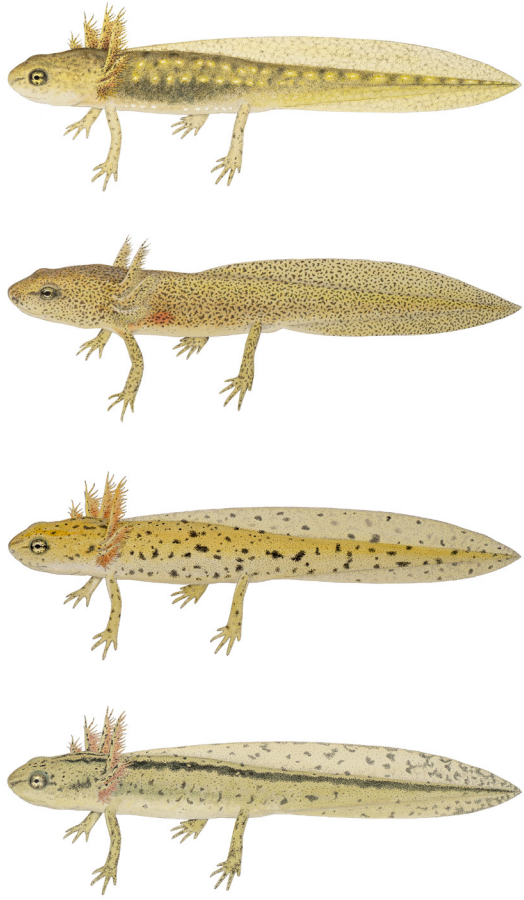
SCIENTIFIC AND STANDARD ENGLISH NAMES OF AMPHIBIANS AND REPTILES OF NORTH AMERICA NORTH OF MEXICO, WITH COMMENTS REGARDING CONFIDENCE IN OUR UNDERSTANDING



NINTH EDITION

Official names list of
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SCIENTIFIC AND STANDARD ENGLISH NAMES OF AMPHIBIANS AND REPTILES OF NORTH AMERICA NORTH OF MEXICO, WITH COMMENTS REGARDING CONFIDENCE IN OUR UNDERSTANDING

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Standard Names for North American Amphibians and Reptiles Committee

Kirsten E. Nicholson, *Committee Chair/Editor*
Department of Biology
Central Michigan University
Mount Pleasant, Michigan 48859
nicho1ke@cmich.edu

Committee Members:
Christopher K. Beachy, David A. Beamer, Jeff Boundy, Frank T. Burbrink, John Carr, Lauren M. Chan, Brian I. Crother, Maureen A. Donnelly, Kevin de Queiroz, Darrel R. Frost, Kenneth M. Kozak, Kenneth L. Krysko, Emily Moriarty Lemmon, Joseph R. Mendelson III, Kirsten E. Nicholson, R. Alexander Pyron, Sara Ruane, Travis W. Taggart

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Cover illustration: Mid stage *Taricha* spp. larvae by Jackson D. Shedd. From top to bottom: Rough-skinned Newt (*Taricha granulosa*), Red-bellied Newt (*Taricha rivularis*), Sierra Newt (*Taricha sierrae*), and California Newt (*Taricha torosa*). Hansen, Robert W. and Jackson D. Shedd. 2025. California Amphibians and Reptiles. Princeton University Press, Princeton, New Jersey. 528 pp.

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INTRODUCTION

I want to open this introduction by acknowledging the work of all committee members listed throughout this edition. They have worked diligently and collaboratively to produce this edition, and I am proud and humbled to have been able to work with them all. I am especially grateful to them because without them this resource that so many workers in herpetology use would not have continued.

This ninth edition has been produced with several new developments in addition to completely updating the names herein:

Greater diversity in committee membership:
Past efforts were made to increase non-white male participation in this work, and even greater efforts were undertaken with this committee, perhaps aided by cultural changes rippling through the world and our professional societies. However, the search for volunteers was difficult, as this work is not trivial and often requires considerable diplomacy, patience, fortitude, and endurance. We warmly welcome anyone to collaborate on this important work, and current and past members can attest to the collaborative and equitable nature of our work. SSAR takes a strong stance on diversity, equity, inclusion, and belonging, and this committee strives to embody those principles in our work.

Term limits
In an effort to increase transparency across our activities, ensure diverse perspectives are included, and reduce the workload for our members, we have implemented staggered term limits for our members. New members on each taxonomic subcommittee will cycle on with each edition of the list replacing previous members as they cycle off. There will be new chairs of each taxonomic subcommittee as well as a new lead Committee Chair.

Scientific and Standard English name selection guidelines
While guidelines for the selection of Standard English Names were published several issues previously, we developed a second set of guidelines for developing the Standard English names when controversial. Both guidelines will appear in the PDF and online database versions.

New online database hosted by CNAH
A new and vastly improved online database hosted by the Sternberg Museum of Natural History and the Center for North American Herpetology (CNAH) has launched with the publication of this edition of the list. You can find it at CNAH.ORG

Dynamic revisions for database and PDF
Both PDF and database will be updated more frequently. In past, new editions usually published roughly every 5 years. We hope to update more frequently, but will have to beta test our operations before determining a set periodicity.

Expansion on contents of Introduced Species to include more information on the native range, origin of and locations of introductions, notes on established populations with relevant references.

This edition, as with all previous versions, seeks to standardize names to facilitate communication among all working with North American reptiles and amphibians. Committee members work together to recommend the scientific names that correspond to each Standard English Name ("common name") and that work is relatively seamless when herpetologists are in agreement. Where con-

troversies exist in names, the committee works to summarize the disagreements and it is up to the community to resolve these issues, not this committee. Our work is merely summarizing the status and standardizing the common names. It is important to note that this list is not a ruling body on scientific names; it is up to each author to decide what name to use, and they must perform due diligence in researching the name they feel is most appropriate to use as they have to defend it.

We also very gratefully thank several outside reviewers would provided feedback and edits to all sections of this edition.

Kirsten E. Nicholson, Chair
Standard Names for North American Amphibians and Reptiles Committee
September 2024

GUIDELINES FOR FORMING STANDARD ENGLISH NAMES

Capitalization.
Standard English names of species should be capitalized to distinguish them from descriptions and generalized usage. For example, "I collected a Green Frog (*Lithobates clamitans*)" versus "I saw a green frog." When group names (i.e. standard English names for genera and higher categories or as a word or words that applies to one or more species) are used alone (i.e., not as part of the English name of a species) they should not be capitalized. For example, "The Western Diamond-backed Rattlesnake is a well known species of rattlesnake."
Or, "I hear that racerunners are difficult to catch."

Formation of descriptive or modifying word.
1. When a descriptor refers to a feature of an animal, the suffix -ed will be added. The modifying word will be treated as an adjective as opposed to a noun in apposition.
   Examples: Black-headed Snake, Red-eared Slider, Long-tailed Salamander.
2. Hyphenation. The standard grammatical rule for joining two or more words a hyphen is more appropriately used to join the words in lieu of combining the words.
   Examples: Black-masked Racer, not Blackmasked Racer; Blackheaded Snake, not Blackheaded Snake; Long-tailed Salamander, not Longtailed Salamander.
   Exception: When one of the words describes a location, geographic region, or direction, a hyphen is not used.
   Examples: Blue Ridge Two-lined Salamander, Southern Red-backed Salamander, Florida Red-bellied Turtle.

Formation and Use of Group Names.
1. Compound names should be spelled as a single word, unhyphenated, if:
   A. The second component is from among the words frog, toad, snake, turtle, tortoise, lizard, salamander, newt, siren.
      Examples: Ratsnake, Coralsnake, Treefrog
   B. The second component refers to a part of the body.
      Examples: Cottonmouth, Copperhead, Whiptail, Softshell, Spadefoot
   C. The name describes an activity of the animal.
      Examples: Racerunner, Pondslider, Bloodsucker
   D. The second component is a misnomer.
      Examples: Waterdog, Hellbender, Mudpuppy, Coachwhip
      Exceptions: Names that would ordinarily be spelled as single unhyphenated words under the above rules should be spelled as separate words with both capitalized when:
      i. Spelling as a single word would result in an awkward double or triple letter series.
         Example: Wall Lizard, not Walllizard
      ii. A single word would be excessively long (over three syllables), or awkward, or imply an incorrect pronunciation.
         Examples: Tiger Salamander, not Tigersalamander (any combination with salamander can be ruled as too long); Earless Lizard, not Earlesslizard
2. Compound names that are not spelled as a single word should have each word capitalized.
   Examples: Box Turtle, Rosy Boa, Cricket Frog

3. A group name may be applied to two or more distantly related groups.
4. Group names of more than one word should neither be encouraged nor discouraged.

Formation of English Species and Subspecies Names

1. Long-established names in widespread use should be retained, regardless of any inaccuracy of description, behavior, habitat, location or phylogenetic relationship suggested by the name, unless there is a compelling and special reason.
2. The English name of every species shall be different from the name of every other species in North America.
3. The English name of a species need not repeat or reflect its scientific name.
4. English names will be given to genera, species, and subspecies.
5. The English name of a subspecies shall not be identical to the English name of the species.
   Example: Terrapene carolina and *T. c. carolina* were both called the Eastern Box Turtle. Now the English name for *T. c. carolina* is Woodland Box Turtle to avoid conflating the two taxa.
6. The English name given to a subspecies is not required to have any part of it be the same as the English name of the species to which it belongs.
7. Each word of a name shall be a word in the English language unless in unusual circumstances the committee finds it appropriate to use a word from a foreign language or directly adopted from scientific nomenclature.
8. Accepted English names proposed in this list should not be replaced by a local vernacular (but see 7).
9. Patronyms should neither be encouraged nor discouraged.
10. A patronym should be used in the possessive case.
11. Names should be changed if they are offensive to a substantial group of people, but need not be altered merely to reflect a change in the name of a country, region, or island.
12. Reference to geographical places and names may vary in form (e.g., Chihuahua vs. Chihuahuan) as deemed appropriate with respect to previous usage and clarity.
13. A name that refers to a small island or group of small islands should include the word "island" or "islands" if to do so brings clarity or avoids being misleading. In all other cases inclusion of "island" or "islands" in a name should depend primarily on prior usage.
14. Two or more English names may be used within a single genus. For example, under *Pituophis* there are Pinesnakes, Bullsnakes, and Gophersnakes.
15. Words should be spelled consistently throughout the list, for example Mohave versus Mojave.
16. Words with accent marks in the language of their origin should be spelled with those marks only if reasonably necessary to indicate correct pronunciation in English.
17. Excessively long names should be avoided. Names should be as short as possible.
18. The full name of one species or subspecies should not be included in the longer name of a different species or subspecies. For example, if *Anaxyrus debilis* were called the Green Toad and *A. retiformis* were called the Sonoran Green Toad.

GUIDELINES FOR SELECTING SCIENTIFIC NAMES

With this edition of the list (and each subsequent revision) we include these guidelines to inform readers about how taxonomic names are selected for inclusion in each species' entry.

1. For each edition of the List, the starting point is the previous edition.
2. For each name, if there have been no published proposed taxonomic changes since the previous edition of the list and the names are not considered to be in flux or debate, the name appears as in the previous edition.
3. If changes have been proposed in the peer-reviewed published literature since the previous edition of the list or were being debated at the time of publication for the previous edition, the relevant subcommittees will review all pertinent literature and collectively reach a consensus regarding how to present that information. Any debates will be summarized in that taxon's entry and the alternative names in use will be presented. Here, "published" refers to papers appearing in peer-reviewed journals or other scholarly works that follow the definition used by the International Code of Zoological Nomenclature (ICZN, 2000, Article 8).
4. The general process for selecting names that are being debated is as follows: Any taxonomic change(s) published since the last revision must be based upon rigorous analyses of robust data and logically sound interpretations of those data. The new list will feature a brief summary of the published arguments relevant to the debate and the subcommittee will reach a consensus on what appears in the list.
5. To avoid duplicate entries the committee will select one of the taxonomic names to use for that species in the current list. In selecting a name, a subcommittee may use any published data and/or results, even though the author(s) did not propose a taxonomic change.
6. The proposal of new taxonomic names (including new combinations) will generally be avoided, although exceptions will be permitted to correct errors and oversights in the published literature.

We encourage any readers that have suggestions for revision to please send those to the Chair of the committee (currently Dr. Kirsten E. Nicholson: nicho2ke@cmich.edu).

Anura – Frogs

Joseph R. Mendelson III[1],[2], Darrel R. Frost[3],
Emily Moriarty Lemmon[4], and Maureen A. Donnelly[5]

[1] Zoo Atlanta, 800 Cherokee Avenue, S.E., Atlanta, GA 30315
[2] Georgia Institute of Technology, Atlanta, GA 30332
[3] Division of Vertebrate Zoology (Herpetology), American Museum of Natural History, New York, NY 10024
[4] Department of Biological Science, Florida State University, Tallahassee, FL 32306
[5] Department of Biological Sciences, Florida International University, Miami, FL 33199

Acris Duméril and Bibron, 1841—Cricket Frogs
A. blanchardi Harper, 1947—Blanchard's Cricket Frog
A. crepitans Baird, 1854—Eastern Cricket Frog
A. gryllus (LeConte, 1825)—Southern Cricket Frog

Anaxyrus Tschudi, 1845—North American Toads
A. americanus (Holbrook, 1836)—American Toad
The taxon remains insufficiently studied and evidence for its distinction from several species is unclear; see comments under *A. baxteri, A. fowleri, A. hemiophrys, A. terrestris*, and *A. woodhousii*. The status of *A. a. charlesmithi* (as a full species or subspecies) would benefit from additional study and fine scale geographic sampling.
A. a. americanus (Holbrook, 1836)—Eastern American Toad
A. a. charlesmithi (Bragg, 1954)—Dwarf American Toad
A. baxteri (Porter, 1968)—Wyoming Toad
Historically, there has been discussion of the status of this taxon as a species or as an allopatric subspecies of *A. hemiophrys* and the issue has not been addressed in recent years. The allopatric distribution of *A. baxteri* and the abundant literature and resources expended toward its conservation (all contemporary efforts framed as *A. baxteri*) suggest widespread acceptance of this taxonomy, despite the lack of modern methodological approaches brought to bear on the problem.
A. boreas (Baird and Girard, 1852)—Western Toad
The English name of Boreal Toad is sometimes used broadly for this taxon, especially for populations sometimes referred to *A. b. boreas* (Baird and Girard, 1852), and refer Western Toad to *A. b. halophilus*. Two subspecies (*A. b. boreas, A. b. halophilus*) have been inconsistently recognized historically and we do not recognize them here given the substantial need for additional taxonomic work on this complex. The *A. boreas* group generally is considered to include a number of isolated populations that appear to be diagnosable as species. Some have been recognized as species and/or subspecies and others have no history of taxonomic recognition. From this complex, *A. canorus, A. exsul*, and *A. nelsoni* are now generally accepted, and three additional allopatric populations have been named as species (*A. monfontanus, A. nevadensis*, and *A. williamsi*) recently have been described. Nevertheless, issues raised in older works by Cook (1983, Publications in Natural Sciences. National Museum of Canada: 89), Goebel (2005, in Lannoo, M. [editor], Amphibian Declines, University California Press: 210–211), Pauly (2008, Ph.D. dissertation, University of Texas at Austin), and Goebel et al. (2009, Molecular Phylogenetics and Evolution, 50: 209–225), using genetics, morphology, and advertisement calls, suggest that additional diversity remains unrecognized. The published genetic data used to investigate this group has been restricted to mitochondrial sequences, which have proven to be problematic in general (Dufresnes and Jablonski, 2022, Science 377: 127), and this complex is no exception. In such approaches, for ex-

ample, the mitochondrial network and phylogenetic analyses of by Gordon et al. (2017, Zootaxa 4290: 123–139) found *A. boreas* to be paraphyletic with respect to *A. canorus, A. exsul*, and *A. nelsoni*. Their work also suggests that the subspecies *A. b. boreas* and *A. b. halophilus* may be valid species, but Goebel et al. (*op. cit.*) found *A. b. halophilus* to be polyphyletic within the broader *A. boreas* group. A comprehensive review of the *A. boreas* group that includes nuclear DNA and dense geographic sampling is needed and likely will reveal a complex evolutionary history, and corresponding taxonomy, for this group that spans a considerably large and complex geographic region.

A. californicus (Camp, 1915)—Arroyo Toad

A. canorus (Camp, 1916)—Yosemite Toad

Multiple studies (e.g., Goebel et al., 2009, Molecular Phylogenetics and Evolution 50: 209–225, and Gordon et al., 2017, Zootaxa 4290: 123–139) have found two phylogenetically distinct mitochondrial DNA clades of this species, corresponding to samples from the southern Sierra Nevada range and northern samples from the same range. Goebel et al. (*op. cit.*) also reported hybrids between *A. boreas* and *A. canorus*. See comments under *A. boreas*; these issues require more research that is expanded to include nuclear DNA.

A. cognatus (Say in James, 1822)—Great Plains Toad

A. debilis (Girard, 1854)—Chihuahuan Green Toad

Fouquette and Dubois (2014, A Checklist of North American Amphibians and Reptiles: The United States and Canada. Xlibris Corporation: 301) rejected subspecies but presented no evidence for this conclusion, even though we agree that the nominal subspecies are unlikely to be anything other than arbitrarily defined sections of a cline.

A. d. debilis (Girard, 1854)—Eastern Chihuahuan Green Toad

A. d. insidior (Girard, 1854)—Western Chihuahuan Green Toad

A. exsul (Myers, 1942)—Black Toad

See comments under *A. boreas*. This taxon is nested in the *A. boreas* group and the entire group is in need of a comprehensive revision to determine species boundaries. Key studies, e.g., Goebel et al. (2009, Molecular Phylogenetics and Evolution. 50: 209–225), Gordon et al. (2017, Zootaxa 4290: 123–139) indicate that the taxon may be nested within *A. boreas* sensu lato.

A. fowleri (Hinckley, 1882)—Fowler's Toad

Masta et al. (2002, Molecular Phylogenetics and Evolution. 24: 302–314) provided evidence for the distinctiveness of this species from *A. woodhousii* and noted (as did Smith and Green, 2004, Molecular Ecology. 13: 3723–3733) that, at the molecular level, there are multiple mtDNA matrilines.

A. hemiophrys (Cope, 1886)—Canadian Toad

See comments under *A. baxteri*.

A. houstonensis (Sanders, 1953)—Houston Toad

This species hybridizes with *A. woodhousii* (as well as with *Incilius nebulifer*); both hybrid and non-hybrid individuals can be difficult to identify with respect to *A. woodhousii*. Taxonomists and conservationists working on this endangered species consistently recognize it as distinct. Recent work confirmed a close historical relationship with *A. americanus* and supported recognition as a species (Sirsi et al., 2024, Science Reports, 14: 3306).

A. microscaphus (Cope, 1866)—Arizona Toad

Hybridizes extensively with *A. woodhousii* in portions of its range (e.g., Wooten et al., 2019, Journal of Herpetology, 53: 104–114.

A. monfontanus (Gordon, Simandle, Sandmeier, and Tracy, 2020)—Hot Creek Toad

This isolated population was diagnosed with respect to other taxa and populations in the *A. boreas* group using morphology and mitochondrial DNA data. See

comments under *A. boreas*

A. nelsoni (Stejneger, 1893)—Amargosa Toad

See comment under *Anaxyrus boreas*.

A. nevadensis (Gordon, Simandle, Sandmeier, and Tracy, 2020)—Railroad Valley Toad

This isolated population was diagnosed with respect to other taxa and populations in the *A. boreas* group based on data from morphology and mitochondrial DNA. See comments under *A. boreas*.

A. punctatus (Baird and Girard, 1852)—Red-spotted Toad

A. quercicus (Holbrook, 1840)—Oak Toad

A. retiformis (Sanders and Smith, 1951)—Sonoran Green Toad

A. speciosus (Girard, 1854)—Texas Toad

A. terrestris (Bonnaterre, 1789)—Southern Toad

A. williamsi (Gordon, Simandle, and Tracy, 2017)—Dixie Valley Toad

This isolated population was diagnosed with respect to other taxa and populations in the *A. boreas* group based on data from morphology and mitochondrial DNA. See comments under *A. boreas*.

A. woodhousii (Girard, 1854)—Woodhouse's Toad

See comments under *A. fowleri*. The incorrect spelling of the species name as *woodhousei* has been used widely.

