata*: 1-2)

Morphology: Nielsen & Kristensen (1989)

Biology: unpublished

Habitat: *Eucalyptus* open forests and woodlands with diverse understory types (DCCEEW 2018)

Hosts: unpublished

11. *Fraus latistria* Nielsen & Kristensen, 1989: 138 (*Fraus*)

TL: Australia: Tasmania, Scotts Peak Dam

TC: Australian National Insect Collection, Canberra

Range: Tasmania and Victoria (Nielsen & Kristensen 1989: fig. 428, Kallies *et al.* 2015)

Illustration: Nielsen & Kristensen (1989: figs. 264-265), Kallies *et al.* (2015: 8, figs. 11-12; C.D. *latistria*: 1)

Morphology: Nielsen & Kristensen (1989)

Biology: unpublished

Habitat: *Eucalyptus* open forest with shrubby understory (DCCEEW 2018)

Hosts: unpublished

12. *Fraus linogyna* Nielsen & Kristensen, 1989: 139 (*Fraus*)

TL: Australia: Australian Capital Territory, Jervis Bay

TC: Australian National Insect Collection, Canberra

Range: eastern New South Wales and Victoria (Nielsen & Kristensen 1989: fig. 428)

Illustration: Nielsen & Kristensen (1989: figs. 266-267), Kallies *et al.* (2015: 8, figs. 13-14; C.D. *linogyna*: 1)

Morphology: Nielsen & Kristensen (1989)

Biology: unpublished

Habitat: *Eucalyptus* woodlands and tall open forests with diverse grass-based understory (DCCEEW 2018)

Hosts: unpublished

13. *Fraus marginispina* Nielsen & Kristensen, 1989: 132 (*Fraus*)

TL: Australia: South Australia, Kurlge, Blackwood

TC: South Australian Museum, Adelaide

Range: southern South Australia and Victoria (Nielsen & Kristensen 1989: fig. 426, Kallies *et al.* 2015)

Illustration: Nielsen & Kristensen (1989: figs. 254-255), Kallies *et al.* (2015: 8, figs. 4-5; C.D. *marginispina*: 1-2)

Morphology: Nielsen & Kristensen (1989)

Biology: unpublished

Habitat: *Eucalyptus* woodlands with tussock grass understory (DCCEEW 2018)

Hosts: unpublished

14. *Fraus mediaspina* Nielsen & Kristensen, 1989: 142 (*Fraus*)

TL: Australia, Western Australia, 11 km south of Pemberton

TC: Australian National Insect Collection, Canberra

Range: southwestern Western Australia (Nielsen & Kristensen 1989: fig. 429)

Illustration: Nielsen & Kristensen (1989: figs. 270-271)

Morphology: Nielsen & Kristensen (1989)

Biology: unpublished

Habitat: *Eucalyptus* open tall forests with shrubby understory (DCCEEW 2018)

Hosts: unpublished

15. *Fraus megacornis* Nielsen & Kristensen, 1989: 125 (*Fraus*)

TL: Australia: Western Australia, Waterloo

TC: South Australian Museum, Adelaide

Range: western Western Australia (Nielsen & Kristensen 1989: fig. 424)

Illustration: Nielsen & Kristensen (1989: figs. 242-243)

Morphology: Nielsen & Kristensen (1989)

Biology: unpublished

Habitat: mallee with tussock grass understory; *Eucalyptus* woodlands with shrub understory (DCCEEW 2018)

Hosts: unpublished

16. *Fraus minima* Nielsen & Kristensen, 1989: 123 (*Fraus*)

TL: Australia: Western Australia, Hines Hill, 22 km WSW of Merredin

TC: Australian National Insect Collection, Canberra

Range: southwestern Western Australia (Nielsen & Kristensen 1989: fig. 424)

Illustration: Nielsen & Kristensen (1989: figs. 240-241)

Morphology: Nielsen & Kristensen (1989), Simonsen (2001)

Biology: unpublished

Habitat: *Eucalyptus* woodlands and tall open forests with shrubby understory (DCCEEW 2018)

Hosts: unpublished

17. *Fraus nanus* (Herrich-Schäffer, [1853c]: pl. [10], fig. 46) (*Epiolus [sic]*)

TL: Australia

TC: Museum für Naturkunde, Berlin

Range: southeastern Australia, Tasmania (Nielsen & Kristensen 1989: fig. 430)

Illustration: Herrich-Schäffer ([1853c]: [pl. 10], fig. 46), Pfitzner & Gaede (1933: pl. 77b, Nielsen & Kristensen (1989: figs. 276-279), Kallies *et al.* (2015: 6, fig. 8; 8, fig. 19; C.D. *nanus*: 1-3)

Morphology: Nielsen & Kristensen (1989)

Biology: unpublished

Habitat: *Eucalyptus* woodlands and open forest with diverse understory; heathland (DCCEEW 2018)

Hosts: unpublished

18. *Fraus orientalis* Nielsen & Kristensen, 1989: 133 (*Fraus*)

TL: Australia: New South Wales, 6 km SW of Gosford

TC: Australian National Insect Collection, Canberra

Range: eastern New South Wales (Nielsen & Kristensen 1989: fig. 426)

Illustration: Nielsen & Kristensen (1989: figs. 256-257), Nielsen & Common (1991: pl. 41.17H), Kallies *et al.* (2015: 8, figs. 6-8; C.D. *orientalis*: 1)

Morphology: Nielsen & Kristensen (1989)

Biology: unpublished

Habitat: *Eucalyptus* woodlands with tussock grass, shrubby or wet sclerophyll understorey (DCCEEW 2018)

Hosts: unpublished

19. *Fraus pelagia* (A. Turner, 1927: 164) (*Hectomanes*)

TL: Australia: Tasmania, Strahan

TC: Australian National Insect Collection, Canberra

Range: western Tasmania (Nielsen & Kristensen 1989: fig. 435)

Illustration: Nielsen & Kristensen (1989: figs. 304-305)

Morphology: Nielsen & Kristensen (1989)

Biology: unpublished

Habitat: sedgelands (DCCEEW 2018)

Hosts: unpublished

20. *Fraus pilosa* Nielsen & Kristensen, 1989: 150 (*Fraus*)

TL: Australia: Western Australia, Albany

TC: Australian National Insect Collection, Canberra

Range: southwestern Western Australia (Nielsen & Kristensen 1989: fig. 432)

Illustration: Nielsen & Kristensen (1989: figs. 284-287)

Morphology: Nielsen & Kristensen (1989)

Biology: unpublished

Habitat: *Eucalyptus* open forests with shrubby understorey (DCCEEW 2018)

Hosts: unpublished

21. *Fraus polyspila* (Meyrick, 1890: 1127) (*Hectomanes*)

TL: Australia: Victoria, Wimmera

TC: Natural History Museum, London

Range: southern and central eastern Australia (Nielsen & Kristensen 1989: fig. 434)

Illustration: Nielsen & Kristensen (1989: figs. 300-301), Nielsen & Common (1991: pl. 41.17I), Kallies *et al.* (2015: 8, fig. 17; 10, figs. 15-16; C.D. *polyspila*: 1-3), Beaver & Moore (2020: fig. 2)

Morphology: Quail (1900a), Philpott (1927a), Nielsen & Kristensen (1989)

Biology: Nielsen & Kristensen (1989), Pavri & Young (2007)

Habitat: *Eucalyptus* woodlands and open forests with diverse understorey types (DCCEEW 2018)

Hosts: unpublished

22. *Fraus pteromela* (Lower, 1892: 5) (*Hectomanes*)

TL: Australia: South Australia, Adelaide, Parkside

TC: South Australian Museum, Adelaide

Range: western, southern, eastern Australia (Nielsen & Kristensen 1989: fig. 427)

Illustration: Nielsen & Kristensen (1989: figs. 258-261), Common (1990: pl. 2, fig. 7), Zborowski & Edwards (2007: 42), Kallies *et al.* (2015: 6, fig. 3; 8, figs. 15-16, 20; C.D. *pteromela*: 1-3)

Morphology: Nielsen & Kristensen (1989)

Biology: unpublished

Habitat: *Eucalyptus* woodlands and open forests with diverse understory (DCCEEW 2018)

Hosts: unpublished

23. *Fraus quadrangula* Nielsen & Kristensen, 1989: 130 (*Fraus*)

TL: Australia: Western Australia, 7 km South by E. of Albany

TC: Australian National Insect Collection, Canberra

Range: southwestern Western Australia (Nielsen & Kristensen 1989: fig. 426)

Illustration: Nielsen & Kristensen (1989: figs. 250-253)

Morphology: Nielsen & Kristensen (1989)

Biology: unpublished

Habitat: *Eucalyptus* open, tall forests with shrubby understory (DCCEEW 2018)

Hosts: unpublished

24. *Fraus serrata* Nielsen & Kristensen, 1989: 137 (*Fraus*)

TL: Australia: Western Australia, Gomm Spring, 28 km E. by North of Karridale

TC: Australian National Insect Collection, Canberra

Range: southwestern Western Australia (Nielsen & Kristensen 1989: fig. 428)

Illustration: Nielsen & Kristensen (1989: figs. 262-263)

Morphology: Nielsen & Kristensen (1989)

Biology: unpublished

Habitat: *Eucalyptus* tall forests and woodlands with shrubby understory (DCCEEW 2018)

Hosts: unpublished

25. *Fraus simulans* Walker, 1856: 1564 (*Fraus*)

TL: Australia: Tasmania

TC: Natural History Museum, London

syn. *noserodes* (Meyrick, 1890: 1126) (*Hectomanes*); junior synonym

TL: Australia: New South Wales, Sydney; **TC:** Natural History Museum, London

Range: eastern and southern Australia (Nielsen & Kristensen 1989: fig. 433)

Illustration: Pfitzner & Gaede (1933: pl. 78c), Hardy (1973a: pl. 1), D'Abbrera (1974: 39), Nielsen & Kristensen (1989: figs. 294-299), Common (1990: pl. 2, fig. 4), Kallies *et al.* (2015: 6, figs. 2, 7, 9-10; 10, figs. 11-14, 19-20; C.D. *simulans*: 1-3)

Morphology: Quail (1900a), Philpott (1926), Hardy (1973a-b), Kristensen (1978), Nielsen & Kristensen (1989), McQuillan *et al.* (2019: 39, fig. 3)

Biology: Hardy (1973a), Nielsen & Kristensen (1989), Common (1990), Main (2001), Kallies *et al.* (2015)

Habitat: diverse types of *Eucalyptus* woodlands and open forests (DCCEEW 2018)

Hosts: **Ecdeiocoleaceae** (*Ecdeiocolea monostachya*), **Poaceae**, dead leaves

26. *Fraus tedi* Nielsen & Kristensen, 1989: 129 (*Fraus*)

TL: Australia: Western Australia, Hines Hill, 22 km WSW of Meridim

TC: Australian National Insect Collection, Canberra

Range: Western and southeastern Australia, Tasmania (Nielsen & Kristensen 1989: fig. 425)

Illustration: Nielsen & Kristensen (1989: figs. 248-249), Kallies *et al.* (2015: 8, figs. 9-10; C.D. *tedi*: 1)

Morphology: Nielsen & Kristensen (1989)

Biology: unpublished

Habitat: mallee and *Eucalyptus* woodlands and open forests with shrubby understory (DCCEEW 2018)

Hosts: unpublished

GAZORYCTRA Hübner, [1820]: 198

TS: *Bombyx ganna* Hübner, [1808], by subsequent designation (Viette 1949g [12th note]: 102)

msp. *Garzorycta* (Hübner [1826])

msp. *Gazoryctes* (Kirby, 1892: 879)

1. *Gazoryctra chishimana* (Matsumura, 1931: 1023) (*Hepialus*)

TL: Russia, southern Kuril Islands, Simushir Island (Leleja 2016)

TC: Hokkaido University, Sapporo

syn. *nesiotes* (Bryk, 1942b: 89) (*Hepialus*); subspecies

TL: Russia: Kurile Islands, Kunashiri, Tomari; **TC:** Naturhistoriska Riksmuseet, Stockholm

Range: Japan, Far East Russia (Sakhalin Is, Kurile Is.) (Grehan & Knyazev 2019: fig. map 2)

Illustration: Matsumura (1931: fig. with text [as *Hepialus ganna* form *chishimana*]), Inoue (1982: pl. 3, fig. 6 [as *G. ganna*]), Tshistjakov (1997: fig. 1, fig. 2 [as *G. macilentis nesiotes*], 3), Hirowatari *et al.* (2013: cover image; pl. 3-02-1-5)

Morphology: Tshistjakov (1997)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

2. *Gazoryctra confusus* (Edwards, [1885a]: 122) (*Hepialus*)

TL: United States: Alaska, Sitka

TC: Illinois Natural History Survey, Champaign

Range: western Canada, Alaska (Pohl *et al.* 2018)

Illustration: Grehan & Mielke (2020a: fig. 2)

Morphology: Grehan & Mielke (2020a)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

3. *Gazoryctra ganna* (Hübner, [1808]: 154) (*Bombyx*)

TL: Austria

TC: unpublished

syn. *arcticus* (Boheman, 1848: 190) (*Hepialus*); junior synonym

TL: Finland; **TC:** unknown

inf. *ab. confluens* (Hellweger, 1914: 134) (*Hepialus*)

TL: Austria, Tyrol, Alpe Lizum; **TC:** unknown

inf. *ab. reducta* (Deutsch, 1922: 30) (*Hepialus*)

TL: Austria, Tyrol; **TC:** unknown

Range: Eurasia (de Freina & Witt 1990: fig. map 37; Leleja 2016)

Illustration: Hübner ([1808]: pl. 50, fig. 215), Freyer (1836, 1845: pl. 459, figs. 4-5), Godart & Duponchel (1842: pl. LI, fig. 4), E. Hofmann (1894: pl. 23, fig. 9), Lampert (1907: pl. 87, fig. 8), Rebel (1910: pl. 52, fig. 21), Spuler (1910: pl. 80, fig. 9), Pfitzner (1912: pl. 54f), Gullander

(1964: 88, fig. 4), de Freina & Witt (1990: pl. 7, figs. 1-9), Bertaccini *et al.* (1997: pl. 14, figs. 1-3), Buser *et al.* (2000: 69-71, pl. 1; 69; 70, fig. 4; 71, fig. 6), Zhu *et al.* (2004: pl. 3, fig. 13), Leraut (2006: pl. 53, figs. 1-3), Silvonen *et al.* (2014: fig. 62; pl. K1, fig. 7)

Morphology: Viette (1948a), Toll (1959), Sukhareva (1978), Chu & Wang (1985a), Buser *et al.* (2000), Zhu *et al.* (2004), Huemer *et al.* (2018)

Biology: Boisduval (1840), Berce (1868), Kappel & Kirby (1893), Marchard (1916), Deutsch (1922), Gerasimov (1937, 1952), Wolfsberger (1950), Aistleitner (1991), Leraut (2006), Silvonen *et al.* (2014)

Habitat: mesic meadows, sea level to 2,600 m (de Freina & Witt 1990, Buser *et al.* 2000)

Hosts: Polygonaceae (*Polygonum alpinum*)

4. *Gazoryctra hyperboreus* (Möschler, 1862: 129) (*Epialus* [sic])

TL: Canada: Labrador

TC: Museum für Naturkunde, Berlin

Range: Canada, northern United States (<http://mothphotographersgroup.msstate.edu>)

Illustration: Möschler (1862: pl. 1, fig. 1), Holland (1903: pl. XLI, fig. 15), Prentice (1965: pl. 41, fig. 15), Hooper (1981: 142), Handfield (1999: pl. 2, fig. 0023), Savard (2010: figs. 1-2, 12)

Morphology: unpublished

Biology: McDunnough (1911), Dawson (1912), Savard (2010)

Habitat: Mesic meadows, forest edges (Savard 2010)

Hosts: unpublished

5. *Gazoryctra lembertii* (Dyar, 1894: 25) (*Hepialus*)

TL: United States: California, High Sierras

TC: National Museum of Natural History, Washington

Range: California (Dyar 1894)

Illustration: Holland (1903: pl. XLI, fig. 16), Pfitzner (1937: pl. 99a), Prentice (1965: pl. 41, fig. 16), Wagner & Rubinoff (2018: 120)

Morphology: unpublished

Biology: unpublished

Habitat: highland meadows, 2,600 m (Dyar 1894)

Hosts: unpublished

6. *Gazoryctra macilentus* (Eversmann, 1851: 626) (*Hepialus*)

Taxonomic note: This name is treated as a subspecies of *G. ganna* in the fauna catalogue of Knyazev (2019), but Huemer *et al.* (2018) note that Asian specimens of 'ganna' show high COI sequence divergence from European clusters as well as slightly different phenotypes and flight times, which together may suggest that the Siberian 'ganna' belong to a different species. We therefore retain the *macilentus* here pending future study.

TL: Russia: Eastern Siberia, Irkutsk Oblast "Irkoutzk" (Irkutsk)

TC: Museum für Naturkunde, Berlin

inf. var? *ab? gerda* (Staudinger, 1898: 328) (*Hepialus*); Russia: Irkutsk

syn. *spinifera* Tshistjakov, 1997: 315 (*Gazoryctra*); subspecies

TL: Russia: Khabarovskii Krai, Amgun' River, near Krasnyi Yar; **TC:** Zoological Institute, St. Petersburg

syn. *macilenata* Tshistjakov 1997: 315 (*Gazoryctra*); subspecies

TL: Russia: Eastern Siberia, Irkutsk Oblast “Irkoutzk” (Irkutsk); **TC:** Museum für Naturkunde, Berlin

Range: northeastern Eurasia (Dubatolov 2015, Leleja 2016)

Illustration: Pfitzner (1913: pl. 54e), Daniel (1940: pl. XXXI, fig. 6), Inoue (1982: pl. 3, figs. 4-5), Tshistjakov (1997: fig. 4), Zhu *et al.* (2004: pl. 3, fig. 4), Hirowatari *et al.* (2013: pl. 3-02-6-8), Dubatolov *et al.* (2014: fig. 4), Grehan & Knyazev (2019: fig. 2)

Morphology: Chu & Wang (1985a), Tshistjakov (1997), Zhu *et al.* (2004)

Biology: Dubatolov *et al.* (2014), Zhu *et al.* (2004)

Habitat: coniferous forest edges (Dubatolov 2015)

Hosts: **Ericaceae** (*Rhododendron simsii*), **Polygonaceae** (*Polygonum tenuifolium*)

7. *Gazoryctra mathewi* (Edwards, 1874a: 265) (*Epialus* [*sic*])

TL: Canada: British Columbia, Vancouver Islands

TC: American Museum of Natural History, New York

msp. *mathewi* auct.

Range: northwestern USA and southwestern Canada (Pohl *et al.* 2018)

Illustration: Pfitzner (1937: pl. 99a)

Morphology: unpublished

Biology: Grimble *et al.* (1992)

Habitat: mixed coniferous forests (Grimble 1992)

Hosts: ‘hardwoods,’ ‘conifers’

8. *Gazoryctra mcglashani* (Edwards, 1886: 14) (*Hepialus*)

TL: United States: California, Truckee

TC: American Museum of Natural History, New York

msp. *mcglaschani* auct.

msp. *mcglashani* (Pfitzner 1937: 1292)

Range: Lake Tahoe region of the Sierra Nevada Mountains (Wagner & Crabtree 2018)

Illustration: Pfitzner (1937: pl. 99a [as *P. mcglashani*]), Wagner & Crabtree (2018: fig. 1)

Morphology: unpublished

Biology: Edwards (1886), Forbes (1923), Wagner & Crabtree (2018)

Habitat: grassy meadows, 1,981-2,286m (Edwards 1886, Wagner & Crabtree 2018)

Hosts: unpublished

9. *Gazoryctra novigannus* (Barnes & Benjamin, [1926]: 82) (*Hepialus*)

TL: Canada: Ontario

TC: National Museum of Natural History, Washington

syn. *race mackiei* (Barnes & Benjamin, [1926]: 82) (*Hepialus*); subspecies

TL: Canada: Alberta, Calgary and Edmonton; **TC:** unknown

msp. *noviganus* (Pfitzner & Gaede 1937: 1292)

Range: western Canada and USA (<http://mothphotographersgroup.msstate.edu/>)

Illustration: Hooper (1981: 142), Handfield (1999: pl. 2, fig. 29)

Morphology: unpublished

Biology: unpublished

Habitat: Probably open forests around wet grassland herbaceous or bogs (Handfield 1999)

Hosts: unpublished

10. *Gazoryctra pulcher* (Grote, [1865]: 522) (*Hepialus*)**TL:** United States: Colorado**TC:** Academy of Natural Sciences Philadelphiamsp. *pulchra* (Wagner & Tindale 1988: 206)**Range:** central western United States (Grote 1865)**Illustration:** Grote (1865: pl. 5, fig. 3)**Morphology:** unpublished**Biology:** unpublished**Habitat:** unpublished**Hosts:** unpublished**11. *Gazoryctra roseicaput*** (Neumoegen & Dyar, 1893: 125) (*Hepialus*)**TL:** Canada: British Columbia, Cascade Range near Lytton**TC:** National Museum of Natural History, Washington [type not located]inf. form *demutatus* (Barnes & Benjamin, [1926]: 82) (*Hepialus*); Oregon, Mt Hood.inf. form *mutatus* (Barnes & Benjamin, [1926]: 84) (*Hepialus*); Oregon, Mt Hood.**Range:** northwestern North America (Pohl *et al.* 2018)**Illustration:** unpublished**Morphology:** unpublished**Biology:** unpublished**Habitat:** unpublished**Hosts:** unpublished**12. *Gazoryctra sciophanes*** (Ferguson, 1979: 193) (*Hepialus*)**TL:** United States: North Carolina, Jackson's Knob, Waterrock Knob, 1,768 m**TC:** National Museum of Natural History, Washington**Range:** West Virginia-North Carolina 600-1,830 m (Rawlins *et al.* 1998, Grehan & Mielke 2020: fig. map 3)**Illustration:** Ferguson (1979: figs. 1-4), Grehan (1998: fig. 2a), Schweitzer *et al.* (2011: fig. 187), Grehan & Mielke (2020a: fig. 1)**Morphology:** Grehan & Mielke (2020a)**Biology:** Schweitzer *et al.* (2011)**Habitat:** upper elevation conifer forests (Ferguson 1979, Grehan 1998, Schweitzer *et al.* 2011)**Hosts:** unpublished**13. *Gazoryctra uralensis*** (Grum-Grshimailo, 1899: 469) (*Hepialus*)**TL:** Russia: montibus Uralensibus inter 61-64 lat.**TC:** Zoological Institute, St Petersburgsyn. *fuscoargenteus* (Bang-Haas, 1927: 83) (*Hepialus*) (see Anikin & Zolotuhin 2017: 506); junior synonym**TL:** Russia: Irkutsk; **TC:** unknowninf. ab. *sordida* (Nordström, 1929: 6) (*Hepialus*); Russia: Siberia, Klutchefskaja volcano; originally in the Nordström collectionsyn. *postmaculatus* (Landin, 1943: 165) (*Hepialus*); Sweden (Nordström, 1947a: 170); subspecies**TL:** Sweden: Njulja, Torne Lappmark; **TC:** unknown**Range:** northern Eurasia (Grehan & Knyazev 2019: fig. map 2)

Illustration: Bang-Haas (1927: pl. 10, figs. 15-16 [as *Hepialus fuscoargenteus*]), Landin (1943: figs. a-b [as *Hepialus fuscoargenteus postmaculatus*]), Gullander (1964: 88, fig. 3 [as *G. fuscoargenteus*]), Linnaluoto (1976: fig. 1 [as *Hepialus fuscoargenteus*]), de Freina & Witt (1990: pl. 7, figs. 10-13 [as *G. fuscoargentea*]), Tshistjakov (1997: fig. 5 [as *G. fuscoargentea*]), Aarvik & Berggren (2002: fig. 1 [as *G. fuscoargenteus*]), Leraut (2006: pl. 53, figs. 4 [as *G. fuscoargentea*]), Silvonen *et al.* (2014: fig. 61, pl. K1, fig. 6 [as *G. fuscoargenteus*]), Anikin & Zolotuhin (2017: fig. 14)

Morphology: Viette (1953c), Tham *et al.* (1985 [as *Hepialus fuscoargenteus*]), Tshistjakov (1997)

Biology: Linnaluoto (1976), Tham *et al.* (1985), Aarvik & Berggren (2002), Leraut (2006), Silvonen *et al.* (2014)

Habitat: alpine meadow (Landin 1943), forest (Aarvik & Berggren 2002), humid forest glades (Anikin *et al.* 2017)

Hosts: **Betulaceae** (*Betula nana*), roots

14. *Gazoryctra wielgusi* Wagner & Tindale, 1988: 207 (*Gazoryctra*)

TL: United States: Arizona, Apache Co., 14.4 km E. McNary, Ditch Camp, 2,400 m

TC: Natural History Museum of Los Angeles County

Range: eastern Arizona, western New Mexico (Wagner & Tindale 1988)

Illustration: Wagner & Tindale (1988: figs. 1-2)

Morphology: Wagner & Tindale (1988)

Biology: Wagner & Tindale (1988), Robinson *et al.* (2002)

Habitat: mesic areas in mixed open conifer forests 2,400-2,800 m (Wagner & Tindale 1988)

Hosts: unpublished

GORGOPIS Hübner, [1820]: 198

TS: *Phalaena libania* Cramer, 1781, by subsequent designation (Kirby 1892: 888)

msp. *Gorcopis* (Walker 1856: 1549)

msp. *Goropis* (Pagenstecher 1909: 448)

1. *Gorgopis alticola* Aurivillius, 1910: 55 (*Gorgopis*)

TL: Tanzania: Kilimanjaro, Kiboscho, White Mountains

TC: Museum für Naturkunde, Berlin

Range: northeastern Tanzania (Aurivillius 1910)

Illustration: Gaede (1930: pl. 80h)

Morphology: Viette (1947b)

Biology: unpublished

Habitat: cultivated lowlands (Aurivillius 1910)

Hosts: unpublished

2. *Gorgopis altitudinis* Le Cerf, 1914: 401 (*Gorgopis*)

TL: Tanzania: Kilimanjaro, Bismarck Hill, 2740 m

TC: Muséum national d'Historie naturelle, Paris

Range: southern South Africa, type locality record (Janse 1948)

Illustration: unpublished

Morphology: unpublished

Biology: unpublished

Habitat: alpine meadow (Le Cerf 1914)

Hosts: unpublished

3. *Gorgopis angustiptera* (Janse, 1948: 181) (*Metahepialus*)
TL: South Africa: Western Cape
TC: Ditsong National Museum of Natural History, Pretoria
Range: southern South Africa, type locality record (Mey 2011)
Illustration: Janse (1948: pl. XCIV, figs. 5-6)
Morphology: Janse (1948), Mey (2011)
Biology: unpublished
Habitat: unpublished
Hosts: unpublished
4. *Gorgopis annulosa* Gaede, 1930: 559 (*Gorgopis*)
TL: South Africa: Free State, Bloemfontein [type label data]
TC: Museum für Naturkunde, Berlin
Range: northeastern South Africa, type locality record (Gaede 1930)
Illustration: Gaede (1930: pl. 80b)
Morphology: unpublished
Biology: unpublished
Habitat: unpublished
Hosts: unpublished
5. *Gorgopis armillata* (Meyrick, 1921a: 141) (*Gorgopis*)
TL: South Africa: KwaZulu-Natal, Impetyeni Forest
TC: Ditsong National Museum of Natural History, Pretoria
Range: northeastern South Africa, type locality record (Janse 1942)
Illustration: Janse (1942: pl. LIX, fig. 13)
Morphology: Janse (1942)
Biology: unpublished
Habitat: unpublished
Hosts: unpublished
6. *Gorgopis auratilis* Janse, 1919: 238 (*Gorgopis*)
TL: South Africa: Gauteng, Pretoria District, Rietfontein
TC: Ditsong National Museum of Natural History, Pretoria
Range: northeastern South Africa, type locality record (Janse 1942)
Illustration: Gaede (1930: pl. 80a), Janse (1942: pl. LX, fig. 2)
Morphology: Janse (1942)
Biology: unpublished
Habitat: unpublished
Hosts: unpublished
7. *Gorgopis aurifuscata* Janse, 1942: 47 (*Gorgopis*)
TL: South Africa: Limpopo, Marieskop (Marieps) Mt.
TC: Ditsong National Museum of Natural History, Pretoria
Range: eastern South Africa (Janse 1942)
Illustration: Janse (1942: pl. LX, fig. 3)
Morphology: Janse (1942)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

8. *Gorgopis butlerii* Dewitz, 1881: 64 (*Gorgopis*)

TL: South Africa: Western Cape, Promontis Bona Spei [type label data]

TC: Museum für Naturkunde, Berlin

msp. *butleri* (Gaede 1930: 558)

Range: southern South Africa (Janse 1942)

Illustration: Dewitz (1881: pl. 2, fig. 25), Gaede (1930: pl. 80g), Janse (1942: pl. 6LX, fig. 4)

Morphology: Janse (1942)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

9. *Gorgopis caffra* Walker, 1856: 1565 (*Gorgopis*)

TL: South Africa: Cape

TC: Natural History Museum, London

syn. *cervinus* (Wallengren, 1860: 43) (*Hepiolus* [sic]); junior synonym

TL: South Africa: Eastern Cape; **TC:** Naturhistoriska Riksmuseet, Stockholm

Range: southeastern South Africa (Janse 1942)

Illustration: Gaede (1930: pl. 80h), Janse (1942: pl. LX, fig. 5)

Morphology: Janse (1942)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

10. *Gorgopis centaurica* Meyrick, 1921a: 141 (*Gorgopis*)

TL: South Africa: Northern Cape, Norwals [Norval's] Pont

TC: Ditsong National Museum of Natural History, Pretoria

Range: eastern South Africa (Janse 1942)

Illustration: Janse (1942: pl. LX, fig. 7)

Morphology: Janse (1942)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

11. *Gorgopis cochlias* Janse, 1942: 50 (*Gorgopis*)

TL: South Africa: Western Cape, Stellenbosch

TC: Ditsong National Museum of Natural History, Pretoria

Range: southeastern South Africa (Janse 1942)

Illustration: Janse (1942: pl. LX, fig. 8)

Morphology: Janse (1942)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

12. *Gorgopis crudeni* Janse, 1919: 237 (*Gorgopis*)
TL: South Africa: Eastern Cape, Alicedale
TC: Ditsong National Museum of Natural History, Pretoria
Range: southeastern South Africa (Janse 1942)
Illustration: Janse (1942: pl. LX, fig. 6), Mey (2019: pl. 1, fig. 6)
Morphology: Janse (1942), Mey (2019)
Biology: Janse (1942)
Habitat: unpublished
Hosts: unpublished
13. *Gorgopis furcata* Janse, 1942: 52 (*Gorgopis*)
TL: South Africa: Free State, Bethlehem
TC: Ditsong National Museum of Natural History, Pretoria
Range: central eastern South Africa (Janse 1942)
Illustration: Janse (1942: pl. LX, fig. 9)
Morphology: Janse (1942)
Biology: unpublished
Habitat: unpublished
Hosts: unpublished
14. *Gorgopis fuscalis* Janse, 1919: 239 (*Gorgopis*)
TL: South Africa: Mpumalanga, Middleburgh district, Wonderfontein
TC: Ditsong National Museum of Natural History, Pretoria
Range: eastern South Africa (Janse 1942)
Illustration: Janse (1942: pl. LX, fig. 10), Staude *et al.* (2023: 19, fig. 2)
Morphology: Janse (1942)
Biology: Staude *et al.* (2023: 20)
Habitat: Staude *et al.* (2023: 20)
Hosts: unpublished
15. *Gorgopis grisescens* Gaede, 1930: 558 (*Gorgopis*)
TL: South Africa: Cape
TC: Museum für Naturkunde, Berlin
Range: southern South Africa, type locality record (Gaede 1930)
Illustration: Gaede (1930: pl. 80h)
Morphology: unpublished
Biology: unpublished
Habitat: unpublished
Hosts: unpublished
16. *Gorgopis hunti* Janse, 1942: 54 (*Gorgopis*)
TL: South Africa: Eastern Cape, Tsomo
TC: Ditsong National Museum of Natural History, Pretoria
Range: eastern South Africa, type locality record (Janse 1942)
Illustration: Janse (1942: pl. LX, fig. 12)
Morphology: Janse (1942)
Biology: unpublished
Habitat: unpublished

Hosts: unpublished

17. *Gorgopis inornata* Janse, 1942: 55 (*Gorgopis*)

TL: South Africa: Free State, Bloemfontein

TC: Ditsong National Museum of Natural History, Pretoria

Range: northeastern South Africa (Janse 1942)

Illustration: Janse (1942: pl. LX, fig. 11)

Morphology: Janse (1942)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

18. *Gorgopis intervallata* Warren, 1914: 507 (*Gorgopis*)

TL: South Africa: Northern Cape, Fraserburg

TC: Ditsong National Museum of Natural History, Pretoria

Range: central-southern South Africa, type locality record (Janse 1942)

Illustration: Warren (1914: pl. 41, fig. 29), Gaede (1930: pl. 80h), Janse (1942: pl. LIX, fig. 12)

Morphology: Janse (1942)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

19. *Gorgopis leucopetala* Meyrick, 1921a: 141 (*Gorgopis*)

TL: South Africa: Eastern Cape, Pondoland

TC: Ditsong National Museum of Natural History, Pretoria

Range: eastern South Africa, type locality record (Janse 1942)

Illustration: Janse (1942: LX, fig. 13)

Morphology: Janse (1942)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

20. *Gorgopis libania* (Cramer 1781: 128) (*Phalaena*)

TL: South Africa: Western Cape, Cape of Good Hope

TC: Naturalis Biodiversity Centre, Leiden

syn. *abbottii* Holland, 1892: 89 (*Gorgopis*); junior synonym

TL: Cape; **TC:** National Museum of Natural History, Washington

syn. *angolensis* Viette, 1956a [31st note]: 374 (*Gorgopis*); subspecies

TL: Angola: Mt. Moco, Luimbale; **TC:** Natural History Museum, London

Range: southern and southeastern Africa (Pinhey 1975)

Illustration: Cramer (1781: pl. CCCLVI, fig. F), Holland (1892: pl. VII, fig. 9 [as *Gorgopis abbottii*]), Gaede (1930: pl. 80g, 80h [as *G. abbottii*]), Janse (1942: pl. LX, fig. 14), Pinhey (1975, pl. 3, fig. 2), Scoble (1986: fig. 25.14), Staude *et al.* (2023: 19, fig. 1)

Morphology: Quail (1900a), Janse (1919, 1942), Viette (1947b [as *G. abbottii*]), Staude *et al.* (2023: 20)

Biology: McCrae (1975), Pinhey (1975), Scoble (1986), Staude *et al.* (2023: 20)

Habitat: grassland, lawns (Pinhey 1975), Staude *et al.* (2023: 20)

Hosts: Poaceae

21. *Gorgopis limbopunctata* (Gaede, 1930: 557) (*Dalaca*)

TL: South Africa: Eastern Cape

TC: Museum für Naturkunde, Berlin

Range: southwestern South Africa, type locality record (Janse 1942)

Illustration: Gaede (1930: pl. 80f)

Morphology: Mey (2011)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

22. *Gorgopis lobata* Janse, 1942: 58 (*Gorgopis*)

TL: South Africa: Free State, Bethlehem

TC: Ditsong National Museum of Natural History, Pretoria

Range: northeastern South Africa, type locality record (Janse 1942)

Illustration: Janse (1942: pl. LX, fig. 15)

Morphology: Janse (1942)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

23. *Gorgopis olivaceonotata* Warren, 1914: 506 (*Gorgopis*)

TL: South Africa: Western Cape, Capetown

TC: Iziko Museum of Capetown

Range: southeastern South Africa, type locality record (Janse 1942)

Illustration: Warren (1914: pl. 41, fig. 28), Gaede (1930: pl. 80g), Janse (1942: pl. LIX, fig. 15)

Morphology: Janse (1942)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

24. *Gorgopis pallidiflava* Janse, 1942: 60 (*Gorgopis*)

TL: South Africa: Free State, Bethlehem

TC: Ditsong National Museum of Natural History, Pretoria

Range: northeastern South Africa, type locality record (Janse 1942)

Illustration: Janse (1942: pl. LX, fig. 16)

Morphology: Janse (1942)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

25. *Gorgopis petersburgensis* Mey, 2019: 42 (*Gorgopis*)

TL: South Africa: Eastern Cape, Graaff-Reinet District, Asante Sana Game farm

TC: Ditsong National Museum of Natural History, Pretoria
Range: southern South Africa, type locality record (Mey 2019)
Illustration: Mey (2019: pl. 1, fig. 7)
Morphology: Mey (2019)
Biology: unpublished
Habitat: pastures and seasonally wet meadows (Mey 2019)
Hosts: unpublished

26. *Gorgopis pholidota* Meyrick, 1921a: 141 (*Gorgopis*)

TL: South Africa: Eastern Cape, Alicedale
TC: Ditsong National Museum of Natural History, Pretoria
Range: southeastern South Africa, type locality record (Janse 1942)
Illustration: Janse (1942: pl. LXI, fig. 1)
Morphology: Janse (1942)
Biology: unpublished
Habitat: unpublished
Hosts: unpublished

27. *Gorgopis ptiloscelis* (Meyrick, 1919: 230) (*Hepialus*)

TL: South Africa: Western Cape, Cape Colony, Albany District
TC: Albany Museum, Grahamstown
Range: southern South Africa, type locality record (Janse 1942)
Illustration: Janse (1942: pl. LIX, fig. 7)
Morphology: Janse (1942)
Biology: Janse (1942)
Habitat: unpublished
Hosts: unpublished

28. *Gorgopis salti* Tams, 1952: 869 (*Gorgopis*)

TL: Tanzania: Kilimanjaro, Shira Plateau, Camp 2, 3,795 m
TC: Natural History Museum, London
Range: northern Tanzania, type locality record (Tams 1952)
Illustration: unpublished
Morphology: Tams (1952)
Biology: Salt (1954)
Habitat: upper moorland shrubs, gasses, sedges 3,795-4,420 m (Salt 1954)
Hosts: unpublished

29. *Gorgopis serangota* Janse, 1942: 62 (*Gorgopis*)

TL: South Africa: Western Cape, Bushman's Land
TC: Ditsong National Museum of Natural History, Pretoria
Range: southeastern South Africa, type locality record (Janse 1942)
Illustration: Janse (1942: pl. LXI, fig. 2)
Morphology: Janse (1942)
Biology: unpublished
Habitat: unpublished
Hosts: unpublished

30. *Gorgopis subrimosa* Janse, 1942: 63 (*Gorgopis*)**TL:** South Africa: Western Cape, Stellenbosch**TC:** Ditsong National Museum of Natural History, Pretoria**Range:** southeastern South Africa, type locality record (Janse 1942)**Illustration:** Janse (1942: pl. LXI, fig. 3)**Morphology:** Janse (1942)**Biology:** unpublished**Habitat:** unpublished**Hosts:** unpublished**31. *Gorgopis tanganyikaensis*** Viette, 1950i [10th note]: 205 (*Gorgopis*)**TL:** Tanzania: Matengo high country, west south west of Songea, Ugano 1500-1700 m**TC:** Muséum national d'Historie naturelle, Paris**Range:** northeastern Tanzania, type locality record (Viette 1950i)**Illustration:** unpublished**Morphology:** Viette (1950i)**Biology:** unpublished**Habitat:** unpublished**Hosts:** unpublished**32. *Gorgopis viljoenorum*** Mey, 2019: 42 (*Gorgopis*)**TL:** South Africa: Eastern Cape, Graaff-Reinet District, Asante Sana Game farm**TC:** Ditsong National Museum of Natural History, Pretoria**Range:** southern South Africa, type locality record (Mey 2019)**Illustration:** Mey (2019: pl. 1, fig. 8)**Morphology:** Mey (2019)**Biology:** unpublished**Habitat:** pastures and seasonally wet meadows (Mey 2019)**Hosts:** unpublished**33. *Gorgopis zellerii*** Dewitz, 1881: 64 (*Gorgopis*)**TL:** South Africa: Western Cape, Kenilworth, Promontis Bona Spei [type label data]**TC:** Museum für Naturkunde, Berlinmsp. *zelleri* (Gaede 1930: 558)**Range:** southeastern South Africa, type locality record (Janse 1942)**Illustration:** Dewitz (1881: pl. 2, fig. 22), Gaede (1930: pl. 180h), Janse (1942: pl. LXI, fig. 4)**Morphology:** Janse (1942)**Biology:** unpublished**Habitat:** unpublished**Hosts:** unpublished***GYMELLOXES*** Viette, 1952: 27 [26th note]**TS:** *Dalaca terea* Schaus, 1892, by original designation**Biology, species unspecified:** Rodriguez *et al.* (2004 [as *Aepytus* sp.])**1. *Gymelloxes costaricensis*** (Druce, 1887: 234) (*Phassus*), **comb. n.****Taxonomic amendment:** The wing pattern, colour tone, and body shape of *Phassus costaricensis* Druce, 1887 (Plate 7, fig. 7a) conforms to *Gymelloxes* as represented by *G. terea*

(Plate 7, fig. 7b) and see Grehan & Mielke (2017b). Placement of this species as *Gymelloxes costaricensis* (Druce, 1887), **comb. n.** is supported by a COI sequence similarity of less than 4% from other *Gymelloxes* spp.

TL: Costa Rica

TC: Natural History Museum, London

Range: Costa Rica (Druce 1887)

Illustration: Druce (1887: pl. 24, fig. 4), Pfitzner (1937: pl. 185c)

Morphology: unpublished

Habitat: forest (inferred from location and stem boring biology of other cibyrene genera)

Hosts: unpublished

2. *Gymelloxes juliusboosi* C. Mielke, Grehan & Cock, 2020: 187 (*Gymelloxes*)

TL: Trinidad and Tobago: Trinidad, W.I., Off Saunders Road, Inniss Field, 50 m

TC: Natural History Museum, London

Range: Trinidad and Tobago (Mielke *et al.* 2020a: fig. map 20)

Illustration: Mielke *et al.* (2020a: figs. 7-9)

Morphology: Mielke *et al.* (2020a)

Biology: unpublished

Habitat: forest (Mielke *et al.* 2020a)

Hosts: unpublished

3. *Gymelloxes prosopus* (Druce, 1901: 436) (*Hepialus*)

TL: Colombia: Bonda, 150 ft

TC: Natural History Museum, London

msp. *proposus* (Wagner & Pfitzner 1911: 9) (*Hepialus*)

syn. *chiriquensis* (Pfitzner, 1914: 105) (*Dalaca*); junior synonym

TL: Panama: Chiriquí; **TC:** Naturmuseum und Forschungsinstitut Senckenberg, Frankfurt am Main

syn. *mysca* (Pfitzner, 1914: 105) (*Dalaca*); junior synonym

TL: Panama: Chiriquí; **TC:** Naturmuseum und Forschungsinstitut Senckenberg, Frankfurt am Main

Range: northern Colombia (Mielke & Grehan 2012)

Illustration: Pfitzner (1937: pl. 99b [as *Dalaca chiriquensis*], pl. 99f [as *Dalaca terea* f. *mysca*])

Morphology: unpublished

Biology: unpublished

Hosts: unpublished

4. *Gymelloxes terea* (Schaus, 1892: 330) (*Dalaca*)

TL: Mexico: Paso de San Juan

TC: National Museum of Natural History, Washington

Range: Mexico-Central America (Grehan & Mielke 2017b)

Illustration: Druce (1898: pl. 89, fig. 3), Cock (2003: pl. 1, fig. 42), Chacón & Montero (2007: pl. 1 [as *Aepytus* sp.]), Grehan & Mielke (2017b: figs. 1-5)

Morphology: Viette (1952b), Grehan (2010), Grehan & Mielke (2017b)

Biology: Hilje *et al.* (1992 [as *Aepytus* sp.]

Hosts: **Bignoniaceae** (*Tabebuia rosea*), **Lamiaceae** (*Gmelina arborea*), **Malvaceae** (*Bombacopsis quinata*, *Guazuma ulmifolia*)

5. *Gymelloxes trilinearis* (Pfitzner, 1914: 105) (*Dalaca*)

TL: Colombia: Sosomoco [*recte* Susumoco], 800 m

TC: Naturmuseum und Forschungsinstitut Senckenberg, Frankfurt am Main
syn. *vibicata* (Pfitzner, 1914: 105) (*Dalaca*), **syn. n.**; junior synonym

Taxonomic amendment: The full COI gene sequence of the holotype places *D. vibicata* Pfitzner, 1914 among not only members of *Gymelloxes* Viette, 1952, but it has a 100% match with the holotype of *D. trilinearis* Pfitzner, 1914 with which it shares a near identical wing pattern (Plate 8). Since both taxa were described in the same work and on the same page, we have chosen *D. trilinearis* as the senior synonym as it was already placed within *Gymelloxes*.

TL: Colombia, Cundinamarca, Sosomoco;

TC: Naturmuseum und Forschungsinstitut Senckenberg, Frankfurt am Main
msp. *trilinearides* (Pfitzner 1937: 1294) (*Dalaca*)

Range: northern South America (Mielke & Grehan 2012)

Illustration: Pfitzner (1937: pl. 99c [as *Dalaca trilinearides* and *D. vibicata*])

Morphology: unpublished

Biology: unpublished

Hosts: unpublished

HAMPSONIELLA Viette, 1950b [11th note]: 74

TS: *Dalaca assa* Druce, 1887, by original designation

1. *Hampsoniella assa* (Druce, 1887: 232) (*Dalaca*)

TL: Guatemala: Volcan de Atitlan, 2500-3000 ft, and Pantaleon, 1700 ft

TC: Natural History Museum, London

Range: Central America (Mielke & Grehan 2012)

Illustration: Druce (1887: pl. 24, fig. 10), Pfitzner (1937: pl. 99c)

Morphology: Forbes (1942), Viette (1950b [11th note], 1951c [24th note])

Biology: unpublished

Hosts: unpublished

2. *Hampsoniella equatorialis* (Viette, 1950b [11th note]: 77) (*Aepytus*)

TL: Ecuador: Bolívar, Balzapampa

TC: Muséum national d'Historie naturelle, Paris

Range: northeastern South America (Mielke & Grehan 2012)

Illustration: unpublished

Morphology: Viette (1950b)

Biology: unpublished

Hosts: unpublished

HELOXYCANUS Dugdale, 1994: 59

TS: *Heloxycanus patricki* Dugdale, 1994, by original designation

1. *Heloxycanus patricki* Dugdale, 1994: 60 (*Heloxycanus*)

TL: New Zealand: South Island, Otago, Kakanui Mountains, Dansey Pass

TC: New Zealand Arthropod Collection, Auckland

Range: southern South Island, Stewart Island (Dugdale 1994: map 20)

Illustration: Grehan & Patrick (1984: figs. 1-6 [as species 1, 2), Dugdale (1994: figs. 45-48), McGuinness (2001: 443), Glime (2017: figs. 74-75)

Morphology: Dugdale (1994)

Biology: Grehan & Patrick (1984), Dugdale (1994), Patrick & Dugdale (2000), Patrick (2004, 2014, 2023), Glime (2017)

Habitat: bogs and mires (Dugdale 1994)

Hosts: **Sphagnaceae** (*Sphagnum* spp.)

HEPIALISCUS Hampson, [1893]: 317

TS: *Hepialus nepalensis* Walker, 1856, by original designation.

