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Sexual dimorphism of heads and abdomens: Different approaches to 'being large' in female and male lizards

INON SCHARF and SHAI MEIRI

Department of Zoology, Faculty of Life Sciences, Tel Aviv University, Klausner St., Tel Aviv 6997801, Israel

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Sexual-size dimorphism (SSD) is widespread in animals. Body length is the most common trait used in the study of SSD in reptiles. However, body length combines lengths of different body parts, notably heads and abdomens. Focusing on body length ignores possible differential selection pressures on such body parts. We collected the head and abdomen lengths of 610 lizard species (Reptilia: Squamata: Sauria). Across species, males have relatively larger heads, whereas females have relatively larger abdomens. This consistent difference points to body length being an imperfect measure of lizard SSD because it comprises both abdomen and head lengths, which often differ between the sexes. We infer that female lizards of many species are under fecundity selection to increase abdomen size, consequently enhancing their reproductive output (enlarging either clutch or offspring size). In support of this, abdomens of lizards laying large clutches are longer than those of lizards with small clutches. In some analyses, viviparous lizards have longer abdomens than oviparous lizards with similar head lengths. Our data also suggest that male lizards are under sexual selection to increase head size, which is positively related to winning male–male combats and to faster grasping of females. Thus, larger heads could translate into higher probability to mate.

ADDITIONAL KEYWORDS: clutch size – fecundity – length – size – snout–vent length.

INTRODUCTION

Selection pressures acting on males and females of even the same species are not identical. In most taxa, fecundity selection selects for large females that can lay either larger clutches to increase offspring number or larger eggs to enhance offspring survival (Cox, Skelly & John-Alder, 2003; Pincheira-Donoso & Tregenza, 2011). In parallel, larger males more often win combats with other males for females, or are directly chosen by females, than smaller males (Anderson & Vitt, 1990; Cooper & Vitt, 1993; Shine *et al*., 2000). Thus, sexual selection favours large males, whereas fecundity selection favours larger females. Ecological forces may further enhance the divergence of body size of males and females. Increased sexual dimorphism can induce intersexual niche diversification to reduce food competition (Shine, 1989; Dayan & Simberloff, 1998; Cox, Butler & John-Adler, 2007).

Sexual size dimorphism (SSD) is usually calculated by comparing the total body size of females and males (Cox *et al*., 2007; Kupfer, 2007; Székely, Lislevand & Figuerola, 2007). In addition, there is a growing evidence linking dimorphism in body size with growth rate (Blanckenhorn *et al*., 2007; Cox & John-Adler, 2007; Cox & Calsbeek, 2010). Whole-body SSD measurements are nonetheless incomplete, and may reveal little about the selective forces inducing sexual dimorphism. When one sex is found to be larger than the other, it is unknown whether this is an outcome of selection pressure on general body size or on specific body parts, such as head, tail, teeth or limbs (Kratochvíl *et al*., 2003; Meiri, Dayan & Simberloff, 2007). When females are the larger sex, their larger size is most commonly explained by fecundity selection acting to increase abdomen size (Cox *et al*., 2003). Although it is likely that the abdomen is the main body part under direct selection pressure because it limits the size and number of offspring (according to the fecundity advantage hypothesis; Blanckenhorn, 2005), this assumption is seldom examined directly.

*Corresponding author. E-mail: scharfi@post.tau.ac.il

Braña (1996) demonstrated that the abdomen of females is longer relative to head length than of males in eight species of lacertid lizards. Similarly, Kratochvíl *et al*. (2003) showed that males and females of the lacertid *Zootoca vivipara* diverge in their body shape, with selection favouring larger abdomens in females. In lacertids, larger abdomens are associated with larger clutches (Shine, 1989; Anderson & Vitt, 1990; Shine & Greer, 1991; Gvoždík & Van Damme, 2003) and, when the space available for eggs is being restricted experimentally, clutch size decreases as well (Du, Ji & Shine, 2005). Thus, it may prove more informative to study the correlation between offspring number and abdomen size rather than with whole body size (Thompson, Pianka & McEachran, 2001; Sun *et al*., 2012).

In parallel, many single-species studies support the expectation that males with larger heads (adjusted for body size) have higher reproductive success. Such males are more dominant than males with smaller heads, win male–male combats more often (larger heads mean a stronger bite force, which can be useful when fighting; Herrel, De Grauw & Lemos-Espinal, 2001), grasp the females faster prior to and during mating, and have better chances to be favoured by females (Bull & Pamula, 1996; Smith, Lemos-Espinal & Ballinger, 1997; Kratochvíl & Frynta, 2002; Gvoždík & Van Damme, 2003; Husak *et al*., 2006). All of the above translate into better access to females, more frequent mating events, and, consequently, higher fitness. No study, however, has presented a comprehensive interspecific analysis of both head and abdomen lengths.

We examine whether selection for sexual dimorphism in lizards acts on total body size or whether different body parts are under different selection forces in females and males (i.e. the sexes exhibit ‘different ways of becoming large’). We suggest that female abdomen size is under direct fecundity selection: larger abdomens allow females to produce either more offspring or larger (fitter) ones (Kratochvíl *et al*., 2003). Therefore, we predict that female abdomens would be longer than those of males, after correcting for head size. When comparing abdomen lengths, we correct for head size and not for body length (snout–vent length; SVL), because SVL is mainly composed of abdomen length and such a correction is therefore problematic. Fecundity selection is expected to operate directly on abdomens and to result in increased abdomen size because larger abdomens can store either more or larger eggs than smaller abdomens (or even both; Frankenberg & Werner, 1992; Luo *et al*., 2012).

If head size is under selection in males, as a result of sexual selection for large head driven by the advantage of winning male–male combats or higher likelihood to be chosen by females and hence better access to females (Gvoždík & Van Damme, 2003), male heads should be larger than female heads, correcting for abdomen size. Our null hypothesis is that the sexes will have similar allometric trajectories. Under such a scenario, there will be no difference between the sexes in abdomen-corrected head size or in head-corrected abdomen size because SSD is driven by selection on whole-body size (SVL).

Lizard clutch sizes are highly variable. Some taxa lay fixed-size clutches of very few eggs (one or two; e.g. geckos, anoles, gymnophthalmids, and some skinks), whereas other taxa lay variable, and often much larger, clutches (e.g. lacertids, acrodonts, most skinks and iguanids; Shine & Greer, 1991; Kratochvíl & Kubička, 2007). In these taxa, clutch size usually increases with female size, female physiological state, and female-biased SSD (Cox *et al*., 2003; Kratochvíl & Kubička, 2007). The abdomen is the part of the body that directly allows the formation of large clutches. We thus expect that female abdomen size, corrected for head size, will be positively correlated with clutch size. A non-mutually exclusive alternative (Frankenberg & Werner, 1992; Uller & Olsson, 2010) is that, even when females produce small clutches, they might have evolved large abdomens to produce larger offspring. Producing large offspring usually contributes to their survival and early performance (Sinervo, 1990; Harris, 1994; Uller & Olsson, 2010; Segers & Taborsky, 2011).

Females usually either invest in enlarging eggs or in increasing egg number. Indeed, there is often a negative correlation between egg and clutch size within lizard species, owing to energy and space limitations (Sinervo & Licht, 1991; Olsson & Shine, 1997; Díaz *et al*., 2007; but see also Stuart-Smith *et al*., 2007; Luo *et al*., 2012). Interspecifically, both clutch size and egg or hatchling size increase with female size, although, intraspecifically, correcting for female size, clutch and egg sizes are usually negatively correlated (In Den Bosch & Bout, 1998; Amat, 2008). Thus, according to the alternative prediction, a positive correlation between abdomen and clutch size may not be expected.

Lizards can be either viviparous or oviparous but, within species, their reproduction mode is usually invariant (Guillette, 1993; Blackburn, 2000). Viviparous lizards either retain the eggs within the uterus until development is complete, or the embryos develop in a placenta, with no eggs forming. Egg retention requires much space in the abdomen because eggs absorb water and expand (Qualls & Shine, 1995). In species developing in a placenta, this body part may also occupy considerable space within the abdominal cavity. Thus, it has been suggested that viviparous lizards possess larger abdomens than their oviparous relatives (although this is only partially supported; Sun *et al.*, 2012). Our dataset enabled exploring this prediction of a larger abdomen in viviparous lizards on a much larger scale of a few hundred species.

MATERIAL AND METHODS

Data collection

We assembled a dataset of 610 lizard species, belonging to 26 of the 36 families known worldwide, from the literature (see Supporting information, Appendix S1). This is a subset of the dataset reported in Meiri (2008) and Meiri *et al.* (2013). We collected data on SVL and on head length, as well as on clutch size and reproductive mode. We calculated 'abdomen length' as SVL minus head length. This measure thus actually includes the neck and abdomen but, because lizard necks are usually short and we know of no studies describing sexual dimorphism in neck length, we consider this unlikely to bias our results. All measures were collected separately for males and females. We only recorded head lengths and SVLs when they were both measured in one study for both sexes (i.e. we did not use head lengths from one study and SVLs from another, nor data for females from one study and for males from another). In addition, we obtained literature data on the clutch size of 419 lizard species (mainly from Meiri *et al.*, 2013; see Supporting information, Appendix S1). We used mean clutch sizes and, in cases where different literature sources gave different means, we averaged the smallest and largest reported mean. When means were unavailable, we averaged the smallest and largest reported clutch size. We further classified the lizards according to their mode of reproduction: 490 oviparous species versus 74 viviparous or ovoviviparous lizards (for the data and references used to obtain them, see Supporting information, Appendix S1). These data were used to test whether female size is correlated with clutch size and whether viviparous females possess larger abdomens. The three species with mixed strategies were omitted from analyses of reproductive mode.

Statistical analysis

We $\log_{10}$ transformed all head and abdomen length data, as well as clutch size, to normalize residuals and reduce heteroscedasticity. All statistical tests were performed using R (R Development Core Team, 2012).

Relative size of abdomens and heads

To investigate the head–abdomen relationships in males and females, we first compared the numbers of species for which one sex had both larger abdomens and larger heads than those of the other sex, species in which males had larger heads but smaller abdomens, and species in which males had smaller heads but larger abdomens. We used chi-squared and Fisher's exact tests to test for interactions. We expected that the proportion of males having larger heads but smaller abdomens than females would be higher than males having smaller heads but larger abdomens.

Accounting for phylogeny and body size

To test for between-sex differences in head length, at the same time as accounting for phylogeny, we used a linear mixed-model analysis of covariance (ANCOVA) with head length as the response variable, abdomen length as a continuous explanatory variable, sex as a fixed effect, and species as a random variable, nested within genera, which in turn were nested within families (analyses of the two sexes within a species as separate entities do not lend themselves easily to phylogenetic comparative analyses, hence our use of a nested design). To test for between-sex differences in abdomen length, we used a similar test, although in this case with abdomen length as the response variable and head length as a continuous explanatory variable. We repeated the two tests with and without sex as an explanatory variable and compared the models' Akaike information criterion (AIC) and Bayesian information criterion (BIC) scores. We repeated these two analyses on five of six suprafamilial lizard clades in our dataset (Scincomorpha, Laterata, Gekkota, Iguania, and Acrodontia; the sample size was too small for a meaningful test with Anguimorpha) to ensure that the patterns we obtained are not an artefact caused by analysing a large, diverse, paraphyletic group such as the Sauria.

Clutch size, reproduction mode, and abdomen size

We tested for the relationship between female abdomen length and clutch size by regressing the latter on the former, controlling for head length. We tested for the relationship of female abdomen and the mode of reproduction using an ANCOVA test with the mode of reproduction as a binary variable, head length and clutch size as covariates, and abdomen as the response variable. We repeated the two latter tests twice: with and without accounting for the phylogenetic relatedness between species.

Phylogenetic analysis

For the phylogenetic comparative analysis, we assembled a composite species-level phylogeny from the literature, in accordance with the broad scale squamate phylogenetic relationship reported by Wiens *et al.* (2012) and the taxonomy of the

Table 1. Number of lizard species with different relationships of heads and abdomens for males and females

	Both traits larger	Head larger versus abdomen smaller	Head larger versus abdomen equal	Head equal versus abdomen larger
Males	287	136	11	10
Females	112	22	1	29

Two species have equal sizes of both head and abdomen.

reptile database (http://reptile-database.reptarium.cz/). When phylogenies were unresolved at the intrageneric rank, we sunk species into a polytomy within their genus. The phylogenetic relationships of the 495 species in our dataset with phylogenetic data (out of 610 species in total) and the sources of phylogenetic data are depicted in the Supporting information (Appendix S2). The different phylogenetic hypotheses depicted in different source trees prevent us from recording actual branch lengths. We therefore scaled branches to make the tree ultrametric (because all taxa are extant) using the cladogram transform in FIGTREE (Rambaut, 2010). The two ANCOVA tests were repeated at the same time as accounting for phylogeny, using phylogenetic generalized least square tests, adjusting the strength of phylogenetic non-independence using the maximum likelihood value of the scaling parameter value λ (Pagel, 1999), implemented in the R package caper (Orme *et al.*, 2012). In a comparative study of different phylogenetic tests, Pagel's λ was found to be a reliable method under the assumption of a Brownian motion model of trait evolution (Münkemüller *et al.*, 2012). Pagel's λ represents the magnitude of the phylogenetic signal and ranges between zero (no signal) and one (a signal that depends on branch length, similar to independent contrasts).

Figure 1. An example of sexual dimorphism of head size in the sheltopusik *Pseudopus apodus*. The male (above) has a much larger head than the female, whereas the snout–vent length is similar (401.2 mm in the female, 403.9 mm in the male).

RESULTS

Relative size of abdomens and heads

Male SVL was longer than female SVL in 55.7% of the species (340 of 610). Male heads, however, were longer than female heads in a higher proportion of the species (423 of 610, 69.3%). Male abdomens were longer in only 52.5% of the species (320 of 610). If selection operated solely on body size, we would have expected that males in similar numbers of species would have longer heads and abdomens, and that this proportion would be similar to the proportion of males with longer SVLs. This was not the case, suggesting that different selection types operate on specific body parts in males and females. When SSD biases differed between the sexes, there were many more species in which males had longer heads and females had longer abdomens than species with longer female heads and longer male abdomens (136 or 22.3% versus 22 or 3.6% cases of species, respectively; Table 1, first and second columns: $\chi^2 = 11.63$, d.f. = 1, $P = 0.0006$; third and fourth columns: Fisher's exact test: $P < 0.0001$). Thus, a situation in which males have longer heads but females have longer abdomens is common among lizards, and thus the biases of larger heads and abdomens are not random. A representative example of a male having a larger head than a female with a similar SVL in the sheltopusik *Pseudopus apodus* is provided in Figure 1.

Relative size of abdomens and heads accounting for phylogeny and body size

Males had longer heads than females, controlling for abdomen length (mixed effects models with species nested within genera, nested within families; female intercept: -0.090 ± 0.058, male intercept = -0.063 ± 0.058; $t = 15.45$; slope of log head versus log abdomen = 0.757 ± 0.032; AIC = −3510, −3323 for a model without sex). In the reciprocal model for abdomen length (with sex, head length, and taxonomy as the predictors), female abdomens were longer than

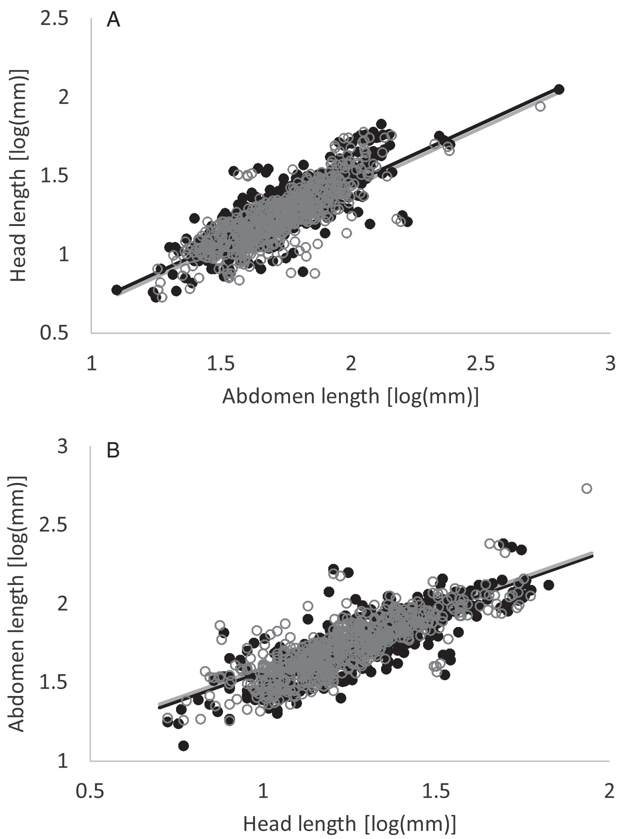

Figure 2. A, male (black) versus female (grey) head length against abdomen length. B, male versus female abdomen length against head length. Each of the 610 species is represented by two points (means for males and females). In general, males had larger heads than females and females had larger abdomens, after correcting for the other body part. For the slopes and intercepts, see the text.

male abdomens (female intercept: 0.822 ± 0.067, male intercept = 0.803 ± 0.68; $t = -9.46$; slope of log head versus log abdomen = 0.769 ± 0.041; $t = 18.91$; AIC = −3493, −3422 in a model without sex) (Fig. 2).

Analysis of three clades (Scincomorpha, Laterata, and Iguania) gave qualitatively similar results (see Supporting information, Appendix S3). In the other two clades that we tested, Gekkota and Acrodontia, female abdomens were longer, whereas males had longer heads, although the difference between the sexes was not supported by AIC (see Supporting information, Appendix S3). We interpret it to mean that our results obtained for the comprehensive dataset hold true also when monophyletic smaller clades are analyzed.

Clutch size, reproduction mode, and abdomen length

Clutch size and female abdomen length were positively correlated, controlling for head length and accounting for phylogeny (clutch size: slope = 0.0053 ± 0.0015, $t = 3.57$, $P = 0.0004$; head: slope = 0.0147 ± 0.0006, $t = 25.51$, $P < 0.0001$; $\lambda = 0.89$; $R^2 = 0.673$; $N = 419$). The high λ indicates a strong phylogenetic signal and a non-uniform distribution of clutch sizes across taxa. The results were similar in a nonphylogenetic analysis (clutch size: slope = 0.0141 ± 0.0029, $t = 4.87$, $P < 0.0001$; head: slope = 0.0334 ± 0.0015, $t = 23.03$, $P < 0.0001$; model $R^2 = 0.632$).

A nonphylogenetic analysis of all species for which we had clutch size and reproductive mode data demonstrated that females of viviparous species have larger abdomens than females of oviparous species, corrected for head size and brood size (intercept difference 0.048 ± 0.014, $t = 3.40$, $P = 0.0007$, d.f. = 411). This difference increases if we do not correct for clutch size but include all species for which we have reproductive mode data, even if we have no data on their clutch sizes (intercept difference 0.060 ± 0.013, $t = 4.67$, $P < 0.0001$, d.f. = 561). Incorporating phylogenetic corrections, however, we found no differences in abdomen length between oviparous and viviparous species, regardless of whether we corrected for clutch size (intercept difference = 0.009 ± 0.021, $t = 0.44$, $P = 0.670$, d.f. = 375, $\lambda = 0.935$) or not (intercept difference = 0.005 ± 0.019, $t = 0.26$, $P = 0.792$, d.f. = 464, $\lambda = 0.928$).

DISCUSSION

While SSD is known in many taxa, there is more to this phenomenon than meets the eye. It is often postulated that different selection pressures are responsible for the increase in size of males and females, although the consequences for body shape of such pressures are rarely investigated and discussed. Our finding of the relatively larger heads in males and larger abdomens in females supports previous suggestions that abdomens and heads are under different selection pressures in male and female lizards. Females are apparently under fecundity selection pressure to increase abdomen size, whereas males are probably sexually selected to increase head size. This result corroborates previous theories on the evolution of SSD in lizards (Braña, 1996; Kratochvíl *et al.*, 2003). Importantly, whole-body SSD may be insufficient to explain the mechanism driving body size evolution (e.g. fecundity or sexual selection).

Intersexual differences between the body parts under selection

Males and females take different approaches to ‘getting large’. In 136 species, males have larger heads despite the females having larger abdomens. The mean head size of male *Anolis isolepis*, for example, is 8% longer than that of the female, although the female abdomen is 35% longer (Schettino, 1999). Similarly, the abdomen of female *Liolaemus pictus* is 18% longer than that of males, although the male head is 28% longer than that of the female (Donoso-Barros, 1966). Our approach allows a better understanding of the mechanisms of different selection processes. This is especially important in species of which males and females have similar SVLs but the biases in size dimorphism vary between different body parts. In such cases, referring to the degree of whole-body SSD is insufficient because, in many species, males have larger heads and females larger abdomens. However, because abdomens are longer than heads, such species could be wrongly perceived as having a female-biased size dimorphism. This is a misleading perception and, in such cases, looking at specific body parts is more informative.

Our results complement those of Cox *et al*. (2003) in two ways: first, they demonstrate that SSD is positively correlated with clutch size. Hence, both studies suggest that females in species that can lay a large number of eggs are under stronger fecundity selection to increase abdomen size, resulting in larger SVL. Our data support the suggestion that abdomen is the body part under selection, and not general body size. Second, male-biased SSD is more evident in territorial and aggressive lizard species (Carothers, 1984; Cox *et al*., 2003). This implies that the body part under selection is the head (used for fights), as we suggest in the present study. Although we only report length measurements, an increase in size may also involve an increase in width and height, and this could assist both males (wider and deeper heads are stronger; Herrel *et al*., 2001; Vanhooydonck *et al*., 2010) and females (wider, deeper abdomens, providing more space for eggs; Pianka, 1994).

Alternative interpretations of the results

Macroevolutionary studies do not apply direct experimental manipulations and their strength relies on the large sample size of different species surveyed. The present study is correlative, we do not directly estimate sex-specific selection, and can only speculate about causality. It is still possible that other unknown factors are responsible for the observed differences between the sexes, which are by-products of other selective pressures, or even of no adaptive value. Bull & Pamula (1996) presented five possible explanations for the sexual dimorphism of head size: phylogenetic conservatism (a nonfunctional explanation), intersexual dietary differences, improved survival of larger males, alternative allometries (a by-product of fecundity selection meaning that during their ontogeny females invest in enlarging abdomens at the expense of their heads), and sexual selection.

Our analyses provide little support for the first three explanations: we control for shared ancestry, and our large dataset covers diverse taxa. We also suggest that dietary differences between the sexes would usually manifest themselves in the size of both abdomens and (perhaps to a greater extent) heads. Furthermore, a valid question could be why divergence of head size usually takes place in the same manner (i.e. males possess larger heads, and not simply a random pattern of divergence). We also find no reason to propose that male survival is better associated with head size than female survival, and size is positively associated with age in virtually all lizards, making it difficult to disentangle cause and effect. Bull & Pamula (1996) suggest that the sexual selection explanation is much better supported, and the explanation of alternative allometries does not contradict it. Other studies that correlated male head size with their aggression or likelihood to win male–male fights have suggested sexual selection for head size as the most probable explanation, and rejected alternative explanations, such as dietary divergence (Carothers, 1984; Anderson & Vitt, 1990; Gvoždík & Van Damme, 2003; Husak *et al*., 2006). Males with larger heads function better in reproduction-related activities (e.g. winning fights) than males with smaller heads. It is still possible that the correlation of head size and success in such activities is mediated through a third unknown factor, although we have no good candidate for such a trait. Finally, regarding abdomen size, fecundity selection is the only explanation that is experimentally supported by manipulating the space available for eggs in the female abdomen (Du *et al*., 2005).

Clutch size, reproduction mode, and abdomen size

There was a positive correlation between mean clutch size and head-length corrected abdomen length, in agreement with our predictions. This probably stems from fecundity selection on species that can lay variable clutches to increase clutch size. Our alternative prediction of no relationship between clutch and abdomen size was not supported. This suggests that selection for larger clutches is stronger than selection for larger offspring.

Whether viviparous species indeed have larger abdomens is not readily resolved by our data. There is a clear difference in our nonphylogenetic analyses, although it disappears when shared ancestry is corrected for, and the phylogenetic signal is strong. Such differences between the results of phylogenetic and nonphylogenetic analyses can stem from an untested variable obscuring the results (in which case, the phylogenetic analysis is to be preferred). It may also stem, however, from a built-in bias of giving primacy to shared ancestry over adaptation (Westoby, Leishman & Lord, 1995) or from too few evolutionary transitions (i.e. in mode of reproduction) robbing the phylogenetic analysis of power to reject the null hypothesis. It is not possible to tease these possibilities apart in the present study, and we also note that our nonphylogenetic dataset is considerably larger than the phylogenetic one, and thus the inconsistency of the results can stem from differences in the species sampled rather than from the methods used.

Conclusions

SSD may be triggered by a combination of fecundity selection on females, sexual selection on males, and natural selection. SSD can enhance survival by ecophenotypic divergence, when the sexes exploit different food resources and thus avoid intersexual competition (Shine, 1989). Natural selection in the latter case plausibly acts to enhance prior (probably sexually selected) SSD. Thus, once SSD bias is established, it can then lead to two naturally selected adaptive peaks. Blanckenhorn (2005) surveyed the literature for evidence of niche diversification between sexes in relation to SSD, and concluded that foraging specialization (Dayan & Simberloff, 1998; Meiri, Dayan & Simberloff, 2005) is of minor importance for SSD. Our results suggest that SSD could originate from increased head size in males and increased abdomen size in females. Thus, an important mechanism triggering SSD is sex specific, probably related to fecundity and sexual selection affecting females and males, respectively, and not to natural selection enhancing phenotypic divergence.

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REFERENCES

Amat F. 2008. Exploring female reproductive tactics: trade-offs between clutch size, egg mass and newborn size in lacertid lizards. *Herpetological Journal* **18:** 147–153.

Anderson RA, Vitt LJ. 1990. Sexual selection versus alternative causes of sexual dimorphism in teiid lizards. *Oecologia* **84:** 145–157.

Blackburn DG. 2000. Reptilian viviparity: past research, future directions, and appropriate models. *Comparative Biochemistry and Physiology* **127:** 391–409.

Blanckenhorn WU. 2005. Behavioral causes and consequences of sexual size dimorphism. *Ethology* **111:** 977–1016.

Blanckenhorn WU, Dixon AFG, Fairbairn DJ, Foellmer MW, Gibert P, van der Linde K, Meier K, Nylin S, Pitnick S, Schoff C, Signorelli M, Teder T, Wiklund C. 2007. Proximate causes of Rensch's rule: does sexual size dimorphism in arthropods result from sex differences in development time? *American Naturalist* **169:** 245–257.

Braña F. 1996. Sexual dimorphism in lacertid lizards: male head increase vs. female abdomen increase? *Oikos* **75:** 511–523.

Bull CM, Pamula Y. 1996. Sexually dimorphic head sizes and reproductive success in the sleepy lizard *Tiliqua rugosa*. *Journal of Zoology* **240:** 511–521.

Carothers JH. 1984. Sexual selection and sexual dimorphism in some herbivorous lizards. *American Naturalist* **124:** 244–254.

Cooper WE, Vitt LJ. 1993. Female mate choice of large male broad-headed skinks. *Animal Behaviour* **45:** 683–693.

Cox RM, Butler MA, John-Adler HB. 2007. The evolution of sexual size dimorphism in reptiles. In: Fairbairn DJ, Blanckenhorn WU, Székely T, eds. *Sex, size & gender roles: evolutionary studies of sexual size dimorphism*. Oxford: Oxford University Press, 38–49.

Cox RM, Calsbeek R. 2010. Sex-specific selection and intraspecific variation in sexual size dimorphism. *Evolution* **64:** 798–809.

Cox RM, John-Adler HB. 2007. Growing apart together: the development of contrasting sexual size dimorphisms in sympatric *Sceloporus* lizards. *Herpetologica* **63:** 245–257.

Cox RM, Skelly SL, John-Alder HB. 2003. A comparative test of adaptive hypotheses for sexual size dimorphism in lizards. *Evolution* **57:** 1653–1669.

Dayan T, Simberloff D. 1998. Size patterns among competitors: ecological character displacement and character release in mammals, with special reference to island populations. *Mammal Review* **28:** 99–124.

Díaz JA, Perez-Tris J, Bauwens D, Perez-Aranda D, Carbonell R, Santos T, Telleria JL. 2007. Reproductive performance of a lacertid lizard at the core and the periphery of the species' range. *Biological Journal of the Linnean Society* **92:** 87–96.

Donoso-Barros R. 1966. *Reptiles de Chile*. Santiago de Chile: Ediciones de la Universidad de Chile.

Du W, Ji X, Shine R. 2005. Does body volume constrain reproductive output in lizards? *Biology Letters* **22:** 98–100.

Frankenberg E, Werner YL. 1992. Egg, clutch and maternal sizes in lizards: intra- and interspecific relations in near-eastern Agamidae and Lacertidae. *Herpetological Journal* **2:** 7–18.

Guillette LJ. 1993. The evolution of viviparity in lizards. *BioScience* **43:** 742–751.

Gvoždík L, Van Damme R. 2003. Evolutionary maintenance of sexual dimorphism in head size in the lizard *Zootoca vivipara*: a test of two hypotheses. *Journal of Zoology* **259:** 7–13.

Harris DM. 1994. Review of the teiid lizard genus *Ptychoglossus*. *Herpetological Monographs* **8:** 226–275.

Herrel A, De Grauw E, Lemos-Espinal JA. 2001. Head shape and bite performance in Xenosaurid lizards. *Journal of Experimental Zoology* **290:** 101–107.

Husak JF, Lappin AK, Fox SF, Lemos-Espinal JA. 2006. Bite-force performance predicts dominance in male venerable collared lizards (*Crotaphytus antiquus*). *Copeia* **2006:** 301–306.

In Den Bosch HAJ, Bout RG. 1998. Relationships between maternal size, egg size, clutch size and hatchling size in European lacertid lizards. *Journal of Herpetology* **32:** 410–417.

Kratochvíl L, Fokt M, Rehák I, Frynta D. 2003. Misinterpretation of character scaling: a tale of sexual dimorphism in body shape of common lizards. *Canadian Journal of Zoology* **81:** 1112–1117.

Kratochvíl L, Frynta D. 2002. Body size, male combat and the evolution of sexual dimorphism in eublepharid geckos (Squamata: Eublepharidae). *Biological Journal of the Linnean Society* **76:** 303–314.

Kratochvíl L, Kubička L. 2007. Why reduce clutch size to one or two eggs? Reproductive allometries reveal different evolutionary causes of invariant clutch size in lizards. *Functional Ecology* **21:** 171–177.

Kupfer A. 2007. Sexual size dimorphism in amphibians: an overview. In: Fairbairn DJ, Blanckenhorn WU, Székely T, eds. *Sex, size & gender roles: evolutionary studies of sexual size dimorphism*. Oxford: Oxford University Press, 50–59.

Luo L, Wu L, Zhang Z, Xu X. 2012. Sexual size dimorphism and female reproduction in the white-striped grass lizard *Takydromus wolteri*. *Current Zoology* **58:** 236–243.

Meiri S. 2008. Evolution and ecology of lizard body sizes. *Global Ecology and Biogeography* **17:** 724–734.

Meiri S, Bauer AM, Chirio L, Colli GR, Das I, Doan RM, Feldman A, Herrera F-C, Novoslov M, Pafilis P, Pincheira-Donoso D, Powney G, Torres-Carvajal O, Uetz P, Van Damme R. 2013. Are lizards feeling the heat? A tale of ecology and evolution under two temperatures. *Global Ecology and Biogeography* **22:** 834–835.

Meiri S, Dayan T, Simberloff D. 2005. Variability and sexual size dimorphism in carnivores: testing the niche variation hypothesis. *Ecology* **86:** 1432–1440.