A. w. australis (Shannon and Lowe, 1955)—Southwestern Woodhouse's Toad

A. w. woodhousii (Girard, 1854)—Rocky Mountain Toad

Ascaphus Stejneger, 1899—Tailed Frogs

A. montanus Mittleman and Myers, 1949—Rocky Mountain Tailed Frog

Nielson et al. (2001, Evolution 55: 147–160) presented evidence supporting the recognition of this species distinct from *A. truei* and Nielson et al. (2006, Herpetologica 62: 235–258) reported on data from allozymes and mtDNA that perhaps two evolutionarily significant units are distributed, respectively; south of the South Fork of the Salmon River populations, and northwest of the Salmon River (including Blue, Wallowa and Seven Devils mountains).

A. truei Stejneger, 1899—Coastal Tailed Frog

See comments under *A. montanus*. Nielson et al. (2006, Herpetologica 62: 235–258), using data from allozymes and mtDNA, reported evidence supporting recognition of two evolutionarily significant units represented by populations in the Olympic Mountains and populations south of the Umpqua River.

Craugastor Cope, 1862—Northern Rainfrogs

C. augusti (Dugès, in Brocchi, 1879)—Barking Frog

Goldberg et al. (2004, Herpetologica 60: 312–320) suggested that *C. a. cactorum* and *C. a. latrans* are different species but did not make the taxonomic change. Fouquette and Dubois (2014, Checklist of North American Amphibians and Reptiles, Xlibris 7(1)), referring to the work by Goldberg et al. (*op. cit.*) proposed recognition of the two subspecies. We do not recognize any subspecies pending additional data, preferably including nuclear DNA, and more substantial sampling in Mexico.

Dryophytes Fitzinger, 1843—Holarctic Treefrogs

Duellman et al. (2016, Zootaxa 4104: 1–109) restricted *Hyla* to Eurasia and North Africa and referred the North American and east Asian sister taxa of this group to *Dryophytes*, although the acceptance of this taxonomy within the user community is controversial at this point.

D. andersonii (Baird, 1854)—Pine Barrens Treefrog

This species has a conspicuously fragmented range across eastern North America

that mirrors that of some wetland-associated plant species (Warwick et al., 2021, Biological Journal of the Linnean Society 133: 120–134). Remarkably, no subspecies have ever been proposed. Recent molecular work by Oswald et al. (2020, Journal of Herpetology. 54: 206–215) found geographic variation consistent with geographic isolation and estimated divergence times, but neither work suggested that taxonomic changes at any level were warranted.

D. arenicolor (Cope, 1866)—Canyon Treefrog

Bryson et al. (2010, Evolution, 64: 2315–2340) also reported on molecular geographic variation and demonstrated introgression with *D. wrightorum*. Based only on the mitochondrial subset of their data, Li et al. (2015, Molecular Phylogenetics and Evolution 87: 80–90) found multiple divergent lineages within a monophyletic *D. arenicolor*. Barber (1999, Molecular Ecology 8: 563–576) examined geographic variation and suggested that at least two other species should be recognized within the Mexican component of its range.

D. avivoca (Viosca, 1928)—Bird-voiced Treefrog

Smith (1953, Herpetologica 9: 169–173) discussed geographic variation and recognized two nominal subspecies which are rarely employed, and apparently have not been explicitly tested.

D. a. avivoca (Viosca, 1928)—Western Bird-voiced Treefrog

See comments under *Dryophytes* and *D. avivoca*.

D. a. ogechiensis (Neill, 1948)—Eastern Bird-voiced Treefrog

See comments under *Dryophytes* and *D. avivoca*.

D. chrysoscelis (Cope, 1880)—Cope's Gray Treefrog

See comment under *D. versicolor*.

D. cinereus (Schneider, 1799)—Green Treefrog

The change from *Hyla* to *Dryophytes* necessitated that "*cinerea*" be amended to "*cinereus*".

D. femoralis (Daudin, 1800)—Pine Woods Treefrog

See comments under *Dryophytes*.

D. gratiosus (LeConte, 1856)—Barking Treefrog

The change from *Hyla* to *Dyrophytes* necessitated that "*gratiosa*" be amended to "*gratiosus*".

D. squirellus (Daudin, 1800)—Squirrel Treefrog

The change from *Hyla* to *Dyrophytes* necessitated that "*squirella*" be amended to "*squirellus*".

D. versicolor (LeConte, 1825)—Gray Treefrog

Booker et al. (2022, Molecular Biology and Evolution 39: msab316) and Booker et al. (2023, Molecular Ecology 32: 4863–4879) provided an updated view of genome duplication and hybridization in this species complex based on genome-wide nDNA data as well as a historical review of the topic.

D. wrightorum (Taylor, 1939 "1938")—Arizona Treefrog

See comments under *Dryophytes*.

Eleutherodactylus Duméril and Bibron, 1841—Rain Frogs

E. campi Stejneger, 1915—Rio Grande Chirping Frog

Removed from the synonymy of *Eleutherodactylus cystignathoides* by Grünwald, et al. (2018, Mesoamerican Herpetology, 5: 66), although this has not been universally accepted (e.g., Dodd, 2023, Frogs of the United States and Canada, 2nd edition, Johns Hopkins University Press: 992pp).

E. guttilatus (Cope, 1879)—Spotted Chirping Frog

E. marnockii (Cope, 1878)—Cliff Chirping Frog

Gastrophryne Fitzinger, 1843—North American Narrow-mouthed Toads

G. carolinensis (Holbrook, 1836)—Eastern Narrow-mouthed Toad

G. mazatlanensis (Taylor, 1943)—Sinaloan Narrow-mouthed Toad
G. olivacea (Hallowell, 1857 "1856")—Western Narrow-mouthed Toad

Hypopachus Keferstein, 1867—Sheep Frogs
H. variolosus (Cope, 1866)—Sheep Frog
Although only two species are currently recognized within this genus, very strong geographic variation in coloration, call, and toe structure suggests that several species are masquerading under this species name. Given that the type locality of *H. variolosus* is in Costa Rica, the scientific name applied to the U.S. form is likely to change.

Incilius Cope, 1863—Central American Toads
I. alvarius (Girard in Baird, 1859)—Sonoran Desert Toad
I. nebulifer (Girard, 1854)—Gulf Coast Toad
A review of the distinction between *I. nebulifer* and *I. valliceps* that incorporates nuclear markers is advisable

Leptodactylus Fitzinger, 1826—Neotropical Grass Frogs
L. fragilis (Brocchi, 1877)—Mexican White-lipped Frog
Much of the older literature about this species refers to this species as *Leptodactylus labialis*.

Lithobates Ftizinger, 1843—American Water Frogs
The generic taxonomy of American ranids is controversial, with three nomenclatural arrangements being consistent with current understandings of phylogeny. Reasonable but subjective arguments could be made for any of these three taxonomies. The least particulate is the single-genus arrangement of Yuan et al. (2016, Systematic Biology, 65: 824–842), which placed all Eurasian *Rana* and *Pseudorana* as well as all American ranids into *Rana* (thus including approximately 115 species). There is the three-genus model of Che et al. (2007, Molecular Phylogenetics and Evolution 43: 1–13), largely in agreement with the earlier arrangement by Frost et al. (2006, Bulletin of the American Museum of Natural History, (297): 1-370), which recognizes *Pseudorana* in Asia, *Rana* in Eurasia and western North America, and *Lithobates* in the Americas. The three-genus model has been widely, but not uniformly, accepted in publications for more than 15 years and this suggests relative taxonomic stability in a group sometimes considered to be controversial. Most recently, Dubois et al. (2021, Megataxa 5: 1–738) presented a seven-genus model that recognizes *Pseudorana*, *Rana*, and *Liuhurana* in Eurasia and *Amerana* (the Pacific Coast ranids of North America), *Aquarana* (for the bullfrogs and allies), *Boreorana* (a monotypic genus for Wood Frog, *L. sylvaticus*), and *Lithobates* (for the leopard frogs and allies). Although understanding of the phylogeny of these frogs appears to be stabilizing and the seven-genus model provides the most morphological coherence of units within the overall phylogeny as currently understood, we defer from recognizing *Amerana*, *Aquarana*, or *Boreorana* at this time pending achievement of more phylogenetic stability, especially with respect to the position of the taxon *sylvaticus* which inconsistently is recovered as sister to the proposed *Aquarana* or as sister to *Lithobates*. Because both the three-genus model and the seven-genus model embrace monophyly as a basic principle, the perspectives on the preferred taxonomy are subjective, and this subjectivity is the root of the ongoing controversy among mostly U.S. herpetologists regarding the generic allocations of these frogs. The recent seven-genus model may be unpopular in some circles, particularly in the U.S., so we do not think that the controversy will be resolved in the near-term.

L. areolatus (Baird and Girard, 1852)—Crawfish Frog
See comment under *L. capito*. Geographic variation deserves further study to determine status of the nominal subspecies.

L. a. areolatus (Baird and Girard, 1852)—Southern Crawfish Frog

L. a. circulosus (Rice and Davies in Jordan, 1878)—Northern Crawfish Frog

L. berlandieri (Baird, 1859)—Rio Grande Leopard Frog
Geographic variation is not well documented and relationships with extralimital Mexican forms will require considerable morphological and nDNA work to resolve.

L. blairi (Mecham, Littlejohn, Oldham, Brown, and Brown, 1973)—Plains Leopard Frog

L. capito (LeConte, 1855)—Gopher Frog
Lithobates capito is considered by some to be part of *L. areolatus* (but see Case, 1978, Systematic Zoology 27: 299–311, who considered them distinct).

L. catesbeianus (Shaw, 1802)—North American Bullfrog
[Is this first sentence what they intended?] Geographic variation within the natural range *R. catesbeiana* is not well understood, although Austin et al. (2004, Molecular Phylogenetics and Evolution 32: 799–816) presented mtDNA evidence of distinct eastern and western lineages. The concept of western lineages also needs to be considered in light of the extensive, and mostly poorly documented, introductions and subsequent establishment of the species in the western U.S. (e.g., Storer, 1922, California Fish and Game 8: 219-22; Jennings and Hayes, 1985, Herpetologica 41: 94–103). We have adopted the modified English name of North American Bullfrog (Meshaka et al., 2022, Exotic Amphibians and Reptiles, University Florida Press, 245pp).

L. chiricahuensis (Platz and Mecham, 1979)—Chiricahua Leopard Frog
The status of Mexican populations needs study. *Rana subaquavocalis* Platz, 1993, is a synonym according to Goldberg et al. (2004, Journal of Herpetology 38: 313–319), although some authors (e.g., Hillis and Wilcox, 2005, Molecular Phylogenetics and Evolution 34: 299–314; Dubois, 2006, Comptes rendus de l'Académie des Sciences. Paris 329: 823–840) have continued to recognize the two taxa as distinct species, without comment.

L. clamitans (Latreille in Sonnini de Manoncourt and Latreille, 1801)—North American Green Frog
Austin and Zamudio (2008, Molecular Phylogenetics and Evolution 48: 1041–1053) reported on interpopulational variation at the molecular level and suggested an historical structure inconsistent with the traditionally recognized subspecies. Historically, two subspecies (*L. c. clamitans*, *L. c. melanotus*) of this taxon have been recognized although their usage has not been common in recent decades. MacGuigan et al. (2002, Ichthyology & Herpetology, 110: 602–617), reported on the molecular phylogeography, concluding that *L. clamitans* is a single species, where the notion of subspecies is of limited use. *Lithobates okaloosae* is closely related and previous evidence (Austin et al. (2003, Biological Journal of the Linnean Society. 80: 601–624; Austin and Zamudio, 2008, Molecular Phylogenetics and Evolution 48: 1041–1053) based on mtDNA indicated that *L. okaloosae* is nested within *L. clamitans*, perhaps as a result of hybridization. Nevertheless, the two forms are morphologically and ecologically distinct and the broader approach of MacGuigan (*op. cit.*) supported recognition of these two species, with little evidence for hybridization, and does not support recognition of subspecies within *L. clamitans*. We have adopted the modified English name of North American Green Frog (Meshaka et al., 2022, Exotic Amphibians and Reptiles, University Florida Press, 245pp).

L. fisheri (Stejneger, 1893)—Vegas Valley Leopard Frog
Previously considered to be extinct. Hekkala et al. (2011, Conservation Ge-

netics 12: 1379–1385) used DNA sequence data from museum specimens to show that *L. fisheri* and frogs ascribed to *L. chiricahuensis* from near the Mogollon Rim in central Arizona comprise a lineage distinct from *R. chiricahuensis* populations to the south and east. Platz (1993, Journal of Herpetology 27: 154–162) previously noted the various lines of evidence suggesting that *L. chiricahuensis* was composed of more than one species, with the population in central Arizona being notably distinctive. Still, it was not possible, at that time, to compare those frogs genetically with *L. fisheri*.

L. grylio (Stejneger, 1901)—Pig Frog

L. heckscheri (Wright, 1924)—River Frog

L. kauffeldi (Feinberg, Newman, Watkins-Colwell, Schlesinger, Zarate, Curry, Shaffer, and Burger, 2014)—Atlantic Coast Leopard Frog

The recognition of this species may require revision of the range of *L. palustris* to exclude areas of southern New York, southern Connecticut, Rhode Island, and parts of Massachusetts.

L. okaloosae (Moler, 1985)—Florida Bog Frog

See comments under *L. clamitans*, and results and discussion by MacGuigan et al. (2002, Ichthyology & Herpetology, 110: 602–617).

L. onca (Cope In Yarrow, 1875, in Wheeler (Editor))—Relict Leopard Frog

L. palustris (LeConte, 1825)—Pickerel Frog

L. pipiens (Schreber, 1782)—Northern Leopard Frog

Many of the experimental works on nominal "*Rana pipiens*" are actually based on animals collected in northwestern Mexico, *Lithobates forreri* and *L. magnaocularis*.

L. septentrionalis (Baird, 1854)—Mink Frog

L. sevosus (Goin and Netting, 1940)—Dusky Gopher Frog

L. sphenocephalus (Cope, 1886)—Southern Leopard Frog

L. s. sphenocephalus (Cope, 1886)—Florida Leopard Frog

L. s. utricularius (Harlan, 1826)—Coastal Plains Leopard Frog

The date of original publication was corrected from 1825.

L. sylvaticus (LeConte, 1825)—Wood Frog

L. tarahumarae (Boulenger, 1917)—Tarahumara Frog

L. virgatipes (Cope, 1891)—Carpenter Frog

Data provided by Pytel (1986, Herpetologica 42: 273–282) suggest that careful evaluation for cryptic species is warranted.

L. yavapaiensis (Platz and Frost, 1984)—Lowland Leopard Frog

Pseudacris Fitzinger, 1843—Chorus Frogs

Based on a re-analysis of previously published molecular data, Duellman et al. (2016, Zootaxa 4104: 1–109) restricted the name *Pseudacris* to the eastern and Rocky Mountain species related to *P. nigrita* and allocated the western species, *P. cadaverina*, *P. hypochondriaca*, *P. regilla*, and *P. sierra* to *Hyliola* Mocquard, 1899. Based on genome-wide nDNA data, Banker et al. (2020, Systematic Biology 69: 756–773) argued that *Hyliola* should not be recognized because (a) the genus *Pseudacris* already is a monophyletic taxon without the change, and (b) the geographic separation rationale cited by Duellman et al. (2016, Zootaxa 4104: 1–109) is insufficient as the sole criterion for splitting a long-recognized monophyletic clade, causing unnecessary taxonomic instability. Use of *Hyliola* has not gained any traction in the systematic community, presumably because of the small number of species involved.

P. brachyphona (Cope, 1889)—Mountain Chorus Frog

P. brimleyi Brandt and Walker, 1933—Brimley's Chorus Frog

P. cadaverina (Cope, 1866)—California Treefrog

P. clarkii (Baird, 1854)—Spotted Chorus Frog

P. collinsorum Ospina, Tieu, Apodaca, and Lemmon, 2020—Collinses' Mountain Chorus Frog

Ospina et al. (2020, Copeia 108: 778–795) split *P. brachyphona* into two species by designating the name *P. collinsorum* to the southern populations and maintaining the name *P. brachyphona* for the northern populations, citing male call differences, nDNA and mtDNA genetic differences and reciprocal monophyly, ecological niche divergence, and geographic separation between the two species.

P. crucifer (Wied-Neuwied, 1838)—Spring Peeper

P. feriarum (Baird, 1854)—Upland Chorus Frog

Anderson et al. (2023, Ecology and Evolution 13: e9773) described substantial intraspecific genetic structure across the range of this species and occasional hybridization with congeneric taxa at range boundaries.

P. fouquettei Moriarty Lemmon, Lemmon, Collins, and Cannatella, 2008—Cajun Chorus Frog

P. hypochondriaca (Hallowell, 1854)—Baja California Treefrog

Recuero et al. (2006, Molecular Phylogenetics and Evolution 39: 293–304) recognized this species as distinct from *P. regilla* and composed of two subspecies, one of which is extralimital and whose mutual status is unclear. Barrow et al. (2014, Molecular Phylogenetics and Evolution 75: 78–90) suggested that the distinction between *P. hypochondriaca* and *P. sierra*, drawn based on mtDNA, was not supported by nDNA analysis. Through a mtDNA study with expanded geographic sampling, Jadin et al. (2021, Biological Journal of the Linnean Society 132: 612–633) found support for the species designations of Recuero et al. (2006, *op. cit.*) and refined range boundaries of the three taxa in this complex. The final resolution of this taxonomic question awaits nDNA analysis.

P. h. hypochondriaca (Hallowell, 1854)—Northern Baja California Treefrog

See comment under *P. hypochondriaca*.

P. illinoensis Smith, 1951—Illinois Chorus Frog

Barrow et al. (2015, Molecular Ecology 24: 4739–4758) determined that *P. illinoensis* separated from *P. streckeri* only recently, and although the taxa are not yet reciprocally monophyletic, they have already accumulated genetic differences. The authors advocated treating *P. illinoensis* as a genetically distinct management unit but did not advise on taxonomic revision.

P. kalmi Harper, 1955—New Jersey Chorus Frog

P. maculata (Agassiz, 1850)—Boreal Chorus Frog

P. nigrita (LeConte, 1825)—Southern Chorus Frog

P. ocularis (Bosc and Daudin, 1801)—Little Grass Frog

P. ornata (Holbrook, 1836)—Ornate Chorus Frog

P. regilla (Baird and Girard, 1852)—Pacific Treefrog

See comments under *P. hypochondriaca*.

P. sierra (Jameson, Mackey, and Richmond, 1966)—Sierran Treefrog

Jadin et al. (2021, Biological Journal of the Linnean Society 132: 612–633) found that *P. sierra* rather than *P. regilla* is present in Idaho and Montana, thus greatly expanding the known range of *P. sierra*. See comment under *P. hypochondriaca*.

P. streckeri Wright and Wright, 1933—Strecker's Chorus Frog

P. triseriata (Wied-Neuwied, 1838)—Western Chorus Frog

Rana Linnaeus, 1758—Brown Frogs

The taxon *Amerana* Dubois, 1992 (Bulletin Mensuel de la Société Linnéenne de Lyon, 61: 305–352) was applied to this group of species from western North America as a subgenus based on phenetic criteria. It was recognized as a genus by Fei et al. (2010, Herpetologica Sinica 12: 1–43) and by Dubois et al. (2021, Megataxa 5: 1–738) based on phylogenetic criteria. We have chosen not to recognize *Amerana* at this time, pending a more stable phylogeny for the North

American ranids, especially with respect to *Lithobates sylvaticus*. See additional comments under *Lithobates*.

R. aurora Baird and Girard, 1852—Northern Red-legged Frog

R. boylii Baird, 1854—Foothill Yellow-legged Frog

R. cascadae Slater, 1939—Cascades Frog

The disjunct populations in the Olympic Mountains, Washington, and the Klamath-Siskiyou Mountains, California, should be investigated with respect to call characters and molecular data. Previous studies on the populations have produced conflicting results (Dodd, 2023, Frogs of the United States and Canada, 2nd edition, Johns Hopkins University Press: 992pp).