1. *Hepialiscus htayaungi* C. Mielke & Grehan, 2016: 134 (*Hepialiscus*)
 TL: Myanmar: Chin state, rd. Mindat – Matupi, 14 km west of Mindat
 TC: Collection Father Jesus S. Moure, Curitiba
 Range: eastern Myanmar (Mielke & Grehan 2016)
 Illustration: Mielke & Grehan (2016: figs. 1-7)
 Morphology: Mielke & Grehan (2016)
 Biology: unpublished
 Habitat: forest (Mielke & Grehan 2016)
 Hosts: unpublished
2. *Hepialiscus jiangbeiensis* Chu & Wang *in* Zhu *et al.*, 2004: 175 (*Hepialiscus*)
 TL: China: Sichuan, Chongqing, Jiangbei
 TC: Institute of Zoology, Academia Sinica, Beijing
 Range: central western China, type locality record (Zhu *et al.* 2004)
 Illustration: Zhu *et al.* (2004: pl. 4, fig. 13)
 Morphology: Zhu *et al.* (2004)
 Biology: unpublished
 Habitat: unpublished
 Hosts: unpublished
3. *Hepialiscus ledongensis* (Chu & Wang *in* Zhu *et al.*, 2004: 177) (*Hepialus*)
 TL: China: Hainan, Ledong
 TC: Institute of Zoology, Academia Sinica, Beijing
 Range: Hainan, type locality record (Zhu *et al.* 2004)
 Illustration: Zhu *et al.* (2004: pl. 4, fig. 15)
 Morphology: Zhu *et al.* (2004)
 Biology: Zhu *et al.* (2004)
 Habitat: unpublished
 Hosts: **Liliaceae** (*Fritillaria verticillata*), **Polygonaceae** (*Rumex madaio*), **Rosaceae** (*Potentilla fruticosa*)
4. *Hepialiscus monticola* Ueda, 1988: 49 (*Hepialiscus*)
 TL: Taiwan, Nantou Hsien, Meifeng, 2,000 m
 TC: Kitakyushu Museum of Natural History
 Range: Taiwan (Ueda 1988)
 Illustration: Ueda (1988: figs. 14c-d)

Morphology: Ueda (1988)

Biology: Ueda (1988)

Habitat: forest (Ueda 1988)

Hosts: unpublished

5. *Hepialiscus nepalensis* (Walker, 1856: 1557) (*Hepialus*)

TL: Nepal

TC: Natural History Museum, London

syn. *indicus* (Walker, 1856: 1558) (*Hepialus*); junior synonym

TL: India [‘Hindostan’]; **TC:** Natural History Museum, London

syn. *pauperatus* (Walker, 1865: 593) (*Hepialus*); junior synonym

TL: India [‘Hindostan’]; **TC:** Natural History Museum, London

syn. *marcidus* (Butler, 1880: 69) (*Hepialus*); junior synonym

TL: India: Darjeeling, Lidderdale; **TC:** Natural History Museum, London

syn. *flavus* Chu & Wang, 1985a: 129 (*Hepialiscus*); junior synonym

TL: China: Xizang [Tibet], Nilamo; **TC:** Institute of Zoology, Academia Sinica, Beijing

Range: Himalaya (Grehan & Ismavel 2017: image map 14c)

Illustration: Hampson ([1893]: fig. 218), Butler (1886: pl. XVIII [108], figs. 4-7 [as *Hepialus marcidus* and *H. pauperatus*]), Pfitzner (1912: pl. 54d), Tindale (1942: pl. XI, figs. 88-91), Ueda (1988: figs. 15a-b, 2000: pl. 169, figs. 14-17), Zhu *et al.* (2004: pl. 4, figs. 11, 12 [as *Hepialiscus flavus*]), Grehan & Ismavel (2017: figs. 14a-b)

Morphology: Chu & Wang (1985), Ueda (1988, 2000)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

6. *Hepialiscus robinsoni* Ueda, 1988: 44 (*Hepialiscus*)

TL: Taiwan, Taiheizan (Taihoku-shu)

TC: Entomological Laboratory, Kitakyushu

Range: Taiwan, type locality record (Ueda 1988)

Illustration: Ueda (1988: fig. 14a)

Morphology: Ueda (1988)

Biology: unpublished

Hosts: unpublished

7. *Hepialiscus taiwanus* Ueda, 1988: 47 (*Hepialiscus*)

TL: Taiwan, Taoyuan Hsien, Schangpaling, 1,100 m

TC: Kitakyushu Museum of Natural History

Range: Taiwan, type locality record (Ueda 1988)

Illustration: Ueda (1988: fig. 14b)

Morphology: Ueda (1988)

Biology: unpublished

Habitat: forest, 100 m (Ueda 1988)

Hosts: unpublished

HEPIALUS Fabricius, 1775: 589

TS: *Noctua humuli* Linnaeus, 1758, by subsequent designation (Latreille, 1810: 441)

Taxonomic note: Type species often attributed to Kirby (1892: 879), but Latreille's (1810) types were recognized as valid by the ICZN (Hemming 1945). F.H. Rindge suggested to Viette (1952d) that Grote (1974) first designated the type species, but Grote (1874) cited Hübner (1806). The latter represents a document that the ICZN concluded was intended for private circulation among specialist for discussion purposes and therefore does not qualify for nomenclatural priority (Stiles 1926).

emd. *Hepiolus* [*sic*] (Illiger, 1801: 138); emendation (Nielsen *et al.* 2000: 849), unjustified. As cited by Illiger (1801: 138): HEPIOLUS, i – m. Schmalfalter [small moth] ήπιολος Lichtmotte [light moth], also nicht **Hepialus**. Illiger (1801: 138) explained that the name *Hepialus* Fabricius, 1775 should be corrected to *Hepiolus* because its meaning derived from a Greek word with o. Because the author cited the Greek word, and explained "also nicht *Hepialus*" (= "so not *Hepialus*"), this was an intentional change of the spelling of the original name, and this is available as a new name *Hepiolus* Illiger, 1801. The author explained in this brief note that because of the spelling of the Greek name, the genus could not be spelled with u. This is an unjustified emendation because it does not involve the correction of an inadvertent error [Art. 32.5.1]

msp. *Trepialus* (Latreille [1805]: 174)

emd. *Epialus* [*sic*] Agassiz 1847: 140; emendation (Nielsen *et al.* (2000: 849), unjustified. Agassiz (1847) listed the name as follows: "*Epialus – (*V. Hepialus Fabr.*) Lep" [V. = "see"] [*Epialus*, see *Hepialus* of Fabricius]. Agassiz (1847: 178) wrote: "°Hepialus Fabr. Lep 1776 (Scr. Epialus)" [Scr. = "scripsit" or "scrivere"] [*Hepialus* spelled as *Epialus*]. This is an unjustified emendation because it does not involve the correction of an inadvertent error [Art. 32.5.1]

emd. *Epiolus* [*sic*] Agassiz, 1847: 141; emendation (Nielsen *et al.* 2000: 849), unjustified. Agassiz (1847: 141) listed the name as follows: "*Epiolus – (*V. Hepiolus Ill.*) Lep" [*Epiolus*, see *Hepiolus* of Illiger]. Agassiz (1847: 178) wrote: "°Hepiolus Ill. Lep. 1801. (Scr. Epiolus)" [*Hepiolus* spelled as *Epiolus*]. This is an emendation of an emendation (by Illiger), but unjustified because it does not involve the correction of an inadvertent error [Art. 32.5.1]

1. *Hepialus humuli* (Linnaeus, 1758: 508) (*Phalaena Noctua*)

TL: unpublished

TC: Linnean Society, London

emd. *humulator* (Haworth 1802: 19) (*Hepialus*); emendation (Nielsen *et al.* 2000: 849) unjustified emendation [Art. 32.5.1]. Haworth (1802: iii) stated: "The Aurelian Society, presuming it will be a manifest improvement in the science of Entomology, has resolved, that the... *Hepiali* [shall end] in *ator*;" This is an unjustified emendation because it does not involve the correction of an inadvertent error [Art. 32.5.1]

syn. *thulensis* (Newman, 1865: 162) (*Hepialus*); subspecies

TL: United Kingdom, Scotland, Shetland Islands; **TC:** Natural History Museum, London

syn. v. *hethlandica* (Staudinger in Staudinger & Wocke 1871: 60) (*Hepialus*); subspecies

TL: Shetland Islands; **TC:** unknown

inf. ab. *rosea* (Petersen, 1902: 167 [306, 1924 ed.]) (*Hepialus*). "Eine hübsche Aberration des ♀ mit rosenroten hindwing besitze ich in mehreren Exemplaren aus Reval und Wp.: ab. Female rosea, alis posticis roseotinctis. Teich fand in Kemmern ebenfalls ein ♀ mit "fast rosenroten" hindwings." [I own a pretty aberration of the ♀ with rose-coloured hindwing in several

specimens from Reval and Wp.: ab. Female *rosea*, *alis posticis roseotinctis*. Teich also found a ♀ with “almost rose-red” hindwings in Kemmern] (Peterson 1902: 167)

inf. *abberatio albida* (Spuler, 1910: 484) (*Hepialus*)

inf. v. (et ab.) *thulea* (Spuler, 1910: 485) (*Hepialus*)

TL: Shetlands; **TC:** unknown

inf. *forma azuga* (Pfitzner, 1912: 434) (*Hepialus*); Romania

inf. *forma grandis* (Pfitzner, 1912: 434) (*Hepialus*); [European] Alps

inf. *abberatio dannenbergi* (Stephan, 1923: 46) (*Hepialus*); Poland: Lower Silesian Voivodship, Duszniki-Drój [originally as Germany: Lower Silesia, Friedrichsberg bei Bad Reinerz]

inf. *abberatio pusillus* (Stephan, 1923: 46) (*Hepialus*); Poland: Lower Silesian Voivodship, Duszniki-Drój [originally as Germany: Lower Silesia, Friedrichsberg bei Bad Reinerz]

inf. variation-*abberatio rufomaculata* (Lempke, 1938: 303) (*Hepialus*); Netherlands: Hillergersberg, Rotterdam; Naturalis Biodiversity Centre, Leiden

inf. *abberatio roseornata* (Bytinski-Salz, 1939: 81) (*Hepialus*); United Kingdom: England, Tavistock

inf. *forma albida* (Bytinski-Salz, 1939: 82) (*Hepialus*); United Kingdom: Scotland, Shetland Islands

inf. *forma uniformis* (Bytinski-Salz, 1939: 82) (*Hepialus*); United Kingdom, Scotland, Shetland Islands

inf. *forma faeroensis* (Dahl, 1954: 134) (*Hepialus*); Denmark: Faeroe Islands.

inf. *abberatio fumosa* (Cockayne, 1955: 5) (*Hepialus*); United Kingdom, Scotland: Shetland Islands; Natural History Museum, London

inf. *abberatio radiata* (Cockayne, 1955: 5) (*Hepialus*); United Kingdom, Scotland: Shetland Islands; [originally Wm. Reid R. Adkin Collection]

inf. *forma postnigrescens* (Lempke, 1961: 180) (*Hepialus*); Netherlands: Vaals; [originally Pijpers collection]

inf. *forma postrufescens* (Lempke, 1961: 180) (*Hepialus*); Netherlands: Ingen, Koretnhoef; Naturalis Biodiversity Centre, Leiden

inf. f. *griseomaculata* (van Wisselingh, 1965: 146) (*Hepialus*); Netherlands: Epen

Range: Europe-central Siberia (Simonsen & Huemer 2014: fig. 2; Grehan & Svyatoslav 2019: fig. map 3)

Illustration: Wottonus *et al.* (1634: fig. 13 [not named]), Jonston (1653: pl. VII, row 3, fig. 13 [not named]), Harris (1776: pl. IVc-d), Sulzer (1776: pl. XXII, fig. 1), Goetz (1783: pl. 7, figs. 5-6), Carangeot (1786: pl. CXCI, fig. 248), Esper (1786: pl. LXXX Noct 1, figs. 1-2), Römer (1789: pl. XXII, fig. 1), Donovan (1796: pl. 274, fig. 1), Latreille (1805: pl. CVII, fig. 4), Panzer & Sturm (1807: 24), Hübner ([1808]: pl. 48, figs. 202-203), Godart (1822: pl. 1, fig. 1-2), Balland & Guillaume (1823: pl. 5, fig. 8), Ritzema Bos (1891: fig. 281), Meigen (1832: pl. LXXXIX, fig. 3a,b), Wood (1839, 1854: pl. 5, fig. 1), Humphries & Westwood (1843, pl. VIII, figs. 7-8), Maunder (1848: 260), Berge (1851: pl. LXVI, fig. 26, 1863: pl. 16, fig. 3), Humphries (1860: pl. 4, figs. 5-6), Millière (1864: pl. 94, figs. 4-5), Snellen (1866: pl. 2, figs. 3-4), Newman (1869: fig. 37), Wood (1870: pl. II, fig. 3), Morris (1871: VII, fig. 6), Depuiset (1867, 1877: pl. 29, fig. 3), Chenu & Demarest (1876: fig. 45), Weir (1880: pl. 3), Kirby (1882: pl. 26, fig. 4a-b, 1889: pl. XXVI, fig. a, 1897a: fig. 77, 1897b: 150, 1903: pl. 25, fig. 13, 1905: 84, 1913: pl. 28, fig. 11), Whitehead (1885: pl. VI: figs. 5-6), Ormerod (1890: figs. 5-6), Kappel & Kirby (1893: pl. XVIII, fig. 1), Furneaux (1894: fig. 116), E. Hofmann (1894: pl. 23, fig. 4), Barrett (1895: pl. LXIII, fig. 1), Gordon (1896: pl. 11, fig. 153), Tutt (1896: pl. 12, fig. 1),

Rockstroh (1901: pl. VIII, figs. 1-2), Kirby (1903: pl. XXV, fig. 13; 1905: p.824;1913: pl. 28, fig. 11), Lampert (1907: pl. 87, fig. 4), South (1908: pl. 157, figs. 1-4), Rebel (1910: pl. 52, fig. 16), Spuler (1910: pl. 80, fig. 4), Rowland-Brown (1912: pl. XV, fig. 3), Pfitzner (1912: pl. 54b [as *H. grandis* in col. 1], 54c [as *H. hetlandicus* in col. 1-2, *H. grandis* in col. 3, *H. azuga* in col. 4]), Stewart (1913: pl. 1, figs. 20-21), Sarsfield (1919: pl. 16), Ealand (1921: pl. XL, figs. 20-21), Eckstein (1923: pl. 59, fig. 9c), Escherich (1931: fig. 77), Bytinski-Salz (1939: pl. VII, figs. 1-4), Agenjo (1942: pl. III, figs. 1-2), Silvestri (1943: fig. 90), Imms (1947: pl. 14, figs. 4, 9), Bergmann (1953: pl. 110, figs. A3-A4, B3), Cockayne (1955: pl. 1, figs. 1-5), Ford (1955: pl. 28, figs. 1-5), Koch (1955: pl. 14, fig. 211), Patocka & Smelhaus (1959: fig. 24), Podřád (1959: Fig. 24), Gullander (1964: 88, fig. 1), D'Aguilar (1966: fig. 1), Chinery (1973: pl. 19, fig. 2, 1986: 133), Kettlewell (1973: pl. 17.2), Heath (1976: pl. 10, figs. 22-25, 23, 25 [as *H. thulensis*]), Sukhareva (1978: fig. 37.1-2), Carter (1982: 178-179), García *et al.* (1983: fig. 5: 1-2), Mallet (1984: fig. 2), Skinner (1985: pl. 1, figs. 9-12), Carter & Hargreaves (1986: pl. 29, fig. 13), Vanden Eeckhoudt (1988: figs. 1-4), de Freina & Witt (1990: pl. 10: figs. 1-22), Speidel (1994: 136), Bertaccini *et al.* (1997: pl. 15, figs. 20-21); Kristensen (1999, 2003: fig. 5.5A), Buser *et al.* (2000: 95, figs. 6, 8), Majerus (2002: 103, pl.15e, fig. 4.5), Waring & Townsend (2003: 46; 2017: pl. 1), Zhu *et al.* (2004: [pl. 4, fig. 3 error]), Hansen & Jensen (2005: figs. 2, 4), Fox *et al.* (2006: 13), Jones *et al.* (2006: pl. 4, fig. 2), Leraut (2006: pl. 53, figs. 5-13), Ruckdeschel (2006: fig. 1), Kaaber *et al.* (2009: fig. 1), Piccozzi (2010: 43, 46-47, 2012: pl. 16), Székely (2010: pl. 1, figs. 13-15), Piccozzi & Espie (2011: pl. 24), Alford (2012: figs. 474-475), Boys & Agriculture and Horticulture Development Board (2014: 133), Silvonen *et al.* (2014: fig. 59, pl. K1, fig. 3), Simonsen & Huemer (2014: fig. 1), Grehan & Knyazev (2019: fig. 3), Randle *et al.* (2019: fig. 24)

Morphology: Ray (1710), Linnaeus (1761), Harris (1776), Carangeot (1786), Börner (1820 [*Hepiolus*]), Kirby & Spence (1826), Guérin-Ménéville (1829a), Wailes (1833), Boisduval (1836), Duncan (1836), Vogel (1837), Westwood (1840), Humphries & Westwood (1843), Boheman (1847), Rambur (1858), Millière (1864), Crotch (1865), Knaggs (1865), Newman (1865), Snellen (1866), Müller (1866), Brandt (1880), Weir (1880, 1883), Wilson & Wilson (1880), Swinton (1883), Gregson (1885), Hoffmann (1885a), Hellins (1887), Coste (1890), Ormerod (1890), Steuart (1891), Barrett (1892), E. Hofmann (1893), Morton (1894), Barrett (1895), Finlay (1895), Kellogg (1895a,c), King (1895), Meyrick (1895), Packard (1895c), Standfuss (1896), Quail (1900a, 1903), Bouskell (1901), Annandale (1905), Adkin (1912), Kusnezov (1914), Schultz (1914), Tsou (1914), Fracker (1915), Forbes (1916, 1923), Walle (1917), Fryer (1920), Eyer (1921), Eckstein (1923), Gerasimov (1939), Pierce & Beirne (1941), Agenjo (1942), Janse (1942), Murray (1943), Hinton (1946), Stokoe & Stovin (1948), Viette (1948a), Toll (1949), Bourgogne (1951), Peterson (1962), D'Aguilar (1966), Stekolnikov (1967), Hasenfus (1969), Stresemann (1969), Kettlewell (1973), Birket-Smith (1974), Sukhareva (1978), Ueda (1978, 1980), Carter (1984), Kozlov (1986), Pyatin (1989), Speidel (1994), Buser *et al.* (2000), Korzeev (2001), Majerus (2002: 52), Zhu *et al.* (2004 [fig. 111 error]), Hansen & Jensen (2005), Kaaber *et al.* (2009), Piccozzi (2012), Simonsen & Huemer (2014), Weir (2016), Provazníková (2022 [karyotype])

Biology: Ray (1710), Linnaeus (1746, 1761), Harris (1776), Carangeot (1786), Esper (1786), Gmelin (1790), Olivier (1792), Shrank (1801), Haworth (1803), Panzer & Sturm (1807), Ochsenheimer (1810), Cuvier & Latreille (1817), Samouelle (1819), Godart (1822), Balland & Guillaume (1823), Latreille (1829, 1831), Stephens (1828), Tigney & Guérin (1828), Anonymous (1829), Meigen (1832), Rennie (1832), Treitschke (1834), Vogel (1837), Boisduval

(1840), Westwood (1840), Eversmann (1841), Harris (1841), Thompson (1842), Humphries & Westwood (1843), Maunder (1848), Nickerl (1850), Catlow (1852), Oxford University Entomological Society (1858), Speyer & Speyer (1858), Humphries (1860), Wilde (1860), Harris (1862), Berge (1863), Gregson (1864), Depuiset (1867), Berce (1868), Newman (1869), Wallengren (1869), Wood (1870), Morris (1871), Kaltenbach (1874), Merrin (1875), Chapman (1876, 1886), Chenu & Demarest (1876), Desmarest (1877), Frey (1880), Wilson & Wilson (1880), Keppen (1881-3), Kirby (1882, 1889, 1897b, 1903, 1905, 1906), Weismann (1882), Claus (1884), Crallan (1885), Whitehead (1885), Riley (1886), Hellins (1887), Robson (1887a-b, 1892a), Aurivillius (1888-1891), Balding (1888), Hoffmann (1888), Ormerod (1890), Seymour St. John (1890), Franceschini (1891), Reid (1891), Ritzema Bos (1891), Barrett (1892), Garbowski (1892), Kappel & Kirby (1892, 1893), Steinert (1892), Tutt (1892), E. Hofmann (1893, 1894), Vismes Kane (1894), Furneaux (1894), Holmgren (1894), Morton (1894), Barrett (1895), McArthur (1895), Meyrick (1895), Favre & Wullschlegel (1899), Favre & Wullschlegel (1899), Theobald (1899, 1906), Freer (1900), Quail (1900a), Bouskell (1901), Pabst (1901), Rockstroh (1901), Robson (1902), Moutier (1903), Annandale (1905), Krancher (1905), Lampert (1907), Gibson-Robertshaw (1908), Manders (1908), South (1908), Sharp (1909), Theobald (1909), Rebel (1910), Spuler (1910), Schneider (1911), Strand (1911), Goossens (1912), Scorer (1913), Stewart (1913), Vorbrodt & Müller-Rutz (1914), Pierce (1918), Hudson (1920b), Ealand (1921), Moffat (1922), Eckstein (1923), Stephan (1923), Reinhart (1924), Schneider (1924), Steigerwald (1924), Röher (1928), Gaede (1929), Gerasimov (1937), Scholten (1938), Dicker (1939), Williams (1939), Allan (1943), Fletcher (1943), Beirne (1943), Silvestri (1943), Stokoe & Stovin (1948), Viette (1948), Michael (1949), Portier (1949), Fox-Wilson (1951), Smith (1951), Bergmann (1953), Masee (1954), Ford (1955), Carolsfeld-Krause (1959), Harper (1959), Edwards (1964), Gullander (1964), Bauer (1966), D'Aguilar (1966), Chalmers-Hunt (1970, 1981), Leuschner (1970), Lauritzen (1971), Wojtusiak (1972), Kettlewell (1973), Reynolds (1973), Watson *et al.* (1975), Heath (1976), J. Turner (1976, 1988, 2015), Friedrich (1977), Hyde (1977), Huddleston (1980), Buczacki & Harris (1981), Duddington & Johnson (1983), García *et al.* (1983), Carter (1984), Ganey (1984), Mallet (1984), Skinner (1985), Carter & Hargreaves (1986), Brockman (1988), Vanden Eeckhoudt (1988), Koryszka (1989), de Freina & Witt (1990), Aistleitner (1991), Emmet (1991), Speidel (1994), Bertaccini *et al.* (1997), Porter (1997), Andersson *et al.* (1998), Rydell (1998), Buser *et al.* (2000), Lukhtanov (2000), Weihrauch (2000), Eklöf *et al.* (2002), Oswald (2001), Majerus (2002), Rydell & Young (2002), Waring & Townsend (2003, 2017), Greatorex-Davies *et al.* (2005), Leraut (2006), Ruckdeschel (2006), O'Connor *et al.* (2007), Klepikov (2008), Piccozzi (2010, 2011, 2013), Székely (2010), Piccozzi & Espie (2011), Alford (2012), Petrova *et al.* (2013), Boys & Agriculture and Horticulture Development Board (2014), Riccucci & Lanza (2014), Silvonen *et al.* (2014), Simonsen & Huemer (2014), Merckz & Macdonald (2015), Weir (2016), Lees & Zilli (2019)

Habitat: mesic meadows, fens, open areas in mixed landscapes (Speidel 1994)

Hosts: Fungi – **Agaricaceae** (*Psalliota*). Plant – **Amaranthaceae** (*Beta vulgaris*), **Amaryllidaceae** (*Allium schoenoprasum*), **Apiaceae** (*Daucus carota*, *Pastinaca sativa*), **Asparagaceae** (*Asparagus officinalis*), **Asteraceae** (*Arctium lappa*, *Chrysanthemum* sp., *Cirsium arvense*, *C. palustre*, *Cynara cardunculus*, *Dahlia* sp., *Helianthus tuberosus*, *Lactuca sativa*, *Petasites officinalis*, *Scorzoneroideis autumnalis*, *Taraxacum officinale*, *Tussilago farfara*), **Boraginaceae** (*Echium vulgare*), **Brassicaceae** (*Armoracia rusticana*, *Brassica rapa*), **Cannabaceae** (*Cannabis sativa*, *Humulus lupulus*), **Cucurbitaceae** (*Bryonia diocia*),

Fabaceae (*Pisum sativum*), **Iridaceae** (*Crocospia* sp.), **Lamiaceae** (*Ballota nigra*, *Lamium album*, *Mentha aquatica*), **Leguminosae** (*Phaseolus* sp.), **Malvaceae** (*Malva* sp.), **Paeoneaceae** (*Paeonia officinalis*), **Plantaginaceae** (*Plantago* sp.), **Poaceae** (*Elymus repens*), **Polygonaceae** (*Rumex acetosa*, *R. alpinus*, *R. acutus*, *R. obtusifolius*), **Primulaceae** (*Polyanthus* sp.), **Rosaceae** (*Filipendula* sp., *Fragaria* sp., *Malus pumila*, *Rubus* sp., *Spiraea aruncus*, *S. ulmaria*), **Ranunculaceae** (*Aconitum napellus*), **Scrophulariaceae** (*Scrophularia umbrosa*), **Solanaceae** (*Solanum tuberosum*), **Urticaceae** (*Urtica dioeca*)

HEPIALYXODES Viette, 1951d [25th note]: 1278

TS: *Hepialyxodes rileyi* Viette, 1951d, by original designation

1. *Hepialyxodes rileyi* Viette, 1951d [25th note]: 1279 (*Hepialyxodes*)

TL: Brazil: São Paulo, Ipiranga

TC: Natural History Museum, London

Range: southeastern Brazil (Mielke & Grehan 2012)

Illustration: Viette (1951d [25th note])

Morphology: unpublished

Biology: unpublished

Habitat: forest (inferred from location and stem boring biology of other cibyrids)

Hosts: unpublished

HUEBNERIELLA C. Mielke & Grehan, 2019: 56

TS: *Huebneriella rosanti* C. Mielke & Grehan, 2019, by original designation

1. *Huebneriella rosanti* C. Mielke & Grehan, 2019: 57 (*Huebneriella*)

TL: French Guiana: Rte forestière de Saut Léodate, Km 4.5, 4°55' N, 52°33' W

TC: Museum für Naturkunde, Berlin

Range: French Guiana (Mielke & Grehan 2019: fig. map 13)

Illustration: Mielke & Grehan (2019: figs. 1-3)

Morphology: Mielke & Grehan (2019)

Biology: unpublished

Habitat: forest (Mielke & Grehan 2019)

Hosts: unpublished

JEANA Tindale, 1935: 279

TS: *Jeana delicatula* Tindale, 1935, by original designation

1. *Jeana delicatula* Tindale, 1935: 280 (*Jeana*)

TL: Australia: Victoria, Moe

TC: South Australian Museum, Adelaide

Range: central-eastern and southeastern Australia (Tindale 1935)

Illustration: Tindale (1935: figs. 11-12), Kallies et al. (2015: 16, figs. 12-13; C.D. *delicatula*: 1-2)

Morphology: Tindale (1935)

Biology: unpublished

Habitat: cool, wet sclerophyll forests to alpine grasslands at 1,500 m (Axel Kallies, pers. comm.)

Hosts: unpublished

2. *Jeana robiginosa* A. Turner, 1939: 105 (*Jeana*)

TL: Australia: Tasmania, Waratah

TC: Australian National Insect Collection, Canberra

msp. *rubiginosa* (Turner 1939: 105) (*Jeana*)

syn. *timetea* Turner, 1939: 104 (*Jeana*); junior synonym

TL: Australia: Tasmania, Derwent Bridge; **TC:** [originally G. M. Goldfinch collection]

Range: Tasmania (Turner 1939)

Illustration: unpublished

Morphology: unpublished

Biology: unpublished

Habitat: moss-rich habitats in heath-lands and heavily wooded forests, 330-1,000 m (Peter McQuillan, pers. com.)

Hosts: unpublished

KORSCHELTELLUS Börner, 1820: 395

TS: *Noctua lupulina* Linnaeus, 1758, by original designation

1. *Korscheltellus castillanus* (Oberthür, 1883: 13) (*Hepialus*)

TL: Spain: Vieille-Castille, la Granja

TC: Muséum national d'Historie naturelle, Paris [type not located]

Range: central Spain (de Freina & Witt 1990: fig. map 47)

Illustration: Oberthür (1883: pl. 1, fig. 15), Pfitzner (1912: pl. 54f), Agenjo (1942: pl. III, figs. 18-19), de Freina & Witt (1990: pl. 9, fig. 33), Leraut (2006: pl. 54, fig. 4), Kallies & Farino (2018: fig. 22)

Morphology: Agenjo (1942), Leraut (2006)

Biology: unpublished

Habitat: heathland (de Freina & Witt 1990)

Hosts: unpublished

2. *Korscheltellus fusconebulosa* (De Geer, 1778: 598) (*Phalaena*)

TL: Sweden: Leufsta [Lövestabruk], Uppsala County

TC: Naturhistoriska Riksmuseet, Stockholm (possibly)

syn. *mappa* (Donovan, 1801: 95) (*Phalaena*); junior synonym

TL: United Kingdom; **TC:** unknown

emd. *nebulosator* (Haworth 1802: 4) (*Hepialus*); emendation (Nielsen *et al.* 2000: 846) unjustified emendation [Art. 32.5.1]. Haworth (1802: iii) stated "The Aurelian Society, presuming it will be a manifest improvement in the science of Entomology, has resolved, that the...*Hepiali* [shall end] in *ator*;" This is an unjustified emendation because it does not involve the correction of an inadvertent error [Art. 32.5.1]

syn. *velleda* (Hübner, [1808]: 153) (*Bombyx*); junior synonym

TL: Austria: Tyrol; **TC:** unknown

emd. *nebulosus* (Haworth, 1811: 143) (*Hepialus*); emendation (Nielsen *et al.* 2000: 846), unjustified emendation [Art. 32.5.1]. Explanation as for *nebulosator*

syn. var. *gallicus* (Lederer, 1852: 106) (*Hepialus*); subspecies

TL: France; **TC:** unknown

syn. *askoldensis* (Staudinger, 1887: 193) (*Hepialus*); junior synonym

- TL:** Russia: Askold; **TC:** unknown
syn. var. *minor* (Staudinger, 1887: 194) (*Hepialus*); subspecies
- TL:** Russia: Askold; **TC:** unknown
msp. *gallica* (Pfitzner 1912: pl. 54d)
syn. *hyperboreus* (Valle, 1931: 286) (*Hepialus*); preoccupied
- TL:** Finland: Petsamo district, Fisher Folk's Peninsula [now in Russia]; **TC:** unknown
syn. *vallei* (Grönblom 1936: 43) (*Hepialus*); replacement name
syn. *okninskyi* (Ermolajev, 1937: 219) (*Hepialus*); junior synonym
- TL:** Russia: Krassnojarsk; **TC:** unknown
inf. ab. *latefasciatus* (Bytinski-Salz, 1939: 83) (*Hepialus*); United Kingdom, Scotland, Pitcape
inf. ab. *ornatus* (Bytinski-Salz, 1939: 83) (*Hepialus*); Ireland
syn. f. *centralis* Viette, 1959: 99 [33rd note] (*Korscheltellus*); subspecies
- TL:** France: Corrèze, Merlines; **TC:** Muséum national d'Historie naturelle, Paris
syn. f. *pyreneensis* Viette, 1959 [33rd note]: 99 (*Korscheltellus*); subspecies
- TL:** France: Hautes-Pyrénées, Gedre; **TC:** Muséum national d'Historie naturelle, Paris
syn. f. *shetlandicus* Viette, 1959 [33rd note]: 97 (*Korscheltellus*); subspecies
- TL:** Scotland: Shetland Islands; **TC:** Muséum national d'Historie naturelle, Paris
syn. f. *vosgesiacus* Viette, 1959 [33rd note]: 100 (*Korscheltellus*); subspecies
- TL:** France: Haut-Rhin, Rainkopf, Voseges Ridge; **TC:** Muséum national d'Historie naturelle, Paris
- Range:** Eurasia (Leleja 2016, Grehan & Knyazev 2019: fig. map 4)
- Illustration:** De Geer (1778: pl. 4, fig. 16), Goeze (1783: pl. 44, fig. 16), Carangeot (1786: pl. CXCII, figs. 250b-c), Donovan (1801: pl. 360, fig. 2), Hübner ([1808]: pl. 50, fig. 212, pl. 54, figs. 233-234 [as *Bombyx velleda*]), Boisduval (1834: pl. 69, figs. 5-6 [as *Hepialus velleda*]), Godart & Duponchel (1836: pl. 14, fig. 2), Wood (1839, 1854: pl. 5, fig. 3), Freyer (1842: pl. 302, figs. 1-2), Humphries & Westwood (1843: pl. VIII, figs. 10-11 [as *Hepialus velleda*]), Berge (1851: pl. 46, fig. 29 [as *H. velleda*]), Stainton (1867: pl. 4, fig. 1 [as *H. velleda*]), Newman (1869: fig. 36 [as *H. velleda*]), Morris (1871: pl. VIII, fig. 2 [as *H. velleda*]), Weir (1880: pl. 4, figs. 16-17 [as *H. velleda*]), Staudinger (1887: pl. XI, fig. 5 [as *H. askoldensis*]), E. Hofmann (1894: pl. 23, fig. 6 [as *H. velleda*]), Barrett (1895: pl. LXII, fig. 3 [as *H. velleda*]), Kirby (1903: pl. XXV, fig. 15), Lampert (1907: pl. 87, fig. 6), South (1908: pl. 158, figs. 1-3), Rebel (1910: pl. 52, fig. 18), Spuler (1910: pl. 80, fig. 6), Pfitzner (1912: pl. 54d [as *H. gallica*]), Stewart (1913: pl. 1, fig. 22 [as *H. velleda*]), Ealand (1921: pl. XL, fig. 22 [as *H. velleda*]), Valle (1931: 287, figs. 1-12), Bytinski-Salz (1939: pl. VII, figs. 5-7, 16), Agenjo (1942: pl. III, figs. 12-14), Bergmann (1953: pl. 110, figs. D1-D5), Koch (1955: pl. 14, fig. 212), Esaki *et al.* (1957: fig. 12), Gullander (1964: 88, fig. 2), Chinery (1973: pl. 19, fig. 1; 1986: 133), Heath (1976: pl. 10, figs. 38-41), Watson *et al.* (1975: fig. 10), García *et al.* (1983: fig. 5: 5-6), Skinner (1985: pl. 1, figs. 23-25), Sutton & Beaumont (1989: 85), de Freina & Witt (1990: pl. 8, figs. 20-37), Speidel (1994: 129), Bertaccini *et al.* (1997: pl. 14, figs. 20-28), Buser *et al.* (2000: 78, fig. 1, 79, fig. 2, 80, figs. 4-5), Waring & Townsend (2003: 46, 2017: pl. 1), Zhu *et al.* (2004, pl. 3, figs. 17-18 [error]), Gianti & Delmastro (2006: fig. 3), Leraut (2006: pl. 53, figs. 14-16, pl. 54, figs. 1-4), Székely (2010: pl. 1, figs. 3-4), Dubatolov & Knyazev (2011: pl. VII, fig. 9), Grehan (2012a: fig. 2), Hirowatari *et al.* (2013: pl. 3-02-12-15), Anufriev *et al.* (2014: 273), Silvonen *et al.* (2014: fig. 61, pl. K1, fig. 5), Kallies & Farino (2018: figs. 19-21, 38), Grehan & Knyazev (2019: fig. 4), Randle *et al.* (2019: fig. 18)

Morphology: Carangeot (1786 [larva – but unverified]), Freyer (1842 [as *Hepialus velledda*]), Wilson & Wilson (1880 [as *H. velledda*]), Buckler (1887), Barrett (1895), Quail (1903 [as *H. velledda*]), Schultz (1914), Pierce & Beirne (1941), Stokoe & Stovin (1948), Viette (1948a), Daniel (1950), Gerasimov (1952), Toll (1959), Aitkenhead & Baker (1964), D’Aguilar (1966), Sukhareva (1978), Ueda (1978), Zilli (1988), Buser *et al.* (2000), Zhu *et al.* (2004, fig. 103 [error]), Leraut (2006), Dubatolov & Knyazev (2011), Grehan (2012a)

Biology: Stephens (1828), Boisduval (1840 [as *H. velledda*]), Freyer (1842 [as *Hepialus velledda*]), Nickerl (1850 [as *H. velledda*]), Hill (1859 [as *H. velledda*]), Wilde (1860 [as *H. velledda*]), Newman (1869 [as *H. velledda*]), Wallengren (1869 [as *H. velledda*]), Morris (1871 [as *H. velledda*]), Merrin (1875 [as *H. velledda*]), Wilson & Wilson (1880 [as *H. velledda*]), Hoffmann (1885 [as *H. velledda*]), Buckler (1887), Stainton (1887 [as *H. velledda*]), Hoffmann (1888 [as *H. velledda*]), Roberts (1886 [as *H. velledda*]), Robson (1888, 1892a), Aurivillius (1888-1891), Seymour St. John (1890), E. Hofmann (1894 [as *H. velledda*]), Barrett (1895), Meyrick (1895 [as *H. velledda*]), Favre & Wulschlegel (1899 [as *H. velledda*]), Schneider (1901), Robertson (1902 [as *H. velledda*]), Robertson (1902 [as *H. velledda*]), Kirby (1903), Lampert (1907), South (1908), Pfitzner (1913), Scorer (1913), Stewart (1913), Blaschke (1914), Ealand (1921), Eckstein (1923), Gaede (1929), Meikle (1937 [as *H. velledda*]), Agenjo (1942), Stokoe & Stovin (1948), Viette (1948a), Gerasimov (1952), Owen (1952), Bergmann (1953), Harper (1959), D’Aguilar (1966), Habeler (1967), Chalmers-Hunt (1970), Vernon (1972), Heath (1976), Huddleston (1980), Duddington & Johnson (1983), García *et al.* (1983), Ganev (1984), Skinner (1985), Sutton & Beaumont (1989), de Freina & Witt (1990), Aistleitner (1991), Emmet (1991), Riley (1991), Speidel (1994), Bertaccini *et al.* (1997), Porter (1997), Buser *et al.* (2000), Waring & Townsend (2003, 2017), Leraut (2006), Székely (2010), Weir (2011), Hirowatari *et al.* (2013), Anufriev *et al.* (2014), Gösswein (2014, 2018), J. Turner (2014), Silvonon *et al.* (2014), Dubatolov *et al.* (2014), Kozlov *et al.* (2022 [suppl. data])

Habitat: moist forest meadows, up to 2,400 m (Speidel 1994, Leraut 2006)

Hosts: **Cyperaceae** (*Scirpus* sp.), **Dennstaedtiaceae** (*Pteridium aquilinum*), **Juncaceae**

3. *Korscheltellus gracilis* (Grote, [1865: 522]) (*Hepialus*)

TL: Canada: Quebec

TC: Academy of Natural Sciences Philadelphia

syn. *mustelinus* (Packard, 1865: 393) (*Hepialus*); junior synonym

TL: USA: Maine, Brunswick; **TC:** [originally Sanborn collection]

syn. *labradoriensis* (Packard, 1865: 394) (*Hepialus*); junior synonym

TL: Canada: Labrador, Salmon Bay, Caribon Islands, Straits of Belle Isle; **TC:** [originally Packard collection]

syn. *furcatus* (Grote, 1883: 30) (*Hepialus*); junior synonym

TL: USA: New York, Adirondaks; **TC:** unknown

Range: boreal Canada, eastern United States (Wagner 1988: fig. map 14)

Illustration: Grote (1865: pl. 5, fig. 4), Knobel (1895: fig. 97 [as *Hepialus mustelinus*]), Holland (1903: pl. 41, fig. 15 [as *Hepialus hyperboreus*]), Pfitzner (1937: pl. 99a [as *Hepialus mustelina*]), Prentice (1965: pl. 41, fig. 15 [as *H. lemberti*]), fig. 16 [as *H. lemberti*]), Wagner (1988: figs. 1-2), Wagner *et al.* (1991: fig. 4), Grehan (1998: fig. 2a, 2012a: fig. 2), Handfield (1999: fig. 0031, 1-3), Glime (2017: fig. 63)

Morphology: Comstock (1888), Comstock & Comstock (1895a), Packard (1895a, c-d [as *H. mustelinus*]), Kellogg (1906), Fracker (1915 [as *H. mustelinus*]), Wagner *et al.* (1987, 1989, 1991), Wagner (1988), Grehan (2012a)

Biology: de la Torre-Bueno (1920), Forbes (1923), Wagner *et al.* (1987, 1991), Egerter (1989), Tobi *et al.* (1989, 1992a, b), Wagner (1989), Leonard *et al.* (1991), Wagner & Rosovsky (1991), Wallner *et al.* (1991), Grehan *et al.* (1992), Leonard & Parker (1992, 1993, 1994), Arnett (1993), Kuenen *et al.* (1994), Handfield (1999), Robinson *et al.* (2002), Glime (2017)

Habitat: boreal and conifer dominated forests (Wagner 1988)

Hosts: Moss – **Bryophyta**. Plants – **Betulaceae** (*Betula alleghaniensis*, *B. papyrifera*), **Pinaceae** (*Abies balsamea*, *Picea glauca*, *P. rubens*), **Rosaceae** (*Sorbus americana*), **Sapindaceae** (*Acer saccharum*)

4. *Korscheltellus lupulina* (Linnaeus, 1758: 508) (*Phalaena Noctua*)

TL: unpublished

TC: Linnean Society. London

syn. *serraticornis* (Gmelin, [1790]: 2617) (*Hepialus*); junior synonym

TL: Europe; **TC:** unknown

syn. *obliquus* (Fabricius, 1794: 6) (*Hepialus*); junior synonym

TL: France; **TC:** unknown

syn. *cora* (Schrank, 1801: 304) (*Hepialus*); junior synonym

TL: Germany; **TC:** unknown

emd. *obliquator* (Haworth 1802: 4) (*Hepialus*); emendation (Nielsen *et al.* 2000: 845), unjustified emendation [Art. 32.5.1]. Haworth (1802: iii) stated "The Aurelian Society, presuming it will be a manifest improvement in the science of Entomology, has resolved, that the...*Hepiali* [shall end] in *ator*;" This is an unjustified emendation because it does not involve the correction of an inadvertent error [Art. 32.5.1]

emd. *lupulator* (Haworth 1802: 19) (*Hepialus*); emendation (Nielsen *et al.* 2000: 845), unjustified emendation [Art. 32.5.1]. Explanation as for *obliquator*.

syn. *flina* (Hübner, [1808]: 153) (*Bombyx*); junior synonym

TL: Germany; **TC:** unknown

syn. *fuscus* (Haworth, 1811: 141) (*Hepialus*); junior synonym

TL: United Kingdom; **TC:** unknown

syn. *incerta* (Millière, 1886: 53) (*Psilothrix*); junior synonym

TL: Italy, Lombardy, Como; **TC:** unknown

syn. var. (et ab.). *dacicus* (Caradja, 1893: 44) (*Hepialus*); subspecies (also see Daniel 1939)

TL: Northern Romania, Groumazesti, near village of Tirgu Neamt; **TC:** "Grigore Antipa", National Museum of Natural History, Bucharest

msp. *dacica* (Spuler 1910: 485) (*Hepialus*) [of *dacicus*]

inf. ab. *intermedia* (Spuler, 1910: 486) (*Hepialus*); Europe; depository unknown

inf. ab. *unicolor* (Spuler, 1910: 486) (*Hepialus*); Europe; depository unknown

inf. ab. *senex* (Pfitzner, 1912: 436) (*Hepialus*); United Kingdom, depository unknown

inf. ab. *latemarginatus* (Bytinski-Salz, 1939: 84) (*Hepialus*); United Kingdom, London District and Wicken, depository unknown

inf. ab. *albomarginata* (Cockayne, 1955: 5) (*Hepialus*); United Kingdom, Essex, Feering, Natural History Museum, London

inf. ab. *nigrescens* (Cockayne, 1955: 5) (*Hepialus*); United Kingdom, North Kent, Natural History Museum, London (Rothschild Collection)

inf. f. *fuscata* (van de Pol, 1961: 36) (*Hepialus*); Netherlands, Slijk Ewijk

inf. f. *obscura* (van de Pol, 1961: 36) (*Hepialus*); Netherlands, Slijk Ewijk

inf. f. *continuata* (van de Pol, 1961: 36) (*Hepialus*); Netherlands, Slijk Ewijk

inf. f. *reducta* (van de Pol, 1961: 36) (*Hepialus*); Netherlands, Slijk Ewijk

inf. f. *pauper* (van de Pol, 1961: 36) (*Hepialus*); Netherlands, Slijk Ewijk

inf. f. *maculata* (van de Pol, 1961: 36) (*Hepialus*); Netherlands, Slijk Ewijk

inf. f. *variegata* (van de Pol, 1961: 37) (*Hepialus*); Netherlands, Slijk Ewijk

inf. f. *pallida* Lempke, 1961: 183 (*Korscheltellus*); Netherlands: Amsterdam

inf. f. *anteradiata* Lempke, 1961: 183 (*Korscheltellus*); Netherlands: Amsterdam

syn. *espanoli* Pérez de Gregorio, 1981a: 56 (*Korscheltellus*); subspecies

TL: northern Spain; **TC:** Museu de Ciències Naturals de Barcelona

Range: western Eurasia (Grehan & Knyazev 2019: fig. map 4), Canada adventive (Grehan & Landry 2018: fig. map 2)

Illustration: Carangeot (1786: pl. CXCI, figs. 252a-d), Esper (1786: pl. LXXXI Noct 2, figs. 1-4), Hübner (1786-90: pl. IV, fig. T; [1808]: pl. 48, figs. 205-206 [*as Bombyx flina*]), pl. 49, figs. 210-211 [*as Bombyx flina*]), Godart (1822: pl. 1, figs. 5-6), Tigney & Guérin (1828: pl. 25, fig. 5), Guérin-Ménéville (1829b: pl. 85, fig. 1 [has appearance of *Triodia sylvina*]), Roret (1830: pl. 25, fig. 5), Meigen (1832: pl. LXXXIX, fig. 5), Freyer (1836: pl. 122), Cuvier *et al.* (1837: pl. 95, fig. 1]), Wood (1839, 1854: pl. 5, fig. 4), Westwood (1840: fig. 104-11), Humphries & Westwood (1843: pl. VIII, figs. 3-5), Berge (1851: pl. LXVI, fig. 28; 1863: pl. 16, fig. 2), DuBois (1863: 3rd plate [unnumbered]), Newman (1869: fig. 34), Morris (1871: pl. VII, fig. 5), Depuiset (1867, 1877: pl. 29, fig. 2), Kirby (1882: pl. 26, fig. 5; 1903: pl. XXV, fig. 16), Furneaux (1894: fig. 117), E. Hofmann (1894: pl. 23, fig. 8), Barrett (1895: pl. LXII, fig. 2), Gordon (1896: pl. 11, fig. 156), Theobald (1899: fig. 81, 1909: fig. 288), Lampert (1907: pl. 87, fig. 7), South (1908: pl. 158, figs. 4-6), Rebel (1910: pl. 52, fig. 20), Spuler (1910: pl. 80, fig. 8), Pfitzner (1912: pl. 54g [*as Hepialus flina*]), Sarsfield (1919: pl. 16), Fryer (1920: fig. 97), Eckstein (1923: pl. 59, figs. 10c-d), Bytinski-Salz (1939: pl. VII, figs. 8-9), Daniel (1939: pl. 11, figs. 19-20 [*as Hepialus dacica*]), Agenjo (1942: pl. III, figs. 15-17), Bergmann (1953: pl. 110, figs. C4-C5), Ford (1955: pl. VII, fig. 4), Koch (1955: pl. 14, fig. 215), Edwards & Dennis (1960, fig. 5), van de Pol (1961: figs. 1-8), Gullander (1964: 88, fig. 5), Jones & Jones (1964: fig. 52A), D'Aguilar (1966: fig. 5), Chinery (1973: pl. 19, fig. 3; 1986: 133), Heath (1976: pl. 10, figs. 31-37), Herbulot (1978: pl. XI, fig. 308, pl. XII, fig. 308), Carter (1982: 178-179), García *et al.* (1983: fig. 5: 9-10), Skinner (1985: pl. 1, figs. 16-19), Tweedie (1988: fig. 1), Ylla & Masó (1990: figs. 1-2), de Freina & Witt (1990: pl. 8, figs. 20-37), Speidel (1994: 125, 126), Bertaccini *et al.* (1997: pl. 14, figs. 10-15); Handfield (1999: fig. 0030), Buser *et al.* (2000: 74; 76, figs. 2, 4; 77, fig. 6), Waring & Townsend (2003: 46, 2017: pl. 1), Leraut (2006: pl. 55, figs. 11-17), Székely (2010: pl. 1, fig. 11), Alford (2012: fig. 472), Grehan (2012a: fig. 2), Boys & Agriculture and Horticulture Development Board (2014: 134), Silvonen *et al.* (2014: fig. 60, pl. K1, fig. 4), Grehan & Landry (2018: figs. 1, 3), Kallies & Farino (2018: figs. 23-24, 36-37), Randle *et al.* (2019: fig. 17)

Morphology: Westwood (1840), Wilson & Wilson (1880), Adamson (1883), Hellins (1887), E. Hofmann (1893), Barrett (1895), Theobald (1899), Harmer & Shipley (1901), Quail (1903), Sharp (1909), Schultz (1914), Schierbeek (1917a-b), Eyer (1921, 1925, 1926), Eckstein (1923), Pierce & Beirne (1941), Agenjo (1942), Imms (1947), Stokoe & Stovin (1948), Viette (1948a),

Bourgogne (1949), Toll (1959), Edwards & Dennis (1960), Sharplin (1963a-b), Aitkenhead & Baker (1964), D'Aguilar (1966), Le Garff (1978), Sukhareva (1978), Ueda (1978), Chauvin & Barbier (1979), Buczacki & Harris (1981), Carter (1984), Hamon & Chauvin (1992), Speidel (1994), Buser *et al.* (2000), Leraut (2006), Grehan (2012a), Randle *et al.* (2019: 22)

Biology: Schrank (1801), Ochsenheimer (1810), Samouelle (1819 [as *Hepialus angulum, fusca, nebulosus*]), Godart (1822), Tigney & Guérin (1828), Meigen (1832), Treitschke (1834), Freyer (1836), Boisduval (1840), Nicklerl (1850), Guillemot (1854), Oxford University Entomological Society (1858), Wilde (1860), DuBois (1863), Millièrre (1864), Depuiset (1867), Berce (1868), Newman (1869), Wallengren (1869), Morris (1871), Kaltenbach (1874), Merrin (1875), Chenu & Demarest (1876), Spicer (1877), Wilson & Wilson (1880), Weismann (1882), Roberts (1886), Hellins (1887), Robson (1887b, 1891, 1892a-b), Aurivillius (1888-1891), Seymour St. John (1890), Elliman (1891), Robson (1891, 1892b, 1902), Fenn (1892), Tutt (1892), Delacroix (1893), E. Hofmann (1893, 1894), Kappel & Kirby (1893), Furneaux (1894), Barrett (1895), Meyrick (1895), Favre & Wullschlegel (1899), Theobald (1899, 1906, 1909), Bouskell (1901), Pabst (1901), Robbins (1902), Raynor (1902), Kirby (1903), Moutier (1903), Reinecke (1905), Boas (1906), Collinge (1907, 1911), Lampert (1907), Cooper & Westell. (1909), Sharp (1909), South (1908), Rebel (1910), Lydekker *et al.* (1911), Cockayne (1912), Goossens (1912), Pfitzner (1913), Scorer (1913), Weathers (1913), Blaschke (1914), MacDougall (1914), Vorbrodtt & Müller-Rutz (1914), Golledge (1915), Curtis (1917), Marchal & Foex (1918), Morley (1918a-b), Sarsfield (1919), Fryer (1920), Gouin (1922), Eckstein (1923), Waterston & Stenton (1926), Gaede (1929), Escherich (1931), Williams (1935, 1939), Fox-Wilson (1941, 1951, 1969), Fletcher (1943), Silvestri (1943), Sankey (1948), Wigglesworth (1945), Stokoe & Stovin (1948), Viette (1948a), Cameron (1950), Smith (1951), Gerasimov (1952), Owen (1952), Bergmann (1953), Ford (1955), D'Aguilar & Cherblanc (1959), Edwards & Dennis (1960), Jones & Jones (1964), D'Aguilar (1966), Habeler (1967, 1996), Lauritzen (1971), Heath (1976), Burton (1977), Buczacki & Harris (1981), García *et al.* (1983), Samson & Brady (1983), Carter (1984), Skinner (1985), Carter & Hargreaves (1986), Sutton & Beaumont (1989), Aistleitner (1991), Bertaccini *et al.* (1997), Buser *et al.* (2000), Majerus (2002), Waring & Townsend (2003, 2017), Leraut (2006), Hill (2010), Székely (2010), Alford (2012), Silvonen *et al.* (2014), Merckz & Macdonald (2015), Grehan & Landry (2018)

Habitat: meadows, gardens, fens (Speidel 1994, Waring & Townsend 2017)

Hosts: **Amaryllidaceae** (*Allium savaticum*, *A. schoenoprasum*, *Galanthus* sp., *Narcissus* sp.), **Apiaceae** (*Apium graveolens*, *Daucus* sp., *Ligusticum* sp., *Pastinaca sativa*, *Petroselinum crispum*), **Asteraceae** (*Aster* spp., *Chrysanthemum* sp., *Cynara cardunculus*, *Dahlia* sp., *Lactuca* sp., *Pyrethrum* sp., *Rudbeckia* spp., *Solidago* sp., *Taraxacum* spp.), **Brassicaceae** (*Brassica rapa*), **Cannabaceae** (*Humulus lupulus*), **Caprifoliaceae** (*Scabiosa* sp., *Valeriana officinalis*), **Colchicaceae** (*Colchicum autumnale*), **Cucurbitaceae** (*Bryonia* sp.), **Ericaceae** (*Rhododendron* sp.), **Fabaceae** (*Medicago sativa*, *Phaseolus* sp., *Pisum sativum*, *Vicia* spp.), **Geraniaceae** (*Geranium* sp.), **Grossulariaceae** (*Ribes* sp.), **Iridaceae** (*Crocasmia* sp., *Gladiolus* sp., *Iris* sp.), **Lamiaceae** (*Ballota nigra*, *Lamium album*, *L. purpureum*, *Mentha* sp., *Thymus* sp.), **Liliaceae** (*Convallaria majalis*), **Oleaceae** (*Fraxinus excelsior*, *Syringa* sp.), **Paoneaceae** (*Paeonia* sp.), **Poaceae** (*Avena sativa*, *Elymus* sp., *E. caninum*, *Hordeum repens*, *H. vulgare*), **Plantaginaceae** (*Digitalis* sp., *Plantago lanceolata*, *P. major*), **Polemoniaceae** (*Phlox* spp.), **Polygonaceae** (*Rumex* spp.), **Primulaceae** (*Primula auricula*), **Ranunculaceae** (*Anemone* sp., *Aquilegia* sp., *Clematis* sp., *Delphinium* spp.), **Rosaceae** (*Fragaria* sp., *Rubus*

idaeus, *Pyrus communis*, *P. malus*), **Solanaceae** (*Lycopersicon* sp., *Solanum tuberosum*), **Urticaceae** (*Urtica* spp.)