Meiri S, Dayan T, Simberloff D. 2007. Guild composition and mustelid morphology – character displacement but no character release. *Journal of Biogeography* **34:** 2148–2158.

Münkemüller T, Lavergne S, Bzeznik B, Dray S, Jombart T, Schiffers K, Thuiller W. 2012. How to measure and test phylogenetic signal. *Methods in Ecology and Evolution* **3:** 743–756.

Olsson M, Shine R. 1997. The limits to reproductive output: offspring size versus number in the sand lizard (*Lacerta agilis*). *American Naturalist* **149:** 179–188.

Orme CDL, Freckleton RP, Thomas GH, Petzoldt T, Fritz SA, Isaac NJB. 2012. *Caper: comparative analyses of phylogenetics and evolution in R*. R package version 0.5. Available at: http://CRAN.R-project.org/package=caper

Pagel M. 1999. Inferring the historical patterns of biological evolution. *Nature* **401:** 877–884.

Pianka ER. 1994. Comparative ecology of *Varanus* in the Great Victoria Desert. *Australian Journal of Ecology* **19:** 395–408.

Pincheira-Donoso D, Tregenza T. 2011. Fecundity selection and the evolution of reproductive output and sex-specific body size in the *Liolaemus* lizard adaptive radiation. *Evolutionary Biology* **38:** 197–207.

Qualls CP, Shine R. 1995. Maternal body-volume as a constraint on reproductive output in lizards: evidence from the evolution of viviparity. *Oecologia* **103:** 73–78.

R Development Core Team. 2012. *R: a language and environment for statistical computing*. Vienna, Austria: R Foundation for Statistical Computing.

Rambaut A. 2010. *FigTree*, Version 1.3.1. Edinburgh: Institute of Evolutionary Biology, University of Edinburgh.

Schettino LR. 1999. *The iguanid lizards of Cuba*. Miami, FL: University Press of Florida.

Segers FHID, Taborsky B. 2011. Egg size and food abundance interactively affect juvenile growth and behaviour. *Functional Ecology* **25:** 166–176.

Shine R. 1989. Ecological causes for the evolution of sexual dimorphism: a review of the evidence. *Quarterly Review of Biology* **64:** 419–461.

Shine R, Greer AE. 1991. Why are clutch sizes more variable in some species than in others? *Evolution* **45:** 1696–1706.

Shine R, Olsson MM, Moore IT, Lemaster MP, Greene M, Mason RT. 2000. Body size enhances mating success in male garter snakes. *Animal Behaviour* **59:** F4–F11.

Sinervo B. 1990. The evolution of maternal investment in lizards: an experimental and comparative analysis of egg size and its effects on offspring performance. *Evolution* **44:** 279–294.

Sinervo B, Licht P. 1991. Hormonal and physiological control of clutch size, egg size, and egg shape in side-blotched lizards (*Uta stansburiana*): constraints on the evolution of lizard life histories. *Journal of Experimental Zoology* **257:** 252–264.

Smith GR, Lemos-Espinal JA, Ballinger RE. 1997. Sexual dimorphism in two species of knob-scaled lizards (genus *Xenosaurus*) from Mexico. *Herpetologica* **53:** 200–205.

Stuart-Smith J, Swain R, Stuart-Smith RD, Wapstra E. 2007. Is fecundity the ultimate cause of female-biased size dimorphism in the dragon lizard? *Journal of Zoology* **273:** 266–272.

Sun Y-Y, Du Y, Yang J, Fu T-B, Lin C-X, Ji X. 2012. Is the evolution of viviparity accompanied by a relative increase in maternal abdomen size in lizards? *Evolutionary Biology* **39:** 388–399.

Székely T, Lislevand T, Figuerola J. 2007. Sexual size dimorphism in birds. In: Fairbairn DJ, Blanckenhorn WU, Székely T, eds. *Sex, size & gender roles: evolutionary studies of sexual size dimorphism*. Oxford: Oxford University Press, 27–37.

Thompson GG, Pianka ER, McEachran JD. 2001. Allometry of clutch and neonate sizes in monitor lizards (Varanidae: *Varanus*). *Copeia* **2001:** 443–458.

Uller T, Olsson M. 2010. Offspring size and timing of hatching determine survival and reproductive output in a lizard. *Oecologia* **162:** 663–671.

Vanhooydonck B, Cruz FB, Abdala CS, Moreno-Azocar DL, Bonino MF, Herrel A. 2010. Sex-specific evolution of bite performance in Liolaemus lizards (Iguania: Liolaemidae): the battle of the sexes. *Biological Journal of the Linnean Society* **101:** 461–475.

Westoby M, Leishman M, Lord JM. 1995. On misinterpreting the 'phylogenetic correction'. *Journal of Ecology* **83:** 531–534.

Wiens JJ, Hutter CR, Mulcahy DG, Noonan BP, Townsend TM, Sites JW, Reeder TW. 2012. Resolving the phylogeny of lizards and snakes (Squamata) with extensive sampling of genes and species. *Biology Letters* **8:** 1043–1046.

SUPPORTING INFORMATION

Additional Supporting Information may be found in the online version of this article at the publisher's web-site:

Appendix S1. (a) Data. (b) References for head length and abdomen length data.
Appendix S2. (a) The Newick code. (b) The references for the phylogenetic data.
Appendix S3. Analysis of different monophyletic supra-familial lizard groups. (a) Head length differences between males and females, controlling for abdomen lengths. (b) Abdomen length differences between males and females, controlling for head lengths.

Appendix 1

For the manuscript

"Sexual dimorphism of heads and abdomens: different approaches to “being large” in female and male lizards"

by Inon Scharf & Shai Meiri

a. Data
b. References for head length and abdomen length data

a. Data:

Head and abdomen lengths for the sexes, breeding strategy (whether clutch size is fixed or variable within a species), and sample size as reported in the reference for each species. Sizes of both sexes of each species were only used if they were reported in the same source. Also added is a source for the phylogenetic data for each species (see Appendix 2). All lengths are in mm.

Family	**Species**	**female head length**	**female abdomen length**	**male head length**	**male abdomen length**	**mean clutch size**	**reproductive mode**	**sample size males**	**sample size females**	**source for length data**	**source for phylogenetic relationships**
Agamidae	*Acanthocercus atricollis*	34.0	105.0	45.0	122.0	11.36	Oviparous	not reported	not reported	Fitzsimons 1943	Stuart-Fox & Owens 2003
Agamidae	*Acanthosaura armata*	30.0	78.0	33.0	85.0	12	Oviparous	1	1	Taylor 1963	Kalyabina-Hauf et al. 2004
Agamidae	*Acanthosaura capra*	38.9	99.0	33.4	101.6	19.5	Oviparous	4	4	Orlov et al. 2006	Kalyabina-Hauf et al. 2004
Agamidae	*Acanthosaura crucigera*	29.0	74.0	25.0	70.0	14	Oviparous	1	2	Taylor 1963	Kalyabina-Hauf et al. 2004, Stuart-Fox and Owens 2003
Agamidae	*Acanthosaura lepidogaster*	28.5	62.5	22.6	53.4	13	Oviparous	2	2	Taylor 1963	Kalyabina-Hauf et al. 2004
Agamidae	*Acanthosaura nataliae*	43.6	114.4	39.2	114.6	16	Oviparous	12	17	Orlov et al. 2006	Orlov et al. 2006
Agamidae	*Agama aculeata*	24.0	79.0	25.0	85.0	12.75	Oviparous	not reported	not reported	Fitzsimons 1943	Goncalves et al. 2012
Agamidae	*Agama agama*	25.0	76.0	30.0	92.0	8.8	Oviparous	73	41	Schmidt et al. 1919	Goncalves et al. 2012
Agamidae	*Agama anchietae*	21.0	79.0	33.0	107.0	11	Oviparous	not reported	not reported	Fitzsimons 1943	Goncalves et al. 2012
Agamidae	*Agama armata*	21.0	98.0	20.0	62.0	14.5	Oviparous	not reported	not reported	Fitzsimons 1943	Goncalves et al. 2012

Family	Species	female head length	female abdomen length	male head length	male abdomen length	mean clutch size	reproductive mode	sample size males	sample size females	source for length data	source for phylogenetic relationships
Agamidae	*Agama atra*	25.0	83.0	37.0	98.0	12.5	Oviparous	not reported	not reported	FitzSimons 1943	Goncalves et al. 2012
Agamidae	*Agama boueti*	21.0	56.0	18.0	42.0	9.3	Oviparous	1	1	Chabanaud 1917	Geniez et al. 2011, Mediannikov et al. 2012
Agamidae	*Agama doriae*	19.0	68.0	24.0	89.0	NA	Oviparous	4	5	Anderson 1898	Goncalves et al. 2012
Agamidae	*Agama hispida*	29.0	86.0	32.5	81.5	13.7	Oviparous	not reported	not reported	Fitzsimons 1943	Goncalves et al. 2012
Agamidae	*Agama kirkii*	23.0	67.0	23.0	74.0	10	Oviparous	not reported	not reported	Fitzsimons 1943	NA
Agamidae	*Agama planiceps*	25.0	77.0	26.5	85.5	6.5	Oviparous	not reported	not reported	Fitzsimons 1943	Goncalves et al. 2012
Agamidae	*Bronchocela cristatella*	29.3	90.7	33.4	84.6	2	Oviparous	13	19	Diong and Lim 1998	Stuart-Fox & Owens 2003
Agamidae	*Calotes chincollium*	38.9	84.6	48.6	94.3	NA	Oviparous	34	10	Vindum et al. 2003	Zug et al. 2006
Agamidae	*Calotes emma*	29.9	77.8	26.7	67.8	7.5	Oviparous	2	3	Hallermann 2000	Zug et al. 2006
Agamidae	*Calotes htunwini*	20.6	63.7	21.6	69.8	NA	Oviparous	11	14	Zug et al. 2006	Zug et al. 2006
Agamidae	*Calotes irawadi*	21.4	68.9	24.9	81.9	NA	Oviparous	30	14	Zug et al. 2006	Zug et al. 2006
Agamidae	*Calotes mystaceus*	34.3	59.7	36.5	98.8	7	Oviparous	8	2	Hallermann 2000	Zug et al. 2006
Agamidae	*Calotes versicolor*	22.7	81.1	23.9	81.0	13.65	Oviparous	>100	>100	Ji et al. 2002	Schulte and Moreno-Roark 2010
Agamidae	*Ceratophora aspera*	12.0	23.0	11.0	20.0	2	Oviparous	1	1	Deraniyagala 1953	Schulte and Moreno-Roark 2010, Johnston et al. 2013
Agamidae	*Cophotis ceylanica*	22.5	44.5	23.0	43.0	5	Oviparous	1	1	Deraniyagala 1953	Maduwage et al. 2008, Schulte and Moreno-Roark 2010
Agamidae	*Ctenophorus nguyarna*	16.0	44.8	22.5	55.9	2.5	Oviparous	8	4	Doughty et al. 2007	Doughty et al. 2007
Agamidae	*Ctenophorus pictus*	18.1	52.7	20.6	54.3	3.2	Oviparous	20	14	Doughty et al. 2007	Doughty et al. 2007
Agamidae	*Ctenophorus salinarum*	19.4	51.6	22.5	55.4	3.5	Oviparous	23	18	Doughty et al. 2007	Doughty et al. 2007
Agamidae	*Draco blanfordii*	21.0	81.0	23.0	111.0	3.5	Oviparous	3	1	Taylor 1963	McGuire & Heang 2001
Agamidae	*Draco cyanopterus*	16.0	59.0	15.0	59.0	NA	Oviparous	1	1	Taylor 1922	McGuire & Heang 2001
Agamidae	*Draco fimbriatus*	25.6	91.4	24.2	87.8	2.5	Oviparous	3	2	Taylor 1963	McGuire & Heang 2001
Agamidae	*Draco guentheri*	18.0	63.0	16.2	65.3	NA	Oviparous	1	1	Taylor 1922	McGuire & Heang 2001
Agamidae	*Draco melanopogon*	16.6	70.4	15.6	67.4	1.95	Oviparous	106	108	Shine et al. 1998	McGuire & Heang 2001
Agamidae	*Draco obscurus*	17.0	72.0	19.0	82.0	3	Oviparous	2	1	Taylor 1963	McGuire & Heang 2001
Agamidae	*Draco quadrasi*	18.0	67.0	16.0	63.0	NA	Oviparous	1	1	Taylor 1922	McGuire & Heang 2001
Agamidae	*Draco quinquefasciatus*	21.0	80.0	19.0	82.0	3.35	Oviparous	3	3	Taylor 1963	McGuire & Heang 2001

Family	Species	female head length	female abdomen length	male head length	male abdomen length	mean clutch size	reproductive mode	sample size males	sample size females	source for length data	source for phylogenetic relationships
Agamidae	*Draco taeniopterus*	16.0	61.0	14.6	60.4	3	Oviparous	4	1	Taylor 1963	McGuire & Heang 2001
Agamidae	*Draco volans*	17.5	59.5	18.0	64.0	4.5	Oviparous	2	1	Taylor 1963	Stuart-Fox & Owens 2003
Agamidae	*Hypsilurus modestus*	25.0	72.0	25.0	72.0	1	Oviparous	2	1	Sternfeld 1918	Hugall et al. 2008
Agamidae	*Hypsilurus schultzewestrumi*	30.2	87.8	43.4	115.8	NA	Oviparous	1	1	Urban 1999	NA
Agamidae	*Japalura brevipes*	31.2	40.1	33.5	35.4	5.35	Oviparous	19	11	Ota 1991	Chou 2007
Agamidae	*Japalura chapaensis*	19.3	40.3	19.4	38.7	NA	Oviparous	1	1	Ota and Weidenhofer 1992	NA
Agamidae	*Japalura dasi*	16.1	41.2	17.1	47.4	NA	Oviparous	1	1	Schleich and Kastle 2002	NA
Agamidae	*Japalura luei*	21.2784	46.9	22.7	48.8	5.5	Oviparous	1	1	Ota et al. 1998	Stuart-Fox & Owens 2003
Agamidae	*Japalura makii*	31.7	39.9	34.8	43.9	6.3	Oviparous	10	2	Ota 1991	Stuart-Fox & Owens 2003
Agamidae	*Japalura micangshanensis*	21.0	49.0	21.5	47.0	3	Oviparous	1	1	Song 1987	NA
Agamidae	*Japalura polygonata*	31.8	36.7	33.1	47.1	3.4	Oviparous	236	107	Ota 1991	Stuart-Fox & Owens 2003
Agamidae	*Japalura swinhonis*	32.5	41.5	34.7	48.0	3.95	Oviparous	42	20	Ota 1991	Stuart-Fox & Owens 2003
Agamidae	*Laudakia badakhshana*	22.0	58.0	22.0	60.0	NA	NA	2	2	Anderson and Leviton 1969	NA
Agamidae	*Laudakia himalayana*	21.0	52.0	27.0	62.0	NA	Oviparous	not reported	not reported	Zugmayer 1909	Schulte and Moreno-Roark 2010, Melville et al. 2009
Agamidae	*Laudakia nuristanica*	26.0	67.0	37.0	94.0	NA	NA	1	1	Anderson and Leviton 1969	NA
Agamidae	*Laudakia stoliczkana*	33.0	77.0	36.0	89.0	NA	NA	8	5	Zugmayer 1909	Schulte and Moreno-Roark 2010
Agamidae	*Laudakia wui*	30.5	82.5	34.0	84.0	NA	Oviparous	2	2	Zhao 1998	NA
Agamidae	*Phoxophrys borneensis*	17.0	44.0	24.5	41.5	2	Oviparous	2	1	Inger 1960	Stuart-Fox & Owens 2003
Agamidae	*Phrynocephalus arabicus*	9.7	26.8	9.6	27.4	3.5	Oviparous	1	1	Anderson 1894	NA
Agamidae	*Phrynocephalus lidskii*	16.0	28.0	15.0	29.0	NA	NA	4	2	Zugmayer 1909	NA
Agamidae	*Physignathus cocincinus*	45.0	113.0	67.0	131.0	10.5	Oviparous	2	1	Taylor 1963	Hugall et al. 2008
Agamidae	*Pseudocalotes brevipes*	18.5	36.3	25.0	52.5	NA	Oviparous	2	1	Hallermann and Bohme 2000	Schulte and Moreno-Roark 2010
Agamidae	*Pseudocalotes floweri*	29.5	68.0	30.3	61.5	NA	Oviparous	2	2	Hallermann and Bohme 2000	NA
Agamidae	*Pseudocalotes microlepis*	23.5	59.5	19.1	43.3	NA	Oviparous	3	1	Hallermann and Bohme 2000	NA
Agamidae	*Pseudocalotes tympanistriga*	18.3	46.6	24.2	56.6	2	Oviparous	4	2	Hallermann and Bohme 2000	NA

Family	Species	female head length	female abdomen length	male head length	male abdomen length	mean clutch size	reproductive mode	sample size males	sample size females	source for length data	source for phylogenetic relationships
Agamidae	*Pseudocophotis sumatrana*	20.9	59.1	19.9	48.5	NA	Oviparous	1	1	Hallermann and Bohme 2000	NA
Agamidae	*Pseudotrapelus sinaitus*	21.0	55.0	19.0	65.0	5.3	Oviparous	4	5	Anderson 1896	Schulte and Moreno-Roark 2010
Agamidae	*Ptyctolaemus collicristatus*	22.3	59.0	24.7	66.6	NA	0	5	2	Schlute et al. 2004	Schlute et al. 2004
Agamidae	*Ptyctolaemus gularis*	22.1	55.8	25.3	62.1	10	Oviparous	13	11	Schlute et al. 2004	Schlute et al. 2004
Agamidae	*Sitana fusca*	11.1	36.6	11.4	27.6	7.2	Oviparous	1	1	Schleich and Kastle 2002	Stuart-Fox & Owens 2003
Agamidae	*Sitana schleichi*	10.9	28.6	10.1	24.9	NA	Oviparous	1	4	Schleich and Kastle 2002	NA
Agamidae	*Sitana sivalensis*	11.5	33.0	10.3	29.2	6.86	Oviparous	1	1	Schleich and Kastle 2002	Stuart-Fox & Owens 2003
Agamidae	*Trapelus flavimaculatus*	27.0	95.0	29.0	88.0	5	Oviparous	5	3	Anderson 1896	NA
Agamidae	*Trapelus jayakari*	22.5	92.5	28.0	110.0	NA	Oviparous	4	2	Anderson 1896	NA
Agamidae	*Trapelus mutabilis*	22.2	70.8	20.0	63.0	8.5	Oviparous	24	15	Anderson 1898	Wagner et al. 2011
Agamidae	*Uromastyx benti*	31.0	138.0	33.0	144.0	8.5	Oviparous	1	1	Anderson 1894	Wilms et al. 2009
Chamaeleonidae	*Brookesia exarmata*	6.6	18.4	5.9	12.5	2	Oviparous	1	5	Schimmenti and Jesu 1996	Townsend et al. 2009
Chamaeleonidae	*Calumma gastrotaenia*	15.6	38.4	19.4	53.6	NA	Oviparous	7	3	Andreone et al. 2001	Raxworthy et al. 2002
Chamaeleonidae	*Calumma guillaumeti*	16.0	40.0	18.0	40.0	NA	NA	3	1	Andreone et al. 2001	Raxworthy et al. 2002
Chamaeleonidae	*Calumma marojezense*	19.0	53.0	20.5	50.5	NA	NA	9	8	Andreone et al. 2001	Raxworthy et al. 2002
Chamaeleonidae	*Calumma peyrierasi*	14.3	35.7	15.0	34.0	NA	Oviparous	1	1	Andreone et al. 2001	NA
Chamaeleonidae	*Calumma vencesi*	21.0	51.0	19.3	53.7	NA	NA	9	8	Andreone et al. 2001	NA
Chamaeleonidae	*Chamaeleo arabicus*	38.0	106.0	44.0	129.0	NA	Oviparous	1	1	Matschie 1893	Schulte and Moreno-Roark 2010
Chamaeleonidae	*Chamaeleo dilepis*	37.0	88.0	32.0	62.0	39.6	Oviparous	1	2	Schmidt et al. 1919	Townsend & Larson 2002
Chamaeleonidae	*Chamaeleo etiennei*	47.0	87.0	40.0	97.0	NA	Oviparous	7	14	Schmidt et al. 1919	NA
Chamaeleonidae	*Chamaeleo gracilis*	32.0	116.0	26.0	89.0	27.5	Oviparous	6	5	Lanza and Vanni 1976	Townsend & Larson 2002
Chamaeleonidae	*Chamaeleo laevigatus*	30.0	90.0	28.0	78.0	37.5	Oviparous	12	18	Schmidt et al. 1919	NA
Chamaeleonidae	*Chamaeleo zeylanicus*	47.2	99.8	55.0	128.0	29.875	Oviparous	1	1	Deraniyagala 1953	Schulte and Moreno-Roark 2010
Chamaeleonidae	*Furcifer nicosiai*	25.0	65.0	35.0	110.0	NA	NA	1	1	Jesu et al. 1999	NA
Chamaeleonidae	*Furcifer verrucosus*	27.0	88.0	57.0	133.0	34.5	Oviparous	1	2	Jesu et al. 1999	Raxworthy et al. 2002

Family	Species	female head length	female abdomen length	male head length	male abdomen length	mean clutch size	reproductive mode	sample size males	sample size females	source for length data	source for phylogenetic relationships
Chamaeleonidae	*Kinyongia adolfifriderici*	16.0	41.0	15.5	40.5	3	Oviparous	1	3	Schmidt et al. 1919	Tilbury and Tolley 2009
Chamaeleonidae	*Rhampholeon spectrum*	16.0	41.0	18.0	40.0	2	Oviparous	1	1	Boulenger 1887	Raxworthy et al. 2002, Mariaux and Tilbury 2006
Chamaeleonidae	*Rieppeleon kerstenii*	13.0	39.0	13.0	43.0	6	Oviparous	1	1	Boulenger 1887	Tilbury and Tolley 2009
Chamaeleonidae	*Trioceros ituriensis*	35.0	95.0	28.0	66.0	NA	Oviparous	15	84	Schmidt et al. 1919	NA
Chamaeleonidae	*Trioceros narraioca*	20.5	45.5	27.0	59.0	NA	NA	6	3	Necas et al. 2003	NA
Chamaeleonidae	*Trioceros oweni*	37.0	107.0	37.0	111.0	16	Oviparous	13	15	Schmidt et al. 1919	NA
Chamaeleonidae	*Trioceros sternfeldi*	23.0	61.0	24.0	57.0	8	Viviparous	2	6	Rand 1963	Tilbury and Tolley 2009
Anguidae	*Abronia meledona*	24.4	93.6	26.2	93.8	12	Viviparous	1	1	Campbell and Brodie 1999	NA
Anguidae	*Abronia ornelasi*	15.8	55.2	22.0	75.0	NA	NA	5	1	Campbell 1984	NA
Anguidae	*Barisia herrerae*	24.0	95.0	29.0	96.0	6	Viviparous	4	4	Zaldivar-Riveron and de Oca 2002	Bryson and Riddle 2012
Anguidae	*Barisia rudicollis*	27.0	100.0	29.0	94.0	5	Viviparous	8	7	Zaldivar-Riveron and de Oca 2002	Bryson and Riddle 2012
Varanidae	*Varanus boehmei*	45.1	239.9	49.5	240.5	4	Oviparous	4	3	Jacobs 2003	Ziegler et al. 2007
Varanidae	*Varanus bogerti*	50.0	210.0	55.9	219.1	NA	Oviparous	2	1	Mertens 1950	NA
Varanidae	*Varanus caudolineatus*	17.4	100.6	18.5	106.5	3.7	Oviparous	45	22	Pianka and King 2004	Vidal et al. 2012
Varanidae	*Varanus gilleni*	16.7	150.3	17.6	157.4	4.275	Oviparous	13	9	Pianka and King 2004	Vidal et al. 2012
Xenosauridae	*Xenosaurus grandis*	27.0	85.5	26.5	83.3	4.2	Viviparous	11	10	Herrel et al. 2001	Bhullar 2011
Xenosauridae	*Xenosaurus newmanorum*	22.4	67.7	28.1	78.4	2.5	Viviparous	7	13	Herrel et al. 2001	Bhullar 2011
Xenosauridae	*Xenosaurus platyceps*	23.1	75.4	22.4	67.0	2.345	Viviparous	10	15	Herrel et al. 2001	Bhullar 2011
Carphodactylidae	*Phyllurus platurus*	26.3	59.9	25.3	56.9	2	Oviparous	66	67	Doughty and Shine 1995	Oliver and Bauer 2011
Diplodactylidae	*Oedodera marmorata*	14.8	45.1	16.2	44.8	2	Oviparous	4	4	Bauer et al. 2006	Bauer et al. 2012
Diplodactylidae	*Pseudothecadactylus cavaticus*	30.9	75.2	31.9	83.1	NA	Oviparous	1	1	Cogger 1975	Oliver and Bauer 2011
Gekkonidae	*Afroedura karroica*	11.5	39.0	11.7	35.3	2	Oviparous	not reported	not reported	Fitzsimons 1943	Greenbaum et al. 2007
Gekkonidae	*Afroedura tembulica*	14.5	42.5	13.6	38.9	NA	Oviparous	not reported	not reported	Fitzsimons 1943	Greenbaum et al. 2007
Gekkonidae	*Afroedura transvaalica*	14.5	53.5	14.5	52.5	1.5	Oviparous	not reported	not reported	Fitzsimons 1943	Greenbaum et al. 2007

Family	Species	female head length	female abdomen length	male head length	male abdomen length	mean clutch size	reproductive mode	sample size males	sample size females	source for length data	source for phylogenetic relationships
Gekkonidae	*Bunopus blanfordii*	12.3	28.2	15.0	34.0	2	Oviparous	1	1	Anderson 1896	Gamble et al. 2012
Gekkonidae	*Cnemaspis anaikattiensis*	10.0	48.0	11.0	50.0	NA	Oviparous	1	1	Mukherjee et al. 2005	Indian Cnemaspis, Gamble et al. 2012
Gekkonidae	*Cnemaspis baueri*	10.1	54.8	11.2	52.9	NA	Oviparous	3	6	Das and Grismer 2003	SE Asian Cnemaspis, Gamble et al. 2012
Gekkonidae	*Cnemaspis dickersonae*	8.0	23.0	9.0	25.0	NA	Oviparous	1	1	Schmidt and Noble 1919	Gamble et al. 2012
Gekkonidae	*Cnemaspis limi*	11.6	49.8	15.4	72.8	1.5	Oviparous	3	2	Das and Grismer 2003	SE Asian Cnemaspis, Gamble et al. 2012
Gekkonidae	*Cyrtodactylus aaroni*	23	63.5	23.7	60.5	NA	Oviparous	4	1	Gunther and Rosler 2003	NA
Gekkonidae	*Cyrtodactylus adleri*	12.4	52.3	13.2	55.3	NA	Oviparous	3	4	Das 1997	NA
Gekkonidae	*Cyrtodactylus angularis*	25.5	66.5	23.5	56.5	2	Oviparous	1	2	Taylor 1963	Wood et al. 2012
Gekkonidae	*Cyrtodactylus annandalei*	13.2	42.1	13.5	35.5	NA	Oviparous	1	2	Bauer 2003	Wood et al. 2012
Gekkonidae	*Cyrtodactylus aurensis*	28.4	71.0	27.5	67.5	NA	Oviparous	1	3	Grismer 2005	Wood et al. 2012
Gekkonidae	*Cyrtodactylus ayeyarwadyensis*	20.7	51.1	18.5	49.1	2	Oviparous	5	4	Bauer 2003	Wood et al. 2012
Gekkonidae	*Cyrtodactylus brevidactylus*	22.8	65.2	20.2	51.2	NA	Oviparous	1	2	Bauer 2002	Wood et al. 2012
Gekkonidae	*Cyrtodactylus edwardtaylori*	24.6	70.9	23.0	69.7	NA	Oviparous	1	2	Batuwita and Bahir 2005	NA
Gekkonidae	*Cyrtodactylus fraenatus*	25.0	69.3	24.1	68.3	2.5	Oviparous	2	5	Batuwita and Bahir 2005	Greenbaum et al. 2007
Gekkonidae	*Cyrtodactylus gansi*	16.6	45.8	17.3	45.0	NA	Oviparous	4	1	Bauer 2003	Wood et al. 2012
Gekkonidae	*Cyrtodactylus irianjayaensis*	41.2	113.8	43.8	119.2	NA	Oviparous	3	2	Rosler 2001	Greenbaum et al. 2007
Gekkonidae	*Cyrtodactylus philippinicus*	25.5	60.5	24.0	59.0	2	Oviparous	1	1	Taylor 1922	Oliver et al. 2012
Gekkonidae	*Cyrtodactylus phongnhakebangensis*	26.4	69.9	24.0	67.0	2	Oviparous	4	4	Ziegler et al. 2002	Schneider et al. 2011
Gekkonidae	*Cyrtodactylus ramboda*	23.2	62.8	26.4	72.7	NA	Oviparous	1	1	Batuwita and Bahir 2005	NA
Gekkonidae	*Cyrtodactylus russelli*	31.4	84.6	29.2	76.5	NA	Oviparous	1	1	Bauer 2003	Wood et al. 2012
Gekkonidae	*Cyrtodactylus semenanjungensis*	18.4	50.6	16.0	46.0	2	Oviparous	2	1	Grismer and Leong 2005	Wood et al. 2012
Gekkonidae	*Cyrtodactylus slowinskii*	28.9	75.8	29.5	78.3	NA	Oviparous	6	8	Bauer 2002	Wood et al. 2012
Gekkonidae	*Cyrtodactylus soba*	27.0	78.7	27.4	75.2	2	Oviparous	4	4	Batuwita and Bahir 2005	NA
Gekkonidae	*Cyrtodactylus subsolanus*	27.6	77.0	26.1	73.4	NA	Oviparous	3	2	Batuwita and Bahir 2005	NA