R. draytonii Baird and Girard, 1852—California Red-legged Frog

R. luteiventris Thompson, 1913—Columbia Spotted Frog

R. muscosa Camp, 1917—Southern Mountain Yellow-legged Frog

R. pretiosa Baird and Girard, 1853—Oregon Spotted Frog

R. sierrae Camp, 1917—Sierra Nevada Yellow-legged Frog

Rhinella Fitzinger, 1826—South American Toads

R. horribilis (Wiegmann, 1833)—Mesoamerican Cane Toad

Newly listed species. Recently shown to be a distinct species from *R. marina* by Acevedo et al. (2016, Zootaxa, 4103: 574–586) and occurs naturally in southern Texas. Their results render *R. marina* as extralimital with regard to the scope of this list. However, the introduced cane toads in Hawai'i, Puerto Rico, and Florida (except Polk County [Abercrombie et al. (2022, Herpetological Review 53: 74–77)]) likely represent *R. marina*.

Rhinophrynus Duméril and Bibron, 1841—Burrowing Toads

R. dorsalis Duméril and Bibron, 1841—Burrowing Toad

Scaphiopus Holbrook, 1836—North American Spadefoots

S. couchii Baird, 1854—Couch's Spadefoot

S. holbrookii (Harlan, 1835)—Eastern Spadefoot

S. hurterii Strecker, 1910—Hurter's Spadefoot

Smilisca Cope, 1865—Mexican Treefrogs

S. baudinii (Duméril and Bibron, 1841)—Mexican Treefrog

S. fodiens (Boulenger, 1882)—Lowland Burrowing Treefrog

Spea Cope, 1866—Western Spadefoots

S. bombifrons (Cope, 1863)—Plains Spadefoot

S. hammondii (Baird, 1859 "1857")—Western Spadefoot

There is considerable inconsistency in the older literature regarding this taxon and both *S. multiplicata* and *S. intermontana*. Recent genetic evidence suggests two allopatric clades (Northern and Southern) may warrant recognition of an undescribed species (Neal et al., 2018, Conservation Genetics 19: 937–946).

S. intermontana (Cope, 1883)—Great Basin Spadefoot

See comment under *Spea hammondii*. Neal et al., 2018 (Conservation Genetics 19: 937–946), using nDNA and mtDNA recovered two distinct clades ("Oregon" and "California"), with the "Oregon" clade being sister to *S. bombifrons* and support for the California clade recovered as sister to the Southern clade of *S. hammondii*.

S. multiplicata (Cope, 1863)—Mexican Spadefoot

See comment under *Spea hammondii*.

S. m. stagnalis (Cope In Yarrow, 1875, in Wheeler (Editor))—Chihuahuan Desert Spadefoot

Caudata – Salamanders

R. Alexander Pyron[1] (Chair), Christopher K. Beachy[2], David A. Beamer[3], and Kenneth M. Kozak[4]

[1] Department of Biological Sciences, The George Washington University, Washington, DC 20052
[2] Department of Biological Sciences, Southeastern Louisiana University, Hammond, LA 70402
[3] Office of Research, Economic Development and Engagement, East Carolina University, Greenville, NC 27858
[4] Bell Museum and Department of Fisheries, Wildlife, and Conservation Biology, University of Minnesota, Saint Paul, MN 55108

Ambystoma Tschudi, 1838—Mole Salamanders

A. annulatum Cope, 1886—Ringed Salamander

A. barbouri Kraus and Petranka, 1989—Streamside Salamander

A. bishopi Goin, 1950—Reticulated Flatwoods Salamander

A. californiense Gray, 1853—California Tiger Salamander

A. cingulatum Cope, 1868—Frosted Flatwoods Salamander

A. gracile (Baird, 1859)—Northwestern Salamander

A. jeffersonianum (Green, 1827)—Jefferson Salamander

Bogart (2019, Herpetologica 75: 259–267) discussed the biological and taxonomic history of the unisexual *Ambystoma*, concluding that "none of the various unisexual salamanders can be considered a distinct species." Raffaëlli (2022, Salamanders & Newts of the World. Plumelec, Penclen) recognized *A. platineum* for the asexual forms, but most recent workers have not.

A. laterale Hallowell, 1856—Blue-spotted Salamander

See comment under *A. jeffersonianum*.

A. mabeei Bishop, 1928—Mabee's Salamander

A. macrodactylum Baird, 1850—Long-toed Salamander

Lee-Yaw and Irwin (2012, Journal of Evolutionary Biology. 25: 2276–2287) and Lee-Yaw et al. (2014, Molecular Ecology 23: 4590–4602) evaluated geographic variation of mtDNA and nuclear genes throughout the range of the species and found the distributions of five lineages did not completely agree with those of the five presently recognized subspecies but suggested no changes in the taxonomy of the species. Raffaëlli (2022, Salamanders & Newts of the World. Plumelec, Penclen) continued to recognize the five subspecies.

A. m. columbianum Ferguson, 1961—Eastern Long-toed Salamander

A. m. croceum Russell and Anderson, 1956—Santa Cruz Long-toed Salamander

A. m. krausei Peters, 1882—Northern Long-toed Salamander

A. m. macrodactylum Baird, 1850 "1849"—Western Long-toed Salamander

A. m. sigillatum Ferguson, 1961—Southern Long-toed Salamander

A. maculatum (Shaw, 1802)—Spotted Salamander

A. mavortium Baird, 1850—Western Tiger Salamander

Everson et al. (2021, Proceedings of the National Academy of Sciences 118: e2014719118) conducted rangewide sampling and presented genetic evidence from numerous nuclear loci that there are only two major lineages within this species. One of them corresponds to *A. m. nebulosum*, while limited evidence was found for the validity of the other described subspecies. They did not recommend taxonomic changes and Raffaëlli (2022, Salamanders & Newts of the World. Plumelec, Penclen) recognized all five subspecies, which we follow here.

A. m. diaboli Dunn, 1940—Gray Tiger Salamander

A. m. mavortium Baird, 1850—Barred Tiger Salamander

A. m. melanostictum (Baird in Cooper, 1859)—Blotched Tiger Salamander
Authority updated from (Baird, 1860).

A. m. nebulosum Hallowell, 1853—Arizona Tiger Salamander

A. m. stebbinsi Lowe, 1954—Sonoran Tiger Salamander

A. opacum (Gravenhorst, 1807)—Marbled Salamander

A. talpoideum (Holbrook, 1838)—Mole Salamander

A. texanum (Matthes, 1855)—Small-mouthed Salamander

A. tigrinum (Green, 1825)—Eastern Tiger Salamander

Amphiuma Garden in Smith, 1821—Amphiumas
Authority updated from Garden, 1821.

A. means Garden, 1821—Two-toed Amphiuma

A. pholeter Neill, 1964—One-toed Amphiuma

A. tridactylum Cuvier, 1827—Three-toed Amphiuma

Aneides Baird, 1851—Climbing Salamanders

A. aeneus (Cope and Packard, 1881)—Green Salamander

A. caryaensis Patton, Apodaca, Corser, Wilson, Williams, Cameron, and Wake, 2019—Hickory Nut Gorge Green Salamander
New Species. Delimited from *A. aeneus* by Patton et al. (2019, Copeia 107(4): 748-763).

A. ferreus Cope, 1869—Clouded Salamander

A. flavipunctatus (Strauch, 1870)—Speckled Black Salamander
The Standard English Name was changed to 'Speckled' Black Salamander by Reilly and Wake (2019, PeerJ 7: e7370) to reflect the breakup of the *A. flavipunctatus* complex.

A. hardii (Taylor, 1941)—Sacramento Mountains Salamander

A. iecanus (Cope, 1883)—Shasta Black Salamander
Populations along the inner margins of the Coast Ranges in western Tehama and Glenn Counties may be assignable to *A. iecanus*, but further surveys including morphological and genetic analyses are needed (Reilly and Wake, 2019, PeerJ, 7: e7370).

A. klamathensis Reilly and Wake, 2019—Klamath Black Salamander
New Species. Delimited from *A. flavipunctatus* by Reilly and Wake (2019, PeerJ 7: e7370).

A. lugubris (Hallowell, 1849)—Arboreal Salamander

A. niger Myers and Maslin, 1948—Santa Cruz Black Salamander
Elevated from the synonymy of *A. flavipunctatus* by Reilly and Wake (2019, PeerJ 7: e7370).

A. vagrans (Wake and Jackman, 1999)—Wandering Salamander

Batrachoseps Bonaparte, 1839—Slender Salamanders
Authority updated from Bonaparte, 1841.

B. altasierrae Jockush, Martinez-Solano, Hansen, and Wake, 2012—Greenhorn Mountains Slender Salamander

B. attenuatus (Eschscholtz, 1833)—California Slender Salamander

B. bramei Jockush, Martinez-Solano, Hansen, and Wake, 2012—Fairview Slender Salamander

B. campi Marlow, Brode, and Wake, 1979—Inyo Mountains Salamander

B. diabolicus Jockusch, Wake, and Yanev, 1998—Hell Hollow Slender Salamander

B. gabrieli Wake, 1996—San Gabriel Mountains Slender Salamander

B. gavilanensis Jockusch, Yanev, and Wake, 2001—Gabilan Mountains

Slender Salamander

B. gregarius Jockusch, Wake, and Yanev, 1998—Gregarious Slender Salamander

B. incognitus Jockusch, Yanev, and Wake, 2001—San Simeon Slender Salamander

B. kawia Jockusch, Wake, and Yanev, 1998—Sequoia Slender Salamander

B. luciae Jockusch, Yanev, and Wake, 2001—Santa Lucia Mountains Slender Salamander

B. major Camp, 1915—Southern California Slender Salamander

Jockusch et al. (2020, PeerJ 8: e9599) gave a detailed phylogeographic estimate of *B. major* and the southern clade of *B. nigriventris* based on mitochondrial and nuclear evidence. Several species including *B. major* comprise deeply divergent genetic lineages that do not correspond to existing taxonomy. They retained *B. m. aridus*, but additional revision is needed.

B. m. aridus Brame, 1970—Desert Slender Salamander

B. m. major Camp, 1915—Garden Slender Salamander

The term "Slender" was previously included in the Standard English Name for this taxon but was erroneously omitted in the 7th and 8th editions of this list. We correct that error here.

B. minor Jockusch, Yanev, and Wake, 2001—Lesser Slender Salamander

B. nigriventris Cope, 1869—Black-bellied Slender Salamander

B. pacificus (Cope, 1865)—Channel Islands Slender Salamander

B. regius Jockusch, Wake, and Yanev, 1998—Kings River Slender Salamander

B. relictus Brame and Murray, 1968—Relictual Slender Salamander

B. robustus Wake, Yanev, and Hansen, 2002—Kern Plateau Salamander

B. simatus Brame and Murray, 1968—Kern Canyon Slender Salamander

B. stebbinsi Brame and Murray, 1968—Tehachapi Slender Salamander

B. wakei Sweet and Jockusch, 2021—Arguello Slender Salamander

New Species. Delimited from *B. pacificus* by Sweet and Jockusch (2021, Ichthyology & Herpetology 109: 836–850).

B. wrighti (Bishop, 1937)—Oregon Slender Salamander

Cryptobranchus Leuckart, 1821—Hellbenders

C. alleganiensis (Sonnini de Manoncourt and Latreille, 1801)—Hellbender

The authority has been revised to reflect the original publication of this taxon name. Hime (2017, Ph.D. dissertation, University of Kentucky, Lexington) presented detailed genomic evidence that this taxon consists of five well-defined species-level geographic genetic lineages but did not propose taxonomic changes in his unpublished work. Frétey and Raffaëlli (2021, Bionomina 25: 35–51) discussed the nomenclatural status of these populations, allocating *C. alleganiensis* to the Tennessee River drainage populations, *C. bishopi* to the Ozark populations, and *C. horrida* (Barton, 1807) to the Ohio River drainage populations. The distinct species in the Kanawha/New and Missouri River drainages each require new names.

C. a. alleganiensis (Sonnini de Manoncourt and Latreille, 1801)—Eastern Hellbender

The authority has been revised to reflect the original publication of this taxon name.

C. a. bishopi Grobman, 1943—Ozark Hellbender

Desmognathus Baird, 1850—Dusky Salamanders

Substantial cryptic diversity in this group was uncovered using genetic evidence by Kozak et al. (2005, Evolution, 59(9): 2000–2016), Tilley et al. (2013, Ecology and Evolution 3(8): 2547–2567), Beamer and Lamb (2020, Zootaxa,

4734(1): 1–61), and Pyron et al. (2022, Ecology and Evolution 12(2): e8574), facilitating recent taxonomic revisions and the description or resurrection of 18 species.

D. abditus Anderson and Tilley, 2003—Cumberland Dusky Salamander

D. adatsihi Pyron and Beamer, 2022—Cherokee Mountain Dusky Salamander
New Species. Delimited from *D. ocoee* by Pyron and Beamer (2022, Zootaxa 5190: 207–240).

D. aeneus Brown and Bishop, 1947—Seepage Salamander

D. amphileucus Bishop, 1941—Southern Black-bellied Salamander
Elevated from the synonymy of the invalid *Desmognathus quadramaculatus* by Pyron and Beamer (2022, Bionomina, 27: 1–43).

D. anicetus Pyron and Beamer, 2023—Foothills Dusky Salamander
New Species. Delimited from *D. conanti* by Pyron and Beamer (2023, Zootaxa 5311: 451–504).

D. apalachicolae Means and Karlin, 1989—Apalachicola Dusky Salamander

D. aureatus (Martof, 1956)—Southern Shovel-nosed Dusky Salamander

D. auriculatus (Holbrook, 1838)—Holbrook's Southern Dusky Salamander

D. bairdi Pyron and Beamer, 2023—Sandhills Dusky Salamander
New Species. Delimited from *D. fuscus* by Pyron and Beamer (2023, Zootaxa 5311: 451–504).

D. balsameus Pyron and Beamer, 2022—Great Balsams Mountain Dusky Salamander
New Species. Delimited from *D. ocoee* by Pyron and Beamer (2022, Zootaxa 5190: 207–240).

D. brimleyorum Stejneger, 1895—Ouachita Dusky Salamander

D. campi Pyron and Beamer, 2023—Savannah Dusky Salamander
New Species. Delimited from *D. conanti* by Pyron and Beamer (2023, Zootaxa 5311: 451–504).

D. carolinensis (Dunn, 1916)—Carolina Mountain Dusky Salamander

D. catahoula Pyron and Beamer, 2023—Catahoula Dusky Salamander
New Species. Delimited from *D. conanti* by Pyron and Beamer (2023, Zootaxa 5311: 451–504).

D. cheaha Pyron, O'Connell, Duncan, Burbrink, and Beamer, 2023—Talladega Seal Salamander
New Species. Delimited from *D. monticola* by Pyron et al. (2023, Systematic Biology 72: 179–197).

D. conanti Rossman, 1958—Spotted Dusky Salamander
Populations in the Ridge and Valley Physiographic Province of eastern Tennessee have a complex history of hybridization with nearby species (see Tilley et al., 2013, Ecology and Evolution 3: 2547–2567; Pyron et al., 2022, Ecology and Evolution 12: e8574).

D. folkertsi Camp, Tilley, Austin, and Marshall, 2002—Dwarf Black-bellied Salamander

D. fuscus (Green, 1818)—Northern Dusky Salamander
Molecular data suggest deep differentiation among populations that morphologically resemble *D. fuscus* and may represent multiple additional new species (see Pyron et al., 2022, Ecology and Evolution 12: e8574). Pyron and Beamer (2020, Zootaxa 4838: 221–247) showed that Green (1818), rather than Rafinesque (1820), is the correct taxonomic authority for this name, altering long-standing interpretations from previous literature.

D. gvnigeusgwotli Pyron and Beamer, 2022—Smoky Mountains Black-bellied Salamander
New Species. Delimited from the invalid *D. quadramaculatus* by Pyron and Beamer (2022, Bionomina 27: 1–43).

D. imitator Dunn, 1927—Imitator Salamander

D. intermedius (Pope, 1928)—Western Shovel-nosed Salamander
Elevated from the synonymy of *Desmognathus marmoratus* by Pyron and Beamer (2023, Zootaxa 5270: 262–280).

D. kanawha Pyron and Beamer, 2022—Kanawha Black-bellied Salamander
New Species. Delimited from the invalid *D. quadramaculatus* by Pyron and Beamer (2022, Bionomina 27: 1–43).

D. lycos Pyron and Beamer, 2023—Wolf Dusky Salamander
New Species. Delimited from *D. fuscus* by Pyron and Beamer (2023, Zootaxa 5311: 451–504).

D. marmoratus (Moore, 1899)—Northern Shovel-nosed Salamander
Pyron and Beamer (2023, Zootaxa 5270: 262–280) revised the *D. marmoratus* complex and resurrected a previous Standard English Name from Schmidt (1953, University of Chicago Press, Chicago, Illinois) for the nominotypical species to differentiate it from *D. intermedius* and *D. aureatus*.

D. mavrokoilius Pyron and Beamer, 2022—Pisgah Black-bellied Salamander
New Species. Delimited from the invalid *D. quadramaculatus* by Pyron and Beamer (2022, Bionomina 27: 1–43).

D. monticola Dunn, 1916—Northern Seal Salamander
The committee assigns a newly suggested Standard English Name for this species to differentiate it from the recently described *D. cheaha*.

D. ochrophaeus Cope, 1859—Allegheny Mountain Dusky Salamander

D. ocoee Nicholls, 1949—Ocoee Salamander
This form consists of numerous parapatric units that occupy different mountain ranges in the southern Blue Ridge and Cumberland Plateau physiographic provinces (see Pyron and Beamer, 2022, Zootaxa, 5190: 207–240).

D. orestes Tilley and Mahoney, 1996—Blue Ridge Dusky Salamander
This taxon consists of two genetically differentiated units that may represent cryptic species (Tilley and Mahoney, 1996, Herpetological Monographs 10: 1–42; Tilley, 1997, Journal of Heredity 88: 305–315; Highton, 2000, pages 215–241 in R. C. Bruce, B. G. Jaeger, and L. D. Houck [Editors], The Biology of Plethodontid Salamanders. Kluwer Academic/Plenum Publishers, New York).

D. organi Crespi, Browne, and Rissler, 2010—Northern Pygmy Salamander

D. pascagoula Pyron, O'Connell, Lamb, and Beamer, 2022—Pascagoula Dusky Salamander
New Species. Delimited from *D. valentinei* by Pyron et al. (2022, Zootaxa 5133: 53–82).

D. perlapsus Neill, 1950—Chattooga Dusky Salamander
Elevated from the synonymy of *Desmognathus ocoee* by Pyron and Beamer (2022, Zootaxa, 5190: 207–240).

D. planiceps Newman, 1955—Flat-headed Salamander

D. santeetlah Tilley, 1981—Santeetlah Dusky Salamander

D. tilleyi Pyron and Beamer, 2023—Max Patch Dusky Salamander
New Species. Delimited from *D. conanti* by Pyron and Beamer (2023, Zootaxa 5311: 451–504).

D. valentinei Means, Lamb, and Bernardo, 2017—Valentine's Southern Dusky Salamander
New Species. Delimited from *D. auriculatus* by Means et al. (2017, Zootaxa 4263: 467–506).

D. valtos Pyron and Beamer, 2022—Carolina Swamp Dusky Salamander
New Species. Delimited from *D. auriculatus* by Pyron and Beamer (2022, Zootaxa 5188: 587–595).