KOZLOVIELLA Grehan & C. Mielke, 2018d: 3

TS: *Kozloviella viazenskyi* Grehan & C. Mielke, 2018d, by original designation

1. *Kozloviella viazenskyi* Grehan & C. Mielke, 2018d: 4 (*Kozloviella*)

TL: Peru: Piura, Huancabamba, Cerro Machete, 05.0784 S, 079.3362 W

TC: Carnegie Museum of Natural History, Pittsburgh

Range: Northern Peru, known from the type locality only (Grehan & Mielke 2018d: fig. map 27a)

Illustration: Grehan & Mielke (2018d: fig. 1)

Morphology: Grehan & Mielke (2018d)

Biology: unpublished

Habitat: upper elevation forest (Grehan & Mielke 2018d)

Hosts: unpublished

LETO Hübner, [1820]: 197

TS: *Phalaena venus* Cramer, 1780, by monotypy
msp. *Ecto* (Pagenstecher 1909: 448)

1. *Leto venus* (Cramer, 1780: 167) (*Phalaena*)

TL: South Africa: “200 miles above the Cape of Goede Hoop” (known only from the Tsitsikamma Forest (Janse 1845).”

TC: Naturalis Biodiversity Centre, Leiden

Range: southern South Africa (Grehan & Ralston (2018 fig. map 2)

Illustration: Cramer (1780: pl. CCLXXXVI, figs. c-d), D'Orbigny (1849: pl. 15, fig. 1), Chenu & Demarest (1876: pl. 8, fig. 2), Gaede (1930: pl. 80f), Janse (1942: pl. LIX, fig. 4, 1945: 155), Bourgogne (1951: 361), Geertsema (1964: pl. 1), Moucha (1966: 36), Pinhey (1975: pl. 2, fig. 1), Watson *et al.* (1975: pl. 7c), Scoble (1981: figs. 1-3, 1986: fig. 25.11), Booth (2011: cover, fig. 2), Machingambi (2013: 130, fig. 2c), Brunette *et al.* (2014: 2 figs. unnumbered), Grehan *et al.* (2018: fig. 1), Grehan & Ralston (2018: fig. 1), Grehan *et al.* (2019: fig. 1), Eitschberger & Ströhle 2021: figs. 11-12), Mushore (2021: fig. 2.1)

Morphology: Janse (1939, 1940, 1942), Scoble (1986), Grehan *et al.* (2019)

Biology: Crallan (1885), Janse (1939, 1945), Duke & Taylor (1964), Geertsema (1964), Pinhey (1975), Scoble (1981, 1986), Ball (1992), Machingambi (2013), Brunette *et al.* (2014), Grehan *et al.* (2018c), Grehan & Ralston (2018), Mushore (2021)

Habitat: young forests (Machingambi 2013)

Hosts: **Fabaceae** (*Cyclopia subternata*, *Virgilia divaricata*, *V. oroboides*)

LIMYRA C. Mielke, Dell'Erba & Duarte, 2017: 585

TS: *Limyra silvai* C. Mielke, Dell'Erba & Duarte, 2017, by original designation

1. *Limyra silvai* C. Mielke, Dell'Erba & Duarte, 2017: 585, 588 (*Limyra*)

TL: Brazil, São Paulo, Campos do Jordão, Campos do Jordão State Park

TC: Museu de Zoologia, São Paulo

Range: southeastern Brazil (Mielke *et al.* 2017: fig. map 32)

Illustration: Mielke *et al.* (2017: figs. 11-15)

Morphology: Mielke *et al.* (2017)

Biology: unpublished

Habitat: forest 800-1600 m (Mielke *et al.* 2017)

Hosts: unpublished

MAGNIFICUS Yan, 2000: 1

TS: *Magnificus jiuzhiensis* Yan, 2000, by original designation

1. *Magnificus bouvieri* (Oberthür, 1913: 671) (*Hepialus*)

TL: China: Sichuan, Tâ-t sien-lou

TC: Muséum national d'Historie naturelle, Paris

Range: central-northern China (Grehan *et al.* 2021c: fig. 31)

Illustration: Oberthür (1913: pl. 190, fig. 1835), Grehan *et al.* (2021c: fig. map 1)

Morphology: Grehan *et al.* (2021c)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

2. *Magnificus dirschi* (Bang-Haas, 1939: 59) (*Phassus*)

TL: China: Kansu, Liangtschou

TC: Museum für Naturkunde, Berlin

msp. *dirschi* (Bang-Haas 1939: pl. 1, fig. 14) (*Phassus*)

Range: central-northern China (Grehan *et al.* 2021c: fig. 31)

Illustration: Bang-Haas (1939: pl. 1, fig. 14), Grehan *et al.* (2021c: fig. map 2)

Morphology: Bang-Haas (1939), Grehan *et al.* (2021c)

Biology: unpublished

Hosts: unpublished

3. *Magnificus jiuzhiensis* (Yan, 2000: 1, 3) (*Magnificus*)

TL: China: Qinghai, Jiuzhi Dehelong, 3,800-3,900 m

TC: Grassland, Agriculture and Animal Husbandry, Quinghai

Range: central northern China, type locality record (Grehan *et al.* 2021c: fig. map 31)

Illustration: Yan (2000: pl. 1, figs. 10-11)

Morphology: Yan (2000), Grehan *et al.* (2021c)

Biology: Yan (2000)

Habitat: unpublished

Hosts: rhizomes of **Rosaceae** (*Potentilla fruticosa*), **Salicaceae** (*Salix oritrepha*)

4. *Magnificus miniatus* (Chu & Wang, 1985: 299) (*Phassus*)

TL: China: Hubei, Shennongja

TC: Institute of Zoology, Academia Sinica, Beijing

Range: central-northern China (Grehan *et al.* 2021c: fig. 31)

Illustration: Chu & Wang (1985b: pl. 1, fig. 12), Zhu *et al.* (2004: pl. 1, fig. 8), Grehan *et al.* (2021c: figs. 3a-b)

Morphology: Chu & Wang (1985b), Zhu *et al.* (2004), Grehan *et al.* (2021c)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

5. *Magnificus regius* (Staudinger, 1896: 301) (*Hepialus*)

TL: China: Xizang [Tibet], between Lop Noor and Kukunoor

TC: unknown [originally Staudinger collection]

syn *rubellus* (Bang-Haas, 1939: 58) (*Hepialus*); subspecies

TL: China: Kansu [Gansu], Liangtschou [Lanzhou], 2100 m; **TC:** Museum für Naturkunde, Berlin

Range: central-northern China (Grehan *et al.* 2021c: fig. map 31)

Illustration: Staudinger (1896: pl. V, fig. 11), Pfitzner (1912: pl. 54b), Bang-Haas (1939: pl. 1, fig. 13), Tindale (1941: pl. VI, fig. 70), Grehan *et al.* (2021c: figs. 4a-e)

Morphology: Grehan *et al.* (2021c)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

6. *Magnificus roseus* (Oberthür, 1911: 325) (*Hepialus*)

TL: China: Xizang [Tibet], eastern border

TC: Muséum national d'Historie naturelle, Paris

Range: central-western China, type locality record (Grehan *et al.* 2021c: fig. map 31)

Illustration: Oberthür (1911: pl. LXVIII, fig. 652), Chu & Wang (1985b: pl. 1, fig. 12 [as *Phassus miniatus*]), Zhu *et al.* (2004: pl. 1, fig. 8), Grehan *et al.* (2021c: fig. 5a-b)

Morphology: Grehan *et al.* (2021c)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

7. *Magnificus zhiduoensis* (Yan, 2000: 3) (*Magnificus*)

TL: China: Qinghai, Zhiduo Deer Farm, 4,000-4,600 m

TC: Grassland, Agriculture and Animal Husbandry, Quinghai

Range: central northern China, type locality record (Grehan *et al.* 2021c: fig. map 31)

Illustration: Yan (2000: pl. 1, figs. 12-13), Grehan *et al.* (2021c: fig. 6)

Morphology: Yan (2000), Grehan *et al.* (2021c)

Biology: unpublished

Habitat: alpine meadows (Yan 2000)

Hosts: unpublished

METAHEPIALUS Janse, 1942: 39

TS: *Gorgopis plurimaculata* Warren, 1914, by original designation

1. *Metahepialus plurimaculata* (Warren, 1914: 507) (*Gorgopis*)

TL: South Africa: Western Cape, George

TC: Iziko Museum of Capetown

Range: southern South Africa, type locality record (Janse 1942)

Illustration: Warren (1914: pl. 61, fig. 26), Gaede (1930: pl. 80h), Janse (1942: pl. LIX, fig. 10), Staude *et al.* (2023: 19, fig. 3)

Morphology: Janse (1942), Staude *et al.* (2023: 20)

Biology: Staude *et al.* (2023: 20)

Habitat: Staude *et al.* (2023: 20)

Hosts: unpublished

2. *Metahepialus xenoctenis* (Meyrick, 1926: 351) (*Hepialus*)

TL: South Africa: Western Cape, Capetown

TC: Ditsong National Museum of Natural History, Pretoria

Range: southwestern South Africa (Janse 1942)

Illustration: Janse (1942: pl. LIX, fig. 9)

Morphology: Janse (1942)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

MUTIPIALUS C. Mielke, Grehan & Koike, 2021: 567

TS: *Mutipialus dilatus* C. Mielke, Grehan & Koike, 2021, by original designation

1. *Mutipialus dilatus* C. Mielke, Grehan & Koike, 2021: 569 (*Mutipialus*)

TL: Brazil: Paraná, Vossoroca, Tijucas do Sul, 850 m

TC: Collection Father Jesus S. Moure, Curitiba

Range: Southeastern and Southern Brazil (Mielke *et al.* 2021: fig. map 58)

Illustration: Mielke *et al.* (2021: figs. 8-12)

Morphology: Mielke *et al.* (2021)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

2. *Mutipialus monticolus* C. Mielke, Grehan & Koike, 2021: 569 (*Mutipialus*)

TL: Brazil: São Paulo, Campos do Jordão, Lavrinhas, 1898 m

TC: Collection Father Jesus S. Moure, Curitiba

Range: Southern Brazil (Mielke *et al.* 2021: fig. map 58)

Illustration: Mielke *et al.* (2021: figs. 13-15)

Morphology: Mielke *et al.* (2021)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

NAPIALUS Chu & Wang, 1985a: 130

TS: *Napialus hunanensis* Chu & Wang, 1985, by original designation

1. *Napialus chenzhouensis* Chu & Wang in Zhu *et al.*, 2004: 185 (*Napialus*)

TL: China: Hunan, Chenzhou

TC: Institute of Zoology, Academia Sinica, Beijing

Range: central eastern China (Li & Wei 2014: fig. map 13)

Illustration: Zhu *et al.* (2004: pl. 5, fig. 1)

Morphology: Zhu *et al.* (2004)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

2. *Napialus chongqingensis* Wu, 1992: 55 (*Napialus*)

TL: China: Chongqing, Beibei

TC: Laboratory of Insect Systematic and Physiology, Chongqing

Range: south-central China, type locality record (Li & Wei 2014: fig. map 13)

Illustration: Zhu *et al.* (2004: pl. 4, fig. 17)

Morphology: Wu (1992), Zhu *et al.* (2004)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

3. *Napialus hunanensis* Chu & Wang, 1985a: 130 (*Napialus*)

TL: China: Hunan, Changsha

TC: Institute of Zoology, Academia Sinica, Beijing

Range: central eastern China (Li & Wei 2014: fig. map 13)

Illustration: Zhu *et al.* (2004: pl. 4, fig. 16)

Morphology: Chu & Wang (1985a, 1988), Zhu *et al.* (2004), Yi *et al.* (2016b [complete mtDNA])

Biology: Zhu *et al.* (2004)

Habitat: unpublished

Hosts: **Paulowniaceae** (*Paulownia tomentosa*), **Fagaceae** (*Castanea mollissima*, *Castanopsis hystrix*, *C. tibetana*, *Quercus fabri*), **Hamamelidaceae** (*Liquidambar formosana*, *Loropetalum chinense*), **Nyssaceae** (*Nyssa sinensis*), **Styracaceae** (*Alniphyllum fortunei*), **Theaceae** (*Camellia oleifera*, *Schima superba*)

4. *Napialus jiangxiensis* Chu & Wang *in* Zhu *et al.*, 2004: 186 (*Napialus*)

TL: China: Jiangxi, Taihe

TC: Institute of Zoology, Academia Sinica, Beijing

Range: central eastern China (Li & Wei 2014: fig. map 13)

Illustration: Zhu *et al.* (2004: pl. 5, fig. 2)

Morphology: Zhu *et al.* (2004)

Biology: Zhu *et al.* (2004)

Habitat: unpublished

Hosts: **Paulowniaceae** (*Paulownia fortunei*), **Fagaceae** (*Castanea mollissima*, *Castanopsis hystrix*)

5. *Napialus kulingi* (Daniel, 1940: 1023) (*Phassus*)

TL: China: Jiangxi, Kuling (Guling or Lushan)

TC: Museum Witt, Munich

Range: eastern China, known from type locality only (Daniel 1940)

Illustration: Daniel (1940: pl. XXXI, figs. 8-9)

Morphology: unknown

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

6. *Napialus spinosus* Li & Wei, 2014: 389 (*Napialus*)

TL: China: Jiangxi, Shangrao City, Guangfeng County, Tongboshan Town, Tongbo, Hill, Dadongkeng forestry center

TC: Insect Museum, Jiangxi Agricultural University, Nanchang

Range: eastern China, type locality record (Li & Wei 2014: fig. map 13)

Illustration: Li & Wei (2014: fig. 9)

Morphology: Li & Wei (2014)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

NEOHEPIALISCUS Viette, 1948b [3rd note]: 293

TS: *Hepialiscus algeriensis* de Joannis, 1903, by subsequent designation (Viette 1948b [3rd note]: 292)

1. *Neohepialiscus algeriensis* (de Joannis, 1903: 223) (*Hepialiscus*)

TL: Algeria: Philippeville (Skikda)

TC: Muséum national d'Historie naturelle, Paris

inf. *ab. joannisi* (Lucas, 1905: 53) (*Hepialiscus*); Algeria: Philippeville (Skikda); originally Lucas collection

inf. *ab. bicolor* (Pfitzner, 1912: 437) (*Hepialiscus*); Tunisia; depository unknown

syn. *tunetanus* (Oberthür, 1917: 29) (*Hepialus*); junior synonym

TL: Tunisia, Aïn Drahem; **TC:** unknown

Range: northwestern Africa (de Freina & Witt 1990: fig. map 52)

Illustration: Lucas & de Joannis (1907: pl. LXXVI, fig. 8), Oberthür (1909a: pl. 25, fig. 131, 1917: pl. 436, fig. 3771 [as *H. tunetanus*]), Pfitzner (1912: pl. 53h [& as *P. bicolor*, column 7]), de Freina & Witt (1990: pl. 9, figs. 45-51), Leraut (2006: pl. 56, figs. 2-4)

Morphology: Viette (1948b), Grehan (2011 [error])

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

NEOLETO Eitschberger & Stroehle, 2021: 344

TS: *Neoleto stevei* Eitschberger & Ströhle, 2021, by monotypy

1. *Neoleto stevei* Eitschberger & Stroehle, 2021: 345 (*Neoleto*)

TL: South Africa: Western Cape, 55 km N of Knysna, De Vlugt, 300 m

TC: Museum Ströhle, Weiden

Range: Western Cape, 55 km N of Knysna (Eitschberger & Stroehle 2021)

Illustration: Eitschberger & Stroehle (2021: figs. 7-10)

Morphology: Eitschberger & Stroehle (2021)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

ONCOPERA Walker, 1856: 1558

TS: *Oncopera intricata* Walker, 1856, by monotypy
syn. *Oncoptera* Meyrick, 1890: 1118; replacement name
syn. *Paroncopera* Tindale, 1933: 15

TS: *Oncopera mitocera* A. Turner, 1911: 132, by original designation
msp. *Onchophora* (Birket-Smith 1974: 173)
msp. *Onchoptera* (Birket-Smith 1974: 165)

1. *Oncopera alboguttata* Tindale, 1933: 30 (*Oncopera*)

TL: Australia: New South Wales, Killara

TC: South Australian Museum, Adelaide

Range: central and southeastern Australia (Simonsen 2018: fig. map 552)

Illustration: Tindale (1933: figs. 48-55), Common (1990: fig. 18.10), Simonsen (2018: pl. 22f-h)

Morphology: Tindale (1933), Martyn (1960), Common (1966), Simonsen (2018)

Biology: Common (1966), Barton Browne *et al.* (1969), Van Gerwen *et al.* (1972), Milner (1977), Milner & Beaton (1977, 1979), Milner & Lutton (1980), O'Donoghue & Adlard (2000)

Habitat: rainforest, healthlands, *Eucalyptus* woodlands/open forests with wet sclerophyll or tussock grass understory (DCCEEW 2018)

Hosts: **Poaceae**

2. *Oncopera alpina* Tindale, 1933: 27 (*Oncopera*)

TL: Australia: New South Wales, Mt. Kuscusko

TC: Australian Museum, Sydney

inf. f. *nebulosa* (Tindale, 1933: 28) (*Oncopera*); Australia: New South Wales, Mount Kuscusko; South Australian Museum, Adelaide

Range: Eastern Australia, Australian Alps above 800 m (Simonsen 2018: fig. map 550)

Illustration: Tindale (1933: figs. 42-47), Common (1990: pl. 2, fig. 8), Chadwick (1966: 23, fig. 6), Kallies *et al.* (2015: 16, figs. 3-4; C.D. *alpina*: 1-2), Simonsen (2018: pl. 22a-c)

Morphology: Tindale (1933), Martyn (1960), Common (1966), Simonsen (2018: pl. 22a-c)

Biology: Chadwick (1966), Kallies *et al.* (2015), Parida *et al.* (2016)

Habitat: *Eucalyptus* woodlands with tussock grass understory \geq 800 m (Simonsen 2018)

Hosts: **Poaceae** (*Poa* sp.)

3. *Oncopera brachyphylla* A. Turner *in* Eyer & A. Turner, 1925: 273 (*Oncopera*)

TL: Australia: Queensland, Evelyn Scrub

TC: Australian National Insect Collection, Canberra

Range: central northeastern Australia (Cairns region) (Simonsen 2018: fig. map 553)

Illustration: Tindale (1933: figs. 66-69), Common (1990: fig. 18.12), Glime (2017: fig. 68), Simonsen (2018: pl. 23d-f)

Morphology: Eyer & Turner (1925), Common (1966), Elder (1970a-b; 1971), Simonsen (2018)

Biology: Tindale (1933), Elder (1965, 1969, 1970c), Quinlan *et al.* (1975), Edwards (2009)

Habitat: Grasslands, pasture (Quinlan *et al.* 1975)

Hosts: Fungi (mycelia). Plants – **Fabaceae** (*Desmodium intortum*), **Poaceae** (*Panicum maximum*, *Pennisetum clandestinum*, *Setaria anceps*)

4. *Oncopera brunneata* Tindale, 1933: 33 (*Oncopera*)**TL:** Australia: New South Wales, Mt. Wilson**TC:** South Australian Museum, Adelaide**Range:** central-southeastern Australia (Simonsen 2018: fig. map 554)**Illustration:** Tindale (1933: figs. 64-65), Common (1990: fig. 18.11), Simonsen (2018: pl. 231-m)**Morphology:** Tindale (1933), Martyn (1960), Common (1966), Simonsen (2018)**Biology:** Common (1990)**Habitat:** rainforest (Common 1990)**Hosts:** unpublished**5. *Oncopera commoni*** Simonsen, 2018: 108 (*Oncopera*)**TL:** Australia: New South Wales, Rockley**TC:** South Australian Museum, Adelaide**Range:** central-southeastern Australia (Simonsen 2018: fig. map 551)**Illustration:** Simonsen (2018: pl. 22d-e)**Morphology:** Simonsen (2018)**Biology:** unpublished**Habitat:** *Eucalyptus* woodlands with tussock grass understory (DCCEEW 2018)**Hosts:** unpublished**6. *Oncopera epargyra*** A. Turner *in* Eyer & A. Turner, 1925: 273 (*Oncopera*)**TL:** Australia: Queensland, Lamington National Park 3,000 ft**TC:** Australian National Insect Collection, Canberra**Range:** central-eastern Australia (Simonsen 2018: fig. map 551)**Illustration:** Simonsen (2018: pl. 23i)**Morphology:** Eyer & Turner (1925), Philpott (1927a), Common (1966), Simonsen (2018: pl. 23i)**Biology:** unpublished**Habitat:** rainforest (Common 1990)**Hosts:** unpublished**7. *Oncopera fasciculatus*** (Walker, 1869: 68) (*Hepialus*)**TL:** Australia**TC:** Museum Victoria**Range:** southeastern Australia (Simonsen 2018: fig. map 551)**Illustration:** Tindale (1933: figs. 12-15), Swan (1937: figs. 5-6), Pavri & Young (2007: fig. 15.29), Kallies *et al.* (2015: 16, figs. 7-9; 17, fig. 18; *C.D. fasciculatus*: 1-2), Simonsen (2018: pl. 23n-p, 42f)**Morphology:** Common (1966), Tindale (1933), Martyn (1960), Simonsen (2018)**Biology:** Swan (1937), Andrewartha & Birch (1954), Madge (1954, 1956a-c, 1957, 1958), Martyn (1960), Pavri & Young (2007), Kallies *et al.* (2015)**Habitat:** *Eucalyptus* open forests and woodlands with grass or tussock grass understory (DCCEEW 2018)**Hosts:** **Fabaceae** (*Medicago sativa*, *Trifolium* spp.), **Poaceae** (*Dactylis glomerata*)

8. *Oncopera intricata* Walker, 1856: 1559 (*Oncopera*)**TL:** Australia: Tasmania**TC:** Natural History Museum, London**Range:** eastern Tasmania (Simonsen 2018: fig. map 550)**Illustration:** Hill (1929: pl. 1, fig. 4), Pfitzner & Gaede (1933: 75d), Tindale (1933: figs. 3-6), Evans (1941: fig. 1), Martyn (1960, fig. 1), Common (1990: pl. 2, fig. 5), Kallies *et al.* (2015: 16, figs. 10-11; C.D. *intricata*: 1), Simonsen (2018: pl. 22i-j)**Morphology:** Packard (1895), Quail (1903), Eyer & Turner (1925), Tindale (1933), Evans (1941), Martyn (1960), Common (1966), Birket-Smith (1974 [as *Onchoptera* [sic]]), Simonsen (2018)**Biology:** Hill (1929), Nelson (1931), Evans (1941), Martyn (1960), Reinganum *et al.* (1985), O'Donoghue & Adlard (2000)**Habitat:** *Eucalyptus* woodlands/open forests, shrub understory; native/improved pastures (DCCEEW 2018)**Hosts:** Poaceae**9. *Oncopera intricoides*** Tindale, 1933: 25 (*Oncopera*)**TL:** Australia: Victoria, Moe**TC:** South Australian Museum, Adelaide**Range:** southeastern Australia (Simonsen 2018: fig. map 555)**Illustration:** Tindale (1933: figs. 33-36), Kallies *et al.* (2015: 16, figs. 5-6; 17, fig. 19; C.D. *intricoides*: 1-2), Simonsen (2018: pl. 23q-r, 42d-e)**Morphology:** Tindale (1933), Martyn (1960), Simonsen (2018)**Biology:** unpublished**Habitat:** *Eucalyptus* open forests and woodlands with grass or tussock grass understory (DCCEEW 2018)**Hosts:** unpublished**10. *Oncopera mitocera*** A. Turner, 1911: 132 (*Oncopera*)**TL:** Australia: Queensland, Kuranda**TC:** Australian National Insect Collection, Canberrainf. ab. *lineata* (Aurivillius, 1920: 43) (*Oncopera*); Australia: Queensland; Naturhistoriska Riksmuseet, Stockholminf. ab. *suffusa* (Aurivillius, 1920: 43) (*Oncopera*); Australia: Queensland; Naturhistoriska Riksmuseet, Stockholminf. ab. *vittata* (Aurivillius, 1920: 43) (*Oncopera*); Australia: Queensland; Naturhistoriska Riksmuseet, Stockholm**Range:** northeastern Australia (Simonsen, 2018: fig. map 552)**Illustration:** Tindale (1933: figs. 83-86), Common (1990: fig. 18.13), Simonsen (2018: pl. 23a-c)**Morphology:** Eyer & A. Turner (1925), Philpott (1927a), Tindale (1933), Swan (1937), Martyn (1960), Common (1966), Elder (1970a-c, 1971), Simonsen (2018: pl. 23a-c)**Biology:** Dodd (1921), Atherton (1931), Elder (1965, 1969, 1970c, 1971), Quinlan *et al.* (1975), Sallam *et al.* (2011 [as probably *O. mitocera*])**Habitat:** Rainforest, improved pastures (Common 1966)

Hosts: Fungi (mycelia). Plants – **Poaceae** (*Chloris gayana*, *Panicum maximum*, *Paspalum* sp., *Pennisetum clandestinum*, *Saccharum* sp.)

11. *Oncopera parva* Tindale, 1933: 36 (*Oncopera*)

TL: Australia: Queensland, Cairns District

TC: South Australian Museum, Adelaide

syn. *argentata* (Tindale, 1933: 38) (*Oncopera*); junior synonym

TL: Australia: Queensland, Cairns district; **TC:** South Australian Museum, Adelaide

Range: northeastern Australia (Simonsen 2018: fig. map 554)

Illustration: Tindale (1933: figs. 79-82 [82 as *O. argentata*], Elder (1978: figs. 13-21), Simonsen (2018: pl. 23g-h)

Morphology: Tindale (1933), Elder (1978), Simonsen (2018)

Biology: Elder (1978), Tindale (1933), Simonsen (2018)

Habitat: rainforest (Common 1990)

Hosts: unpublished

12. *Oncopera rufobrunnea* Tindale, 1933: 23 (*Oncopera*)

TL: Australia: Victoria, Moe

TC: South Australian Museum, Adelaide

Range: south-eastern Australia, Tasmania (Simonsen 2018: fig. map 553)

Illustration: Tindale (1933: figs. 20-27), Kallies *et al.* (2015: 13, fig. 11; 16, figs. 1-2; C.D. *rufobrunnea*: 1-2), Simonsen (2018: pl. 22k-m), McQuillan *et al.* (2019: 39, fig. 4)

Morphology: Tindale (1933), Martyn (1960), Common (1966, 1990), Barton Browne *et al.* (1969), Ford & Nickson (2004, 2005), Kallies *et al.* (2015), Simonsen (2018: pl. 22k-m)

Biology: Evans (1941), Martyn (1960), O'Donoghue & Adlard (2000)

Habitat: *Eucalyptus* woodlands/open forests with shrub/tussock grass understory; heathlands (DCCEEW 2018)

Hosts: **Poaceae**, **Rosaceae** (*Fragaria* sp.)

13. *Oncopera tindalei* Common, 1966: 18 (*Oncopera*)

TL: Australia: New South Wales, Guyra

TC: Australian National Insect Collection, Canberra

Range: central eastern Australia (Simonsen 2018: fig. map 555)

Illustration: Common (1966: pl. 1), Simonsen (2018: pl. 23j-k)

Morphology: Common (1966), Simonsen (2018)

Biology: Barton Brown *et al.* (1969), O'Donoghue & Adlard (2000)

Habitat: *Eucalyptus* woodlands with wet sclerophyll, grassy, or tussock grass understory (DCCEEW 2018)

Hosts: **Poaceae**

OXYCANUS Walker, 1856: 1573

TS: *Oxycanus australis* Walker, 1856, by subsequent designation (Kirby 1892: 892)

syn. *Porina* Walker, 1856 1573; preoccupied

msp. *Gorina* (Quail 1899b: 340)

syn. *Paraoxycanus* Viette, 1950h: 67 [22nd note]

TS: *Paraoxycanus novaeguineensis* Viette, 1950h: 68, by original designation

General: Kallies *et al.* (2015: C.D. Vegetable Caterpillar [*Cordyceps gunnii*])

1. *Oxycanus aedesima* (A. Turner, 1929: 307) (*Porina*)

TL: Australia: Queensland, Eungella, 2,500 ft, behind Mackay

TC: Australian National Insect Collection, Canberra

Range: northeastern Australia (Tindale 1935)

Illustration: Tindale (1935: figs. 128-129)

Morphology: unpublished

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

2. *Oxycanus aegrus* (Viette, 1956b [32nd note]: 51) (*Paraoxycanus*)

TL: Indonesia: Papua, Iebele Camp, 2,250 m

TC: Naturalis Biodiversity Centre, Leiden

Range: Indonesian Papua (Viette 1956b [32nd note])

Illustration: unpublished

Morphology: Viette (1956b [32nd note])

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

3. *Oxycanus albostrigata* (Rothschild, 1913: 278) (*Phassodes*)

TL: Indonesia: Bolauberg, Huon Gulf, 3,600 m

TC: Natural History Museum, London

Range: Indonesian Papua (Tindale 1955)

Illustration: Tindale (1955: pl. XXIX, fig. 3, pl. XXX, figs. 7-8)

Morphology: Tindale (1955)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

4. *Oxycanus altenai* (Viette, 1956b [32nd note]: 56) (*Paraoxycanus*)

TL: Indonesia: Araucaria Camp, 800 m

TC: Naturalis Biodiversity Centre, Leiden

Range: Indonesian Papua, type locality record (Viette 1956b [32nd note])

Illustration: unpublished

Morphology: Viette (1956b [32nd note])

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

5. *Oxycanus antipoda* (Herrich-Schäffer, [1853c]: pl. [10], fig. 44) (*Epiolus [sic]*)

TL: New Zealand [error]

TC: unpublished

syn. *sordidus* (Herrich-Schäffer, [1853c]: pl. [10], fig. 49) (*Epiolus [sic]*); junior synonym

TL: unknown; **TC:** unknown

syn. *fuscomaculatus* Walker, 1856: 1574 (*Oxycanus*); junior synonym

TL: Australia: Tasmania; **TC:** Natural History Museum, London
syn. *pardalinus* Walker, 1865: 598 (*Oxycanus*); junior synonym

TL: Australia: South Australia; **TC:** Natural History Museum, London

Range: Tasmania (Tindale 1935, E. Beaver & M. Moore pers. comm.)

Illustration: Herrich-Schäffer ([1853c]: [pl. 10], fig. 44, [pl. 11], fig. 49 [as *O. sordidus*]), Pfitzner & Gaede (1933: pl. 76e [as *Porina fuscomaculata*]), Tindale (1935: figs. 62-65 [as *O. fuscomaculatus*], figs. 91-101 [as *O. sordidus*]; 1955: pl. XXXII, fig. 8 [as *O. sordidus*]), Martyn (1950: fig. 1 [as *O. fuscomaculatus*]), Common (1990: fig. 18.5), McQuillan *et al.* (2007: fig. 12), Kallies *et al.* (2015: 13, figs. 10, 32, figs. 1-4, 33, figs. 12-14; C.D. *antipoda*: 1-5)

Morphology: Quail (1900a [as *Porina fuscomaculata*]), Tindale (1935), Martyn (1960), McQuillan *et al.* (2007), Kallies *et al.* (2015)

Biology: Tindale (1935, 1955), Martyn (1950), Hardy (1974 [as *O. fuscomaculatus*]), Common (1990), McQuillan *et al.* (2007), Pavri & Young (2007)

Habitat: *Eucalyptus* forest/woodlands, grasslands, agricultural/urban (Tindale 1935, Hardy 1974)

Hosts: **Fabaceae** (*Trifolium* spp.), **Poaceae** (*Dactylis glomerata*, *Lolium perenne*), **Solanaceae** (*Solanum tuberosum*)

6. *Oxycanus armatus* Tindale, 1955: 341 (*Oxycanus*)

TL: Australia: Western Australia

TC: Natural History Museum, London

Range: Western Australia

Illustration: Tindale (1955: pl. XXXII, fig. 7)

Morphology: Tindale (1955)

Biology: unpublished

Habitat: Tall, wet *Eucalyptus* forest in higher rainfall regions (DCCEEW 2018)

Hosts: unpublished

7. *Oxycanus atrox* Tindale, 1955: 328 (*Oxycanus*)

TL: Papua New Guinea: Buntibasa district, Kratke Mts., 4,000-5,000ft

TC: Natural History Museum, London

Range: eastern Highlands, type locality record (Tindale 1955)

Illustration: Tindale (1955: XXX, figs. 5-6)

Morphology: Tindale (1955)

Biology: unpublished

Habitat: highland rainforest, possibly cloud forest or subalpine grassland (DCCEEW 2018)

Hosts: unpublished

8. *Oxycanus aurifex* Tindale, 1935: 302 (*Oxycanus*)

TL: Australia: New South Wales, Dorrigo

TC: South Australian Museum, Adelaide

Range: central eastern Australia

Illustration: Tindale (1935: fig. 78)

Morphology: Tindale (1935)

Biology: unpublished

Habitat: rainforest (DCCEEW 2018)

Hosts: unpublished

9. *Oxycanus australis* Walker, 1856: 1574 (*Oxycanus*)

TL: Australia [Van Dieman's Land]

TC: Natural History Museum, London

Range: central southern and southeastern Australia, Tasmania

Illustration: Tindale (1935: figs. 54-55), Kallies *et al.* (2015: 12, fig. 8; C.D. *australis* pp. 1-5)

Morphology: Tindale (1935), Viette (1950h [22nd note]), Kallies *et al.* (2015)

Biology: Kallies *et al.* (2015)

Habitat: *Eucalyptus* forests/woodland; temperate tussock grassland (DCCEEW 2018)

Hosts: Fabaceae (*Acacia* spp.)

10. *Oxycanus balgooyi* Tindale, 1968: 303 (*Oxycanus*)

TL: Papua New Guinea, Eastern Highlands, Mt. Wilhelm Research Station

TC: Naturalis Biodiversity Centre, Leiden

Range: Central Papua New Guinea, type locality record (Tindale 1955)

Illustration: Tindale (1968: pl. 1)

Morphology: Tindale (1968)

Biology: unpublished

Habitat: rainforest, possibly highland rainforest or cloud forest (DCCEEW 2018)

Hosts: unpublished

11. *Oxycanus ballux* Tindale, 1935: 302 (*Oxycanus*)

TL: Australia: New South Wales, Dorrigo

TC: South Australian Museum, Adelaide

Range: central eastern Australia

Illustration: Tindale (1935: fig. 77)

Morphology: Tindale (1935)

Biology: unpublished

Habitat: rainforest (DCCEEW 2018)

Hosts: unpublished

12. *Oxycanus barnardi* Tindale, 1935: 319 (*Oxycanus*)

TL: Australia: Queensland, Toowoomba

TC: South Australian Museum, Adelaide

Range: central eastern Australia

Illustration: Tindale (1935: figs. 105-107)

Morphology: Tindale (1935)

Biology: unpublished

Habitat: *Eucalyptus* open forests with grass understory (DCCEEW 2018)

Hosts: unpublished

13. *Oxycanus belista* (A. Turner, 1926: 155) (*Porina*)

TL: Australia: Queensland, Mount Nebo

TC: Australian National Insect Collection, Canberra

Range: northern New South Wales and southern Queensland

Illustration: Tindale (1935: fig. 76), Common (1990: fig. 18.7)

Morphology: Tindale (1935)

Biology: unpublished

Habitat: rainforest, *Eucalyptus* open forest with grass or shrub understory (DCCEEW 2018)

Hosts: unpublished

14. *Oxycanus buluwandji* Tindale, 1964: 663 (*Oxycanus*)

TL: Australia: Queensland, Lake Barrine

TC: South Australian Museum, Adelaide

Range: northeastern Australia

Illustration: Tindale (1964: pl. 46, fig. 1), Common (1990: fig. 18.8)

Morphology: unpublished

Biology: unpublished

Habitat: rainforest, wet *Eucalyptus* forest (DCCEEW 2018)

Hosts: unpublished

15. *Oxycanus byrsa* (Pfitzner in Pfitzner & Gaede, 1933: 834) (*Pielus*)

TL: Australia: New South Wales

TC: Naturmuseum und Forschungsinstitut Senckenberg, Frankfurt am Main

Range: central eastern Australia

Illustration: Pfitzner & Gaede (1933: pl. 75e), Tindale (1935: fig. 126), Common (1990: fig. 18.9), Beaver *et al.* (2020b: fig. 1f)

Morphology: unpublished

Biology: unpublished

Habitat: rainforest, *Eucalyptus* open forest with grass understory (DCCEEW 2018)

Hosts: unpublished

16. *Oxycanus carus* Tindale, 1935: 299 (*Oxycanus*)

TL: Australia: New South Wales, Armidale

TC: South Australian Museum, Adelaide

Range: central eastern Australia (Tindale 1935)

Illustration: Tindale (1935: fig. 73)

Morphology: Tindale (1935)

Biology: unpublished

Habitat: *Eucalyptus* open forests with shrub or grass understory (DCCEEW 2018)

Hosts: unpublished

17. *Oxycanus determinata* (Walker, 1856: 1563) (*Elhamma*)

TL: Australia: Western Australia, Swan River

TC: Natural History Museum, London

Range: Western Australia (Beaver *et al.* 2020b)

Illustration: Tindale (1935: figs. 122-125), Beaver *et al.* (2020b: figs. 2c, d)

Morphology: Tindale (1935)

Biology: unpublished

Habitat: Coastal low woodland dominated by *Myoporum* and *Eucalyptus* (DCCEEW 2018)

Hosts: unpublished

- 18. *Oxycanus diakonoffi*** (Viette, 1956b [32nd note]: 55) (*Paraoxycanus*)
TL: Indonesia: Papua, Mist Camp, 1,800 m
TC: Naturalis Biodiversity Centre, Leiden
Range: central Indonesian Papua (Viette 1956b [32nd note])
Illustration: unpublished
Morphology: Viette (1956b [32nd note])
Biology: unpublished
Habitat: rainforest, likely cloud forest (DCCEEW 2018)
Hosts: unpublished
- 19. *Oxycanus dirempta*** (Walker, 1865: 597) (*Porina*)
TL: Australia: Victoria, Moe
TC: Natural History Museum, London
syn. *kershawi* (Lucas, 1891: 282) (*Porina*); junior synonym
TL: Australia: Victoria, Melbourne, Elthan; **TC:** unknown
Range: southeastern Australia (Tindale 1964)
Illustration: Pfitzner & Gaede (1933: 76d), Tindale (1935: figs. 56-57), Tindale (1964: pl. 47, fig. 1), Common (1970: fig. 36.14G, 1990: fig. 18.4; 1990: fig. 18.4), Nielsen & Common (1991: pl. 41.17L), Kallies *et al.* (2015: 13, fig. 9; C.D. *dirempta*: 1-6)
Morphology: Tindale (1935), Kallies *et al.* (2015)
Biology: Tindale (1935), Willis (1959), Common (1970, 1990), Kallies *et al.* (2015)
Habitat: *Eucalyptus* forest/sclerophyll/woodlands; tussock grasslands; temperate rainforest (DCCEEW 2018)
Hosts: **Fabaceae** (*Acacia baileyana*, *A. mearnsii*), **Leaf litter**
- 20. *Oxycanus discipennis*** Tindale, 1955: 335 (*Oxycanus*)
TL: Indonesia: Papua, Mt. Siwi, Arfak Mts., 800 m
TC: Natural History Museum, London
Range: Indonesian Papua, Vogelkop, type locality record (Tindale 1955)
Illustration: Tindale (1955: pl. XXX, fig. 4)
Morphology: Tindale (1955)
Biology: unpublished
Habitat: unknown
Hosts: unpublished
- 21. *Oxycanus dives*** Tindale, 1955: 316 (*Oxycanus*)
TL: Indonesia: Papua, Mt. Kunupi, Menoo Valley, Weyland Mts, 1,830 m
TC: Natural History Museum, London
Range: Indonesian Papua
Illustration: Tindale (1955: pl. XXVIII, figs. 1-4)
Morphology: Tindale (1955)
Biology: unpublished
Habitat: unknown
Hosts: unpublished