Family	Species	female head length	female abdomen length	male head length	male abdomen length	mean clutch size	reproductive mode	sample size males	sample size females	source for length data	source for phylogenetic relationships
Gekkonidae	*Cyrtodactylus sumonthai*	19.8	50.6	20.0	50.7	1.5	Oviparous	2	2	Bauer et al. 2002	NA
Gekkonidae	*Cyrtodactylus thirakhupti*	21.9	52.0	23.1	56.5	NA	Oviparous	2	1	Pauwels et al. 2004	NA
Gekkonidae	*Cyrtodactylus tigroides*	21.3	53.0	23.4	59.8	NA	Oviparous	1	1	Bauer et al. 2003	Wood et al. 2012
Gekkonidae	*Cyrtopodion stoliczkai*	16.0	34.0	17.0	32.0	NA	Oviparous	not reported	not reported	Zugmayer 1909	Bauer et al. 2013
Gekkonidae	*Dixonius hangseesom*	10.6	28.5	11.3	30.8	NA	Oviparous	4	2	Bauer et al. 2004	Jackman et al. 2008
Gekkonidae	*Dixonius melanostictus*	11.0	27.5	12.8	29.7	NA	Oviparous	3	2	Taylor 1962	Zug and Fisher 2012
Gekkonidae	*Ebenavia inunguis*	9.2	30.8	9.5	24.5	1.46	Oviparous	1	2	Nussbaum and Raxworthy 1998	Jackman et al. 2008
Gekkonidae	*Ebenavia maintimainty*	5.9	18.1	5.7	17.3	1	Oviparous	2	1	Nussbaum and Raxworthy 1998	Jackman et al. 2008
Gekkonidae	*Gehyra angusticaudata*	15.0	42.0	14.2	39.8	NA	Oviparous	2	3	Taylor 1963	NA
Gekkonidae	*Gehyra oceanica*	21.6	61.9	21.4	61.0	1.8	Oviparous	41	27	Zug 1991	Heinicke et al. 2011, Flecks et al. 2012
Gekkonidae	*Gehyra vorax*	37.6	96.4	38.0	118.0	1.5	Oviparous	8	8	Zug 1991	Flecks et al. 2012
Gekkonidae	*Gekko petricolus*	21.0	54.0	26.0	75.0	2	Oviparous	8	3	Taylor 1962	Rosler et al. 2011
Gekkonidae	*Gekko scientiadventura*	18.2	50.8	20.0	53.0	2	Oviparous	4	4	Rosler et al. 2004	NA
Gekkonidae	*Gekko taylori*	37.3	92.9	33.7	95.3	NA	Oviparous	3	3	Ota and Nabhitabhata 1991	NA
Gekkonidae	*Hemidactylus brookii*	16.0	45.0	18.0	49.0	2	Oviparous	40	30	Schmidt et al. 1919	Carranza and Arnold 2006
Gekkonidae	*Hemidactylus fasciatus*	20.0	57.0	24.2	70.8	2	Oviparous	8	10	Schmidt et al. 1919	Carranza and Arnold 2006
Gekkonidae	*Hemidactylus frenatus*	13.5	36.9	13.9	41.6	1.95	Oviparous	9	4	Zug 1991	Carranza and Arnold 2006
Gekkonidae	*Hemidactylus granchii*	17.3	44.7	17.8	43.2	NA	Oviparous	1	2	Lanza 1978	NA
Gekkonidae	*Hemidactylus longicephalus*	9.0	38.0	8.0	33.0	2	Oviparous	1	2	Schmidt et al. 1919	Carranza and Arnold 2006
Gekkonidae	*Hemidactylus mabouia*	17.5	46.5	18.0	46.0	2	Oviparous	27	27	Schmidt et al. 1919	Carranza and Arnold 2006
Gekkonidae	*Hemidactylus macropholis*	15.6	34.4	14.6	35.4	NA	Oviparous	1	2	Lanza 1978	Carranza and Arnold 2012
Gekkonidae	*Hemidactylus ophiolepoides*	13.4	36.6	13.6	36.4	NA	Oviparous	1	1	Lanza 1978b	NA
Gekkonidae	*Hemidactylus sinaitus*	14.5	37.5	11.0	27.0	NA	Oviparous	1	3	Anderson 1895	Busais and Joger 2011
Gekkonidae	*Hemidactylus turcicus*	13.2	36.8	13.5	38.5	2	Oviparous	3	3	Lanza 1978	Carranza and Arnold 2012
Gekkonidae	*Hemidactylus yerburii*	16.5	42.5	17.4	44.6	NA	Oviparous	9	5	Lanza 1978	Busais and Joger 2011, Carranza and Arnold 2012

Family	Species	female head length	female abdomen length	male head length	male abdomen length	mean clutch size	reproductive mode	sample size males	sample size females	source for length data	source for phylogenetic relationships
Gekkonidae	*Lepidodactylus aureolineatus*	8.0	18.0	11.0	30.0	NA	Oviparous	4	1	Taylor 1922	NA
Gekkonidae	*Lepidodactylus gardineri*	12.0	40.6	12.5	39.6	2	Oviparous	6	7	Zug 1991	NA
Gekkonidae	*Lepidodactylus lugubris*	11.5	28.2	12.0	26.0	1.5	Oviparous	3	3	Donoso-Barros 1966	Heinicke et al. 2012
Gekkonidae	*Lepidodactylus manni*	10.8	37.3	10.5	34.2	2	Oviparous	11	11	Zug 1991	Heinicke et al. 2012
Gekkonidae	*Lepidodactylus woodfordi*	10.2	30.8	10.0	30.0	NA	Oviparous	5	5	Taylor 1922	NA
Gekkonidae	*Lygodactylus capensis*	8.4	24.6	9.0	26.0	1.97	Oviparous	not reported	not reported	Fitzsimons 1943	Roll et al. 2010
Gekkonidae	*Lygodactylus depressus*	9.6	25.4	10.0	28.0	NA	Oviparous	3	1	Schmidt et al. 1919	NA
Gekkonidae	*Lygodactylus gutturalis*	9.5	28.5	10.0	26.0	2	Oviparous	34	20	Schmidt et al. 1919	Castiglia and Annesi 2011
Gekkonidae	*Lygodactylus klugei*	7.3	22.4	7.4	20.6	2	Oviparous	169	176	Vitt 1986	Gamble et al. 2011
Gekkonidae	*Pachydactylus atorquatus*	15.5	36.1	15.3	38.9	2	Oviparous	2	2	Bauer et al. 2006	Bauer et al. 2006
Gekkonidae	*Pachydactylus mariquensis*	12.0	40.0	11.8	38.7	2	Oviparous	not reported	not reported	Fitzsimons 1943	Lamb and Bauer 2006
Gekkonidae	*Pachydactylus parascutatus*	9.8	28.6	10.0	24.6	NA	Oviparous	2	3	Bauer et al. 2002b	Heinicke et al. 2011
Gekkonidae	*Pachydactylus rangei*	17.2	50.8	18.3	41.7	2	Oviparous	not reported	not reported	Fitzsimons 1943	Lamb and Bauer 2006
Gekkonidae	*Paroedura masobe*	22.8	82.2	24.1	82.9	2	Oviparous	2	2	Nussbaum and Raxworthy 1994	Jackman et al. 2008
Gekkonidae	*Perochirus scutellatus*	25.0	89.3	28.3	103.3	NA	Oviparous	40	30	Buden 1998	Russell and Bauer 2002
Gekkonidae	*Phelsuma malamakibo*	13.7	39.7	17.9	43.0	2	Oviparous	5	3	Nussbaum et al. 2000	Rocha et al. 2009
Gekkonidae	*Pseudoceramodactylus khobarensis*	15.0	40.0	15.0	37.0	1.5	Oviparous	1	1	Haas 1957	Fujita and Papenfuss 2011
Gekkonidae	*Rhoptropella ocellata*	10.0	28.0	9.7	27.3	2	Oviparous	not reported	not reported	Fitzsimons 1943	Gamble et al. 2012
Gekkonidae	*Stenodactylus petrii*	18.0	42.0	18.0	36.0	2	Oviparous	1	1	Anderson 1896	Fujita and Papenfuss 2011
Gekkonidae	*Stenodactylus slevini*	16.5	52.0	17.5	48.0	2	Oviparous	1	1	Haas 1957	Metallinou et al. 2013
Gekkonidae	*Uroplatus alluaudi*	19.0	58.4	20.8	58.5	2	Oviparous	1	2	Bauer and Russell 1989	Greenbaum et al. 2007
Gekkonidae	*Uroplatus ebenaui*	16.3	40.3	15.1	46.2	1.5	Oviparous	3	1	Bauer and Russell 1989	Greenbaum et al. 2007, Ratsoavina et al. 2012
Gekkonidae	*Uroplatus fimbriatus*	54.8	134.7	54.8	125.3	1.5	Oviparous	23	30	Bauer and Russell 1989	Greenbaum et al. 2007
Gekkonidae	*Uroplatus giganteus*	56.7	143.3	57.5	140.5	NA	Oviparous	2	1	Glaw et al. 2006	Greenbaum et al. 2007

Family	Species	female head length	female abdomen length	male head length	male abdomen length	mean clutch size	reproductive mode	sample size males	sample size females	source for length data	source for phylogenetic relationships
Gekkonidae	*Uroplatus guentheri*	21.7	49.9	22.6	56.3	1.5	Oviparous	1	1	Bauer and Russell 1989	Greenbaum et al. 2007
Gekkonidae	*Uroplatus lineatus*	42.4	96.7	38.4	91.9	2	Oviparous	3	4	Bauer and Russell 1989	Greenbaum et al. 2007
Gekkonidae	*Uroplatus sikorae*	33.0	82.8	31.9	75.0	1.5	Oviparous	5	9	Bauer and Russell 1989	Greenbaum et al. 2007
Phyllodactylidae	*Gymnodactylus geckoides*	10.2	32.6	10.1	31.5	1.35	Oviparous	64	97	Vitt 1986	Pellegrino et al. 2005
Phyllodactylidae	*Homonota gaudichaudii*	11.2	28.8	12.0	28.0	1.5	Oviparous	4	4	Donoso-Barros 1966	Gamble et al. 2012
Phyllodactylidae	*Homonota penai*	10.0	23.2	11.0	21.0	NA	Oviparous	3	3	Donoso-Barros 1966	NA
Phyllodactylidae	*Phyllodactylus gerrhopygus*	15.0	30.0	14.2	34.8	1.5	Oviparous	3	3	Donoso-Barros 1966	NA
Phyllodactylidae	*Phyllodactylus reissii*	14.0	29.0	13.0	30.0	2	Oviparous	1	1	Werner 1910	Gamble et al. 2012
Phyllodactylidae	*Phyllodactylus xanti*	15.5	36.5	14.5	34.5	2	Oviparous	3	2	Dixon 1966	Gamble et al. 2012
Phyllodactylidae	*Phyllopezus lutzae*	20.0	43.0	19.0	45.0	NA	Oviparous	1	1	Loveridge 1941	Gamble et al. 2012
Phyllodactylidae	*Phyllopezus pollicaris*	18.6	56.9	18.6	56.3	2	Oviparous	29	39	Vitt 1986	Gamble et al. 2012
Phyllodactylidae	*Ptyodactylus guttatus*	24.0	64.0	26.0	64.0	2	Oviparous	12	16	Anderson 1898	Gamble et al. 2008
Phyllodactylidae	*Ptyodactylus hasselquistii*	20.0	53.0	24.0	62.0	2	Oviparous	10	14	Anderson 1898	Gamble et al. 2008
Phyllodactylidae	*Ptyodactylus oudrii*	16.0	41.0	16.0	36.0	1.5	Oviparous	1	3	Anderson 1898	Gamble et al. 2008
Phyllodactylidae	*Ptyodactylus ragazzii*	23.0	67.0	27.0	69.0	2	Oviparous	5	2	Anderson 1898	Gamble et al. 2008
Pygopodidae	*Pygopus lepidopodus*	16.0	155.0	16.0	165.0	2	Oviparous	1	1	Boulenger 1885	Oliver et al. 2010
Sphaerodactylidae	*Chatogekko amazonicus*	5.3	18.7	5.3	17.7	1	Oviparous	20	16	Hoogmoed 1973	Gamble et al. 2008, Gamble et al. 2011
Sphaerodactylidae	*Gonatodes annularis*	12.9	42.1	12.9	37.1	2	Oviparous	8	7	Hoogmoed 1973	Gamble et al. 2008
Sphaerodactylidae	*Gonatodes hasemani*	11.1	32.6	10.9	29.5	1	Oviparous	24	18	Vitt et al. 2000	Gamble et al. 2008
Sphaerodactylidae	*Gonatodes humeralis*	9.3	29.4	10.6	31.5	1.5	Oviparous	36	12	Vitt et al. 2000	Gamble et al. 2008
Sphaerodactylidae	*Pseudogonatodes guianensis*	6.0	24.0	5.8	21.2	1	Oviparous	2	6	Hoogmoed 1973	Gamble et al. 2012
Sphaerodactylidae	*Sphaerodactylus lineolatus*	9.0	21.2	8.0	18.5	NA	Oviparous	1	4	Taylor 1956	NA
Crotaphytidae	*Crotaphytus antiquus*	25.6	68.2	30.6	78.0	3.5	Oviparous	18	12	Husak et al. 2006	Schulte and Moreno-Roark 2010
Crotaphytidae	*Crotaphytus collaris*	27.0	73.0	31.0	76.0	6	Oviparous	1	1	Boulenger 1885b	Schlute et al. 2003, McGuire et al. 2007
Crotaphytidae	*Gambelia copeii*	24.4	77.5	23.1	72.3	5	Oviparous	15	9	Lappin and Swinney 1999	Schlute et al. 2003, McGuire et al. 2007
Crotaphytidae	*Gambelia wislizenii*	26.7	83.7	24.1	75.4	5.15	Oviparous	77	78	Lappin and	Schlute et al. 2003

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Dactyloidae	*Anolis ahli*	15.4	37.0	19.0	42.7	NA	Oviparous	8	3	Swinney 1999 Schettino 1999	Alfoldi et al. 2011
Dactyloidae	*Anolis alayoni*	10.7	28.2	13.8	33.0	NA	Oviparous	16	13	Schettino 1999	Nicholson et al. 2005
Dactyloidae	*Anolis allisoni*	19.2	41.8	27.4	55.2	1	Oviparous	170	88	Schoener 1970	Alfoldi et al. 2011
Dactyloidae	*Anolis allogus*	14.5	32.5	19.0	43.8	1	Oviparous	10	10	Schettino 1999	Alfoldi et al. 2011
Dactyloidae	*Anolis alutaceus*	10.7	25.3	11.4	26.1	1	Oviparous	9	8	Schettino 1999	Nicholson et al. 2005 (pandoensis)
Dactyloidae	*Anolis anfiloquioi*	12.2	26.0	12.8	27.7	1	Oviparous	11	9	Schettino 1999	NA
Dactyloidae	*Anolis angusticeps*	13.8	27.5	16.6	32.4	1	Oviparous	10	10	Schettino 1999	Nicholson et al. 2005
Dactyloidae	*Anolis annectens*	16.0	47.3	19.8	57.8	1	Oviparous	10	9	Barros et al. 2007	D'angiolella et al. 2011
Dactyloidae	*Anolis argenteolus*	15.2	35.8	19.5	40.3	1.05	Oviparous	52	62	Schettino 1999	Alfoldi et al. 2011
Dactyloidae	*Anolis argillaceus*	14.3	30.5	14.1	32.1	NA	Oviparous	54	19	Schettino 1999	Nicholson et al. 2005
Dactyloidae	*Anolis auratus*	12.5	40.5	12.5	37.5	1	Oviparous	21	15	Vitt and de Carvalho 1995	D'angiolella et al. 2011
Dactyloidae	*Anolis baracoae*	48.9	86.6	51.2	99.2	1	Oviparous	10	10	Schettino 1999	Nicholson et al. 2005
Dactyloidae	*Anolis barbatus*	54.2	94.1	50.5	100.8	1	Oviparous	3	3	Schettino 1999	Nicholson et al. 2005
Dactyloidae	*Anolis bartschi*	19.3	44.3	24.5	50.6	1	Oviparous	25	31	Schettino 1999	Nicholson et al. 2005
Dactyloidae	*Anolis bellipeniculus*	18.2	41.2	22.7	47.5	NA	Oviparous	2	3	Myers et al. 1996	NA
Dactyloidae	*Anolis birama*	12.0	31.0	16.8	48.2	NA	Oviparous	11	7	Schettino 1999	NA
Dactyloidae	*Anolis bremeri*	15.8	36.5	20.1	50.7	1	Oviparous	27	28	Schettino 1999	Nicholson et al. 2005
Dactyloidae	*Anolis brevirostris*	11.4	32.0	13.2	35.4	1	Oviparous	451	175	Schoener 1970	Nicholson et al. 2005
Dactyloidae	*Anolis capito*	26.3	63.7	24.0	61.0	1	Oviparous	3	4	Taylor 1956	Nicholson et al. 2005
Dactyloidae	*Anolis centralis*	14.0	32.0	14.0	33.2	1	Oviparous	20	20	Schettino 1999	Nicholson et al. 2005
Dactyloidae	*Anolis chamaeleonides*	51.5	110.6	53.7	109.7	1	Oviparous	42	79	Schoener 1970	Nicholson et al. 2005
Dactyloidae	*Anolis chlorocyanus*	15.2	38.6	20.4	51.8	1	Oviparous	396	197	Schoener 1970	Nicholson et al. 2005
Dactyloidae	*Anolis christophei*	11.4	32.3	13.1	34.5	1	Oviparous	27	33	Schoener 1970	Nicholson et al. 2005
Dactyloidae	*Anolis chrysolepis*	20.6	64.4	20.2	62.8	1	Oviparous	29	19	Vitt and Zani 1996	synonym of nitens: Nicholson et al. 2005
Dactyloidae	*Anolis clivicola*	13.9	30.2	15.0	34.4	1	Oviparous	9	10	Schettino 1999	Nicholson et al. 2005
Dactyloidae	*Anolis coelestinus*	17.1	43.2	23.0	56.4	1	Oviparous	1242	572	Schoener 1970	Nicholson et al. 2005
Dactyloidae	*Anolis confusus*	10.6	37.4	13.8	39.2	NA	Oviparous	12	3	Schettino 1999	Nicholson et al. 2005
Dactyloidae	*Anolis cristatellus*	13.3	31.3	19.4	47.2	1	Oviparous	876	498	Schoener 1970	Nicholson et al. 2005
Dactyloidae	*Anolis cupeyalensis*	9.8	20.7	10.4	21.7	NA	Oviparous	10	9	Schettino 1999	Nicholson et al. 2005
Dactyloidae	*Anolis cuvieri*	37.4	83.5	40.4	90.6	1	Oviparous	27	16	Schoener 1970	Alfoldi et al. 2011

Family	Species	female head length	female abdomen length	male head length	male abdomen length	mean clutch size	reproductive mode	sample size males	sample size females	source for length data	source for phylogenetic relationships
Dactyloidae	*Anolis cyanopleurus*	10.1	26.1	12.3	27.2	NA	Oviparous	9	9	Schettino 1999	Nicholson et al. 2005
Dactyloidae	*Anolis cybotes*	14.8	35.0	21.4	46.0	1	Oviparous	245	148	Schoener 1970	Alfoldi et al. 2011
Dactyloidae	*Anolis distichus*	11.6	32.6	13.6	37.7	1	Oviparous	1022	616	Schoener 1970	Nicholson et al. 2005
Dactyloidae	*Anolis equestris*	46.8	112.6	52.7	118.0	1	Oviparous	356	385	Schoener 1970	Nicholson et al. 2005
Dactyloidae	*Anolis fugitivus*	10.4	22.9	11.1	25.1	NA	Oviparous	4	5	Schettino 1999	NA
Dactyloidae	*Anolis fuscoauratus*	12.7	35.3	13.2	35.8	1	Oviparous	11	10	Hoogmoed 1973	Alfoldi et al. 2011
Dactyloidae	*Anolis garmani*	22.6	60.8	32.7	76.8	1	Oviparous	86	68	Schoener 1970	Nicholson et al. 2005
Dactyloidae	*Anolis garridoi*	10.8	26.0	12.2	29.6	NA	Oviparous	5	3	Schettino 1999	Nicholson et al. 2005
Dactyloidae	*Anolis gracilipes*	14.0	40.0	15.0	40.0	NA	Oviparous	1	1	Boulenger 1898	NA
Dactyloidae	*Anolis grahami*	13.5	31.7	17.8	41.8	1	Oviparous	23	17	Herrel et al. 2004	Nicholson et al. 2005
Dactyloidae	*Anolis granuliceps*	11.0	30.0	12.0	30.0	NA	Oviparous	1	1	Boulenger 1898	NA
Dactyloidae	*Anolis guafe*	9.7	30.3	13.0	35.8	NA	Oviparous	24	13	Schettino 1999	Nicholson et al. 2005
Dactyloidae	*Anolis guazuma*	13.0	26.7	15.5	33.0	NA	Oviparous	7	3	Schettino 1999	Nicholson et al. 2005
Dactyloidae	*Anolis hendersoni*	12.3	27.9	17.2	32.1	NA	Oviparous	203	128	Schoener 1970	Nicholson et al. 2012
Dactyloidae	*Anolis homolechis*	17.6	38.2	19.4	46.3	1	Oviparous	15	14	Schettino 1999	Nicholson et al. 2005
Dactyloidae	*Anolis imias*	15.5	31.0	19.0	48.4	NA	Oviparous	5	2	Schettino 1999	Alfoldi et al. 2011
Dactyloidae	*Anolis inderenae*	31.4	86.9	31.0	67.5	1	Oviparous	1	2	Rueda and Hernandez-Camacho 1988	Castaneda and de Queiroz 2011, Nicholson et al. 2012
Dactyloidae	*Anolis inexpectatus*	10.2	24.8	11.3	25.2	NA	Oviparous	16	15	Schettino 1999	Nicholson et al. 2005
Dactyloidae	*Anolis isolepis*	15.5	33.7	16.8	25.0	1	Oviparous	5	11	Schettino 1999	Nicholson et al. 2005
Dactyloidae	*Anolis jacare*	20.0	50.0	23.0	50.0	NA	Oviparous	1	1	Boulenger 1903	Castaneda and de Queiroz 2011
Dactyloidae	*Anolis juangundlachi*	10.8	23.5	12.5	23.3	NA	Oviparous	12	6	Schettino 1999	NA
Dactyloidae	*Anolis jubar*	16.9	36.3	19.3	40.5	1	Oviparous	51	47	Schettino 1999	Nicholson et al. 2005
Dactyloidae	*Anolis lemniscatus*	13.0	32.0	15.0	37.0	NA	Oviparous	1	1	Boulenger 1898	NA
Dactyloidae	*Anolis lineatopus*	13.0	31.0	15.9	35.7	1	Oviparous	58	45	Herrel et al. 2004	Alfoldi et al. 2011
Dactyloidae	*Anolis loysiana*	12.4	25.8	13.3	33.9	1	Oviparous	11	10	Schettino 1999	Nicholson et al. 2005
Dactyloidae	*Anolis lucius*	14.5	40.2	18.1	45.3	1	Oviparous	298	204	Schoener 1970	Nicholson et al. 2005
Dactyloidae	*Anolis luteogularis*	52.5	112.7	56.5	108.9	NA	Oviparous	25	30	Schettino 1999	Nicholson et al. 2005
Dactyloidae	*Anolis maculiventris*	14.0	36.0	12.0	33.0	NA	Oviparous	1	1	Boulenger 1898	Nicholson et al. 2005
Dactyloidae	*Anolis megalopithecus*	22.1	60.9	21.4	59.6	NA	Oviparous	2	4	Rueda-Almonacid 1989	NA
Dactyloidae	*Anolis mestrei*	15.2	33.3	18.0	38.5	1	Oviparous	8	10	Schettino 1999	Nicholson et al. 2005

Family	Species	female head length	female abdomen length	male head length	male abdomen length	mean clutch size	reproductive mode	sample size males	sample size females	source for length data	source for phylogenetic relationships
Dactyloidae	*Anolis nasofrontalis*	15.0	30.0	12.0	26.0	NA	Oviparous	1	1	Amaral 1933	NA
Dactyloidae	*Anolis noblei*	54.5	117.6	57.0	113.4	NA	Oviparous	9	8	Schettino 1999	Nicholson et al. 2005
Dactyloidae	*Anolis notopholis*	15.0	37.0	14.0	34.0	NA	Oviparous	1	1	Boulenger 1896	NA
Dactyloidae	*Anolis olssoni*	10.7	30.5	11.9	33.4	1	Oviparous	114	97	Schoener 1970	Nicholson et al. 2005
Dactyloidae	*Anolis opalinus*	11.3	29.1	14.1	35.7	1	Oviparous	232	118	Schoener 1970	Alfoldi et al. 2011
Dactyloidae	*Anolis ophiolepis*	11.4	28.1	11.8	28.0	1	Oviparous	10	20	Schettino 1999	Nicholson et al. 2005
Dactyloidae	*Anolis ortonii*	13.4	38.6	13.2	37.8	1	Oviparous	4	4	Hoogmoed 1973	Nicholson et al. 2005
Dactyloidae	*Anolis palmeri*	14.0	38.0	14.0	38.0	NA	Oviparous	1	1	Boulenger 1908	NA
Dactyloidae	*Anolis paternus*	16.0	31.8	16.2	33.2	NA	Oviparous	16	14	Schettino 1999	Nicholson et al. 2005
Dactyloidae	*Anolis peraccae*	16.0	47.0	15.0	35.0	1	Oviparous	1	1	Boulenger 1898	Castaneda and de Queiroz 2011
Dactyloidae	*Anolis pigmaequestris*	37.0	84.0	42.0	98.0	1	Oviparous	2	3	Schettino 1999	NA
Dactyloidae	*Anolis porcatus*	18.3	43.1	25.5	48.8	1	Oviparous	37	11	Schettino 1999	Nicholson et al. 2005
Dactyloidae	*Anolis porcus*	59.3	111.9	54.8	105.2	1	Oviparous	9	10	Schettino 1999	Nicholson et al. 2005
Dactyloidae	*Anolis princeps*	28.0	72.0	28.0	70.0	NA	Oviparous	1	1	Boulenger 1902	Castaneda and de Queiroz 2011
Dactyloidae	*Anolis pulchellus*	10.9	26.5	15.7	33.4	1	Oviparous	251	131	Schoener 1970	Nicholson et al. 2005, Castaneda and de Queiroz 2011
Dactyloidae	*Anolis pumilus*	10.6	28.6	10.3	23.9	NA	Oviparous	7	11	Schettino 1999	Nicholson et al. 2005
Dactyloidae	*Anolis punctatus*	20.5	56.5	23.4	61.6	1	Oviparous	9	8	Hoogmoed 1973	Nicholson et al. 2005
Dactyloidae	*Anolis quadriocellifer*	16.0	32.5	17.0	34.3	NA	Oviparous	10	10	Schettino 1999	Nicholson et al. 2005
Dactyloidae	*Anolis rejectus*	10.3	26.4	10.6	26.4	1	Oviparous	6	7	Schettino 1999	Nicholson et al. 2005
Dactyloidae	*Anolis rhombifer*	15.0	40.0	12.0	28.0	NA	Oviparous	1	1	Boulenger 1894	NA
Dactyloidae	*Anolis rubribarbus*	15.0	32.5	19.5	46.4	NA	Oviparous	10	4	Schettino 1999	Alfoldi et al. 2011
Dactyloidae	*Anolis ruizi*	15.2	42.8	16.0	40.5	NA	Oviparous	4	5	Rueda and Williams 1986	Poe et al. 2012
Dactyloidae	*Anolis sagrei*	12.5	35.3	15.8	42.3	1	Oviparous	25	21	Schettino 1999	Nicholson et al. 2005
Dactyloidae	*Anolis semilineatus*	10.1	26.8	12.2	28.6	1	Oviparous	70	43	Schoener 1970	Nicholson et al. 2005
Dactyloidae	*Anolis smallwoodi*	54.9	97.9	59.6	122.0	NA	Oviparous	12	8	Schettino 1999	Nicholson et al. 2005
Dactyloidae	*Anolis spectrum*	11.7	27.6	13.6	28.5	1	Oviparous	12	6	Schettino 1999	Nicholson et al. 2012
Dactyloidae	*Anolis stratulus*	11.3	28.5	13.4	33.3	NA	Oviparous	129	48	Schoener 1970	Alfoldi et al. 2011
Dactyloidae	*Anolis terueli*	9.5	27.7	10.6	29.4	NA	Oviparous	7	4	Navarro et al. 2001	NA
Dactyloidae	*Anolis tropidolepis*	16.0	34.0	14.0	32.0	1	Oviparous	1	1	Taylor 1956	Nicholson et al. 2005
Dactyloidae	*Anolis valencienni*	19.8	49.2	24.3	57.9	1	Oviparous	40	29	Schoener 1970	Alfoldi et al. 2011

Family	Species	female head length	female abdomen length	male head length	male abdomen length	mean clutch size	reproductive mode	sample size males	sample size females	source for length data	source for phylogenetic relationships
Dactyloidae	*Anolis vanidicus*	11.1	24.3	11.9	25.8	NA	Oviparous	10	9	Schettino 1999	Nicholson et al. 2005
Dactyloidae	*Anolis vermiculatus*	26.4	58.5	41.4	83.1	1	Oviparous	21	12	Schettino 1999	Nicholson et al. 2005
Iguanidae	*Cyclura nubila*	86.1	536.9	110.9	634.1	10.3	Oviparous	24	7	Schettino 1999	Malone et al. 2000
Leiocephalidae	*Leiocephalus barahonensis*	12.1	41.8	14.6	50.0	2.06	Oviparous	37	32	Gifford and Powell 2007	Schulte and Moreno-Roark 2010
Leiocephalidae	*Leiocephalus carinatus*	31.4	84.4	32.6	100.6	4	Oviparous	29	34	Schettino 1999	Torres-Carvajal and de Queiroz 2009
Leiocephalidae	*Leiocephalus cubensis*	21.8	84.5	27.7	78.3	2.33	Oviparous	21	21	Schettino 1999	NA
Leiocephalidae	*Leiocephalus inaguae*	16.7	52.0	21.2	68.2	4	Oviparous	9	9	Schoener et al. 1982	Torres-Carvajal and de Queiroz 2009
Leiocephalidae	*Leiocephalus loxogrammus*	15.2	49.1	17.1	54.7	NA	Oviparous	3	7	Schoener et al. 1982	Torres-Carvajal and de Queiroz 2009
Leiocephalidae	*Leiocephalus lunatus*	11.7	39.4	13.4	45.2	1.6	Oviparous	50	20	Gifford and Powell 2007	NA
Leiocephalidae	*Leiocephalus macropus*	19.5	47.8	25.0	65.5	1.875	Oviparous	40	39	Schettino 1999	NA
Leiocephalidae	*Leiocephalus personatus*	11.2	37.6	14.8	50.5	2	Oviparous	22	21	Gifford and Powell 2007	Schulte and Moreno-Roark 2010
Leiocephalidae	*Leiocephalus punctatus*	16.5	48.1	19.8	58.9	NA	Oviparous	12	16	Schoener et al. 1982	Torres-Carvajal and de Queiroz 2009
Leiocephalidae	*Leiocephalus raviceps*	15.8	46.9	19.7	54.4	1.67	Oviparous	23	19	Schettino 1999	Schulte and Moreno-Roark 2010
Leiocephalidae	*Leiocephalus schreibersii*	13.3	47.3	16.7	59.8	2.47	Oviparous	45	54	Gifford and Powell 2007	Schulte and Moreno-Roark 2010
Leiocephalidae	*Leiocephalus semilineatus*	9.85	32.8	10.9	34.6	1.78	Oviparous	68	34	Gifford and Powell 2007	Torres-Carvajal and de Queiroz 2009
Leiocephalidae	*Leiocephalus stictigaster*	19.3	57.1	25.2	62.9	1.33	Oviparous	51	48	Schettino 1999	Torres-Carvajal and de Queiroz 2009
Leiosauridae	*Diplolaemus bibronii*	20.0	47.0	30.0	55.0	7	Oviparous	1	1	Donoso-Barros 1966	NA
Leiosauridae	*Diplolaemus darwinii*	30.0	76.0	26.0	64.0	NA	Oviparous	1	1	Boulenger 1885b	Frost et al. 2001
Leiosauridae	*Diplolaemus leopardinus*	20.0	57.0	18.0	46.0	NA	Viviparous	1	1	Donoso-Barros 1966	NA
Leiosauridae	*Enyalius catenatus*	28	75.0	25.0	72.0	12	Oviparous	1	1	Boulenger 1885b	Frost et al. 2001
Leiosauridae	*Enyalius iheringii*	26	71.0	25.0	67.0	NA	NA	1	1	Boulenger 1885b	Frost et al. 2001
Leiosauridae	*Pristidactylus alvaroi*	25.0	61.0	25.0	64.0	NA	NA	1	1	Donoso-Barros 1974	Frost et al. 2001
Leiosauridae	*Pristidactylus araucanus*	29.0	74.0	29.5	73.5	NA	Oviparous	13	10	Cei et al. 2001	NA
Leiosauridae	*Pristidactylus nigroingulus*	24.0	67.0	27.0	75.0	NA	Oviparous	10	4	Cei et al. 2001	NA
Leiosauridae	*Pristidactylus*	26.0	74.0	30.5	79.5	6	Oviparous	8	5	Cei et al. 2001	Frost et al. 2001