D. welteri Barbour, 1950—Black Mountain Salamander

D. wrighti King, 1936—Pygmy Salamander

Dicamptodon Strauch, 1870—Pacific Giant Salamanders
D. aterrimus (Cope, 1868)—Idaho Giant Salamander
D. copei Nussbaum, 1970—Cope's Giant Salamander
D. ensatus (Eschscholtz, 1833)—California Giant Salamander
D. tenebrosus (Baird and Girard, 1852)—Coastal Giant Salamander

Ensatina Gray, 1850—Ensatinas
E. eschscholtzii Gray, 1850—Ensatina
E. e. croceater (Cope, 1868)—Yellow-blotched Ensatina
E. e. eschscholtzii Gray, 1850—Monterey Ensatina
E. e. klauberi Dunn, 1929—Large-blotched Ensatina
E. e. oregonensis (Girard, 1856)—Oregon Ensatina
E. e. picta Wood, 1940—Painted Ensatina
E. e. platensis (Jiménez de la Espada, 1875)—Sierra Nevada Ensatina
Authority corrected from (Espada, 1875).
E. e. xanthoptica Stebbins, 1949—Yellow-eyed Ensatina

Eurycea Rafinesque, 1822—Brook Salamanders
E. aquatica Rose and Bush, 1963—Brown-backed Salamander
E. arenicola Stuart, Beamer, Farrington, Beane, Chek, Pusser, Som, Stephan, Sever, and Braswell, 2020—Carolina Sandhills Salamander
New Species. Delimited from *E. bislineata* by Stuart et al. (2020, Herpetologica 76: 423–444).
E. bislineata (Green, 1818)—Northern Two-lined Salamander
E. braggi (Smith, 1968)—Southern Grotto Salamander
Removed from the synonymy of *E. spelae*a by Phillips et al. (2017, Journal of Biogeography 44: 2463–2474) based on phylogenetic and clustering analysis of genome-scale data and population-level sampling from across the range of the nominal taxon. The Standard English name "Southern Grotto Salamander" was used by Raffaëlli (2022, Salamanders & Newts of the World. Plumelec, France).
E. chamberlaini Harrison and Guttman, 2003—Chamberlain's Dwarf Salamander
E. chisholmensis Chippindale, Price, Wiens, and Hillis, 2000—Salado Salamander
E. cirrigera (Green, 1831)—Southern Two-lined Salamander
E. guttolineata (Holbrook, 1838)—Three-lined Salamander
E. hillisi Wray, Means, and Steppan, 2017—Hillis's Dwarf Salamander
New Species. Delimited from *E. quadridigitata* by Wray et al. (2017, Herpetological Monographs 31: 18–46).
E. junaluska Sever, Dundee, and Sullivan, 1976—Junaluska Salamander
E. latitans Smith and Potter, 1946—Cascade Caverns Salamander
Devitt et al. (2019, Proceedings of the National Academy of Sciences 116: 2624–2633) placed *E. tridentifera* in the synonymy of *E. latitans* based on phylogenetic and clustering analysis of genome-scale data and population-level sampling from the type locality of both taxa.
E. longicauda (Green, 1818)—Long-tailed Salamander
E. l. longicauda (Green, 1818)—Eastern Long-tailed Salamander
E. l. melanopleura (Cope, 1894)—Dark-sided Salamander
Raffaëlli (2022: Salamanders & Newts of the World. Plumelec, Penclen) recognized this taxon as a distinct species, but such a conclusion has not been evaluated using modern species-delimitation analyses. Consequently, we retain it as a subspecies here pending further evidence.
E. lucifuga Rafinesque, 1822—Cave Salamander
E. multiplicata (Cope, 1869)—Many-ribbed Salamander

E. nana Bishop, 1941—San Marcos Salamander

E. naufragia Chippindale, Price, Wiens, and Hillis, 2000—Georgetown Salamander

E. neotenes Bishop and Wright, 1937—Texas Salamander

Populations from the western portions of the Pedernales and Guadalupe drainages are currently recognized as this species but are referred to as "*E.* sp. 1" by Devitt et al. (2019, Proceedings of the National Academy of Sciences 116: 2624–2633). There was no comment about this species in their "Taxonomic Implications" section.

E. nerea (Bishop, 1944)—Northern Grotto Salamander

Elevated from the synonymy of *E. spelaea* by Phillips et al. (2017, Journal of Biogeography 44: 2463–2474) based on phylogenetic and clustering analysis of genome-scale data and population-level sampling from across the range of the nominal taxon. Standard English name "Northern Grotto Salamander" used by Raffaëlli (2022, Salamanders & Newts of the World. Plumelec, France).

E. paludicola (Mittleman, 1947)—Western Dwarf Salamander

Elevated from the synonymy of *E. quadridigitata* by Wray et al. (2017, Herpetological Monographs 31: 18–46) based on phylogenetic analysis of mitochondrial and nuclear data from population-level sampling across the range of the nominal taxon.

E. pterophila Burger, Smith, and Potter, 1950—Fern Bank Salamander

E. quadridigitata (Holbrook, 1842)—Dwarf Salamander

E. rathbuni (Stejneger, 1896)—Texas Blind Salamander

E. robusta (Longley, 1978)—Blanco Blind Salamander

E. sosorum Chippindale, Price, and Hillis, 1993—Barton Springs Salamander

E. spelaea (Stejneger, 1892)—Western Grotto Salamander

The Standard English name "Western Grotto Salamander" was used by Raeffeli (2022, Salamanders & Newts of the World. Plumelec, France).

E. sphagnicola Wray, Means, and Steppan, 2017—Bog Dwarf Salamander

New Species. Delimited from *E. quadridigitata* by Wray et al. (2017, Herpetological Monographs 31: 18–46).

E. subfluvicola Steffen, Irwin, Blair, and Bonett, 2014—Ouachita Streambed Salamander

E. tonkawae Chippindale, Price, Wiens, and Hillis, 2000—Jollyville Plateau Salamander

E. tridentifera Mitchell and Reddell, 1965—Comal Blind Salamander

E. troglodytes Baker, 1957—Valdina Farms Salamander

In reference to divergent populations of this species, Devitt et al. (2019, Proceedings of the National Academy of Sciences 116: 2624–2633) states "we recognize three species, two of them new." These species remain undescribed.

E. tynerensis Moore and Hughes, 1939—Oklahoma Salamander

E. wallacei (Carr, 1939)—Georgia Blind Salamander

E. waterlooensis Hillis, Chamberlain, Wilcox, and Chippindale, 2001—Austin Blind Salamander

E. wilderae Dunn, 1920—Blue Ridge Two-lined Salamander

Gyrinophilus Cope, 1869—Spring Salamanders

G. gulolineatus Brandon, 1965—Berry Cave Salamander

G. palleucus McCrady, 1954—Tennessee Cave Salamander

- ***G. p. necturoides*** Lazell and Brandon, 1962—Big Mouth Cave Salamander
- ***G. p. palleucus*** McCrady, 1954—Pale Salamander

G. porphyriticus (Green, 1827)—Spring Salamander

- ***G. p. danielsi*** (Blatchley, 1901)—Blue Ridge Spring Salamander
- ***G. p. dunni*** Mittleman and Jopson, 1941—Carolina Spring Salamander

G. p. duryi (Weller, 1930)—Kentucky Spring Salamander

G. p. porphyriticus (Green, 1827)—Northern Spring Salamander

G. subterraneus Besharse and Holsinger, 1977—West Virginia Spring Salamander

Genome-scale phylogenetic and clustering analyses conducted by Campbell Grant et al. (2022, Conservation Genetics 23: 727–744) revealed hybridization between *G. subterraneus* and *G. porphyriticus*. Moreover, the former was found to be nested within the latter, which they interpreted as an instance of sympatric speciation where paraphyly is to be expected.

Hemidactylium Tschudi, 1838—Four-toed Salamanders

H. scutatum (Temminck, 1838)—Four-toed Salamander

Hydromantes Gistel, 1848—Web-toed Salamanders

Bingham et al. (2018, Bulletin of the Museum of Comparative Zoology 161: 403–427) provided range-wide geographic sampling for mitochondrial and nuclear data to revise the taxonomy of this complex, which had previously been estimated as inadequate by Rovito (2010, Molecular Ecology 19: 4554–4571). They also reported newly discovered populations of the *H. shastae* complex to the west and south which have not been studied and the taxonomic status of these populations requires further study.

H. brunus Gorman, 1954—Limestone Salamander

H. platycephalus (Camp, 1916)—Mount Lyell Salamander

H. samweli Bingham, Papenfuss, Lindstrand, and Wake, 2018—Samwel Shasta Salamander

New Species. Delimited from *H. shastae* by Bingham et al. (2018, Bulletin of the Museum of Comparative Zoology 161: 403–427).

H. shastae Gorman and Camp, 1953—Shasta Salamander

H. wintu Bingham, Papenfuss, Lindstrand, and Wake, 2018—Wintu Shasta Salamander

New Species. Delimited from *H. shastae* by Bingham et al. (2018, Bulletin of the Museum of Comparative Zoology 161: 403–427).

Necturus Rafinesque, 1819—Waterdogs and Mudpuppies

The status of *N. lodingi* Viosca, 1937 and several other cryptic lineages require additional data to resolve, according to Guyer et al. (2020, Journal of Natural History. London 54: 15–51). We follow them in considering *N. lodingi* a synonym of *N. beyeri* for the time being.

N. alabamensis Viosca, 1937—Black Warrior River Waterdog

N. beyeri Viosca, 1937—Gulf Coast Waterdog

N. lewisi Brimley, 1924—Neuse River Waterdog

N. louisianensis Viosca, 1938—Red River Mudpuppy

This taxon was treated as a full species by Chabarria et al. (2018, Journal of Zoological Systematics and Evolutionary Research 56: 352–363), elevating it from a subspecies of *N. maculosus*.

N. maculosus (Rafinesque, 1818)—Mudpuppy

Nelson et al. (2017, Journal of Herpetology 51: 559–566) presented evidence that waterdogs from an area in the Hiwassee drainage that have historically been considered *N. maculosus* represent at least two species, one of which is sister to *N. lewisi*.

N. moleri Guyer, Murray, Bart, Crother, Chabarria, Bailey, and Dunn, 2020—Apalachicola Waterdog

New Species. Delimited from *N. punctatus* by Guyer et al. (2020, Journal of Natural History 54: 15–51).

N. mounti Guyer, Murray, Bart, Crother, Chabarria, Bailey, and Dunn, 2020—Escambia Waterdog
New Species. Delimited from *N. punctatus* by Guyer et al. (2020, Journal of Natural History 54: 15–51).
N. punctatus (Gibbes, 1850)—Dwarf Waterdog

Notophthalmus Rafinesque, 1820—Eastern Newts
N. meridionalis (Cope, 1880)—Black-Spotted Newt
N. m. meridionalis (Cope, 1880)—Texas Black-Spotted Newt
N. perstriatus (Bishop, 1941)—Striped Newt
N. viridescens (Rafinesque, 1820)—Eastern Newt
N. v. dorsalis (Harlan, 1829)—Broken-striped Newt
Authority corrected from (Harlan, 1828).
N. v. louisianensis (Wolterstorff, 1914)—Central Newt
N. v. piaropicola (Schwartz and Duellman, 1952)—Peninsula Newt
N. v. viridescens (Rafinesque, 1820)—Red-Spotted Newt

Phaeognathus Highton, 1961—Red Hill Salamanders
P. hubrichti Highton, 1961—Red Hills Salamander

Plethodon Tschudi, 1838—Woodland Salamanders
P. ainsworthi Lazell, 1998—Bay Springs Salamander
Folt et al. (2013, Herpetological Review 44: 283–286), Himes and Beckett (2013, Southeastern Naturalist 12: 851–856) and Pierson et al. (2020, Journal of Herpetology 54: 137–143) evaluated the scant available data regarding this taxon. We follow the latter in continuing to recognize it as valid and possibly extinct, but no compelling evidence supports this conclusion, and it is likely a *nomen dubium*.
P. albagula Grobman, 1944—Western Slimy Salamander
P. amplus Highton and Peabody, 2000—Blue Ridge Gray-cheeked Salamander
P. angusticlavius Grobman, 1944—Ozark Zigzag Salamander
P. asupak Mead, Clayton, Nauman, Olson, and Pfrender, 2005—Scott Bar Salamander
P. aureolus Highton, 1984—Tellico Salamander
P. caddoensis Pope and Pope, 1951—Caddo Mountain Salamander
P. chattahoochee Highton, 1989—Chattahoochee Slimy Salamander
P. cheoah Highton and Peabody, 2000—Cheoah Bald Salamander
P. chlorobryonis Mittleman, 1951—Atlantic Coast Slimy Salamander
P. cinereus (Green, 1818)—Eastern Red-backed Salamander
P. cylindraceus (Harlan, 1825)—White-Spotted Slimy Salamander
P. dixi Pope and Fowler, 1949—Dixie Caverns Salamander
Elevated from the synonymy of *Plethodon wehrlei* by Kuchta et al. (2018, Zoologica Scripta 47: 285–299).
P. dorsalis Cope, 1889—Northern Zigzag Salamander
P. dunni Bishop, 1934—Dunn's Salamander
P. electromorphus Highton, 1999—Northern Ravine Salamander
P. elongatus Van Denburgh, 1916—Del Norte Salamander
P. fourchensis Duncan and Highton, 1979—Fourche Mountain Salamander
P. glutinosus (Green, 1818)—Northern Slimy Salamander
P. grobmani Allen and Neill, 1949—Southeastern Slimy Salamander
Joyce et al. (2019, Copeia 107(4): 701–707) used one mitochondrial and one nuclear gene to estimate phylogeographic lineage diversity of the *P. glutinosus* complex in Alabama and recommended synonymizing *P. grobmani* and *P. mississippi* with *P. glutinosus*. They further suggested recognizing only a single, widespread *P. glutinosus*, which would synonymize many species recognized here

(see Highton et al., 1989, Illinois Biological Monograph 57: 1–153). Since they did not include rangewide sampling for these taxa, we continue to retain them pending additional data.

P. hoffmani Highton, 1972—Valley and Ridge Salamander
P. hubrichti Thurow, 1957—Peaks of Otter Salamander
P. idahoensis Slater and Slipp, 1940—Coeur d'Alene Salamander
P. jacksoni Newman, 1954—Blacksburg Salamander

Elevated from the synonymy of *Plethodon wehrlei* by Felix et al. (2019, Zootaxa 4609: 429–448).

P. jordani Blatchley, 1901—Red-cheeked Salamander
P. kentucki Mittleman, 1951—Cumberland Plateau Salamander
P. kiamichi Highton, 1989—Kiamichi Slimy Salamander
P. kisatchie Highton, 1989—Louisiana Slimy Salamander
P. larselli Burns, 1954—Larch Mountain Salamander
P. meridianus Highton and Peabody, 2000—South Mountain Gray-cheeked Salamander
P. metcalfi Brimley, 1912—Southern Gray-cheeked Salamander
P. mississippi Highton, 1989—Mississippi Slimy Salamander

See note under *P. grobmani*.

P. montanus Highton and Peabody, 2000—Northern Gray-cheeked Salamander
P. neomexicanus Stebbins and Riemer, 1950—Jemez Mountains Salamander
P. nettingi Green, 1938—Cheat Mountain Salamander
P. ocmulgee Highton, 1989—Ocmulgee Slimy Salamander
P. ouachitae Dunn and Heinze, 1933—Rich Mountain Salamander
P. pauleyi Felix, Wooten, Pierson, and Camp, 2019—Yellow-spotted Woodland Salamander

New Species. Delimited from *P. wehrlei* by Felix et al. (2019, Zootaxa 4609: 429–448).

P. petraeus Wynn, Highton, and Jacobs, 1988—Pigeon Mountain Salamander
P. punctatus Highton, 1972—Cow Knob Salamander
P. richmondi Netting and Mittleman, 1938—Southern Ravine Salamander
P. savannah Highton, 1989—Savannah Slimy Salamander
P. sequoyah Highton, 1989—Sequoyah Slimy Salamander
P. serratus Grobman, 1944—Southern Red-backed Salamander
P. shenandoah Highton and Worthington, 1967—Shenandoah Salamander
P. sherando Highton, 2004—Big Levels Salamander
P. shermani Stejneger, 1906—Red-legged Salamander
P. stormi Highton and Brame, 1965—Siskiyou Mountains Salamander
P. teyahalee Hairston, 1950—Southern Appalachian Salamander
P. vandykei Van Denburgh, 1906—Van Dyke's Salamander
P. variolatus (Gilliams, 1818)—South Carolina Slimy Salamander
P. vehiculum (Cooper, 1860)—Western Red-backed Salamander
P. ventralis Highton, 1997—Southern Zigzag Salamander
P. virginia Highton, 1999—Shenandoah Mountain Salamander
P. websteri Highton, 1979—Webster's Salamander
P. wehrlei Fowler and Dunn, 1917—Wehrle's Salamander
P. welleri Walker, 1931—Weller's Salamander
P. yonahlossee Dunn, 1917—Yonahlossee Salamander

Pseudobranchus Gray, 1825—Dwarf Sirens

P. axanthus Netting and Goin, 1942—Southern Dwarf Siren
P. a. axanthus Netting and Goin, 1942—Narrow-striped Dwarf Siren
P. a. belli Schwartz, 1952—Everglades Dwarf Siren

P. striatus (LeConte, 1824)—Northern Dwarf Siren
P. s. lustricolus Neill, 1951—Gulf Hammock Dwarf Siren
P. s. spheniscus Goin and Crenshaw, 1949—Slender Dwarf Siren
P. s. striatus (LeConte, 1824)—Broad-striped Dwarf Siren

Pseudotriton Tschudi, 1838—Red and Mud Salamanders
P. montanus Baird, 1850—Mud Salamander
P. m. diastictus Bishop, 1941—Midland Mud Salamander
This taxon was elevated to a full species by Collins (1991, Herpetological Review 22: 42–43) without evidence. This was followed by Dubois and Raffaëlli (2012, Alytes 28: 77–161) and Raffaëlli (2022, Salamanders & Newts of the World. Plumelec, Penclen). We retain it as a subspecies pending additional data and analyses.
P. m. flavissimus Hallowell, 1856—Gulf Coast Mud Salamander
Dubois and Raffaëlli (2012, Alytes 28: 77–161) consider this taxon a full species, and Raffaëlli (2022, Salamanders & Newts of the World. Plumelec, Penclen) treats it as a full species, including two subspecies, *flavissimus* and *floridanus*. We retain it as a subspecies pending additional data and analyses.
P. m. floridanus Netting and Goin, 1942—Rusty Mud Salamander
P. m. montanus Baird, 1850—Eastern Mud Salamander
P. ruber (Sonnini de Manoncourt and Latreille, 1801)—Red Salamander
P. r. nitidus Dunn, 1920—Blue Ridge Red Salamander
P. r. ruber (Sonnini de Manoncourt and Latreille, 1801)—Northern Red Salamander
P. r. schencki (Brimley, 1912)—Black-chinned Red Salamander
P. r. vioscai Bishop, 1928—Southern Red Salamander

Rhyacotriton Dunn, 1920—Torrent Salamanders
R. cascadae Good and Wake, 1992—Cascade Torrent Salamander
R. kezeri Good and Wake, 1992—Columbia Torrent Salamander
R. olympicus (Gaige, 1917)—Olympic Torrent Salamander
R. variegatus Stebbins and Lowe, 1951—Southern Torrent Salamander

Siren Österdam, 1766—Sirens
S. intermedia Barnes, 1826—Lesser Siren
Fedler et al. (2023, Zootaxa 5258: 351–378) presented range-wide population sampling for the genus based on mitochondrial and nuclear DNA sequences. They elevated *S. nettingi* from a subspecies of *S. intermedia*, which contains three deeply divergent genetic lineages, of which one corresponds roughly to *S. i. intermedia* and the other two may represent distinct species.
S. lacertina Österdam, 1766—Greater Siren
S. nettingi Goin, 1942—Western Lesser Siren
This taxon was resurrected as a full species by Fedler et al. (2023, Zootaxa 5358: 351–378), and includes *S. i. texana* Goin, 1957, though this giant form from southern Texas and northern Mexico may represent a distinct species.
S. reticulata Graham, Kline, Steen, and Kelehear, 2018—Reticulated Siren
New Species. Delimited as the sister taxon to all other *Siren* spp. by Graham et al. (2018, PLoS One 13: e0207460).
S. sphagnicola Fedler, Enge, and Moler, 2023—Seepage Siren
New Species. Delimited from *S. intermedia* by Fedler et al. (2023, Zootaxa 5258: 351–378).

Stereochilus Cope, 1869—Many-lined Salamanders
S. marginatus (Hallowell, 1856)—Many-lined Salamander

Taricha Gray, 1850—Pacific Newts
T. granulosa (Skilton, 1849)—Rough-skinned Newt
T. rivularis (Twitty, 1935)—Red-bellied Newt
T. sierrae (Twitty, 1942)—Sierra Newt
T. torosa (Rathke in Eschscholtz, 1833)—California Newt

Urspelerpes Camp, Peterman, Milanovich, Lamb, Maerz, and Wake, 2009—Patch-nosed Salamanders
U. brucei Camp, Peterman, Milanovich, Lamb, Maerz, and Wake, 2009—Patch-nosed Salamander

Crocodilia – Crocodilians

Brian I. Crother

Department of Biology, Southeastern Louisiana University, Hammond, LA 70402

Alligator Cuvier, 1807—Alligators
A. mississippiensis (Daudin, 1802 "1801")—American Alligator

Crocodylus Laurenti, 1768—Crocodiles
C. acutus Cuvier, 1807—American Crocodile

Squamata (excluding snakes) – Lizards

Kevin de Queiroz[1] (Chair) and Lauren M. Chan[2]

[1]Department of Vertebrate Zoology, National Museum of Natural History, Smithsonian Institution, Washington, DC 20560-0162
[2]Biological Sciences Department, California Polytechnic State University, San Luis Obispo, CA 93407

We have used parenthetical annotations to designate several noteworthy categories of species and subspecies taxa: species that are composed of organisms of a single sex (unisexual), species that were created in laboratory setting rather than having arisen in nature (laboratory-generated), species for which current evidence suggests that they may not be valid (questionable), species that are only partially separated from other species as evidenced by a hybrid zone, not merely occasional hybridization (incompletely separated from [name of species]), and subspecies based on phenotypic data, usually proposed prior to 2000 (the date of the 5th edition of this list), that have not been evaluated with genetic data (legacy).