22. *Oxycanus eos* Tindale, 1955: 330 (*Oxycanus*)
TL: Indonesia: Papua, Cyclops Mts.
TC: Natural History Museum, London
Range: northeastern Papua (Tindale 1955)
Illustration: Tindale (1955: pl. XXIX, fig. 4)
Morphology: Tindale (1955)
Biology: unpublished
Habitat: unknown
Hosts: unpublished
23. *Oxycanus ephemeros* Beaver & Moore *in* Beaver *et al.*, 2020b: 353 (*Oxycanus*)
TL: Australia: South Australia, Inman Valley, Fleurieu Peninsula
TC: South Australian Museum, Adelaide
Range: South Australia (Beaver *et al.* 2020b: fig. map 11)
Illustration: Beaver *et al.* (2020b: fig. 1a)
Morphology: Beaver *et al.* (2020b)
Biology: unpublished
Habitat: *Eucalyptus* woodland with shrub/heath and sedge understory (Beaver *et al.* 2020)
Hosts: unpublished
24. *Oxycanus flavoplumosus* Beaver & Moore *in* Beaver *et al.*, 2020b: 356 (*Oxycanus*)
TL: New South Wales, Ebor
TC: South Australian Museum, Adelaide
Range: northern New South Wales (Beaver *et al.* 2020b: fig. map 11)
Illustration: Beaver *et al.* (2020b: figs. 1c, d-e)
Morphology: Beaver *et al.* (2020b)
Biology: unpublished
Habitat: Upland rainforest, *Eucalyptus* sub-alpine woodland (Beaver *et al.* 2020: fig. 13)
Hosts: unpublished
25. *Oxycanus fuliginosa* (Rothschild, 1915: 145) (*Porina*)
TL: Indonesia: Papua, Carstensz Peak, Utkwa River, 5,000-10,000 ft
TC: Natural History Museum, London
Range: Indonesian Papua (Tindale 1955)
Illustration: Tindale (1955: pl. XXIX, fig. 6)
Morphology: Tindale (1955), Viette (1956b [32nd note])
Biology: unpublished
Habitat: unpublished
Hosts: unpublished
26. *Oxycanus gelidus* Tindale, 1935: 305 (*Oxycanus*)
TL: Australia: New South Wales, Armidale
TC: South Australian Museum, Adelaide
Range: central eastern Australia
Illustration: Tindale (1935: fig. 80), Common (1990: fig. 18.6), Grehan & Mielke (2018b: fig. 1d)

Morphology: Tindale (1935)

Biology: unpublished

Habitat: rainforest, *Eucalyptus* open forests and woodlands with grass understory (DCCEEW 2018)

Hosts: unpublished

27. *Oxycanus glauerti* Tindale, 1955: 338 (*Oxycanus*)

TL: Australia: Western Australia

TC: Natural History Museum, London

Range: Australia: Western Australia (Tindale 1955)

Illustration: Tindale (1955: pl. XXXII, figs. 1-4)

Morphology: Tindale (1955)

Biology: unpublished

Habitat: hummock grasslands (DCCEEW 2018)

Hosts: unpublished

28. *Oxycanus goldfinchi* Tindale, 1935: 305 (*Oxycanus*)

TL: Australia: New South Wales, Wentworth Falls

TC: South Australian Museum, Adelaide

Range: central eastern Australia

Illustration: Tindale (1935: fig. 81)

Morphology: Tindale (1935), Ueda (1988)

Biology: unpublished

Habitat: rainforest, *Eucalyptus* tall wet and open forests/woodlands with grass understory (DCCEEW 2018)

Hosts: unpublished

29. *Oxycanus goodingi* Tindale, 1935: 321 (*Oxycanus*)

TL: Australia: Victoria, Moe

TC: South Australian Museum, Adelaide

Range: southeastern Australia

Illustration: Tindale (1935: figs. 110-111), Kallies *et al.* (2015: 32, figs. 9-10; C.D. *goodingi*: 1-2)

Morphology: Tindale (1935), Kallies *et al.* (2015)

Biology: unpublished

Habitat: temperate tussock grasslands, *Eucalyptus* forests/woodlands with grass understory (DCCEEW 2018)

Hosts: unpublished

30. *Oxycanus hamatus* Tindale, 1935: 307 (*Oxycanus*)

TL: Australia: New South Wales, Jervis Bay

TC: South Australian Museum, Adelaide

Range: central eastern Australia

Illustration: Tindale (1935: figs. 84-85)

Morphology: Tindale (1935)

Habitat: *Eucalyptus* open forests or woodlands with grass or shrub understory (DCCEEW 2018)

Biology: unpublished

31. *Oxycanus hebe* Tindale, 1955: 337 (*Oxycanus*)

TL: Indonesia: Papua, Fak Fak, 1,700ft

TC: Natural History Museum, London

Range: western Papua, Indonesia (Tindale 1955)

Illustration: Tindale (1955: pl. XXVI, fig. 8)

Morphology: Tindale (1955)

Biology: unpublished

Habitat: unknown

Hosts: unpublished

32. *Oxycanus hecabe* Tindale, 1955: 318 (*Oxycanus*)

TL: Indonesia: Papua, Hunsteinspitze, 1,350 m

TC: Museum für Naturkunde, Berlin

inf. form *lethe* (Tindale, 1955: 318) (*Oxycanus*); Hunsteinspitze; Museum für Naturkunde, Berlin

Range: central Indonesian Papua (Tindale 1955)

Illustration: Tindale (1955: pl. XXVIII, figs. 5, 6 [as *O. lethe*])

Morphology: Tindale (1955)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

33. *Oxycanus herbuloti* (Viette, 1956b [32nd note]: 45) (*Paraoxycanus*)

TL: Indonesia: Papua, Lake Habema, 3,250-3,300 m

TC: Naturalis Biodiversity Centre, Leiden

Range: central Papua, Indonesia, type locality record (Viette 1956b [32nd note])

Illustration: unpublished

Morphology: Viette (1956b [32nd note])

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

34. *Oxycanus herdus* Tindale, 1935: 299 (*Oxycanus*)

TL: Australia: New South Wales, Armidale

TC: South Australian Museum, Adelaide

Range: central eastern Australia

Illustration: Tindale (1935: figs. 74-75)

Morphology: Tindale (1935)

Biology: unpublished

Habitat: *Eucalyptus* woodlands with tussock grass understory (DCCEEW 2018)

Hosts: unpublished

35. *Oxycanus incanus* Tindale, 1935: 318 (*Oxycanus*)**TL:** Australia: New South Wales, Jervis Bay**TC:** South Australian Museum, Adelaide**Range:** central eastern Australia (Tindale 1935)**Illustration:** Tindale (1935: fig. 104), Edwards & Green (2011: fig. 6)**Morphology:** Tindale (1935), Edwards & Green (2011)**Biology:** unpublished**Habitat:** *Eucalyptus* open forests and woodlands with grassy or tussock grass understorey (DCCEEW 2018)**Hosts:** unpublished**36. *Oxycanus janeus*** Tindale, 1935: 297 (*Oxycanus*)**TL:** Australia: New South Wales, Tumbarumba**TC:** South Australian Museum, Adelaide**Range:** New South Wales and Victoria (Kallies *et al.* 2015)**Illustration:** Tindale (1935: figs. 67-69), Kallies *et al.* (2015: 32, figs. 5-7; 33, fig. 11; C.D. *janeus*: 1-3)**Morphology:** Tindale (1935), Kallies *et al.* (2015)**Biology:** unpublished**Habitat:** Subalpine *Eucalyptus* woodlands and open forests with grass understorey (DCCEEW 2018)**Hosts:** unpublished**37. *Oxycanus kochi*** Tindale, 1955: 340 (*Oxycanus*)**TL:** Australia**TC:** Naturmuseum und Forschungsinstitut Senckenberg, Frankfurt am Main**Range:** unpublished**Illustration:** Tindale (1955: pl. XXXII, figs. 5-6)**Morphology:** Tindale (1955)**Biology:** unpublished**Habitat:** Coastal low woodland vegetation dominated by *Myoporum* and *Eucalyptus* (DCCEEW 2018)**Hosts:** unpublished**38. *Oxycanus loesus*** Tindale, 1935: 311 (*Oxycanus*)**TL:** Australia: New South Wales, Manley**TC:** South Australian Museum, Adelaide [type not located]**Range:** New South Wales and Victoria (Kallies *et al.* 2015)**Illustration:** Tindale (1935: figs. 90-91), Kallies *et al.* (2015: 28, figs. 8-9; C.D. *loesus*: 1-2)**Morphology:** Tindale (1935), Kallies *et al.* (2015)**Biology:** unpublished**Habitat:** *Eucalyptus* forests, sclerophyll and woodlands with shrub or grass understorey (DCCEEW 2018)**Hosts:** unpublished**39. *Oxycanus lyelli*** Tindale, 1935: 293 (*Oxycanus*) Australia**TL:** Australia: Victoria, Riddell**TC:** South Australian Museum, Adelaide

Range: southeastern Australia (Tindale 1935)

Illustration: Tindale (1935: figs. 60-61), Kallies *et al.* (2015; *C.D. lyelli*: 1-2)

Morphology: Tindale (1935), Kallies *et al.* (2015)

Biology: unpublished

Habitat: *Eucalyptus* forests, sclerophyll and woodlands with shrub or grass understory (DCCEEW 2018)

Hosts: unpublished

40. *Oxycanus maculosus* (C. & R. Felder *in* Felder, Felder & Rogenhofer, 1874: 8, pl. 81, fig. 1) (*Pielus*)

TL: Australia: New South Wales, Clarence River

TC: Natural History Museum, London

Range: central eastern Australia

Illustration: Felder *et al.* (1874: pl. LXXXI, fig. 4), Tindale (1935: fig. 127)

Morphology: unpublished

Biology: unpublished

Habitat: rainforest (Tindale 1935)

Hosts: unpublished

41. *Oxycanus mayri* Tindale, 1955: 334 (*Oxycanus*)

TL: Indonesia: Papua, Mt Siwi, Arfak Mts., 800 m

TC: Natural History Museum, London

Range: eastern Indonesian Papua (Tindale 1955)

Illustration: Tindale (1955: pl. XXXI, figs. 1-2)

Morphology: Tindale (1955)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

42. *Oxycanus meeki* (Viette, 1950h [22nd note]: 69) (*Paraoxycanus*)

TL: Papua New Guinea: Biagi, Mambare River, 5,000ft

TC: Muséum national d'Historie naturelle, Paris

Range: New Guinea (Tindale 1955, <https://www.papua-insects.nl>)

Illustration: Tindale (1955: pl. XXX, figs. 1-2)

Morphology: Viette (1950h [22nd note]), Tindale (1955)

Biology: unpublished

Habitat: highland rainforest, possibly cloud forest or subalpine grassland (DCCEEW 2018)

Hosts: unpublished

43. *Oxycanus naias* Tindale, 1935: 303 (*Oxycanus*)

TL: Australia: New South Wales, Wentworth Falls

TC: South Australian Museum, Adelaide

Range: northeastern Australia (Tindale 1935)

Illustration: Tindale (1935: fig. 79)

Morphology: Tindale (1935)

Biology: unpublished

Habitat: rainforest, *Eucalyptus* open forest and woodlands with grass understory (DCCEEW 2018)

Hosts: unpublished

44. *Oxycanus nigra* (Viette, 1956b [32nd note]: 48) (*Paraoxycanus*)

TL: Indonesia: Papua, Scree Valley Camp, 3,800 m

TC: Naturalis Biodiversity Centre, Leiden

Range: central Indonesian Papua (Viette 1956b [32nd note])

Illustration: unpublished

Morphology: Viette (1956b [32nd note])

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

45. *Oxycanus nigripuncta* (Joicey & Talbot, 1917: 83) (*Porina*)

TL: Indonesia: Papua, Wanammen Mts, 3,000-4,000 ft

TC: Natural History Museum, London

syn. *nigricosta* (Joicey & Talbot, 1917: 84) (*Porina*); junior synonym

TL: Indonesia: Wandammen Mountains; **TC:** Natural History Museum, London

Range: Papua, Indonesia, type locality record (Joicey & Talbot 1917)

Illustration: Joicey & Talbot (1917: pl. II, fig. 10, 11 [as *O. nigricosta*])

Morphology: Viette (1950h [22nd note]), Tindale (1955)

Biology: unpublished

Habitat: highland rainforest, possibly cloud forest or subalpine grassland (DCCEEW 2018)

Hosts: unpublished

46. *Oxycanus niphadias* (Meyrick, 1890: 1122) (*Porina*)

TL: Australia: South Australia, Balhannah (Tindale 1935)

TC: South Australian Museum, Adelaide

Range: South Australia and Victoria (Kallies *et al.* 2015)

Illustration: Tindale (1935: 108-109), Kallies *et al.* (2015: 32: fig. 8; C.D. *niphadias*: 1-2),

Morphology: Tindale (1935), Kallies *et al.* (2015)

Biology: unpublished

Habitat: *Eucalyptus* forest/woodland/shrub or tussock grass understory, hummock grassland (DCCEEW 2018)

Hosts: unpublished

47. *Oxycanus novaguineensis* (Viette, 1950h [22nd note]: 68) (*Paraoxycanus*)

TL: Indonesia: Papua, Paniai

TC: Naturalis Biodiversity Centre, Leiden

Range: western Indonesian Papua (<https://www.papua-insects.nl>)

Illustration: unpublished

Morphology: Viette (1950h [22nd note])

Biology: unpublished

Habitat: highland rainforest, possibly cloud forest or subalpine grassland (DCCEEW 2018)

Hosts: unpublished

48. *Oxycanus nuptialis* Tindale, 1935: 317 (*Oxycanus*)**TL:** Australia: New South Wales, Mount Kosciusko, 5,000-6,000 ft**TC:** South Australian Museum, Adelaide**Range:** central eastern Australia**Illustration:** Tindale (1935: figs. 102-103), Edwards & Green (2011: fig. 5), Kallies *et al.* (2015: 34, fig. 7; C.D. *nuptialis*: 1)**Morphology:** Tindale (1935), Edwards & Green (2011), Kallies *et al.* (2015)**Biology:** unpublished**Habitat:** subalpine wet tussock grassland (DCCEEW 2018)**Hosts:** unpublished**49. *Oxycanus occidentalis*** Tindale, 1935: 312 (*Oxycanus*)**TL:** Australia: Western Australia, Denmark**TC:** South Australian Museum, Adelaide**Range:** southern Australia (Tindale 1935)**Illustration:** Tindale (1935: figs. 92-93), Kallies *et al.* (2015: 32, fig. 8; C.D. [as *O. niphadias*], pp. 1-2)**Morphology:** Tindale (1935), Kallies *et al.* (2015 [as *O. niphadias*])**Biology:** unpublished**Habitat:** Wet *Eucalyptus* forest/woodland (western), mallee heathland/woodland (eastern) (DCCEEW 2018)**Hosts:** unpublished**50. *Oxycanus oreades*** Edwards & Green, 2011: 79 (*Oxycanus*)**TL:** Australia: New South Wales, Kosciuszko National Park, 1 km southwest of Mt. Twynam, 2,100 m**TC:** Australian National Insect Collection, Canberra**Range:** southeastern Australia highlands (Edwards & Green 2011)**Illustration:** Edwards & Green (2011: figs. 1-3, 18), Kallies *et al.* (2015: 34, figs. 5-6; C.D. *oreades*: 1)**Morphology:** Edwards & Green (2011)**Biology:** Edwards & Green (2011)**Habitat:** subalpine *Eucalyptus* with tussock grass understory, alpine wet tussock grasslands (DCCEEW 2018)**Hosts:** **Poaceae** (*Poa costiniana*)**51. *Oxycanus oressigenes*** Edwards & Green, 2011: 82 (*Oxycanus*)**TL:** Australia: New South Wales, Kosciuszko National Park, Charlotte Pass Village, 1,785 m**TC:** Australian National Insect Collection, Canberra**Range:** central eastern Australia, high elevation (Edwards & Green 2011)**Illustration:** Edwards & Green (2011: fig. 4), Kallies *et al.* (2015: 34, figs. 8-10; C.D. *oressigenes*: 1-2)**Morphology:** Edwards & Green (2011)**Biology:** Edwards & Green (2011), Kallies *et al.* (2015)**Habitat:** subalpine *Eucalyptus* woodlands with tussock grass understory (DCCEEW 2018)**Hosts:** **Poaceae** (*Poa costiniana*)

52. *Oxycanus perditus* Tindale, 1935: 296 (*Oxycanus*)**TL:** Australia: Western Australia**TC:** South Australian Museum, Adelaide**Range:** Western Australia**Illustration:** Tindale (1935: fig. 66)**Morphology:** Tindale (1935)**Biology:** unpublished**Habitat:** *Eucalyptus* woodlands with shrubby understory, hummock grasslands (DCCEEW 2018)**Hosts:** unpublished**53. *Oxycanus perplexus*** Tindale, 1955: 331 (*Oxycanus*)**TL:** Indonesia: Papua, Ninay Valley, Central Arfak Mts., 3,500ft**TC:** Natural History Museum, London**Range:** Indonesian Papua, Vogelkop (Tindale 1955)**Illustration:** Tindale (1955: pl. XXXI, figs. 3-4)**Morphology:** Tindale (1955)**Biology:** unpublished**Habitat:** highland rainforest, possibly cloud forest or subalpine grasslands (DCCEEW 2018)**Hosts:** unpublished**54. *Oxycanus poeticus*** Tindale, 1935: 313 (*Oxycanus*)**TL:** Australia: Western Australia, Denmark**TC:** South Australian Museum, Adelaide**Range:** Western Australia**Illustration:** Tindale (1935: figs. 94-96)**Morphology:** Tindale (1935)**Biology:** unpublished**Habitat:** *Eucalyptus* open forests and tall open forests with shrub understory (DCCEEW 2018)**Hosts:** unpublished**55. *Oxycanus petalous*** Beaver & Moore *in* Beaver *et al.*, 2020b: 358 (*Oxycanus*)**TL:** Australia: Western Australia, South Coast, Boxwood Hill, Chingarrup**TC:** South Australian Museum, Adelaide**Range:** southern Western Australia (Beaver *et al.* 2020b: fig. map 11)**Illustration:** Beaver *et al.* (2020b: figs. 2a, b)**Morphology:** Beaver *et al.* (2020b)**Biology:** unpublished**Habitat:** west *Eucalyptus* forest (Beaver *et al.* 2020b)**Hosts:** unpublished**56. *Oxycanus postflavida*** (Rothschild, 1915: 145) (*Porina*)**TL:** Indonesia: Papua, Carstensz peak, 5,000-10,000 ft**TC:** Natural History Museum, London**Range:** central Indonesian Papua (<https://www.papua-insects.nl>)**Illustration:** Tindale (1955: pl. XXIX, fig. 5)

Morphology: Tindale (1955), Viette (1956b [32nd note])

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

57. *Oxycanus postxois* (Viette, 1956b [32nd note]: 50) (*Paraoxycanus*)

TL: Indonesia: Papua, Top Camp, 2,100 m

TC: Naturalis Biodiversity Centre, Leiden

Range: Indonesian Papua, type locality record (Viette 1956b [32nd note])

Illustration: unpublished

Morphology: Viette (1956b [32nd note])

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

58. *Oxycanus promiscuus* Tindale, 1935: 314 (*Oxycanus*)

TL: Australia: Western Australia, Denmark

TC: South Australian Museum, Adelaide

Range: Western Australia (Tindale 1935)

Illustration: Tindale (1935: figs. 97-98)

Morphology: Tindale (1935)

Biology: unpublished

Habitat: *Eucalyptus* open forests and tall open forests with shrub understory (DCCEEW 2018)

Hosts: unpublished

59. *Oxycanus rileyi* Tindale, 1955: 311 (*Oxycanus*)

TL: Indonesia: Papua, Nomnagihé, 25 miles south of Wangaar, 2,000ft

TC: Natural History Museum, London

Range: Indonesian Papua, type locality record (Tindale 1955)

Illustration: Tindale (1955: pl. XXVI, fig. 1)

Morphology: Tindale (1955)

Biology: unpublished

Habitat: highland rainforest, possibly cloud forest or subalpine grasslands (DCCEEW 2018)

Hosts: unpublished

60. *Oxycanus rosaceus* Tindale, 1935: 306 (*Oxycanus*)

TL: Australia: Victoria, Moe

TC: South Australian Museum, Adelaide

Range: central and southeastern Australia

Illustration: Tindale (1935: figs. 82-83), Kallies *et al.* (2015; *C.D. rosaceus*: 1-4)

Morphology: Tindale (1935), Kallies *et al.* (2015)

Biology: Tindale (1964)

Habitat: *Eucalyptus* open forest/woodlands/shrub/grass understory, wet tussock grassland (DCCEEW 2018)

Hosts: **Myrtaceae** (possibly *Eucalyptus* sp.)

61. *Oxycanus rufescens* Walker, 1856: 1575 (*Oxycanus*)**TL:** Australia: Tasmania**TC:** Natural History Museum, Londonsyn. *invarius* (Walker, 1865: 599) (*Pielus*); junior synonym**TL:** Australia: Tasmania; **TC:** Natural History Museum, London**Range:** Tasmania, southeastern Australia (Kallies *et al.* 2015)**Illustration:** Pfitzner & Gaede (1933: pl. 76e), Kallies *et al.* (2015: 28, figs. 5-7; 29, figs. 10, 12-13; C.D. *rufescens*: 1-3)**Morphology:** unpublished**Biology:** unpublished**Habitat:** *Eucalyptus* open forests and woodlands with shrub or grass understory (DCCEEW 2018)**Hosts:** unpublished**62. *Oxycanus salmonacea*** (Rothschild & Jordan, 1905: 478) (*Porina*)**TL:** Papua New Guinea: Angabunga River, affluent of St. Joseph River, 6,000 ft**TC:** Natural History Museum, London**Range:** eastern New Guinea, type locality record (Rothschild & Jordan 1905)**Illustration:** Tindale (1955: pl. XXVI fig. 7; pl. XXIX, fig. 7)**Morphology:** Tindale (1955)**Biology:** unpublished**Habitat:** unpublished**Hosts:** unpublished**63. *Oxycanus serratus*** Tindale, 1955: 320 (*Oxycanus*)**TL:** Indonesia: Papua, Wondiwoi, Wanammen Mts, 1,400 m**TC:** Natural History Museum, London**Range:** Indonesian Papua (<https://www.papua-insects.nl>)**Illustration:** Tindale (1955: pl. XXVI, fig. 6)**Morphology:** Tindale (1955)**Biology:** unpublished**Habitat:** highland rainforest, possibly cloud forest or subalpine grasslands (DCCEEW 2018)**Hosts:** unpublished**64. *Oxycanus silvanus*** Tindale, 1935: 298 (*Oxycanus*)**TL:** Australia: Australian Capital Territory, Canberra**TC:** South Australian Museum, Adelaide**Range:** central and southeastern Australia (Tindale 1935)**Illustration:** Tindale (1935: figs. 70-72), Common (1990: fig. 18.3), Kallies *et al.* (2015: C.D. *silvanus*: 1-4)**Morphology:** Tindale (1935), Kallies *et al.* (2015)**Biology:** unpublished**Habitat:** *Eucalyptus* open forests, woodlands and sclerophyll, temperate tussock grasslands (DCCEEW 2018)**Hosts:** unpublished

65. *Oxycanus sirpus* Tindale, 1935: 322 (*Oxycanus*)
TL: Australia: Victoria, Ferntree Gully
TC: South Australian Museum, Adelaide
Range: southeastern Australia (Tindale 1935)
Illustration: Tindale (1935: figs. 12-13), Kallies *et al.* (2015: C.D. *sirpus*: 1-4)
Morphology: Tindale (1935), Kallies *et al.* (2015)
Biology: unpublished
Habitat: *Eucalyptus* open forests, woodlands and sclerophyll, temperate tussock grasslands (DCCEEW 2018)
Hosts: unpublished
66. *Oxycanus snelleni* (Viette, 1956b [32nd note]: 46) (*Paraoxycanus*)
TL: Indonesia: Papua, Lake Habbema, 3,250-3,300 m
TC: Naturalis Biodiversity Centre, Leiden
Range: central Indonesian Papua (<https://www.papua-insects.nl>)
Illustration: unpublished
Morphology: Viette (1956b [32nd note])
Biology: unpublished
Habitat: unpublished
Hosts: unpublished
67. *Oxycanus spadix* Tindale, 1935: 310 (*Oxycanus*)
TL: Australia: New South Wales, Blackheath
TC: South Australian Museum, Adelaide
Range: central eastern Australia
Illustration: Tindale (1935: fig. 89)
Morphology: Tindale (1935)
Biology: unpublished
Habitat: *Eucalyptus* woodlands with tussock grass understory (DCCEEW 2018)
Hosts: unpublished
68. *Oxycanus sphragidias* (Meyrick, 1890: 1123) (*Porina*)
TL: Australia: Tasmania
TC: Natural History Museum, London
Range: Tasmania
Illustration: Tindale (1935: fig. 121)
Morphology: Tindale (1935)
Biology: unpublished
Habitat: *Eucalyptus* open forest/woodland/ sclerophyll/grass/shrub understory, sedgeland (DCCEEW 2018)
Hosts: unpublished
69. *Oxycanus stellans* Tindale, 1935: 308 (*Oxycanus*)
TL: Australia: Victoria, Cockatoo
TC: South Australian Museum, Adelaide
Range: southeastern Australia

Illustration: Tindale (1935: figs. 86-88), Kallies *et al.* (2015: 28, figs. 1-4; 29, fig. 11; C.D. *stellans*: 1-4)

Morphology: Tindale (1935), Kallies *et al.* (2015; C.D.: 1-2, 4)

Biology: unpublished

Habitat: *Eucalyptus* open forests and woodlands, temperate tussock grasslands (DCCEEW 2018)

Hosts: unpublished

70. *Oxycanus subochracea* (Joicey & Talbot, 1917: 85) (*Porina*)

TL: Indonesia: Papua, Wandammen Mountains, 3,000-4,000 ft

TC: Natural History Museum, London

syn. *argentipuncta* (Joicey & Talbot, 1917: 85) (*Porina*); junior synonym

TL: Indonesia: Papua, Wandammen Mountains; **TC:** Natural History Museum, London
msp. *subochrea* (Viette 1950h [22nd note]): 71)

Range: Indonesian Papua (<https://www.papua-insects.nl>)

Illustration: Joicey & Talbot (1917: pl. 2, figs. 12, 13 [as *O. argentipuncta*]), Tindale (1955: pl. XXVI, figs. 2-3)

Morphology: Viette (1950h [22nd note] [as *O. argentipuncta*]), Tindale (1955)

Biology: unpublished

Habitat: highland rainforest, possibly cloud forest or subalpine grasslands (DCCEEW 2018)

Hosts: unpublished

71. *Oxycanus subvaria* (Walker, 1856: 1562) (*Elhamma*)

TL: Australia: Tasmania [Van Diemens Land]

TC: Natural History Museum, London

syn. *subvarius* Walker, 1856: 1575 (*Oxycanus*); junior synonym

TL: Australia: Tasmania; **TC:** Natural History Museum, London

syn. *lamnus* Tindale, 1935: 325 (*Oxycanus*); junior synonym

TL: Australia: New South Wales, Manly; **TC:** South Australian Museum, Adelaide

syn. *hildae* Tindale, 1964: 665 (*Oxycanus*); junior synonym (see Beaver *et al.* 2020)

TL: Australia: Victoria, Jacob Creek; **TC:** South Australian Museum, Adelaide

Range: New South Wales, Victoria, Tasmania (Beaver *et al.* 2020)

Illustration: Tindale (1935: figs. 114-118, 119-120 [as *Oxycanus lamnus*]), Tindale (1964: pl. 46, figs. 2-3 [as *O. hildae*]), Kallies *et al.* (2015: 34, figs. 1-4; 35, fig. 11; C.D. [*hildae*]: 1; C.D. *subvaria*: 1-4), Beaver *et al.* (2020: fig. 1b)

Morphology: Tindale (1935), Kallies *et al.* (2015), Beaver *et al.* (2020)

Biology: unpublished

Habitat: *Eucalyptus* wet sclerophyll, open forests and woodlands with shrub understory (DCCEEW 2018)

Hosts: unpublished

72. *Oxycanus tamsi* Tindale, 1955: 313 (*Oxycanus*)

TL: Indonesia: Papua, Mt. Goliath, 5,000-7,000 ft

TC: Natural History Museum, London

Range: eastern Indonesian Papua (<https://www.papua-insects.nl>)

Illustration: Tindale (1955: pl. XXVII, figs. 1-3)

Morphology: Tindale (1955), Viette (1956b [32nd note])

Biology: highland rainforest, possibly cloud forest or subalpine grasslands

Habitat: unpublished

Hosts: unpublished

73. *Oxycanus thasus* Tindale, 1955: 322 (*Oxycanus*)

TL: Indonesia: Papua, Fak Fak, 1,700 ft

TC: Natural History Museum, London

Range: Indonesian Papua, Vogelkop, type locality record (Tindale 1955)

Illustration: Tindale (1955: pl. XXVI, fig. 5)

Morphology: Tindale (1955)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

74. *Oxycanus thoe* Tindale, 1955: 326 (*Oxycanus*)

TL: Indonesia: Papua, Wassior, Wandammen coast

TC: Natural History Museum, London

Range: Indonesian Papua (<https://www.papua-insects.nl>)

Illustration: Tindale (1955: pl. XXVI, fig. 4; pl. XXX, fig. 3)

Morphology: Tindale (1955)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

75. *Oxycanus toxopeusi* (Viette, 1956b [32nd note]: 47) (*Paraoxycanus*)

TL: Indonesia: Papua, Moss Forest Camp, 2,600-2,800 m

TC: Naturalis Biodiversity Centre, Leiden

Range: central Indonesian Papua (<https://www.papua-insects.nl>)

Illustration: unpublished

Morphology: Viette (1956b [32nd note])

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

76. *Oxycanus tyres* (Viette, 1956b [32nd note]: 53) (*Paraoxycanus*)

TL: Indonesia: Papua, Moss Forest Camp, 2,600-2,800 m

TC: Naturalis Biodiversity Centre, Leiden

Range: central Indonesian Papua (Viette 1956b [32nd note])

Illustration: unpublished

Morphology: Tindale (1956b)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

77. *Oxycanus waterhousei* Tindale, 1935: 292 (*Oxycanus*)

TL: Australia: New South Wales, Wentworth Falls

TC: South Australian Museum, Adelaide

Range: central eastern Australia

Illustration: Tindale (1935)

Morphology: Tindale (1935: figs. 58-59)

Biology: unpublished

Habitat: *Eucalyptus* open forest and woodlands with shrub or tussock grass understory (DCCEEW 2018)

Hosts: unpublished

78. *Oxycanus xois* Tindale, 1955: 315 (*Oxycanus*)

TL: Indonesia: Papua, Dohunehik, Arfak Mts., 1,400 m

TC: Natural History Museum, London

Range: Indonesian Papua, Vogelkop, type locality record (Tindale 1955)

Illustration: Tindale (1955: pl. XXIX, figs. 1-2)

Morphology: Tindale (1955)

Biology: unpublished

Habitat: highland rainforest, possibly cloud forest or subalpine grasslands (DCCEEW 2018)

Hosts: unpublished

PALLAS C. Mielke & Grehan, 2015: 115

TS: *Pallas reynaudi* C. Mielke & Grehan, 2015, by original designation

1. *Pallas reynaudi* C. Mielke & Grehan, 2015b: 116 (*Pallas*)

TL: Guatemala: Huehuetenango, Chiantla, Majadas, 3,000 m

TC: Universidad del Valle de Guatemala

Range: Western montane Guatemala

Illustration: Mielke & Grehan (2015b: figs. 1-3)

Morphology: Mielke & Grehan (2015b)

Biology: unpublished

Habitat: forest (Mielke & Grehan 2015b)

Hosts: unpublished

PALPIFER Hampson, [1893]: 316

TS: *Hepialus sexnotatus* Moore, 1879, by subsequent designation (Hampson [1893]: 316)

msp. *Palpiphorus* (Quail 1900: 426)

msp. *Palpiphora* (Pagenstecher 1909: 448)

General (species unspecified): Karim & Grehan (2019), Wang *et al.* (2020)

1. *Palpifer boonei* Grehan & C. Mielke, 2019b: 5 (*Palpifer*)

TL: Laos: Vientiane, Ban Van Eue

TC: Bernice P. Bishop Museum, Honolulu

Range: northern Laos, known from the type locality only (Grehan & Mielke 2019b: fig. map 14)

Illustration: Grehan & Mielke (2019b: fig. 2)

Morphology: Grehan & Mielke (2019b)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

2. *Palpifer chui* Ignatev, Grehan & C. Mielke in Ignatev et al., 2023: 326 (*Palpifer*)
TL: China: Guangxi
TC: Zoologisches Forschungsmuseum Alexander Koenig
Range: southeastern China (Ignatev et al. 2023: fig. map 25)
Illustration: Ignatev et al. (2023: fig. 2)
Morphology: Ignatev et al. (2023)
Biology: unpublished
Habitat: unpublished
Hosts: unpublished
3. *Palpifer climoi* Ignatev, Grehan & C. Mielke in Ignatev et al., 2023: 327 (*Palpifer*)
TL: China: Yunnan, Lijian
TC: Zoologisches Forschungsmuseum Alexander Koenig
Range: southeastern China (Ignatev et al. 2023: fig. map 25)
Illustration: Ignatev et al. (2023: fig. 3)
Morphology: Ignatev et al. (2023)
Biology: unpublished
Habitat: unpublished
Hosts: unpublished
4. *Palpifer falkneri* Viette, 1968[36th note]: 132 (*Palpifer*)
TL: Nepal: Dudh Kosi Tal, 3500 m
TC: Zoologische Staatssammlungen des bayerischen Staates, Munich
Range: Himalaya, known from the type locality only (Grehan & Mielke 2019b: fig. map 14)
Illustration: Viette (1968 [36th note]: fig. 5), Grehan & Mielke (2019b: fig. 15)
Morphology: Viette (1968 [36th note])
Biology: unpublished
Habitat: unpublished
Hosts: unpublished
5. *Palpifer hopponis* Matsumura, 1931: 1889 (*Palpifer*)
TL: Taiwan: Hsinchu County, Beipu
TC: Hokkaido University, Sapporo
Range: Taiwan (Grehan & Mielke 2019b: fig. map 14)
Illustration: Matsumura (1931: figure with text), Fu & Tzuoo (2004: pl. 57, fig. 1), Grehan & Mielke (2019b: fig. 17a-b), Ignatev et al. (2023: fig. 4)
Morphology: unpublished
Biology: Sonan (1938)
Habitat: cultivated root crops (Sonan 1938)
Hosts: Araceae (*Colocasia antiquorum*)
6. *Palpifer hylandae* Grehan & C. Mielke, 2019b: 13 (*Palpifer*)
TL: Malaysia, Petaling Jaya, Selangor
TC: Bernice P. Bishop Museum, Honolulu
Range: Malaysian peninsula, known from the type locality only (Grehan & Mielke 2019b: fig. map 14)

Illustration: Grehan & Mielke (2019b: fig. 3)

Morphology: Grehan & Mielke (2019b)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

7. *Palpifer madurensis* (Pfitzner, 1914: 96) (*Pielus*)

TL: Indonesia: Java, Madura

TC: Naturmuseum und Forschungsinstitut Senckenberg, Frankfurt am Main

Range: Eastern Java, type locality only (Grehan & Mielke 2019b: fig. map 14)

Illustration: Pfitzner & Gaede (1933: pl. 76d)

Morphology: unpublished

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

8. *Palpifer murinus* (Moore, 1879: 413) (*Hepialus*)

TL: India, Himachal Pradesh, Dharmsala

TC: Natural History Museum, London

syn. *caerulescens* (Swinhoe, 1894: 440) (*Palpifer*); junior synonym

TL: Cherra Punji; **TC:** Natural History Museum, London

Range: sub Himalayan India (Grehan & Ismavel 2017: image map 11b)

Illustration: Pfitzner & Gaede (1933: pl. 75b [as *Palpifer caerulescens*]), Tindale (1942: XI, fig. 86), Robinson *et al.* (1995: pl. 1, fig. 3), Grehan (2011: fig. 7), Grehan & Ismavel (2017: fig. 11a), Grehan & Mielke (2019b: fig. 18)

Morphology: Tindale (1942)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

9. *Palpifer nielsenii* Ignatev, Grehan & C. Mielke *in* Ignatev *et al.*, 2023: 323 (*Palpifer*)

TL: China: Fujian, Guadun

TC: Zoologisches Forschungsmuseum Alexander Koenig

Range: southeastern China (Ignatev *et al.* 2023: fig. map 25)

Illustration: Ignatev *et al.* (2023: fig. 1)

Morphology: Ignatev *et al.* (2023)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

10. *Palpifer nipponica* (Butler, 1879a: 357) (*Gorgopis*)

TL: Japan

TC: Natural History Museum, London

syn. form *ronin* Pfitzner, 1912: 437 (*Palpifer*); subspecies

TL: Japan; **TC:** unknown

Range: Japan (Grehan & Mielke 2019b: fig. map 14)

Illustration: Pfitzner (1912: pl. 53H [as *P. ronin*]), Maki (1919: pl. 7, fig. 1 [as *Palpifer sexnotatus*]), Matsumura (1931: figure with text [as *P. sexnotatus* f. *ronin*]), Esaki et al. (1957: pl. 1, figs. 9 [as *P. sexnotatus ronin*]), Inoue (1982: pl. 3-02-9-10 [as *P. sexnotatus*]), Wang (1996: 129), Yamamoto (2000: 215), Umetsu (2009: 39), Hirowatari et al. (2013: pl. 3-02-9-11 [as *P. sexnotatus*]), Grehan & Mielke (2019b: fig. 16)

Morphology: Kodama (1978), Nakamura (1989)

Biology: Maki (1919 [as *Palpifer sexnotatus*]), Clausen (1931 [as *P. sexnotatus*]), Shiraki (1952), Kō (1978 [as *P. sexnotatus*]), Hirowatari et al. (2013)

Habitat: cultivated crops (Kō 1978)

Hosts: **Araceae** (*Amorphophallus konjac*, *Arisaema speciosa*, *Colocasia esculenta*), **Dioscoreaceae** (*Dioscorea polystachya*)

11. *Palpifer pellicia* Swinhoe, 1905: 152 (*Palpifer*)

TL: India, Meghalaya, Khasi Hills

TC: Natural History Museum, London

Range: northeastern India (Grehan & Ismavel 2017: image map 12b)

Illustration: Daniel (1940: pl. XXXI, fig. 10 [unverified]), Grehan & Ismavel (2017: image 12a),

Grehan & Mielke (2019b: fig. 19)

Morphology: unpublished

Biology: unpublished

Habitat: unpublished

Hosts: **Araceae** (*Colocasia* sp.)

12a. *Palpifer sexnotatus* (Moore, 1879: 413) (*Hepialus*)

TL: India: Sikkim [West Bengal], Darjeeling

TC: Natural History Museum, London

msp. *sexnotaius* (Pfitzner 1912: 437)

Range: sub Himalayan India (Grehan & Ismavel 2017: image map 13b)

Illustration: Hampson ([1893]: fig. 217), Pfitzner (1912: pl. 54, d), Tindale (1942: pl. XI, figs. 84-85), Chu & Wang (1985b: pl. 1, fig. 1), Wang (1996: 127-128), Zhu et al. (2004: pl. 2, fig. 5), Grehan & Ismavel (2017: fig. 13a), Grehan & Mielke (2019b: fig. 20)

Morphology: Tindale (1942, 1980), Chu & Wang (1985), Zhu et al. (2004)

Biology: Baker (1982)

Habitat: unpublished

Hosts: **Araceae** (*Arisaema speciosa*)

12b. *Palpifer 'sexnotatus'* of authors

Range: eastern China

Illustration: Chen & Wang (2006: fig. 1 [as *Napialus chenzhouensis*])

Morphology: Zhu et al. (2004), Chen & Wang (2006)

Biology: Zhu et al. (2004), Chen & Wang (2006)

Habitat: unpublished

Hosts: **Juglandaceae** (*Juglans regia*), **Malvaceae** (*Corchorus capsularis*), **Rosaceae**, **Tiliaceae**

13. *Palpifer sordida* Snellen, 1900: 30 (*Palpifer*)**TL:** Rembang and Batavia**TC:** Naturalis Biodiversity Centre, Leidensyn. form *notatus* Pfitzner in Pfitzner & Gaede, 1933: 845 (*Palpifer*); subspecies**TL:** Java; **TC:** unknown**Range:** Java (Grehan & Mielke 2019b: fig. map 14)**Illustration:** Daniel (1940: pl. XXXI, fig. 14 [as form *notatus*, unverified]), Grehan & Mielke (2019b: fig. 21)**Morphology:** Viette (1950h [22nd note])**Biology:** Kalshoven (1951, 1965)**Habitat:** cultivated crops (Kalshoven 1965)**Hosts:** **Araceae** (*Alocasia macrorrhiza*, *Amorphophallus* sp., *Arum* sp., *Colocasia antiquorum*), **Colchicaceae** (*Gloriosa superba*), **Dioscoreaceae** (*Dioscorea alata*, *D. pentaphylla*)**14. *Palpifer taprobanus*** (Moore, 1887: 545) (*Hepialus*)**TL:** Sri Lanka: Wattegama**TC:** Natural History Museum, London**Range:** Sri Lanka, type locality record (Grehan & Mielke 2019b: fig. map 14)**Illustration:** Moore (1887: pl. 212, fig. 6), Tindale (1942: pl. XI, fig. 87), Grehan & Mielke (2019b: fig. 22)**Morphology:** Tindale (1942)**Biology:** unpublished**Habitat:** unpublished**Hosts:** unpublished**15. *Palpifer tavoyanus*** (Moore, 1886: 98) (*Hepialus*)**TL:** Myanmar: Tavoy [Dawei]**TC:** National Zoological Collections, Kolkata**Range:** southern Myanmar, type locality record (Grehan & Mielke 2019b: fig. map 14)**Illustration:** Sheela *et al.* (2019: 311)**Morphology:** unpublished**Biology:** unpublished**Habitat:** unpublished**Hosts:** unpublished**16. *Palpifer umbrinus*** (Moore, 1879: 88) (*Hepialus*)**TL:** India: West Bengal, Darjeeling**TC:** Museum für Naturkunde, Berlin**Range:** northeastern India, type locality record (Tindale 1942)**Illustration:** Pfitzner & Gaede (1933: pl. 74e), Grehan & Mielke (2019b: fig. 23)**Morphology:** Tindale (1942)**Biology:** unpublished**Habitat:** unpublished**Hosts:** unpublished***PARAHEPIALISCUS*** Viette, 1950d [18th note]: 169**TS:** *Parahepialiscus baluensis* Viette, 1950d [18th note], by original designation

1. *Parahepialiscus borneensis* (Pfitzner in Pfitzner & Gaede, 1933: 844) (*Hepialiscus*)
TL: Malaysia: Borneo, Mt. Kinabalu
TC: Museum für Naturkunde, Berlin
 syn. *baluensis* Viette, 1950d [18th note]: 169 (*Parahepialiscus*); junior synonym
TL: Indonesia: Borneo, Mt. Kinabalu; **TC:** Muséum national d'Historie naturelle, Paris
Range: northern Borneo (Ueda 1988: fig. map 1)
Illustration: Pfitzner & Gaede (1933: pl. 78d); Ueda (1988: figs. 15c-d), Robinson *et al.* (1995: pl. 1, fig. 2), Zhu *et al.* (2004: pl. 4, fig. 14 [specimens from Dayong [Zhangjiajie] probably incorrect), Grehan (2011: fig. 2a)
Morphology: Viette (1950d [18th note] [as *Paraoxycanus baluensis*), Zhu *et al.* (2004, fig. 126 [probably another species])
Biology: unpublished
Habitat: unpublished
Hosts: unpublished
- PARAPIELUS** Viette, 1949a [4th note]: 54
TS: *Pielus luteicornis* Berg, 1882, by original designation
 syn. *Lossbergiana*, Viette 1951a [13th note]: 5
TS: *Lossbergiana oberthuri* Viette, 1951a, by original designation
1. *Parapielus heimlichii* (Ureta, 1956: 283) (*Hepialus*)
TL: Chile: Santiago, Aculeo, cerros bajos
TC: Museo Nacional de Historia Natural, Santiago
Range: central Argentina-Chile (Nielsen & Robinson 1983: fig. map 430)
Illustration: Ureta (1957: pl. 1, fig. 7), Nielsen & Robinson (1983: figs. 206-209)
Morphology: Nielsen & Robinson (1983)
Biology: unpublished
Habitat: forest (Nielsen & Robinson 1983)
Hosts: unpublished
2. *Parapielus luteicornis* (Berg, 1882: 218) (*Pielus*)
TL: Chile, Patagonia (Fretum Magellanicum, Punta Arenas, Estrecho de Magallanes)
TC: Museo Argentino de Ciencias Naturales Bernardino Rivadavia, Buenos Aires
 syn. form *popperi* (Pfitzner, 1938: 1297) (*Pielus*); subspecies
TL: Patagonia, Fuegia, Magallanes, Punta Arenas; **TC:** unknown
Range: Tierra del Fuego & southern Argentina-Chile (Nielsen & Robinson 1983: fig. map 430)
Illustration: Staudinger (1899: 41, fig. 17), Pfitzner (1938: pl. 99h), Nielsen & Robinson (1983: figs. 202-203)
Morphology: Viette (1949a), Nielsen & Robinson (1983), Grehan (2010)
Biology: unpublished
Habitat: open areas, steppe (Nielsen & Robinson 1983)
Hosts: unpublished
3. *Parapielus oberthuri* (Viette, 1951a [13th note]: 5) (*Lossbergiana*)
TL: Chile: Valdivia
TC: Muséum national d'Historie naturelle, Paris
Range: central Argentina-Chile (Nielsen & Robinson 1983: fig. map 430)
Illustration: Nielsen & Robinson (1983: figs. 204-205)

Morphology: Viette (1951a [13th note]), Nielsen & Robinson (1983)

Biology: unpublished

Habitat: moist forest (Nielsen & Robinson 1983)

Hosts: unpublished

3. *Parapielus reedi* (Ureta, 1957: 163) (*Hepialus*)

TL: Chile, Osorno, Lago Llanquihue, Puerto Octay

TC: Museo Nacional de Historia Natural, Santiago

Range: central-southern Chile (Nielsen & Robinson 1983: fig. map 431)

Illustration: Nielsen & Robinson (1983: figs. 210-211)

Morphology: Nielsen & Robinson (1983)

Biology: unpublished

Habitat: Valdivian forest (Nielsen & Robinson 1983)

Hosts: unpublished

PARATHITARODES Ueda 1999: 137

TS: *Parathitarodes changi* Ueda, 1999, by original designation

1. *Parathitarodes changi* Ueda, 1999: 139 (*Parathitarodes*)

TL: Taiwan, Chiai Hsien, Mt. Alishan, 2,270 m

TC: Kitakyushu Museum of Natural History

Range: Taiwan, type locality record (Ueda 1999)

Illustration: Ueda (1999: pl. 33, figs. a-c)

Morphology: Ueda (1999)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

PFITZNERIANA Viette, 1952a: 29

TS: *Dalaca olivescens* Pfitzner, 1914, by original designation

1. *Pfitzneriana allura* Viette, 1961b [34=35th note]: 5 (*Pfitzneriana*)

TL: Bolivia: Santa Cruz, 500 m

TC: Zoologische Staatssammlungen des bayerischen Staates, Munich

Range: eastern Bolivia (Mielke & Grehan 2012)

Illustration: unpublished

Morphology: unpublished

Biology: unpublished

Habitat: forest (inferred from location and stem boring biology of other cibyrene genera)

Hosts: unpublished

2. *Pfitzneriana obliquestrigata* (Strand, 1912a: 156) (*Dalaca*)

TL: Peru: High Madre de Dios river

TC: Museum für Naturkunde, Berlin

Range: Peru (Mielke & Grehan 2012)

Illustration: Strand (1914: pl. IV, fig. 4)

Morphology: unpublished

Biology: unpublished

Habitat: forest (inferred from location and stem boring biology of other cibyrene genera)

Hosts: unpublished

3. *Pfitzneriana olivescens* (Pfitzner, 1914: 105) (*Dalaca*)

TL: Colombia, [Cundinamarca], Sosomoco

TC: Naturmuseum und Forschungsinstitut Senckenberg, Frankfurt am Main
syn. *manoa* (Pfitzner, 1914: 105) (*Dalaca*), **syn. n.**; junior synonym

Taxonomic amendment. The holotype male of *Dalaca olivescens* (Plate 9, fig. 9b) and the holotype female of *D. manoa* (Plate 9, fig. 9a) together form a pair of the same species with respect to nearly identical forewing pattern, and the specimens are located within 14 km of each other on the same Andean slope of Colombia. This proximity and similarity of wing pattern leads us to consider the two specimens as the same species, consistent with a 0.7% difference in the full COI gene sequence of the respective holotypes. Both taxa were described in the same work and on the same page, so we have chosen *D. olivescens* as the senior synonym as the holotype is a male (as most South American species are known at least for the male), while the holotype of *D. manoa* is a female.