Family	Species	female head length	female abdomen length	male head length	male abdomen length	mean clutch size	reproductive mode	sample size males	sample size females	source for length data	source for phylogenetic relationships
	scapulatus										
Leiosauridae	*Pristidactylus torquatus*	25.6	69.4	26.0	66.0	5.5	Oviparous	2	2	Donoso-Barros 1966	Frost et al. 2001
Leiosauridae	*Pristidactylus valeriae*	20.0	52.0	24.0	57.0	NA	NA	1	1	Donoso-Barros 1966	Frost et al. 2001
Leiosauridae	*Urostrophus vautieri*	21.0	71.0	17.0	50.0	9.6	Oviparous	1	1	Boulenger 1885	Townsend et al. 2011
Liolaemidae	*Liolaemus alticolor*	11.0	38.0	12.0	40.0	3.05	Viviparous	1	1	Donoso-Barros 1966	NA
Liolaemidae	*Liolaemus andinus*	20.0	71.0	18.2	62.5	5.8	Viviparous	2	2	Donoso-Barros 1966	Pincheira-Donoso et al. 2008
Liolaemidae	*Liolaemus arambarensis*	10.7	39.0	12.1	42.5	2	Oviparous	30	30	Verrastro et al. 2003	NA
Liolaemidae	*Liolaemus atacamensis*	12.0	38.0	15.0	47.0	5	Oviparous	1	1	Donoso-Barros 1966	NA
Liolaemidae	*Liolaemus audituvelatus*	12.4	45.9	13.3	43.4	2	Viviparous	4	1	Nunez and Yanez 1983	NA
Liolaemidae	*Liolaemus azarai*	10.8	37.9	11.1	43.2	NA	Oviparous	7	7	Avila 2003	NA
Liolaemidae	*Liolaemus bellii*	14.0	55.5	16.0	57.5	4.215	Viviparous	1	1	Donoso-Barros 1966	Pincheira-Donoso et al. 2008
Liolaemidae	*Liolaemus bibronii*	13.0	40.0	11.0	39.0	2.75	Oviparous	1	3	Donoso-Barros 1966	Morando et al. 2007, Olave et al. 2011, Pincheira-Donoso et al. 2008
Liolaemidae	*Liolaemus bisignatus*	15.0	48.0	22.5	72.5	4.6	Oviparous	1	1	Donoso-Barros 1966	Labra et al. 2009
Liolaemidae	*Liolaemus buergeri*	19.0	69.0	21.0	82.0	NA	Viviparous	2	2	Donoso-Barros 1966	Pincheira-Donoso et al. 2008
Liolaemidae	*Liolaemus chiliensis*	19.0	74.0	19.0	76.0	14.5	Oviparous	1	1	Donoso-Barros 1966	Pincheira-Donoso et al. 2008
Liolaemidae	*Liolaemus constanzae*	14.0	40.0	15.0	46.5	3.64	Oviparous	3	3	Donoso-Barros 1966	NA
Liolaemidae	*Liolaemus copiapensis*	15.0	43.0	19.0	55.0	4.05	Oviparous	1	1	Donoso-Barros 1966	NA
Liolaemidae	*Liolaemus curicensis*	12.0	39.0	13.0	43.0	NA	Viviparous	1	1	Donoso-Barros 1966	Pincheira-Donoso, pers. Comm, December 2011
Liolaemidae	*Liolaemus cyanogaster*	14.0	46.0	15.0	45.0	7.5	Viviparous	2	3	Donoso-Barros 1966	Labra et al. 2009
Liolaemidae	*Liolaemus dorbignyi*	15.0	55.0	16.0	49.0	4.5	Viviparous	1	1	Donoso-Barros 1966	Labra et al. 2009
Liolaemidae	*Liolaemus fabiani*	13.7	47.1	16.5	57.2	2.5	Viviparous	7	2	Yanez and Nunez 1983	Pincheira-Donoso et al. 2008, Moreno Azocar et al. 2012

Family	Species	female head length	female abdomen length	male head length	male abdomen length	mean clutch size	reproductive mode	sample size males	sample size females	source for length data	source for phylogenetic relationships
Liolaemidae	*Liolaemus fitzingerii*	20.0	69.0	23.0	67.0	NA	Oviparous	2	2	Donoso-Barros 1966	Moreno Azocar et al. 2012
Liolaemidae	*Liolaemus flavipiceus*	17.0	67.2	19.2	75.8	NA	NA	5	5	Cei and Videla 2003	NA
Liolaemidae	*Liolaemus fuscus*	10.0	36.0	12.0	38.0	2	Oviparous	2	2	Donoso-Barros 1966	Pincheira-Donoso et al. 2008
Liolaemidae	*Liolaemus gravenhorstii*	14.2	52.8	14.5	41.5	6	Viviparous	1	1	Donoso-Barros 1966	Pincheira-Donoso, pers. Comm, December 2011
Liolaemidae	*Liolaemus gununakuna*	19.2	78.3	21.8	72.3	NA	Viviparous	3	15	Avila et al. 2004	Pincheira-Donoso et al. 2008
Liolaemidae	*Liolaemus insolitus*	13.5	51.5	14.0	46.0	NA	Oviparous	5	3	Cei and Pefaur 1982	NA
Liolaemidae	*Liolaemus islugensis*	13.0	52.7	15.1	55.2	NA	Viviparous	9	10	Ortiz and Marquet 1987	NA
Liolaemidae	*Liolaemus jamesi*	17.0	65.0	17.0	60.0	5.6	Viviparous	not reported	not reported	Donoso-Barros 1966	Labra et al. 2009
Liolaemidae	*Liolaemus kingii*	13.0	43.0	16.0	49.0	3.5	Viviparous	1	1	Donoso-Barros 1966	Breitman et al. 2011
Liolaemidae	*Liolaemus kriegi*	18.0	66.5	16.0	57.0	4	Viviparous	1	1	Donoso-Barros 1966	Pincheira-Donoso et al. 2008, Moreno Azocar et al. 2012
Liolaemidae	*Liolaemus kuhlmanni*	16.0	68.0	18.5	60.5	5.06	Oviparous	2	2	Donoso-Barros 1966	NA
Liolaemidae	*Liolaemus lemniscatus*	11.0	38.5	12.2	40.2	4.5	Oviparous	2	2	Donoso-Barros 1966	Pincheira-Donoso et al. 2008
Liolaemidae	*Liolaemus leopardinus*	18.0	76.0	19.0	71.5	2.5	Viviparous	1	1	Donoso-Barros 1966	Moreno Azocar et al. 2012
Liolaemidae	*Liolaemus lineomaculatus*	14.0	48.0	17.0	51.0	3.555	Viviparous	2	1	Donoso-Barros 1966	Pincheira-Donoso et al. 2009
Liolaemidae	*Liolaemus magellanicus*	13.0	49.0	13.0	47.0	4	Viviparous	3	3	Donoso-Barros 1966	Breitman et al. 2011
Liolaemidae	*Liolaemus maldonadae*	14.5	56.5	18.2	65.4	NA	Viviparous	9	2	Nunez et al. 1991	NA
Liolaemidae	*Liolaemus monticola*	20.5	59.5	19.0	54.0	3.75	Oviparous	3	3	Donoso-Barros 1966	Pincheira-Donoso et al. 2008
Liolaemidae	*Liolaemus nigriceps*	16.0	59.0	20.0	69.0	NA	Viviparous	2	2	Donoso-Barros 1966	NA
Liolaemidae	*Liolaemus nigroviridis*	16.0	55.5	18.0	61.0	4.66	Viviparous	3	3	Donoso-Barros 1966	Labra et al. 2009
Liolaemidae	*Liolaemus nitidus*	16.0	59.0	19.5	68.5	8	Oviparous	1	1	Donoso-Barros 1966	Pincheira-Donoso et al. 2008
Liolaemidae	*Liolaemus ornatus*	15.2	53.3	14.1	48.9	7	Viviparous	1	1	Donoso-Barros 1966	Camargo et al. 2012
Liolaemidae	*Liolaemus pantherinus*	13.0	43.2	13.8	44.2	NA	Viviparous	1	2	Donoso-Barros	NA

Family	Species	female head length	female abdomen length	male head length	male abdomen length	mean clutch size	reproductive mode	sample size males	sample size females	source for length data	source for phylogenetic relationships
										1966	
Liolaemidae	*Liolaemus paulinae*	12.0	28.0	14.0	38.5	NA	Viviparous	2	1	Donoso-Barros 1966	NA
Liolaemidae	*Liolaemus pictus*	17.0	50.0	20.0	39.0	3.95	Viviparous	4	6	Donoso-Barros 1966	Pincheira-Donoso et al. 2008
Liolaemidae	*Liolaemus platei*	12.0	32.0	14.0	39.0	3	Oviparous	2	2	Donoso-Barros 1966	Labra et al. 2009
Liolaemidae	*Liolaemus pseudolemniscatus*	10.2	40.4	11.8	40.9	2.5	Oviparous	17	10	Lamborot and Ortiz 1990	Labra et al. 2009
Liolaemidae	*Liolaemus punmahuida*	17.5	74.3	18.6	77.6	NA	NA	3	4	Avila et al. 2003	Pincheira-Donoso et al. 2008
Liolaemidae	*Liolaemus schroederi*	13.0	44.5	15.2	50.0	8	Viviparous	1	1	Donoso-Barros 1966	Pincheira-Donoso, pers. Comm, December 2011
Liolaemidae	*Liolaemus signifer*	12.0	44.0	14.0	45.0	6.1	Viviparous	1	1	Donoso-Barros 1966	Pincheira-Donoso et al. 2008
Liolaemidae	*Liolaemus talampaya*	16.4	60.4	20.1	65.4	NA	NA	3	3	Avila et al. 2004	Pincheira-Donoso et al. 2008
Liolaemidae	*Liolaemus tenuis*	13.0	41.0	14.0	44.0	5.05	Oviparous	6	5	Donoso-Barros 1966	Pincheira-Donoso et al. 2008
Liolaemidae	*Liolaemus valdesianus*	18.5	66.5	21.0	67.0	2.5	Viviparous	1	1	Donoso-Barros 1966	NA
Liolaemidae	*Liolaemus walkeri*	11.0	34.0	12.0	37.0	NA	Viviparous	1	1	Donoso-Barros 1966	Pincheira-Donoso et al. 2008
Liolaemidae	*Liolaemus zapallarensis*	19.0	62.0	22.0	62.0	6.905	Oviparous	1	1	Donoso-Barros 1966	NA
Liolaemidae	*Phymaturus calcogaster*	18.0	73.0	18.0	74.0	NA	Viviparous	7	3	Scolaro and Cei 2005	Lobo et al. 2012, Morando et al. 2013
Phrynosomatidae	*Phrynosoma cerroense*	16	68.0	16	54.0	NA	NA	1	3	Reeve 1952	Wiens et al. 2010
Phrynosomatidae	*Phrynosoma ditmarsi*	18	60.0	19	58.0	7.5	Viviparous	1	2	Reeve 1952	Wiens et al. 2010
Phrynosomatidae	*Phrynosoma taurus*	15	51.0	16	55.0	13	Viviparous	1	3	Reeve 1952	Wiens et al. 2010
Phrynosomatidae	*Sceloporus bulleri*	22	69.0	26	70.0	NA	Viviparous	1	1	Boulenger 1894	Wiens et al. 2010
Phrynosomatidae	*Sceloporus gadoviae*	12.0	38.4	13.5	44.0	3.75	Oviparous	33	72	Ramirez-Bautista et al. 2005	Wiens et al. 2010
Phrynosomatidae	*Sceloporus grammicus*	10.5	44.8	11.2	45.9	4.755	Viviparous	67	118	Jimenez-Cruz et al. 2005	Leache 2010
Phrynosomatidae	*Sceloporus heterolepis*	14	46.0	16	44.0	NA	Viviparous	1	1	Boulenger 1894	Leache 2010
Phrynosomatidae	*Sceloporus jalapae*	9.8	36.2	11.3	38.0	5.6	Oviparous	17	24	Ramirez-Bautista et al. 2005	Wiens et al. 2010
Phrynosomatidae	*Sceloporus melanorhinus*	28	77.0	25	73.0	7.7	Oviparous	1	1	Boulenger 1894	Wiens et al. 2010
Polychrotidae	*Polychrus liogaster*	33.0	117.0	31.0	104.0	10	Oviparous	1	1	Boulenger 1908	Schlute et al. 2003

Family	Species	female head length	female abdomen length	male head length	male abdomen length	mean clutch size	reproductive mode	sample size males	sample size females	source for length data	source for phylogenetic relationships
Polychrotidae	*Polychrus marmoratus*	32.0	110.0	26.0	79.0	8.1	Oviparous	1	1	Boulenger 1885	Schlute et al. 2003
Tropiduridae	*Microlophus atacamensis*	16.5	72.5	20.5	91.5	4.5	Oviparous	2	1	Donoso-Barros 1966	Benavides et al. 2007
Tropiduridae	*Microlophus peruvianus*	22.0	77.0	25.0	93.0	3.5	Oviparous	1	1	Donoso-Barros 1966	Benavides et al. 2007
Tropiduridae	*Microlophus quadrivittatus*	16.5	67.5	18.0	78.0	3.16	Oviparous	3	3	Donoso-Barros 1966	Benavides et al. 2007
Tropiduridae	*Microlophus tarapacensis*	11.6	74.4	16.0	66.5	4.5	Oviparous	1	1	Donoso-Barros 1966	NA
Tropiduridae	*Microlophus theresioides*	19.0	87.5	22.0	86.0	2.8	Oviparous	2	2	Donoso-Barros 1966	Benavides et al. 2007
Tropiduridae	*Microlophus tigris*	18.0	56.5	28.0	61.0	3.4	Oviparous	1	1	Donoso-Barros 1966	Benavides et al. 2007
Tropiduridae	*Tropidurus hispidus*	20.7	68.3	25.5	83.5	6.85	Oviparous	32	44	Vitt and de Carvalho 1995	Frost et al. 2001
Tropiduridae	*Tropidurus itambere*	16.1	53.9	19.6	60.4	3.625	Oviparous	110	84	Faria and Araujo 2004	Frost et al. 2001
Tropiduridae	*Tropidurus oreadicus*	18.6	63.4	23.1	71.9	4.07	Oviparous	83	53	Faria and Araujo 2004	Frost et al. 2001
Tropiduridae	*Tropidurus torquatus*	19.7	67.8	24.3	77.6	4.71	Oviparous	129	170	Pinto et al. 2005	Frost et al. 2001
Gymnophthalmidae	*Acratosaura mentalis*	11.0	48.0	11.0	39.0	NA	NA	1	1	Amaral 1933	Rodrigues et al. 2009
Gymnophthalmidae	*Alopoglossus copii*	16	58.0	13	43.0	2	Oviparous	1	1	Boulenger 1885b	Castoe et al. 2004
Gymnophthalmidae	*Anadia hobarti*	16.4	66.6	20.6	66.2	2	Oviparous	8	2	La Marca and Garcia-Perez 1990	NA
Gymnophthalmidae	*Anadia marmorata*	19	63.0	25	68.0	NA	NA	1	1	Boulenger 1885b	NA
Gymnophthalmidae	*Arthrosaura kockii*	12.2	40.8	14.6	39.4	2	Oviparous	17	26	Hoogmoed 1973	Castoe et al. 2004
Gymnophthalmidae	*Arthrosaura synaptolepis*	8.7	37.4	10.8	40.2	NA	NA	1	2	Donnelly et al. 1992	NA
Gymnophthalmidae	*Arthrosaura versteegii*	14.4	53.6	16.8	54.2	NA	NA	6	6	Hoogmoed 1973	NA
Gymnophthalmidae	*Bachia flavescens*	7.5	72.5	7.7	65.3	1	Oviparous	14	18	Hoogmoed 1973	Kohlsdorf et al. 2010
Gymnophthalmidae	*Cercosaura argulus*	10.3	30.2	11.6	36.4	1.5	Oviparous	4	3	Hoogmoed 1973	Doan 2003
Gymnophthalmidae	*Cercosaura goeleti*	13.2	41.8	12.8	37.2	1	Oviparous	1	2	Myers et al. 1996	NA
Gymnophthalmidae	*Cercosaura manicata*	17	54.0	14	40.0	2	Oviparous	1	1	Boulenger 1885b	Doan 2003
Gymnophthalmidae	*Cercosaura ocellata*	13.4	44.1	15.4	41.6	1.5	Oviparous	10	5	Hoogmoed 1973	Doan 2003
Gymnophthalmidae	*Cercosaura oshaughnessyi*	13.0	32.0	12.0	35.0	1.5	Oviparous	1	1	Boulenger 1885b	Doan 2003
Gymnophthalmidae	*Colobodactylus taunayi*	12.0	53.0	11.0	39.0	NA	NA	2	2	Amaral 1933	Rodrigues et al. 2009
Gymnophthalmidae	*Euspondylus*	11.5	42.0	12.0	37.0	1.5	Oviparous	7	5	Mijares-Urrutia et	NA

Family	Species	female head length	female abdomen length	male head length	male abdomen length	mean clutch size	reproductive mode	sample size males	sample size females	source for length data	source for phylogenetic relationships
	acutirostris									al. 2000	
Gymnophthalmidae	*Euspondylus spinalis*	13	53.0	17.0	53.0	NA	NA	1	1	Boulenger 1911	Doan 2003
Gymnophthalmidae	*Gymnophthalmus lineatus*	7	34.0	6.5	24.5	NA	NA	1	1	Boulenger 1885b	NA
Gymnophthalmidae	*Gymnophthalmus speciosus*	7.5	33.5	7	23.0	1.865	Oviparous	1	1	Boulenger 1885b	Warne Charnov
Gymnophthalmidae	*Iphisa elegans*	11.4	47.6	12.8	46.2	1.5	Oviparous	7	4	Hoogmoed 1973	Castoe et al. 2004
Gymnophthalmidae	*Leposoma guianense*	8	31.0	9.3	27.7	NA	Oviparous	22	34	Hoogmoed 1973	Pellegrino et al. 2011
Gymnophthalmidae	*Neusticurus bicarinatus*	23.1	72.9	19.4	97.6	2	Oviparous	28	30	Hoogmoed 1973	Doan and Castoe 2005
Gymnophthalmidae	*Neusticurus rudis*	16.9	47.1	21.4	56.6	2	Oviparous	8	4	Hoogmoed 1973	Doan and Castoe 2005
Gymnophthalmidae	*Pholidobolus affinis*	14	51.0	13	39.0	2	Oviparous	1	1	Boulenger 1885b	Castoe et al. 2004
Gymnophthalmidae	*Pholidobolus montium*	11	46.0	11	40.0	2	Oviparous	1	1	Boulenger 1885b	NA
Gymnophthalmidae	*Potamites strangulatus*	11	67.0	17	81.0	NA	NA	1	1	Boulenger 1885b	Doan et al. 2005
Gymnophthalmidae	*Riama columbiana*	15	57.0	16	58.0	NA	NA	1	1	Andersson 1914	NA
Gymnophthalmidae	*Tretioscincus agilis*	12.7	49.3	13.3	45.7	NA	Oviparous	5	15	Hoogmoed 1973	Castoe et al. 2004
Lacertidae	*Acanthodactylus boskianus*	15	51.0	18	57.0	5	Oviparous	1	1	Boulenger 1887	Harris and Arnold 2000, Harris 2008
Lacertidae	*Acanthodactylus boueti*	12.8	46.2	8.0	45.0	NA	Oviparous	1	2	Chabanaud 1917	NA
Lacertidae	*Acanthodactylus erythrurus*	17	60.0	16	54.0	3.95	Oviparous	1	1	Boulenger 1887	Mayer & Pavlicev 2007
Lacertidae	*Acanthodactylus guineensis*	13	43.0	14	44.0	NA	Oviparous	1	2	Monard 1949	NA
Lacertidae	*Acanthodactylus micropholis*	14	46.0	15	47.0	3	Oviparous	1	1	Boulenger 1887	NA
Lacertidae	*Acanthodactylus pardalis*	16	61.0	15	55.0	3.65	Oviparous	1	1	Boulenger 1887	Mayer & Pavlicev 2007, Harris and Arnold 2000
Lacertidae	*Acanthodactylus scutellatus*	13	44.0	16	47.0	2.6	Oviparous	1	1	Boulenger 1887	Mayer & Pavlicev 2007, Harris and Arnold 2000
Lacertidae	*Adolfus africanus*	16.0	47.0	16.5	43.5	NA	Oviparous	86	47	Schmidt et al. 1919	Greenbaum et al. 2011
Lacertidae	*Adolfus jacksoni*	15.0	55.0	21.0	55.0	3.5	Oviparous	4	6	Sternfeld 1912	Greenbaum et al. 2011
Lacertidae	*Algyroides fitzingeri*	8	35.0	9	28.0	2.5	Oviparous	1	1	Boulenger 1887	Pavlicev & Mayer 2009
Lacertidae	*Anatololacerta danfordi*	13	39.0	18	57.0	NA	Oviparous	1	1	Boulenger 1887	Arnold et al. 2007
Lacertidae	*Congolacerta vauereselli*	13.5	47.5	14.0	39.0	3	Oviparous	5	3	Sternfeld 1912	Mayer & Pavlicev 2007, Arnold 1989
Lacertidae	*Dalmatolacerta oxycephala*	13.2	39.7	15.1	43.3	3.4	Oviparous	34	13	Verwaijen et al. 2002	Arnold et al. 2007
Lacertidae	*Eremias argus*	13	49.0	13	44.0	3	Oviparous	1	1	Boulenger 1887	Guo et al. 2011

Family	Species	female head length	female abdomen length	male head length	male abdomen length	mean clutch size	reproductive mode	sample size males	sample size females	source for length data	source for phylogenetic relationships
Lacertidae	*Eremias arguta*	16	54.0	18	55.0	3.75	Oviparous	1	1	Boulenger 1887	Guo et al. 2011
Lacertidae	*Eremias fasciata*	12	42.0	12	40.0	NA	Oviparous	1	1	Boulenger 1887	NA
Lacertidae	*Eremias grammica*	14	42.0	17	49.0	1.5	Oviparous	1	1	Boulenger 1887	Guo et al. 2011
Lacertidae	*Eremias montanus*	13.6	39.3	15.5	43.0	NA	Oviparous	1	1	Rastegar-Pouyani and Rastegar-Pouyani 2001	Rastegar Pouyani et al. 2010
Lacertidae	*Eremias velox*	17	55.0	17	53.0	4	Oviparous	1	1	Boulenger 1887	Guo et al. 2011
Lacertidae	*Gallotia galloti*	28	84.0	30	85.0	3.825	Oviparous	1	1	Boulenger 1887	Arnold et al. 2007
Lacertidae	*Gastropholis echinata*	22.0	78.0	19.0	57.0	NA	Oviparous	1	1	Boulenger 1887	Harris et al. 1999, Arnold 1989
Lacertidae	*Heliobolus lugubris*	14.4	42.6	15.5	40.5	3.63	Oviparous	not reported	not reported	Fitzsimons 1943	Mayer & Pavlicev 2007
Lacertidae	*Heliobolus nitida*	14.0	51.0	15.0	46.0	NA	Oviparous	14	16	Schmidt et al. 1919	Mayer & Pavlicev 2007
Lacertidae	*Holaspis guentheri*	11.0	40.0	12.2	39.8	3	Oviparous	5	4	Schmidt et al. 1919	Greenbaum et al. 2011
Lacertidae	*Iberolacerta monticola*	19.6	43.1	22.7	38.4	6.3	Oviparous	45	45	Brana 1996	Arnold et al. 2007
Lacertidae	*Ichnotropis capensis*	14.0	52.0	15.0	46.0	6.135	Oviparous	1	1	Boulenger 1887	Edwards et al. 2012
Lacertidae	*Ichnotropis squamulosa*	17.5	57.5	17.8	51.7	4	Oviparous	not reported	not reported	FitzSimons 1943	Edwards et al. 2012
Lacertidae	*Lacerta agilis*	19	71.0	21	70.0	7.65	Oviparous	2	2	Boulenger 1887	Arnold et al. 2007, Godhino et al. 2005
Lacertidae	*Lacerta schreiberi*	32.2	69.7	36.7	65.7	13.7	Oviparous	15	24	Brana 1996	Arnold et al. 2007, Godhino et al. 2005
Lacertidae	*Lacerta strigata*	19	70.0	29	96.0	10.5	Oviparous	1	1	Boulenger 1887	Arnold et al. 2007, Godhino et al. 2005
Lacertidae	*Lacerta trilineata*	26	89.0	36	119.0	16.5	Oviparous	1	1	Boulenger 1887	Arnold et al. 2007, Godhino et al. 2005
Lacertidae	*Lacerta viridis*	24.0	96.0	28.0	82.0	8.05	Oviparous	1	1	Boulenger 1887	Arnold et al. 2007, Godhino et al. 2005
Lacertidae	*Latastia longicaudata*	20	63.0	24	83.0	6.8	Oviparous	1	1	Boulenger 1887	Mayer & Pavlicev 2007
Lacertidae	*Meroles ctenodactylus*	22.4	67.6	24.5	60.5	6	Oviparous	not reported	not reported	FitzSimons 1943	Lamb & Bauer 2003
Lacertidae	*Meroles cuneirostris*	14.0	36.0	17.0	41.0	2.9	Oviparous	not reported	not reported	Fitzsimons 1943	Lamb & Bauer 2003
Lacertidae	*Meroles knoxii*	14.6	48.4	16.7	51.3	4	Oviparous	not reported	not reported	Fitzsimons 1943	Edwards et al. 2012, Engleder et al. 2013
Lacertidae	*Meroles suborbitalis*	17.0	54.0	17.0	53.0	4.105	Oviparous	not reported	not reported	Fitzsimons 1943	Edwards et al. 2012, Engleder et al. 2013
Lacertidae	*Mesalina ayunensis*	11.0	27.5	12.0	31.5	NA	Oviparous	1	1	Arnold 1980	NA

Family	Species	female head length	female abdomen length	male head length	male abdomen length	mean clutch size	reproductive mode	sample size males	sample size females	source for length data	source for phylogenetic relationships
Lacertidae	*Mesalina guttulata*	11.0	44.0	13.0	37.0	4.3	Oviparous	1	1	Boulenger 1887	Arnold et al. 2007, Mayer & Pavlicev 2007, Joger and Mayer 2002, Kapli et al. 2008
Lacertidae	*Mesalina rubropunctata*	10	35.0	14	39.0	4.5	Oviparous	1	1	Boulenger 1887	Arnold et al. 2007, Mayer & Pavlicev 2007, Joger and Mayer 2002, Kapli et al. 2008
Lacertidae	*Nucras lalandii*	17.0	82.0	18.6	80.4	7	Oviparous	not reported	1	Boulenger 1887	Mayer & Pavlicev 2007
Lacertidae	*Nucras tessellata*	19.0	75.0	18.0	62.0	3.96	Oviparous	not reported	1	Boulenger 1887	Mayer & Pavlicev 2007
Lacertidae	*Omanosaura cyanura*	13	36.5	14.3	36.4	3	Oviparous	1	1	Arnold 1972	Mayer & Pavlicev 2007
Lacertidae	*Omanosaura jayakari*	35.9	125.1	39.8	121.2	6	Oviparous	2	1	Bischoff 1981	Mayer & Pavlicev 2007
Lacertidae	*Ophisops beddomei*	7	26.0	8	29.0	NA	Oviparous	1	1	Boulenger 1887	Arnold et al. 2007, Mayer & Pavlicev 2007
Lacertidae	*Ophisops elegans*	10	40.0	12	41.0	4	Oviparous	1	1	Boulenger 1887	Arnold et al. 2007, Mayer & Pavlicev 2007
Lacertidae	*Ophisops jerdonii*	9	39.0	10	33.0	4.5	Oviparous	2	2	Boulenger 1887	Arnold et al. 2007, Mayer & Pavlicev 2007
Lacertidae	*Ophisops leschenaultii*	13	42.0	13	36.0	6	Oviparous	1	1	Boulenger 1887	Arnold et al. 2007, Mayer & Pavlicev 2007
Lacertidae	*Ophisops occidentalis*	10	35.0	11	33.0	3.5	Oviparous	1	1	Boulenger 1887	Arnold et al. 2007, Mayer & Pavlicev 2007
Lacertidae	*Pedioplanis burchelli*	13.0	49.0	13.0	44.0	4.5	Oviparous	1	1	Boulenger 1887	Makokha et al. 2007, Conradie et al. 2012
Lacertidae	*Pedioplanis lineoocellata*	13.4	41.6	13.7	43.3	6.87	Oviparous	not reported	not reported	FitzSimons 1943	Makokha et al. 2007, Conradie et al. 2012, Engleder et al. 2013
Lacertidae	*Pedioplanis namaquensis*	12.0	39.5	13.4	39.1	3.85	Oviparous	not reported	not reported	FitzSimons 1943	Makokha et al. 2007, Conradie et al. 2012
Lacertidae	*Pedioplanis undata*	12.6	39.4	14.0	40.0	1	Oviparous	not reported	not reported	FitzSimons 1943	Makokha et al. 2007, Conradie et al. 2012, Engleder et al. 2013
Lacertidae	*Phoenicolacerta laevis*	15	56.0	21	59.0	5.3	Oviparous	1	1	Boulenger 1887	Karin Tamar, Thesis
Lacertidae	*Podarcis bocagei*	19.1	45.4	22.9	41.6	3.4	Oviparous	97	72	Kaliontzopoulou et al. 2008	Kaliontzopoulou et al. 2011
Lacertidae	*Podarcis hispanicus*	15.3	32.3	18.1	32.7	2.85	Oviparous	32	35	Brana 1996	Kaliontzopoulou et al. 2011
Lacertidae	*Podarcis melisellensis*	11.5	39.8	14.9	46.0	4.3	Oviparous	25	13	Verwaijen et al. 2002	Arnold et al. 2007, Poulakakis et al. 2005
Lacertidae	*Podarcis muralis*	17.7	39.4	20.5	36.7	5.48	Oviparous	39	42	Brana 1996	Arnold et al. 2007, Harris et al. 2005