Anniella Gray, 1852—California Legless Lizards

A. alexanderae Papenfuss and Parham, 2013—Temblor Legless Lizard

A. campi Papenfuss and Parham, 2013—Big Spring Legless Lizard

A. grinnelli Papenfuss and Parham, 2013—Bakersfield Legless Lizard

A. pulchra Gray, 1852—Northern Legless Lizard

A. stebbinsi Papenfuss and Parham, 2013—San Diegan Legless Lizard

This species consists of two disjunct populations, one south of the Transverse Ranges in southern California and northern Baja California and one in the Tehachapi and Piute Mountains (Papenfuss and Parham, 2013, Breviora 536: 1–17), which is phylogenetically nested within the former (Parham and Papenfuss, 2009, Conservation Genetics 10: 169–176).

Anolis Daudin, 1802—Anoles

Poe et al. (2017, Systematic Biology 66: 663–697) presented a revised taxonomy of anoles following the principles of phylogenetic nomenclature (e.g., Cantino and de Queiroz, 2020, International Code of Phylogenetic Nomenclature, CRC Press, Boca Raton), which is followed here. See Nicholson et al. (2018, Zootaxa 4461: 573–586) for a rank-based alternative.

A. (Ctenocercus) carolinensis (Voigt, 1832)—Green Anole

In the 8th edition of this list the names of subclades were indicated parenthetically, but *Ctenocercus* was omitted because it had not yet been proposed by Poe et al. (2017, Systematic Biology 66: 663–697).

A. (Ctenonotus) distichus Cope, 1861—Bark Anole

Beckles (2020, Ph.D. dissertation. University of Miami, Coral Gables, Florida) found that some *A. distichus* mtDNA haplotypes from Florida are highly similar to Hispaniolan haplotypes, while others, although most similar to Bahamian haplotypes, are divergent from them. These findings suggest an older, possibly natural, colonization of Florida from the Bahamas, which bears on the potential natural occurrence of the species in Florida and the status of the proposed Florida subspecies (see de Queiroz et al., 2017, SSAR Herpetological Circular 43: 39), as well as a more recent introduction from Hispaniola.

A. (Ctenonotus) d. floridanus Smith and McCauley, 1948—Florida Bark Anole

Aspidoscelis Fitzinger, 1843—Whiptails

Tucker et al. (2016, Molecular Phylogenetics and Evolution 103: 75–84) interpreted the gender of the name *Aspidoscelis* as masculine rather than feminine, and we have therefore changed the endings of several of the names of *Aspidoscelis* species to their masculine forms (*A. arizonae heptagrammus*, *A. burti stictogrammus*, *A. b. xanthonotus*, *A. hyperythrus*, *A. marmoratus*, *A. m. marmoratus*, *A. neomexicanus*, *A. neotesselatus*, *A. sexlineatus*, *A. s. sexlineatus*, *A. tesselatus*, and *A. tigis mundus*).

A. arizonae (Van Denburgh, 1896)—Little Striped Whiptail

Barley et al. (2021, American Naturalist, 198: 295–309) presented phylogenetic evidence that the populations of whiptails in the United States formerly referred to *A. inornatus* constitute a separate species, the oldest available name for which is *A. arizonae*. This taxon assumes the former standardized English name of "*Aspidoscelis inornata*" as the only populations formerly referred to that species that occur north of Mexico.

A. a. arizonae (Van Denburgh, 1896)—Arizona Striped Whiptail

See comment under *A. arizonae*. Authority updated from (Van Denburgh, 1986).

A. a. gypsi (Wright and Lowe, 1993)—Little White Whiptail

See comment under *A. arizonae*.

A. a. heptagrammus (Axtell, 1961)—Trans-Pecos Striped Whiptail

See comment under *A. arizonae*. For the change in the ending of the subspecies name, see note under *Aspidoscelis*.

A. a. pai (Wright and Lowe, 1993)—Pai Striped Whiptail

See comment under *A. arizonae*.

A. burti (Taylor, 1938)—Canyon Spotted Whiptail

Both subspecies below were treated as species in the 8th edition of this list; however, Barley et al. (2021, American Naturalist, 198: 295–309) suggested that they are conspecific with *A. burti* (although *A. b. xanthonotus* was not sampled) based on phylogenetic and population structure analyses.

A. b. stictogrammus (Burger, 1950)—Giant Spotted Whiptail

See comment under *A. burti*. For the change in the ending of the subspecies name, see note under *Aspidoscelis*.

A. b. xanthonotus (Duellman and Lowe, 1953)—Red-backed Whiptail

See comment under *A. burti*. For the change in the ending of the subspecies name, see note under *Aspidoscelis*.

A. exsanguis (Lowe, 1956)—Chihuahuan Spotted Whiptail (unisexual)

A. gularis (Baird and Girard, 1852)—Common Spotted Whiptail

Based on phylogenetic analysis of two mtDNA gene fragments, Esquivel-Ramírez et al. (2021, Acta Zoologica 102: 129–142) inferred six evolutionary significant units (ESUs) within Mexican *A. gularis*, at least one of which (ESU 5) occurs in the United States. Although the ESUs were incongruent geographically with previously recognized subspecies, if treated as subspecies, ESU 5 would bear the name *A. g. gularis*. See note on *A. scalaris* regarding its treatment as a separate species from *A. gularis*. See note on *A. laredoensis* regarding hybridization between that species and *A. gularis*.

A. g. gularis (Baird and Girard, 1852)—Texas Spotted Whiptail

A. hyperythrus (Cope, 1863)—Orange-throated Whiptail

For the change in the ending of the species name, see note under *Aspidoscelis*.

A. h. beldingi (Stejneger, 1894)—Belding's Orange-throated Whiptail

Scott (2013, M.S. thesis, San Diego State University, California) found support for a northern clade within *A. hyperythrus* in both mitochondrial and combined mitochondrial and nuclear data, the southern limit of which is farther north than that of *A. h. beldingi* as traditionally delimited.

A. laredoensis (McKinney, Kay and Anderson, 1973)—Laredo Striped Whiptail

(unisexual)

A. marmorata marmorata (Baird and Girard, 1852)—Western Marbled Whiptail

A. m. reticuloriens (Vance, 1978)—Eastern Marbled Whiptail

A. marmoratus (Baird and Girard, 1852)—Marbled Whiptail (incompletely separated from *A. tigris*)

See de Queiroz et al. (2017, SSAR Herpetological Circular 43: 41) regarding incomplete separation of this species from *A. tigris*. The subspecies *A. m. marmoratus* and *A. m. reticuloriens* are differentiated genetically but weakly so (Hall, 2016, Ph.D. dissertation, University of Texas at Arlington). For the change in the ending of the species name, see note under *Aspidoscelis*.

A. m. marmoratus (Baird and Girard, 1852)—Western Marbled Whiptail

For the change in the ending of the subspecies name, see note under *Aspidoscelis*.

A. m. reticuloriens (Vance, 1978)—Eastern Marbled Whiptail

A. neavesi Cole, Taylor, Baumann, and Baumann, 2014—Neaves' Whiptail (unisexual; laboratory-generated)

This newly named species was generated in the laboratory by hybridization between *A. exsanguis* and *A. arizonae* (as *A. inornatus*) (Cole et al., 2014, Brevoria (539): 1-20).

A. neomexicanus (Lowe and Zweifel, 1952)—New Mexico Whiptail (unisexual)

For the change in the ending of the species name, see note under *Aspidoscelis*.

A. neotesselatus (Walker, Cordes, and Taylor, 1997)—Colorado Checkered Whiptail (unisexual)

For the change in the ending of the species name, see note under *Aspidoscelis*.

A. priscillae Cole, Taylor, Neaves, Baumann, Newton, Schnittker, and Baumann, 2017—Priscilla's Whiptail (unisexual; laboratory-generated)

This newly named species was generated in the laboratory by hybridization between *A. uniparens* and *A. arizonae* (as *A. inornatus*) (Cole et al., 2017, Bulletin of the Museum of Comparative Zoology 161: 285–321).

A. scalaris (Cope, 1892)—Plateau Spotted Whiptail

Esquivel-Ramírez et al. (2021, Acta Zoologica 102: 129–142) found that *A. scalaris* and *A.gularis* form separate mtDNA clades, but they did not include samples from near the type locality of *septemvittatus*. Despite treating the two forms as conspecific, Hall (2016, Ph.D. dissertation, University of Texas at Arlington) found strong genetic differentiation in RADseq data between *A. scalaris septemvittatus* and *A. gularis gularis*.

A. s. septemvittata (Cope, 1892)—Big Bend Spotted Whiptail

A. sexlineatus (Linnaeus, 1766)—Six-lined Racerunner

For the change in the ending of the subspecies name, see note under *Aspidoscelis*.

A. s. sexlineatus (Linnaeus, 1766)—Eastern Six-lined Racerunner (legacy)

This subspecies is based on phenotypic data, was proposed before 2000 (the date of the 5th edition of this list), and has not been evaluated with genetic data. For the change in the ending of the subspecies name, see note under *Aspidoscelis*.

A. s. stephensae (Trauth, 1992)—Texas Yellow-headed Racerunner (legacy)

A. s. viridis (Lowe, 1966)—Prairie Racerunner (legacy)

A. sonorae (Lowe and Wright, 1964)—Sonoran Spotted Whiptail (unisexual)

Taylor et al. (2018, Herpetological Review 49: 636–653) proposed treating the previously recognized species *A. flagellicaudus* as conspecific with *A. sonorae* based on an analysis of new morphological data and a review of existing

genetic data.

A. tesselatus (Say in James, 1822 "1823")—Common Checkered Whiptail
A. dixoni was removed from the 8th edition of this list based on the results of Cordes and Walker (2006, Copeia 2006: 14–26). Hall (2016, Ph.D, dissertation, University Texas at Arlington) corroborated their inference that *A. dixoni* and *A. tesselatus* resulted from a single hybridization event based on phylogenetic analysis of whole mt genomes and also found no evidence of differentiation between *A. dixoni* and *A. tesselatus* based on population structure analysis of RADseq data. For the change in the ending of the species name, see note under *Aspidoscelis*.

A. tigris (Baird and Girard, 1852)—Tiger Whiptail (incompletely separated from *A. marmoratus*)
See de Queiroz et al. (2017, SSAR Herpetological Circular 43: 41) regarding the incomplete separation of this species from *A. marmoratus*. Mitochondrial clades inferred by Chafin et al. (2021, Frontiers of Biogeography 13.2, e49120) are largely congruent with the previously recognized subspecies *A. t. mundus*, *A. t. punctilinealis*, and *A. t. septentrionalis*, although *A. t. punctilinealis* would extend west of the Colorado River into southeastern California. *A. t. tigris* was sparsely sampled but may correspond to clade F, while *A. t. stejnegeri* was not sampled.

A. t. mundus (Camp, 1916)—California Tiger Whiptail
"Tiger" was added to the standard English name to make it more descriptive. For the change in the ending of the species name, see note under *Aspidoscelis*.

A. t. punctilinealis (Dickerson, 1919)—Sonoran Tiger Whiptail

A. t. septentrionalis (Burger, 1950)—Plateau Tiger Whiptail

A. t. stejnegeri (Van Denburgh, 1894)—San Diegan Tiger Whiptail (legacy)

A. t. tigris (Baird and Girard, 1852)—Great Basin Tiger Whiptail
"Tiger" was added to the standard English name to make it more descriptive.

A. townsendae Cole, Baumann, Taylor, Bobon, Ho, Neaves, and Baumann, 2023—Townsend's Whiptail (unisexual; laboratory-generated)
This newly named species was generated in the laboratory by hybridization between females of *A. exsanguis* and males of *A. gularis* and is not known to occur in the wild (Cole et al., 2023, Bulletin of the Museum of Comparative Zoology 163: 247–279).

A. uniparens (Wright and Lowe, 1965)—Desert Grassland Whiptail (unisexual)
Cole et al. (2017, Bulletin of the Museum of Comparative Zoology 161: 285–321) identified two putative natural hybrids between this species and *A. arizonae* (as *Â. inornatus*); the laboratory-generated species *A. priscillae* is a product of hybridization between members of the same two species.

A. velox (Springer, 1928)—Plateau Striped Whiptail
Cole et al. (2019, American Museum Novitates. 3936: 1–8) studied karyotypes of *Aspidoscelis* from a population that had previously been treated as the species *A. innotatus* (e.g., Wright, 1993, in J. W. Wright and L. J. Vitt [Editors], Biology of Whiptail Lizards [Genus *Cnemidophorus*], Oklahoma Museum of Natural History, Pp. 27–81), which had been thought to differ from triploid *A. velox* in being diploid (Wright, *op. cit.*; see also Cuellar and Wright, 1992, Compte rendu des séances de la Société de biogéographie 68: 157–160). They found all individuals examined to be triploid and therefore treated this population as conspecific with *A. velox*.

Callisaurus Blainville, 1835—Zebra-tailed Lizards
Taxonomy for *Callisaurus* follows Smith (1946, Handbook of Lizards, Cornell University Press, Ithaca) with modifications by Smith and Cochran (1956, Herpetologica 12: 153–154; priority of *C. d. rhodostictus* over *C. d. gabbii*).

C. draconoides Blainville, 1835—Zebra-tailed Lizard

C. d. myurus Richardson, 1915—Northern Zebra-tailed Lizard (legacy)

C. d. rhodostictus Cope, 1896—Western Zebra-tailed Lizard (legacy)
C. d. ventralis (Hallowell, 1852)—Eastern Zebra-tailed Lizard (legacy)

Coleonyx Gray, 1845—Banded Geckos
C. brevis Stejneger, 1893—Texas Banded Gecko
C. reticulatus Davis and Dixon, 1958—Reticulate Banded Gecko
C. switaki (Murphy, 1974)—Switak's Banded Gecko
C. s. switaki (Murphy, 1974)—Peninsular Banded Gecko (legacy)
The first word of the standard English name was changed from "Peninsula" to "Peninsular" to make it adjectival.
C. variegatus (Baird, 1859 "1858")—Western Banded Gecko
We have not recognized *C. v. bogerti* and *C. v. utahensis*, although Leavitt et al. (2020, Zoological Journal of the Linnean Society 190: 181–226) did not explicitly unite them with *C. v. variegatus*.
C. v. abbotti Klauber, 1945—San Diego Banded Gecko
C. v. variegatus (Baird, 1858)—Desert Banded Gecko

Cophosaurus Troschel, 1852—Greater Earless Lizards
Taxonomy for *Cophosaurus* follows Peters (1951, Occasional Papers of the Museum of Zoology University of Michigan 537: 1–20) with modifications by Clarke (1965, Emporia State Research Studies 13: 1–66; resurrection of *Cophosaurus* for the single included species, which was previously included in *Holbrookia*).
C. texanus Troschel, 1852—Greater Earless Lizard
C. t. scitulus (Peters, 1951)—Chihuahuan Greater Earless Lizard (legacy)
C. t. texanus Troschel, 1852—Texas Greater Earless Lizard (legacy)

Crotaphytus Holbrook, 1842—Collared Lizards
C. bicinctores Smith and Tanner, 1972—Great Basin Collared Lizard
C. collaris (Say in James, 1822 "1823")—Eastern Collared Lizard
C. nebrius Axtell and Montanucci, 1977—Sonoran Collared Lizard
C. reticulatus Baird, 1859 "1858"—Reticulate Collared Lizard
C. vestigium Smith and Tanner, 1972—Baja California Collared Lizard

Dipsosaurus Hallowell, 1854—Desert Iguanas
D. dorsalis (Baird and Girard, 1852)—Desert Iguana
Valdivia-Carillo et al. (2017, Journal of Heredity 108: 640–649) presented evidence for three populations of *Dipsosaurus dorsalis* along the peninsula of Baja California, with gene flow between them. They did not include samples from the United States, mainland Mexico, or islands in the Gulf of California, nor did they propose any taxonomic changes.
D. d. dorsalis (Baird and Girard, 1852)—Northern Desert Iguana (legacy)

Elgaria Gray, 1838—Western Alligator Lizards
E. coerulea (Wiegmann, 1828)—Northern Alligator Lizard
Based on mtDNA, Lavin et al. (2018, Zoologica Scripta 47: 462–476) inferred 10 non-overlapping mitochondrial clades and six population clusters within *E. coerulea* and based on nuclear SNPs. Leaché et al. (2024, Journal of Heredity 115: 57–71) inferred 10 population clusters and nine multi-cluster clades that are only roughly consistent with subspecies proposed by Fitch (1938, American Midland Naturalist 20: 381–424). Neither set of authors proposed taxonomic changes, although Leaché et al. (*op. cit.*) performed analyses that failed to support more than one species within *E. coerulea*. We have re-circumscribed the subspecies to correspond to the three major clades within *E. coerulea* inferred by Leaché et al. (*op. cit.*) *E. c. coerulea* (synonym: *E. c. principis*) is applied to the clade of

Pacific Northwest, Northern California, and Northern and Southern Coast Range clusters; *E. c. palmeri* is applied to the clade of Southern and two Central Sierra Nevada clusters; and *E. c. shastensis* is applied to the clade of Lower Cascades and two Northern Sierra Nevada clusters. The standard English names have been changed to reflect the geographic distributions of the taxa.

E. c. coerulea (Wiegmann, 1828)—Northwestern Alligator Lizard
The standard English name has been changed from "San Francisco Alligator Lizard" to better reflect the distribution of this taxon.

E. c. palmeri (Stejneger, 1893)—Southern Sierra Alligator Lizard
The standard English name has been changed from "Sierra Alligator Lizard" to better reflect the distribution of this taxon.

E. c. shastensis (Fitch, 1934)—Northern Sierra Alligator Lizard
The standard English name has been changed from "Shasta Alligator Lizard" to better reflect the distribution of this taxon.

E. kingii Gray, 1838—Madrean Alligator Lizard

E. k. nobilis Baird and Girard, 1852—Arizona Alligator Lizard (legacy)

E. multicarinata (Blainville, 1835)—Southern Alligator Lizard

E. m. multicarinata (Blainville, 1835)—Forest Alligator Lizard

E. m. webbii (Baird, 1859 "1858")—Woodland Alligator Lizard

E. panamintina (Stebbins, 1958)—Panamint Alligator Lizard
The results of Feldman and Spicer (2006, Molecular Ecology 15: 2201–2222), based on mtDNA, indicating that *E. panamintina* is derived from within *E. multicarinata*, was corroborated by Leavitt et al. (2017, Molecular Phylogenetics and Evolution 110: 104–121) using both mitochondrial and nuclear DNA sequences.

Gambelia Baird, 1859 "1858"—Leopard Lizards

G. copeii (Yarrow, 1882)—Baja California Leopard Lizard
The standard English name of this species has been changed to improve the information content of the name as well as to remove a potentially offensive eponym.

G. sila (Stejneger, 1890)—Blunt-nosed Leopard Lizard
Richmond et al. (2017, Molecular Ecology 26: 3618–3635) corroborated the existence of two groups within this species found by Grimes et al. (2014, Southwestern Naturalist 59: 38–46) but did not infer restricted nuclear gene flow between those groups. They also presented genetic evidence corroborating previous hypotheses of hybridization with *G. wislizenii* (Montanucci, 1970, Copeia 1970: 104–123; 1978, Journal of Herpetology 12: 299–307).

G. wislizenii (Baird and Girard, 1852)—Long-nosed Leopard Lizard
See note on *G. sila* regarding hybridization between that species and *G. wislizenii*.