TL: Eastern Colombia, Villavicencio, 450 m; **TC:** Naturmuseum und Forschungsinstitut Senckenberg, Frankfurt am Main

syn. *boliviensis* Viette, 1961b [34=35th note]: 6 (*Pfitzneriana*); subspecies

TL: Bolivia: Cochabamba, Yungas del Palmar; **TC:** Zoologische Staatssammlungen des bayerischen Staates, Munich

Range: eastern Colombia-Bolivia

Illustration: Pfitzner (1937: pl. 99d [as *P. manoa*], pl. 99e [as *P. olivescens*]), Grehan & Rawlins (2018: fig. 24a)

Morphology: unpublished

Biology: unpublished

Habitat: forest (inferred from location and stem boring biology of other cibyrene genera)

Hosts: unpublished

4. *Pfitzneriana vogli* Viette, 1952a [26th note]: 30 (*Pfitzneriana*)

TL: Venezuela: Caracas, Cerro Avila

TC: Zoologische Staatssammlungen des bayerischen Staates, Munich

Range: northern Venezuela (Viette 1952a)

Illustration: Viette (1952a [26th note]: fig. 1)

Morphology: unpublished

Biology: unpublished

Habitat: forest (inferred from location and stem boring biology of other cibyrene genera)

Hosts: unpublished

PFITZNERIELLA Viette, 1950 [16th note]: 116

TS: *Triodia remota* Pfitzner, 1906, by original designation

1. *Pfitzneriella antonkozlovi* Grehan & C. Mielke, 2018d: 8 (*Pfitzneriella*)

TL: Peru: Huánuco, Marañon, 3,270m, 08.68902S, 076.99518W

TC: Carnegie Museum of Natural History, Pittsburgh

Range: Central eastern Peruvian Andes, known, type locality only (Grehan & Mielke 2018d: fig. map 27a)

Illustration: Grehan & Mielke (2018d: fig. 2)

Morphology: Grehan & Mielke (2018d)

Biology: unpublished

Habitat: upper elevation forest (Grehan & Mielke 2018d)

Hosts: unpublished

2. *Pfitzneriella lucicola* (Maassen in Weymer & Maassen, 1890: 137) (*Triodia*)

TL: Ecuador: Putzulagua near Latacunga, 3,600 m

TC: Museum für Naturkunde, Berlin

Range: Andean Ecuador (Mielke & Grehan 2012)

Illustration: Weymer & Maassen (1890: pl. 4, fig. 16), Pfitzner (1938: pl. 185f)

Morphology: unpublished

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

3. *Pfitzneriella olafi* Grehan & C. Mielke, 2018: 10 (*Pfitzneriella*)

TL: Peru: Amazonas, Balsas-Chachapoyas Road, Km 53, 3,100 m, 6°45'56" S 77°53'42"W

TC: Carnegie Museum of Natural History, Pittsburgh

Range: north-eastern Peruvian Andes, known from the type locality only (Grehan & Mielke 2018d: fig. map 27a))

Illustration: Grehan & Mielke (2018d: fig. 3)

Morphology: Grehan & Mielke (2018d)

Biology: unpublished

Habitat: upper elevation forest (Grehan & Mielke 2018d)

Hosts: unpublished

4. *Pfitzneriella rawlinsi* Grehan & C. Mielke, 2018d: 13 (*Pfitzneriella*)

TL: Ecuador: Morona-Santiago, Limón, 2,800 m

TC: Carnegie Museum of Natural History, Pittsburgh

Range: Southeast Ecuador, known from the type locality only (Grehan & Mielke 2018d: fig. map 27a))

Illustration: Grehan & Mielke (2018d: fig. 4)

Morphology: Grehan & Mielke (2018d)

Biology: unpublished

Habitat: upper elevation forest (Grehan & Mielke 2018d)

Hosts: unpublished

5. *Pfitzneriella remota* (Pfitzner, 1906: 276) (*Hepialus*)

TL: Peru: Challabamba, 4,084 m

TC: Naturmuseum und Forschungsinstitut Senckenberg, Frankfurt am Main

Range: Andean Peru (Mielke & Grehan 2012)

Illustration: Pfitzner (1938: pl. 99e), Grehan & Mielke (2018d: fig. 5)

Morphology: Viette (1950j), Grehan & Mielke (2018d)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

6. *Pfitzneriella similis* (Zukowski, 1954: 94) (*Triodia*)

TL: southern Peru: Rio Sondondo, 2,400 m

TC: Hamburger Zoologisches Museum, Hamburg (destroyed in 1943 (Zukowski 1954))

Range: southern Peru (Grehan & Mielke 2018d: fig. map 27a)

Illustration: unpublished

Morphology: unpublished

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

7. *Pfitzneriella titarenkoi* Grehan & C. Mielke, 2018d: 15 (*Pfitzneriella*)

TL: Peru: Junín, Satipo, Pampa Hermosa, 3,380 m, 11.4865S, 074.8871W

TC: Carnegie Museum of Natural History, Pittsburgh

Range: South-central eastern Peruvian Andes, known from type locality only (Grehan & Mielke 2018d: fig. map 27a)

Illustration: Grehan & Mielke (2018d: fig. 6)

Morphology: Grehan & Mielke (2018d)

Biology: unpublished

Habitat: upper elevation forest (Grehan & Mielke 2018d)

Hosts: unpublished

8. *Pfitzneriella yuliyakovalevae* Grehan & C. Mielke, 2018d: 17 (*Pfitzneriella*)

TL: Peru: Junín, Satipo, Pampa Hermosa, 2,690 m, 11.5091S, 074.8596W

TC: Carnegie Museum of Natural History, Pittsburgh

Range: South-central eastern Peruvian Andes (Grehan & Mielke 2018d: fig. map 27a)

Illustration: Grehan & Mielke (2018d: fig. 7)

Morphology: Grehan & Mielke (2018d)

Biology: unpublished

Habitat: upper elevation forest (Grehan & Mielke 2018d)

Hosts: unpublished

PHARMACIS Hübner, [1820]: 199

TS: *Bombyx carna* [Denis & Schiffermüller], 1775, by subsequent designation (Viette 1949g [12th note]: 102)

1. *Pharmacis aemilianus* (Constantini, 1911: 247) (*Hepialus*)

TL: Italy: montane Modena province, Montegibbio, Fiumalbo

TC: unknown

Range: northern alpine Italy (Grehan & Knyazev 2019: fig. 5a)

Illustration: de Freina & Witt (1990: pl. 9, figs. 12-19), Bertaccini *et al.* (1997: pl. 15, figs. 6-9), Leraut (2006: pl. 54, figs. 6-7), Teobaldelli (2010: 177, 2014: 75), Kallies & Farino (2018: figs. 9-10, 28)

Morphology: Viette (1949c [6th note]), Zilli (1988, 1998)

Biology: Zilli (1988, 1998), Teobaldelli (2014), de Freina & Witt (1990), Bertaccini *et al.* (1997), Ancillotto *et al.* (2022)

Habitat: woodland to alpine grasslands 200-2500 m (Zilli 1988, Kallies & Farino 2018)

Hosts: Poaceae, roots.

2. *Pharmacis anselminae* (Teobaldelli, 1977a: 40) (*Hepialus*)

TL: Italy: Aosta Tal, Cogne, Valle Valeille, 2,000 m

TC: McGuire Center for Lepidoptera and Biodiversity, Gainesville

Range: western Italian Alps (Grehan & Knyazev 2019: fig. map 5b)

Illustration: Teobaldelli (1976: fig. 1 [as *Pharmacis bertrandi*], 1977a: fig. 1, 1977b: fig. 1), de Freina & Witt (1990: pl. 9, figs. 38-44), Kristal *et al.* (1994: figs. 4-5), Bertaccini *et al.* (1997: pl. 15, figs. 16-19), Buser *et al.* (2000: 87; 88, fig. 5, 89, fig. 7), Gianti & Delmastro (2006: figs. 1-2), Leraut (2006: pl. 54, figs. 13-14), Kallies & Farino (2018: figs. 17, 25, 34)

Morphology: Teobaldelli (1977a, b), Zilli (1988), Kristal *et al.* (1994), Buser *et al.* (2000), Leraut (2006)

Biology: Brockmann (1988), de Freina & Witt (1990), Sattler (1991), Bertaccini *et al.* (1997), Buser *et al.* (2000), Kallies & Farino (2018)

Habitat: alpine grassy slopes 1,800-2,500 m (de Freina & Witt 1990, Buser *et al.* 2000)

Hosts: Poaceae (probably on grass roots (Axel Kallies pers. comm.))

3. *Pharmacis bertrandi* (Le Cerf, 1936: 290) (*Hepialus*)

TL: France: Abriès, High Alps, grassland zone, 1,900 m

TC: Muséum national d'Historie naturelle, Paris

Range: French and western Italian Alps (Grehan & Knyazev 2019: fig. map 5b)

Illustration: Le Cerf (1936: figs. 1-2, 8), de Freina & Witt (1990: pl. 9, figs. 34-37), Kristal *et al.* (1994: fig. 3), Gianti & Delmastro (2006: figs. 1-2), Leraut (2006: pl. 54, fig. 15; pl. 55, figs. 1-2), Longièras (2013: figs. 1-3, 5), Kallies & Farino (2018: figs. 13, 26)

Morphology: Viette (1948a), Kristal *et al.* (1994), Leraut (2006)

Biology: Viette (1947a, 1948a), de Freina & Witt (1990), Longièras (2013)

Habitat: forest to alpine grassland (de Freina & Witt 1990, Longièras 2013)

Hosts: Poaceae

4. *Pharmacis cantabricus* Kallies & Farino, 2018: 228 (*Pharmacis*)

TL: Northern Spain, Cantabria, Picos de Europa National Park, Sierra de Bejes, ca 800 m, 43.247N, 4.651W

TC: Museum für Naturkunde, Berlin

Range: Cantabria, Spain (Kallies & Farino 2018, Grehan & Knyazev 2019: fig. map 4)

Illustration: Kallies & Farino (2018: figs. 1, 5-8, 29-32)

Morphology: Kallies & Farino (2018)

Biology: Kallies & Farino (2018)

Habitat: montane/subalpine open grassy woodland, meadow/pasture (Kallies & Farino 2018)

Hosts: unpublished

5. *Pharmacis carna* ([Denis & Schiffermüller], 1775: 310) (*Phalaena*)

TL: Austria: Environs of Vienna

TC: presumably Naturhistorisches Museum Wien, but destroyed by 1848 revolution
syn. *jodutta* ([Denis & Schiffermüller], 1775: 61) (*Phalaena*); junior synonym

TL: Austria: Vienna; **TC:** unknown

msp. *iodutta* (Fabricius 1787: 134) (*Hepialus*)

emd. *joduttator* (Haworth 1802: 4) (*Hepialus*); emendation (Nielsen *et al.* 2000: 846), unjustified emendation [Art. 32.5.1]. Haworth (1802: iii) stated "The Aurelian Society, presuming it will be a manifest improvement in the science of Entomology, has resolved, that the...*Hepiali* [shall end] in *ator*;" This is an unjustified emendation because it does not involve the correction of an inadvertent error [Art. 32.5.1]

emd. *carnator* (Haworth 1802: 4) (*Hepialus*); emendation (Nielsen *et al.* 2000: 846) unjustified emendation [Art. 32.5.1]. Explanation as for *joduttator*

syn. *socordis* (Freyer, 1852: 123) (*Hepiolus [sic]*); junior synonym

TL: unknown; **TC:** unknown

syn. *uredo* (Freyer, 1852: 122) (*Hepiolus [sic]*); junior synonym

TL: unknown; **TC:** [originally in Freyer collection]

syn. *transsylvanica* (Daniel, 1949b: 240) (*Hepialus*); subspecies

TL: Transylvania; **TC:** Zoologische Staatssammlungen des bayerischen Staates, Munich

Range: European Alps and Carpathians (Grehan & Knyazev 2019: fig. map 5a)

Illustration: Carangeot (1786: pl. CXCII, figs. 251d-e), Esper (1786: pl. LXXXI Noct 2, fig. 6 [as *jodutta*]; pl. LXXXII Noct 3, fig. 1), Hübner ([1808]: pl. 50, fig. 213 [as *Bombyx jodutta*], Stephens (1828: pl. 13, fig. 1), Boisduval (1834: pl. 69, fig. 4), Freyer (1836: pl. 183, fig. 4; 1852: pl. 560, fig. 1 [as *Hepiolus [sic] uredo*], fig. 2 [as *Hepiolus [sic] socordis*]), Godart & Duponchel (1836: pl. XIV, fig. 1), Wood (1839, 1854: pl. 5, fig. 2), Humphries & Westwood (1843: pl. VIII, fig. 14), Berge (1851: pl. LXVI, Fig. 30), Chenu & Demarest (1876: fig. 46), E. Hofmann (1894: pl. 23, fig. 7), Rebel (1910: pl. 52, fig. 19), Spuler (1910: pl. 80, fig. 7), Pfitzner (1912: pl. 54e), Le Cerf (1936: figs. 3-7), Bytinski-Salz (1939: pl. VII, fig. 15), Daniel (1949b: pl. 9, figs. 10, 11), de Freina & Witt (1990: pl. 8, figs. 59-63; pl. 9, figs. 1-11), Bertaccini *et al.* (1997: pl. 15, figs. 1-5), Buser *et al.* (2000: 81, 82, figs. 4-5), Zhu *et al.* (2004: pl. 4, fig. 4 [genitalia fig. 112 do not match *carna* cf. Kristal *et al.* 1994]), Leraut (2006: pl. 54, figs. 8-11), Székely (2010: pl. 1, figs. 5, 12), Silvonen *et al.* (2014: 60), Kallies & Farino (2018: figs. 14-16, 27, 33)

Morphology: E. Hofmann (1893), Viette (1948a), Toll (1959), Sukhareva (1978), Kristal *et al.* (1994), Buser *et al.* (2000), Zhu *et al.* (2004: fig. 112 [error]), Leraut (2006)

Biology: Ochsenheimer (1810), Boisduval (1834), Freyer (1836), Boisduval (1840), Berce (1868), Kappel & Kirby (1893), E. Hofmann (1893, 1894), Favre & Wullschlegel (1899), Vorbrodts & Müller-Rutz (1914), Gaede (1929), Viette (1948a), Daniel (1950), Bertaccini *et al.* (1997), Gaedike *et al.* (2017), Buser *et al.* (2000), Leraut (2006), Székely (2010)

Habitat: montane forest to alpine grassland (Buser *et al.* 2000)

Hosts: **Gentianaceae** (*Gentiana purpurea*), **Liliaceae** (*Veratrum album*)

6. *Pharmacis claudiae* Kristal & Hirneisen in Kristal *et al.*, 1994: 56 (*Pharmacis*)

TL: Italy: Aosta, Valtourneche oberhalb Antcy-Saint-André, 2,000 m

TC: Natural History Museum, London

Range: Italian Alps (Grehan & Knyazev 2019: fig. map 5b)

Illustration: Kristal *et al.* (1994: figs. 1-2), Bertaccini *et al.* (1997: pl. 15, figs. 10-15), Buser *et al.* (2000: 84, figs. 1, 3), Leraut (2006: pl. 54, fig. 12), Kallies & Farino (2018: fig. 18), Grehan & Knyazev (2019: fig. 5a)

Morphology: Kristal *et al.* (1994)

Biology: Bertaccini *et al.* (1997), Buser *et al.* (2000)

Habitat: subalpine grassland near the timberline (Kristal *et al.* 1994, Buser *et al.* 2000)

Hosts: unpublished

7. *Pharmacis pyrenaicus* (Donzel, 1838: 429) (*Hepialus*)

TL: France: mountains of Cambrusdase, Mount-Louis

TC: unpublished

msp. *pyrenaicus* (Herrich-Schäffer [1846: 1843-1856a]: 7) (*Hepialus*); incorrectly as an emendation by Nielsen *et al.* (2000: 847)

syn. *alticola* (Oberthür, 1881: 527) (*Hepialus*); subspecies (Kallies & Farino 2018)

TL: France: Blue Lake, Mt Monné; **TC:** unknown

Range: Pyrenees (García *et al.* 1983: fig. map 3)

Illustration: Donzel (1838, pl. 2), Godart & Duponchel (1842: pl. LXVIII, fig. 3), Berce (1868: pl. 28, fig. 3), Spuler (1910: pl. 76, figs. 43-44), Pfitzner (1912: pl. 54e [col. 5-6 syn. *alticola*], 54f), Agenjo (1942: pl. III, figs. 20-23), García *et al.* (1983: fig. 5: 7-8), de Freina & Witt (1990: pl. 9, figs. 20-32), Heppner (1991: fig. 1), Sattler (1991: figs. 1-2), Zhu *et al.* (2004: pl. 4, fig. 2 [error, as *Hepialus alticola* Oberthür]), Leraut (2006: pl. 55, figs. 3-10), Kallies & Farino (2018: figs. 11-12, 35)

Morphology: Godart & Duponchel (1842), Agenjo (1942), Viette (1948a)

Biology: Godart & Duponchel (1842), Struve (1882), Barrett *et al.* (1886), McLachlan (1887), Sharp (1909), Bethune-Baker (1913), Viette (1948a), Pérez de Gregorio (1981b), García *et al.* (1983), de Freina & Witt (1990), Sattler (1991), Kallies & Farino (2018)

Habitat: alpine meadows 1900-2800 m (Garcia *et al.* 1983)

Hosts: **Plantaginaceae** (*Plantago* sp.), **Poaceae** (*Festuca* sp.), **Rosaceae** (*Potentilla* sp.)

PHASSODES Bethune-Baker, 1905: 89

TS: *Phassodes odorevalvula* Bethune-Baker, 1905, by original designation

1. *Phassodes samoa* Grehan & C. Mielke, 2020b: 11 (*Phassodes*)

TL: Samoa: Afiamalu, Upolu

TC: Bernice P. Bishop Museum, Honolulu

Range: Samoa (Comstock 1966, Grehan & Mielke 2020b)

Illustration: Grehan & Mielke (2020b: fig. 4)

Morphology: Grehan & Mielke (2020b)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

2. *Phassodes tutuila* Grehan & C. Mielke, 2020b: 13 (*Phassodes*)

TL: America Samoa: near Pago Pago

TC: Bernice P. Bishop Museum, Honolulu

Range: American Samoa (Tams 1935 [as *Phassodes vitiensis*], Grehan & Mielke 2020b)

Illustration: Grehan & Mielke (2020b: fig. 5)

Morphology: Grehan & Mielke (2020b)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

3. *Phassodes vitiensis* (Rothschild, 1895: 482) (*Leto*)

TL: Fiji

TC: Natural History Museum, London

syn. *bimorpha* Bethune-Baker, 1905: 91 (*Phassodes*); junior synonym

TL: Fiji: Viti Levu, Rewa River; **TC:** Natural History Museum, London

syn. *guthrei* Bethune-Baker, 1905: 90 (*Phassodes*); junior synonym

TL: Fiji: Viti Levu, near Rewa River; **TC:** Natural History Museum, London

syn. *nausori* Bethune-Baker, 1905: 91 (*Phassodes*); junior synonym

TL: Fiji: Nausori on Rewa River; **TC:** Natural History Museum, London

syn. *odorevalvula* Bethune-Baker, 1905: 90 (*Phassodes*); junior synonym

TL: Fiji: Nausori; **TC:** Natural History Museum, London

syn. *rewaensis* Bethune-Baker, 1905: 91 (*Phassodes*); junior synonym

TL: Fiji: Nausori; **TC:** Natural History Museum, London

syn. *vitensis* Bethune-Baker, 1905: 92 (*Phassodes*); junior synonym

TL: Fiji: Nausori; **TC:** Natural History Museum, London

Range: Fiji (Grehan & Mielke 2020)

Illustration: Bethune-Baker (1905: pl. 9), Pfitzner & Gaede (1933: pl. 74c-d), Tams (1935: pl. XII, fig. 1), Grehan & Mielke (2018b: fig. 1i), Grehan & Mielke (2020b: fig. 2).

Morphology: Viette (1950a [9th note])

Biology: unpublished

Habitat: forest (inferred, Grehan & Mielke 2018b)

Hosts: unpublished

4. *Phassodes walteri* Grehan & C. Mielke, 2020b: 9 (*Phassodes*)

TL: Solomon Islands, Guadalcanal Island, Lunga River, Honiara, 2–10 km South of Barana Village

TC: Bernice P. Bishop Museum, Honolulu

Range: Guadalcanal (Grehan & Mielke 2020b)

Illustration: Grehan & Mielke (2020b: fig. 3)

Morphology: Grehan & Mielke (2020b)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

PHASSUS Walker, 1856: 1566

TS: *Phassus argentiferus* Walker, 1856, by subsequent designation (Kirby 1892: 890)

General (unspecified): Sandoval & Nishida (2015 [sound production, *Phassus* sp.]), Jimeno *et al.* (2021 [food and medical uses])

1. *Phassus aurigenus* Pfitzner, 1914: 110 (*Phassus*)
TL: Costa Rica: Orosi, 1,200 m
TC: Naturmuseum und Forschungsinstitut Senckenberg, Frankfurt am Main
Range: Costa Rica (Grehan *et al.* 2018: fig. map 12)
Illustration: Pfitzner (1938: pl. 99h), Grehan *et al.* (2018b: figs. 1-3), Grehan *et al.* (2021d: fig. 1), Grehan *et al.* (2022b: fig. 14j)
Morphology: unpublished
Biology: unpublished
Habitat: forest (Grehan *et al.* 2018b)
Hosts: unpublished
2. *Phassus basirei* Schaus, 1890: 46 (*Phassus*)
TL: Mexico: Coatepec
TC: National Museum of Natural History, Washington
Range: southern Mexico (Schaus 1890)
Illustration: Grehan *et al.* (2022b: fig. 14h)
Morphology: unpublished
Biology: unpublished
Habitat: forest (inferred by stem boring habit of other species in the genus)
Hosts: unpublished
3. *Phassus championi* Druce, 1887: 233 (*Phassus*)
TL: Guatemala: Purula, 4,000 ft
TC: Natural History Museum, London
Range: Guatemala (Druce 1887)
Illustration: Druce (1887: pl. 24, fig. 11), Pfitzner (1938: pl. 185d), Grehan *et al.* (2021d: fig. 1), Jimeno *et al.* (2021: fig. 12), Grehan *et al.* (2022b: fig. 14e)
Morphology: Grehan *et al.* (2018b)
Biology: unpublished
Habitat: forest (inferred by stem boring habit of other species in the genus)
Hosts: unpublished
4. *Phassus chrysodidyma* Dyar, 1915: 85 (*Phassus*)
TL: Mexico: Zacualpan
TC: National Museum of Natural History, Washington
Range: southern Mexico (Dyar 1915)
Illustration: Grehan *et al.* (2022b: fig. 14k)
Morphology: Grehan *et al.* (2018b)
Biology: unpublished
Habitat: forest (inferred by stem boring habit of other species in the genus)
Hosts: unpublished
5. *Phassus exclamationis* Pfitzner, 1938: 1299 (*Phassus*)
TL: unknown
TC: unknown
Range: unpublished

Illustration: unpublished

Morphology: unpublished

Biology: unpublished

Habitat: forest (inferred by stem boring habit of other species in the genus)

Hosts: unpublished

6. *Phassus huebneri* (Geyer, [1838]: 53) (*Pharmacis*)

TL: Mexico

TC: Natural History Museum, London

syn. *argentiferus* Walker, 1856: 1566 (*Phassus*); junior synonym

TL: Mexico; **TC:** Natural History Museum, London

syn. *pedipogon* Strand, 1916b: 25 (*Phassus*); junior synonym

TL: Costa Rica; **TC:** Natural History Museum, London

Range: southern Mexico-Central America (Grehan *et al.* 2022b)

Illustration: Geyer (1838: pl. [53, figs. 1-2]), Strand (1916b: pl. 15, fig. 6), Pfitzner (1938: pl. 100c right column [center column as *P. argentiferus*]), Tindale (1941: pl. VII, fig. 73 [as *P. argentiferus*]), Jimeno *et al.* (2021: fig. 12), Esquivel-Ayala *et al.* (2022: figs. 1a-c), Grehan *et al.* (2022b: fig. 3)

Morphology: Snodgrass (1909), Shepard (1930), Viette (1950c [15th note]), Grehan *et al.* (2018b), Esquivel-Ayala *et al.* (2022)

Biology: Krause (1962 [as *P. argentiferus*]), Esquivel-Ayala *et al.* (2022)

Habitat: forest (inferred by stem boring habit of other species in the genus)

Hosts: **Verbenaceae** (*Lantana camera*)

7. *Phassus marcius* Druce, 1892: 278 (*Phassus*)

TL: Mexico: near Durango City

TC: Natural History Museum, London

Range: central Mexico (Druce 1892)

Illustration: Druce (1898: pl. 89, fig. 4), Pfitzner (1938: pl. 100a), Grehan *et al.* (2022b: fig. 14i)

Morphology: unpublished

Biology: unpublished

Habitat: forest (inferred by stem boring habit of other species in the genus)

Hosts: unpublished

8. *Phassus n-signatus* Weymer, 1907: 37 (*Phassus*)

TL: Guatemala

TC: unknown

Range: southern Mexico-Central America (Mielke & Grehan 2012)

Illustration: Pfitzner (1938: pl. 100a [as *Phassus triangularis*]), Chacón & Montero (2007: pl. 1 [as *Phassus* sp.]), Grehan *et al.* (2021d: fig. 1), Grehan *et al.* (2022b: fig. 14d)

Morphology: Grehan *et al.* (2018b)

Biology: Grehan *et al.* (2021d)

Habitat: forest, mixed residential habitat (Grehan *et al.* 2021d)

Hosts: **Oleaceae** (*Ligustrum lucidum*)

9. *Phassus rosulentus* Weymer, 1907: 35 (*Phassus*)

TL: Mexico: Veracruz, Jalapa

TC: unknown

Range: southeastern Mexico (Mielke & Grehan 2012)

Illustration: unpublished

Morphology: unpublished

Biology: unpublished

Habitat: forest (inferred by stem boring habit of other species in the genus)

Hosts: unpublished

10. *Phassus triangularis* Edwards, 1885b: 129 (*Phassus*)

TL: Mexico: Veracruz, Jalapa

TC: American Museum of Natural History, New York

inf. form *triangularides* (Pfitzner, 1938: 1299) (*Phassus*); Mexico; depository unknown

Range: southern North America–Central America (Mielke & Grehan 2012)

Illustration: Druce (1898: pl. 89, fig. 1), Pfitzner (1938: pl. 100a, c [latter as *P. triangularides*]), Grehan et al. (2018: fig. 4), Jimeno et al. (2021: fig. 12), Grehan et al. (2021d: fig. 1), Grehan et al. (2022b: fig. 14g)

Morphology: Packard (1895b), Headlee (1907), Grehan (2010), Snodgrass (1909), Arguedas & Espinoza (2007), Grehan et al. (2018b)

Biology: Schaus (1888), Barrett (1900), Moreno (1989), Hilje et al. (1991, 1992), Arguedas et al. (1997), Arguedas (2007, 2020), Arguedas & Espinoza (2007), Ramos-Elorduy et al. (2011), Escamilla-Prado et al. (2012), Gamboa & Solis (2015), Gómez et al. (2016), Jimeno et al. (2021)

Habitat: forest (Moreno 1989)

Hosts: **Asteraceae** (*Senecio salignus*), **Betulaceae** (*Alnus acuminata*), **Combretraceae** (*Terminalia oblonga*), **Oleaceae** (*Fraxinus uhdei*), **Scrophulariaceae** (*Buddleja parviflora*)

11. *Phassus violetteae* C. Mielke & Grehan, 2015b: 118 (*Phassus*)

TL: Costa Rica: Cartago, Tapantí, 1,600 m

TC: Instituto Nacional de Biodiversidad, San José

Range: montane Costa Rica (Mielke & Grehan 2015b: fig. map 20)

Illustration: Mielke & Grehan (2015b: figs. 4-7), Grehan et al. (2021d: fig. 1), Grehan et al. (2022b: fig. 14f)

Morphology: Mielke & Grehan (2015b), Grehan et al. (2018b)

Biology: unpublished

Habitat: forest (Mielke & Grehan 2015b)

Hosts: unpublished

12. *Phassus zapalinamensis* Grehan, C. Mielke & Garzón-Orduña in Grehan et al., 2022b: 2 (*Phassus*)

TL: Parque Ecoturístico El Chorro: 25.382839, -100.78788, 1904 MASL Arteaga, Coahuila, México.

TC: Colección Nacional de Insectos, Universidad Nacional Autónoma de México, México city

Range: northeastern Mexico (Grehan et al. 2022: fig. map 18)

Illustration: Grehan et al. (2022: fig. 1), Grehan et al. (2022b: figs. 1-2, 14, 17a-c)

Morphology: Grehan *et al.* (2022)

Biology: unpublished

Habitat: forest (Grehan *et al.* 2022)

Hosts: unpublished

PHIALUSE Viette, 1961b [34=35th note]: 4

TS: *Phialuse palmar* Viette, 1961b [34=35th note], by original designation

1. *Phialuse palmar* Viette, 1961b [34=35th note]: 4 (*Phialuse*)

TL: Bolivia: Cochabamba, Yungas del Palmar, 1,500 m

TC: Zoologische Staatssammlungen des bayerischen Staates, Munich

Range: central-western South America (Mielke & Grehan 2012)

Illustration: unpublished

Morphology: Viette (1961b [34=35th note])

Biology: unpublished

Habitat: forest (inferred from stem boring biology of other cibyrene species)

Hosts: unpublished

PHILOENIA Kirby, 1892: 885

TS: *Pharmacis lagopus* Möschler, 1877, by original designation

msp. *Philaenia* (Wagner & Pfitzner 1911: 14)

1. *Philoenia brasiliensis* (Viette (1952b [23rd note]: 143) (*Philaenia* [*sic*]))

TL: Brazil: Rio de Janeiro, Petrópolis

TC: Naturhistorisches Museum Wien

Range: southeastern Brazil

Illustration: unpublished

Morphology: Viette (1952b [23rd note])

Biology: unpublished

Habitat: forest (inferred from stem boring biology of other cibyrene species)

Hosts: unpublished

2. *Philoenia brunnea* (Schaus, 1901: 77) (*Cibyra*)

TL: Venezuela: Aroa

TC: National Museum of Natural History, Washington

Range: eastern Peru, type locality only (Schaus 1901)

Illustration: Grehan & Mielke (2018: fig. 9)

Morphology: Grehan & Mielke (2018)

Biology: unpublished

Habitat: forest (inferred from stem boring biology of other cibyrene species)

Hosts: unpublished

3. *Philoenia cocama* (Pfitzner, 1914: 110) (*Dalaca*), **comb. n.**

Taxonomic amendment: The close similarity (maximum of 5% when compared to congeners) of the COI full sequence places *D. cocama* Pfitzner, 1914 among members of *Philoenia*. This

placement is also consistent with its external appearance, as shown by the presence of scattered, dark brown curved to semi-lunar lines in this species and *P. saguanmachica* (Plate 10).

TL: Peru: Huancabamba, 6,400 ft

TC: Naturmuseum und Forschungsinstitut Senckenberg, Frankfurt am Main

Range: eastern Colombia, Peru (Pfitzner 1914)

Illustration: unpublished

Morphology: unpublished

Biology: unpublished

Hosts: unpublished

4. *Philoenia fasslii* (Pfitzner, 1914: 106) (*Dalaca*)

TL: Colombia: Sosomoco (*recte* Susumoco), 800 m

TC: Naturmuseum und Forschungsinstitut Senckenberg, Frankfurt am Main

Range: eastern Colombia

Illustration: Pfitzner (1937: pl. 99f)

Morphology: Viette (1950j, 1952b)

Biology: unpublished

Habitat: forest (inferred from stem boring biology of other cibyrene species)

Hosts: unpublished

5. *Philoenia guyanensis* (Viette, 1951 [13th note]: 3) (*Aepytus*)

TL: French Guiana

TC: Muséum national d'Historie naturelle, Paris

Range: northeastern South America

Illustration: unpublished

Morphology: Viette (1951a [13th note])

Biology: unpublished

Habitat: forest (inferred from stem boring biology of other cibyrene species)

Hosts: unpublished

6. *Philoenia indicata* (Strand, 1912b: 100) (*Dalaca*)

TL: Ecuador: Macas

TC: Natural History Museum, London

Range: Ecuador

Illustration: Strand (1914: pl. XI, fig. 13)

Morphology: unpublished

Biology: unpublished

Habitat: forest (inferred from stem boring biology of other cibyrene species)

Hosts: unpublished

7. *Philoenia lagopus* (Möschler, 1877: 670) (*Pharmacis*)

TL: Inner Surinam

TC: Museum für Naturkunde, Berlin

Range: Surinam

Illustration: Möschler (1877: pl. 9, fig. 34), Pfitzner (1937: pl. 99c)

Morphology: Viette (1951a [13th note])

Biology: unpublished

Habitat: forest (inferred from stem boring biology of other cibyrene species)

Hosts: unpublished

8. *Philoenia nannophyes* (Pfitzner, 1914: 110) (*Dalaca*), **stat. rev., comb. n.**

Taxonomic amendment: *Dalaca (Triodia) nannophyes* Pfitzner, 1914 was treated by Nielsen *et al.* (2000) as a junior synonym of *Dalaca cocama*, the first with a lectotype as a male and the second as a female. However, the full COI gene sequence of both primary types revealed a distance of 3.9% between them, suggesting that they are distinct taxa. A sequence similarity of a maximum of 5% placed *D. nannophyes* within *Philoenia* and we therefore refer here to the species as *Philoenia nannophyes*, **stat. rest., comb. n.** The forewing of this species is heavily rubbed of most scales, but a white composite outer discal stigma is present, as seen in other *Philoenia* species (Plate 11).

TL: Ecuador: Macas

TC: Naturmuseum und Forschungsinstitut Senckenberg, Frankfurt am Main

Range: Amazonian Ecuador

Illustration: Pfitzner (1914: fig. 99)

Morphology: unpublished

Biology: unpublished

Habitat: forest (inferred from stem boring biology of other cibyrene species)

Hosts: unpublished

9. *Philoenia niepelti* (Pfitzner *in* Strand, 1914: 59) (*Dalaca*), **comb. n.**

Taxonomic amendment: The full COI sequence of the lectotype female of *Dalaca niepelti* Pfitzner, 1914 places it among members of *Philoenia* with a maximum divergence of 5 % similarity to its congeners, and is here treated as *Philoenia niepelti*, **comb. n.** This placement is also consistent with its external appearance. The forewings do not show clear, contrasting wing pattern features due to scale disturbance (Plate 12), but the curved, inter-vein transverse lines are visible. Pfitzner (1914) described *D. niepelti* based on an uncertain number of specimens, but figured a male and a female. In order to stabilize the name, the female found **is here designated as the lectotype**. Lectotype female with the following labels: Type/ Original/ Macas-Ecuad. 1905-06./ 1. 19/ 50/ Joicey. Coll. B. M. 1929-122/ *Dalaca Niepelti* Pfitzner, Collection Niepelt; Naturmuseum und Forschungsinstitut Senckenberg, Frankfurt, Germany (NFSF).

TL: Ecuador: Macas

TC: Natural History Museum, London

Range: Amazonian Ecuador

Illustration: Strand (1914: pl. XI, fig. 14)

Morphology: unpublished

Biology: unpublished

Habitat: forest (inferred from stem boring biology of other cibyrene species)

Hosts: unpublished

10. *Philoenia saguanmachica* (Pfitzner, 1914: 110) (*Dalaca*)

TL: Colombia: East Colombia, Buenavista, 1,200 m

TC: Naturmuseum und Forschungsinstitut Senckenberg, Frankfurt am Main

Range: eastern Colombia

Illustration: Pfitzner (1937: pl. 99g)

Morphology: Viette (1950j)

Biology: unpublished

Habitat: forest (inferred from stem boring biology of other cibyrene species)

Hosts: unpublished

11. *Philoenia thisbe* (Druce, 1901: 437) (*Dalaca*)

TL: Colombia

TC: Natural History Museum, London

syn. form *hemichrysea* (Pfitzner, 1937: 1296) (*Dalaca*); subspecies

TL: East Colombia, Sosomoco; **TC:** Naturmuseum und Forschungsinstitut Senckenberg, Frankfurt am Main

Range: Colombia (Druce 1901)

Illustration: Pfitzner (1937: pl. 99g [as *Dalaca hemichrysea*]), Grehan & Mielke (2018: fig. 11)

Morphology: Grehan & Mielke (2018a)

Biology: unpublished

Habitat: forest (inferred from stem boring biology of other cibyrene species)

Hosts: unpublished

PHTHIUS C. Mielke & Grehan, 2017: 132

TS: *Phthius punctatus* C. Mielke & Grehan, 2017, by original designation

1. *Phthius punctatus* C. Mielke & Grehan, 2017: 133 (*Phthius*)

TL: Brazil: São Paulo, São Paulo-Agua Funda

TC: Entomological Collection of Oswaldo Cruz Institute, Rio de Janeiro

Range: southeastern Brazil 800-1400 m (Mielke & Grehan 2017: fig. map 11)

Illustration: Mielke & Grehan (2017: figs. 1-2)

Morphology: Mielke & Grehan (2017)

Habitat: forest (inferred from stem boring biology of related genera)

Biology: unpublished

PHYMATOPUS Wallengren, 1869: 20

TS: *Phalaena Noctua hecta* Linnaeus, 1758, by monotypy

msp. *Phygmatorpus* (Pagenstecher 1909: 448)

syn. *Hepiolopsis* Börner, 1920: 395; junior synonym

TS: *Phalaena Noctua hecta* Linnaeus, 1758, by monotypy

msp. *Phimatopus* (Lempke 1961: 183)

1. *Phymatopus behrensii* (Stretch, 1872: 105) (*Sthenopsis*)

TL: USA: California, Sonoma County [Mendocino Co.], Timber Cove

TC: American Museum of Natural History, New York, not found (Wagner 1985)

msp. *behrnsii* (Stretch 1872) (*Sthenopsis*)

syn. *montana* (Stretch, 1872: 105) (*Sthenopsis*); junior synonymy

TL: USA: California, Lake Tahoe; **TC:** American Museum of Natural History, New York

syn. *tacomae* (Edwards, 1874b: 365) (*Epialus* [*sic*]); junior synonymy

TL: USA: Washington, Tacoma; **TC:** American Museum of Natural History, New York

syn. *desolatus* (Strecker, 1875: 107) (*Hepialus*); junior synonymy

TL: USA: California, Owen's Lake; **TC:** Field Museum of Natural History, Chicago

syn. *anceps* (Edwards, 1881: 36) (*Hepialus*); junior synonymy

TL: USA: California, Mendocino; **TC:** American Museum of Natural History, New York

Range: central and northwestern United States (Wagner 1985: fig. map 6.53)

Illustration: Stretch (1872: pl. 4, figs. 6-7 [7 as *Sthenopsis montana*]), Wagner (1985: figs. 6.3-6.4, 6.15)

Morphology: Wagner (1985)

Biology: Wagner (1985), Robinson *et al.* (2002)

Habitat: open forests, including mixed Fagaceae, Ericaceae, Pinaceae (Wagner 1985)

Hosts: Fagaceae (*Lithocarpus densiflorus*)

2. *Phymatopus californicus* (Boisduval, 1868: 85) (*Hepialus*)

TL: USA: California

TC: National Museum of Natural History, Washington

syn. *sequoiolus* (Behrens, 1876: 174) (*Hepialus*); junior synonym

TL: USA: California, Mendocino; **TC:** Natural History Museum, London

syn. *mendocinulus* (Behrens, 1876: 174) (*Hepialus*); junior synonym

TL: USA: California, Mendocino; **TC:** Natural History Museum, London

syn. *baroni* (Behrens, 1876: 175) (*Hepialus*); junior synonym

TL: USA: California, Mendocino; **TC:** Natural History Museum, London

syn. *rectus* (Edwards, 1881: 35) (*Hepialus*); junior synonym

TL: USA: California, Contra Costa County; **TC:** American Museum of Natural History, New York

Range: central and northwestern United States (Wagner 1985: fig. map 6.54)

Illustration: Pfitzner (1937: 99a, 99a column 3 [as *Hepialus sequoiolus*]); Wagner (1985: figs. 6.5-6.6, 6.12, 6.16.), Solomon (1995: figs. 4a-b)

Morphology: Behrens (1876), Williams (1905c), Wagner (1985), Provazníková (2022 [karyotype])

Biology: Williams (1905a-c), Essig (1958 [as *Hepialus behrensi*]), Opler (1968), Barbour (1970), Kubo *et al.* (1985), Uchino *et al.* (1985), Wagner (1985, 1987), Bianchi & Tava (1987), Solomon (1995), Strong *et al.* (1995, 1996), Jaffee *et al.* (1996), Koppenhöfer *et al.* (1996), Stock *et al.* (1996), Ram *et al.* (1998), Maron (1998, 2001), Preisser (2002a, b), Majerus (2002), Robinson *et al.* (2002), Bastow *et al.* (2008), Gruner *et al.* (2009), Collin *et al.* (2010)

Habitat: coastal dune, chaparral, ericaceous/redwood forests, fencerows, pasture, urban (Wagner 1985)

Hosts: Plants – **Asteraceae** (*Baccharis pilularis*, *Eriophyllum staechadifolium*, *Helenium puberulum*), **Ericaceae** (*Rhododendron* sp.), **Fabiaceae** (*Lupinus arboreus*), **Polygonaceae** (*Rumex* sp.), **Rosaceae** (*Malus sylvestris*, *Rubus* sp.), **Scrophulariaceae** (*Calceolaria* sp., *Penstemon fruticosus*). **Pteridophyta**

3. *Phymatopus hecta* (Linnaeus, 1758: 822 [Appendix]) (*Phalaena Noctua*)

TL: Sweden?

TC: Linnean Society, London

syn. *clavipes* (Retzius, 1783: 43) (*Phalaena*); subspecies

TL: unknown; **TC:** unknown

syn. *nemorosa* (Esper, 1786: 30) (*Noctua*); subspecies

TL: unknown; **TC:** unknown

emd. *hectator* (Haworth 1802: 19) (*Hepialus*); emendation (Nielsen *et al.* 2000: 848) unjustified emendation [Art. 32.5.1]. Haworth (1802: iii) stated "The Aurelian Society, presuming it will be a manifest improvement in the science of Entomology, has resolved, that the... *Hepiali* [shall end] in *ator*;"

inf. ab. *unicolor* (Petersen, 1902: 306) (*Hepialus*); Estonia; depository unknown

syn. *decorata* (Krulikowsky, 1908b: 18) (*Hepialus*); junior synonym

TL: eastern Russia; **TC:** unknown

Taxonomic note: This name was listed as *nomen nudum* by Nielsen *et al.* (2000), but this was in reference to the name listed without description by Krulikowsky (1908a: 272) which was published on 14 April whereas the name and description by Krulikowsky (1908b: 18) was published on 1 April.

inf. ab. *strigosa* (Hartweg, 1922: 43) (*Hepialus*); Germany: Braunschweig; originally in Hartweg collection

syn. *hectica* (Bang-Haas, 1927: 84) (*Hepialus*); junior synonym.

Taxonomic Note: This species name is treated as a synonym of *P. hecta* in the faunal checklist by Knyazev (2019) as the genitalia are identical to that of *P. hecta* (Svyatoslav Knyazev pers. comm.)

TL: Russia: Gouv Irkutsk, Sajon Mont, Tunkins; **TC:** Museum für Naturkunde, Berlin

inf. ab. *nigra* (Lempke, 1938: 304) (*Hepialus*); Netherlands: Breda; depository unknown

inf. ab. *confluens* (Bytinski-Salz, 1939: 84) (*Hepialus*); United Kingdom: Essex, Thundersley; depository unknown

inf. ab. *inversa* (Bytinski-Salz, 1939: 85) (*Hepialus*); Latvia, St. Amata: depository unknown

inf. ab. *ornata* (Bytinski-Salz, 1939: 85) (*Hepialus*); United Kingdom: Essex, Thundersley; depository unknown

inf. f. *zetterstedti* (Burrau, 1950: 85) (*Hepialus*); Sweden: Ångermanland; reference specimens originally in Burrau collection]

inf. f. *radiata* (Lucas, 1959: 204) (*Hepialus*); Netherlands: Montferland

inf. f. *continua* (van Wisselingh, 1961: 39) (*Hepialus*); Netherlands: Wassenaar; originally in Wisselingh collection

inf. f. *brunnea* Lempke, 1961: 184 (*Phimatopus* [*sic*]); Netherlands: Hilversum; Naturalis Biodiversity Centre, Leiden

inf. f. *fusca* Lempke, 1961: 184 (*Phimatopus* [*sic*]); Netherlands: van Dabbelo; Naturalis Biodiversity Centre, Leiden

inf. f. *reducta* Lempke, 1961: 185 (*Phimatopus* [*sic*]); Netherlands: van Korten Hof; Naturalis Biodiversity Centre, Leiden

inf. f. *rufa* Lempke, 1961: 184 (*Phimatopus* [*sic*]); Netherlands: van Putten; Naturalis Biodiversity Centre, Leiden

syn. *albomaculatus* Tshistjakov, 1996a: 5 (*Phymatopus*); subspecies.