Family	Species	female head length	female abdomen length	male head length	male abdomen length	mean clutch size	reproductive mode	sample size males	sample size females	source for length data	source for phylogenetic relationships
Lacertidae	*Podarcis peloponnesiacus*	16	61.0	19	57.0	3.48	Oviparous	1	1	Boulenger 1887	Arnold et al. 2007, Poulakakis et al. 2005
Lacertidae	*Podarcis tauricus*	14	49.0	14	42.0	4.785	Oviparous	1	1	Boulenger 1887	Arnold et al. 2007, Poulakakis et al. 2005
Lacertidae	*Podarcis tiliguerta*	16	53.0	20	60.0	9	Oviparous	1	1	Boulenger 1887	Arnold et al. 2007
Lacertidae	*Psammodromus algirus*	16	56.0	20	56.0	5.35	Oviparous	1	1	Boulenger 1887	Carranza et al. 2006, Arnold et al. 2007
Lacertidae	*Psammodromus blanci*	9	31.0	10	28.0	3	Oviparous	1	1	Boulenger 1887	Carranza et al. 2006, Arnold et al. 2007
Lacertidae	*Psammodromus hispanicus*	10	36.0	12	38.0	3.25	Oviparous	1	1	Boulenger 1887	Carranza et al. 2006, Arnold et al. 2007
Lacertidae	*Psammodromus jeanneae*	16.7	59.3	17.9	57.1	NA	Oviparous	13	10	Busack et al. 2006	NA
Lacertidae	*Psammodromus manuelae*	16.7	62.3	19.1	57.9	5.45	Oviparous	25	25	Busack et al. 2006	NA
Lacertidae	*Psammodromus microdactylus*	11	35.0	11	32.0	NA	Oviparous	1	1	Boulenger 1887	NA
Lacertidae	*Pseuderemias erythrosticta*	13	34.0	15	37.0	NA	Oviparous	1	1	Boulenger 1892	Mayer & Pavlicev 2007
Lacertidae	*Scelarcis perspicillata*	11	42.0	14	44.0	2.5	Oviparous	1	1	Boulenger 1887	Arnold et al. 2007
Lacertidae	*Takydromus haughtonianus*	16.5	62.5	15.5	47.9	NA	Oviparous	2	1	Chou et al. 2001	Lue and Lin 2008
Lacertidae	*Takydromus sauteri*	17.6	58.9	17.8	55.9	2	Oviparous	59	63	Huang 2006	Lue and Lin 2008
Lacertidae	*Teira dugesii*	15	49.0	17	57.0	2.5	Oviparous	1	1	Boulenger 1887	Arnold et al. 2007
Lacertidae	*Timon lepidus*	44.7	90.6	51.0	89.8	13.7	Oviparous	12	10	Brana 1996	Ahmadzadeh et al. 2012
Lacertidae	*Tropidosaura gularis*	13.5	47.0	16.5	45.5	6	Oviparous	not reported	not reported	FitzSimons 1943	Engleder et al. 2013
Lacertidae	*Tropidosaura montana*	10	39.0	12	45.0	4.5	Oviparous	1	1	Boulenger 1887	Engleder et al. 2013
Lacertidae	*Zootoca vivipara*	12.0	61.0	12.0	41.0	6.07	Viviparous	1	1	Boulenger 1887	Arnold et al. 2007
Teiidae	*Ameiva ameiva*	37.2	121.8	49.1	140.9	5.05	Oviparous	48	27	Vitt and de Carvalho 1995	Hower and Hedges 2003, Giugliano et al. 2007, Reeder et al. 2002,
Teiidae	*Ameiva auberi*	15.0	45.0	20.0	67.0	1	Oviparous	1	1	Boulenger 1885b	Hower and Hedges 2003
Teiidae	*Ameiva dorsalis*	23.0	67.0	28.0	84.0	NA	Oviparous	1	1	Boulenger 1885b	Hower and Hedges 2003
Teiidae	*Ameiva major*	27.0	93.0	33.0	105.0	NA	Oviparous	1	1	Boulenger 1885b	NA
Teiidae	*Ameivula littoralis*	20.6	54.2	26.0	55.8	NA	Oviparous	77	43	Rocha et al. 2000	Ocellifer group (Uetz 2011)
Teiidae	*Ameivula ocellifera*	16.0	48.0	25.0	60.0	2.15	Oviparous	1	1	Boulenger 1885b	Giugliano et al. 2007

Family	Species	female head length	female abdomen length	male head length	male abdomen length	mean clutch size	reproductive mode	sample size males	sample size females	source for length data	source for phylogenetic relationships
Teiidae	*Aspidoscelis deppei*	16.5	49.8	19.8	56.5	2.295	Oviparous	17	9	Mata-Silva and Ramirez-Bautista 2005	Reeder et al. 2002
Teiidae	*Aspidoscelis guttata*	21.9	65.4	20.1	55.9	4.5	Oviparous	3	9	Mata-Silva and Ramirez-Bautista 2005	Reeder et al. 2002
Teiidae	*Aspidoscelis laredoensis*	13.0	49.0	15.0	49.0	2.6	Oviparous	1	1	Boulenger 1885b	Reeder et al. 2002
Teiidae	*Aspidoscelis mexicana*	10.5	63.5	13.5	79.5	NA	Oviparous	1	1	Boulenger 1885b	NA
Teiidae	*Aspidoscelis sackii*	21.0	66.0	24.0	76.0	6.067	Oviparous	1	1	Boulenger 1885b	NA
Teiidae	*Aspidoscelis sexlineata*	17.0	55.0	19.0	59.0	3.7	Oviparous	1	1	Boulenger 1885b	Reeder et al. 2002
Teiidae	*Aurivela tergolaevigata*	14.5	43.5	14.5	38.0	NA	Oviparous	3	3	Cabrera 2004	Harvey et al. 2012
Teiidae	*Callopistes maculatus*	31.0	117.0	42.0	131.0	6	Oviparous	2	2	Donoso-Barros 1966	Giugliano et al. 2007
Teiidae	*Cnemidophorus lemniscatus*	17.0	54.0	23.0	65.0	2.05	Oviparous	1	1	Boulenger 1885b	Reeder et al. 2002
Teiidae	*Contomastix vacariensis*	13.4	54.1	12.3	41.7	4.15	Oviparous	2	8	Feltrim and De Lema 2000	Feltrim and De Lema 2000
Teiidae	*Holcosus undulatus*	20.0	63.0	27.0	75.0	4.3	Oviparous	1	1	Boulenger 1885b	Hower and Hedges 2003
Teiidae	*Kentropyx altamazonica*	22.5	82.5	25.8	88.2	5.45	Oviparous	not reported	not reported	Gallagher and Dixon 1992	Wereneck et al. 2009
Teiidae	*Kentropyx calcarata*	22.0	61.0	26.0	65.0	4.5	Oviparous	72	47	Boulenger 1885b	Wereneck et al. 2009
Teiidae	*Kentropyx paulensis*	15.5	60.5	17.5	59.5	3.9	Oviparous	not reported	not reported	Gallagher and Dixon 1992	Wereneck et al. 2009
Teiidae	*Kentropyx pelviceps*	31.0	87.0	31.0	82.0	5.17	Oviparous	1	1	Boulenger 1885b	Wereneck et al. 2009
Teiidae	*Kentropyx striata*	23.4	81.6	28.9	89.1	4.92	Oviparous	48	27	Vitt and de Carvalho 1995	Wereneck et al. 2009
Teiidae	*Kentropyx vanzoi*	13.0	41.0	16.1	48.9	3.31	Oviparous	not reported	not reported	Gallagher and Dixon 1992	Wereneck et al. 2009
Teiidae	*Kentropyx viridistriga*	20.0	87.0	19.6	72.4	7.33	Oviparous	not reported	not reported	Gallagher and Dixon 1992	Wereneck et al. 2009
Teiidae	*Medopheos edracantha*	13.0	41.0	13.0	37.0	NA	Oviparous	1	1	Boulenger 1885b	NA
Teiidae	*Teius teyou*	24.0	94.0	24.0	76.0	4.795	Oviparous	1	1	Boulenger 1885b	Reeder et al. 2002
Cordylidae	*Cordylus cordylus*	20.9	53.5	22.8	53.2	2	Viviparous	155	221	Cordes et al. 1995	Stanley et al. 2011
Cordylidae	*Cordylus jonesii*	23.0	59.0	23.0	50.0	2.5	Viviparous	not reported	not reported	FitzSimons 1943	Stanley et al. 2011, Greenbaum et al. 2012
Cordylidae	*Cordylus meculae*	25.0	69.0	22.9	60.1	2.5	Viviparous	3	6	Branch et al. 2005	Stanley et al. 2011, Greenbaum et al. 2012
Cordylidae	*Cordylus niger*	20.3	54.1	22.8	56.0	1	Viviparous	63	107	Cordes et al. 1995	Stanley et al. 2011
Cordylidae	*Cordylus rhodesianus*	23.0	57.0	24.5	56.5	NA	Viviparous	not	not	FitzSimons 1943	Stanley et al. 2011,

Family	Species	female head length	female abdomen length	male head length	male abdomen length	mean clutch size	reproductive mode	sample size males	sample size females	source for length data	source for phylogenetic relationships
								reported	reported		Greenbaum et al. 2012
Cordylidae	*Cordylus tropidosternum*	23.5	64.5	24.2	61.8	2.5	Viviparous	not reported	not reported	FitzSimons 1943	Greenbaum et al. 2012
Cordylidae	*Cordylus vittifer*	24.0	65.0	25.0	58.0	2.5	Viviparous	not reported	not reported	FitzSimons 1943	Stanley et al. 2011, Greenbaum et al. 2012
Cordylidae	*Hemicordylus capensis*	30.5	67.5	31.0	69.0	2	Viviparous	not reported	not reported	Fitzsimons 1943	Stanley et al. 2011
Cordylidae	*Karusasaurus jordani*	32.2	94.8	32.7	92.3	NA	Viviparous	not reported	not reported	Fitzsimons 1943	Stanley et al. 2011
Cordylidae	*Karusasaurus polyzonus*	25.5	84.5	30.3	82.7	2.14	Viviparous	not reported	not reported	Fitzsimons 1943	Stanley et al. 2011
Cordylidae	*Namazonurus campbelli*	19.7	59.3	20.0	56.0	NA	Viviparous	not reported	not reported	Fitzsimons 1943	Stanley et al. 2011
Cordylidae	*Namazonurus namaquensis*	20.0	62.0	18.5	54.5	2.5	Viviparous	not reported	not reported	FitzSimons 1943	Frost et al. 2001
Cordylidae	*Namazonurus peersi*	22.0	59.0	22.8	77.2	NA	Viviparous	not reported	not reported	FitzSimons 1943	Stanley et al. 2011
Cordylidae	*Ninurta coeruleopunctatus*	20.5	58.5	23.0	57.0	3.5	Viviparous	not reported	not reported	Fitzsimons 1943	Stanley et al. 2011
Cordylidae	*Platysaurus capensis*	17.6	57.4	19.0	59.0	2	Oviparous	not reported	not reported	FitzSimons 1943	Scott et al. 2004. Stanley et al. 2011
Cordylidae	*Platysaurus guttatus*	20.8	63.2	23.3	64.7	2	Oviparous	not reported	not reported	FitzSimons 1943	close to the intermedius group (synonymized with many species in it, Uetz 2009)
Cordylidae	*Platysaurus intermedius*	16.7	52.3	19.5	62.5	2	Oviparous	not reported	not reported	FitzSimons 1943	Scott et al. 2004. Stanley et al. 2011
Cordylidae	*Platysaurus minor*	14.4	46.6	15.0	50.0	2	Oviparous	not reported	not reported	FitzSimons 1943	Scott et al. 2004. Stanley et al. 2011
Cordylidae	*Pseudocordylus melanotus*	37.0	97.0	44.4	106.6	3.45	Viviparous	not reported	not reported	FitzSimons 1943	Stanley et al. 2011
Cordylidae	*Pseudocordylus microlepidotus*	37.3	98.7	40.0	94.0	4	Viviparous	not reported	not reported	FitzSimons 1943	Stanley et al. 2011
Cordylidae	*Smaug giganteus*	44.0	132.0	46.0	134.0	2.1	Viviparous	not reported	not reported	Fitzsimons 1943	Stanley et al. 2011
Cordylidae	*Smaug warreni*	35.6	91.4	36.0	102.0	5	Viviparous	not reported	not reported	Fitzsimons 1943	Stanley et al. 2011
Gerrhosauridae	*Gerrhosaurus flavigularis*	24.2	108.8	22.8	98.2	5	Oviparous	not reported	not reported	FitzSimons 1943	Lamb et al. 2003
Gerrhosauridae	*Gerrhosaurus nigrolineatus*	28.0	103.0	31.0	107.0	6.5	Oviparous	12	14	Schmidt et al. 1919	Hugall et al. 2007, Townsend et al. 2004, Lamb et al. 2003
Gerrhosauridae	*Tetradactylus*	7.6	58.9	9.4	56.1	2	Oviparous	1	1	Salvidio et al. 2004	Lamb et al. 2003

Family	Species	female head length	female abdomen length	male head length	male abdomen length	mean clutch size	reproductive mode	sample size males	sample size females	source for length data	source for phylogenetic relationships
	udzungwensis										
Scincidae	*Cryptoblepharus boutonii*	10.3	39.2	9.0	37.5	1.93	Oviparous	1	5	Donoso-Barros 1966	Schmitz et al. 2005
Scincidae	*Cryptoblepharus eximius*	8.1	32.2	8.0	29.7	1	Oviparous	33	33	Zug 1991	Schmitz et al. 2005
Scincidae	*Emoia campbelli*	18.5	74.4	20.3	69.5	2	Oviparous	4	1	Zug and Ineich 1995	Reeder 2003
Scincidae	*Emoia concolor*	19.8	57.5	20.0	65.5	2	Oviparous	27	15	Zug and Ineich 1995	Reeder 2003, Hamilton 2008
Scincidae	*Emoia cyanura*	11.4	41.7	12.9	42.6	1.98	Oviparous	81	55	Zug 1991	Hamilton 2008
Scincidae	*Emoia impar*	10.7	36.7	11.1	36.3	NA	Oviparous	30	32	Zug 1991	Hamilton 2008
Scincidae	*Emoia nigra*	23.9	83.6	25.5	86.6	2.61	Oviparous	10	8	Zug and Ineich 1995	Hamilton 2008
Scincidae	*Emoia parkeri*	11.7	40.3	12.4	37.6	2	Oviparous	5	8	Zug and Ineich 1995	Reeder 2003, Hamilton 2008
Scincidae	*Emoia tongana*	14.4	51.0	15.5	50.2	2	Oviparous	1	3	Zug and Ineich 1995	Reeder 2003, Hamilton 2008
Scincidae	*Emoia trossula*	21.1	79.0	24.2	82.3	3.5	Oviparous	51	30	Zug and Ineich 1995	Zug et al. 2012
Scincidae	*Eutropis longicaudata*	28.4	98.4	29.5	100.9	6.85	Oviparous	71	82	Huang 2006b	Datta-Roy et al. 2012
Scincidae	*Eutropis macularia*	14.5	43.5	15.0	42.0	2	Oviparous	1	1	Taylor 1963	Datta-Roy et al. 2012
Scincidae	*Lacertaspis reichenowi*	10.0	35.0	10.0	36.0	NA	NA	2	2	Schmidt et al. 1919	Jesus et al. 2007
Scincidae	*Leiolopisma alazon*	9.2	38.9	12.4	48.0	NA	NA	3	2	Zug 1991	NA
Scincidae	*Lepidothyris fernandi*	23.0	99.0	32.5	132.5	10	Oviparous	7	3	Schmidt et al. 1919	Wagner et al. 2009
Scincidae	*Leptosiaphos graueri*	19.0	56.0	14.5	41.5	2	Oviparous	1	4	Sternfeld 1912	Schmitz et al. 2005, Jesus et al. 2007
Scincidae	*Leptosiaphos hackarsi*	9.0	52.0	9.0	50.0	NA	NA	not reported	not reported	de Witte 1941	Schmitz et al. 2005, Jesus et al. 2007
Scincidae	*Lipinia noctua*	8.6	38.7	9.2	34.0	1.75	Viviparous	28	32	Zug 1991	Linkem et al. 2011
Scincidae	*Lissolepis coventryi*	17.5	80.5	19.0	79.0	2.75	Viviparous	28	19	Clemann et al. 2004	Warne Charnov
Scincidae	*Lygosoma sundevalli*	13.5	96.5	15.5	118.5	NA	Oviparous	8	6	Sternfeld 1912	NA
Scincidae	*Mabuya mabouya*	17.0	71.0	16.0	60.0	4.51	Viviparous	10	7	Taylor 1956	Whiting et al. 2006
Scincidae	*Marisora unimarginata*	18.0	70.0	18.2	65.8	4	Viviparous	17	15	Taylor 1956	Whiting et al. 2006, Honda et al. 2006, Miralles et al. 2006
Scincidae	*Panaspis breviceps*	14.0	56.0	15.0	50.0	2.5	Oviparous	4	1	Schmidt et al. 1919	Jesus et al. 2007
Scincidae	*Panaspis cabindae*	7.5	34.5	7.7	34.3	NA	NA	18	41	Schmidt et al. 1919	Schmitz et al. 2005, Jesus et al. 2007

Family	Species	female head length	female abdomen length	male head length	male abdomen length	mean clutch size	reproductive mode	sample size males	sample size females	source for length data	source for phylogenetic relationships
Scincidae	*Panaspis quattuordigitata*	18.0	54.0	17.0	46.0	NA	NA	3	8	Sternfeld 1912	Schmitz et al. 2005, Jesus et al. 2007
Scincidae	*Panaspis wahlbergi*	6.8	37.2	8.0	34.0	4.45	Oviparous	not reported	not reported	FitzSimons 1943	Jesus et al. 2007
Scincidae	*Plestiodon laticeps*	19.1	74.9	26.1	83.9	13.7	Oviparous	34	28	Vitt and Cooper 1986	Richmond 2006
Scincidae	*Plestiodon liui*	11.6	55.2	11.3	49.7	NA	NA	1	1	Hikida and Zhao 1989	Brandley et al. 2012
Scincidae	*Proscelotes arnoldi*	9.6	67.4	10.1	59.9	5	mixed	not reported	not reported	FitzSimons 1943	Whiting et al. 2003
Scincidae	*Scincella caudaequinae*	8.3	40.7	8.7	40.3	NA	NA	2	1	Smith 1951	NA
Scincidae	*Scincella forbesora*	9.2	45.0	8.6	43.9	NA	NA	2	8	Taylor 1937	NA
Scincidae	*Scincopus fasciatus*	35.0	109.0	37.0	111.0	NA	NA	4	4	Anderson 1898	Perera et al. 2011
Scincidae	*Sphenomorphus ishaki*	7.2	33.8	7.2	32.4	NA	NA	1	2	Grismer 2006	NA
Scincidae	*Sphenomorphus jobiensis*	19.0	73.0	21.0	70.0	3	Viviparous	7	6	Sternfeld 1918	Skinner et al. 2011
Scincidae	*Sphenomorphus knollmanae*	10.0	41.0	11.1	37.6	NA	NA	1	3	Brown et al. 1995	NA
Scincidae	*Tiliqua rugosa*	47.9	235.4	52.3	228.7	2.05	Viviparous	135	125	Sarre and Dearn 1991	Gardner et al. 2008
Scincidae	*Trachylepis acutilabris*	13.5	45.5	13.5	42.5	NA	NA	22	50	Schmidt et al. 1919	Rocha et al. 2010, Sindaco et al. 2012
Scincidae	*Trachylepis affinis*	17.0	63.0	18.0	62.0	2.72	Oviparous	6	11	Schmidt et al. 1919	Rocha et al. 2010
Scincidae	*Trachylepis brevicollis*	31.0	102.0	30.0	115.0	2.5	Viviparous	6	3	Anderson 1895	Sindaco et al. 2012
Scincidae	*Trachylepis buettneri*	15.0	52.0	14.2	56.8	8.7	Oviparous	2	8	Schmidt et al. 1919	Rocha et al. 2010
Scincidae	*Trachylepis capensis*	23.2	111.8	23.4	106.6	11.615	mixed	not reported	not reported	FitzSimons 1943	Rocha et al. 2010, Sindaco et al. 2012
Scincidae	*Trachylepis dichroma*	23.8	92.2	25.7	85.3	3	Viviparous	2	4	Gunther et al. 2005	Rocha et al. 2010
Scincidae	*Trachylepis dumasi*	10.5	36.5	14.7	40.3	NA	NA	4	3	Nussbaum and Raxworthy 1995	Rocha et al. 2010
Scincidae	*Trachylepis ferrarai*	14.0	61.0	14.3	52.7	NA	NA	1	1	Lanza 1978a	Rocha et al. 2010
Scincidae	*Trachylepis maculilabris*	18.5	70.5	21.0	74.0	7.035	Oviparous	65	60	Schmidt et al. 1919	Sindaco et al. 2012
Scincidae	*Trachylepis margaritifera*	24.0	88.0	23.5	76.5	6.1	Oviparous	not reported	not reported	FitzSimons 1943	Sindaco et al. 2012
Scincidae	*Trachylepis perrotetii*	24.0	87.0	28.0	95.0	20.8	Oviparous	15	12	Schmidt et al. 1919	Sindaco et al. 2012
Scincidae	*Trachylepis polytropis*	24.0	90.0	23.0	89.0	3.5	Oviparous	5	8	Schmidt et al. 1919	Rocha et al. 2010
Scincidae	*Trachylepis quinquetaeniata*	21.0	81.0	23.0	82.0	4.8	Oviparous	59	59	Schmidt et al. 1919	Sindaco et al. 2012

Family	Species	female head length	female abdomen length	male head length	male abdomen length	mean clutch size	reproductive mode	sample size males	sample size females	source for length data	source for phylogenetic relationships
Scincidae	*Trachylepis sulcata*	16.6	64.4	16.7	58.8	3.75	Viviparous	not reported	not reported	FitzSimons 1943	Portik and Bauer 2012
Scincidae	*Trachylepis tavaratra*	11.5	50.5	10.8	48.2	5	Viviparous	9	6	Ramanamanjato et al. 1999	NA
Scincidae	*Trachylepis varia*	12.3	48.7	12.8	47.2	7.635	mixed	not reported	not reported	FitzSimons 1943	Sindaco et al. 2012
Scincidae	*Trachylepis vezo*	12.9	40.1	14.1	39.9	NA	NA	5	1	Ramanamanjato et al. 1999	NA
Scincidae	*Tropidophorus microlepis*	19.0	64.0	20.0	56.0	8	Viviparous	1	1	Taylor 1963	Honda et al. 2006
Scincidae	*Tropidophorus noggei*	16.1	79.6	17.3	83.7	4.5	NA	1	2	Ziegler et al. 2005	NA
Scincidae	*Varzea bistriata*	19.2	89.8	20.1	85.9	4.7	Viviparous	24	35	Vitt and Blackburn 1991	Whiting et al. 2006, Hedges and Conn 2012

b. References:

Amaral, A. D. 1933. Estudos sobre Lacertilios neotropicos. I. novos generos e especies de largartos do Brasil. Memorias do Instituto de Butantan 7: 51-75.

Anderson, J. 1894. On two new species of agamoid lizards from the Hardramut, South-Eastern Arabia. Annals and Magazine of Natural History (6) 14: 377

Anderson, J. 1895. On a collection of reptiles and batrachians made by Colonel Yerbury at Aden and its neighbourhood. Proceedings of the Zoological Society of London 1895: 635—663.

Anderson, J. 1896. A contribution to the herpetology of Arabia with preliminary list of the reptiles and batrachians of Egypt. Taylor and Francis, London.

Anderson, J. 1898. Zoology of Egypt. Vol. l. Reptilia and Batrachia. Bernard Quaritch, London.

Anderson, S. C. and Leviton, A. E. 1969. Amphibians and reptiles collected by the Street Expedition to Afghanistan, 1965. Proceedings of the California Academy of Sciences 37: 25-56.

Andersson, L. G. 1914. A new Telmatobius and new teiid lizards from South America. Arkiv Zoology 9: 1-12.

Andreone, F., Mattioli, F., Jesu, R. and Randrianirina, J. E. 2001. Two new chameleons of the genus Calumma from N.E. Madagascar, with considerations on the hemipenial morphology in the Calumma furcifer group (Reptilia, Squamata, Chamaeleonidae). Herpetological Journal 11: 53-68.

Arnold, E. N. 1972. Lizards with northern affinities from the mountains of Oman. Zoologische Mededelingen 47: 111-128.

Arnold, E. N. 1980. The reptiles and amphibians of Dhofar, Southern Arabia. Journal of Oman Studies, Special report, 2: 273-332.

Avila, L. J. 2003. A new species of Liolaemus (Squamata: Liolaemidae) from northeastern Argentina and southern Paraguay. Herpetologica, 59: 283–292.

Avila, L. J., Perez, C. H. F. and Morando, M. 2003. A new species of Liolaemus (Squamata: Iguania: Liolaemidae) from northwestern Patagonia (Neuquen, Argentina). Herpetologica 59: 534–545.

Avila, L. J., Perez, C. H. F., Morando, M. and Sites, J. W. 2004. Phylogenetic relationships of lizards of the Liolaemus petrophilus group (Squamata, Liolaemidae), with description of two new species from western Argentina. Herpetologica 60: 187–203.

Barros, T. R., Esqueda, L. F., Mijares-Urrutia, A., La Marca, E. and Nicholson, K. E. 2007. The anoline “lost link” rediscovered: variation and distribution of Anolis annectens Williams 1974 (Squamata Polychrotidae). Tropical Zoology 20: 41-53.

Batuwita, S. and Bahir, M. M. 2005. Description of five new species of Cyrtodactylus (Reptilia: Gekkonidae) from Sri Lanka. Raffles Bulletin of Zoology Supplement No. 12: 351–380.

Bauer, A. M. 2002. Two new species of Cyrtodactylus (Squamata: Gekkonidae) from Myanmar. Proceedings of the California Academy of Sciences 53: 73-86.

Bauer, A. M. 2003. Descriptions of seven new Cyrtodactylus (Squamata: Gekkonidae) with a key to the species of Myanmar (Burma). Proceedings of the California Academy of Sciences 54: 463-498.

Bauer, A. M. and Russell, A. P. 1989. A systematic review of the genus Uroplatus (Reptilia: Gekkonidae) with notes on its biology. Journal of Natural History 23: 169-203.

Bauer, A. M., Lamb, T. and Branch, W. R. 2002. A revision of Pachydactylus scutatus (Reptilia: Squamata: Gekkonidae) with the description of a new species from northern Namibia. Proceedings of the California Academy of Sciences 53: 23-36.

Bauer, A. M., Pauwels O. S. G.and Chanhome. L. 2002. A new species of cave-dwelling Cyrtodactylus (Squamata: Gekkonidae) from Thailand. The Natural History Journal of Chulalongkorn University 2: 19-29.

Bauer, A. M., Sumontha, G. M. and Pauwels O. S. G. 2003. Two new species of Cyrtodactylus (Reptilia: Squamata: Gekkonidae) from Thailand. Zootaxa 376: 1-18.

Bauer, A. M., Sumontha, M., Grossmann, W., Pauwels, O. S. G. and Vogel, G. 2004. A new species of Dixonius (Squamata: Gekkonidae) from Kanchanaburi Province, Western Thailand. Current Herpetology 23: 17-26.

Bauer, A. M., Jackman, T, Sadlier, R. A. and Whitaker, A. H. 2006. A new genus and species of diplodactylid gecko (Reptilia: Squamata: Diplodactylidae) from northwestern New Caledonia. Pacific Science 60: 125-135.

Bauer, A. M., Lamb, T. and Branch, W. R. 2006. A revision of the Pachydactylus serval and P. weberi groups (Reptilia: Gekkota: Gekkonidae) of Southern Africa, with the description of eight new species. Proceedings of the California Academy of Sciences 57: 595-709.

Bischoff, W. 1981. Freiland- und Terrarienbeobachtungen an der Omaneidechse, Lacerta jayakari Boulenger, 1887. Zeitschr. Kolner Zoo 24: 135-143.

Boulenger, G. A. 1885. Catalogue of the Lizards in the British Museum (Nat. Hist.) I. Geckonidae, Eublepharidae, Uroplatidae, Pygopodidae, Agamidae. Trustees of the British Museum, London.

Boulenger, G. A. 1885. Catalogue of the Lizards in the British Museum (Nat. Hist.) II. Iguanidae, Xenosauridae, Zonuridae, Anguidae, Anniellidae, Helodermatidae, Varanidae, Xantusiidae, Teiidae, Amphiesbaenidae. Trustees of the British Museum, London.

Boulenger, G. A. 1887. Catalogue of the Lizards in the British Museum (Nat. Hist.) III. Lacertidae, Gerrhosauridae, Scincidae, Anelytropidae, Dibamidae. Trustees of the British Museum, London.

Boulenger, G. A. 1892. On the reptiles collected by Sig. L. Brichetti Robecchi in Somaliland. Annali del Museo Civico di Storia Naturale Giacomo Doria 12: 5-15.

Boulenger, G. A. 1894. Second report on additions to the lizard collection in the Natural History Museum. Proceedings of the Zoological Society of London 1894: 722-736.

Boulenger, G. A. 1896. Descriptions of new reptiles and batrachians from Colombia. Annals and Magazine of Natural History 17: 16-21.

Boulenger, G. A. 1898. An account of the reptiles and batrachians collected by Mr. W. F. H. Rosenberg in western Ecuador. Proceedings of the Zoological Society of London 1898: 107-126.

Boulenger, G. A. 1902. Descriptions of new batrachians and reptiles from northwestern Ecuador. Annals and Magazine of Natural History (7) 9: 51-57

Boulenger, G. A. 1903. Descriptions of new lizards in the collection of the British Museum. Annals and Magazine of Natural History 7: 429-435.

Boulenger, G. A. 1903. On some batrachians and reptiles from Venezuela. Annals and Magazine of Natural History ser. 7, 11: 481-484.

Boulenger, G. A. 1908. Descriptions of new batrachians and reptiles discovered by Mr. M. G. Palmer in South-western Colombia. Annals and Magazine of Natural History ser. 8, 2: 515-522.

Boulenger, G. A. 1908. Descriptions of new South-American reptiles. Annals and Magazine of Natural History ser. 8, 1: 111-115.

Boulenger, G. A. 1911. Descriptions of new reptiles from the Andes of South America, preserved in the British Museum. Annals and Magazine of Natural History 7: 19-25.

Brana, F. 1996. Sexual dimorphism in lacertid lizards: male head increase vs female abdomen increase? Oikos 75: 511–523.
Branch, W. R., Rodel, M. O. and Marais, J. 2005. A new species of rupicolous Cordylus Laurenti 1768 (Sauria: Cordylidae) from Northern Mozambique. African Journal of Herpetology, 54: 131-138.
Brown, R. M., Ferner, J. W. and Ruedas, L. A. 1995. A new species of lygosomine lizard (Reptilia: Lacertilia: Scincidae; Sphenomorphus) from Mt. Isarog, Luzon Island, Philippines. Proceedings of the Biological Society of Washington 108: 18-28.
Buden, D. W. 1998. The reptiles of Kapingamarangi Atoll, Micronesia. Atoll Research Bulletin 453: 1-10.
Busack, S. D., Salvador, A. and Lawson, R. 2006. Two new species in the genus Psammodromus (Reptilia: Lacertidae) from the Iberian Peninsula. Annals of Carnegie Museum 75: 1-10.
Cabrera, M. R. 2004. A new Cnemidophorus (Squamata: Teiidae) from western Argentina. Amphibia-Reptilia 25: 265-275.
Campbell, J. A. 1984. A new species of Abronia (Sauria, Anguidae), with comments on the herpetogeography of the highlands of southern Mexico. Herpetologica 40: 373–381.
Campbell, J. A. and Brodie, E. D. 1999. A new species of Abronia (Squamata: Anguidae) from the southeastern highlands of Guatemala. Herpetologica 55: 161–174.
Cei, J. M. and Pefaur, J. E. 1982. Una nueva especie de Liolaemus (Iguanidae: Squamata) su sistematica, ecologia y distribucion. Pp. 573-586 in P. J. Salinas (Ed.), Zoologıa Neotropical: Actas del VIII Congreso Latinoamericano de Zoologıa. Merida, Venezuela.
Cei, J. M. and Videla, F. 2003. A new species of Liolaemus lacking precloacal pores in males from the Andean south-eastern mountains of Mendoza Province, Argentina (Liolaemidae, Iguania, Lacertilia, Reptilia). Bolletino Museo Regionale di Scienze Naturali - Torino 20: 275-290.
Cei, J. M., Scolaro, J. A. and Videla, F. 2001. The present status of Argentinean polychrotid species of the genus Pristidactylus and description of Its southernmost taxon as a new species. Journal of Herpetology, 35: 597-605.
Chabanaud, P. 1917. Enumération des reptiles non encore étudiés de l'Afrique occidentale, appartenant aux collections du Muséum, avec la description des espèces nouvelles. Bulletin du Museum National d'Histoire Naturelle, Paris 23: 83-105.
Chou, W. H., Nguyen, T. Q. and Pauwels, O. S. G. 2001. A new species of Takydromus (Reptilia: Lacertidae) from Vietnam. Herpetologica 57: 497-508.
Clemann, N., Chapple, D. G. and Wainer, J. 2004. Sexual dimorphism, diet, and reproduction in the Swamp Skink, Egernia coventryi. Journal of Herpetology 38: 461-467.
Cogger, H. G. 1975. New lizards of the genus Pseudothecadactylus (Lacertilia: Gekkonidae) from Arnhem Land and northwestern Australia. Records of the Australian Museum 30: 87-97.
Cordes, I. G., Mouton, P. Le F. N., vanWyk, J. H. 1995. Sexual dimorphism in two girdled lizard species, Cordylus niger and Cordylus cordylus. South African Journal of Zoology 30: 187-196.
Das, I. 1997. A new species of Cyrtodactylus from the Nicobar Islands, India. Journal of Herpetology, 31: 375-382.
Das, I. and Grismer, L. L. 2003. Two new species of Cnemaspis Strauch, 1887 (Squamata: Gekkonidae) from the Seribuat Archipelago, Pahang and Johor States, West Malaysia. Herpetologica, 59: 544–552.
de Witte, G. F. 1941. Batraciens et reptiles. Exploration du Parc National Albert. Mission G. F. de Witte (1933-1935). Fascicule 33. Brussels 1941, 261 pp.
Deraniyagala, P. E. P. 1953. A coloured atlas of some vertebrates from Ceylon. Vol. 2. Tetrapod Reptilia. Goverment Press, Colombo.