Gerrhonotus Wiegmann, 1828—Eastern Alligator Lizards

G. infernalis Baird, 1859 "1858"—Texas Alligator Lizard
García-Vázquez et al. (2018, Journal of Biogeography 45: 1640–1652) and Blair et al. (2022, Biological Journal of the Linnean Society 135: 25–39) found deep divergences within *G. infernalis* in the United States and Mexico. Furthermore, samples of the newly described *G. mccoyi* (García-Vázquez, 2018, Herpetologica, 74: 269–278) from Coahuila, Mexico are nested within *G. infernalis* for both mtDNA and nuclear datasets.

Heloderma Wiegmann, 1829—Gila Monsters and Beaded Lizards

H. suspectum Cope, 1869—Gila Monster
Douglas et al. (2010, Molecular Phylogenetics and Evolution 55: 153–167) stated that they found no mtDNA evidence to support the two subspecies of *H. suspectum*. Although they did not provide information on the collection localities of the sampled specimens needed to evaluate that conclusion, that information was

provided subsequently by Schuett and Reiserer (2017, Herpetological Review 48: 798–801).

Holbrookia Girard, 1851—Lesser Earless Lizards

H. elegans Bocourt, 1874 in Duméril, Mocquard, and Bocourt, 1870-1909—Elegant Earless Lizard

Recent work by Mulcahy et al. (2022, PLoS One 17: e0264930) corroborates the findings of Blaine (2008, Ph.D. dissertation, Washington University, St. Louis, Missouri) of substantial mtDNA sequence divergence between *H. e. thermophila* and *H. e. elegans*, although a large sampling gap remains, and that H. e. pulchra is not separate from *H. e. thermophila*, as proposed previously by Duellman (1955, Occasional Papers of the Museum of Zoology University of Michigan 569: 1–14).

H. e. thermophila Barbour, 1921—Sonoran Earless Lizard

H. lacerata Cope, 1880—Plateau Spot-tailed Earless Lizard

Roelke et al. (2018, Journal of Natural History 52: 1017–1027) found that the two previously recognized subspecies of *H. lacerata* form reciprocally monophyletic mtDNA groups that correspond to differences in morphology and environmental niches and are separated by a presumed geographic barrier, leading those authors to propose that the two former subspecies be recognized as the species *H. lacerata* and *H. subcaudalis*. Those results were corroborated in a more detailed follow-up study by Hibbitts et al. (2019, Zootaxa 4619: 139–154). We have replaced the former standard English names "Northern Spot-tailed Earless Lizard" and "Southern Spot-tailed Earless Lizard" with the English names proposed by the latter authors.

H. maculata Girard, 1851—Common Lesser Earless Lizard

Recent findings of Mulcahy et al. (2020, PLoS One 17: e0264930) corroborate Blaine's (2008, Ph.D. dissertation, Washington University, St. Louis, Missouri) finding of three non-overlapping mtDNA haplotype clades, which correspond to the first three subspecies recognized here and in the 8th edition of this list except that *H. m. ruthveni* is nested within *H. m. flavilenta*.

H. m. campi Schmidt, 1921—Plateau Earless Lizard

H. m. flavilenta Cope, 1883—Chihuahuan Lesser Earless Lizard

H. m. maculata Girard, 1851—Great Plains Earless Lizard

H. m. perspicua Axtell, 1956—Prairie Earless Lizard (legacy)

H. m. ruthveni Smith, 1943—Bleached Earless Lizard

H. propinqua Baird and Girard, 1852—Keeled Earless Lizard

H. p. propinqua Baird and Girard, 1852—Northern Keeled Earless Lizard (legacy)

H. subcaudalis Axtell, 1956—Tamaulipan Spot-tailed Earless Lizard

See note on *H. lacerata* concerning the recognition and standard English name of this species. The authors cited in that note also found reciprocal monophyly in the mtDNA of northwestern and southeastern populations within *H. subcaudalis* but did not propose taxonomic recognition of those populations.

Ophisaurus Daudin, 1803—Glass Lizards

O. attenuatus Baird in Cope, 1880—Slender Glass Lizard

Author citation corrected from Cope, 1880.

O. a. attenuatus Baird in Cope, 1880—Western Slender Glass Lizard (legacy)

Author citation corrected from Cope, 1880.

O. a. longicaudus McConkey, 1952—Eastern Slender Glass Lizard (legacy)

O. compressus Cope, 1900—Island Glass Lizard

O. mimicus Palmer, 1987—Mimic Glass Lizard

O. ventralis (Linnaeus, 1766)—Eastern Glass Lizard

Petrosaurus Boulenger, 1885—Banded Rock Lizards

P. mearnsi (Stejneger, 1894)—Mearns's Rock Lizard

Gottscho (2015, Ph.D. dissertation, University of California at Riverside and San Diego State University), based on RADseq data, found that *P. mearnsi* samples were divided into northern and southern clades and populations, with *P. slevini* included within the southern population and sister to the remaining members of that population.

Phrynosoma Wiegmann, 1828—Horned Lizards

P. (Anota) blainvillii Gray, 1839—Coast Horned Lizard

Leaché et al. (2017, Molecular Ecology 27: 2884–2895) noted that the populations within *P. blainvillii* corresponding to three mtDNA clades from their earlier study (Leaché et al., 2009, Proceedings of the National Academy of Sciences of the United States of America 106: 12418–12423) exhibit narrow geographic zones of admixture and were supported as species in some of their analyses (see also Yang and Rannala, 2014, Molecular Biology and Evolution 31: 3125–3135). Köhler (2021, Taxonomy 1: 83–115) recognized the two sets of populations corresponding to the earliest mtDNA divergence as subspecies, although he treated them as subspecies of *P. coronatum* (a name restricted to the populations from southern Baja California by Leaché et al., *op. cit.*). Because we are following Leaché et al. (*op. cit.*) in recognizing *P. blainvillii* and *P. coronatum* as separate species, we have treated the subspecies recognized and resurrected by Köhler (*op. cit.*) as a subspecies of *P. blainvillii*. The standard English name for the species has been returned to a commonly used, more biologically informative, and non-eponymous name.

P. b. blainvillii Gray, 1839—San Diegan Horned Lizard

See note under *P. blainvillii*.

P. b. frontale Van Denburgh, 1894—Northern Coast Horned Lizard

See note under *P. blainvillii*.

P. cornutum (Harlan, 1825)—Texas Horned Lizard

Williams et al. (2019, PeerJ 7(e7746): 28) and Finger et al. (2022, Genome Biology and Evolution 14: evab260) found evidence from mtDNA, microsatellites, and genotyping-by-sequencing data for three primary and largely allopatric populations of Texas Horned Lizards in the Chihuahuan Desert, the Great Plains, and the southern Coastal Plain of the United States. Although they did not recognize these populations taxonomically, their demographic analyses indicate that the three populations are incompletely separated lineages. The earliest divergence is between the western (Chihuahuan Desert) and the two eastern populations. It corresponds to the divergence between the two primary mtDNA clades found by those authors and by Köhler (2021, Taxonomy 1: 83–115), who recognized them as subspecies.

P. c. bufonium Wiegmann, 1828—Chihuahuan Horned Lizard

See note under *P. cornutum*.

P. c. cornutum (Harlan, 1825)—Plains Horned Lizard

See note under *P. cornutum*.

P. (Tapaja) douglasii (Bell, 1829)—Pygmy Short-horned Lizard

P. (Doliosaurus) goodei Stejneger, 1893—Sonoran Horned Lizard (questionable)

Farleigh et al. (2021, Molecular Ecology 30: 4481–4496) presented evidence from phylogeographic analyses of nuclear SNP data that *P. goodei*, previously recognized based on mtDNA phylogeny (Mulcahy et al., 2006, Molecular Ecology 15: 1807–1826), is part of one of three genetic clusters within *P. platyrhinos*, although they did not propose taxonomic unification. Following Mulcahy et al. (*op. cit.*) and Sherbrooke (2020, Phrynosomatics 25: 1, 3–12), we have changed the standard

English name of this species from "Goode's Horned Lizard" used in the previous version of this list.

P. (Tapaja) hernandesi Girard, 1858—Greater Short-horned Lizard

See note on *P. ornatissimum* for recognizing that taxon as a separate species from *P. hernandesi*. Leaché et al. (2021, Frontiers in Ecology and Evolution 9: 678110) inferred three main populations within *P. hernandesi* based on phylogenetic and demographic analyses of RADseq SNP data. Although they did not recognize those populations taxonomically, their analyses indicate that the three populations are incompletely separated lineages that experienced divergence with secondary contact. Those lineages largely correspond to the taxa Montanucci (2015, Zootaxa 4015: 1–177) recognized as *P. brevirostris* Girard, 1858 ≈ northern population, *P. hernandesi ornatum* Girard, 1858 ≈ western population, and *P. hernandesi hernandesi* Girard, 1858 plus *P. bauri* Montanucci, 2015 plus *P. diminutum* Montanucci, 2015 ≈ southern population. Hoza et al. (Ichthyology & Herpetology 111: 390–396) provided additional evidence that *P. diminutum* is not a separate species from *P. hernandesi* and is part of the southern population of that species.

P. h. brevirostris Girard, 1858—Plains Short-horned Lizard

P. h. hernandesi Girard, 1858—Hernandez's Short-horned Lizard

P. h. ornatum Girard, 1858—Great Basin Short-horned Lizard

P. (Anota) mcallii (Hallowell, 1852)—Flat-tailed Horned Lizard

Gottscho et al. (2024, Molecular Ecology 33: e17308) found subdivision of *P. mcallii* into genetic clusters on either side of the Colorado River as well as further subdivision of the northwestern cluster by the Salton Sea; however, they considered the differentiation of these clusters insufficient to warrant their recognition as species or subspecies.

P. (Doliosaurus) modestum Girard in Baird and Girard, 1852—Round-tailed Horned Lizard

Author citation updated from Girard, 1852.

P. (Tapaja) ornatissimum Girard, 1858—Chihuahuan Short-horned Lizard

Montanucci (2015, Zootaxa 4015: 1–177) proposed, based on morphological data, that populations of short-horned lizards from the arid short-grass plains of central and southern New Mexico represent a separate species from *P. hernandesi*, and that hypothesis was corroborated by the results of Leaché et al. (2021, Frontiers in Ecology and Evolution 9: 678110) based on principal component and phylogenetic analyses of RADseq nDNA data.

P. o. ornatissimum Girard, 1858—Northern Chihuahuan Short-horned Lizard (legacy)

The standard English name has been changed from "New Mexico Short-horned Lizard". This subspecies has not been compared genetically to the Mexican endemic subspecies *P. o. brachycercum*, which has not yet been sampled for DNA.

P. (Doliosaurus) platyrhinos Girard in Barid and Girard, 1852—Desert Horned Lizard

See note on *P. goodei* concerning the possibility that it is part of *P. platyrhinos*. Phylogenetic analysis of mtDNA sequences by Mulcahy et al. (2006, Molecular Ecology 15: 1807–1826; see also Jezkova et al., 2016, Ecography 38: 1–12) raised the possibility that lizards currently assigned to this species from the Yuma Proving Ground (southwestern AZ) represent a separate, unnamed species; however, that possibility is contradicted by the results of Farleigh et al. (2021, Molecular Ecology 30: 4481–4496).. The author citation has been updated from Girard, 1852.

P. (Anota) solare Gray, 1845—Regal Horned Lizard

Phyllodactylus Gray, 1828—Leaf-toed Geckos

P. nocticolus Dixon, 1964—Peninsular Leaf-toed Gecko

The standard English name of this species is returned to that used in the 5th and 6th editions of this list (which used "Peninsular" rather than "Peninsula").

Plestiodon Dumeril and Bibron, 1839—Toothy Skinks

P. anthracinus (Baird, 1849)—Coal Skink

P. a. anthracinus (Baird, 1849)—Northern Coal Skink (legacy)

P. a. pluvialis Cope, 1880—Southern Coal Skink (legacy)

P. callicephalus Bocourt, 1879 in Duméril, Mocquard, and Bocourt, 1870–1909—Madrean Mountain Skink

"Madrean" was added to the standard English name of this species to make it more specific.

P. egregius Baird, 1859 "1858"—Mole Skink

P. e. egregius Baird, 1859—Florida Keys Mole Skink

P. e. insularis (Mount, 1965)—Cedar Key Mole Skink

P. e. lividus (Mount, 1965)—Blue-tailed Mole Skink (legacy)

P. e. onocrepis Cope, 1871—Peninsula Mole Skink (legacy)

P. e. similis (McConkey, 1957)—Northern Mole Skink (legacy)

P. fasciatus (Linnaeus, 1758)—Common Five-lined Skink

P. gilberti (Van Denburgh, 1896)—Gilbert's Skink

Richmond and Reeder (2002, Evolution 56: 1498–1513) presented mtDNA evidence that populations previously referred to *P. gilberti* represent three lineages that separately evolved large body size and the loss of stripes in late ontogenetic stages. Although they considered those three lineages to merit species recognition, they did not propose specific taxonomic changes. Subsequently, Richmond and Jockusch (2007, Proceeding of the Royal Society of London B 274: 1701–1708) and Richmond et al. (2011, American Naturalist 178: 320–332) have treated them as a single species based on extensive introgressive hybridization between two of the forms and the lack of prezygotic isolation between members of all pairs of them. The results of Richmond and Reeder (*op. cit.*) contradict the recognition of *P. g. arizonensis*, which is not differentiated from *P. g. rubricaudatus* and therefore has been eliminated from this list and indicate the existence of an unnamed and at least partially separate lineage within *P. g. rubricaudatus* (their clade C or Inyo clade). In addition, those results suggest that the former subspecies *P. g. gilberti* and *P. g. placerensis* form a single unit (their clade I or Sierran clade), while *P. g. cancellosus* and *P. g. rubricaudatus* also form a single unit (their clade A or southwestern clade), findings that are consistent with large areas of intergradation between the pairs of forms (e.g., Jones, 1985, Catalogue of American Amphibians and Reptiles. 372.1–3). We, therefore, recognize only three subspecies corresponding to the three lineages inferred by Richmond and Reeder (*op. cit.*).

P. g. gilberti (Van Denburgh, 1896)—Sierran Skink

The standard English name of this subspecies was changed both because the taxon combines two previously recognized subspecies and to make the name more descriptively useful relative to those of the other subspecies.

P. g. rubricaudatus (Taylor, 1936? "1935")—Western Red-tailed Skink

P. g. ssp. [unnamed]—Inyo Skink

See note under *Plestiodon gilberti*.

P. inexpectatus (Taylor, 1932)—Southeastern Five-lined Skink

P. laticeps (Schneider, 1801)—Broad-headed Skink

P. multivirgatus Hallowell, 1857—Many-lined Skink

P. m. epipleurotus (Cope, 1880)—Variable Skink (legacy)

P. m. multivirgatus Hallowell, 1857—Northern Many-lined Skink (legacy)

P. obsoletus Baird and Girard, 1852—Great Plains Skink

P. reynoldsi (Stejneger, 1910)—Florida Sand Skink

P. septentrionalis Baird, 1859—Prairie Skink

P. s. obtusirostris (Bocourt, 1879 in Duméril, Mocquard, and Bocourt, 1870–1909)—Southern Prairie Skink (legacy)

P. s. pallidus (Smith and Slater, 1949)—Pallid Skink (legacy)

P. s. septentrionalis Baird, 1859—Northern Prairie Skink (legacy)

P. skiltonianus Baird and Girard, 1852—Western Skink

Because the relationships within *E. skiltonianus* and between *E. skiltonianus* and the lineages within *E. gilberti* are complicated (Richmond and Reeder, 2002, Evolution 56: 1498–1513) and need to be analyzed using nuclear markers, we have retained the previously recognized subspecies as legacy taxa.

P. s. interparietalis (Tanner, 1958)—Coronado Skink (legacy)

P. s. skiltonianus Baird and Girard, 1852—Northwestern Skink (legacy)

We changed the standard English name of this subspecies to make it more informative biologically and have a similar basis to the names of the other two subspecies.

P. s. utahensis (Tanner, 1958)—Great Basin Skink (legacy)

P. tetragrammus Baird, 1859—Four-lined Skink

P. t. brevilineatus (Cope, 1880)—Short-lined Skink

P. t. tetragrammus Baird, 1859—Long-lined Skink

Rhineura Cope, 1861—Wide-Snouted Wormlizards

R. floridana (Baird, 1859 "1858")—Florida Wormlizard

Sauromalus Dumeril, 1856—Chuckwallas

S. ater Duméril, 1856—Common Chuckwalla

Sumarli et al. (2024, Biological Journal of the Linnean Society 141: 572–588) presented results based on genomic RADseq data indicating that populations formerly included in *S. ater* from most of the Baja California peninsula are potentially a different species from those in the United States and Sonora (and northeastern Baja California), Mexico, although that finding does not affect the name of the species covered in this list.

Sceloporus Wiegmann, 1828—Spiny Lizards

S. arenicolus Degenhardt and Jones, 1972—Dunes Sagebrush Lizard

Chan et al. (2020, PLoS ONE 15: e0238194) presented additional evidence (see Chan et al., 2009, Conservation Genetics 10: 131–142) for mtDNA and microsatellite differentiation among *S. arenicolus* populations. They found multiple nested genetic clusters with limited gene flow among them.

S. becki Van Denburgh, 1905—Island Fence Lizard

Wiens and Reeder (1997, Herpetological Monographs 11: 1–101) suggested that *Sceloporus occidentalis becki* should be recognized as a species based on diagnosability and allopatry relative to other populations of *S. occidentalis*. Salerno et al. (2023, Journal of Biogeography 50: 116–129) confirmed monophyly of island populations using mtDNA and suggested *S. becki* constitutes a species.

S. bimaculosus Phelan and Brattstrom, 1955—Chihuahuan Desert Spiny Lizard

See note on *S. magister*. The standard English name has been changed from "Twin-spotted Spiny Lizard" to reflect the geographic distribution of the species.

S. clarkii Baird and Girard, 1852—Clark's Spiny Lizard

S. c. clarkii Baird and Girard, 1852—Sonoran Spiny Lizard (legacy)

S. c. vallaris Shannon and Urbano, 1954—Plateau Spiny Lizard (legacy)

S. consobrinus Baird and Girard, 1853—Prairie Lizard

S. cowlesi Lowe and Norris, 1956—Southwestern Fence Lizard (incompletely separated from *S. tristichus*)

Leaché et al. (2017, Molecular Ecology 26: 2306–2316) provided evidence for a 2

km northern shift in the hybrid zone of *S. cowlesi* and *S. tristichus* in Arizona over 10 years.

S. cyanogenys Cope, 1885—Blue Spiny Lizard

S. graciosus Baird and Girard, 1852—Common Sagebrush Lizard

S. g. gracilis Baird and Girard, 1852—Western Sagebrush Lizard (questionable)

This subspecies, as currently circumscribed, is incongruent with a mitochondrial haplotype phylogeny (see Chan et al. 2013, Zootaxa 3664: 312–320).

S. g. graciosus Baird and Girard, 1852—Northern Sagebrush Lizard (questionable)

This subspecies, as currently circumscribed, is incongruent with a mitochondrial haplotype phylogeny (see Chan et al. 2013, Zootaxa 3664: 312–320).

S. g. vandenburgianus Cope, 1896—Southern Sagebrush Lizard (questionable)

This subspecies, as currently circumscribed, is incongruent with a mitochondrial haplotype phylogeny (see Chan et al. 2013, Zootaxa 3664: 312–320).

S. grammicus Wiegmann, 1828—Graphic Spiny Lizard

S. g. microlepidotus Wiegmann, 1834—Mesquite Lizard (legacy)

Author citation corrected from Wiegmann, 1828.

S. jarrovii Cope, in Yarrow, 1875—Madrean Mountain Spiny Lizard

Wiens et al. (2019, Molecular Ecology 28: 2610–2624) found pronounced phylogeographic structure and relatively old divergences among *S. jarrovii* populations in the Madrean Sky Islands of southeastern Arizona. We reverted to the standard English name "Mountain Spiny Lizard" adopted in the 5th edition of this list (Crother et al., 2000, Herpetological Circular (29)), a name also used by McGinnis and Stebbins (2018, Peterson Field Guide to Western Reptiles and Amphibians, Houghton Mifflin Harcourt), and added "Madrean" to make it more specific.