TL: Russia: Primorskii Krai, Middle Bikin River, Okhotian zone, Mount Gol'tzovayal; **TC:** Institute of Biology and Pedology, Vladivostok

Range: northern Eurasia

Illustration: De Geer (1752: pl. 7, fig. 12, 1778: pl. 44, figs. 14), Carangeot (1786: pl. CXCII, fig. 249c [uncertain], pl. CXCIII, figs. 251a-c, 253 a-b), Esper (1786: pl. LXXX Noct 1, figs. 5-7, pl. LXXXI, fig. 5 [as *Hepialus nemorosa*]), Donovan (1796: pl. CCLXXIV, fig. 2), Hübner

([1808]: pl. 49, figs. 208-209), Godart (1822: pl. 1, figs. 3-4), Meigen (1832: pl. LXXXIX, figs. 6a-b, 7), Lucas & Noel (1834: pl. 67, 4th row from top), Wood (1839, 1854: pl. 5, fig. 5), Humphries & Westwood (1843: pl. VIII, figs. 1-2), (1850: 125), Freyer (1852: pl. 540), Stainton (1857: 110), Berge (1863: pl. 16, fig. 1), Depuiset (1867, 1877: pl. 29, fig. 1), Newman (1869: fig. 33), Morris (1871: pl. VII, fig. 4), Kirby (1882: pl. 26, fig. 6; 1903: pl. XXV, fig. 17; 1913: pl. 28, fig. 13), E. Hofmann (1894: pl. 23, fig. 10), Barrett (1895: pl. LXII, fig. 1), Gordon (1896: pl. 2, fig. 157), Lampert (1907: pl. 87, fig. 9), South (1908: pl. 158, figs. 7-8), Rebel (1910: pl. 52, fig. 22; 1911: pl. 24, fig. 9), Spuler (1910: pl. 80, fig. 10), Pfitzner (1912: pl. 54g), Stewart (1913: pl. 1, fig. 23), Ealand (1921: pl. XL, fig. 23), Bytinski-Salz (1939: pl. VII, figs. 10-14), Viette (1948a: fig. 60), Burrau (1950: pl. 1, figs. 20-21), Bergmann (1953: pl. 110, figs. A5, B5), Koch (1955: pl. 14, fig. 215), Gullander (1964: 88, fig. 6), Chinery (1973: pl. 19, fig. 4; 1986: 133), Heath (1976: pl. 10, figs. 28-30), Herbulot (1978: pl. XI, fig. 307), Sukhareva (1978: fig. 37.3), Skinner (1985: pl. 1, figs. 13-15), de Freina & Witt (1990: pl. 9, 52-69), Speidel (1994: 132-133), Bertaccini *et al.* (1997: pl. 14, figs. 16-19), Buser *et al.* (2000: 90; 92, figs. 5, 7, 93, figs. 8-10), Waring & Townsend (2003: 46, 2017, pl. 1), Leraut (2006: pl. 57, figs. 5-10), Post (2006: figs. 1-2), Székely (2010: pl. 1, figs. 9-10), Piccozi (2012: pl. 16), Silvonen *et al.* (2014: fig. 60, pl. fig. 3), Glime (2017: fig. 84), Grehan & Knyazev (2019: fig. 6), Randle *et al.* (2019: fig. 16)

Morphology: De Geer (1752), Carangeot (1786), Hübner ([1808]), Godart (1822), Curtis (1828), Duncan (1836), Westwood (1840), Dohrn (1845), von Prittwitz (1845), Boheman (1847), Bertkau (1879, 1882), Brischke (1879), Wilson & Wilson (1880), Sang (1884), Buckler (1887), E. Hofmann (1893), Barrett (1895), Kellogg (1895b), Packard (1895c), Deegener (1902), Illig (1902), Quail (1903), Forbes (1910), Schultz (1914), Schierbeek (1917a-b), Pierce & Beirne (1941), Janse (1942), Murray (1943), Stokoe & Stovin (1948), Portier (1949), Viette (1948a), Gerasimov (1952), Toll (1959), Aitkenhead & Baker (1964), Sukhareva (1978), Ueda (1980), Fehrenbach (1990), Tshistjakov (1996a), Buser *et al.* (2000), Leraut (2006: pl. 56, figs. 5-10), Piccozi (2012), Randle *et al.* (2019: 23)

Biology: Fabricius (1781), Carangeot (1786), Gmelin (1790), Olivier (1792), Haworth (1803), Ochsenheimer (1810), Godart (1822), Tigney & Guérin (1828), Stephens (1828), Meigen (1832), Treitschke (1834), Boisduval (1840), Eversmann (1841), Dohrn (1845), von Prittwitz (1845), Nickerl (1850), Freyer (1852), Stainton (1857), Wilde (1860), Birchall (1863), Berge (1863), Depuiset (1867), Newman (1869), Scudder (1869), Dietze (1871), Morris (1871), Kaltenbach (1874), Merrin (1875), Burges (1880), Wilson & Wilson (1880), Barrett (1882, 1887, 1895), Robson (1887a), Bertkau (1879, 1882), Dimmock (1882), Roberts (1886), Buckler (1887), Robson (1887b), Hoffmann (1888), Riesen (1888), Aurivillius (1888-1891), Seymour St. John (1890), Tutt (1892), E. Hofmann (1893, 1894), Kappel & Kirby (1893), Meyrick (1895), Favre & Wullschlegel (1899), Carr (1900), Pabst (1901), Rockstroh (1901), Robson (1902), Kirby (1903, 1913), Moutier (1903), Lampert (1907), Peets (1908), Sharp (1909), Cockayne (1912), Cockayne & Jackson (1913), Pfitzner (1913), Scorer (1913), Stewart (1913), Blaschke (1914), Vorbrodtt & Müller-Rutz (1914), McIndoo (1918), Smart (1918), Ealand (1921), Meisenheimer (1921), Eckstein (1923), Gaede (1929), Escherich (1931), Hanson (1938), Allan (1943), Fletcher (1943), Stokoe & Stovin (1948), Viette (1948), Portier (1949), Gerasimov (1952), Bergmann (1953), Edelsten (1957), Harper (1959), Jones & Jones (1964), Habeler (1967), Long (1969), Heath (1976), Lawton (1976), J. Turner (1976, 1988, 2013, 2014, 2015), Chalmers-Hunt (1981), Duddington & Johnson (1983), Ganev (1984), Francke *et al.* (1985), Sinnwell *et al.* (1985), Skinner (1985), Wagner (1985), Sutton & Beaumont (1989), de

Freina & Witt (1990), Schulz *et al.* (1990), Aistleitner (1991), Emmet (1991), Speidel (1994), Bertaccini *et al.* (1997), Porter (1997), Rydell (1998), Buser *et al.* (2000), Rydell & Lancaster (2000), Habeler (2001), Majerus (2002: 114), Waring & Townsend (2003, 2017), Sterling & Heckford (2005), Post (2006), Klepikov (2008), Hill (2010), Szekely (2010), Piccozzi (2012, 2013), Silvonen *et al.* (2014), Glime (2017), Kozlov *et al.* (2022 [suppl. data])

Habitat: Humid, herbaceous, semi-shaded areas, forest edges & openings (Buser *et al.* 2000)

Hosts: **Bryophyta** (Moss). Plants – **Asteraceae** (*Arctium lappa*, *Taraxacum officinale*), **Brassicaceae** (*Armoracia rusticana*), **Dennstaedtiaceae** (*Pteridium aquilinum*), **Ericaceae** (*Erica vulgaris*, *Calluna vulgaris*, *Vaccinium myrtillus*), **Mniaceae** (*Mnium hornum*), **Paeoniaceae** (*Paeonia officinalis*), **Plantaginaceae** (*Plantago* sp.), **Polygonaceae** (*Rumex* sp.), **Primulaceae** (*Primula veris*), **Pteridaceae** (*Pteris aquilinaum*), **Thymeliaceae** (*Passerina* sp.), **Urticaceae** (*Urtica* spp.)

4. *Phymatopus hectoides* (Boisduval, 1868: 85) (*Hepialus*)

TL: USA: California

TC: National Museum of Natural History, Washington

syn. *modestus* (H. Edwards, 1873: 112) (*Epialus* [*sic*]); junior synonym

TL: USA: California, San Miguel; **TC:** American Museum of Natural History, New York

syn. *lenzi* (Behrens, 1876: 175) (*Hepialus*); junior synonym

TL: USA: California, Mendocino; **TC:** Natural History Museum, London

syn. *sangaris* (Strecker, [1878]: 136) (*Hepialus*); junior synonym

TL: USA: Arizona; **TC:** Field Museum of Natural History, Chicago

syn. *inutilis* (H. Edwards, 1881: 36) (*Hepialus*); junior synonym

TL: USA: California, Sierra Nevada; **TC:** American Museum of Natural History, New York

Range: western United States (Wagner 1985: fig. map 6.55)

Illustration: Strecker (1878: pl. XV, fig. 5 [as *Hepialus sangaris*]), Pfitzner (1937: pl. 99a column 4, [column 2 as *Hepialus lenzi*]), Wagner (1985: figs. 6.7-6.8, 6.17)

Morphology: Eyer (1925), Wagner (1985)

Biology: Spalding (1918), Wagner (1985), Valenti & Zack (1995), Robinson *et al.* (2002)

Habitat: grassy meadows, coastal chaparral, oak woodland, forest clearing and edge (Wagner 1985)

Hosts: Plants – **Asteraceae** (*Artemisia californica*, *Baccharis pilularis*, *Chrysopsis villosa*, *Eriophyllum staechadifolium*), **Ericaceae** (*Arctostaphylos patula*), **Malvaceae** (*Sidalcea malvaeflora*), **Poaceae**, **Rosaceae** (*Horkelia californica*), **Scrophulariaceae** (*Scrophularia californica*). **Pterodophyta**.

5. *Phymatopus japonicus* Inoue, 1982: 47 (*Phymatopus*)

TL: Japan: Hokkaido, Tokachi, Nukabira, south of the Daisetsu Mountains, 700 m.

TC: Natural History Museum, London

Range: Japan, Russian Far East (Leleja 2016)

Illustration: Matsumara (1911: pl. 24, fig. 7 [as *P. hecta*]), Matsumara (1911: pl. XXXIV, fig. 7 [as *Hepialus hecta*]), 1931a: fig. not numbered [as *P. hecta*]), Esaki *et al.* (1957: pl. 1, figs. 10-11 [as *P. hecta*]), Inoue (1982: pl. 3, figs. 1-2), Hirowatari *et al.* (2013: pl. 3-02-20-25)

Morphology: Tshistjakov (1996a)

Biology: Hirowatari *et al.* (2013)

Habitat: unpublished

Hosts: **Asteraceae** (*Petasites japonicus*), **Onocleaceae** (*Matteuccia struthiopteris*)

PSEUDODALACA Viette, 1950b [11th note]: 74

TS: *Dalaca sertata* Schaus, 1894, by original designation

1. ***Pseudodalaca gugelmanni*** (Viette, 1950b [11th note]: 78) (*Aepytus*)

TL: Mexico: Veracruz, Misantla

TC: Muséum national d'Historie naturelle, Paris

Range: southeastern Mexico (Viette 1950b [11th note])

Illustration: unpublished

Morphology: Viette (1950b, 1951c), Grehan (2010)

Biology: unpublished

Habitat: forest (inferred from location and stem boring biology of other cibyrine genera)

Hosts: unpublished

2. ***Pseudodalaca mexicanensis*** Viette, 1953a [27th note]: 20 (*Pseudodalaca*)

TL: Mexico: Veracruz, Jalapa

TC: Muséum national d'Historie naturelle, Paris

Range: southeastern Mexico Viette, 1953a [27th note])

Illustration: unpublished

Morphology: Viette (1950b [as *Aepytus (Pseudodalaca) sertata*, error]), 1953a)

Biology: unpublished

Habitat: forest (inferred from location and stem boring biology of other cibyrine genera)

Hosts: unpublished

3. ***Pseudodalaca sertata*** (Schaus, 1894: 326) (*Dalaca*)

TL: Mexico: Veracruz, Jalapa

TC: National Museum of Natural History, Washington

Range: southeastern Mexico (Schaus 1894)

Illustration: Druce (1898: pl. 89, fig. 2), Vergara (2005: fig. 16)

Morphology: Viette (1951c [24th note])

Biology: Rojas de Hernandez & Chacón (1980), Chacón & Rojas de Hernandez (1984), Aguiar-Menezes *et al.* (2002), Vergara (2005)

Habitat: forest (inferred from location and stem boring biology of other cibyrine genera)

Hosts: **Fabaceae** (*Cassia tomentosa*), **Passifloraceae** (*Passiflora mollissima*), **Rosaceae** (*Prunus* sp., *Pyrus* sp.)

4. ***Pseudodalaca smithi*** (Druce, 1889: 92) (*Phassus*), **comb. n.**

Taxonomic amendment. Shape, size, and diffuse brown forewings similar to some other species of *Pseudodalaca* such as *P. gugelmanni* (Plate 13). The COI sequence similarity places *P. smithi* within *Pseudodalaca* as it differs only 2% from *P. sertata*, its type-species.

TL: Mexico: Veracruz, Atoyac

TC: Natural History Museum, London

Range: southeastern Mexico (Druce 1889)

Illustration: Pfitzner (1938: pl. 185d)

Morphology: unpublished

Biology: unpublished

Habitat: forest (inferred from location and stem boring biology of other cibyrine genera)

Hosts: unpublished

PSEUDOPHASSUS Pfitzner, 1914: 110

TS: *Pseudophassus mahagoniatus* Pfitzner, 1914, by subsequent designation (Viette 1961b [34=35th note]: 6)

1. *Pseudophassus mahagoniatus* Pfitzner, 1914: 110 (*Pseudophassus*)

TL: Bolivia: [La Paz], Río Songo [*recte* Zongo]

TC: Naturmuseum und Forschungsinstitut Senckenberg, Frankfurt am Main

Range: eastern Bolivia (Pfitzner 1914)

Illustration: Pfitzner (1938: pl. 99h)

Morphology: Grehan (2010)

Biology: unpublished

Habitat: forest (inferred from location and stem boring biology of other cibrine genera)

Hosts: unpublished

2. *Pseudophassus philiponi* (Viette, 1950b [11th note]: 80) (*Aepytus*)

TL: Brazil: Pará

TC: Muséum national d'Historie naturelle, Paris

Range: northern Brazil (Viette, 1950b [11th note])

Illustration: unpublished

Morphology: Viette (1950b [11th note])

Biology: unpublished

Habitat: forest (inferred from location and stem boring biology of other cibrine genera)

Hosts: unpublished

PSEUDOPHILAENIA Viette, 1950j [16th note]: 116

TS: *Philaenia [sic] lagopus* f. *omagua* Pfitzner, 1937, by original designation

1. *Pseudophilaenia omagua* (Pfitzner, 1937: 1293) (*Philaenia [sic]*)

TL: Brazil: Amazonas, Upper Rio Negro and Peru: Loreto, Pebas

TC: Naturmuseum und Forschungsinstitut Senckenberg, Frankfurt am Main

Range: western Amazon basin (Pfitzner 1937)

Illustration: unpublished

Morphology: Viette (1950b [11th note]), Grehan (2010)

Biology: unpublished

Habitat: forest (inferred from location and stem boring biology of other cibrine genera)

Hosts: unpublished

PUERMYTRANS Viette, 1951d [25th note]: 1273

TS: *Puermytrans chiliensis* Viette, 1951d [25th note], by original designation

1. *Puermytrans chiliensis* Viette, 1951d [25th note]: 1274 (*Puermytrans*)

TL: Chile

TC: Natural History Museum, London

Range: central-southern Chile (Nielsen & Robinson 1983: fig. map 429)

Illustration: Nielsen & Robinson (1983: figs. 198-201)

Morphology: Viette (1951d [25th note]), Nielsen & Robinson (1983), Grehan (2010)

Biology: unpublished

Habitat: lowland (Nielsen & Robinson 1983)

Hosts: unpublished

ROSEALA Viette, 1950c [15th note]: 53

TS: *Roseala bourgognei* Viette, 1950c [15th note], by original designation
syn. *Thiastyx* Viette, 1951d [25th note]: 1275; junior synonym

TS: *Thiastyx catharinae* Viette, 1951d, by original designation

1. ***Roseala tessellatus*** (Herrich-Schäffer, [1854c]: wrapper + pl. [31], fig. 147) (*Epialus* [*sic*])

TL: New Holland

TC: Muséum national d'Historie naturelle, Paris

syn. *agrionides* (Walker, 1856: 1567) (*Phassus*); junior synonym

TL: Brazil; **TC:** Natural History Museum, London

syn. *bourgognei* (Viette, 1950c [15th note]: 54) (*Roseala*); junior synonym

TL: Brazil: [Rio de Janeiro], Petrópolis; **TC:** Naturhistorisches Museum Wien

syn. *catharinae* (Viette, 1951d: 1276) (*Thiastyx*); junior synonym

TL: Brazil: Santa Catarina, Dalbergia, Rio Lais; **TC:** Natural History Museum, London

Range: southeastern-southern Brazil

Illustration: Herrich-Schäffer (1854c: pl. [31], fig. 147)

Morphology: Viette (1950c [15th note], 1950f [20th note]), Grehan (2010)

Biology: unpublished

Habitat: forest (inferred from location and stem boring biology of other cibrine genera)

Hosts: Vitaceae (*Vitis* sp. CGCM pers. obs.)

SCHAEFFERIANA Viette, 1950c [15th note]: 58

TS: *Epialus (sic) epigramma* Herrich-Schäffer, [1854c], by original designation

1. ***Schaefferiana epigramma*** (Herrich-Schäffer, [1854c]: wrapper + pl. [31], fig. 146) (*Epialus* [*sic*])

TL: Brazil

TC: Muséum national d'Historie naturelle, Paris

Range: southeast-southern Brazil

Illustration: Herrich-Schäffer (1854c: pl. [31], fig. 146), Pfitzner (1938: pl. 185a)

Morphology: Viette (1950c [15th note]), Grehan (2010)

Biology: Biezanko *et al.* (1957)

Habitat: forest (inferred from location and stem boring biology of other cibrine genera)

Hosts: unpublished

2. ***Schaefferiana simplex*** Viette, 1956a [31st note]: 378 (*Schaefferiana*)

TL: Brazil: Minas Gerais, San Jacintho Valley, Teófilo Otoni

TC: Natural History Museum, London

Range: southeastern Brazil

Illustration: unpublished

Morphology: Viette (1956a [31st note])

Biology: unpublished

Habitat: forest (inferred from location and stem boring biology of other cibrine genera)

Hosts: unpublished

SCHAUSIANA Viette, 1950b [11th note]: 80

TS: *Phassus trojesa* Schaus, 1901, by original designation

1. *Schausiana chalciope* C. Mielke, Grehan & Monzón-Sierra, 2020c: 77 (*Schausiana*)

TL: Guatemala: San Marcos, Camino Fraternidad a Bojonal. 1600 m

TC: Universidad del Valle de Guatemala

Range: Guatemala (Mielke *et al.* 2020c: fig. map 48)

Illustration: Mielke *et al.* (2020c: figs. 14-16)

Morphology: Mielke *et al.* (2020c)

Biology: unpublished

Habitat: wet cloud forests 1600-1700 m (José Monzón-Sierra pers. comm.)

Host plants: unpublished

2. *Schausiana maishei* C. Mielke, Grehan & Monzón-Sierra, 2020c: 73 (*Schausiana*)

TL: Guatemala: Sacatepéquez, San Cristobal El Bajo, Finca El Pilar, Cerro Cucurucho, 2,600m

TC: Universidad del Valle de Guatemala

Range: Guatemala (Mielke *et al.* 2020c: fig. map 48)

Illustration: Mielke *et al.* (2020c: figs. 9-11)

Morphology: Mielke *et al.* (2020c)

Biology: unpublished

Habitat: cloud forest and wet pine oak forests 2400-2660 m (José Monzón-Sierra pers. comm.)

Hosts: unpublished

3. *Schausiana phalerus* (Druce, 1887: 233) (*Phassus*)

TL: Mexico: Veracruz, Jalapa

TC: Natural History Museum, London

Range: southeastern Mexico (Mielke *et al.* 2020c: fig. map 48)

Illustration: Druce (1887: pl. 24, fig. 8), Pfitzner (1938: pl. 185f), Mielke *et al.* (2020c: figs. 12-13), Jimeno *et al.* (2021: 13)

Morphology: Grehan *et al.* (2018b), Mielke *et al.* (2020c)

Biology: unpublished

Habitat: forest (inferred from location and stem boring biology of species of the genus)

Hosts: unpublished

4. *Schausiana pharus* (Druce, 1887: 232) (*Hepialus*)

TL: Guatemala: Las Mercedes, 3,000 ft

TC: Natural History Museum, London

Range: southern North America-Central America (Mielke *et al.* 2020c: fig. map 48)

Illustration: Druce (1887: pl. 24. fig. 12), Williams (1935: fig. 1.1), Pfitzner (1938: pl. 185a), Mielke *et al.* (2020c: figs. 17-21)

Morphology: Williams (1935), Grehan *et al.* (2018b), Mielke *et al.* (2020c)

Biology: Williams (1935)

Habitat: tropical through wet cloud forests to dry oak forest (José Monzón-Sierra pers. comm.)

Hosts: unpublished

5. *Schausiana trojesa* (Schaus, 1901: 76) (*Phassus*)

TL: Mexico: Trojes

TC: National Museum of Natural History, Washington

Range: southern Mexico (Mielke *et al.* 2020c: fig. map 48)

Illustration: Pfitzner (1938: pl. 100d), Mielke *et al.* (2020: figs. 6-8)

Morphology: Viette (1950b [11th note]), Mielke *et al.* (2020c)

Biology: Ramos-Elorduy *et al.* (2011), López *et al.* (2013), Gómez *et al.* (2016)

Habitat: cloud and coniferous forest (López *et al.* 2013)

Hosts: **Asteraceae** (*Vernonia leiocarpa*, *Senecio salignus*), **Betulaceae** (*Alnus acuminata*),

Cornaceae (*Cornus disciflor*), **Fagaceae** (*Quercus candicans*, *Q. crassifolia*, *Q. crispilis*, *Q.*

laurina, *Q. rugosa*, *Q. segoviensis*, *Q. skutchii*), **Scrophulariaceae** (*Buddleja americana*, *B.*

cordata, *B. parviflora*), **Verbenaceae** (*Lippia myriocephala*, *L. substrigosa*)

STHENOPIS Packard, 1865: 390

TS: *Hepiolus* [*sic*] *argenteomaculatus* Harris, 1841, by subsequent designation (Kirby 1892: 885)

msp. *Stenopsis* (Pagenstecher 1909: 448)

1. *Sthenopsis argenteomaculatus* (Harris, 1841: 295) (*Hepiolus* [*sic*])

TL: USA: Massachusetts

TC: Museum of Comparative Zoology, Boston

syn. *argentata* Packard, [1865]: 392 (*Sthenopsis*); junior synonym

TL: USA: Massachusetts, grounds of Cambridge, Museum of Comparative Zoology; **TC:** unknown

syn. *alni* (Kellcott, 1885: 175) (*Cossus*); junior synonym [description of larva from *Alnus incana*]

TL: USA: New York, Oswego County; **TC:** unknown

syn. *los* (Strecker, 1893: 282) (*Hepialus*); junior synonym

TL: USA: Maine, near Bangor; **TC:** Field Museum of Natural History, Chicago

syn. var. *perdita* Dyar, 1893: 327 (*Sthenopsis*); subspecies

TL: USA; **TC:** unknown

Range: central-eastern Canada, northeastern United States (Mielke & Grehan 2018: fig. map 56b)

Illustration: Agassiz & Cabot (1850: pl. 7, fig. 6), Harris (1862: fig. 202), Comstock & Comstock (1895: fig. 244), Knobel (1895: fig. 96 [as *Hepialus argentata*]), Kirby (1897b: pl. 125, fig. 3), Denton (1900: 85 [as *S. argentata*]), Holland (1903: pl. XLI, fig. 14), Pfitzner (1937: pl. 99b), Prentice (1965: pl. 41, fig. 14), Hooper (1981: 141), Brower (1984: title page), Covell (1984: pl. 7, fig. 10), Ives & Wong (1988: fig. 110A), Dirig (1993: 103), Opler (1994: 87), Solomon (1995: fig. 2a), Handfield (1999: figs. 0018-1, 2), Kristensen (1999, 2003: fig. 5.5b)

Morphology: Dyar (1893), Kellcott (1889), Packard (1893), Bodine (1896), Quail (1903), Philpott (1926)

Biology: Gosse (1840 [41?]), Ross (1873), Harrington (1885), Kellcott (1888a-b, 1889), Fyles (1890), Comstock & Comstock (1895), Kirby (1897b), Denton (1900), Harmer & Shipley (1901), Holland (1903), Felt (1906), Kellogg (1906), Smith (1910), Keith (1916), Marchard (1916), Forbes (1923), Comstock (1924), Craighead (1950), Borror & White (1970), Jones *et*

al. (1985), Ives & Wong (1988), Arnett (1993), Dirig (1993), Solomon (1995), Handfield (1999), Robinson *et al.* (2002)

Habitat: swamps at the edges of rivers, streams, and lakes (Handfield 1999)

Hosts: **Betulaceae** (*Alnus incana*, *Betula populifolia*), **Fagaceae** (*Quercus* sp.), **Juglandaceae** (*Juglans cinera* Mark Klingler), **Salicaceae** (*Populus* sp., *Salix* sp.), **Sapindaceae** (*Acer spicatum*)

2. *Sthenopis pretiosus* (Herrich-Schäffer, [1856c]: pl. [88]. fig. 505) (*Epialus* [*sic*])

TL: Brazil [error]

TC: unknown

syn. *auratus* (Grote, 1878: 18) (*Hepialus*); junior synonym

TL: USA: New York, Lewis County; **TC:** unknown

syn. *eldorado* (Pfitzner, 1906: 276) (*Phassus*); junior synonym

TL: Venezuela: Merida [error]; **TC:** Naturmuseum und Forschungsinstitut Senckenberg, Frankfurt am Main

Range: eastern United States (McCabe & Wagner 1989)

Illustration: Herrich-Schäffer ([1856c]: pl. [88], fig. 505), Pfitzner (1938: pl. 99g [as *Phassus eldorado*], pl. 185a), McCabe & Wagner (1989: figs. 1-2 [as *S. auratus*]), Grehan (1998: fig. 2b [as *S. auratus*]), Handfield (1999: fig. 0022 [as *S. auratus*]), Adkins (2011: 27), Mielke & Grehan (2015b: figs. 8-12), Grehan & Mielke (2016b: figs. 1-2)

Morphology: McCabe & Wagner (1989), Leonard *et al.* (1992)

Biology [as *S. auratus*]: Fyles (1890), Beutenmüller (1913), Chagnon (1947), McCabe & Wagner (1989), Thomas (1996), Handfield (1999), Robinson *et al.* (2002)

Habitat: forest (Thomas 1996)

Hosts: **Polypodaceae** (*Athyrium filix-femina*, *Dryopteris marginalis*, *D. spinulosa*, *Matteuccia struthiopteris*)

3. *Sthenopis purpurascens* (Packard, 1863: 598) (*Gorgopis*)

TL: USA: New Hampshire, base of Mount Washington

TC: National Museum of Natural History, Washington

syn. *quadriguttatus* (Grote, 1864: 73) (*Gorgopis*); junior synonym

TL: Great Slave Lake; **TC:** unknown

syn. var. *semiauratus* (Neumoegen & Dyar, 1893: 124) (*Sthenopis*); subspecies

TL: USA: New Hampshire, White Mountains; **TC:** National Museum of Natural History, Washington

Range: Canada, Alaska, Northeastern United States (Solomon 1995, Pohl *et al.* 2018)

Illustration: Grote (1864: pl. 1, fig. 6 [as *S. quadriguttatus*]), Packard (1890: fig. 130 [as *Hepialus argenteomaculatus*]), Holland (1903: pl. XLI fig. 13 [as *S. quadriguttatus*]), Comstock (1918 [title page], 1924: fig. 721), Pfitzner (1937: pl. 99b [as *S. quadriguttatus*]), Prentice (1965: pl. 41, fig. 13 [as *S. quadriguttatus*]), Borror & White (1970: 259), Hooper (1981: 142 [as *S. quadriguttatus*]), Ives & Wong (1988: fig. 110B), Solomon (1995: fig. 1a [as *S. quadriguttatus*]), Handfield (1999: figs. 0019-0020), Dombroskie (2011: fig. 73), Steed & Burton (2015: 23, fig. 1; 24, fig. 2)

Morphology: Packard (1863 [as *Gorgopis purpurascens*]), Philpott (1927a), Sharplin (1963a-b), Peterson (1967 [as *S. quadriguttatus*]), Vallée & Béique (1979), Gross & Syme (1981)

Biology: Packard (1890), Prentice (1965), Furniss & Carolin (1977), Vallée & Béique (1979), Gross & Syme (1981), Peterson & Peterson (1992), Solomon (1995), Handfield (1999), Schmidt & Lawrie (1999), Robinson *et al.* (2002), Steed & Burton (2015)

Habitat: wet willow and poplar forests and plantations (Solomon 1995, Handfield 1999)

Hosts: **Betulaceae** (*Alnus* sp.), **Fagaceae** (*Castanea*), **Salicaceae** (*Populus tremuloides*, *P. trichocarpa*, *Salix* sp.)

4. *Sthenopsis thule* (Strecker, 1875: 105) (*Hepialus*)

TL: Canada: Quebec, Montreal

TC: Field Museum of Natural History, Chicago

Range: northeastern United States, central-eastern Canada (Solomon 1995)

Illustration: Strecker (1875: pl. XII, fig. 6), Swaine (1909: pl. 10m), Pfitzner (1937: pl. 99b), Grehan *et al.* (1995: pl. 3, fig. 2), Solomon (1995: fig. 3a), Handfield (1999: fig. 0021), Grehan *et al.* (2018a: figs. 1-4)

Morphology: Partridge (1904), Swaine (1909, 1920), MacGillivray (1912), Mosher (1915), Forbes (1923), Philpott (1927a),

Biology: Lyman (1893, 1907), Harmer & Shipley (1901), Gibson (1905), Denny (1907), Winn (1909, 1912), Swaine (1909, 1920), MacGillivray (1912), Forbes (1923), Comstock (1924), Craighead (1950), Borrer & White (1970), Solomon (1995), Grehan *et al.* (2018)

Habitat: wetlands, meadows, fields, river and lake margins (Grehan *et al.* 2018)

Hosts: **Salicaceae** (*Salix petiolaris*)

THITARODES Viette, 1968 [36th note]: 128

TS: *Hepialus armoricanus* Oberthür, 1909, by original designation

Forkalus Chu & Wang, 1985a: 130; junior synonym

TS: *Forkalus xizangensis* Chu & Wang, 1985a, by original designation

Parahepialus Zou & Zhang in Zou *et al.*, 2010: 115; junior synonym

TS: *Hepialus nebulosus* Alphéraky, 1889, by original designation

Ahamus Zou & Zhang in Zou *et al.* 2010: 116; junior synonym

TS: *Hepialus jianchuanensis* Yang, 1994, by original designation

Taxonomic Note: Jiang *et al.* (2016) note that *Parahepialus* proposed by Zou & Zhang (2010) was based on an erroneous reconstruction of the male genitalia of '*T. nebulosus*', that when corrected, conformed to other *Thitarodes* species. They concluded that *Parahepialus* was a junior synonym of *Thitarodes*. It is our view that other proposals for generic subdivision of *Thitarodes* (e.g. Dai *et al.* 2019) are not yet sufficiently substantiated.

General (unspecified): Chu & Wang (1988), Ling *et al.* (1988: chromosome), Yang *et al.* (1988: physiology), Yang *et al.* (1992a: host plants), Yang *et al.* (1992b: nutrition), Yang *et al.* (1992c: trace elements), Yang *et al.* (1996: distribution), Wang *et al.* (2001a, b), Li *et al.* (2007: host plant nutrition), Li *et al.* (as *Hepialus* sp., 2012b, 2016: host plants), Lo *et al.* (2013: incidence), Zhou *et al.* (2014: rearing), Qiu *et al.* (2016), Wang *et al.* (2020), Da *et al.* (2023).

1. *Thitarodes albipictus* (Yang, 1993: 184) (*Hepialus*)

TL: China: Yunnan, Dequin County, Renzhi Snow Mountain

TC: Kunming Institute of Zoology, Kunming

Range: western China (Yang 1993)

Illustration: unpublished

Morphology: Yang (1993), Zhu *et al.* (2004)

Biology: Yang (1993), Zhu *et al.* (2004)

Habitat: alpine meadow (Yang *et al.* 1992b)

Hosts: **Fabaceae** (*Astragalus* sp.), **Polygonaceae** (*Bistorta macrophylla*, *Polygonum viviparum*, *Rheum pumilum*), **Rosaceae** (*Potentilla fruticosa*)

2. *Thitarodes altaicola* (Wang, 1990: 173) (*Hepialus*)

TL: China: Altai, Xinjiang

TC: Institute of Zoology, Academia Sinica, Beijing

Range: central-northern China, type locality record (Wang 1990)

Illustration: Zhu *et al.* (2004: pl. III, fig. 15, pl. IV, fig. 2 [as *Hepialus alticola*, error])

Morphology: Wang (1990), Zhu *et al.* (2004)

Biology: Zhao *et al.* (1998), Zhu *et al.* (2004), Li *et al.* (2022 [*Ophiocordyceps*])

Habitat: unpublished

Hosts: **Asteraceae** (*Artemisia annua*), **Paeoniaceae** (*Paeonia lactiflora*), **Polygonaceae** (*Oxyria digyma*, *Polygonum orientale*)

3. *Thitarodes altissima* (Daniel, 1940: 1020) (*Hepialus*)

TL: China: Xixang, Batang, 5,000 m

TC: Zoologisches Forschungsmuseum Alexander Koenig, Bonn

Range: known from type locality only (Daniel 1940)

Illustration: Daniel (1940 pl. XXXI, figs. 11-12, 15), Grehan *et al.* (2021e: figs. 2-3)

Morphology: unknown

Biology: unpublished

Habitat: unpublished

Hosts: unknown

4. *Thitarodes anomopterus* (Yang, 1994: 7) (*Hepialus*)

TL: China: Yunnan, Jianchan County, Laojun Mountain, 2,800-3,100 m

TC: Kunming Institute of Zoology, Kunming

Range: southwestern China, type locality (Yang 1994)

Illustration: unpublished

Morphology: Yang (1994)

Biology: Zhu *et al.* (2004)

Habitat: unpublished

Hosts: **Ericaceae**, **Polygonaceae**, **Ranunculaceae**

5. *Thitarodes arizanus* (Matsumura, 1931: 1886) (*Hepialus*)

TL: Taiwan, Mt. Alishan

TC: Entomological Institute of Hokkaido University, Sapporo

Range: Taiwan, type locality (Ueda 1999)

Illustration: Ueda (1999: pl. 33, figs. 4-6)

Morphology: Ueda (1999)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

6. *Thitarodes armoricanus* (Oberthür, 1909a: 411) (*Hepialus*)

TL: France: Rennes [error] [Tsien-Lu= Kangding, Sichuan (Ueda 2000)]

TC: Muséum national d'Histoire naturelle, Paris

Range: China: Sichuan, Tâ-tsién-lou (now Kangding) and Tay-tou-ho (Grehan *et al.* 2021)

Illustration: Oberthür (1909a: pl. 25, fig. 135), Bang-Haas (1927: pl. 10, figs. 17-18 [as *Hepialus nebulosus armoricanus*]), Chen *et al.* (1973: figs. 2-3), Ueda (2000: fig. 1425), Zhu *et al.* (2004: pl. 2, fig. 6), Leraut (2006: pl. 55, fig. 18), Tao *et al.* (2015: fig. 4a), Dai *et al.* (2019: fig. 3), Grehan *et al.* (2021: fig. 1)

Morphology: Viette (1949c), Chu & Wang (1985a [fig. 4 genitalia not matching Viette 1949 cf. Ueda 2000], 1988), Zhu *et al.* (2004), Quan *et al.* (2014), Liu *et al.* (2016 [Transcription quantitative PCR studies]), Grehan *et al.* (2021e)

Biology: Chu (1965), Chen *et al.* (1973), Zhang *et al.* (1988), Huang *et al.* (1989), Shen *et al.* (1990), Ding *et al.* (1997), Zhu *et al.* (2004), Tao *et al.* (2015), Wang & Hu (2017), Wang *et al.* (2020), Sah *et al.* (2022), Tong *et al.* (2022, 2023)

Habitat: alpine meadow (Yang *et al.* 1987, Yang *et al.* 1992b)

Hosts: **Apiaceae** (*Ligusticum scapiforme*), **Asteraceae** (*Pyrethrum tatsienense*, *Saussurea bodinieri*), **Cyperaceae** (*Carex schreideri*), **Fabaceae** (*Astragalus balfourianus*), **Gentianaceae** (*Gentiana algida*), **Juncaginaceae** (*Triglochin maritimum*), **Poaceae** (*Deyeuxia arundinacea*), **Polygonaceae** (*Oxyria digyna*, *Polygonum macrophyllum*, *P. sphaerostachyum*, *P. viviparum*, *Rheum pumilum*), **Primulaceae** (*Primula argutidens*), **Ranunculaceae** (*Caltha scaposa*, *Oxygraphis glacilis*), **Rosaceae** (*Potentilla anserina*, *Spenceria ramalana*)

7. *Thitarodes baimaensis* (Liang in Liang *et al.*, 1988: 419) (*Hepialus*)

TL: China: Yunnan, Dequin County, Baima, (White-horse) Snow Mountain

TC: Kunming Institute of Zoology, Kunming

Range: southwestern China (Liang *et al.* 1988)

Illustration: unpublished

Morphology: Liang *et al.* (1988), Shen *et al.* (1991)

Biology: Shen *et al.* (1990), Yang *et al.* (1991, 1995), Zhu *et al.* (2004), Wang, Y.-B *et al.* (2020), Wang *et al.* (2022)

Habitat: alpine meadow (Shen *et al.* 1990, Yang *et al.* 1992b)

Hosts: **Caryophyllaceae** (*Arenaria bryophylla*, *A. lancangensis*), **Ericaceae** (*Rhododendron anthopogonoides*, *R. cephalanthoides*, *R. capitatum*, *R. keysii*, *R. przewalskii*, *R. qinghaiense*, *R. rupicola*, *R. thymifolium*, *R. tubulosum*), **Fabaceae** (*Astragalus acaulis*, *A. balfourianus*, *A. chrysopterus*, *A. craibianus*, *A. ernestii*, *A. floridus*, *A. frigidis*, *A. leuitubus*, *A. tatsiensis*, *A. tongolensis*, *A. yunnanensis*), **Polygonaceae** (*Polygonum glaciale*, *P. macrophyllum*, *P. tenuifolium*, *P. viviparum*, *Rumex madaio*, *R. nepalensis*, *Rheum pumilum*), **Salicaceae** (*Salix lindleyana*, *S. faxoniana*), **Scrophulariaceae** (*Picrorhiza scrophulariifolia*)

8. *Thitarodes balmiya* Grehan, Negi & Basu in Grehan *et al.*, 2021b: 2 (*Thitarodes*)

TL: India, Uttarakhand, Balmiya

TC: National Centre for Biological Science, Bengaluru

Range: central-eastern Himalayas (Grehan *et al.* 2021b)

Illustration: Grehan *et al.* (2021b: fig. 1)

Morphology: Grehan *et al.* (2021b)

Biology: Wang *et al.* (2020b), Sharma & Negi (2022)

Habitat: alpine meadow, between 3,790-4000 m (Grehan *et al.* 2021b)

Hosts: **Apiaceae** (*Cortia depressa*, *Selinum candollei*), **Cyperaceae** (*Carex setosa*), **Dryopteridaceae** (*Polystichum stimulans*), **Euphorbiaceae** (*Euphorbia stracheyi*), **Hypericaceae** (*Hypericum monanthemum*), **Liliaceae** (*Lloydia longiscapa*), **Papaveraceae** (*Corydalis cashmeriana*), **Poaceae** (*Poa annua*), **Polygalaceae** (*Polygala* sp., *Persicaria wallichii*), **Primulaceae** (*Primula denticulata*), **Ranunculaceae** (*Anemone obtusiloba*, *A. tetrasepala*, *Caltha palustris*, *Oxygraphis polypetala*, *Ranunculus hirtellus*), **Rosaceae** (*Aruncus diocus*, *Geum elatum*, *Potentilla atosanguinea*, *P. lineata*)

9. *Thitarodes baqingensis* (Yang & Jiang, 1995: 215) (*Hepialus*)

TL: China, Xizang [Tibet], Baqing [Baqen] County, 4,600-4,800m

TC: Kunming Institute of Zoology, Kunming

Range: northern Xizang, type locality record (Yang & Jiang 1995)

Illustration: unpublished

Morphology: Yang & Jiang (1995)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

10. *Thitarodes bibelteus* (Shen & Zhou, 1997: 198) (*Hepialus*)

TL: China: Yunnan, Deqin County, Meidu, Baima Snow Mountain, 4,700 m

TC: Kunming Institute of Zoology, Academia Sinica, Kunming

Range: southwestern China, type locality record (Shen & Zhou 1997)

Illustration: unpublished

Morphology: Shen & Zhou (1997)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

11. *Thitarodes biruensis* (Fu in Fu *et al.*, 2002: 56) (*Hepialus*)

TL: China: Xizang [Tibet], Biru County, 4,400-4,700 m Chongqing

TC: Sichuan Institute of Chinese Materia Medica, Chongqing

Range: western China, type locality record (Fu 2002)

Illustration: Zhu *et al.* (2004: pl. 3, fig. 16)

Morphology: Fu *et al.* (2002), Zhu *et al.* (2004)

Biology: Yin *et al.* (2004)

Habitat: alpine meadow, 3,600-4,800 m (Yin *et al.* 2004)

Hosts: **Asteraceae** (*Leontopodium pumilum*), **Cyperaceae** (*Carex atrofusca*, *Kobresia bellardii*, *K. pygmaea*), **Poaceae** (*Poa crymophilia*), **Polygonaceae** (*Polygonum sphaerostachyum*, *P. viviparum*), **Ranunculaceae** (*Thactrium alpinum*), **Rosaceae** (*Potentilla anserina*) (*Malus* sp., *Daucus* sp., *Pyrus* sp. laboratory diets)

12. *Thitarodes caligophilus* Maczey in Maczey *et al.*, 2010a: 47 (*Thitarodes*)

TL: Bhutan: Namna, 4,750 m

TC: National Biodiversity Centre, Serbithang

Range: eastern Himalaya

Illustration: Maczey *et al.* (2010a: figs. 25-28; 2010b: figs. 2c-d), Grehan (2011: fig. 5b), Grehan & Ismavel (2017: fig. 2b)

Morphology: Maczey *et al.* (2010a)

Biology: unpublished

Habitat: alpine grass-shrubland (Maczey *et al.* 2010a)

Hosts: unpublished

13. *Thitarodes callinivalis* (Liang, 1995: 209) (*Hepialus*)

TL: China: Yunnan, Deqin County, Meili Snow Mountains

TC: Kunming Institute of Zoology, Kunming

Range: southwestern Yunnan, type locality record (Liang 1995)

Illustration: unpublished

Morphology: Liang (1995)

Biology: Zhu *et al.* (2004)

Habitat: unpublished

Hosts: Polygonaceae, Ranunculaceae

14. *Thitarodes cingulatus* (Yang & Zhang *in* Yang *et al.*, 1995: 360) (*Hepialus*)

TL: China: Gansu, Wenxian County, 3,200 m

TC: Kunming Institute of Zoology, Kunming

Range: north-central China, type locality record (Yang *et al.* 1995)

Illustration: unpublished

Morphology: Yang *et al.* (1995)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

15. *Thitarodes damxungensis* (Yang & Jiang *in* Yang *et al.*, 1995: 216) (*Hepialus*)

TL: China: Xizang [Tibet], Damxung county

TC: Kunming Institute of Zoology, Kunming

Range: northern Xizang, type locality record Yang *et al.* (1995)

Illustration: unpublished

Morphology: Yang *et al.* (1995), Zhang *et al.* (2019 [complete mtDNA])

Biology: Kou *et al.* (2022)

Habitat: unpublished

Hosts: unpublished

16. *Thitarodes danieli* Viette, 1968 [36th note]: 128 (*Thitarodes*)

TL: Nepal: East Khumjung, 3,800 m

TC: Zoologische Staatssammlungen des bayerischen Staates, Munich

Range: Nepalese Himalayas (Viette 1968 36th note)

Illustration: Viette (1968 [36th note]: pl. 1, figs. 1-2), Ueda (2000: pl. 169, figs. 1-2), Leraut (2006: pl. 55, fig. 19),

Morphology: Viette (1968[36th note]), Ueda (2000)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

17. *Thitarodes deqinensis* (Liang *in* Liang *et al.*, 1988: 419) (*Hepialus*)
TL: China: Yunnan, Deqin County, Jiawu Snow Mountain
TC: Kunming Institute of Zoology, Kunming
Range: southwestern China, type locality record (Liang *et al.* 1988)
Illustration: unpublished
Morphology: Liang *et al.* (1988)
Biology: Shen *et al.* (1991), Zhu *et al.* (2004)
Habitat: alpine meadow (Yang *et al.* 1992b)
Hosts: Polygonaceae
18. *Thitarodes dierli* Viette, 1968 [36th note]: 132 (*Thitarodes*)
TL: Nepal: Province Nr. 3. East, Khumjung, 3,800 m
TC: Zoologische Staatssammlungen des bayerischen Staates, Munich
Range: Nepalese Himalaya (Viette 1968)
Illustration: Viette (1968 [36th note]: pl. 1, figs. 5-6), Ueda (2000: pl. 169, figs. 6-7)
Morphology: Viette (1968 [36th note]), Ueda (2000)
Biology: unpublished
Habitat: unpublished
Hosts: unpublished
19. *Thitarodes dinggyeensis* (Chu & Wang *in* Zhu, 2004: 157) (*Hepialus*)
TL: China: Xizang [Tibet], Dinggyê
TC: Institute of Zoology, Academia Sinica, Beijing
Range: western China, type locality record (Zhu *et al.* 2004)
Illustration: Zhu *et al.* (2004: pl. 4, fig. 1)
Morphology: Zhu *et al.* (2004)
Biology: Zhu *et al.* (2004)
Habitat: alpine meadow (Yang *et al.* 1992)
Hosts: Apiaceae (*Daucus carota*), Poaceae (*Festuca ovina*)
20. *Thitarodes eberti* Viette, 1968 [36th note]: 130 (*Thitarodes*)
TL: Nepal: Thodung, 3,100 m
TC: Zoologische Staatssammlungen des bayerischen Staates, Munich
Range: Nepalese Himalaya (Viette 1968)
Illustration: Viette (1968 [36th note]: pl. 5, figs. 5-6), Ueda (1996: pl. II, figs. 5-6, 2000: pl. 169, figs. 4-5), Leraut (2006: pl. 56, fig. 1), Grehan & Ismavel (2017: fig. 2a)
Morphology: Viette (1968 [36th note]), Ueda (2000), Wang *et al.* (2019)
Biology: unpublished
Habitat: unpublished
Hosts: unpublished
21. *Thitarodes ferrugineus* (Li, Yang & Shen, 1993: 495) (*Hepialus*)
TL: China: Yunnan, Deqin County, Baima Snow Mountain, 4,200-4,500 m
TC: Kunming Institute of Zoology, Kunming
Range: southwestern China, type locality record (Li *et al.* 1993)
Illustration: unpublished

Morphology: Li *et al.* (1993)

Biology: Zhu *et al.* (2004)

Habitat: alpine meadow (Yang *et al.* 1992b)

Hosts: **Hypericaceae** (*Hypericum patulum*), **Polygonaceae** (*Polygonum viviparum*)

22. *Thitarodes gangcensis* (Chu & Wang in Zhu *et al.*, 2004: 114) (*Hepialus*)

TL: China: Quinhai, Gangca

TC: Institute of Zoology, Academia Sinica, Beijing

Range: central-western China, type locality record (Zhu *et al.* 2004)

Illustration: Zhu *et al.* (2004: pl. 2, fig. 12)

Morphology: Zhu *et al.* (2004)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

23. *Thitarodes gonggaensis* (Fu & Huang in Fu *et al.*, 1991: 362) (*Hepialus*)

TL: China: Sichuan, Kading,

TC: Sichuan Institute of Chinese Materia Medica, Chongqing

Range: central-western China, type locality record (Fu *et al.* 1991, Wang *et al.* 2019: fig. map 8)

Illustration: Zhu *et al.* (2004: pl. 3, fig. 15), Dai *et al.* (2019: fig. 3)

Morphology: Zhu *et al.* (2004), Shi *et al.* (2016 [complete mtDNA])

Biology: Huang *et al.* (1992), Yin [D.-H] *et al.* (1995), Yin [Y.] *et al.* (2011), Liu [F.] *et al.* (2008), Liu [L.] *et al.* (2010)

Habitat: unpublished

Hosts: **Apiaceae** (*Ligusticum scapiforme*), **Asteraceae** (*Pyrethrum tatsiense*, *Saussurea bodinieri*), **Cyperaceae** (*Carex schneideri*), **Gentianaceae** (*Gentiana algida*), **Juncaginaceae** (*Triglochin maritimum*), **Poaceae** (*Deyeuxia arundinacea*, *Festuca ovina*), **Polygonaceae** (*Oxyria digyna*, *Polygonum macrophyllum*, *P. viviparum*), **Primulaceae** (*Primula argutidens*, *P. pinnatifida*), **Ranunculaceae** (*Caltha scaposa*, *Oxygraphis glacilis*, *Ranunculus tanguticus*), **Rosaceae** (*Potentilla anserina*, *Spenceria ramalana*)

24. *Thitarodes hainanensis* (Chu & Wang in Zhu *et al.*, 2004: 165) (*Hepialus*)

TL: China: Hainan, Ledong

TC: Institute of Zoology, Academia Sinica, Beijing

Range: Hainan, type locality record (Zhu *et al.* 2004)

Illustration: Zhu *et al.* (2004: pl. 4, fig. 6)

Morphology: Zhu *et al.* (2004)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

25. *Thitarodes harutai* Ueda, 2000: 85 (*Thitarodes*)

TL: Nepal: Mechi [Kanchenjunga], Lam Pokhari, 2,850 m

TC: Kitakyushu Museum of Natural History, Kitakyushu

Range: Nepalese Himalaya, type locality record (Ueda 2000)

Illustration: Ueda (2000: pl. 169, fig. 10)

Morphology: Ueda (2000)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

26. *Thitarodes jiachaensis* Zou, Liu & Zhang, 2011: 110 (*Thitarodes*)