Diong, C. H. and Lim, S. S. L. 1998. Taxonomic review and morphological description of Bronchocela cristatella (Kuhl, 1820) (Squamata: Agamidae) with notes on other species in the genus. Raffles Bulletin of Zoology 46: 345-359.
Dixon, J. R. 1966. Speciation and systematics of the gekkonid lizard genus Phyllodactylus of the islands of the Gulf of California. Proceedings of the California Academy of Sciences 33: 415-452.
Donnelly, M. A., Mcdiarmid, R. W. and Myres, C. W. 1992. A new lizard of the genus Arthrosaura (Teiidae) from southern Venezuela. Proceedings of the Biological Society of Washington 105: 821-833.
Donoso-Barros, R. 1966. Reptiles de Chile. Ediciones de la Universidad de Chile, Santiago de Chile.
Donoso-Barros, R. 1974. Nuevos reptiles y anfibios de Chile. Boletin de la Sociedad de Biología de Concepcion 48: 217-229.
Doughty, P. and Shine, R. 1995. Life in two dimensions: Natural history of the southern leaf-tailed gecko, Phyllurus platurus. Herpetologica 51: 193-201.
Doughty, P., Maryan, B., Melville, J. and Austin, J. 2007. A new species of Ctenophorus (Lacertilia: Agamidae) from Lake Disappointment, Western Australia. Herpetologica, 63: 72–86.
Faria, R. G. and Araujo, A. F. B. 2004. Sintopy of two Tropidurus lizard species (Squamata: Tropiduridae) in a rocky cerrado habitat in central Brazil. Brazilian Journal of Biology 4: 775-786.
Feltrim, A. C. and De Lema, T. 2000. Uma nova especie de Cnemidophorus Wagler, 1830 do estado do Rio Grande do sul Brasil (Sauria, Teiidae). Biociencias, Porto Alegre, 8: 103-114.
FitzSimons, V. F. 1943. The Lizards of South Africa. Transvaal Museum, Pretoria.
Gallagher, D. S. and Dixon, J. R. 1992. Taxonomic revision of the South American lizard genus Kentropyx Spix (Sauria, Teiidae). Bolletino del Museo Regionale di Scienze Naturali, Torino 10: 125-171.
Gifford, M. E. and Powell, R. 2007. Sexual dimorphism and reproductive characteristics in five species of Leiocephalus lizards from the Dominican Republic. Journal of Herpetology, 41: 521-527.
Glaw, F., Kosuch, J., Henkel, F. W., Sound, P. and Bohme, W. 2006. Genetic and morphological variation of the leaf-tailed gecko Uroplatus fimbriatus from Madagascar, with description of a new giant species. Salamandra 42: 129-144.
Grismer, L. L. 2005. New species of bent-toed gecko (Cyrtodactylus Gray 1827) from Pulau Aur, Johor, West Malaysia. Journal of Herpetology, 39: 424–432.
Grismer, L. L. 2006. Two new species of skinks (Genus Sphenomorphus Fitzinger 1843) from the Seribuat Archipelago. Herpetological Natural History 9: 151-162.
Grismer, L. L. and Leong, T. M. 2005. New species of Cyrtodactylus (Squamata: Gekkonidae) from southern Peninsular Malaysia. Journal of Herpetology 39: 584-591.
Gunther, R. and Rosler, H. 2003. Eine neue art der gattung Cyrtodactylus Gray 1827 aus dem westen von Neuguinea (Reptilia: Sauria: Gekkonidae). Salamandra 38: 195-212.
Gunther, R, Whiting, A., Bauer, A. 2005. Description of a new species of African skink of the genus Trachylepis (Reptilia: Squamata: Scincidae). Herpetozoa 18: 11-24.
Haas, G. 1957. Some amphibians and reptiles from Arabia. Proceedings of the California Academy of Sciences series 4. 29: 47-86.
Hallermann, J. 2000. A new species of Calotes from the Moluccas (Indonesia) with notes on the biogeogreaphy of the genus (Sauria: Agamidae). Bonn Zoologische Beitrage 49: 155-163.

Hallermann, J. and Bohme, W. 2000. A review of the genus Pseudocalotes (Squamata : Agamidae), with description of a new species from West Malaysia. Amphibia-Reptilia 21: 193-210.
Herrel, A., De Grauw, E. and Lemos-Espinal, J. A. 2001. Head shape and bite performance in xenosaurid lizards. Journal of Experimental Zoology 290: 101-107.
Herrel, A., Vanhooydonck, B. Joachim, R. and Irschick, D. J. 2004. Frugivory in polychrotid lizards: effects of body size. Oecologia 140: 160-168.
Hikida, T. and Zhao, E. 1989. Eumeces liui: a new species of blue-tailed skink (Lacertilia: Scincidae) from China. Copeia 1989: 110-114.
Hoogmoed, M. S. 1973. Notes on the herpetofauna of Surinam IV: the lizards and amphisbaenians of Surinam. W. Junk Publishers, Den Haag.
Huang, W-S. 2006. Ecological characteristics of the skink, Mabuya longicaudata, on a tropical East Asian island. Copeia 2006: 293-300.
Huang, W-S. 2006. Ecology and reproductive patterns of the grass lizard, Takydromus sauteri, in a tropical rain forest of an east Asian island. Journal of Herpetology, 40: 267–273.
Husak, J. F., Lappin, A. K., Fox, S. F. and Lemos-Espinal., J. A. 2006. Bite-Force Performance Predicts Dominance in Male Venerable Collared Lizards (Crotaphytus antiquus). Copeia 2006: 301-306.
Inger, R. F. 1960. A review of the agamid lizards of the genus Phoxophrys Hubrecht. Copeia 1960: 221- 225.
Jacobs, H. J. 2003. A further new emerald tree monitor lizard of the Varanus prasinus species group from Waigeo, West Irian (Squamata: Sauria: Varanidae). Salamandra 39: 65-74.
Jesu, R., Mattioli, F. and Schimmenti, G. 1999. On the discovery of a new large chameleon inhabiting the limestone outcrops of western Madagascar: Furcifer nicosiai sp. nov. (Reptilia, Chamaeleonidae). Doriana (=Annali Del Museo Civico Di Storia Naturale Giacomo Doria) 7 (or 8), 311: 1-14.
Ji, X., Qiu, Q. B., Diong, C. H. 2002. Sexual dimorphism and female reproductive characteristics in the oriental garden lizard, Calotes versicolor, from Hainan, southern China. Journal of Herpetology 36: 1-8.
Jimenez-Cruz, E., Ramirez-Bautista, A., Marshall, J. C., Lizana-Avia, M. and De Oca, A. N-M. 2005. Reproductive cycle of Sceloporus grammicus (Squamata: Phrynosomatidae) from Teotihuacan, Mexico. Southwestern Naturalist 50: 178–187.
Kaliontzopoulou, A., Carretero, M. A. and Llorente, G. A. 2008. Head shape allometry and proximate causes of head sexual dimorphism in Podarcis lizards: joining linear and geometric morphometrics. Biological Journal of the Linnean Society, 93: 111-124.
La Marca, E. and Garcia Perez, J. E. 1990. A new species of high Andean Anadia (Sauria: Teiidae) from Paramo el Riecito, Estado Trujillo, Venezuela. Herpetologica 46: 275-282.
Lamborot, M. and Ortiz, J. C. 1990. Liolaemus pseudolemnicatus, a new species of lizard from north Chico Chile (Sauria: Tropiduridae). Gayana Zoologia 54: 135-142.
Lanza, B. 1978. A new Somali Hemidactylus (Reptilia Gekkonidae). Monitore Zoologico Italiano Supplemento 11: 111-117.
Lanza, B. 1978. Mabuya ferrarai, a new scincoid lizard from Somalia. Monitore Zoologico Italiano Supplemento 11: 271-280.
Lanza, B. 1978. On some new or interesting east African amphibians and reptiles. Monitore Zoologico Italiano Supplemento 10: 229-297.
Lanza, B. and Vanni, S. 1976. On a small collection of reptiles from north Zaire. Monitore Zoologico Italiano 8: 129-160.
Lappin, A. K. and Swinney, E. J. 1999. Sexual dimorphism as it relates to natural history of leopard lizards (Crotaphytidae: Gambelia). Copeia 1999: 649–660.
Loveridge, A. 1941. Bogertia lutzae - A new genus and species of gecko from Bahia, Brazil. Proceedings of the Biological Society of Washington

54: 195-196.
Mata-Silva, V. and Ramirez-Bautista, A. 2005. Reproductive characteristics of two syntopic, widely foraging lizards, Aspidoscelis deppii and Aspidoscelis guttata from Oaxaca, Mexico. Southwestern Naturalist 50: 262-267.
Matschie, P. 1893. Uber einige von herrn Oscar Neumann bei Aden gesammelte u. beobachtete Säugethiere, Reptilien und Amphibien. Sber. Berlinische Gesellschaft Naturforschender Freunde, Berlin 1893: 24-31.
Mertens, R. 1950. Notes on some Indo-Australian monitors (Sauria, Varanidae). American Museum Novitates 1456: 1-7
Mijares-Urrutia, A., Senaris, J. C. and Arends, A. 2000. Taxonomy of some microteids from Venezuela (Squamata), I: Variation and geographic distribution of Euspondylus acutirostris and description of a new Euspondylus from northeast Venezuela. Revista de Biología Tropical 48: 671-680.
Monard, A. 1949. Vertebres nouveaux du Cameroun. Revue Suisse de Zoologie 56: 731-745.
Mukherjee, D., Bhupathy, S. and Nixon, A. M. A. 2005. A new species of day gecko (Squamata, Gekkonidae, Cnemaspis) from the Anaikatti Hills, Western Ghats, Tamil Nadu, India. Current Science 89: 1326-1328.
Myers, C. W., Donnelly, M. A. and Goelet, R. G. 1996. A new herpetofauna from Cerro Yaví, Venezuela : first results of the Robert G. Goelet American Museum-Terramar expedition to the northwestern Tepuis. American Museum Novitates 3172: 1-56.
Navarro, N. P., Fernandez, A. V. and Garrido, O. H. 2001. Taxonomic reconsideracion of Anolis centralis litoralis and description of a new species of the argillaceus group (Sauria: Iguanidae) for Cuba. Solenodon 1: 66-75.
Necas, P., Modry, D. and Slapeta, J. R. 2003. Chamaeleo (Trioceros) narraioca n. sp. (Reptilia Chamaeleonidae), a new chameleon species from a relict montane forest of Mount Kulal, northern Kenya. Tropical Zoology, 16: 1-12.
Nunez, H. and Yanez, J. 1983. Ctenoblepharis audituvelatus new species, a lizard from northern Chile (Reptilia Iguanidae). Copeia 1983: 454-457.
Nunez, H., Navarro, J. and Loyola, J. 1991. Liolaemus maldonadae y Liolaemus cristiani, dos especies nuevas de lagartijas para Chile (Reptilia, Squamata). Boletín del Museo Nacional de Historia Natural (Santiago) 42: 79-88.
Nussbaum, R. A. and Raxworthy, C. J. 1994. A new rainforest gecko of the genus Paroedura Gunther from Madagascar. Herpetological Natural History 2 : 43-49.
Nussbaum, R. A. and Raxworthy, C. J. 1995. A new Mabuya (Reptilia: Squamata: Scincidae) of the aureopunctata-group from Southern Madagascar. Journal of Herpetology, 29: 28-38.
Nussbaum, R. A. and Raxworthy, C. J. 1998. Revision of the genus Ebenavia Boettger (Reptilia : Squamata : Gekkonidae). Herpetologica 54: 18-34.
Nussbaum, R. A., Raxworthy, C. J., Raselimanana, A. P. and Ramanamanjato, J. B. 2000. New species of day gecko, Phelsuma Gray (Reptilia: Squamata: Gekkonidae), from the Reserve Naturelle Integrale d'Andohahela, southern Madagascar. Copeia, 2000: 763-770.
Orlov, N. L., Nguyen, T. Q. and Nguyen, S. V. 2006. A new Acanthosaura allied to A. capra Günther, 1861 (Agamidae, Sauria) from Central Vietnam and Southern Laos. Russian Journal of Herpetology 13: 61-76.
Ortiz, J. C. and Marquet, P. 1987. Una nueva especie de lagarto altoandino: Liolaemus islugensis (Reptilia-Iguanidae). Gayana Zoologia 51: 59-63.
Ota, H. 1991. Taxonomic redefinition of Japalura swinhonis Gunther (Agamidae: Squamata), with a description of a new subspecies of J. polygonata from Taiwan. Herpetologica 47: 280-294.
Ota, H. and Nabhitabhata, J. A. 1991. New species of Gekko (Gekkonidae: Squamata) from Thailand. Copeia, 1991: 503-509.

Ota, H. and Weidenhofer, T. 1992. The first male specimen of the poorly known agamid lizard Japalura chapaensis Bourret, 1937 (Reptilia: Sauria), from Northern Vietnam, with notes on its taxonomic status. Raffles Bulletin of Zoology 40: 193-199.

Ota, H., Chen, S.-L. and Shang, G. 1998. Japalura luei: a new agamid lizard from Taiwan (Reptilia: Squamata). Copeia 1998: 649-656.

Pauwels, O. S. G., Bauer, A. M., Sumontha, M. and Chanhome, L. 2004. Cyrtodactylus thirakhupti (Squamata: Gekkonidae), a new cave-dwelling gecko from southern Thailand. Zootaxa 772: 1–11.

Pianka, E. R. and King, D. R. editors. 2004. Varanoid lizards of the world. Indiana University Press.

Pinto, A. C. S., Wiederhecker, H. C. and Colli, G. R. 2005. Sexual dimorphism in the Neotropical lizard, Tropidurus torquatus (Squamata, Tropiduridae). Amphibia-Reptilia 26: 127-137.

Ramanamanjato, J. B., Nussbaum, R. A. and Raxworthy, C. J. 1999. A new species of Mabuya Fitzinger (Squamata: Scincidae: Lygosominae) from northern Madagascar. Occasional Papers of the Museum of Zoology, University of Michigan 728: 1-22.

Ramirez-Bautista, A., Ortiz-Cruz, A. L., Arizmendi, M. D. and Campos, J. 2005. Reproductive characteristics of two syntopic lizard species, Sceloporus gadoviae and Sceloporus jalapae (Squamata : Phrynosomatidae), from Tehuacan Valley, Puebla, Mexico. Western North American Naturalist 65: 202-209.

Rand, A. S. 1963. Notes on the Chamaeleo bitaeniatus complex. Bulletin of the Museum of Comparative Zoology 130: 1-29.

Rastegar-Pouyani, N. and Rastegar-Pouyani, E. 2001. A new species of Eremias (Sauria: Lacertidae) from highlands of Kermanshah Province, western Iran. Asiatic Herpetological Research 9: 107-112.

Reeve, W. L. 1952. Taxonomy and distribution of the horned lizards genus Phrynosoma. The University of Kansas Science Bulletin, 34: 817-960.

Rocha, C. F. D., Araujo, A. F. B., Vrcibradic, D. and Costa, E. M. M. 2000. New Cnemidophorus (Squamata; Teiidae) from coastal Rio de Janeiro state, southeastern Brazil. Copeia 2000: 501–509.

Rosler, H. 2001. Eine neue grosswuchsige Cyrtodactylus-Art von Neuguinea (Reptilia: Sauria: Gekkonidae). Zoologische Abhandlungen, Staatliches Museum fur Tierkunde, Dresden 51: 61-71.

Rosler, H., Ziegler, T., Thanh, V. N. Herrmann, H.-W. and Bohme, W. 2005. A new lizard of the genus Gekko Laurenti, 1768 (Squamata: Sauria: Gekkonidae) from the Phong Nha - Ke Bang National Park, Quang Binh Province, Vietnam. Bonner Zoologische Beitrage 53: 135-148.

Rueda, J. V. and Hernandez-Camacho, J. I. 1988. Phenacosaurus inderenae (Sauria: Iguanidae), nueva especie gigante proveniente de la cordillera oriental de. Colombia. Trianea 2: 339-350.

Rueda, J. V. and Williams, E. E. 1986. Una nueva especie de saurio para la Cordillera Oriental de Colombia (Sauria: Iguanidae). Caldasia 15: 511-524.

Rueda-Almonacid, J. V. 1989. Un nuevo y extraordinario saurio de color rojo (Iguanidae: Anolis) para la Cordillera Occidental de Colombia. Trianea 3: 85-92.

Salvidio, S., Menegon, M., Sindaco, R. and Moyer, D. 2004. A new species of elongate seps from Udzungwa grasslands, southern Tanzania (Reptilia, Gerrhosauridae, Tetradactylus Merrem, 1820). Amphibia-Reptilia 25: 19-27.

Sarre, S. and Dearn, J. M. 1991. Morphological variation and fluctuating asymmetry among insular populations of the sleepy lizard Trachydosaurus rugosus (Squamata: Scincidae). Australian Journal of Zoology 39: 91-104.

Schettino, L. R. 1999. The iguanid lizards of Cuba. University Press of Florida, Miami.

Schimmenti, G. and Jesu, R. 1996. Brookesia exarmata sp. nov. (Reptilia, Chamaeleonidae); a new dwarf chameleon from the limestone outcrops of western Madagascar. Italian Journal of Zoology, 63: 193-197.

Schleich, H. H. and Kastle, W. 2002. Amphibians and reptiles of Nepal. Gantner Verlag, Koenigstein.
Schulte, J. A., Vindum, J. V., Win, H., Thin, T., Lwin, K. S. and Shein, A. K. 2004. Phylogenetic relationships of the genus Ptyctolaemus (Squamata: Agamidae), with a description of a new species from the Chin Hills of western Myanmar. Proceedings of the California Academy of Sciences 55: 222-247.
Schmidt, K. P. and Noble, G. K. 1919. Contributions to the Herpetology of the Belgian Congo. Society for the study of Amphibians and reptiles, Saint Louis.
Schmidt, K. P., Lang, H. and Chapin, J. P. 1919. Contributions to the herpetology of the Belgian Congo based on the collection of the American Museum Congo Expedition, 1909-1915. Part 1, Turtles, crocodiles, lizards and chameleons. Bulletin of the American Museum of Natural History 39: 385-624.
Schoener, T. W. 1970. Size patterns in West Indian Anolis lizards. II. Correlations with the sizes of particular sympatric species—displacement and convergence. American Naturalist 104: 155–174.
Schoener, T. W., Slade, J. B. and Stinson, C. H. 1982. Diet and sexual dimorphism in the very catholic lizard genus, Leiocephalus, of the Bahamas. Oecologia 53: 160-169.
Scolaro, J. A. and Cei, J. M. 2005. Una excepcionalnueva especie de Phymaturus de la precordillera deChubut, Argentina (Liolaemidae, Iguania, Lacertilia,Reptilia). Facena, 19: 107-112.
Shine, R., Keogh, J. S., Doughty, P. and Giragossyan, H. 1998. Costs of reproduction and the evolution of sexual dimorphism in a `flying lizard' Draco melanopogon (Agamidae). Journal of Zoology 246: 203-213.
Smith, H. M. 1951. A new species of Leiolopisma (Reptilia: Sauria) from Mexico. University of Kansas Science Bulletin 34: 195-200.
Song, M. 1987. Survey of the reptiles of southern Shaanxi. Acta Herpetologica Sinica 6: 59-64
Sternfeld, R. 1912. Die reptilien aus der expedition professor Hans Meyers nach Deutsch-Ostafrika. Sitzungsberichte der Gesellschaft Naturforschender Freunde zu Berlin 7: 384-388.
Sternfeld, R. 1918. Zur tiergeographie Papuasiens und der pazifischen Inselwelt. Abhandlungen der Senckenbergischen Naturforschenden Gesellschaft 36: 375-436.
Taylor, E. H. 1922. The lizards of the Philippine Islands. Manila Bureau of Printing, Manila.
Taylor, E. H. 1937. Two new lizards of the genus Leiolopisma from Mexico, with comments on another Mexican species. Copeia 1937: 5-11.
Taylor, E. H. 1956. A review of the lizards of Costa Rica. University of Kansas Science Bulletin 38: 3-322.
Taylor, E. H. 1962. New Oriental reptiles. University of Kansas Science Bulletin, 43: 209-263.
Taylor, E. H. 1963. The lizards of Thailand. University of Kansas Science Bulletin 44: 687-1077.
Urban, H. 1999. Eine neue agamenart der gattung Gonocephalus aus Papua - Neu Guinea (Squamata: Sauria: Agamidae). Herpetozoa 11: 185-188.
Verrastro, L., Veronese, L., Bujes, C. and Dias Filho, M. M. 2003. A new species of Liolaemus from southern Brazil (Iguania: Tropiduridae). Herpetologica, 59: 105-118.
Verwaijen, D., Van Damme, R. and Herrel, A. 2002. Relationships between head size, bite force, prey handling efficiency and diet in two sympatric lacertid lizards. Functional Ecology 16: 842-850.
Vindum, J. V., Win, H., Thin, T., Lwin, K. S., Shein, A. K. and Tun, H. 2003. A new Calotes (Squamata: Agamidae) from the Indo-Burman range of western Myanmar (Burma). Proceedings of the California Academy of Sciences 54: 1-8.

Vitt, L. J. 1986. Reproductive tactics of sympatric gekkonid lizards with a comment on the evolutionary and ecological consequences of invariant clutch size. Copeia 1986: 773-786.
Vitt, L. J. and Blackburn, D. G. 1991. Ecology and Life History of the viviparous lizard Mabuya bistriata (Scincidae) in the Brazilian Amazon. Copeia 1991: 916-927.
Vitt, L. J. and Cooper, W. E. 1986. Foraging and diet of a diurnal predator (Eumeces laticeps) feeding on hidden prey. Journal of Herpetology, 20: 408-415.
Vitt, L. J. and de Carvalho, C. M. 1995. Niche partitioning in a tropical wet season: lizards in the lavrado area of northern Brazil. Copeia 1995: 305-329.
Vitt, L. J. and Zani, P. A. 1996. Ecology of the South American lizard Norops chrysolepis (Polychrotidae). Copeia, 1996: 56-68.
Vitt, L. J., Souza, R. A., Sartorius, S. S., Avila-Pires, T. C. S. and Esposito, M. C. 2000. Comparative ecology of sympatric Gonatodes (Squamata: Gekkonidae) in the western Amazon of Brazil. Copeia, 2000: 83-95.
Werner, F. 1910. Uber neue oder seltene reptilien des Naturhistorischen Museums in Hamburg. ii. Eidechsen. Hamburg Jahrbucher Wiss. Anst. 27, suppl. no. 2, 1-46.
Yanez, J. L. and Nunez, H. 1983. Liolaemus fabiani, a new species of lizard from northern Chile (Reptilia: Iguanidae). Copeia, 1983: 788-790.
Zaldivar-Riveron, A. and de Oca, A. N.-M. 2002. Variation in the rare lizard Barisia rudicollis (Wiegmann) (Anguidae) with description of a new species from central Mexico. Herpetologica, 58: 313–326.
Zhao, E. M. 1998. A new species of the genus Laudakia from Xizang (Tibet) Autonomus Region. Acta Zootaxonomica Sinica, 23: 440-444.
Ziegler, T., Rosler, H., Herrmann, H.-W. and Vu, N. T. 2002. Cyrtodactylus phongnhakebangensis sp. n., ein neuer Bogenfingergecko aus dem annamitischen Karstwaldmassiv, Vietnam. Herpetofauna, 24: 11-25.
Ziegler, T., Thanh, V. N. and Thanh, B. N. 2005. A new water skink of the genus Tropidophorus from the Phong Nha-Ke Bang National Park, central Vietnam. Salamandra, 41: 137-146.
Zug, G. R. 1991. The lizards of Fiji: natural history and systematics. Bishop Museum Bulletin of Zoology 2: 1-136.
Zug, G. R. and Ineich, I. 1995. A new skink (Emoia: Lacertilia: Reptilia) from the forest of Fiji. Proceedings of the Biological Society of Washington 108: 395-400.
Zug, G. R., Brown, H. H. K., Schulte, J. A. and . Vindum, J. V. 2006. Systematics of the Garden Lizards, Calotes versicolor Group (Reptilia, Squamata, Agamidae), in Myanmar: Central Dry Zone Populations. Proceedings of the California Academy of Sciences 57: 35-68.
Zugmayer, E. 1909. Beitrage zur Herpetologie von Zentral-Asien. Zoologische Jahrbucher, Abteilung für Systematik, Geographie und Biologie der Tiere 27: 481-508.

Appendix 2

For the manuscript
"Sexual dimorphism of heads and abdomens: different approaches to "being large" in female and male lizards"
by Inon Scharf & Shai Meiri

a. The Newick code
b. The references for the phylogenetic data

a. (((((((((Hypsilurus_modestus:17.0,((Ctenophorus_nguyarna,Ctenophorus_salinarum)
:3.0,Ctenophorus_pictus:4.0):13.0),Physignathus_cocincinus:18.0),(((((Draco_volans:
4.0,(Draco_quadrasi:3.0,Draco_guentheri:3.0,Draco_cyanopterus:3.0)):3.0,(((((Draco
_obscurus:2.0,Draco_taeniopterus:2.0),Draco_blanfordii:3.0),Draco_melanopogon:4.
0),Draco_quinquefasciatus:5.0),Draco_fimbriatus:6.0)):2.0,(Ptyctolaemus_collicristat
us,Ptyctolaemus_gularis):8.0):2.0,(((Sitana_fusca,Sitana_sivalensis):8.0,((Bronchocel
a_cristatella:6.0,(Cophotis_ceylanica:5.0,Ceratophora_aspera:5.0)):2.0,(((Calotes_chi
ncollium,Calotes_emma),Calotes_mystaceus:2.0):4.0,((Calotes_irawadi,Calotes_vers
icolor):2.0,Calotes_htunwini:3.0):3.0):2.0)),((((((Acanthosaura_capra,Acanthosaura_
nataliae),Acanthosaura_armata:2.0),Acanthosaura_lepidogaster:3.0),Acanthosaura_cr
ucigera:4.0),Phoxophrys_borneensis:5.0),((((Japalura_polygonata,Japalura_swinhonis
),Japalura_brevipes:2.0),Japalura_luei:3.0,Japalura_makii:3.0),Pseudocalotes_brevipe
s:4.0):2.0):4.0)):2.0,((Trapelus_mutabilis:5.0,(Pseudotrapelus_sinaitus:2.0,Acanthoce
rcus_atricollis:2.0):3.0):5.0,(Agama_boueti:7.0,(((Agama_agama,Agama_planiceps):
3.0,Agama_doriae:4.0),(((Agama_aculeata,Agama_armata),Agama_hispida:2.0),(Ag
ama_anchietae,Agama_atra):2.0):2.0):2.0):3.0,(Laudakia_himalayana:2.0,Laudakia_s
toliczkana:2.0):8.0):3.0):6.0):3.0,Uromastyx_benti:22.0),(Brookesia_exarmata:18.0,((
((Trioceros_sternfeldi:12.0,(Furcifer_verrucosus:10.0,((Calumma_gastrotaenia,Calu
mma_guillaumeti):2.0,Calumma_marojezense:3.0):7.0):2.0):3.0,((Chamaeleo_dilepis
:3.0,Chamaeleo_gracilis:3.0):2.0,(Chamaeleo_arabicus:2.0,Chamaeleo_zeylanicus:2.
0):3.0):10.0),Kinyongia_adolfifriderici:16.0,Rieppeleon_kerstenii:16.0),Rhampholeo
n_spectrum:17.0)):5.0):3.0,((((((Phymaturus_calcogaster:17.0,((((((Liolaemus_curice
nsis,Liolaemus_pictus):3.0,(Liolaemus_chiliensis:3.0,((Liolaemus_bellii,Liolaemus_
cyanogaster),(Liolaemus_gravenhorstii,Liolaemus_schroederi)))):2.0,(Liolaemus_bib
ronii:5.0,Liolaemus_walkeri:5.0)):2.0,(((Liolaemus_leopardinus:3.0,(Liolaemus_krie
gi:2.0,Liolaemus_buergeri:2.0)):3.0,(Liolaemus_gununakuna:5.0,Liolaemus_talampa
ya:5.0)),Liolaemus_punmahuida:7.0)),(((((Liolaemus_monticola,Liolaemus_nitidus):
3.0,(Liolaemus_nigroviridis:3.0,Liolaemus_fuscus:3.0)),Liolaemus_lemniscatus:5.0),
Liolaemus_tenuis:6.0),((Liolaemus_bisignatus:2.0,Liolaemus_platei:2.0),Liolaemus_
pseudolemniscatus:3.0):4.0):2.0):7.0,(((Liolaemus_fitzingerii:13.0,Liolaemus_ornatu
s:13.0),(Liolaemus_signifer:5.0,(Liolaemus_andinus:4.0,Liolaemus_fabiani:4.0),(Liol
aemus_dorbignyi,Liolaemus_jamesi):4.0):9.0),(Liolaemus_lineomaculatus:9.0,(Liola
emus_kingii:8.0,Liolaemus_magellanicus:8.0)):6.0))):2.0,(((Urostrophus_vautieri:7.0
,((((Pristidactylus_alvaroi,Pristidactylus_valeriae),Pristidactylus_torquatus:2.0):2.0,Pr
istidactylus_scapulatus:4.0),Diplolaemus_darwinii:5.0):2.0),(Enyalius_catenatus:4.0,