S. magister Hallowell, 1854—Desert Spiny Lizard

Pavón-Vázquez et al. (2024, Systematic Biology 73: 323–342) inferred three lineages within the part of the *Sceloporus magister* complex that occurs north of Mexico: one in the Mojave Desert, Great Basin Desert, and Colorado Plateau, a second in the Sonoran Desert, and a third in the Chihuahuan Desert. Their results indicated both earlier divergence and less gene flow between the Chihuahuan Desert lineage and the other two lineages than between those two lineages. Although the authors treated all three lineages as a monotypic *S. magister*, their results would seem more accurately summarized by continuing (from the previous version of this list) to recognize the Chihuahuan Desert lineage as a separate species, *S. bimaculosus*, and the other two lineages (which were treated as separate species in the previous version of this list) as subspecies of *S. magister*. The standard English names of the subspecies have been changed to reflect the geographic distributions of the lineages.

S. m. magister Hallowell, 1854—Sonoran Desert Spiny Lizard

See note under *S. magister*.

S. m. uniformis Phelan and Brattstrom, 1955—Northern Desert Spiny Lizard

See note under *S. magister* regarding the change of the standard English name.

S. marmoratus Hallowell, 1852—Texas Rose-bellied Lizard

Based on phylogenetic analysis of morphological and molecular (mt and nDNA sequence) data, Solis-Zurita et al. (2019, Zoologica Scripta 48: 419–439) found the taxon formerly designated *S. variabilis marmoratus* to be relatively distantly related to *S. v. variabilis*, which was inferred to be more closely related to other taxa then recognized as separate species. They, therefore, recognized both taxa (as well as the former *S. v. olloporus*) as species.

S. merriami Stejneger, 1904—Canyon Lizard

Given the small geographic distributions and close geographic proximity of the proposed subspecies, as well as the minor morphological differences and areas of intergradation between them (see Olson 1979, Catalogue of American Amphibians and Reptiles 227.1), those subspecies should be reevaluated with the addition of genetic data.

S. m. annulatus Smith, 1937—Big Bend Canyon Lizard (legacy)
See note under *S. merriami*.

S. m. longipunctatus Olson, 1973—Presidio Canyon Lizard (legacy)
See note under *S. merriami*.

S. m. merriami Stejneger, 1904—Merriam's Canyon Lizard (legacy)
See note under *S. merriami*.

S. occidentalis Baird and Girard, 1852—Western Fence Lizard
Bouzid et al. (2022, Molecular Ecology 31: 620–631) used RADseq data to characterize genetic structure and gene flow throughout the range of *S. occidentalis*. They found evidence for four or five populations inhabiting different geographic regions with admixture at the boundaries between them. They inferred long-term stability in the southern portions of the range and northward expansion followed by secondary contact in the north and suggested that *S. occidentalis* constitutes an ephemeral ring species. The authors did not address taxonomy, but their results indicate that the current subspecies taxonomy (e.g., Bell and Price, 1996, Catalogue of American Amphibians and Reptiles 631.1) needs revision. *S. o. occidentalis* corresponds approximately to the Pacific Northwest population. *S. o. biseriatus* and *S. o. bocourti* are part of a single population (central California west of the Sierra Nevada), for which the name *S. o. biseriatus* has priority. The former *S. o. longipes* is composed of an eastern Sierra Nevada population and a Great Basin population, which were sometimes inferred to form a single population and a separate Southern California population. We here treat the combined Great Basin and eastern Sierra Nevada population as one subspecies and the Southern California population as another; however, this creates nomenclatural complications because specimens from near the type locality of *S. o. longipes* are not assigned to any of these populations, and it is unclear if there are any available names for them (e.g., *S. smaragdinus* Cope, in Yarrow, 1875 is based on specimens from the Great Basin but is unavailable as a junior primary homonym of S. smaragdinus Bocourt, 1873 [Bell et al., 2003, Acta Zoológica Mexicana. 90: 103–174]; *S. biseriatus nigroventris* Bocourt, 1874 is based on one or more specimens from "Californie", whose precise collection locality is currently unknown). The taxonomy of *S. occidentalis* needs further study.

S. o. biseriatus Hallowell, 1854—Central California Fence Lizard
We have revised the standard English name of this subspecies (replacing "San Joaquin" with "Central California") to reflect the revised circumscription better.

S. o. occidentalis Baird and Girard, 1852—Northwestern Fence Lizard

S. o. ssp. [unnamed]—Great Basin Fence Lizard
See note under *S. occidentalis*.

S. o. s. [unnamed]—Southern California Fence Lizard
See note under *S. occidentalis*.

S. olivaceus Smith, 1934—Texas Spiny Lizard

S. orcutti Stejneger, 1893—Granite Spiny Lizard

S. poinsettii Baird and Girard, 1852—Crevice Spiny Lizard

S. p. axtelli Webb, 2006—Texas Crevice Spiny Lizard (legacy)
Although proposed after 2000, this subspecies is considered legacy because it has not been evaluated with genetic data.

S. p. poinsettii Baird and Girard, 1852—New Mexico Crevice Spiny Lizard (legacy)

S. slevini Smith, 1937—Slevin's Bunchgrass Lizard

S. tristichus Cope in Yarrow, 1875—Plateau Fence Lizard (incompletely separated from *S. cowlesi*)
See note under *S. cowlesi*.

S. undulatus (Bosc and Daudin in Sonnini de Manoncourt and Latreille, 1801)—Eastern Fence Lizard

S. virgatus Smith, 1938—Striped Plateau Lizard

S. woodi Stejneger, 1918—Florida Scrub Lizard

Scincella Mittleman, 1950—Ground Skinks

S. lateralis (Say, in James, 1822 "1823")—Little Brown Skink
Jackson et al. (2017, Systematic Biology 66: 799–812) reanalyzed the nuclear sequence data from previous studies using phylogeographic models in the software PHRAPL and found support for three species with gene flow between central and eastern lineages along with relatively low levels of divergence. Leaché et al. (2019, Systematic Biology 68: 168–181) reanalyzed the same data using a hierarchical procedure based on heuristic genealogical divergence index (*gdi*) delimitation criteria with *gdi* values calculated from parameters estimated using the software BPP and found no support for multiple species.

Sphaerodactylus Wagler, 1830—Dwarf Geckos

S. notatus Baird, 1859 "1858"—Reef Gecko

S. n. notatus Baird, 1859 "1858"—Florida Reef Gecko (legacy)

Uma Baird, 1859 "1858"—Fringe-toed Lizards

U. inornata Cope, 1895—Coachella Fringe-toed Lizard
Some recent references use the alternative English name "Coachella Valley Fringe-toed Lizard". Our guidelines for forming standard English names state that names should be as short as possible, and in keeping with those guidelines, we do not always include terms such as "Desert" and "Mountains" with location names such as "Sonoran", "Chihuahuan", and "Panamint". For similar reasons, we do not include "Valley" in the standard English name of this species.

U. notata Baird, 1859 "1858"—Colorado Desert Fringe-toed Lizard

U. rufopunctata Cope, 1895—Yuman Desert Fringe-toed Lizard (questionable)
DeRycke et al. (2020, Zootaxa 4778: 67–100), based on their own results and those of Gottscho et al. (2017, Molecular Phylogenetics and Evolution 106: 103–117), considered the species status of *U. rufopunctata* to be uncertain. The populations in question may be 1) part of *U. notata*, 2) part of *U. cowles*i (endemic to Mexico), 3) a hybrid swarm between *U. notata*, *U. cowlesi*, and lizards from the geographic area between those species, or 4) a species that is incompletely separated from both *U. notata* and *U. cowlesi*.

U. scoparia Cope, 1894—Mohave Fringe-toed Lizard

U. thurmanae DeRycke, Gottscho, Mulcahy, and de Queiroz, 2020—Mohawk Dunes Fringe-toed Lizard
After earlier studies (Trépanier and Murphy, 2001, Molecular Phylogenetics and Evolution 18: 327–334; Gottscho et al., 2017, Molecular Phylogenetics and Evolution 106: 103–117) suggested that populations of Fringe-toed Lizards from the Mohawk Dunes (Yuma Co., AZ) formerly considered part of *U. rufopunctata* constitute a separate species, DeRycke et al. (2020, Zootaxa 4778: 67–100) presented additional morphological and molecular data and results corroborating that inference and named the species.

Urosaurus Hallowell, 1854—Tree and Brush Lizards

U. graciosus Hallowell, 1854—Long-tailed Brush Lizard
Haenel (2017, Molecular Ecology 26: 606–623) documented introgression of *U.*

ornatus mtDNA into some sympatric populations of *U. graciosus*.

U. g. graciosus Hallowell, 1854—Western Long-tailed Brush Lizard (legacy)

U. g. shannoni Lowe, 1955—Arizona Long-tailed Brush Lizard (legacy)

U. microscutatus (Van Denburgh, 1894)—Small-scaled Lizard

U. ornatus (Baird and Girard, 1852)—Ornate Tree Lizard

Haenel (2007, Molecular Ecology 16: 4321–4334) found substantial phylogeographic structure in the mtDNA of *U. ornatus*, some of which is roughly consistent with previously recognized subspecies (*U. o. ornatus*, *U. o. schmidti*, *U. o. wrighti*), other of which is not (therefore, the remaining subspecies are designated legacy subspecies in the list below). The phylogeography of *U. ornatus* deserves further study, particularly regarding its taxonomic implications. See note under *U. graciosus* regarding introgression of *U. ornatus* mtDNA into *U. graciosus*.

U. o. levis (Stejneger, 1890)—Smooth Tree Lizard (legacy)

U. o. ornatus (Baird and Girard, 1852)—Texas Tree Lizard

U. o. schmidti (Mittleman, 1940)—Big Bend Tree Lizard

U. o. schottii (Baird, 1859 "1858")—Schott's Tree Lizard (legacy)

U. o. symmetricus (Baird, 1859 "1858")—Colorado River Tree Lizard (legacy)

U. o. wrighti (Schmidt, 1921)—Northern Tree Lizard

Uta Baird and Girard, 1852—Side-blotched Lizards

U. stansburiana Baird and Girard, 1852—Common Side-blotched Lizard

U. s. elegans Yarrow, 1882—Western Side-blotched Lizard

U. s. nevadensis Ruthven, 1913—Nevada Side-blotched Lizard

U. s. stansburiana Baird and Girard, 1852—Salt Lake Side-blotched Lizard

The standard English name of this subspecies has been changed because the previous one ("Northern") was descriptively misleading given that the distribution of *U. s. nevadensis* extends farther to the north.

U. s. stejnegeri Schmidt, 1921—Eastern Side-blotched Lizard

U. s. uniformis Pack and Tanner, 1970—Plateau Side-blotched Lizard

Xantusia Baird, 1859—Northern Night Lizards

The standard English name for this clade has been changed (by adding "Northern"), following Bezy (2019, Night Lizards, Eco Herpetological Publishing), to eliminate redundancy with the English name of the clade Xantusiidae.

X. arizonae Klauber, 1931—Arizona Night Lizard

X. bezyi Papenfuss, Macey and Schulte, 2001—Bezy's Night Lizard

X. gracilis Grismer and Galvan, 1986—Sandstone Night Lizard

X. henshawi Stejneger, 1893—Granite Night Lizard

X. riversiana Cope, 1883—Island Night Lizard

The taxonomic distinction between populations of *X. riversiana* on San Nicolas Island (*X. r. riversiana*) and those on San Clemente and Santa Barbara Islands (*X. r. reticulata*) has been supported by analyses of both DNA sequences (Noonan et al., 2013, Molecular Phylogenetics and Evolution 69: 109–122) and morphology (Adams et al., 2018, Copeia 106: 550–562; Grismer et al., 2022, Vertebrate Zoology 7: 1–27).

X. r. reticulata Smith, 1946—San Clemente Night Lizard

X. r. riversiana Cope, 1883—San Nicolas Night Lizard

X. sierrae Bezy, 1967—Sierra Night Lizard (questionable)

See the note in the 8th edition of this list concerning the questionable status of this species

X. vigilis Baird, 1859—Desert Night Lizard

X. wigginsi Savage, 1952—Wiggins' Night Lizard

Squamata (excluding lizards) – Snakes

Jeff Boundy[1] (Chair), Frank T. Burbrink[2], and Sara Ruane[3]

[1] Museum of Natural Science, Louisiana State University, Baton Rouge, LA, 70803
[2] Herpetology Department American Museum of Natural History, Central Park West at 79th St., New York, NY 10024
[3] Life Science Section, Negaunee Integrative Research Center, Field Museum of Natural History, Chicago, IL 60605

Agkistrodon Palisot de Beauvois, 1799—American Moccasins
A. conanti Gloyd, 1969—Florida Cottonmouth
See comments under *A. piscivorus*.
A. contortrix (Linnaeus, 1766)—Eastern Copperhead
A. laticinctus Gloyd and Conant, 1934—Broad-banded Copperhead
A. piscivorus (Lacépède, 1789)—Northern Cottonmouth
Strickland et al. (2014, Copeia 2014: 639-649), using AFLP and mtDNA data, confirmed two lineages of 'Cottonmouths' (A. piscivorus and A. conanti), but with significant secondary introgression among northern Florida populations.

Arizona Kennicott, in Baird, 1859—Glossy Snakes
Using genetic data, Myers et al. (2017, Journal of Biogeography 44: 461–474; Myers et al., 2019, Molecular Ecology 28: 4535-4548) and Dahn et al. (2018, Molecular Phylogenetics and Evolution 129: 214–225) confirmed that the eastern and western populations were distinct as predicted by Collins (1991, Herpetological Review 22: 42–43). However, neither study recommended taxonomic changes.
A. elegans Kennicott, in Baird, 1859—Common Glossy Snake
"Common" was added to the English name to differentiate it from the English name of the genus due to an extralimital species (*A. pacata* Klauber, 1946).
A. e. arenicola Dixon, 1960—Texas Glossy Snake
A. e. candida Klauber, 1946—Mohave Glossy Snake
A. e. eburnata Klauber, 1946—Desert Glossy Snake
A. e. elegans Kennicott, in Baird, 1859—Kansas Glossy Snake
A. e. noctivaga Klauber, 1946—Arizona Glossy Snake
A. e. occidentalis Blanchard, 1924—California Glossy Snake
A. e. philipi Klauber, 1946—Painted Desert Glossy Snake

Bogertophis Dowling and Price, 1988—Desert Ratsnakes
B. rosaliae (Mocquard, 1899)—Baja California Ratsnake
B. subocularis (Brown, 1901)—Trans-Pecos Ratsnake
B. s. subocularis (Brown, 1901)—Northern Trans-Pecos Ratsnake

Carphophis Gervais, in D'Orbigny, 1843—North American Wormsnakes
The authority was corrected to reflect that the name was proposed in a work by D'Orbigny.
C. amoenus (Say, 1825)—Common Wormsnake
C. a. amoenus (Say, 1825)—Eastern Wormsnake
C. a. helenae (Kennicott, 1859)—Midwestern Wormsnake
C. vermis (Kennicott, 1859)—Western Wormsnake

Cemophora Cope, 1860—Scarletsnakes
C. coccinea (Blumenbach, 1788)—Common Scarletsnake
"Common" was added to the English name to differentiate it from the English name of the genus.

C. c. coccinea (Blumenbach, 1788)—Florida Scarletsnake
C. c. copei Jan, 1863—Northern Scarletsnake
C. lineri Williams, Brown, and Wilson, 1966—Texas Scarletsnake

Charina Gray, 1849—Rubber Boas
C. bottae (Blainville, 1835)—Rubber Boa
The subspecific inclusion of *C. b. umbratica* necessitated the change in English name from "Northern Rubber Boa".
C. b. bottae (Blainville, 1835)—Northern Rubber Boa
C. b. umbratica Klauber, 1943—Southern Rubber Boa
Based on morphological data from hundreds of additional specimens, Hoyer et al. (2019, The Southwestern Naturalist 64: 23–30) expanded the geographical distribution of *C. umbratica*, which was corroborated by Grismer et al. (2022, Molecular Phylogenetics and Evolution 174: 1–17) using a genome-wide SNP dataset. Grismer et al. (*op. cit.*) found that *C. umbratica* was morphologically distinct from *C. bottae*, but recognizing *umbratica* as a species would make *bottae* paraphyletic. Additionally, they found that *C. umbratica* was composed of several distinct lineages occurring in sky islands across southern California. The authors recognized *umbratica* at least as a subspecies in the interest of having it as a recognized taxon, listed under the Federal Endangered Species Act.

Clonophis Cope, 1889—Kirtland's Snakes
C. kirtlandii (Kennicott, 1856)—Kirtland's Snake

Coluber Linnaeus, 1758—North American Racers
Myers et al. (2017, Copeia 2017: 642–650), using combined mtDNA and nDNA data, demonstrated that *C. constrictor* and *Masticophis* spp. were sister taxa. Therefore, we recognize *Masticophis* as a genus. The standard English name was changed to reflect this. Myers et al (2024, Zoological Journal of the Linnean Society, zlae018) did not find strong support for some of these subspecies but further research is required to clarify species delineations.
C. constrictor Linnaeus, 1758—North American Racer
C. c. anthicus (Cope, 1862)—Buttermilk Racer
C. c. constrictor Linnaeus, 1758—Northern Black Racer
C. c. etheridgei Wilson, 1970—Tan Racer
C. c. flaviventris Say in James, 1822—Eastern Yellow-bellied Racer
The date of publication is corrected to 1822 based on Woodman (2010, Archives of Natural History 37: 28–38).
C. c. foxii (Baird and Girard, 1853)—Blue Racer
C. c. helvigularis Auffenberg, 1955—Brown-chinned Racer
C. c. latrunculus Wilson, 1970—Black-masked Racer
C. c. mormon Baird and Girard, 1852—Western Yellow-bellied Racer
C. c. oaxaca (Jan, 1863)—Mexican Racer
C. c. paludicola Auffenberg and Babbitt, 1953—Everglades Racer
C. c. priapus Dunn and Wood, 1939—Southern Black Racer

Coniophanes Hallowell, in Cope, 1860—Black-striped Snakes
The authority was corrected to reflect that the name was proposed in a paper solely authored by Cope.
C. imperialis (Baird and Girard, 1859)—Regal Black-striped Snake
C. i. imperialis (Baird and Girard, 1859)—Tamaulipan Black-striped Snake

Contia Baird and Girard, 1853—Sharp-tailed Snakes
C. longicauda Feldman and Hoyer, 2010—Forest Sharp-tailed Snake

C. tenuis (Baird and Girard, 1852)—Common Sharp-tailed Snake

Crotalus Linnaeus, 1758—Rattlesnakes

One of the most vexing groups of *Crotalus* is the *C. viridis* complex. Davis et al. (2016, PLoS One 11: e0146166) used mtDNA and morphometric data that inferred six species within the *C. viridis* complex, which we do not completely follow pending further analyses. Taxa within this complex were examined by several authors in Schuett et al. (2016, Rattlesnakes of Arizona, Vol. I, Eco Publishing): Feldner et al.: 45–107 (In Schuett et al., 2016), discuss populations south and west of the Grand Canyon that are unassignable to *C. o. abyssus*, *C. o. lutosus*, or to *C. cerberus*; Davis et al.: 109–177 (In Schuett et al., 2016), relevance, in part, of assigning '*C. viridis*' to seven species; Feldner et al.: 179–237 (In Schuett et al., 2016), ambiguities in assigning *C. o. concolor* populations as a cohesive taxon; Davis and Douglas: 289–332 (In Schuett et al., 2016), recognition of *C. v. nuntius* as a valid subspecies. In addition, Nikolakis et al. (2022, Evolution 76: 2513–2530) evaluated introgression in a hybrid zone between *C. oreganus* and *C. viridis*. Each of the preceding studies highlight population structure and/or taxonomy within the *C. viridis* complex, but do not recommend changes in our recognition of three species of the complex: *C. cerberus*, *C. oreganus*, and *C. viridis*.

C. adamanteus Palisot de Beauvois, 1799—Eastern Diamond-backed Rattlesnake

C. atrox Baird and Girard, 1853—Western Diamond-backed Rattlesnake

Schield et al. (2015, Molecular Phylogenetics and Evolution 83: 213–223) and Myers et al. (2017, Journal of Biogeography 44: 461–474; 2019, Molecular Ecology 28: 4535–4548) found two lineages distributed in the Chihuahuan and Sonoran Deserts hybridizing at the Cochise Filter Barrier.

C. cerastes Hallowell, 1854—Sidewinder

C. c. cerastes Hallowell, 1854—Mohave Desert Sidewinder

C. c. cercobombus Savage and Cliff, 1953—Sonoran Sidewinder

C. c. laterorepens Klauber, 1944—Colorado Desert Sidewinder

C. cerberus (Coues, 1875)—Arizona Black Rattlesnake

See annotations under *Crotalus*. Douglas et al. (2016, Royal Society Open Science 3[160047]: 1–11) found five lineages within *C. cerberus* using mtDNA data.