TL: China: Xizang [Tibet], Jiacha County, 29°26.7149N, 94°42.8889E, 4,535 m

TC: Biological Museum of Sun Yat-Sen University, Guangzhou

Range: eastern China, type locality record (Zou *et al.* 2011)

Illustration: Zou *et al.* (2011: figs. 8a-b)

Morphology: Zou *et al.* (2011), Wang *et al.* (2019)

Biology: Zou *et al.* (2011)

Habitat: alpine brush and meadow (Zou *et al.* 2011)

Hosts: unpublished

27. *Thitarodes jialangensis* (Yang, 1994: 6) (*Hepialus*)

TL: China: Xizang [Tibet], Zogang County, Meili Snow Mountain, 4,000-4,600 m

TC: Kunming Institute of Zoology, Kunming

Range: western China, type locality record (Yang 1994)

Illustration: unpublished

Morphology: Yang (1994)

Biology: Zhu *et al.* (2004)

Habitat: unpublished

Hosts: Polygonaceae (*Polygonum viviparum*)

28. *Thitarodes jianchuanensis* (Yang, 1994: 5) (*Hepialus*)

TL: China: Yunnan, Jianchuan County, Laojun Mountains, 2,900-3,100 m

TC: Kunming Institute of Zoology, Kunming

Range: southwestern China, Yunnan-Sichuan provinces (Tao *et al.* 2015)

Illustration: Tao *et al.* (2015: fig. 4b)

Morphology: Yang (1994), Wang *et al.* (2019)

Biology: Zhu *et al.* (2004), Liu *et al.* (2009), Tao *et al.* (2015), Li *et al.* (2016)

Habitat: unpublished

Hosts: Polygonaceae (*Oxyria digyna*), Ranunculaceae

29. *Thitarodes jiangbeiensis* (Chu & Wang in Zhu *et al.*, 2004: 175) (*Hepialus*)

TL: China: Sichuan, Chongqing, Jiangbei

TC: Institute of Zoology, Academia Sinica, Beijing

Range: central western China, type locality record (Zhu *et al.* 2004)

Illustration: Zhu *et al.* (2004: pl. 4, fig. 13)

Morphology: Zhu *et al.* (2004)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

30. *Thitarodes jinshaensis* (Yang, 1993: 185) (*Hepialus*)

TL: China: Yunnan, Deqin County, Baima (Whitehorse - Snow Mountain)

TC: Kunming Institute of Zoology, Kunming

Range: western China, type locality record (Yang 1993)

Illustration: unpublished

Morphology: Yang (1993)

Biology: Zhu *et al.* (2004)

Habitat: Alpine meadow (Yang *et al.* 1992b)

Hosts: Berberidaceae, Cyperaceae, Liliaceae, Ranunculaceae

31. *Thitarodes kangdingensis* (Chu & Wang, 1985a: 122) (*Hepialus*)

TL: China: Sichuan, Kangding

TC: Institute of Zoology, Academia Sinica, Beijing

Range: central-southwestern China (Chu & Wang 1985a)

Illustration: Zhu *et al.* (2004: pl. 2, fig. 8)

Morphology: Chu & Wang (1985a), Zhu *et al.* (2004)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

32. *Thitarodes kangdingroides* (Chu & Wang, 1985a: 124) (*Hepialus*)

TL: China: Sichuan, Kangding

TC: Institute of Zoology, Academia Sinica, Beijing

Range: central-western China (Chu & Wang 1985a)

Illustration: Zhu *et al.* (2004: pl. 3, fig. 4)

Morphology: Chu & Wang (1985a), Zhu *et al.* (2004)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

33. *Thitarodes kingdonwardi* Ueda, 2000: 83 (*Thitarodes*)

TL: China: southeast Xizang [Tibet], Tsangpo Valley, Nyima La, 14,000 ft

TC: Natural History Museum, London

Range: western China, type locality record (Ueda 2000)

Illustration: Ueda (2000: pl. 169, fig. 9)

Morphology: Ueda (2000)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

34. *Thitarodes kishidai* Ueda, 2000: 81 (*Thitarodes*)

TL: Nepal: Lete near Nilgiri, 2,400 m

TC: Kitakyushu Museum of Natural History, Kitakyushu

Range: Nepalese Himalaya, type locality record (Ueda 2000a)

Illustration: Ueda (2000a: pl. 169, fig. 8)

Morphology: Ueda (2000)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

35. *Thitarodes latitegumenus* (Shen & Zhou, 1997: 199) (*Hepialus*)

TL: China: Yunnan, Deqin County, 4,500 m

TC: Kunming Institute of Zoology, Kunming
Range: southwestern China, type locality record (Shen & Zhou 1997)
Illustration: unpublished
Morphology: Shen & Zhou (1997)
Biology: unpublished
Habitat: unpublished
Hosts: unpublished

36. *Thitarodes lijiangensis* (Chu & Wang, 1985a: 126) (*Hepialus*)

TL: China: Yunnan, Lijiang
TC: Institute of Zoology, Academia Sinica, Beijing
Range: southwestern China (Chu & Wang 1985a)
Illustration: Zhu *et al.* (2004: pl. 3, fig. 7)
Morphology: Chu & Wang (1985a), Zhu *et al.* (2004)
Biology: unpublished
Habitat: alpine meadow (Yang *et al.* 1987, 1992b)
Hosts: **Fabaceae** (*Astragalus balfourianus*), **Polygonaceae** (*Polygonum macrophyllum*, *P. viviparum*)

37. *Thitarodes limbui* Ueda, 2000: 85 (*Thitarodes*)

TL: Nepal: Mechi [Kanchenjunga], Khambachen, 3,950 m
TC: Kitakyushu Museum of Natural History, Kitakyushu
Range: Nepalese Himalaya, type locality record (Ueda 2000a)
Illustration: Ueda (2000: pl. 169, fig. 11)
Morphology: Ueda (2000)
Biology: unpublished
Habitat: unpublished
Hosts: unpublished

38. *Thitarodes litangensis* (Liang, 1995: 210) (*Hepialus*)

TL: China: Sichuan, Litang
TC: Kunming Institute of Zoology, Kunming
Range: southwestern China, type locality record (Liang 1995)
Illustration: unpublished
Morphology: Liang (1995)
Biology: Zhu *et al.* (2004)
Habitat: unpublished
Hosts: **Leguminosae, Liliaceae, Polygonaceae, Ranunculaceae, Saxifragaceae**

39. *Thitarodes luquensis* (Yang & Yang in Yang *et al.*, 1995: 360) (*Hepialus*)

TL: China: Gansu, Luqu County, 4,276 m
TC: Kunming Institute of Zoology, Kunming
Range: central northern China, type locality record (Yang *et al.* 1995)
Illustration: unpublished
Morphology: Yang *et al.* (1995)
Biology: unpublished
Habitat: unpublished
Hosts: unpublished

40. *Thitarodes luteus* (Grum-Grshimailo, 1891: 463) (*Hepialus*)
TL: China: Qinghai, Hsi-ning
TC: Zoological Institute, St Petersburg
Range: central-northern China, type locality record (Grum-Grshimailo 1891)
Illustration: unpublished
Morphology: unpublished
Biology: unpublished
Habitat: unpublished
Hosts: unpublished
41. *Thitarodes maculatum* Ueda, 2000: 72 (*Thitarodes*)
TL: China: Chungbu Khola, 14,500 ft
TC: Natural History Museum, London
Range: Nepalese Himalaya, type locality record (Ueda 2000a)
Illustration: Ueda (2000: pl. 169, fig. 3)
Morphology: Ueda (2000)
Biology: unpublished
Habitat: unpublished
Hosts: unpublished
42. *Thitarodes malaisei* (Bryk, 1946: 213) (*Hepialus*)
TL: Myanmar: North Myanmar, Kambaiti
TC: Naturhistoriska Riksmuseet, Stockholm
syn. *ebba* (Bryk, 1950: 49) (*Hepialus*); junior synonym
TL: Myanmar: North Myanmar, Kambaiti; **TC:** Naturhistoriska Riksmuseet, Stockholm
Range: northern Myanmar (Bryk 1946)
Illustration: Bryk (1950: pl. III, figs. 4, 6 [6 as *Hepialus ebba*])
Morphology: unpublished
Biology: unpublished
Habitat: unpublished
Hosts: unpublished
43. *Thitarodes maquensis* (Chu & Wang *in* Zhu *et al.*, 2004: 118) (*Hepialus*)
TL: China: Gansu, Maqu, 3,300 m
TC: Institute of Zoology, Academia Sinica, Beijing
Range: central-northern China, type locality record (Zhu *et al.* 2004)
Illustration: Zhu *et al.* (2004: pl. 3, fig. 2)
Morphology: Zhu *et al.* (2004)
Biology: unpublished
Habitat: unpublished
Hosts: unpublished
44. *Thitarodes markamensis* (Yang, Li & Shen, 1992a: 246) (*Hepialus*)
TL: China: Xizang [Tibet], Markam County, Nimasha Snow Mountains, 4,600-4,900 m
TC: Kunming Institute of Zoology, Kunming
Range: western China, type locality record (Yang *et al.* 1992)
Illustration: unpublished

Morphology: Yang *et al.* (1992a)

Biology: Zhu *et al.* (2004)

Habitat: alpine meadow (Yang *et al.* 1992a)

Hosts: **Ericaceae**, **Fabaceae** (*Astragalus tatsienensis*, *A. yunnanensis*), **Liliaceae**, **Polygonaceae** (*Polygonum viviparum*)

45. *Thitarodes meiliensis* (Liang in Liang *et al.*, 1988: 420) (*Hepialus*)

TL: China: Yunnan, Deqin County, Meili Snow Mountain

TC: Kunming Institute of Zoology, Kunming

Range: southwestern China, type locality record (Liang *et al.* 1988)

Illustration: unpublished

Morphology: Liang *et al.* (1988)

Biology: Zhu *et al.* (2004)

Habitat: alpine meadow (Yang *et al.* 1992b)

Hosts: **Fabaceae** (*Astragalus craibianus*, *A. tatsienensis*), **Polygonaceae** (*Polygonum macrophyllum*, *P. viviparum*, *Rumex madaio*, *R. pumilum*)

46. *Thitarodes menyuanicus* (Chu & Wang, 1985a: 123) (*Hepialus*)

TL: China: Qinghai, Menyuan

TC: Institute of Zoology, Academia Sinica, Beijing

msp. *minyuanicus* (Wang *et al.* 2001a)

Range: central-western China (Zhu *et al.* 2004)

Illustration: Zhu *et al.* (2004: pl.3, fig. 1), Dai *et al.* (2019: fig. 3)

Morphology: Chu & Wang (1985a), Zhu *et al.* (2004), Quan *et al.* (2014)

Biology: Wang *et al.* (2001a), Zhu *et al.* (2004)

Habitat: subalpine, 3,600 m (Wang *et al.* 2001a)

Hosts: **Ericaceae** (*Rhododendron przewalskii*), **Fabaceae** (*Astragalus ernestii*), **Polygonaceae** (*Polygonum macrophyllum*, *Rheum pumilum*), **Salicaceae** (*Salix lindleyana*)

47. *Thitarodes namensis* (Chu & Wang in Zhu *et al.*, 2004: 168) (*Hepialus*)

TL: China: Xizang [Tibet], Damxung

TC: Institute of Zoology, Academia Sinica, Beijing

Range: western China, type locality record (Zhu *et al.* 2004)

Illustration: Zhu *et al.* (2004: pl. 4, fig. 9)

Morphology: Zhu *et al.* (2004)

Biology: Zhu *et al.* (2004)

Habitat: unpublished

Hosts: **Fabaceae** (*Astragalus ernestii*), **Poaceae** (*Hordeum vulgare*), **Polygonaceae** (*Polygonum macrophyllum*, *Rheum pumilum*)

48. *Thitarodes namnai* Maczey, 2010a: 43 (*Thitarodes*)

TL: Bhutan: Namna, 4,750 m

TC: National Biodiversity Centre, Serbithang

Range: eastern Himalaya (Maczey 2010a)

Illustration: Cannon *et al.* (2009: figs. 2A [cf. Maczey *et al.* 2010a: fig. 6], 2B [cf. Maczey *et al.* 2010a: fig. 11]), Maczey *et al.* (2010a: figs. 1, 4, 6-13, 24, 2010b: figs. 2a-b), Grehan (2011: fig. 5a)

Morphology: Maczey *et al.* (2010a), Wang *et al.* (2019)

Biology: unpublished

Habitat: alpine grass-shrubland (Maczey *et al.* 2000a)

Hosts: unpublished

49. *Thitarodes nanmlinensis* (Chu & Wang in Zhu *et al.*, 2004: 136) (*Hepialus*)

TL: China: Xizang [Tibet], Nanmling

TC: Institute of Zoology, Academia Sinica, Beijing

Range: western China, type locality record (Zhu *et al.* 2004)

Illustration: Zhu *et al.* (2004: pl. 3, fig. 10)

Morphology: Zhu *et al.* (2004)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

50. *Thitarodes nebulosus* (Alphéraky, 1889: 85) (*Hepialus*)

TL: China: northeastern Xizang [Tibet]

TC: Zoological Institute, St Petersburg

Range: western China (Alphéraky 1889)

Illustration: Pfitzner (1912: pl. 54g), Zhu *et al.* (2004: pl. 4, fig. 8), Jiang *et al.* (2016: fig. 1), Leraut (2006: pl. 54, fig. 5 [as *Pharmacis nebulosus*])

Morphology: Viette (1949c), Zhu *et al.* (2004), Jiang *et al.* (2016)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

51. *Thitarodes nipponensis* Ueda, 1996: 45 (*Thitarodes*)

TL: Japan: Kyushu, Kumamoto Prefecture, Izuminura, Shirakawadani

TC: Kitakyushu Museum of Natural History, Kitakyushu

Range: southern Japan (Kyushu)

Illustration: Ueda (1996: pl. II, figs. 1-4), Hirowatari *et al.* (2013: pl. 3-02-18-19)

Morphology: Ueda (1996)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

52. *Thitarodes oblifurcus* (Chu & Wang, 1985a: 123) (*Hepialus*)

TL: China: Qinghai, Yushu

TC: Institute of Zoology, Academia Sinica, Beijing

Range: central-western China (Zhu *et al.* 2004)

Illustration: Zhu *et al.* (2004: pl. 2, fig. 11), Dai *et al.* (2019: fig. 3)

Morphology: Chu & Wang (1985a), Gao *et al.* (1992), Zhu *et al.* (2004), Wang *et al.* (2019)

Biology: Gao *et al.* (1992)

Habitat: unpublished

Hosts: unpublished

53. *Thitarodes pratensis* (Yang, Li & Shen, 1992a: 247) (*Hepialus*)

TL: China: Yunnan, Deqin County, Baima Snow Mountain, 4,350 m

TC: Kunming Institute of Zoology, Kunming
Range: southwestern China, type locality record (Yang *et al.* 1992)
Illustration: unpublished
Morphology: Yang *et al.* (1992a)
Biology: Zhu *et al.* (2004)
Habitat: alpine meadow (Yang *et al.* 1992a-b)
Hosts: **Fabaceae** (*Astragalus* sp.), **Poaceae**, **Polygonaceae**

- 54. *Thitarodes pui*** (Zhang, Gu & Lui, 2007: 473) (*Hepialus*)
TL: China: Xizang [Tibet], Linzhi District, 4,100-4,500 m
TC: Biological Museum of Sun Yat-Sen University, Guangzhou
Range: western China (Zhang *et al.* 2007)
Illustration: Zhang *et al.* (2007: figs. 1-2), Yi *et al.* (2016c: figs. 7-9), Yu (2016: figs. 1-7), Dai *et al.* (2019: fig. 3), Wang *et al.* (2022: fig. 1)
Morphology: Zhang *et al.* (2007), Sun *et al.* (2011, 2012a), Guo *et al.* (2016), Yi *et al.* (2016a [mtDNA]), Yi *et al.* (2016c), Yu (2016), Wang *et al.* (2019, 2022), Zhang *et al.* (2019 [complete mtDNA]), Hong *et al.* (2022)
Biology: Zhang *et al.* (2007), Lei *et al.* (2011), Sun *et al.* (2011, 2012b), Zou *et al.* (2012), Wu *et al.* (2015, 2018), Liang *et al.* (2019)
Habitat: alpine meadow and shrub 4,100-4,500 m (Li *et al.* 2011, 2012a)
Hosts: **Campanulaceae** (*Cyananthus macrocalyx*), **Juncaceae** (*Juncus leucanthus*), **Plantaginaceae** (*Veronica ciliata*), **Ranunculaceae** (*Ranunculus brotherusii*)
- 55. *Thitarodes quadrata*** Jiang, Li, Li, Li & Han, 2016: 374 (*Thitarodes*)
TL: China, Sichuan, Xiaojin
TC: Biological Museum of Sun Yat-Sen University, Guangzhou
Range: central southern China, type locality record (Jiang *et al.* 2016)
Illustration: Jiang *et al.* (2016: figs. 2-3)
Morphology: Jiang *et al.* (2016)
Biology: unpublished
Habitat: unpublished
Hosts: unpublished
- 56. *Thitarodes renzhiensis*** (Yang, Shen, Yang, Liang, Dong, Chun, Lu & Sinaduji, 1991: 218) (*Hepialus*)
TL: China: Yunnan, Renzhi and Baima snow mountains, 3,880-4,750 m
TC: Kunming Institute of Zoology, Kunming
Range: northwestern Yunnan, type locality record (Yang *et al.* 1991)
Illustration: unpublished
Morphology: Yang *et al.* (1991), Cao *et al.* (2012 [complete mtDNA]), Quan *et al.* (2014)
Biology: Yang *et al.* (1991), Zhu *et al.* (2004)
Habitat: alpine meadow (Yang *et al.* 1992b)
Hosts: **Berberidaceae**, **Caryophyllaceae**, **Cyperaceae**, **Ericaceae**, **Fabaceae** (*Astragalus frigidus*), **Liliaceae**, **Polygonaceae**, **Ranunculaceae**, **Rosaceae**, **Salicaceae**, **Saxifragaceae**
- 57. *Thitarodes richthofeni*** (Bang-Haas, 1939: 59) (*Hepialus*)
TL: China: Gansu, Liangtschou [Wuwei]
TC: Museum für Naturkunde, Berlin

Range: central-northern China (Bang-Haas 1939)

Illustration: Bang-Haas (1939: pl. 1, fig. 12)

Morphology: unpublished

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

58. *Thitarodes sejilaensis* Zou, Liu & Zhang, 2011: 107 (*Thitarodes*)

TL: China: Xizang [Tibet], Linzhi County, Mount Sejila, 29°36'N, 94°35'E, 4,500 m

TC: Biological Museum of Sun Yat-Sen University, Guangzhou

Range: western China, type locality record (Zou *et al.* 2011)

Illustration: Zou *et al.* (2011: figs. 3a-c), Dai *et al.* (2019: fig. 3)

Morphology: Zou *et al.* (2011), Zou *et al.* (2017 [complete mtDNA])

Biology: Zou *et al.* (2011),

Habitat: alpine shrubs and meadow (Zou *et al.* 2011)

Hosts: unpublished

59. *Thitarodes shambalaensis* Wang, Zhuang, Wang & Pierce, 2019: 94 (*Thitarodes*)

TL: China: Sichuan, Luding County, Mt. Gongga, head of Yanzigou Valley, Yangliuping habitat, 29°41'2.54"N, 101°53'32.24"E, 3,892 m

TC: Sichuan Plant Quarantine Station, Chengdu

Range: southwestern China, type locality record only (Wang *et al.* 2019: fig. 8)

Illustration: Wang *et al.* (2019: figs. 1a-e), Wang & Pierce (2022: fig. 1A)

Morphology: Wang *et al.* (2019)

Biology: Wang *et al.* (2020a)

Habitat: alpine meadow (Wang *et al.* 2019, Wang & Pierce 2022)

Hosts: unpublished

60. *Thitarodes sichuanus* (Chu & Wang, 1985a: 124) (*Hepialus*)

TL: China: Sichuan

TC: Institute of Zoology, Academia Sinica, Beijing

Range: central-western China (Zhu *et al.* 2004)

Illustration: Zhu *et al.* (2004: pl. 3, fig. 3)

Morphology: Chu & Wang (1985a), Zhu *et al.* (2004)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

61. *Thitarodes sinarabesca* (Bryk, 1942a: 153) (*Hepialus*)

TL: China: South Gansu, Kung-tze-tagga, 3,000 m in Tsaluk-Tal, Minshan

TC: Naturhistoriska Riksmuseet, Stockholm

Range: central northern China, type locality record (Bryk 1942a)

Illustration: unpublished

Morphology: unpublished

Biology: unpublished

Habitat: Meadows and deciduous shrubs (Bryk 1942a)

Hosts: unpublished

62. *Thitarodes variabilis* (Bremer, 1861: 478) (*Hepialus*)**TL:** Russia: Ussuri delta, Noor**TC:** Zoological Institute, St Petersburg**Range:** Russian Far East, Japan (Leleja 2016)**Illustration:** Pfitzner (1912: pl. 54, h), Inoue (1982: pl. 3, fig. 3 [as *Korscheltellus variabilis*]), Hirowatari *et al.* (2013: pl. 3-02-16-17)**Morphology:** Viette (1949c)**Biology:** unpublished**Habitat:** deciduous forest (Dubatolov 2015)**Hosts:** unpublished**63. *Thitarodes varians*** (Staudinger, 1896: 302) (*Hepialus*)**TL:** China: Xizang [Tibet]**TC:** Zoological Institute, St Petersburg**Range:** western China, type locality record (Staudinger 1896)**Illustration:** Staudinger (1896: pl. V, fig. 12)**Morphology:** unpublished**Biology:** unpublished**Habitat:** unpublished**Hosts:** unpublished**64. *Thitarodes varius*** (Staudinger, 1887: 194) (*Hepialus*)**TL:** Russia: Amur region**TC:** Zoological Institute, St Petersburg**Range:** Russian Far East, possibly northeastern China (Leleja 2016)**Illustration:** Staudinger (1887: pl. XI, fig. 6)**Morphology:** unpublished**Biology:** unpublished**Habitat:** unpublished**Hosts:** unpublished**65. *Thitarodes xiaojinensis*** (Tu, Ma & Zhang, 2009: 123) (*Hepialus*)**TL:** China: Sichuan, Xiaojin County, 4,300-4,800 m**TC:** Insect Collection of Southwest University, Chongqing**Range:** central-western China (Zhu *et al.* 2016)**Illustration:** Tu *et al.* (2009: figs. 5-6), Zhang & Tu (2015: figs. 1-6), Dai *et al.* (2019: fig. 3)**Morphology:** Tu *et al.* (2009), Wang *et al.* (2014), Chen *et al.* (2015 [complete mtDNA]), Zhang & Tu (2015)**Biology:** Tu *et al.* (2011), Li *et al.* (2012b), Wang *et al.* (2014), Zhang & Tu (2015), Meng *et al.* (2015, 2019, 2021), Zhang *et al.* (2015), Zhang & Qin (2016), Zhu *et al.* (2016, 2018), Ni *et al.* (2018), Liu *et al.* (2019), Li [M.-M.] *et al.* (2020a, b), Li [W.] *et al.* (2020), Wu *et al.* (2020), 2021), Rao *et al.* (2021), Wu *et al.* (2022a, b)**Habitat:** alpine, 3,000-4,800 m (Wang *et al.* 2014, Zhu *et al.* 2018)**Hosts:** **Apiaceae** (*Daucus carota* [laboratory rearing]), **Asteraceae** (*Leontopodium pumilum*, *Pyrethrum tatsienense*), **Cyperaceae** (*Carex atrofusca*, *Kobresia pygmaea*), **Ericaceae** (*Rhododendron anthopogonoides*, *R. websterianum*), **Fabaceae** (*Astragalus floridus*),

Geraniaceae (*Geranium orientalitibeticum*, *G. wilfordii*), **Juncaginaceae** (*Triglochin maritimum*), **Lamiaceae** (*Lamiophlomis rotata*), **Poaceae** (*Deyeuxia levipes*, *Poa crymophila*, *P. maerkangica*), **Polygonaceae** (*Polygonum capitatum*, *P. sphaerostichum*, *P. viviparum*, *Rheum pumilum*), **Ranunculaceae** (*Thalictrum cultratum*, *T. rutifolium*), **Rosaceae** (*Potentilla fallens*, *P. fruticosa*)

66. *Thitarodes xigazeensis* (Chu & Wang in Zhu et al., 2004: 98) (*Hepialus*)

TL: China: Xizang [Tibet], Xigazê

TC: Institute of Zoology, Academia Sinica, Beijing

Range: western China, type locality record (Zhu et al. 2004)

Illustration: Zhu et al. (2004: pl. 2, fig. 7)

Morphology: Zhu et al. (2004)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

67. *Thitarodes xizangensis* (Chu & Wang, 1985a: 131) (*Forkalus*)

TL: China: Xizang [Tibet], Zhangmo

TC: Institute of Zoology, Academia Sinica, Beijing

Range: western China (Zhu et al. 2004)

Illustration: Zhu et al. (2004: pl. 5, fig. 3)

Morphology: Chu & Wang (1985a), Zhu et al. (2004)

Biology: Zhu et al. (2004)

Habitat: unpublished

Hosts: **Caryophyllaceae** (*Arenaria lancangensis*), **Fabaceae** (*Astragalus ernestii*), **Polygonaceae** (*Polygonum glaciale*, *P. viviparum*), **Ericaceae** (*Rhododendron copalanthoides*), **Ranunculaceae** (*Ranunculus tanguticus*)

68. *Thitarodes xunhuaensis* (Yang & Yang in Yang et al., 1995: 359) (*Hepialus*)

TL: China: Qinghai, Xunhua County, 3,800 m

TC: Kunming Institute of Zoology, Kunming

Range: central-northwestern China, type locality record (Yang et al. 1995)

Illustration: unpublished

Morphology: Yang et al. (1995)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

69. *Thitarodes yadongensis* (Chu & Wang in Zhu et al., 2004: 139) (*Hepialus*)

TL: China: Xizang [Tibet], Yadong

TC: Institute of Zoology, Academia Sinica, Beijing

Range: western China, type locality record (Zhu et al. 2004)

Illustration: Zhu et al. (2004: pl. 3, fig. 10)

Morphology: Zhu et al. (2004)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

70. *Thitarodes yeriensis* (Liang, 1995: 207) (*Hepialus*)

TL: China: Yunnan, Deqin County, Yeri Snow Mountains

TC: Kunming Institute of Zoology, Kunming

Range: southwestern China, type locality record (Liang 1995)

Illustration: unpublished

Morphology: Liang (1995)

Biology: Zhu *et al.* (2004)

Habitat: alpine meadow (Yang *et al.* 1992)

Hosts: **Polygonaceae** (*Polygonum* sp., *Rumex acetosa*), **Ericaceae** (*Rhododendron microgynum*), **Fabaceae** (*Astragalus* sp.)

71. *Thitarodes yongshengensis* (Chu & Wang *in* Zhu *et al.*, 2004: 131) (*Hepialus*)

TL: China: Yunnan, Yongsheng

TC: Institute of Zoology, Academia Sinica, Beijing

Range: southwestern China (Zhu *et al.* 2004)

Illustration: Zhu *et al.* (2004: pl. 3, fig. 8)

Morphology: Zhu *et al.* (2004)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

72. *Thitarodes yulongensis* (Liang *in* Liang *et al.*, 1988: 421) (*Hepialus*)

TL: China: Yunnan, Lijiang County, Yulong Snow Mountain

TC: Kunming Institute of Zoology, Kunming

Range: southwestern China, type locality record (Liang 1988)

Illustration: Zhu *et al.* (2004: pl. 3, fig. 6)

Morphology: Liang *et al.* (1988), Li *et al.* (1990), Zhu *et al.* (2004)

Biology: Zhu *et al.* (2004)

Habitat: alpine meadow (Yang *et al.* 1987, 1992b)

Hosts: **Fabaceae** (*Astragalus* sp.), **Polygonaceae** (*Polygonum* sp., *Rumex acetosa*)

73. *Thitarodes yunlongensis* (Chu & Wang, 1985: 125) (*Hepialus*)

TL: China: Yunnan, Yunlong

TC: Institute of Zoology, Academia Sinica, Beijing

Range: southwestern China (Zhu *et al.* 2004)

Illustration: Zhu *et al.* (2004: pl. 3, fig. 6)

Morphology: Chu & Wang (1985a), Zhu *et al.* (2004)

Biology: unpublished

Habitat: alpine meadow (Yang *et al.* 1992b)

Hosts: unpublished

74. *Thitarodes yunnanensis* (Yang, Li & Shen, 1992a: 245) (*Hepialus*)

TL: China: Yunnan, junction of Jianchuan, Lijiang and Laming counties, Laojun Mountains, 3,680-3,750 m

TC: Kunming Institute of Zoology, Kunming

Range: southwestern China (Yang *et al.* 1992)

Illustration: unpublished

Morphology: Yang *et al.* (1992a), Cao *et al.* (2012 [complete mtDNA])

Biology: Zhu *et al.* (2004)

Habitat: high elevation forest to subalpine (Yang *et al.* 1992a-b)

Hosts: **Fabaceae** (*Astragalus* sp.), **Polygonaceae** (*Polygonum* sp.)

75. *Thitarodes yushuensis* (Chu & Wang, 1985a: 122) (*Hepialus*)

TL: China: Qinghai, Yushu

TC: Institute of Zoology, Academia Sinica, Beijing

Range: central-western China

Illustration: Zhu *et al.* (2004: pl. 2, fig. 9), Dai *et al.* (2019: fig. 3)

Morphology: Chu & Wang (1985a), Zhu *et al.* (2004), Quan *et al.* (2014), Li & Li (2022 [mtDNA])

Biology: Zhu *et al.* (2004), Li *et al.* (2007)

Habitat: alpine shrub-meadow (Li *et al.* 2007)

Hosts: **Ericaceae** (*Rhododendron przewalskii*), **Fabaceae** (*Astragalus ernestii*), **Polygonaceae** (*Polygonum viviparum*)

76. *Thitarodes zadoiensis* (Chu & Wang in Zhu *et al.*, 2004: 109) (*Hepialus*)

TL: China: Qinghai, Zadoi

TC: Institute of Zoology, Academia Sinica, Beijing

Range: central-western China, type locality record (Zhu *et al.* 2004)

Illustration: Zhu *et al.* (2004: pl. 2, fig. 10)

Morphology: Zhu *et al.* (2004)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

77. *Thitarodes zaliensis* (Yang, 1994: 7) (*Hepialus*)

TL: China: Xizang [Tibet], Markam County, Zhali Snow Mountain, 4,600-4,900 m

TC: Kunming Institute of Zoology, Kunming

Range: western China, type locality record (Yang 1994)

Illustration: unpublished

Morphology: Yang (1994)

Biology: Zhu *et al.* (2004)

Habitat: unpublished

Hosts: **Liliaceae**, **Polygonaceae**, **Ranunculaceae**, **Saxifragaceae**

78. *Thitarodes zhangmoensis* (Chu & Wang, 1985a: 126) (*Hepialus*)

TL: China: Xizang [Tibet], Zhangmo

TC: Institute of Zoology, Academia Sinica, Beijing

Range: western China (Zhu *et al.* 2004)

Illustration: Zhu *et al.* (2004: pl. 3, fig. 9)

Morphology: Chu & Wang (1985a), Zhu *et al.* (2004)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

79. *Thitarodes zhayuensis* (Chu & Wang, 1985a: 127) (*Hepialus*)

TL: China: Xizang [Tibet], Zhayu

TC: Institute of Zoology, Academia Sinica, Beijing

Range: western China (Zhu *et al.* 2004)

Illustration: Zhu *et al.* (2004: pl. 3, fig. 11)

Morphology: Chu & Wang (1985a), Zhu *et al.* (2004)

Biology: unpublished

Habitat: Yang *et al.* (1987)

Hosts: unpublished

80. *Thitarodes zhongzhiensis* (Liang, 1995: 207) (*Hepialus*)

TL: China: Yunnan, Deqin County, Renzhi Snow Mountain

TC: Kunming Institute of Zoology, Kunming

Range: southwestern China, type locality record (Liang 1995)

Illustration: unpublished

Morphology: Liang (1995)

Biology: Zhu *et al.* (2004)

Habitat: alpine meadow (Yang *et al.* 1992b)

Hosts: **Ericaceae** (*Rhododendron chamaethomsonii*), **Fabaceae** (*Astragalus* sp.),

Polygonaceae (*Polygonum viviparum*)

Thitarodes nomen nudum

Thitarodes dongyuensis (Liang in Yang *et al.* 1992) (see also Nielsen *et al.* 2000: 848)

Thitarodes guidera Yan, 2001a-b (see Wang & Yao 2011: 54)

Thitarodes lagii Yan, 2001c (see Xu 2004, Wang & Yao 2011: 54)

TRICHOPHASSUS Le Cerf, 1919: 470

TS: *Epiolus* [*sic*] *giganteus* Herrich-Schäffer, [1853c], by original designation

1. *Trichophassus giganteus* (Herrich-Schäffer, [1853c]: wrapper + [pl. 10], fig. 45) (*Epiolus* [*sic*])

TL: America

TC: Zoological Institute, St Petersburg

syn. *hayeki* (Foetterle, 1903: 649) (*Phassus*); junior synonym

TL: Rio de Janeiro, Petrópolis; **TC:** Naturhistorisches Museum Wien

Range: southeastern to southern Brazil (Mielke & Grehan 2012)

Illustration: Herrich-Schäffer ([1853c]: pl. [10], fig. 45), Foetterle (1903: pl. XVII, fig. 1 [as *Phassus hayeki*]), Pfitzner (1938: pl. 100d, 185b [as *Phassus hayeki*]), Costa Lima (1945: fig. 45), Briquetot (1956: figs. 3-5), Grehan (2010: cover), Muscat (2011: 5), Núñez Bustos (2016: figs. 1-2), Mielke *et al.* (2020b: figs. 5-7)

Morphology: Lima (1945), Oiticica Filho (1947), Bourgogne (1949), Viette (1949d [7th note]), Briquetot (1956), Grehan (2010), Muscat (2011)

Biology: Briquetot (1956)

Habitat: forest (Briquetot 1956, Núñez Bustos 2016)

Hosts: **Myrtaceae** (*Eucalyptus alba*, *E. citriodora*, *E. grandis*, *E. rostrata*, *E. saligna*)

TRICLADIA C. & R. Felder *in* Felder, Felder & Rogenhofer, 1874: 9

TS: *Tricladia umbrifera* C. & R. Felder *in* Felder, Felder & Rogenhofer, 1874, by monotypy
syn. *Lamelliformia* Viette 1951d [25th note]: 1274

TS: *Dalaca prytanes* Schaus, 1892, by original designation

1. *Tricladia prytanes* (Schaus, 1892: 329) (*Dalaca*)

TL: Brazil: Rio de Janeiro, Petrópolis

TC: National Museum of Natural History, Washington

Range: southeastern Brazil, type locality record (Schaus 1892)

Illustration: unpublished

Morphology: Viette (1952b [23rd note]), Grehan (2010)

Biology: unpublished

Habitat: forest (inferred from stem boring biology of other cibyrene species)

Hosts: unpublished

2. *Tricladia sladeni* (Hampson, 1903: 260) (*Dalaca*)

TL: Brazil: Mato Grosso, [Santa Anna da Chapada], Chapada

TC: Natural History Museum, London

Range: central-western Brazil, type locality record (Hampson 1903)

Illustration: unpublished

Morphology: Viette (1950b)

Biology: unpublished

Habitat: forest (inferred from stem boring biology of other cibyrene species)

Hosts: unpublished

3. *Tricladia tupi* (Pfitzner, 1914: 105) (*Cibyra*)

TL: Brazil: São Paulo, [Iperó] Ypanema

TC: Naturmuseum und Forschungsinstitut Senckenberg, Frankfurt am Main

Range: southeastern Brazil (Pfitzner 1914)

Illustration: Pfitzner (1937: pl. 99c)

Morphology: Viette (1951d)

Biology: unpublished

Habitat: forest (inferred from stem boring biology of other cibyrene species)

Hosts: unpublished

4. *Tricladia umbrifera* C. & R. Felder *in* Felder, Felder & Rogenhofer, 1874: 9 (*Tricladia*)

TL: Brazil

TC: unpublished

Range: southeastern to southern Brazil (Felder *et al.* 1874)

Illustration: Felder *et al.* (1874: pl. LXXX, fig. 2), Pfitzner (1938: pl. 185f)

Morphology: unpublished

Biology: unpublished

Habitat: forest (inferred from stem boring biology of other cibyrene species)

Hosts: unpublished

TRIODIA Hübner, [1820]: 198

TS: *Noctua sylvina* Linnaeus, 1761, by subsequent designation (Viette 1949g [12th note]: 103)
syn. *Alphus* Wallengren, 1869: 17; junior synonym

TS: *Noctua sylvina* Linnaeus, 1761, by monotypy

1. *Triodia adriaticus* (Osthelder, 1931: 47) (*Hepialus*)

TL: Croatia: Pula, Otok Veliki Brijun [Brioni Grand Island]

TC: Zoologische Staatssammlungen des bayerischen Staates, Munich

Range: southeastern Europe (de Freina & Witt 1990: fig. 41)

Illustration: Daniel (1967: pl. 4, figs. 15-18), de Freina & Witt (1990: pl. 8, figs. 3-19), Bertaccini *et al.* (1997: pl. 14, figs. 8-9), Leraut (2006: pl. 56, figs. 5-7)

Morphology: Daniel (1967)

Biology: Witt (1981)

Habitat: wooded heathlands sea level to 1,000 m (de Freina & Witt 1990)

Hosts: unpublished

2. *Triodia amasinus* (Herrich-Schäffer, [1852b]: 39) (*Hepialus*)

TL: Northern Turkey: Amasia

TC: Zoologische Staatssammlungen des bayerischen Staates, Munich

inf. ab. *signata* (Spuler, 1910: 485) (*Hepialus*); Turkey: Dalmatia; depository unknown

syn. *dobrogensis* (Caradja, 1932: 7) (*Hepialus*); subspecies

TL: Romania, southern Dobrogea; **TC:** "Grigore Antipa"; National Museum of Natural History, Bucharest

syn. *pinkeri* (Daniel, 1967: 93) (*Hepialus*); subspecies

TL: North Macedonia: Drenovo by Kavadar; **TC:** [originally in Daniel collection]

Range: southeastern Europe, Asia Minor (Grehan & Knyazev 2019: fig. 7, Kemal *et al.* 2020: map 1)

Illustration: Spuler (1910: pl. 76. fig. 42), Pfitzner (1912: pl. 54e), Osthelder *et al.* (1939: pl. II, figs. 9-10), Daniel (1967: pl. 2, figs. 4-7, pl. 3, figs. 8-12, pl. 4, figs. 13-14), de Freina & Witt (1990: pl. 7, figs. 45-56, pl. 8, figs. 1-2), Leraut (2006: pl. 56, figs. 8-9), Székely (2010: pl. 1, figs. 6-8), Kemal *et al.* (2020: figs. 1-2, 6)

Morphology: Viette (1949c), Daniel (1967), Kemal *et al.* (2020)

Biology: Ganev (1984), Székely (2010)

Habitat: hilly areas 600-1,000 m (de Freina & Witt 1990), steppe to subalpine (Kemal *et al.* 2020)

Hosts: unpublished

3. *Triodia froitzheimi* (Daniel, 1967: 91) (*Hepialus*)

TL: Jordan: Amman, 800 m

TC: unknown

Range: coastal Middle East, type locality record (Daniel 1967)

Illustration: Daniel (1967: pl. 2, figs. 1-3)

Morphology: Daniel (1967)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

4. *Triodia laetus* (Staudinger, 1877: 177) (*Hepialus*)

TL: Georgia: South Caucasus, Manglisi

TC: Museum für Naturkunde, Berlin

msp. *laeta* (Spuler 1910: 485)

Range: Caucasus, type locality record (Staudinger 1877)

Illustration: Romanoff (1884: pl. V, figs. 4a-b), Pfitzner (1912: pl. 54d), Leraut (2006: pl. 56, fig. 10)

Morphology: Staudinger (1893), Viette (1949c)

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

5. *Triodia mlocossewitschi* (Romanoff, 1884: 91) (*Hepialus*)

TL: Georgia: Lagodekhi

TC: Zoological Institute, St Petersburg

msp. *mlocossewitschi* (Pfitzner 1912: 436); emendation by Nielsen *et al.* (2000: 845) incorrect.

Pfitzner (1912) presents two spellings: *mlocossewitschi* in the text, and *mlocossewitschi* in plate 54. The different names represent incorrect subsequent spellings because the changes from 'k' to 'c' and 'v' to 'w' were not explained.

Range: Caucasus, type locality record (Romanoff 1884)

Illustration: Romanoff (1884: pl. 4, fig. 10), Pfitzner (1912: pl. 54h [as *Hepialus mlocossewitschi*])

Morphology: unpublished

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

6. *Triodia nubifer* (Lederer, 1853: 362) (*Epialus* [*sic*])

TL: Kazakhstan: East Kazakhstan region, Altai between Ust-Kamenogorsk and Ustbuchtarminsk on the Irtysh River

TC: Museum für Naturkunde, Berlin

Range: central northern Asia, Altai (Dubatolov & Kosterin 2015: fig. map 4)

Illustration: Lederer (1853: pl. 2, fig. 1), Pfitzner (1912: pl. 53h), Zhu *et al.* (2004: pl. 4, fig. 5 [error, genitalia and wing pattern conforms to *Thitarodes*]), Dubatolov & Knyazev (2011: pl. VII, figs. 1-8), Dubatolov & Kosterin (2015: figs. 1-2)

Morphology: Zhu *et al.* (2004: fig. 115 [genitalia conform to *Thitarodes*]), Dubatolov & Knyazev (2011), Dubatolov & Kosterin (2015)

Biology: unpublished

Habitat: hemiboreal forests (Dubatolov & Kosterin 2015)

Hosts: unpublished

7. *Triodia sylvina* (Linnaeus, 1761: 306 [No. 1151]) (*Phalaena Noctua*)

TL: Sweden: Stockholm

TC: Linnean Society, London

syn. *hamma* ([Denis & Schiffermüller], 1775: 61) (*Bombyx*); junior synonym

TL: [Germany]; **TC:** unknown

syn. *angulatus* (Fabricius, 1781: 506) (*Hepialus*); junior synonym

TL: Germany: Hamburg; **TC:** unknown

syn. *multicolor* (de Fourcroy, 1785: 313 [No. 178]) (*Phalaena*); junior synonym

TL: France; **TC:** unknown

syn. *crux* (Fabricius, 1787: 135) (*Hepialus* [*sic*]); junior synonym

TL: Denmark: Copenhagen; **TC:** unknown

msp. *angulum* (de Villers 1789: 193) (*Noctua*); emendation by Nielsen *et al.* (2000: 844)

incorrect. de Villers (1789) wrote: "Angulum. 154. P.N. (l'angle) *alis flavescens*, *linea angulata alba*. *Fab. hepialus*. Append." [(l'angle) yellow wings, white angled line.]. Villers cited the diagnosis given by Fabricius verbatim, but did not show why he changed the spelling of the name. The change qualifies as an incorrect subsequent spelling.

syn. *c-album* (de Villers, 1789: 288, No. 394) (*Noctua*); junior synonym

TL: Europe; **TC:** unknown

syn. *fauna* (Schränk, 1801: 305) (*Hepialus*); junior synonym

TL: unknown; **TC:** unknown

emd. *cruxator* (Haworth 1802: 19) (*Hepialus*); emendation (Nielsen *et al.* 2000: 844)

unjustified. Haworth (1802: iii) stated "The Aurelian Society, presuming it will be a manifest improvement in the science of Entomology, has resolved, that the...*Hepiali* [shall end] in *ator*;" This is an unjustified emendation because it does not involve the correction of an inadvertent error [Art. 32.5.1]

emd. *angulator* (Haworth 1802: 19) (*Hepialus*); emendation (Nielsen *et al.* 2000: 845)

unjustified. Explanation as for *cruxator*

emd. *sylvinator* (Haworth 1802: 4) (*Hepialus*); emendation (Nielsen *et al.* 2000: 845)

unjustified. Explanation as for *cruxator*

inf. ab. *pallidus* (Hormuzaki, 1894: 7) (*Hepialus*); Romania: Sălaj County, Crasna [Kraszna]; depository unknown

inf. ab. *poecilus* (Hormuzaki, 1894: 8) (*Hepialus*); Romania: Valeni; depository unknown

syn. var. *pulchellus* (Heyne, 1899: 98) (*Hepialus*); subspecies

TL: Russia: Moscow; **TC:** unknown

syn. *kruegeri* (Turati, 1909: 123) (*Hepialus*); junior synonym

TL: Italy: Sicily, Palermo; **TC:** unknown

syn. var. *victoriae* (Pyetkov, 1914: 100) (*Hepialus*); subspecies

TL: Bulgaria: Sofia; **TC:** unknown

inf. ab. *brunnescens* (Lempke, 1938: 303) (*Hepialus*); Netherlands: Amsterdam; Naturalis Biodiversity Centre, Leiden

inf. ab. *pauper* (Lempke, 1938: 303) (*Hepialus*); Netherlands: Amsterdam; depository unknown

syn. var. *androgynus* (Agenjo, 1942: 157) (*Hepialus*); subspecies

TL: Spain: San Ildefonso, Segovia; **TC:** unknown

syn. var. *pardo* (Agenjo, 1942: 157) (*Hepialus*); subspecies

TL: Spain: Camargo; **TC:** unknown

syn. var. *alfaroi* (Agenjo, 1942: 158) (*Hepialus*); subspecies

TL: Spain: Burgos; **TC:** Naturalis Biodiversity Centre, Leiden

syn. *laincalvo* (Agenjo, 1942: 158) (*Hepialus*); subspecies

TL: Spain: Burgos, Estépar; **TC:** unknown [originally Agenjo collection]

syn. f. *nigrescens* Lempke, 1961: 181 (*Triodia*); subspecies

TL: Netherlands: Stein; **TC:** [originally Missiehuis collection]

syn. f. *obscura* Lempke, 1961: 181 (*Triodia*); subspecies

TL: Netherlands: Delft; **TC:** [originally Oosten collection]

syn. f. *pallida* Lempke, 1961: 182 (*Triodia*); subspecies

TL: Netherlands: Dordrecht; **TC:** Naturalis Biodiversity Centre, Leiden

syn. f. *reducta* Lempke, 1961: 182 (*Triodia*); subspecies

TL: Netherlands: Terwold; **TC:** [originally van de Pol collection]

Range: western and central Eurasia (Grehan & Knyazev 2019: fig. 7)

Illustration: Harris (1776: pl. IVf, 1840: pl. XXIII, m), Carangeot (1786: pl. CXCII, figs. 249 a-b, e-g), Hübner ([1808]: pl. 48, figs. 205-206 [as *Hepialus lupulinus*], pl. 49, fig. 207 [as *Bombyx hamma*]), Godart (1822: pl. II, figs. 1-5 [as *Cossus sylvinus*]), Curtis (1828: pl. 185), Meigen (1832: pl. LXXXIX, figs. 4a-b), Guérin (1835: pl. 204, fig. 3 [as *Hepialus lupulinus*]), Duncan (1836: pl. 14, fig. 1), Wood (1839, 1854: pl. 5, fig. 6), Freyer (1842: pl. 302, figs. 1-4, 1852: pl. 560, figs. 3 [as *Hepiolus [sic] hamma*], 4), Humphries & Westwood (1843: pl. VIII, figs. 12-13), Berge (1851: pl. LXVI, fig. 27), Sepp (1855: pl. XXXIII, figs. 6-7), Millière (1864: pl. 60, fig. 7 [as *H. lupulina*]), Newman (1869: fig. 35), Morris (1871: pl. VII, fig. 1), Esper (1876: pl. LXXXII Noct 3, figs. 2-7 [including *Hepialus flina*]), E. Hofmann (1894: pl. 23, fig. 5), Barrett (1895: pl. LXIV, fig. 1), Gordon (1896: pl. 11, figs. 154, 155 [as *Hepialus velleda*]), Kirby (1897b: pl. 126, fig. 4, 1903: pl. XXV, fig. 14, 1913: pl. 28, fig. 12), Lampert (1907: pl. 87, fig. 5), South (1908: pl. 157: figs. 5-6), Turati (1909: pl. 6, figs. 14-15, 16-19 [19 as *Hepialus kruegeri*]), Rebel (1910: pl. 50, fig. 171; 1911: pl. 24, fig. 8), Spuler (1910: pl. 80, fig. 5), Pfitzner (1912: pl. 54g), Pyetkov (1914: fig. 100 [as *H. victoriae*]), Gaede (1929: fig. 77), Robert (1934: pl. 42), Agenjo (1942: pl. III, figs. 3-11), Viette (1948a: fig. 53), Bergmann (1953: pl. 110, figs. B4, C1-C3), Koch (1955: pl. 14, fig. 213), Gullander (1964: 88, fig. 7), Heath (1976: pl. 10, figs. 26-27), Perju & Ghizdavu (1977: figs. 1-2), Herbulot (1978: pl. XI, fig. 306), García *et al.* (1983: fig. 5: 3-4), Skinner (1985: pl. 1, figs. 20-22), Chinery (1986: 133), de Freina & Witt (1990: pl. 7, figs. 14-44), Speidel (1994: 123), Bertaccini *et al.* (1997: pl. 14, figs. 4-7), Buser *et al.* (2000: 72, figs. 5-6, 73, fig. 9), Waring & Townsend (2003: 46, 2017: pl. 1), Zhu *et al.* (2004: pl. 4, fig. 10 [genitalia fig. 120 conforms to *Triodia*]), Leraut (2006: pl. 56, figs. 11-13, pl. 57, figs. 1-4), Székely (2010: pl. 1, figs. 1-2), Teobaldelli (2010: 176), Dubatolov & Knyazev (2011: pl. VII, fig. 10), Ferguson *et al.* (2014: fig. 1), Silvonen *et al.* (2014: fig. 59, pl. K1, fig. 2), Teobaldelli (2014: 76), De Prins (2016: 22), Gaedike *et al.* (2017: 297), Grehan & Knyazev (2019: fig. 7), Randle *et al.* (2019: fig. 15)

Morphology: Lacaze-Duthiers (1853), Wilson & Wilson (1880), Buckler (1887), E. Hofmann (1893), Barrett (1895), Poppius (1888), Eimer (1894), Kellogg (1895a, d), Quail (1903), Linstow (1907), Spuler (1910), Schultz (1914), Forbes (1923), Pierce & Beirne (1941), Agenjo (1942), Stokoe & Stovin (1948), Viette (1948a), Bourgogne (1949), Toll (1959), Aitkenhead & Baker (1964), Perju & Ghizdavu (1977), Sukhareva (1978), Ueda (1978), Chu & Wang (1985a), Speidel (1994), Traut & Marec (1996), Buser *et al.* (2000), Dubatolov & Knyazev (2011), Ferguson *et al.* (2014 [Hox gene]), Holland *et al.* (2017 [Hox gene])

Biology: Godart (1822), Lalanne (1822), Meigen (1832), Treitschke (1834), Duncan (1836), Boisduval (1840), Harris (1840), Eversmann (1841), Nickerl (1850), Guillemot (1854), Sepp (1855), Assmuss (1857) Snellen van Vollenhoven (1858), Snellen (1858), Berce (1868), Newman (1869), Wallengren (1869), Wilson & Wilson (1880), Buckler (1887), Robson (1887b, 1892a), Aurivillius (1888-1891), Seymour St. John (1890), Tutt (1892), E. Hofmann (1893, 1894), Kappel & Kirby (1893, 1897b), Barrett (1895), Kellogg (1895b), Meyrick (1895), Favre & Wulschlegel (1899), Pabst (1901), Robson (1902), Moutier (1903), Lampert (1907), Rebel

(1910), Goossens (1912), Pfitzner (1912), Scorer (1913), Tölg (1912), Blaschke (1914), Vorbrodt & Müller-Rutz (1914), Blair (1918), Gouin (1922), Eckstein (1923), Gaede (1929), Robert (1934), Williams (1939), Stokoe & Stovin (1948), Viette (1948a), Birchenough (1951), Bergmann (1953), Edwards (1964), Habeler (1967), Heath (1976), Lawton (1976), Perju & Ghizdavu (1977), Pratt (1978), Ueda (1980), Chalmers-Hunt (1981), (Perju S & Ghizdavu, 1981), Duddington & Johnson (1983), García *et al.* (1983), Samson & Brady (1983), Ganev (1984), Skinner (1985), Sutton & Beaumont (1989), de Freina & Witt (1990), Aistleitner (1991), Emmet (1991), Speidel (1994), Cifuentes (1996), Porter (1997), Buser *et al.* (2000), Lukhtanov (2000), Rydell & Lancaster (2000), Waring & Townsend (2003, 2017), Rezbanyai-Reser & Wiprächtiger (2004), Székely (2010), Weir (2011), Riccucci & Lanza (2014), Silvonen *et al.* (2014), Teobaldelli (2014), Fletcher (2016), Fraise *et al.* (2017), Randle *et al.* (2019)

Habitat: fields, meadows up to 2,000 m (de Freina & Witt 1990)

Hosts: **Apiaceae** (*Daucus carota*), **Asteraceae** (*Arctium* sp., *Lactuca sativa*, *Solidago* sp., *Taraxacum officinale*), **Athyriaceae** (*Athyrium filix-femina*), **Boraginaceae** (*Echium vulgare*, *Symphytum officinale*), **Brassicaceae** (*Armoracia rusticana*), **Cannabaceae** (*Humulus lupulus*), **Cucurbitaceae** (*Bryonia* sp.), **Dennstaedtiaceae** (*Pteridium aquilinum*), **Equisetaceae** (*Equisetum arvense*), **Fabaceae** (*Securigera varia*), **Lamiaceae** (*Mentha* sp., *Salvia* sp.), **Malvaceae** (*Althaea rosea*, *Lavatera communis*, *Malva moshata*), **Plantaginaceae** (*Plantago* sp.), **Poaceae** (*Agropyron repens*), **Polygonaceae** (*Rumex acetosa*, *R. scutatus*), **Pteridaceae** (*Pteris aquilinia*), **Rosaceae** (*Fragaria* sp.), **Salicaceae** (*Salix* sp.), **Scrophulariaceae** (*Verbascum* sp.), **Urticaceae** (*Urtica* sp.)