Enyalius_iheringii:4.0):4.0):2.0,((Gambelia_copeii,Gambelia_wislizenii):3.0,(Crotap
hytus_collaris:3.0,Crotaphytus_antiquus:3.0)):6.0):9.0),Cyclura_nubila:20.0),((((Micr
olophus_theresioides:2.0,Microlophus_quadrivittatus:2.0),Microlophus_atacamensis:
3.0),(Microlophus_peruvianus,Microlophus_tigris):3.0):7.0,(Tropidurus_itambere:5.0
,((Tropidurus_hispidus,Tropidurus_torquatus),Tropidurus_oreadicus:2.0):3.0):6.0):10
.0):3.0,(((((Leiocephalus_barahonensis,Leiocephalus_personatus,Leiocephalus_schrei
bersii),Leiocephalus_raviceps:2.0),Leiocephalus_carinatus:3.0,Leiocephalus_inaguae
:3.0,Leiocephalus_loxogrammus:3.0,Leiocephalus_punctatus:3.0,Leiocephalus_semil
ineatus:3.0,Leiocephalus_stictigaster:3.0):19.0,((((((Anolis_brevirostris:4.0,Anolis_di
stichus:4.0):3.0,(Anolis_stratulus:6.0,(Anolis_pulchellus:5.0,Anolis_cristatellus:5.0))
):9.0,(((((((Anolis_cupeyalensis,Anolis_cyanopleurus),Anolis_rejectus:2.0),Anolis_cl
ivicola:3.0):2.0,Anolis_vanidicus:5.0),(Anolis_alutaceus,Anolis_inexpectatus):5.0):3.
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Anolis_guazuma):4.0,(((Anolis_centralis:2.0,Anolis_argillaceus:2.0),Anolis_pumilus
:3.0),Anolis_loysiana:4.0)):2.0,(Anolis_isolepis:6.0,(Anolis_porcatus:5.0,Anolis_allis
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nolis_porcus:2.0),Anolis_barbatus:3.0):2.0,Anolis_christophei:5.0),Anolis_cuvieri:6.
0),Anolis_lucius:7.0))):8.0),(((((Anolis_noblei,Anolis_smallwoodi),Anolis_baracoae:
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miculatus):5.0,(Anolis_hendersoni:5.0,(Anolis_chlorocyanus:3.0,Anolis_coelestinus:
3.0):2.0))):11.0),((Anolis_inderenae:7.0,Anolis_ruizi:7.0):2.0,(((Anolis_punctatus:4.0
,Anolis_jacare:4.0):3.0,Anolis_princeps:7.0),Anolis_peraccae:8.0)):10.0):3.0),(((Scel
oporus_melanorhinus:8.0,(Sceloporus_bulleri:7.0,(Sceloporus_heterolepis:2.0,Scelop
orus_grammicus:2.0):5.0)):5.0,(Sceloporus_jalapae:2.0,Sceloporus_gadoviae:2.0):11.
0):7.0,(Phrynosoma_taurus:7.0,(Phrynosoma_cerroense:6.0,Phrynosoma_ditmarsi:6.0
)):13.0):3.0)),(Polychrus_liogaster,Polychrus_marmoratus):24.0)),(((Barisia_herrerae,
Barisia_rudicollis):11.0,((Xenosaurus_newmanorum,Xenosaurus_platyceps):2.0,Xen
osaurus_grandis:3.0):9.0):2.0,((Varanus_gilleni:2.0,Varanus_caudolineatus:2.0):8.0,
Varanus_boehmei:10.0):4.0):13.0):12.0,((((((Takydromus_sauteri:7.0,Takydromus_h
aughtonianus:7.0),Zootoca_vivipara:8.0):3.0,(((Algyroides_fitzingeri:8.0,(Phoenicola
certa_laevis:7.0,(Podarcis_tiliguerta:6.0,Podarcis_peloponnesiacus:6.0,((Podarcis_me
lisellensis:3.0,Podarcis_tauricus:3.0):2.0,Podarcis_muralis:5.0),(Podarcis_bocagei:2.0
,Podarcis_hispanicus:2.0):4.0))),((Iberolacerta_monticola:4.0,Dalmatolacerta_oxycep
hala:4.0):3.0,(Anatololacerta_danfordi:6.0,(Timon_lepidus:5.0,((((Lacerta_agilis,Lac
erta_viridis),Lacerta_trilineata:2.0),Lacerta_strigata:3.0),Lacerta_schreiberi:4.0)))):2.
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borbitalis):4.0,((Meroles_cuneirostris:2.0,Meroles_ctenodactylus:2.0):2.0,Ichnotropis
_squamulosa:4.0)):2.0,Ichnotropis_capensis:7.0),(Tropidosaura_gularis,Tropidosaura
_montana):7.0):2.0,(((Pedioplanis_undata:7.0,Pedioplanis_namaquensis:7.0),Pediopla
nis_lineoocellata:8.0),Pedioplanis_burchelli:9.0)):2.0,((Nucras_lalandii,Nucras_tessel
lata):4.0,((Pseuderemias_erythrosticta:2.0,(Heliobolus_lugubris,Heliobolus_nitida)):2
.0,Latastia_longicaudata:4.0)):7.0):2.0,(((Mesalina_rubropunctata:4.0,Mesalina_guttu
lata:4.0):3.0,(Ophisops_beddomei,Ophisops_elegans,Ophisops_jerdonii,Ophisops_les
chenaultii,Ophisops_occidentalis):6.0):2.0,(((((Acanthodactylus_pardalis:3.0,Acantho
dactylus_erythrurus:3.0),Acanthodactylus_boskianus:4.0),Acanthodactylus_scutellatu
s:5.0),(Omanosaura_cyanura,Omanosaura_jayakari):5.0):2.0,((Eremias_velox:4.0,Ere
mias_arguta:4.0,(Eremias_montanus:3.0,Eremias_argus:3.0)):2.0,Eremias_grammica:

6.0):2.0),(((Congolacerta_vauereselli:2.0,Holaspis_guentheri:2.0),(Adolfus_jacksoni:
2.0,Adolfus_africanus:2.0)),Gastropholis_echinata:4.0):5.0):5.0)),(((Psammodromus_
hispanicus:3.0,Psammodromus_blanci:3.0),Psammodromus_algirus:4.0):2.0,Gallotia
_galloti:6.0):10.0):4.0,((((((((((Aspidoscelis_sexlineata:5.0,Aspidoscelis_laredoensis:
5.0):3.0,(Aspidoscelis_deppei:2.0,Aspidoscelis_guttata:2.0):6.0),(Ameivula_ocellifer
a:3.0,Ameivula_littoralis:3.0):6.0),(Cnemidophorus_lemniscatus:7.0,((((Kentropyx_c
alcarata,Kentropyx_pelviceps),Kentropyx_altamazonica:2.0),((Kentropyx_paulensis,
Kentropyx_viridistriga),Kentropyx_vanzoi:2.0)),Kentropyx_striata:4.0):3.0):3.0),(A
meiva_ameiva:9.0,(Holcosus_undulatus:8.0,(Ameiva_auberi,Ameiva_dorsalis):7.0)):
2.0),Contomastix_vacariensis:12.0):2.0,Teius_teyou:14.0),Aurivela_tergolaevigata:1
5.0),Callopistes_maculatus:16.0):3.0,((((Leposoma_guianense:7.0,Arthrosaura_kocki
i:7.0):8.0,((Bachia_flavescens:13.0,((((Euspondylus_spinalis:7.0,(Cercosaura_manica
ta:6.0,((Cercosaura_argulus,Cercosaura_oshaughnessyi),Cercosaura_ocellata:2.0):4.0
)),Potamites_strangulatus:8.0),Pholidobolus_affinis:9.0):2.0,(Neusticurus_bicarinatus
,Neusticurus_rudis):10.0):2.0),((Gymnophthalmus_speciosus:7.0,Tretioscincus_agilis
:7.0),(Acratosaura_mentalis:3.0,Iphisa_elegans:3.0):5.0):6.0)),Colobodactylus_tauna
yi:16.0):2.0,Alopoglossus_copii:18.0))):19.0),((Proscelotes_arnoldi:25.0,(((Cryptoble
pharus_boutonii,Cryptoblepharus_eximius):2.0,(Panaspis_wahlbergi:2.0,(Panaspis_br
eviceps,Panaspis_cabindae,Panaspis_quattuordigitata))):3.0,(Lacertaspis_reichenowi:
5.0,(Leptosiaphos_graueri,Leptosiaphos_hackarsi):4.0)):19.0,((Lipinia_noctua:21.0,S
phenomorphus_jobiensis:21.0):2.0,Tropidophorus_microlepis:23.0):2.0,(Scincopus_f
asciatus:14.0,(Plestiodon_liui:12.0,Plestiodon_laticeps:12.0):2.0):11.0,(((((((Emoia_t
ongana:2.0,Emoia_concolor:2.0):5.0,(Emoia_trossula:6.0,Emoia_parkeri:6.0)),Emoia
_nigra:8.0):3.0,(Emoia_cyanura,Emoia_impar):10.0),Emoia_campbelli:12.0):7.0,(((V
arzea_bistriata:7.0,(Marisora_unimarginata:5.0,Mabuya_mabouya:5.0):2.0):9.0,(Trac
hylepis_polytropis:14.0,Trachylepis_ferrarai:14.0,Trachylepis_buettneri:14.0,((((((Tr
achylepis_sulcata:7.0,(Trachylepis_capensis:2.0,Trachylepis_varia:2.0):5.0),Trachyle
pis_maculilabris:8.0),Trachylepis_dumasi:9.0),Trachylepis_acutilabris:10.0),((Trachy
lepis_affinis:2.0,Trachylepis_perrotetii:2.0),(Trachylepis_margaritifera,Trachylepis_q
uinquetaeniata):2.0):8.0),(Trachylepis_brevicollis,Trachylepis_dichroma):11.0):2.0):
2.0):2.0,(Eutropis_macularia:9.0,Eutropis_longicaudata:9.0):9.0)),(Lepidothyris_fern
andi:17.0,(Tiliqua_rugosa:9.0,Lissolepis_coventryi:9.0):8.0):3.0):5.0):2.0,(((Platysaur
us_capensis:2.0,(Platysaurus_guttatus,Platysaurus_intermedius,Platysaurus_minor)):1
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li:2.0,Namazonurus_namaquensis:2.0),Namazonurus_peersi:3.0):6.0,(Hemicordylus_
capensis:8.0,((((Cordylus_rhodesianus:2.0,Cordylus_jonesii:2.0):2.0,(Cordylus_mecu
lae,Cordylus_tropidosternum):3.0),Cordylus_vittifer:5.0):2.0,(Cordylus_cordylus:3.0,
Cordylus_niger:3.0):4.0)))),((Pseudocordylus_melanotus:2.0,Pseudocordylus_microle
pidotus:2.0):2.0,Ninurta_coeruleopunctatus:4.0):7.0),(Smaug_warreni:2.0,Smaug_gig
anteus:2.0):10.0)),(Tetradactylus_udzungwensis:5.0,(Gerrhosaurus_nigrolineatus:2.0,
Gerrhosaurus_flavigularis:2.0):3.0):9.0):13.0):13.0),(((Phyllurus_platurus:11.0,Pygop
us_lepidopodus:11.0):6.0,(Pseudothecadactylus_cavaticus:16.0,Oedodera_marmorata
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modactylus_khobarensis:8.0):2.0,Bunopus_blanfordii:10.0),Cyrtopodion_stoliczkai:1
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s):2.0,Uroplatus_sikorae:3.0),Uroplatus_lineatus:4.0),Uroplatus_alluaudi:5.0),Uroplat
us_ebenaui:6.0)),Cnemaspis_dickersonae:8.0):14.0,(((((Pachydactylus_mariquensis:9
.0,(Pachydactylus_atorquatus:8.0,Pachydactylus_rangei:8.0)),Pachydactylus_parascut

atus:10.0):5.0,(Afroedura_karroica,Afroedura_tembulica,Afroedura_transvaalica):14.
0),(((Lygodactylus_capensis:3.0,Lygodactylus_klugei:3.0):5.0,Lygodactylus_guttural
is:8.0):3.0,(Phelsuma_malamakibo:9.0,Rhoptropella_ocellata:9.0):2.0):5.0):4.0,((Paro
edura_masobe:8.0,(Ebenavia_inunguis,Ebenavia_maintimainty):7.0):2.0,Cnemaspis_
anaikattiensis:10.0):10.0):2.0),(Perochirus_scutellatus:14.0,(Gehyra_oceanica:2.0,Ge
hyra_vorax:2.0):12.0):9.0),(((Lepidodactylus_manni:7.0,Lepidodactylus_lugubris:7.0
):4.0,Gekko_petricolus:11.0),(Dixonius_melanostictus:3.0,Dixonius_hangseesom:3.0
):9.0):12.0),((Cyrtodactylus_phongnhakebangensis:16.0,Cyrtodactylus_irianjayaensis
:16.0,Cyrtodactylus_fraenatus:16.0,(((((Cyrtodactylus_philippinicus:3.0,Cyrtodactylu
s_aurensis:3.0):6.0,Cyrtodactylus_semenanjungensis:9.0):4.0,Cyrtodactylus_tigroides
:13.0),Cyrtodactylus_angularis:14.0),((Cyrtodactylus_annandalei:4.0,(Cyrtodactylus_
ayeyarwadyensis:3.0,(Cyrtodactylus_brevidactylus:2.0,Cyrtodactylus_gansi:2.0))):2.
0,(Cyrtodactylus_russelli,Cyrtodactylus_slowinskii):5.0):9.0)):3.0,((Hemidactylus_br
ookii:3.0,Hemidactylus_frenatus:3.0):10.0,((Hemidactylus_mabouia:6.0,(Hemidactyl
us_longicephalus:5.0,Hemidactylus_fasciatus:5.0)):6.0,(Hemidactylus_sinaitus:11.0,(
Hemidactylus_turcicus:5.0,(Hemidactylus_yerburii:2.0,Hemidactylus_macropholis:2.
0):3.0):6.0))):6.0):6.0),(Cnemaspis_baueri,Cnemaspis_limi):25.0):2.0,((Ptyodactylus_
guttatus,Ptyodactylus_hasselquistii,Ptyodactylus_oudrii,Ptyodactylus_ragazzii):12.0,(
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0)):6.0):3.0):15.0),((Pseudogonatodes_guianensis:9.0,((Gonatodes_annularis:3.0,Gon
atodes_hasemani:3.0):2.0,Gonatodes_humeralis:5.0):4.0),Chatogekko_amazonicus:1
0.0):19.0):2.0):10.0);

b. References (the specific reference for each species appear in Appendix 1)

Ahmadzadeh, F., Carretero, M. A., Harris, D. J., Perera, A. and Bohme, W. 2012. A molecular phylogeny of the eastern group of ocellated lizard genus *Timon* (Sauria: Lacertidae) based on mitochondrial and nuclear DNA sequences. Amphibia-Reptilia 33: 1-10.

Alfoldi, J., Di Palma, F., Grabherr, M., Williams, C., Kong, L., Mauceli, E., Russell, P., Lowe, C. B., Glor, R. E., Jaffe, J. D., Ray, D. A., Boissinot, S., Shedlock, A. M., Botka, C., Castoe, T. A., Colbourne, J. K., Fujita, M. K., Moreno, R. G., ten Hallers, B. F., Haussler, D., Heger, A., Heiman, D., Janes, D. E., Johnson, J., de Jong, P. J., Koriabine, M. Y., Lara, M., Novick, P. A., Organ, C. L., Peach, S. E., Poe, S., Pollock, D. D., de Queiroz, K., Sanger, T., Searle, S., Smith, J. D., Smith, Z., Swofford, R., Turner-Maier, J., Wade, J., Young, S., Zadissa, A., Edwards, S. V., Glenn, T. C., Schneider, C. J., Losos, J. B., Lander, E. S., Breen, M., Ponting, C. P. and Lindblad-Toh, K. 2011. The genome of the green anole lizard and a comparative analysis with birds and mammals. Nature 477: 587-591.

Arnold, E. N. 1989. Systematics and adaptive radiation of Equatorial African lizards assigned to the *genera Adolfus, Bedriagaia, Gastropholis*, *Holaspis* and Lacerta (Reptilia, Lacertidae). Journal of Natural History, 23: 525-555.

Arnold, E. N. 1989. Towards a phylogeny and biogeography of the Lacertidae: relationships within an Old-World family of lizards derived from morphology. Bulletin of the British Museum (Natural History), Zoology 55: 209-257.

Arnold, E. N., Arribas, O. and Carranza, S. 2007. Systematics of the Palaearctic and Oriental lizard tribe Lacertini (Squamata: Lacertidae: Lacertinae), with descriptions of eight new genera. Zootaxa 1430: 1-86.

Bauer, A. M., Lamb, T. and Branch, W. R. 2006. A revision of the *Pachydactylus serval* and *P. weberi* groups (Reptilia: Gekkota: Gekkonidae) of Southern Africa, with the description of eight new species. Proceedings of the California Academy of Sciences 57: 595-709.

Bauer, A. M., Jackman, T. R., Sadlier, R. A. and Whitaker, A. H. 2012. Revision of the giant geckos of New Caledonia (Reptilia: Diplodactylidae: *Rhacodactylus*). Zootaxa 3404: 1-52.

Bauer, A. M., Masroor, R., Titus-Mcquillan, J., Heinicke, M. P., Daza, J. D. and Jackman, T. R. 2013. A preliminary phylogeny of the Palearctic naked-toed geckos (Reptilia: Squamata: Gekkonidae) with taxonomic implications. Zootaxa 3599: 301-324.

Benavides, E., Baum, R., McClellan, D. and Sites, J. W. 2007. Molecular phylogenetics of the lizard genus *Microlophus* (Squamata:Tropiduridae): aligning and retrieving indel signal from nuclear introns. Systematic Biology, 56: 776-797.

Bhullar, B-A. S. 2011. The power and utility of morphological characters in systematics: A fully resolved phylogeny of *Xenosaurus* and its fossil relatives (Squamata: Anguimorpha). Bulletin of the Museum of Comparative Zoology, 160: 65-181.

Brandley, M. C., Ota, H., Hikida, T., De Oca, A. N., Feria-Ortiz, M., Guo, X. and Wang, Y. 2012. The phylogenetic systematics of blue-tailed skinks (*Plestiodon*) and the family Scincidae. Zoological Journal of the Linnean Society, 165: 163-189.

Breitman, M. F., Avila, L. J., Sites, J. W. and Morando, M. 2011. Lizards from the end of the world: Phylogenetic relationships of the *Liolaemus lineomaculatus* section (Squamata: Iguania: Liolaemini). Molecular Phylogenetics and Evolution 59: 364-376.

Bryson, R. W. and Riddle, B. R. 2012. Tracing the origins of widespread highland species: a case of Neogene diversification across the Mexican sierras in an endemic lizard. Biological Journal of the Linnean Society, 105: 382-394.

Busais, S. and Joger, U. 2011. Molecular phylogeny of the gecko genus *Hemidactylus* Oken, 1817 on the mainland of Yemen. Zoology in the Middle East 53: 25-34.

Busais, S. M. and Joger, U. 2011. Three new species and one new subspecies of *Hemidactylus* Oken, 1817 from Yemen (Squamata, Gekkonidae). Vertebrate Zoology 61: 267-280.

Camargo, A., Avila, L. J., Morando, M., and Sites, J. W. 2012. Accuracy and precision of species trees: effects of locus, individual, and base pair sampling on inference of species trees in lizards of the *Liolaemus darwinii* group (Squamata, Liolaemidae). Systematic Biology 61: 272-288.

Carranza, S. and Arnold, E. N. 2006. Systematics, biogeography, and evolution of *Hemidactylus* geckos (Reptilia: Gekkonidae) elucidated using mitochondrial DNA sequences. Molecular Phylogenetics and Evolution 38: 531-545.

Carranza, S. and Arnold, E. N. 2012. A review of the geckos of the genus *Hemidactylus* (Squamata: Gekkonidae) from Oman based on morphology, mitochondrial and nuclear data, with descriptions of eight new species. Zootaxa 3378: 1-95.

Carranza, S., Harris, D. J., Arnold, E. N., Batista, V. and Gonzalez de la Vega, J. P. 2006. Phylogeography of the lacertid lizard, *Psammodromus algirus*, in Iberia and across the Strait of Gibraltar. Journal of Biogeography 33: 1279-1288.

Castaneda, M. d. R. and de Queiroz, K. 2011. Phylogenetic relationships of the Dactyloa clade of *Anolis* lizards based on nuclear and mitochondrial DNA sequence data. Molecular Phylogenetics and Evolution 61: 784-800.

Castiglia, R. and Annesi, F. 2011. The phylogenetic position of *Lygodactylus angularis* and the utility of using the 16S rDNA gene for delimiting species in *Lygodactylus* (Squamata, Gekkonidae). Acta Herpetologica 6: 35-45.

Castoe, T .A., Doan, T. M. and Parkinson, C. L. 2004. Data partitions and complex models in Bayesian analysis: the phylogeny of Gymnophthalmid lizards. Systematic Biology 53: 448-469.

Chou, C. E. 2007. Phylogeography of the endemic species Japalura brevipes of Taiwan based on cytochrome b sequences and morphology. PhD Dissertation, National Sun Yat-sen University, Kaohsiung City.

Conradie, W., Measey, G. J., Branch, W. R. and Tolley, K. A. 2012. Revised phylogeny of African sand lizards (Pedioplanis), with the description of two new species from south-western Angola. African Journal of Herpetology, 61: 91-112.

D'angiolella, A. B., Gamble, T., Avila-Pires, T. C. S., Colli, G. R. and Noonan, B. P. 2011. Anolis chrysolepis Duméril and Bibron, 1837 (Squamata: Iguanidae), revisited: molecular phylogeny and taxonomy of the Anolis chrysolepis species group. Bulletin of the Museum of Comparative Zoology 160: 35-63.

Datta-Roy, A., Singh, M., Srinivasulu, C. and Karanth, K. P. 2012. Phylogeny of the Asian Eutropis (Squamata: Scincidae) reveals an ‘into India’ endemic Indian radiation. Molecular Phylogenetics and Evolution 63: 817-824.

Doan, T. M. 2003. A new phylogenetic classification for the gymnophthalmid genera Cercosaura, Pantodactylus and Prionodactylus (Reptilia: Squamata). Zoological Journal of the Linnean Society 137: 101–115.

Doan, T. M. 2003. A south-to-north biogeographic hypothesis for Andean speciation: evidence from the lizard genus Proctoporus (Reptilia, Gymnophthalmidae). Journal of Biogeography, 30: 361-374.

Doan, T. M. and Castoe, T. A. 2005. Phylogenetic taxonomy of the Cercosaurini (Squamata: Gymnophthalmidae), with new genera for species of Neusticurus and Proctoporus. Zoological Journal of the Linnean Society, 143: 405–416.

Doan, T. M., Castoe, T. A. and Arriaga, W. A. 2005. Phylogenetic relationships of the genus Proctoporus sensu stricto (Squamata: Gymnophthalmidae), with a new species from Puno, southeastern Peru. Herpetologica, 61: 325–336.

Doughty, P., Maryan, B., Melville, J. and Austin, J. 2007. A new species of Ctenophorus (Lacertilia: Agamidae) from Lake Disappointment, Western Australia. Herpetologica, 63: 72–86.

Edwards, S., Vanhooydonck, B., Herrel, A., Measey, G. J. and Tolley, K. A. 2012. Convergent evolution associated with habitat decouples phenotype from phylogeny in a clade of lizards. PLoS ONE 7(12): e51636. doi:10.1371/journal.pone.0051636.

Engleder, A., Haring, E., Kirchhof, S. and Mayer, W. 2013. Multiple nuclear and mitochondrial DNA sequences provide new insights into the phylogeny of South African Lacertids (Lacertidae, Eremiadinae). Journal of Zoological Systematics and Evolutionary Research

Feltrim, A. C. and De Lema, T. 2000. Uma nova especie de Cnemidophorus Wagler, 1830 do estado do Rio Grande do sul Brasil (Sauria, Teiidae). Biociencias, Porto Alegre, 8: 103-114.

Flecks, M., Schmitz, A., Bohme, W., Henkel, F. W. and Ineich, I. 2012. A new species of Gehyra Gray, 1834 (Squamata, Gekkonidae) from the Loyalty Islands and Vanuatu, and phylogenetic relationships in the genus Gehyra in Melanesia. Zoosystema 34: 203-221.

Frost, D. R., Etheridge, R., Janies, D. and Titus, T. A. 2001. Total evidence, sequence alignment, evolution of Polychrotid lizards, and a reclassification of the Iguania (Squamata: Iguania). American Museum Novitates 3343: 1-38.

Frost, D. R., Rodrigues, M. T., Grant, T. and Titus, T. A. 2001. Phylogenetics of the lizard genus Tropidurus (Squamata: Tropiduridae: Tropidurinae): direct optimization, descriptive efficiency, and sensitivity analysis of congruence between molecular data and morphology. Molecular Phylogenetics and Evolution 21: 352–371.

Frost, D., Janies, D., Mouton, P. Le F. N. and Titus, T. 2001. A molecular perspective on the phylogeny of the girdled lizards (Cordylidae, Squamata). American Museum Novitates 3310: 1-10.

Fujita, M. K. and Papenfuss, T. J. 2011. Molecular systematics of Stenodactylus (Gekkonidae), an Afro-Arabian gecko species complex. Molecular Phylogenetics and Evolution 58: 71-75.

Gamble, T., Bauer, A. M., Greenbaum, E. and Jackman, T. R. 2008. Evidence for Gondwanan vicariance in an ancient clade of gecko lizards. Journal of Biogeography 35: 88-104.

Gamble, T., Bauer, A. M., Greenbaum, E. and Jackman, T. R. J. 2008. Out of the blue: a novel, trans-Atlantic clade of geckos (Gekkota, Squamata). Zoologica Scripta, 37: 355-366.

Gamble, T., Simons, A. M., Colli, G. R. and Vitt, L. J. 2008. Tertiary climate change and the diversification of the Amazonian gecko genus Gonatodes (Sphaerodactylidae, Squamata). Molecular Phylogenetics and Evolution 46: 269-277.

Gamble, T., Bauer, A. M., Colli, G. R. Greenbaum, E., Vitt, L. J. and Simons, A. M. 2011. Coming to America: multiple origins of New World geckos. Journal of Evolutionary Biology 24: 231-244.

Gamble, T., Daza, J. D., Colli, G. R., Vitt, L. J. and Bauer, A. M. 2011. A new genus of miniaturized and pug-nosed gecko from South America (Sphaerodactylidae: Gekkota). Zoological Journal of the Linnean Society, 163: 1244-1266.

Gamble, T., Colli, G. R., Rodrigues, M. T., Werneck, F. P. and Simons, A. M. 2012. Phylogeny and cryptic diversity in geckos (Phyllopezus; Phyllodactylidae; Gekkota) from South America’s open biomes. Molecular Phylogenetics and Evolution 62: 943-953.

Gamble, T., Greenbaum, E., Jackman, T. R., Russell, A. P. and Bauer, A. M. 2012. Repeated origin and loss of adhesive toepads in geckos. PLoS ONE 7(6): e39429. doi:10.1371/journal.pone.0039429.

Gardner, M. G., Hugall, A. F., Donnellan, S. C., Hutchinson, M. N. and Foster, R. 2008. Molecular systematics of social skinks: phylogeny and taxonomy of the Egernia group (Reptilia: Scincidae). Zoological Journal of the Linnean Society, 154: 781-794.

Geniez, P., Padial, J. M. and Crochet, P-A. 2011. Systematics of north African Agama (Reptilia: Agamidae): a new species from the central Saharan mountains. Zootaxa 3098: 26-46.

Giugliano, L. G., Collevatti, R. G. and Colli, G. R. 2007. Molecular dating and phylogenetic relationships among Teiidae (Squamata) inferred by molecular and morphological data. Molecular Phylogenetics and Evolution 45: 168-179.

Godinho, R., Crespo, E. G., Ferrand, N. and Harris, D. J. 2005. Phylogeny and evolution of the green lizards, Lacerta spp. (Squamata: Lacertidae) based on mitochondrial and nuclear DNA sequences. Amphibia-Reptilia 26: 271-285.

Goncalves, D. V., Brito, J. C., Crochet, P-A., Geniez, P., Padial, J. M. and Harris, D. J. 2012. Phylogeny of North African Agama lizards (Reptilia: Agamidae) and the role of the Sahara desert in vertebrate speciation. Molecular Phylogenetics and Evolution 64: 582-591.

Greenbaum, E., Bauer, A. M. and Jackman, T. R. 2007. Homopholis and Blaesodactylus (Squamata: Gekkonidae) revisited: new insights from a molecular phylogeny. African Journal of Herpetology, 56: 101-114.

Greenbaum, E., Bauer, A. M., Jackman, T. R., Vences, M. and Glaw, F. 2007. A phylogeny of the enigmatic Madagascan geckos of the genus Uroplatus (Squamata: Gekkonidae). Zootaxa 1493: 41151.

Greenbaum, E., Villanueva, C. O., Kusamba, C., Aristote, M. M. and Branch, W. R. 2011. A molecular phylogeny of Equatorial African Lacertidae, with the description of a new genus and species from eastern Democratic Republic of the Congo. Zoological Journal of the Linnean Society, 163: 913-942.

Greenbaum, E., Stanley, E. L., Kusamba, C., Moninga, W. M., Goldberg, S. R. and Bursey, C. R. 2012. A new species of Cordylus (Squamata: Cordylidae) from the Marungu Plateau of south-eastern Democratic Republic of the Congo. African Journal of Herpetology, 61: 14-39.

Guo, X., Dai, X., Chen, D., Papenfuss, T. J., Ananjeva, N. B., Melnikov, D. A. and Wang, Y. 2011. Phylogeny and divergence times of some racerunner lizards (Lacertidae: Eremias) inferred from mitochondrial 16S rRNA gene segments. Molecular Phylogenetics and Evolution 61: 400-412.

Hamilton, A. M. 2008. Species boundaries, biogeography, and intra-archipelago genetic variation within the Emoia samoensis species group in the Vanuatu Archipelago and Oceania. PhD Dissertation, Louisiana State University.

Harris, D. J. 2008. Taxonomic inflation and red lists: how have Mediterranean reptile conservation issues been affected? Proceedings of the Symposium on the Lacertids of the Mediterranean Basin, 6: 28.

Harris, D. J. and Arnold, E. N. 2000. Elucidation of the relationships of spiny-footed lizards, Acanthodactylus spp. (Reptilia: Lacertidae) using mitochondrial DNA sequence, with comments on their biogeography and evolution. Journal of Zoology 252: 351-362.

Harris, D. J., Arnold, E. N. and Thomas, R. H. 1999. A phylogeny of the European lizard genus Algyroides (Reptilia: Lacertidae) based on DNA sequences, with comments on the evolution of the group. Journal of Zoology 249: 49-60.

Harris, D. J., Pinho, C., Carretero, M. A., Corti, C. and Bohme, W. 2005. Determination of genetic diversity within the insular lizard Podarcis tiliguerta using mtDNA sequence data, with a reassessment of the phylogeny of Podarcis. Amphibia-Reptilia 26: 401-407.

Harvey, M. B., Ugueto, G. N. and Gutberlet, R. L. 2012. Review of teiid morphology with a revised taxonomy and phylogeny of the Teiidae (Lepidosauria: Squamata). Zootaxa 3459: 1-156.

Hedges, S. B. and Conn, C. E. 2012. A new skink fauna from Caribbean islands (Squamata, Mabuyidae, Mabuyinae). Zootaxa 3288: 1-244.

Heinicke, M. P., Adderly, L. M., Bauer, A. M. and Jackman, T. R. 2011. A long-known new species of gecko allied to Pachydactylus bicolor (Squamata: Gekkonidae) from the central Namibian coast. African Journal of Herpetology 60: 113-129.

Heinicke, M. P., Greenbaum, E., Jackman, T. R. and Bauer, A. M. 2011. Phylogeny of a trans-Wallacean radiation (Squamata, Gekkonidae, Gehyra) supports a single early colonization of Australia. Zoologica Scripta 40: 584-602.

Heinicke, M. P., Greenbaum, E., Jackman, T. R. and Bauer, A. M. 2012. Evolution of gliding in Southeast Asian geckos and other vertebrates is temporally congruent with dipterocarp forest development. Biology Letters, 8: 994-997.

Honda, M., Ota, H., Murphy, R. W. and Hikida, T. 2006. Phylogeny and biogeography of water skinks of the genus Tropidophorus (Reptilia: Scincidae): a molecular approach. Zoologica Scripta, 35: 85–95.

Hower, L. M. and Hedges, S. B. 2003. Molecular phylogeny and biogeography of West Indian teiid lizards of the genus Ameiva. Caribbean Journal of Science 39: 298-306.

Hugall, A. F., Foster, R. and Lee, M. S. Y. 2007. Calibration choice, rate smoothing, and the pattern of tetrapod diversification according to the long nuclear gene RAG-1. Systematic Biology 56: 543-563.