VIETTEOGORGOPIS Özdikmen, 2007: 116

TS: *Paragorgopis pittionii* Viette, 1952a [26th note], by original designation
syn. *Paragorgopis* Viette, 1952: [23rd note]: 140; preoccupied (Özdikmen 2007)

1. *Vietteogorgopis absyrtus* (Schaus, 1892: 330) (*Phassus*)

TL: Brazil: Rio de Janeiro, Petrópolis

TC: National Museum of Natural History, Washington

Range: southeastern Brazil, type locality record (Schaus 1892)

Illustration: unpublished

Morphology: unpublished

Biology: unpublished

Habitat: forest (inferred from stem boring biology of other cibyrene species)

Hosts: unpublished

2. *Vietteogorgopis foetterlei* (Viette, 1952a [26th note]: 141) (*Paragorgopis*)

TL: Brazil: Rio de Janeiro, Petrópolis

TC: Naturhistorisches Museum Wien

Range: southeastern Brazil, type locality record (Viette 1952a [26th note])

Illustration: unpublished

Morphology: unpublished

Biology: unpublished

Habitat: forest (inferred from stem boring biology of other cibyrene species)

Hosts: unpublished

3. *Vietteogorgopis jordani* (Viette, 1956a [31st note]: 377) (*Paragorgopis*)
TL: Brazil: Minas Gerais, Teófilo Otoni, San Jacintho Valley
TC: Natural History Museum, London
Range: southeastern Brazil, type locality record (Viette 1956a [31st note])
Illustration: unpublished
Morphology: Viette (1956a [31st note])
Biology: unpublished
Habitat: forest (inferred from stem boring biology of other cibyrene species)
Hosts: unpublished
4. *Vietteogorgopis katharinae* (Pfitzner, 1914: 110) (*Dalaca*)
TL: Brazil: Santa Catarina
TC: Naturmuseum und Forschungsinstitut Senckenberg, Frankfurt am Main
Range: southeastern Brazil, type locality record (Pfitzner 1914)
Illustration: Mielke *et al.* (2020b: figs. 8-9)
Morphology: unpublished
Biology: unpublished
Habitat: forest (inferred from stem boring biology of other cibyrene species)
Hosts: unpublished
5. *Vietteogorgopis nigrovenosalis* (Viette, 1956a [31st note]: 375) (*Paragorgopis*)
TL: Brazil: Minas Gerais, Água Suja
TC: Natural History Museum, London
Range: southeastern Brazil, type locality record (Viette 1956a [31st note])
Illustration: unpublished
Morphology: Viette (1956a [31st note])
Biology: unpublished
Habitat: forest (inferred from stem boring biology of other cibyrene species)
Hosts: unpublished
6. *Vietteogorgopis petropolisensis* (Viette, 1952b [23rd note]: 140), **comb. n.** (*Aepytus*)
Taxonomic amendment: In South America, the oxycanine venation of *Cibyra* (*Aepytus*) *petropolisensis* Viette, 1952 is also found in *Aepytus*, *Roseala*, *Huebneriella*, *Tricladia*, and *Vietteogorgopis* on both wings and on the forewing of *Walkeriella* only. The forewing blackish stripe that runs from cell and between Rs4 and M veins along with the oxycanine venation (Plate 14) is only applicable to *Vietteogorgopis*. In addition, the location of *V. petropolisensis* also corresponds to the distribution of other congeners.
TL: Brazil: Petrópolis
TC: Naturhistorisches Museum Wien
Range: southeastern Brazil (Viette, 1952a [26th note])
Illustration: Viette (1952b [23rd note]: fig. 1)
Morphology: Viette (1952b [23rd note])
Biology: unpublished
Habitat: forest (inferred from stem boring biology of other cibyrene species)
Hosts: unpublished

7. *Vietteogorgopis pittionii* (Viette, 1952a [26th note]: 141) (*Paragorgopis*)
TL: Brazil: Rio de Janeiro, Petrópolis
TC: Naturhistorisches Museum Wien
Range: southeastern Brazil, type locality record (Viette 1952a [26th note])
Illustration: Viette (1952b [23rd note]: fig. 4)
Morphology: Viette (1952b [23rd note])
Biology: unpublished
Habitat: forest (inferred from stem boring biology of other cibyrene species)
Hosts: unpublished
8. *Vietteogorgopis spitzi* (Viette, 1956a [31st note]: 375) (*Paragorgopis*)
TL: Brazil: São Paulo, Ipiranga
TC: Natural History Museum, London
Range: southeastern Brazil, type locality record (Viette 1956a [31st note])
Illustration: unpublished
Morphology: Viette (1956a [31st note])
Biology: unpublished
Habitat: forest (inferred from stem boring biology of other cibyrene species)
Hosts: unpublished

VIRIDIGIGAS Grehan & Rawlins, 2016: 50

TS: *Viridigigas ciseskii* Grehan & Rawlins, 2016, by original designation

1. *Viridigigas ciseskii* Grehan & Rawlins, 2016: 55 (*Viridigigas*)
TL: Peru: [Pasco], Oxapampa, 2,600 m
TC: Museo de Historia Natural "Javier Prado", Lima
Range: south-central, eastern Peru (Grehan & Rawlins 2016: fig. map 10)
Illustration: Grehan & Rawlins (2016: figs. 1-2)
Morphology: Grehan & Rawlins (2016)
Biology: unpublished
Habitat: forest (Grehan & Rawlins 2016)
Hosts: unpublished

WALKERIELLA C. Mielke, Grehan & Grados, 2019: 336

TS: *Walkeriella miraculosa* C. Mielke, Grehan & Grados 2019, by original designation

1. *Walkeriella miraculosa* C. Mielke, Grehan & Grados, 2019: 338 (*Walkeriella*)
TL: Peru: Madre de Dios, Albergue, Refugio Amazonas, 12°52'30"[S], 69°24'35"[W], 235 m.
TC: Museo de Historia Natural "Javier Prado", Lima
Range: southeastern Peru (Mielke *et al.* 2019)
Illustration: Mielke *et al.* (2019: fig. map 2)
Morphology: Mielke *et al.* (2019)
Biology: unpublished
Habitat: tropical forest (Mielke *et al.* 2019)
Hosts: unpublished

WALLACELLA C. Mielke, Grehan & Cock, 2020a: 182

TS: *Phassus guianensis* Schaus, 1940, by original designation

1. *Wallacella guianensis* Schaus, 1940: 83, 88 (*Phassus*)

TL: Guiana: Kartabo

TC: National Museum of Natural History, Washington

Range: central-northeastern South America (Mielke *et al.* 2020a: fig. map 20)Illustration: Grehan & Rawlins (2018: fig. 24b), Mielke *et al.* (2020a: figs. 1-5)Morphology: Grehan & Rawlins (2018), Mielke *et al.* (2020a)

Biology: unpublished

Habitat: forest (inferred from stem boring biology of other cibyrene species)

Hosts: unpublished

WEYMERELLA C. Mielke, Grehan & Monzón-Sierra, 2022: 93TS: *Weymerella maya* Mielke, Grehan & Monzón-Sierra 2022 by original designation1. *Weymerella azteca* C. Mielke, Grehan & Monzón-Sierra, 2022: 94 (*Weymerella*)

TL: Mexico: Colima, Coquimatlán, 500 m, 19°11' N, 103°48' W

TC: Collection Father Jesus S. Moure, Curitiba

Range: central western Mexico (Mielke *et al.* 2022: fig. map 19)Illustration: Mielke *et al.* (2022: figs. 1-2)Morphology: Mielke *et al.* (2022)

Biology: unpublished

Habitat: forest (inferred from stem boring biology of other cibyrene species)

Hosts: unpublished

2. *Weymerella maya* Mielke, Grehan & Monzón-Sierra, 2022: 95 (*Weymerella*)

TL: Guatemala, Baja Verapaz, Pantín, Finca Santa Rosa, 1690 m, 15°14'31" N, W 90°17'6" W

TC: Universidad del Valle de Guatemala (UVG)

Range: Guatemala (Mielke *et al.* 2022: fig. map 19)Illustration: Mielke *et al.* (2022: figs. 3-6)Morphology: Mielke *et al.* (2022)

Biology: unpublished

Habitat: forest (inferred from stem boring biology of other cibyrene species)

Hosts: unpublished

WISEANA Viette, 1961c: 38TS: *Pielus umbraculatus* Guenée, 1868, by original designationsyn. *Porina* Walker, 1856: 1572; preoccupied (Viette 1950h [22nd note]: 72)msp. *Gorina* (Quail 1899: 340)msp. *Goryna* (Lucas 1901: 785)syn. *Philpottia* Viette, 1950h [22nd note]: 72; preoccupied (Viette 1961c)

General (unspecified): Greenall (1940: control), Sellwood (1943: control), Bates (1946: pest), Doull (1951a: identification, 1951b: control), Inch (1954), Arthur (1966: control), Fenemore (1966, 1967, 1968, 1969a-b: control), Kelsey & Read (1966: control), Patterson (1966: control), Perrott (1966, 1970: control), Taylor (1966, 1970: control), Helson (1967a: pest control, 1969a: weather, 1969b: control, 1970: control, 1972: weather), Allen (1968: control), Rastrick & Upritchard (1968: control), Waller (1968: control), Waller & Howitt (1969: control), Dodgshun (1970: diet), Upritchard (1970: control), French & Thomas (1971: rearing), McLaren & Crump (1971: insecticides), Moore (1972: disease), French (1972, 1973b: control), Harris & Brock

(1972: pasture composition), Stewart (1972: control), Harris (1973: control), Moore *et al.* (1974: diseases), Logan *et al.* (1975: control), Kalmakoff & Crawford (1976: control), Crawford & Kalmakoff (1977: viruses), Gooding (1977: pest), Du Toit *et al.* (1978: control), French & Pearson (1979), Pottinger (1980: biology & control), Barlow & Carpenter (1981: modeling), French & Savage (1981: control), French & Pearson (1981: larval feeding), Holmes (1981: control), Jordan & Chang (1981: control), Kain *et al.* (1981), McColl (1981: biology), Savage & French (1981: control), Carpenter (1982 control, 1983: egg extraction), Barratt & Stewart (1982: control), French & Savage (1982: control), Haack (1982: control), Henzell & Lauren (1983: control), Latch *et al.* (1983: control), Barlow (1985: biology), King *et al.* (1985: control), Stewart & Archibald (1987: pasture management), Wright & Jackson (1988: control), Barlow (1989: trapping), Moeed *et al.* (1993: probably *Wiseana*), Bourner *et al.* (1996: pathogens), Aitijegbe *et al.* (2017b), Ferguson *et al.* (2018: economics, control), Ehaul-Taumaunu (2019), Hurst *et al.* (2019)

1. *Wiseana cervinata* (Walker, 1865: 595) (*Elhamma*)

TL: New Zealand: South Island, Canterbury, Christchurch

TC: Natural History Museum, London

syn. *despectus* (Walker, 1865: 594) (*Hepialus*); junior synonym

TL: New Zealand; **TC:** Natural History Museum, London

syn. *vexata* (Walker, 1865: 597) (*Porina*); junior synonym

TL: New Zealand; **TC:** Natural History Museum, London

syn. *variolaris* (Guenée, 1868: 1) (*Pielus*); junior synonym

TL: New Zealand; **TC:** Muséum national d'Historie naturelle, Paris

Range: North and southeast South Island of New Zealand (Dugdale 1994: Map 21)

Illustration: Hudson (1898: pl. XIII, figs. 12, 18, 1928: pl. XLIII, figs. 5-7), Pfitzner & Gaede (1933: pl. 74e), Dumbleton (1966: figs. 110, 112 [as *W. despecta*]), Gaskin (1966: pl. 24, figs. 1-3, 6-8 [as *W. despecta*]), Helson (1967b: fig. 3), Miller (1971: fig. 8B), Ferro (1976: 119), Chapman (1984: 133), Barratt *et al.* (1990: pl. 22), Dugdale (1994: figs. 49-52)

Morphology: Quail (1889b, 1900a), Eyer (1921), Philpott (1927a), Hudson (1928), Aller (1966), Dumbleton (1966), Dugdale (1974, 1994), Perrott (1974), Flower & Helson (1976)

Biology: Quail (1900a), Dumbleton (1941, 1949), Dumbleton & Dick (1942), Dick (1945), Dumbleton (1949a-b), Eyles (1965, 1966), Gaskin (1966), Waller (1966), Helson (1967b, 1969a), MacLean (1968), Pottinger (1968), McLaren & Crump (1969), Esson (1970), Fowler (1970), Fowler & Robertson (1971), Miller (1971), Farrell (1972, 1976), French (1973a, 1979), Moore *et al.* (1973), Farrell *et al.* (1974), Perrott (1974), Helson *et al.* (1975), Kalmakoff & Moore (1975), Ferro (1976), Crawford & Kalmakoff (1977), Carpenter & Wyeth (1980), Chapman (1984), Barlow *et al.* (1986), Fenemore & Allen (1986), Barratt *et al.* (1990), Wright & Jackson (1992), Ferguson (2000), Ferguson & Crook (2004), Jensen & Popay (2004), Popay *et al.* (2012), Hennessy *et al.* (2016), Aitijegbe *et al.* (2017a, 2020a-b, 2022), Richards *et al.* (2017b)

Habitat: drier grasslands, pastures lowland to montane (Barratt *et al.* 1990)

Hosts: **Fabaceae** (*Lotus corniculatus*, *L. tenuis*, *Medicago sativa*, *Trifolium hybridum*, *T. pratense*, *T. repens*), **Poaceae** (*Agrostis tenuis*, *Anthoxanthum odoratum*, *Bromus unioloides*, *Cynosurus cristatus*, *Dactylus glomerata*, *Festuca pratensis*, *F. arundinacea*, *F. rubra*, *Holcus lanatus*, *Lolium multiflorum*, *L. perenne*, *Phalaris tuberosa*)

2. *Wiseana copularis* (Meyrick, 1912: 123) (*Porina*)

TL: New Zealand: South Island, Invercargill, West Plains

TC: Natural History Museum, London

Range: South Island, southern North Island of New Zealand (Dugdale 1994: Map 22)

Illustration: Hudson (1898: pl. XIII, fig. 13 [as *Porina despecta*], 1928: pl. XLII, figs. 8-9, pl. XLII, figs. 9-11 [as *Porina despecta*]), Pfitzner & Gaede (1933: pl. 74e), Dumbleton (1966: fig. 111), Gaskin (1966: pl. 24, figs. 6-8 [as *Wiseana despecta*]), Barratt *et al.* (1990: pl. 22), Dugdale (1994: figs. 53-54)

Morphology: Philpott (1926, 1927a [also as *Porina despecta*]), Dumbleton (1966), Dugdale (1994)

Biology: Helson *et al.* (1964 [as *Oxycanus despecta*], 1967b [as *Wiseana despecta*]), MacLean (1968 [as *Wiseana despecta*]), Carpenter & Wyeth (1980), Chapman (1984 [as *W. despecta*]), Barratt *et al.* (1990), Allan *et al.* (1999, 2002), Ferguson (2000), Allan & Wang (2001), Stewart (2001), Ferguson & Crook (2004), Popay *et al.* (2012), Ferguson *et al.* (2016), Atijegbe *et al.* (2017a, 2020a, b, 2022), Mansfield *et al.* (2017), Richards *et al.* (2017b)

Habitat: drier grasslands, pastures lowland to montane (Barratt *et al.* 1990)

Hosts: Fabaceae (*Trifolium* spp.), Poaceae

3. *Wiseana fuliginea* (Butler, 1879b: 488) (*Porina*)

TL: New Zealand: South Island, Otago

TC: New Zealand Arthropod Collection, Auckland

Range: southeastern South Island, Otago (Dugdale 1994: map 23)

Illustration: Barratt *et al.* (1990: pl. 22), Dugdale (1994: figs. 55-58)

Morphology: Dugdale (1994)

Biology: Barratt *et al.* (1990), Richards *et al.* (2017a)

Habitat: moist lowland grasslands and pastures (Barratt *et al.* 1990)

Hosts: unpublished

4. *Wiseana jocosa* (Meyrick, 1912: 124) (*Porina*)

TL: New Zealand: South Island, Invercargill

TC: Natural History Museum, London

Range: western and southeastern South Island (Dugdale 1994: map 24)

Illustration: Hudson (1928: pl. XLII, figs. 1-2), Dumbleton (1966: fig. 115), Gaskin (1966: pl. 24, figs. 4-5, 9), Barratt *et al.* (1990: pl. 22), Dugdale (1994: figs. 59-63), Grehan (2018: fig. 2), Grehan & Mielke (2018c: fig. 2), Lees & Zilli (2019: 153)

Morphology: Philpott (1927a), Dugdale (1994)

Biology: Barratt *et al.* (1990), Ferguson (2000), Richards *et al.* (2017b)

Habitat: moist lowland forest margins (Barratt *et al.* 1990)

Hosts: unpublished

5. *Wiseana mimica* (Philpott, 1923: 153) (*Porina*)

TL: New Zealand: West Plains

TC: New Zealand Arthropod Collection, Auckland

Range: South Island (Dugdale 1994: Map 25)

Illustration: Hudson (1928: pl. XLIV, fig. 15), Dumbleton (1966: fig. 109), Barratt *et al.* (1990: pl. 22), Dugdale (1994: figs. 64-65)

Morphology: Philpott (1927a), Dumbleton (1966), Dugdale (1994)

Biology: Barratt *et al.* (1990), Ferguson (2000), Richards *et al.* (2017b)

Habitat: wet lowland to alpine grasslands, pastures (Barratt *et al.* 1990)

Hosts: unpublished

6. *Wiseana signata* (Walker, 1856: 1563) (*Elhamma*)

TL: New Zealand

TC: Natural History Museum, London

syn. *novaezealandiae* (Walker, 1856: 1573) (*Porina*); junior synonym

TL: New Zealand; **TC:** Natural History Museum, London

Range: North Island, northern South Island (Dugdale 1994: map 26)

Illustration: Butler (1874: pl. 9. fig. 8), Hudson (1892: pl. IX, fig. 2, 1898: pl. VIII, fig. 15, 1928: pl. XLII, figs. 3-4), Pfitzner & Gaede (1933: 75d), Gaskin (1964: fig. 1.8-18, 1966: pl. 25, figs. 4-5, 8-9), Dumbleton (1966: fig. 113), Dugdale (1994: figs. 66-69), Grehan & Mielke (2018b: fig. 1h)

Morphology: Philpott (1927a), Hudson (1928)

Biology: Miller (1930), Salmon (1951), Cumber (1954), Gaskin (1966), Chapman (1984), Grehan (1984b), Sadler *et al.* (2000), Richards *et al.* (2017b)

Habitat: grasslands, pastures (Dugdale 1994)

Hosts: **Asphodelaceae** (*Phormium tenax*)

7. *Wiseana umbraculata* (Guenée, 1868: 1) (*Pielus*)

TL: New Zealand

TC: Muséum national d'Historie naturelle, Paris

Range: central and western North Island, South Island (Dugdale 1994: map 27)

Illustration: Taylor (1855: pl. 1, fig. 4), Hudson (1898: pl. XIII, fig. 14, 1928: pl. XLI, figs. 1-3), Quail (1900a: pl. VI, fig. 1), Tillyard (1926: pl. 31, fig. 2), Pfitzner & Gaede (1933: pl. 74d), Gaskin (1964: fig. 3.1-7, 1966: pl. 25, figs. 1-3, 7), Dumbleton (1966: fig. 114), Barratt *et al.* (1990: pl. 22), Dugdale (1994: figs. 70-72), Glime (2017: figs. 70-71)

Morphology: Quail (1900a), Philpott (1927a), Hudson (1928), Viette (1950h [22nd note]), Gaskin (1964), Flower & Helson (1976), Barratt *et al.* (1990: pl. 22), Dugdale (1994)

Biology: Gaskin (1964, 1966), Moore *et al.* (1973), Ferro (1976), Flower & Helson (1976), Chapman (1984), Barratt *et al.* (1990), Fehrenbach (1990), Dugdale (1994), Atijegbe *et al.* (2017a, 2020b), Mansfield *et al.* (2017), Richards *et al.* (2017b)

Habitat: wet lowland to swampy alpine grasslands, pastures (Barratt *et al.* 1990)

Hosts: **Cyperaceae** (*Carex secta*), **Juncaceae**

XHOAPHRYX Viette, 1953c [30th note]: 32

TS: *Xhoaphryx lemeei* Viette, 1953c, by original designation

1. *Xhoaphryx lemeei* Viette, 1953c [30th note]: 33 (*Xhoaphryx*)

TL: Vietnam: Indochina, Tonkin, Tam-Dad

TC: Muséum national d'Historie naturelle, Paris

Range: northeastern Vietnam (Grehan 2011: fig. 4)

Illustration: Grehan (2011: fig. 2b)

Morphology: Viette (1953c [30th note])

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

YLEUXAS Viette, 1951d [25th note]: 1280

TS: *Yleuxas bradleyi* Viette, 1951d, by original designation

1. *Yleuxas bradleyi* Viette, 1951d [25th note]: 1280 (*Yleuxas*)

TL: Peru: Carabaya, Santo Domingo, 6,000 ft

TC: Natural History Museum, London

Range: eastern Peru (Grehan & Mielke 2018a: fig. map 13)

Illustration: Grehan & Mielke (2018a: fig. 7)

Morphology: Viette (1951d [25th note]), Grehan & Mielke (2018a)

Biology: unpublished

Habitat: forest (Grehan & Mielke 2018a)

Hosts: unpublished

2. *Yleuxas claudiae* Grehan & C. Mielke, 2018a: 46 (*Yleuxas*)

TL: Peru: Manu, Pakitza, 250 m

TC: National Museum of Natural History, Washington

Range: eastern Peru lowlands (Grehan & Mielke 2018a: fig. map 13)

Illustration: Grehan & Mielke (2018a: figs. 1-3)

Morphology: Grehan & Mielke (2018a)

Biology: unpublished

Habitat: lowland forest (Grehan & Mielke 2018a)

Hosts: unpublished

ZELOTYPIA Scott 1869b: 38

TS: *Zelotypia stacyi* Scott, 1869, by original designation

nomen nudum Xylopsyche (Swainson 1851: 2) (Simonsen 2018)

1. *Zelotypia stacyi* Scott, 1869b: 38 (*Zelotypia*)

TL: Australia: New South Wales, Manning River and near Port Macquarie

TC: Australian Museum, Sydney

nomen nudum stacyii (Swainson 1851: 2) (*Xylopsyche*) (Simonsen 2018)

msp. *staceyi* (Froggatt 1923: 59) (*Xylopsyche*)

Range: southern Queensland, New South Wales (Simonsen 2018: fig. map 562)

Illustration: Skuse (1895: pl. XXII, fig. 2), Lydekker (1896: 103, pl. facing), Lydekker *et al.* (1911: 1919), Froggatt (1907: pl. XXIII, 1923: 60), Tillyard (1926: pl.29), Pfitzner & Gaede (1933: 78a, b), Common (1970: fig. 36.14GI, 1990: pl. 1.1, 23.1), Watson *et al.* (1975: pl. 7a), Ord (1988: pl.37), Nielsen & Common (1991: pl. 41.17J), Kristensen (1999, 2003: fig. 5.5c), Zborowski & Edwards (2007), Heppner (2008), De Baar & Hockey (2009: fig. 1), Kallies *et al.* (2015: 18-19, figs. 1-2; C.D. *zelotypia*: 1), Edwards (2016: figs. 1-2), Meunier (2018: 29), Simonsen (2018: pl. 32a-b), Lees & Zilli (2019: 120)

Morphology: Tillyard (1919, 1926), Philpott (1926, 1927a [as *Leto staceyi* [sic]]), Chadwick (1990), Common (1990), De Baar & Hockey (2009), Simonsen (2018), Edwards (2022)

Biology: Olliff (1887), Skuse (1895), Meyrick (1890), Froggatt (1894, 1907, 1923), Lydekker (1896), Gallard (1915, 1932), McKeown (1935, 1942), Middleton (1941), Viette (1949e [8th note]), Walsh (1962), Marks (1963), Chadwick (1983, 1990), Common (1990), Kleijunas *et al.* (2003), De Baar & Hockey (2009), Morgan (2011), Jones *et al.* (2015), Kallies *et al.* (2015), Edwards (2016, 2022), Simonsen (2018)

Habitat: *Eucalyptus* forests, woodlands and sclerophyll with grass understory (

Hosts: **Myrtaceae** (*Eucalyptus grandis*, *E. punctata*, *E. saligna*, *E. tereticornis*), **Sapotaceae** (*Planchonella australis*)

ZENOPHASSUS Tindale, 1941: 17

TS: *Hepialus schamyl* Christoph, 1888, by original designation

1. *Zenophassus schamyl* (Christoph, 1888: 309) (*Hepialus*)

TL: Georgia: Caucasus

TC: Zoological Institute, St Petersburg

emd. *schamyl* (Staudinger 1901: 410); emendation (Nielsen *et al.* 2000: 850). Staudinger (1901) lists the species as: “4724. Schamyl (Schamyl)”. This clearly indicates an intentional change from the original. This is an unjustified emendation because it does not involve the correction of an inadvertent error [Art. 32.5.1]

msp. *shamyl* (Slashchevskiy 1929: 189, 1929-1930: 51)

Range: Caucasus (Grehan & Knyazev 2019: fig. 8, Kemal *et al.* 2020)

Illustration: Christoph (1889: pl. 10, fig. 1), Spuler (1910: pl. 76. fig. 41), Pfitzner (1912: pl. 54a), Slashchevskiy (1929: fig. 1, 1929-1930: vol. 10: 52, fig. 2), Tindale (1941: pl. V, fig. 52), Mirzoyan *et al.* (1982: fig. 49), Schintlmeister & Poltawski (1986: pl. 1, fig. 9), Abdurakhmanov *et al.* (2007: fig. 219), Grehan & Knyazev (2019: fig. 8), Kemal *et al.* (2020: fig. 8), Grehan *et al.* (2021c: fig. 9), Anikin & Glinskaya (2021: fig. 1, video link)

Morphology: Deegener & Schaposchnikow (1905), Root (1915), Slashchevskiy (1929, 1929-1930), Tindale (1941), Viette (1949h [14th note]), D’Aguilar (1966), Ueda (1980), Kuznetzov & Stekolnikov (1986)

Biology: Deegener & Schaposchnikow (1905), Pfitzner (1913), Skalkovskiy (1913), Slashchevskiy (1929, 1929-1930), Gerasimov (1952), Milyanovskii & Mitrofanov (1952), Zagayinyi & Yurchenko (1955), D’Aguilar (1966), Koçak (1975), Mirzoyan *et al.* (1982), Schintlmeister & Poltawski (1986), de Freina (1994), Abdurakhmanov *et al.* (2007), Gegechkori (2011), Anikin & Glinskaya (2021)

Habitat: forest and cultivated crops

Hosts: **Betulaceae** (*Corylus avellana*), **Rosaceae** (*Rubus* sp.), **Vitaceae** (*Vitis vinifera*)

Hepialidae incertae sedis

Cibyra (Gymelloxes) paropus (Druce, 1890: 508) (*Hepialus*)

TL: Ecuador: Sarayacu

TC: Natural History Museum, London

Range: eastern Ecuador

Illustration: unpublished

Morphology: unpublished

Biology: unpublished

Hosts: unpublished

Dalaca cuprifera Pfitzner, 1914: 105 (*Dalaca*)

TL: Peru

TC: Naturmuseum und Forschungsinstitut Senckenberg, Frankfurt am Main

Range: eastern Peru

Illustration: Pfitzner (1937: pl. 99f)

Morphology: unpublished

Biology: unpublished

Hosts: unpublished

Porina mairi Buller, 1873: 279 (*Porina*)

TL: New Zealand: Ruahine Range

TC: unknown [lost during travel to United Kingdom] (Meads 1990), Dugdale (1994)

Range: Central eastern North Island

Illustration: Buller (1873: 281), Meads (1990: 52)

Morphology: unpublished

Biology: unpublished

Habitat: forest (Buller 1873)

Hosts: unpublished

Dalaca mummia Schaus, 1892: 330 (*Dalaca*)

TL: Brazil: Rio de Janeiro, Petrópolis

TC: National Museum of Natural History, Washington

Range: southeastern Brazil

Illustration: unpublished

Morphology: unpublished

Biology: unpublished

Hosts: unpublished

Phassus transversus Walker, 1856: 1567 (*Phassus*)

TL: Brazil: Rio de Janeiro

TC: Hope Entomological Collections, Oxford [type not found]

Range: southeastern Brazil (Walker 1856)

Illustration: unpublished

Morphology: unpublished.

Biology: unpublished

Habitat: unpublished

Hosts: unpublished

Dalaca usaque Pfitzner, 1914: 105 (*Dalaca*)

TL: Colombia: Muzo, 700 m

TC: Naturmuseum und Forschungsinstitut Senckenberg, Frankfurt am Main

Range: eastern Andean Colombia (Pfitzner 1914)

Illustration: Pfitzner (1937: pl. 99e)

Morphology: unpublished

Biology: unpublished

Habitat: forest

Hosts: unpublished

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of the paintings. It is clearly explained in the text of volume 2 that Engramelle was being replaced from there on by [the mineralogist and entomologist] A. Carangeot. The plates showing the hepialids were designed by M.E. Hochecker; her name appears engraved in the corner margin of the plates.]

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Supplementary Data: Sequences of cytochrome c oxidase subunit I (COI) gene of primary types used (for further details see Introduction section on "Notes on taxonomic clarification and amendments").

***Dalaca manoa* (Holotype)**

AACTTTATATTTTATTTTTGGTATTTGATCAAGTATAGTTGGAACATCATTAAGATTATTAATTCGAACAGAATTAGGAAAT
CCTGGATCTTAAATTGGTGATGACCAAATTTATAATGTTATTGTAACAGCTCATGCCTTTATTATAATTTCTTTATAGTCAT
ACCTATTATAATTGGGGGATTTGGGAATTGATTAGTTCCTTTAATATTAGGAGCCCCAGATATAGCATTCCCACGAATAAA
TAATATAAGATTTTGATTACTACCCCTTCACTAATACTATTAATTTCAAGTAGAATTGTAGAAAATGGGGCAGGTACAG
GATGAACAGTGTCTATCCTCCATTATCATCAATATTGCCATATAGGGAGATCAGTAGATTAGCTATTTTCTCTTTACATTT
AGCTGGTATTTTCATCTATTTTAGGGGCAGTAAATTTTACTACTACAGTAATTAATATACGAACAGAAGGAATATCTTTGA
TCGAATACCTTTATTTGTATGAAGAGTTGCTATTACTGCTTTATTATTATTATCACTACCAGTGTAGCCGGTGCTATT
ACTATACTATTAACAGACCGAAATTTAAATACTTCATTTTTTGATCCTGCTGGAGGAGGTGATCCAATTTTATACCAACAT
TTATTT

***Dalaca cocama* (Lectotype)**

AACTTTATACTTTATTTTTGGTATTTGATCAGGTATAATTGGAACATCATTAAGTTTATTAATTCGGACAGAATTAGGAAA
TCCTGGATCTTAAATTGGTGATGATCAAATTTATAATGTTATTGTAACAGCCCATGCCTTTATTATAATTTCTTTATAGTTA
TACCTATTATAATTGGCGGATTTGGAAATTGATTAGTTCCTTTAATATTAGGAGCACCCAGATATAGCATTTCACGAATAA
ATAATATAAGATTTTGATTGTTACCACCTTCATTAATATTATTAATTTCAAGAAGAATTGTAGAAAATGGAGCAGGTACTG
GATGAACAGTTTATCCTCCTTTATCATCAATATTGCCATATAGGAAGATCAGTAGATTAGCTATTTTCTTTACATTT
AGCTGGAATTTTCATCTATTTTAGGGGCAGTAAATTTTACTACTGTAATTAATATACGGGCCGAAGGAATATCTTTGA
TCGTATACTTTATTTGTATGAAGAGTGGCTATTACTGCTTTATTACTACTATTATCATTACCTGTATTAGCAGGAGCTATT
ACTATATTACTAACAGATCGAAATTTAAATACTTCATTTTTTGATCCTGCAGGAGGAGGTGACCCAATTTTATATCAACAT
TTATTT

***Dalaca (Triodia) nannophyes* (Lectotype)**

AACTTTATACTTTATTTTTGGTATTTGATCAGGTATAATTGGAACATCATTAAGTTTATTAATTCGAACAGAATTAGGAAA
TCCTGGATCTTAAATTGGTGATGATCAAATTTATAATGTTATTGTAACAGCCCATGCCTTTATTATAATTTCTTTATAGTTA
TACCTATTATAATTGGTGGATTCGGAAATTGATTAGTTCCTTTAATATTAGGGGCACCAGATATAGCTTTTCCACGAATAA
ATAATATAAGATTTTGATTATTACCCCTTCATTAATATTATTAATTTCAAGAAGAATTGTAGAAAACGGGGCAGGTACTG
GATGAACAGTTTATCCTCCTTTATCATCAATATTGCCATATAGGAAGATCAGTAGATTAGCTATTTTCTTTACATTT
AGCTGGAATTTTCATCTATTTTAGGGGCAGTAAATTTTACTACTGTAATTAATATACGAGCAGAAGGAATATCTTTGA
TCGTATACTTTATTTGTATGAAGAATTGCTATTACTACTTTATTACTATTATTATCATTACCCGTATTAGCAGGTGCTATTA
CTATATTATTAACAGATCGAAATTTAAATACTTCATTTTTTGATCCTGCAGGAGGCGGTGACCCAATTTTATATCAACAT
TATTT

***Dalaca trilinearis* (Lectotype)**

AACCTTATATTTTATTTTTGGTATTTGATCAGGTATAATTGGAACATCATTAAGATTATTAATCCGAACAGAATTAGGAAAT
CCAGGATCTTAAATTGGTGATGATCAAATTTATAATGTTATTGTAACAGCTCATGCCTTTATTATAATTTTCTTTATAGTTAT
ACCTATTATAATCGGAGGATTTGGAAATTGATTAGTTCCTTTAATACTAGGAGCACCTGACATAGCATTTCACGAATAA
ATAATATAAGATTTTGATTATTACCACCATCATTAATATTATTAATTTCAAGAAGAATTGTAGAAAATGGAGCAGGTACAG
GATGAACAGTTTACCCCTTATCATCAATATTGCTCATATAGGAAGATCAGTAGATTAGCTATTTTCTTTACATTT
AGCTGGAATTTTCATCTATTTTAGGAGCAGTAAATTTTACTACTGTAATTAATATACGAACAGAAGGAATATCTTTGA
TCGAATACCTTTATTTGTATGAAGAGTTGCTATTACTGCCCTATTATTATTATTATCTTTACCTGTATTAGCAGGAGCTATTA
CTATATTATTAACAGATCGAAACTTAAATACTTCATTTTTCGATCCTGCTGGGGGAGGTGATCCAATTTCTATATCAACAT
TATTT

***Dalaca olivescens* (Holotype)**

AACTTTATATTTTATTTTTGGTATTTGATCAGGTATAGTTGGAACATCATTAAGATTATTAATTCGAACAGAATTAGGAAAT
CCTGGATCTTAAATTGGTGATGACCAAATTTATAATGTTATTGTAACAGCTCATGCCTTTATTATAATTTCTTTATAGTTAT
ACCTATTATAATTGGGGGATTTGGAAATTGATTAGTTCCTTTAATATTAGGAGCCCCAGATATAGCATTCCCACGAATAAA
TAATATAAGATTTTGATTACTACCCCTTCACTAATACTATTAATTTCAAGTAGAATCGTAGAAAATGGGGCAGGTACAG
GATGAACAGTGTCTATCCTCCATTATCATCAATATTGCCATATAGGGAGATCAGTAGATTAGCTATTTTCTTTACATTT
AGCTGGTATTTTCATCTATTTTAGGGGCAGTAAATTTTACTACTACAGTAATTAATATACGAACAGAAGGGATATCTTTGA
TCGAATACCTTTATTTGTATGAAGAGTTGCTATTACTGCCCTATTATTATTATTATCTTTACCTGTATTAGCAGGAGCTATTA
ACTATACTATTAACAGACCGAAATTTAAATACTTCATTTTTTGATCCTGCTGGAGGAGGTGATCCAATTTTATACCAACAT
TTATTT

***Dalaca vibicata* (Lectotype)**

AACCTTATATTTTATTTTTGGTATTTGATCAGGTATAATTGGAACATCATTAAGATTATTAATCCGAACAGAATTAGGAAAT
CCAGGATCTTAAATTGGTGATGATCAAATTTATAATGTTATTGTAACAGCTCATGCCTTTATTATAATTTTCTTTATAGTTAT

ACCTATTATAATCGGAGGATTTGGAAATTGATTAGTTCCTTTAATACTAGGAGCACCTGACATAGCATTTCACGAATAA
ATAATATAAGATTTTGATTATTACCACCATCATTAATATTATTAATTTCAAGAAGAATTGTAGAAAATGGAGCAGGTACAG
GATGAACCTGTTTACCCCCACTATCATCTAATATTGCTCATATAGGAAGATCTGTAGATTTAGCTATTTTTCTTTACATTT
AGCTGGAATTTTCATCTATTTTAGGAGCAGTAAATTTATTACTACTGTAATTAATATACGAACAGAAGGAATATCTTTGA
TCGAATACCTTTATTTGTATGAAGAGTTGCTATTACTGCCCTATTATTATTATCTTTACCTGTATTAGCAGGAGCTATTA
CTATATTATTAACAGATCGAAACTTAAATACTTCATTTTTTCGATCCTGCTGGGGGAGGTGATCCAATTCTATATCAACATT
TATTT

Dalaca niepelti (Lectotype)

ACTTTATATTTTATTTTTGGTATTTGATCAGGTATAAGTTGGAACATCATTAAGATTACTAATTCGAACCGAATTAGGAAAT
CCTGGATCTTTAATTGGTGATGACCAAATTTATAATGTTATTGTAACAGCTCATGCTTTTATTATAATTTTTCTTTATAGTTAT
ACCTATTATAATTGGAGGATTTGGAAATTGATTAGTCCCTTTAATATTAGGAGCACCAGATATAGCATTTCACGAATAAA
TAATATAAGATTTTGATTATTACCCCTTCATTAATATTATTAATTTCAAGAAGAATTGTAGAAAATGGAGCAGGTACAGG
ATGAACAGTTTATCCACCTTTATCATCTAATATTGCTCATATAGGAAGATCAGTAGATTTAGCTATTTTTCTTTACATTTA
GCTGGAATTTTCATCTATTTTAGGGGAGTAAATTTATTACTACTGTAATTAATATACGAACAGAAGGAATATCTTTGAT
CGTATACCTTTATTTGTATGAAGAGTTGCTATTACTGCTTTATTATTATTATTATCATTACCTGTATTAGCAGGAGCTATTAC
TATATTACTTACAGATCGAAATTTAAATACTTCATTTTTTGATCCTGCAGGAGGAGGAGACCCAATTTTATATCAACATTT
A

Phassus costaricensis (Holotype)

ACTTTATATTTTATTTTTGGTATTTGATCAGGTATAATTGGAACATCATTAAGATTATTAATCCGAACAGAGTTAGGAAATC
CAGGATCTTTAATTGGTGATGATCAAATTTATAATGTTATTGTAACAGCTCATGCTTTTATTATAATTTTTTTTATAGTTATA
CCTATTATAATTGGAGGATTTGGAAATTGATTAGTTCCTTTAATATTAGGAGCACCTGATATGGCATTCCCACGAATAAAT
AATATAAGATTTTGATTATTACCTCCATCATTAATATTATTAATTTCAAGAAGAATTGTAGAAAATGGGGCAGGCACAGGA
TGAACCTGTTTATCCTCCATTATCATCTAATATTGCTCATATAGGAAGATCTGTAGATTTAGCTATTTTTCTTTACATTTAG
TGAATTTTCATCCATTTTAGGAGCAGTAAACTTTATTACTACTGTAATTAATATACGAACAGAAGGAATATCTTTGATCG
AATACCTTTATTTGTTTGAAGAGTTGCTATTACTGCTTTATTATTATTATCTTTACCTGTATTAGCAGGCGCTATTACTA
TATTATTAACAGATCGAAACTTAAATACTTCATTTTTTGATCCTGCAGGAGGAGGTGATCCAATCTTATATCAACATTTA

Phassus smithi (Holotype)

ACTTTATATTTTATTTTTGGTATTTGATCAGGTATAAGTTGGAACATCTTTAAGTTTATTAATTCGTACAGAATTAGGGAACC
CTGGATCTCTAATTGGTGATGATCAAATTTATAATGTTATTGTAACAGCACATGCTTTTATTATAATTTTTTTTATAGTTATA
CCTATTATAATTGGGGGATTTGGTAATTGATTAGTTCCTTTAATATTAGGAGCGCCAGATATAGCTTTCCCACGAATAAAT
AATATAAGATTTTGATTATTACCACCTTCATTAATATTATTAATCTCAAGAAGAATTGTAGAAAATGGAGCAGGAACAGG
TTGAACCGTTTATCCCCATTATCATCGAATATTGCTCATAAGGAAGATCTGTAGATTTAGCTATTTTTCTTTACATTTA
GCTGGAATTTTCATCTATTTTAGGAGCAGTAAATTTATTACTACTGTAATTAATATACGGGCAGAAGGAATATCTTTGAC
CGAATACCTTTATTTGTATGAAGAGTTGCTATTACAGCTCTATTATTACTACTATCATTACCAGTATTAGCAGGAGCTATTA
CTATATTATTAACAGATCGAAATTTAAATACTTCATTTTTTGACCCTGCAGGAGGAGGAGATCCAATTTTATATCAACATT
TA

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