Hugall, A. F., Foster, R., Hutchinson, M. and Lee, S. Y. 2008. Phylogeny of Australasian agamid lizards based on nuclear and mitochondrial genes: implications for morphological evolution and biogeography. Biological Journal of the Linnean Society, 93: 343-358.

Jackman, T. R., Bauer, A. M., Greenbaum, E. Glaw, F. and Vences, M. 2008. Molecular phylogenetic relationships among species of the Malagasy-Comoran gecko genus Paroedura (Squamata: Gekkonidae). Molecular Phylogenetics and Evolution 46: 74-81.

Jesus, J., Harris, D. J. and Brehm, A. 2007. Relationships of Afroablepharus Greer, 1974 skinks from the Gulf of Guinea islands based on mitochondrial and nuclear DNA: Patterns of colonization and comments on taxonomy. Molecular Phylogenetics and Evolution 45: 904-914.

Joger, U. and Mayer, W. 2002. A new species of Mesalina from Abd al-Kuri, Socotra archipelago, Yemen, and a preliminary molecular phylogeny for the genus Mesalina. Fauna of Saudi Arabia, 19: 497-505.

Johnston, G. R., Lee, M. S. Y. and Surasinghe, T. D. 2013. Morphology and allometry suggest multiple origins of rostral appendages in Sri Lankan agamid lizards. Journal of Zoology 289: 1-9.

Kaliontzopoulou, A., Pinho, C., James Harris, D. J. and Carretero, M. A. 2011. When cryptic diversity blurs the picture: a cautionary tale from Iberian and North African Podarcis wall lizards. Biological Journal of the Linnean Society, 103: 779-800.

Kalyabina-Hauf, S., Ananjeva, N. B., Joger, U., Lenk, P., Murphy, R. W., Stuart, B. L., Orlov, N. L., Ho, C. T. and Wink, M. 2004. Molecular phylogeny of the genus Acanthosaura (Agamidae). Current Herpetology, 23: 7-16.

Kapli, P., Lymberakis, P., Poulakakis, N., Mantziou, G., Parmakelis, A. and Mylonas, M. 2008. Molecular phylogeny of three Mesalina (Reptilia: Lacertidae) species (M. guttulata, M. brevirostris and M. bahaeldini) from North Africa and the Middle East: another case of paraphyly? Molecular Phylogenetics and Evolution 49: 102-110.

Tamar, K. (unpublished) A taxonomic, phylogenetic, and phylogeographic revision of the reptile genera Acanthodactylus Wiegmann, 1834 and Phoenicolacerta Gray, 1838 (Sauria: Lacertidae) in Israel. Unpublished PhD Dissetation, Tel Aviv University

Kohlsdorf, T., Lynch, V. J., Rodrigues, M. T., Brandley, M. C. and Wagner, G. P. 2010. Data and data interpretation in the study of limb evolution: a reply to Galis et al. on the reevolution of digits in the lizard genus Bachia. Evolution 64: 2477-2485.

Labra, A., Pienaar, J. and Hansen, T. F. 2009. Evolution of thermal physiology in Liolaemus lizards: adaptation, phylogenetic inertia, and niche tracking. American Naturalist, 174: 204-220.

Lamb, T. and Bauer, A. M. 2003. Meroles revisited: complementary systematic inference from additional mitochondrial genes and complete taxon sampling of southern Africa’s desert lizards. Molecular Phylogenetics and Evolution 29: 360-364.

Lamb, T. and Bauer, A. M. 2006. Footprints in the sand: independent reduction of subdigital lamellae in the Namib–Kalahari burrowing geckos. Proceedings of the Royal Society of London B. 273: 855-864.

Lamb, T., Meeker, A. M., Bauer, A. M. and Branch, W. R. 2003. On the systematic status of the desert plated lizard (Angolosaurus skoogi): phylogenetic inference from DNA sequence analysis of the African Gerrhosauridae. Biological Journal of the Linnean Society 78: 253-261.

Leache, A. D. 2010. Species trees for spiny lizards (Genus Sceloporus): Identifying points of concordance and conflict between nuclear and mitochondrial data. Molecular Phylogenetics and Evolution 54: 162-171.

Linkem, C. W., Diesmos, A. C. and Brown, R. M. 2011. Molecular systematics of the Philippine forest skinks (Squamata: Scincidae: Sphenomorphus): testing morphological hypotheses of interspecific relationships. Zoological Journal of the Linnean Society, 163: 1217-1243.

Lobo, F., Abdala, C. and Valdecantos, S. 2012. Morphological diversity and phylogenetic relationships within a South-American clade of iguanian lizards (Liolaemidae: Phymaturus). Zootaxa 3315: 1-41.

Lue, K-Y. and Lin, S-M. 2008. Two new cryptic species of Takydromus (Squamata: Lacertidae) from Taiwan. Herpetologica, 64: 379-395.

Maduwage, K., Meegaskumbura, M., Silva, A. and Pethiyagoda, R. 2008. Phylogenetic implications of hemipenial morphology in Sri Lankan agamid lizards. Current Science 95: 838-840.

Makokha, J. S., Bauer, A. A., Mayer, W. and Matthee, C. A. 2007. Nuclear and mtDNA-based phylogeny of southern African sand lizards, Pedioplanis (Sauria: Lacertidae). Molecular Phylogenetics and Evolution 44: 622-633.

Malone, C. L., Wheeler, T., Taylor, J. F. and Davis, S. K. 2000. Phylogeography of the Caribbean rock iguana (Cyclura): implications for conservation and insights on the biogeographic history of the West Indies. Molecular Phylogenetics and Evolution 17: 269-279.

Mariaux, J. and Tilbury, C. R. 2006. The pygmy chameleons of the eastern Arc range (Tanzania): Evolutionary relationships and the description of three new species of Rhampholeon (Sauria: Chamaeleonidae). Herpetological Journal 16: 315-331.

Mayer, W. and Pavlicev, M. 2007. The phylogeny of the family Lacertidae (Reptilia) based on nuclear DNA sequences: Convergent adaptations to arid habitats within the subfamily Eremiainae. Molecular Phylogenetics and Evolution 44: 1155-1163.

McGuire, J. A. and Heang, K. B. 2001. Phylogenetic systematics of Southeast Asian flying lizards (Iguania: Agamidae: Draco) as inferred from mitochondrial DNA sequence data. Biological Journal of the Linnean Society 72: 203-229.

McGuire, J. A., Linkem, C. W., Koo, M.,Hutchison, D. W., Lappin, A. K., Orange, D. O., Lemos-Espinal, J., Riddle, B. R. and Jaeger, J. 2007. Mitochondrial introgression and incomplete lineage sorting through space and time: Phylogenetics of crotaphytid lizards. Evolution 61: 2879-2897.

Mediannikov, O., Trape, S. and Trape, J-F. 2012. Molecular study of the genus Agama (Squamata: Agamidae) in West Africa, with description of two new species and a review of the taxonomy, geographic distribution, and ecology of currently recognized species. Russian Journal of Herpetology 19: 115-142.

Melville, J., Hale, J., Mantziou, G., Ananjeva, N. B., Milto, K. and Clemann, N. 2009. Historical biogeography, phylogenetic relationships and intraspecific diversity of agamid lizards in the Central Asian deserts of Kazakhstan and Uzbekistan. Molecular Phylogenetics and Evolution 53: 99-112.

Metallinou, M., Arnold, E. N., Crochet, P. A., Geniez, P. H., Brito, J. C., Lymberakis, P., Baha el Din, S., Sindaco, R., Robinson, M. and Carranza, S. 2012. Conquering the Sahara and Arabian deserts: systematics and biogeography of Stenodactylus geckos (Reptilia: Gekkonidae). BMC Evolutionary Biology 12: 258.

Miralles, A., Barrio-Amoros, C. L., Rivas, G. and Chaparro-Auza, J. C. 2006. Speciation in the "Varzea" flooded forest: a new Mabuya (Squamata, Scincidae) from Western Amazonia. Zootaxa 1188: 1-22.

Morando, M., Avila, L. J., Turner, C. R. and Sites, J. W. 2007. Molecular evidence for a species complex in the patagonian lizard Liolaemus bibronii and phylogeography of the closely related Liolaemus gracilis (Squamata: Liolaemini). Molecular Phylogenetics and Evolution 43: 952-973.

Morando, M., Avila, L. J., Perez, C. H. F., Hawkins, M. and Sites, J. W. 2013. A molecular phylogeny of the lizard genus Phymaturus (Squamata, Liolaemini): Implications for species diversity and historical biogeography of southern South America. Molecular Phylogenetics and Evolution 66: 694-714.

Moreno Azocar, D. L., Vanhooydonck, B., Bonino, M. F., Perotti, M. G., Abdala, C. S., Schulte, J. A. and Cruz, F. B. 2012. Chasing the Patagonian sun: comparative thermal biology of Liolaemus lizards. Oecologia

Nicholson, K. E., Glor, R. E., Kolbe, J. J., Larson, A., Hedges, S. B. and Losos, J. B. 2005. Mainland colonization by island lizards. Journal of Biogeography 32: 929–938.

Nicholson, K. E., Crother, B. I., Guyer, C. and Savage, J. M. 2012. It is time for a new classification of anoles (Squamata: Dactyloidae). Zootaxa 3477: 1-108.

Olave, M., Martinez, L. E., Avila, L. J., Sites, J. W. and Morando, M. 2011. Evidence of hybridization in the Argentinean lizards Liolaemus gracilis and Liolaemus bibronii (Iguania: Liolaemini): An integrative approach based on genes. Molecular Phylogenetics and Evolution 61: 381-391.

Oliver, P. M. and Bauer, A. M. 2011. Systematics and evolution of the Australian knob-tail geckos (Nephrurus, Carphodactylidae, Gekkota): Pleisomorphic grades and biome shifts through the Miocene. Molecular Phylogenetics and Evolution 59: 664-674.

Oliver, P. M., Couper, P. and Amey, A. 2010. A new species of Pygopus (Pygopodidae; Gekkota; Squamata) from north-eastern Queensland. Zootaxa 2578: 47-61.

Oliver, P. M., Richards, S. J. and Sistrom, M. 2012. Phylogeny and systematics of Melanesia's most diverse gecko lineage (Cyrtodactylus, Gekkonidae, Squamata). Zoologica Scripta 41: 437-454.

Orlov, N. L., Nguyen, T. Q. and Nguyen, S. V. 2006. A new Acanthosaura allied to A. capra Günther, 1861 (Agamidae, Sauria) from Central Vietnam and Southern Laos. Russian Journal of Herpetology 13: 61-76.

Pavlicev, M. and Mayer, W. 2009. Fast radiation of the subfamily Lacertinae (Reptilia: Lacertidae): History or methodical artefact? Molecular Phylogenetics and Evolution, 52: 727-734.

Pellegrino, K. C. M., Rodrigues, M. T., Waite, A. N., Morando, M., Yassuda, Y. Y. and Sites, J. W. 2005. Phylogeography and species limits in the Gymnodactylus darwinii complex (Gekkonidae, Squamata): genetic structure coincides with river systems in the Brazilian Atlantic Forest. Biological Journal of the Linnean Society 85: 13-26.

Pellegrino, K. C. M., Rodrigues, M. T., Harris, D. J., Yatiyo Yonenaga-Yassuda, Y. and Sites, J. W. 2011. Molecular phylogeny, biogeography and insights into the origin of parthenogenesis in the Neotropical genus Leposoma (Squamata: Gymnophthalmidae): ancient links between the Atlantic Forest and Amazonia. Molecular Phylogenetics and Evolution 61: 446-459.

Perera, A., Sampaio, F., Costa, S., Salvi, D. and Harris, D. J. 2012. Genetic variability and relationships within the skinks Eumeces algeriensis and Eumeces schneideri using mitochondrial markers. African Journal of Herpetology, 61: 69-80.

Pincheira-Donoso, D., Hodgson, D. J. and Tregenza, T. 2008. The evolution of body size under environmental gradients in ectotherms: why should Bergmann's rule apply to lizards? BMC Evolutionary Biology 8: 68.

Pincheira-Donoso, D., Hodgson, D. J., Stipala, J. and Tregenza, T. 2009. A phylogenetic analysis of sex-specific evolution of ecological morphology in Liolaemus lizards. Ecological Research 24: 1223-1231.

Poe, S., Ayala, F., Latella, I.M., Kennedy, T.L., Christensen, J. A., Gray, L. N., Blea, N. J., Armijo, B. M. and Schaad, E. W. 2012. Morphology, phylogeny, and behavior of Anolis Proboscis. Breviora, 530: 1-11.

Portik, D. M. and Bauer, A. M. 2012. Untangling the complex: molecular patterns in Trachylepis variegata and T. punctulata (Reptilia: Scincidae). African Journal of Herpetology, 61: 128-142.

Poulakakis, N., Lymberakis, P., Antoniou, A., Chalkia, D., Zouros, E., Mylonas, M. and Valakos, E. 2003. Molecular phylogeny and biogeography of the wall-lizard Podarcis erhardii (Squamata: Lacertidae). Molecular Phylogenetics and Evolution 28: 38-46.

Poulakakis, N., Lymberakis, P., Valakos, E. and Mylonas, M. 2005. Phylogenetic relationships and biogeography of Podarcis species from the Balkan Peninsula, by bayesian and maximum likelihood analyses of mitochondrial DNA sequences. Molecular Phylogenetics and Evolution 37: 845-857.

Poulakakis, N., Lymberakis, P., Valakos, E., Pafilis, P., Zouros, E. and Mylonas, M. 2005. Phylogeography of Balkan wall lizard (Podarcis taurica) and its relatives inferred from mitochondrial DNA sequences. Molecular Ecology 14: 2433-2443.

Rastegar Pouyani, E., Rastegar Pouyani, N., Noureini, S. K., Joger, U. and Wink, M. 2010. Molecular phylogeny of the Eremias persica complex of the Iranian plateau (Reptilia: Lacertidae), based on mtDNA sequences. Zoological Journal of the Linnean Society, 158: 641-660.

Ratsoavina, F. M., Vences, M. and Louis, E. E. 2012. Phylogeny and phylogeography of the Malagasy leaf-tailed geckos in the Uroplatus ebenaui group. African Journal of Herpetology, 61: 143-158.

Raxworthy, C. J., Forstner, M. R. J. and Nussbaum, R. A. 2002. Chameleon radiation by oceanic dispersal. Nature, 415: 784-787.

Reeder, T. W. 2003. A phylogeny of the Australian Sphenomorphus group (Scincidae: Squamata) and the phylogenetic placement of the crocodile skinks (Tribolonotus): Bayesian approaches to assessing congruence and obtaining confidence in maximum likelihood inferred relationships. Molecular Phylogenetics and Evolution 27: 384–397.

Reeder, T. W., Cole, C. J. and Dessauer, H. C. 2002. Phylogenetic relationships of whiptail lizards of the genus Cnemidophorus (Squamata: Teiidae): A test of monophyly, reevaluation of karyotipic evolution, and review of hybrid origins. American Museum Novitates 3365: 1–61.

Richmond, J. Q. 2006. Evolutionary basis of parallelism in North American scincid lizards. Evolution & Development 8: 477-490.

Rocha, S.,Vences, M., Glaw, F., Posada, D. and Harris, D. J. 2009. Multigene phylogeny of Malagasy day geckos of the genus Phelsuma. Molecular Phylogenetics and Evolution 52: 530-537.

Rocha, S., Carretero, M. A. and Harris, D. J. 2010. Genetic diversity and phylogenetic relationships of Mabuya spp. (Squamata: Scincidae) from western Indian Ocean islands. Amphibia-Reptilia 31: 375-385.

Rodrigues, M. T., Cassimiro, J., Pavan, D., Curcio, F. C., Verdade, V. K. And Pellegrino, K. C. M. 2009. A new genus of Microteiid lizard from the Caparao Mountains, Southeastern Brazil, with a discussion of relationships among Gymnophthalminae (Squamata). American Museum Novitates 3673: 1-27.

Roll, B., Prohl, H., Hoffmann, K. P. 2010. Multigene phylogenetic analysis of Lygodactylus dwarf geckos (Squamata: Gekkonidae). Molecular Phylogenetics and Evolution 56: 327-335.

Rosler, H., Bauer, A. M.,, Heinicke, M. P., Greenbaum, E., Jackman, T., Nguyen, T. Q. and Ziegler, T. 2011. Phylogeny, taxonomy, and zoogeography of the genus Gekko Laurenti, 1768 with the revalidation of G. reevesii Gray, 1831 (Sauria: Gekkonidae). Zootaxa 2989: 1-50.

Russell, A. P. and Bauer, A. M. 2002. Underwood's classification of the geckos: a 21st century appreciation. Bulletin of the Natural History Museum, London Zoology Series 68: 113-121.

Schulte, J. A., Melville, J. and Larson, A. 2003. Molecular phylogenetic evidence for ancient divergence of lizard taxa on either side of Wallace's Line. Proceedings of the Royal Society of London B. 270: 597-603.

Schulte, J. A., Valladares, J. P. and Larson, A. 2003. Phylogenetic relationships within Iguanidae using molecular and morphological data and a phylogenetic taxonomy of iguanian lizards. Herpetologica 59: 399-419.

Schulte, J. A., Losos, J. B., Cruz, F. B. and Nunez, H. 2004. The relationship between morphology, escape behaviour and microhabitat occupation in the lizard clade Liolaemus (Iguanidae: Tropidurinae: Liolaemini). Journal of Evolutionary Biology 17: 408-420.

Schulte, J. A., Vindum, J. V., Win, H., Thin, T., Lwin, K. S. and Shein, A. K. 2004. Phylogenetic relationships of the genus Ptyctolaemus (Squamata: Agamidae), with a description of a new species from the Chin Hills of western Myanmar. Proceedings of the California Academy of Sciences 55: 222-247.

Schmitz, A. Ineich, I. and Chirio, L. 2005. Molecular review of the genus Panaspis sensu lato (Reptilia: Scincidae) in Cameroon, with special reference to the status of the proposed subgenera. Zootaxa 863: 1-28.

Schmitz, A., Brandley, M. C., Mausfeld, P., Vences, M., Glaw, F., Nussbaum, R. A. and Reeder, T. W. 2005. Opening the black box: phylogenetics and morphological evolution of the Malagasy fossorial lizards of the subfamily ‘‘Scincinae’’. Molecular Phylogenetics and Evolution 34: 118–133.

Schneider, N., Nguyen, T. Q., Schmitz, A., Kingsada, P., Auer, M. and Ziegler, T. 2011. A new species of karst dwelling Cyrtodactylus (Squamata: Gekkonidae) from northwestern Laos. Zootaxa 2930: 1-21.

Schulte, J. A. and Moreno-Roark, F. 2010. Live birth among iguanian lizards predates Pliocene–Pleistocene glaciations. Biology Letters 6: 216-218.

Scott, I. A. W., Keogh, S. and Whiting, M. J. 2004. Shifting sands and shifty lizards: molecular phylogeny and biogeography of African flat lizards (Platysaurus). Molecular Phylogenetics and Evolution, 31: 618-629.

Sindaco, R., Metallinou, M., Pupin, F., Fasola, M. and Carranza, S. 2012. Forgotten in the ocean: systematics, biogeography and evolution of the Trachylepis skinks of the Socotra Archipelago. Zoologica Scripta,41: 346-362.

Skinner, A., Hugall, A. F. and Hutchinson, M. N. 2011. Lygosomine phylogeny and the origins of Australian scincid lizards. Journal of Biogeography 38: 1044-1058.

Stanley, E. L., Baue, A. M., Jackman, T. R., Branch, W. R. and Mouton, P. Le F. N. 2011. Between a rock and a hard polytomy: Rapid radiation in the rupicolous girdled lizards (Squamata: Cordylidae). Molecular Phylogenetics and Evolution 58: 53-70.

Stuart-Fox, D. M. and Owens, I. P. F. 2003. Species-richness is agamid lizards: chance, body size, ecology or sexual selection? Journal of Evolutionary Biology 16: 659-669.

Tilbury, C. R. and Tolley, K. A. 2009. A new species of dwarf chameleon (Sauria; Chamaeleonidae, Bradypodion Fitzinger) from KwaZulu Natal South Africa with notes on recent climatic shifts and their influence on speciation in the genus. Zootaxa 2226: 43-57.

Torres-Carvajal, O. and de Queiroz, K. 2009. Phylogeny of hoplocercine lizards (Squamata: Iguania) with estimates of relative divergence times. Molecular Phylogenetics and Evolution 50: 31-43.

Townsend, T. and Larson, A. 2002. Molecular phylogenetics and mitochondrial genomic evolution in the Chamaeleonidae (Reptilia, Squamata). Molecular Phylogenetics and Evolution 23: 22-36.

Townsend, T. M., Larson, A., Louis, E. and Macey, J. R. 2004. Molecular phylogenetics of Squamata: the position of snakes, amphisbaenians, and dibamids, and the root of the squamate tree. Systematic Biology 53: 735-757.

Townsend, T. M., Vieties, D. R., Glaw, F. and Vences, M. 2009. Testing species-level diversification hypotheses in Madagascar: the case of microendemic Brookesia leaf chameleons. Systematic Biology 58: 641-656.

Townsend, T. M., Mulcahy, D. G., Noonan, B. P., Sites, J. W., Kuczynski, C. A., Wiens, J. J. and Reeder, T. W. 2011. Phylogeny of iguanian lizards inferred from 29 nuclear loci, and a comparison of concatenated and species-tree approaches for an ancient, rapid radiation. Molecular Phylogenetics and Evolution 61: 363-380.

Uetz, P. 2012. The reptile database, http://reptile-database.reptarium.cz, accessed July 27, 2012.

Uetz, P. 2012. The reptile database, http://reptile-database.reptarium.cz, accessed July 27, 2012.

Vidal, N., Marin, J., Sassi, J., Battistuzzi, F. U., Donnellan, S., Fitch, A. J., Fry, B. G., Vonk, F. J., Rodriguez de la Vega, R. C., Couloux, A. and Hedges, S. B. 2012. Molecular evidence for an Asian origin of monitor lizards followed by Tertiary dispersals to Africa and Australasia. Biology Letters

Wagner, P., Bohme, W., Pauwels, O. S. G. and Schmitz, A. 2009. A review of the African red–flanked skinks of the Lygosoma fernandi (Burton, 1836) species group (Squamata: Scincidae) and the role of climate change in their speciation. Zootaxa 2050: 1-30.

Wagner, P., Melville, J., Wilms, T. M. and Schmitz, A. 2011. Opening a box of cryptic taxa – the first review of the North African desert lizards in the Trapelus mutabilis Merrem, 1820 complex (Squamata: Agamidae) with descriptions of new taxa. Zoological Journal of the Linnean Society 163: 884-912.

Warne, R. W. and Charnov, E. L. 2008. Reproductive allometry and the size-number trade-off for lizards. American Naturalist 172: E80-E98.

Werneck, F. D. P., Giugliano, L. G., Colleavtti, R. G. and Colli, G. 2009. Phylogeny, biogeography and evolution of clutch size in South American lizards of the genus Kentropyx (Squamata: Teiidae). Molecular Ecology 18: 262-278.

Whiting, A. S., Bauer, A. M. and Sites, J. W. 2003. Phylogenetic relationships and limb loss in sub-Saharan African scincine lizards (Squamata: Scincidae). Molecular Phylogenetics and Evolution 29: 582-598.

Whiting, A. S., Sites, J. W., Pellegrino, K. C. M. and Rodrigues, M. T. 2006. Comparing alignment methods for inferring the history of the new world lizard genus Mabuya (Squamata: Scincidae). Molecular Phylogenetics and Evolution 38: 719-730.

Wiens, J. J., Kuczynski, C. A., Arif, S. and Reeder. T. W. 2010. Phylogenetic relationships of phrynosomatid lizards based on nuclear and mitochondrial data, and a revised phylogeny for Sceloporus. Molecular Phylogenetics and Evolution 54: 150-161.

Wilms, T. M., Bohme, W., Wagner, P., Lutzmann, N. and Schmitz, A. 2009. On the phylogeny and taxonomy of the genus Uromastyx Merrem, 1820 (Reptilia: Squamata: Agamidae: Uromastycinae) – resurrection of the genus Saara Gray, 1845. Bonner zoologische Beitrage 56: 55-99.

Wood, P. L., Heinicke, M. P., Jackman, T. R. and Bauer, A. M. 2012. Phylogeny of bent-toed geckos (Cyrtodactylus) reveals a west to east pattern of diversification. Molecular Phylogenetics and Evolution 65: 992-1003.

Ziegler, T., Schmitz, A., Koch, A. and Bohme, W. 2007. A review of the subgenus Euprepiosaurus of Varanus (Squamata: Varanidae): morphological and molecular phylogeny, distribution and zoogeography, with an identification key for the members of the V. indicus and the V. prasinus species groups. Zootaxa 1472: 1-28.

Zug, G., and Fisher, R. N. 2012. A preliminary assessment of the Nactus pelagicus species group (Squamata: Gekkonidae) in New Guinea and a new species from the Admiralty Islands. Zootaxa 3257: 22-37.

Zug, G. R., Brown, H. H. K., Schulte, J. A. and . Vindum, J. V. 2006. Systematics of the Garden Lizards, Calotes versicolor Group (Reptilia, Squamata, Agamidae), in Myanmar:

Central Dry Zone Populations. Proceedings of the California Academy of Sciences 57: 35-68.

Zug, G. R., Ineich, I., Pregill, G. and Hamilton, A. M. 2012. Lizards of Tonga with description of a new Tongan treeskink (Squamata: Scincidae: Emoia samoensis group). Pacific Science 66: 225-237.

Appendix 3

For the manuscript

"Sexual dimorphism of heads and abdomens: different approaches to "being large" in female and male lizards"

by Inon Scharf & Shai Meiri

Analysis of different monophyletic supra-familial lizard groups

a. Head length differences between males and females, controlling for abdomen lengths
b. Abdomen length differences between males and females, controlling for head lengths

In each model, for each of 5 clades (sample size in the sixth clade, Anguimorpha, is insufficient for meaningful analysis), we compare a model including sex to a model excluding sex as a factor. All models are in a nested design, species are nested within genera, genera within families and families within the clade. Analyses are conducted with the R library "lme4".

In all models that include sex as a main effect the intercept is calculated for females and "intercept difference" refers to the amount to be added to this intercept to obtain the intercept for males. The ensuing t value is for the difference between the intercepts of the sexes. In models without sex the intercept is for the simple regression of log abdomen length on log head length – or vice versa. Slope (abdomen) is the slope of the regression of heads against abdomens. Slope (head) is the slope of the reciprocal regression of abdomens vs. heads. AIC and BIC values are presented for each model pair (including and excluding sex, respectively) within each clade.

Clades:

Acrodontia: Families: Agamida, Chamaeleonidae. N = 93 species.

Gekkota: Families: Carphodactylidae, Diplodactylidae, Gekkonidae, Phyllodactylidae, Pygopodidae, Sphaerodactylidae. N = 101 species.

Iguania: Families: Crotaphytidae, Dactyloidae, Iguanidae, Leiocephalidae, Leiosauridae, Liolaemidae, Phrynosomatidae, Polychrotidae, Tropiduridae. N = 195 species.

Laterata: Families: Gymnophthalmidae, Lacertidae, Teiidae. N = 129 species

Scincomorpha: Families: Cordylidae, Gerrhosauridae, Scincidae. N = 81.

a. Models for head lengths

log head length as a function of log abdomen length and sex, with species nested within genera, nested within families.

Acrodontia

Model including sex

AIC	BIC
-452.3	-410.4

	Estimate	SE	t
Intercept	0.065124	0.100702	0.647
slope (abdomen)	0.720305	0.054807	13.143
intercept difference	0.013292	0.005397	2.463

Model excluding sex

AIC	BIC
-457	-418.3

	Estimate	SE	t
Intercept	0.03636	0.10234	0.355
slope (abdomen)	0.73932	0.05545	13.334

Gekkota

Model including sex

AIC	BIC
-606.8	-563.8

	Estimate	SE	t
Intercept	-0.08832	0.062652	-1.41
slope (abdomen)	0.753155	0.050957	14.78
intercept difference	0.01065	0.003276	3.25

Model excluding sex

AIC	BIC
-608.4	-568.7

	Estimate	SE	t
Intercept	-0.105	0.0618	-1.699
slope (abdomen)	0.76552	0.05122	14.946

Iguania

Model including sex

AIC	BIC
-1227	-1176

	Estimate	SE	t
Intercept	-0.20669	0.102431	-2.018
slope (abdomen)	0.837126	0.061774	13.551
intercept difference	0.024728	0.002915	8.483

Model excluding sex

AIC	BIC
-1180	-1133

	Estimate	SE	t
Intercept	-0.2403	0.1264	-1.901
slope (abdomen)	0.8644	0.0729	11.857

Laterata

Model including sex

AIC	BIC
-678.2	-632

	Estimate	SE	t
Intercept	-0.07235	0.078531	-0.921
slope (abdomen)	0.72284	0.048997	14.753
intercept difference	0.050982	0.004028	12.658

Model excluding sex

AIC	BIC
-588.3	-545.7

	Estimate	SE	t
Intercept	-0.04469	0.13923	-0.321
slope (abdomen)	0.71946	0.09474	7.594

Scincomorpha

Model including sex

AIC	BIC
-455.3	-415.1

	Estimate	SE	t
Intercept	-0.3286	0.35439	-0.927
slope (abdomen)	0.8493	0.14947	5.682
intercept difference	0.02993	0.00393	7.612

Model excluding sex

AIC	BIC
-422.9	-385.9

	Estimate	SE	t
Intercept	-0.2846	0.2798	-1.017
slope (abdomen)	0.8348	0.1112	7.504

b. Models for abdomen lengths

log abdomen length as a function of log head length and sex, with species nested within genera, nested within families.

The samples are identical to those in Appendix 3a

Acrodontia

Model including sex

AIC	BIC
-441.7	-399.7

	Estimate	SE	t
Intercept	0.665332	0.131257	5.069
slope (head)	0.822219	0.101254	8.12
intercept difference	-0.00257	0.006472	-0.397

Model excluding sex

AIC	BIC
-451.8	-413

	Estimate	SE	t
Intercept	0.6712	0.1313	5.113
slope (head)	0.8172	0.101	8.092

Gekkota

Model including sex

AIC	BIC
-600.3	-557.2

	Estimate	se	t
Intercept	0.531698	0.049916	10.652
slope (head)	0.990425	0.087503	11.319
intercept difference	-0.010499	0.003831	-2.741

Model excluding sex

AIC	BIC
-603.7	-564

	Estimate	SE	t
Intercept	0.5331	0.04457	11.96
slope (head)	0.98459	0.08488	11.6

Iguania

Model including sex

AIC	BIC
-1223	-1171

	Estimate	se	t
Intercept	0.749197	0.123563	6.063
slope (head)	0.809035	0.090421	8.947
intercept difference	-0.01452	0.003296	-4.405

Model excluding sex

AIC	BIC
-1216	-1168

	Estimate	SE	t
Intercept	0.7511	0.1525	4.925
slope (head)	0.7929	0.1084	7.316

Laterata

Model including sex

AIC	BIC
-682	-635.8

	Estimate	SE	t
Intercept	0.819859	0.085195	9.623
slope (head)	0.761373	0.065649	11.598
intercept difference	-0.04262	0.004571	-9.325

Model excluding sex

AIC	BIC
-631.2	-588.6

Estimate		SE	t
Intercept	0.96450	0.07116	13.55
slope (head)	0.62613	0.05831	10.74

Scincomorpha

Model including sex

AIC	BIC
-466.4	-426.3

	Estimate	SE	t
Intercept	0.844242	0.186763	4.52
slope (head)	0.789791	0.10469	7.544
intercept difference	-0.02642	0.004254	-6.21

Model excluding sex

AIC	BIC
-445.5	-408.4

	Estimate	SE	t
Intercept	0.90027	0.15051	5.982
slope (head)	0.73427	0.08856	8.291