C. horridus Linnaeus, 1758—Timber Rattlesnake

C. lepidus (Kennicott, 1861)—Rock Rattlesnake

C. l. klauberi Gloyd, 1936—Banded Rock Rattlesnake

C. l. lepidus (Kennicott, 1861)—Mottled Rock Rattlesnake

C. molossus Baird and Girard, 1853—Black-tailed Rattlesnake

Muñoz-Mora et al. (2022, Herpetozoa 35:, 141–153) using mtDNA found three lineages that were found that correspond to currently recognized subspecies of *C. molossus*. The authors suggested that the lineages likely represented species but did not make taxonomic changes pending information from nDNA. See also Myers et al. (2017, Journal of Biogeography 44: 461–474 and Myers et al. (2019, Molecular Ecology 28: 4535–4548).

C. m. molossus Baird and Girard, 1853—Northern Black-tailed Rattlesnake

C. oreganus Holbrook, 1840—Western Rattlesnake

See comments under *Crotalus*, above.

C. o. abyssus Klauber, 1930—Grand Canyon Rattlesnake

C. o. concolor Woodbury, 1929—Midget Faded Rattlesnake

C. o. helleri Meek, 1906—Southern Pacific Rattlesnake

C. o. lutosus Klauber, 1930—Great Basin Rattlesnake

C. o. oreganus Holbrook, 1840—Northern Pacific Rattlesnake

C. ornatus Hallowell, 1854—Eastern Black-tailed Rattlesnake

C. pricei Van Denburgh, 1895—Twin-spotted Rattlesnake
C. p. pricei Van Denburgh, 1895—Western Twin-spotted Rattlesnake
C. pyrrhus (Cope, 1867)—Southwestern Speckled Rattlesnake
C. ruber Cope, 1892—Red Diamond Rattlesnake
C. scutulatus (Kennicott, 1861)—Mohave Rattlesnake

Schield et al. (2018, Molecular Phylogenetics and Evolution 127: 669–681), using thousands of ddRAD loci and mtDNA found four lineages within *C. scutulatus*, with the deepest node differentiating Mexican Plateau populations + *C. s. salvini* from those to the north. The northern populations formed two lineages on either side of the Continental Divide; the authors state that current taxonomy does not capture the diversity within *C. scutulatus* but they do not specifically recommend taxonomic changes. See also Myers et al. (2017, Journal of Biogeography 44: 461–474) and Myers et al. (2019, Molecular Ecology 28: 4535–4548). Note, Myers et al. (2019, *op. cit.*) did not find structure at the continental divide. Watson et al. (2019, Zootaxa 4683: 129–143) evaluated morphology throughout the geographic range and found that variation was clinal without discrete character change at genetic boundaries. They recommended retention of the two classic subspecies.

C. s. scutulatus (Kennicott, 1861)—Northern Mohave Rattlesnake
C. stephensi Klauber, 1930—Panamint Rattlesnake
C. tigris Kennicott, in Baird, 1859—Tiger Rattlesnake
C. viridis (Rafinesque, 1818)—Prairie Rattlesnake

See comments under *Crotalus*.

C. willardi Meek, 1906—Ridge-nosed Rattlesnake
C. w. obscurus Harris and Simmons, 1976—New Mexico Ridge-nosed Rattlesnake
C. w. willardi Meek, 1906—Arizona Ridge-nosed Rattlesnake

Diadophis Baird and Girard, 1853—Ring-necked Snakes
D. punctatus (Linnaeus, 1766)—Ring-necked Snake

Fontanella et al. (2017, Zoological Journal of the Linnean Society 182: 444–458) evaluated the contact zone between two of the lineages (*D. p. edwardsi* North and *D. p. edwardsi* South). Morphological differences between these two lineages were clinal, whereas mtDNA sequence data were discrete but with zones of secondary contact. Fontanella et al. (2021, Biological Journal of the Linnean Society 133: 105-119) used combined morphometric and genomic data for Pacific Coast populations and determined that those populations represented three subspecific taxa. They synonymized *D. p. occidentalis* and *D. p. vandenburghi* with *D. p. amabilis*, and *D. p. similis* with *D. p. modestus*. Otherwise, our arrangement follows the traditional subspecies groupings.

D. p. acricus Paulson, 1968—Key Ring-necked Snake
D. p. amabilis Baird and Girard, 1853—Pacific Ring-necked Snake
D. p. arnyi Kennicott, 1859—Prairie Ring-necked Snake
D. p. edwardsii (Merrem, 1820)—Northern Ring-necked Snake
D. p. modestus Bocourt, 1886 in Duméril, Mocquard, and Bocourt, 1870-1909—San Bernardino Ring-necked Snake
D. p. pulchellus Baird and Girard, 1853—Coral-bellied Ring-necked Snake
D. p. punctatus (Linnaeus, 1766)—Southern Ring-necked Snake
D. p. regalis Baird and Girard, 1853—Regal Ring-necked Snake
D. p. stictogenys Cope, 1860—Mississippi Ring-necked Snake

Drymarchon Fitzinger, 1843—Indigo Snakes
D. couperi (Holbrook, 1842)—Eastern Indigo Snake

Krysko et al. (2016, Zootaxa 4138: 549–569) described a new taxon, *D. kolpo-*

basileus, based on morphological differences of the skull and mtDNA sequence data from *D. couperi*. Guyer et al. (2019, Zootaxa 4695: 168–174) were unable to confirm head-shape differences between *D. kolpobasileus* and *D. couperi*, and Folt et al. (2019, PLoS One 14: e0214439) examined lineage structure using nDNA and found it failed to support conclusions from mtDNA alone. Both the Guyer and Folt studies recommend against recognition of *D. kolpobasileus*.

D. melanurus (Duméril, Bibron, and Duméril, 1854)—Central American Indigo Snake

D. m. erebennus (Cope, 1860)—Texas Indigo Snake

Drymobius Fitzinger, 1843—Neotropical Racers

D. margaritiferus (Schlegel, 1837)—Speckled Racer

D. m. margaritiferus (Schlegel, 1837)—Northern Speckled Racer

Farancia Gray, 1842—North American Mudsnakes

The English name was simplified to one that characterized all of the species within the genus.

F. abacura (Holbrook, 1836)—Red-bellied Mudsnake

F. a. abacura (Holbrook, 1836)—Eastern Mudsnake

F. a. reinwardtii Schlegel, 1837—Western Mudsnake

F. erytrogramma (Palisot de Beauvois in Sonnini de Manoncourt and Latreille, 1801)—Rainbow Snake

F. e. erytrogramma (Palisot de Beauvois in Sonnini de Manoncourt and Latreille, 1801)—Common Rainbow Snake

F. e. seminola Neill, 1964—South Florida Rainbow Snake

Ficimia Gray, 1849—Eastern Hook-nosed Snakes

F. streckeri Taylor, 1931—Tamaulipan Hook-nosed Snake

Gyalopion Cope, 1860—Western Hook-nosed Snakes

The date of publication was corrected to 1860 (see Nolan, 1913, Index to the Scientific Contents of the Journal and Proceedings of the Academy of Natural Sciences of Philadelphia: xii).

G. canum Cope, 1860—Chihuahuan Hook-nosed Snake

The date of publication was corrected to 1860 (see Nolan, 1913, Index to the Scientific Contents of the Journal and Proceedings of the Academy of Natural Sciences of Philadelphia: xii).

G. quadrangulare (Günther, 1893 in Salvin and Godman, 1885-1902)—Thornscrub Hook-nosed Snake

Heterodon Latreille in Sonnini de Manoncourt and Latreille, 1801—North American Hog-nosed Snakes

The authority corrected to note that Latreille named this taxon within a work authored by Sonnini and Latreille.

H. kennerlyi Kennicott, 1860—Mexican Hog-nosed Snake

H. nasicus Baird and Girard, 1852—Western Hog-nosed Snake

Werler and Dixon (2000, Texas Snakes: Identification, Distribution, and Natural History. University of Texas Press, Austin) regarded *H. n. gloydi* to be an allopatric, diagnosable taxon restricted to the low plains – eastern forest ecotone of east Texas. Smith et al. (2003, Journal of Kansas Herpetology (5): 17–20) accepted previous conclusions that *H. n. gloydi* is a synonym of *H. n. nasicus*, but they were receptive to re-evaluating *gloydi* as a valid taxon. In this equivocal situation, we choose to retain these subspecies pending genetic evaluation of *H. nasicus*.

H. n. gloydi Edgren, 1952—Dusty Hog-nosed Snake
H. n. nasicus Baird and Girard, 1852—Plains Hog-nosed Snake
H. platirhinos Palisot de Beauvois in Sonnini de Manoncourt and Latreille, 1801—Eastern Hog-nosed Snake
H. simus (Linnaeus, 1766)—Southern Hog-nosed Snake

Hydrophis Latreille in Sonnini de Manoncourt and Latreille, 1801—Circumtropical Seasnakes
The English name was changed to differentiate from the family group name, and there are other sea snake genera. Authority corrected from "Latreille ex Sonnini and Latreille, 1801" in prior editions of this list.
H. platurus (Linnaeus, 1766)—Yellow-bellied Seasnake
Bessesen and Galbreath (2017, ZooKeys 686: 109–123) described a localized subspecies of *H. platurus* in Costa Rica that differs from the nominate race in size, coloration, locality, and habits. The nominate race occurs in the U.S.
H. p. platurus (Linnaeus, 1766)—Common Yellow-bellied Sea Snake

Hypsiglena Cope, 1860—North American Nightsnakes
Based on mtDNA data, Myers and Mulcahy (2020, Mitochondrial DNA Part B Resources. 5: 3056–3058) recognized nine named and two unnamed (presumed) species. Three or their named and one of their unnamed species occur in the U.S. The nine named species closely follow the boundaries of taxa formerly recognized as subspecies. The authors continue to recognize subspecies designations within several of the widespread, polymorphic species. See also Myers et al. (2017, Journal of Biogeography 44: 461–474) and Myers et al. (2019, Molecular Ecology 28: 4535–4548).
H. chlorophaea Cope, 1860—Desert Nightsnake
H. c. chlorophaea Cope, 1860—Sonoran Nightsnake
H. c. deserticola Tanner, 1944—Northern Desert Nightsnake
The authority has been corrected, and parentheses have been removed from previous versions of this list.
H. c. loreala Tanner, 1944—Mesa Verde Nightsnake
The authority has been corrected, and parentheses have been removed from previous versions of this list.
H. jani (Dugès, 1865)—Chihuahuan Nightsnake
H. j. texana Stejneger, 1893—Texas Nightsnake
The authority has been corrected, and parentheses have been removed from previous versions of this list.
H. ochrorhyncha Cope, 1860—Coast Nightsnake
H. o. klauberi Tanner, 1944—San Diego Nightsnake
H. o. nuchalata Tanner, 1943—California Nightsnake
The authority has been corrected, and parentheses have been removed from previous versions of this list.

Lampropeltis Fitzinger, 1843—Kingsnakes
L. alterna (Brown, 1901)—Gray-banded Kingsnake
Based on morphology and color pattern, Hansen and Salmon (2017, Mesoamerican Herpetology 4: 699–758) assign all U.S. populations to a monotypic *L. alterna*. Using genome-scale data, Myers et al. (2019, Molecular Phylogenetics and Evolution 131: 211–218) reported three lineages within *L. alterna*, again with only *L. alterna* occurring in the U.S.
L. annulata Kennicott in Cope, 1860—Mexican Milksnake
The publication date was corrected to 1860 (see Nolan, 1913, Index to the Scientific Contents of the Journal and Proceedings of the Academy of Natural

Sciences of Philadelphia: xii). This species comprises a Mexican lineage of the former *L. triangulum* and is of uncertain occurrence in the United States. The morphotype of *L. annulata* occurs throughout southern Texas, but the identity of those populations was not evaluated by Ruane et al. (2014, Systematic Biology 63: 231–250). Until further detailed evaluation, we retain *L. annulata* as a species that likely occurs in southern Texas that may hybridize with *L. gentilis* or may ultimately prove to be part of *L. gentilis*, as suggested by the limited sampling in Burbrink et al. (2022, Systematic Biology 71: 839–858). See Chambers and Hillis (2020, Systematic Biology 69: 184–193) for alternate views on the validity of this species as distinct from the former *L. triangulum* (see additional comments under *L. gentilis* and *L. triangulum*).

L. californiae (Blainville, 1835)—California Kingsnake

See comments under *L. getula*.

L. calligaster (Harlan, 1827)—Prairie Kingsnake

L. elapsoides (Holbrook, 1838)—Scarlet Kingsnake

The recognition of *L. elapsoides* as a species was confirmed in a large multilocus study with many individuals sampled by Ruane et al. (2014, Systematic Biology 63: 231–250) and further evaluated and supported with genomic analyses in Burbrink et al. (2022, Systematic Biology 71: 839–858); see additional comments under *L. triangulum*.

L. extenuata (Brown, 1890)—Short-tailed Kingsnake

L. floridana Blanchard, 1919—Florida Kingsnake

L. gentilis (Baird and Girard, 1853)—Western Milksnake

A multilocus molecular study by Ruane et al. (2014, Systematic Biology 63: 231–250) indicated that *L. gentilis* is distinct from the former *L. triangulum*. Additional sampling of *L. gentilis* with detailed examination of gene-flow, in conjunction with ecological niche-modeling analyses by Burbrink et al. (2022, Systematic Biology 71: 839–858), found that *L. gentilis* hybridizes with *L. triangulum* and that this occurs primarily where the eastern Nearctic forests transition to the grasslands of the Great Plains but otherwise remains distinct throughout its range. See Chambers and Hillis (2020, Systematic Biology 69: 184–193) and Chambers et al. (2023, Systematic Biology 72: 357–371,) for alternate views on the validity of this species as distinct from the former *L. triangulum* and see additional comments under *L. triangulum*. See Burbrink et al. (2024, Ecology and Evolution 14: e70263) for reanalysis and evaluation of Chambers et al. (2023) demonstrating species status.

L. getula (Linnaeus, 1766)—Eastern Kingsnake

Using genome-scale data from 51 specimens across their range, Harrington and Burbrink (2022, Journal of Biogeography 50: 341–351) suggested the presence of three lineages in the *L. getula* complex: *L. californiae*, *L. splendida*, and all populations east of the Chihuahuan Desert/Great Plains interface. The paper did not make taxonomic conclusions, but rather determined biogeographic factors influencing lineage formations in a wide-ranging species complex. It is suggested that further sampling and genomic work are needed to determine if *L. getula*, *L. nigra*, and *L. holbrooki* should be collapsed into the single species *L. getula*.

L. holbrooki Stejneger, 1902—Speckled Kingsnake

See comments under *L. getula*. The date of publication was corrected to 1860 (see Nolan, 1913, Index to the Scientific Contents of the Journal and Proceedings of the Academy of Natural Sciences of Philadelphia: xii).

L. knoblochi Taylor, 1940—Madrean Mountain Kingsnake

L. meansi Krysko and Judd, 2006—Apalachicola Kingsnake

L. multifasciata (Bocourt, 1886 in Duméril, Mocquard, and Bocourt, 1870-1909)—Coast Mountain Kingsnake

L. nigra (Yarrow, 1882)—Eastern Black Kingsnake
See comments under *L. getula*.

L. nigrita Zweifel and Norris, 1955—Western Black Kingsnake

L. occipitolineata Price, 1987—South Florida Mole Kingsnake

L. pyromelana (Cope, 1867)—Arizona Mountain Kingsnake

L. rhombomaculata (Holbrook, 1840)—Northern Mole Kingsnake

L. splendida (Baird and Girard, 1853)—Desert Kingsnake
See comments under *L. getula*.

L. triangulum (Lacépède, 1789)—Eastern Milksnake
As currently defined, *L. triangulum* comprises populations of the former subspecies *L. t. triangulum*, *L. t. syspila* (part), and *L. t. amaura* (part). Burbrink et al. (2022, Systematic Biology 71: 839–858) found using genome-scale data with detailed phylogeographic and hybrid-zone analyses, along with ecological niche-modeling analyses, that *L. triangulum* has a zone of hybridization (6% of the combined range) with *L. gentilis* that occurs primarily where the eastern Nearctic forests transition to the grasslands of the Great Plains but otherwise remains distinct throughout its range. This work also indicates that both *L. triangulum* and *L. gentilis* may hybridize with *L. elapsoides* specifically in a contact zone in Louisiana but that all three also remain distinct outside of that zone. In contrast, Chambers and Hillis (2020, Systematic Biology 69: 184–193) and Chambers et al. (2023, Systematic Biology 72: 357–371) argue that the hybridization detected between *L. triangulum* and *L. gentilis* renders these taxa synonymous and thus all Nearctic milksnakes, excluding *L. elapsoides*, should be considered *L. triangulum*. However, Chambers et al. (*op. cit.*) also found the same two lineages corresponding to *L. gentilis* and *L. triangulum*, with the same area of connection as that inferred by Ruane et al. (2014, Systematic Biology 63: 231-250) and Burbrink et al. (2022, *op. cit.*). See Burbrink et al. (2024, Ecology and Evolution 14 (10) e70263) for reanalyses and evaluation of Chambers et al. (2023) demonstrating species status.

L. zonata (Lockington ex Blainville, 1876)—California Mountain Kingsnake

Leptodeira Fitzinger, 1843—Cat-eyed Snakes
Taxonomy follows Barrio-Amorós (2019, Reptiles & Amphibians 26: 1–15).

L. septentrionalis (Kennicott, in Baird, 1859)—Northern Cat-eyed Snake
Following the mtDNA-based phylogeny in Daza et al. (2009, Molecular Phylogenetics and Evolution 53: 653–657), including the unique color pattern of the taxon, Wallach et al. (2014, Snakes of the World: A Catalogue of Living and Extinct Species. CRC Press, Boca Raton, Florida) and Barrio-Amorós (2019, Reptiles & Amphibians 26: 1–15) consider *L. septentrionalis* to be restricted to its former subspecific concept in northeastern Mexico and southern Texas.

Lichanura Cope, 1861—Rosy Boas
Wood and Holycross (In Holycross and Mitchell, 2020, Snakes of Arizona. ECO Publishing: 80–81) cite a reanalysis of data first used by Wood et al. (2008, Molecular Phylogenetics. and Evolution. 46: 484–502) in which geographic boundaries are shifted between clades in northern Baja California such that the name *L. orcutti* would be replaced with *L. roseofusca*. However, the analysis remains unpublished.

L. orcutti Stejneger, 1889—Northern Rosy Boa
"Northern" was added to the English name to differentiate it from the English name of the genus. The taxonomic authority was corrected by removing the parentheses.

L. trivirgata Cope, 1861—Three-lined Boa
The authority was corrected, and the parentheses were removed.

Liodytes Cope, 1885—Nearctic Swampsnakes
"Nearctic" is added to the English name to differentiate *Liodytes* from other World snake genera that are called Swampsnakes. Using genome-scale data, Nuñez et al. (2023, Molecular Phylogenetics and Evolution 186(107844: 1-12) found that *L. pygaea* was sister to *L. alleni* and *L. rigida*. They recommended returning *L. pygaea* to the genus *Seminatrix*. We retain the classic subspecies –– they have not been addressed in any modern study.

L. alleni (Garman, 1874)—Striped Swampsnake
L. rigida (Say, 1825)—Glossy Swampsnake
L. r. deltae (Huheey, 1959)—Delta Swampsnake
L. r. rigida (Say, 1825)—Eastern Glossy Swampsnake
L. r. sinicola (Huheey, 1959)—Gulf Swampsnake

Masticophis Baird and Girard, 1853—Whipsnakes
See comment under *Coluber*.

M. bilineatus Jan, 1867—Sonoran Whipsnake
The date of publication has been corrected. The specific name *M. bilineatum* was introduced by Jan (1863, Elenco sistematico degli ofidi: vii + 143) as a nomen nudum, and was formally published by Jan (in Jan and Sordelli, 1867, Iconographie generale des ophidiens, volume 2, livraison 22, plate 6).

M. flagellum (Shaw, 1802)—Common Coachwhip
Using molecular and morphological data, O'Connell and Smith (2018, Molecular Phylogenetics and Evolution 127: 356–366), recognized populations west of the Cochise Filter Barrier as a distinct species, *M. piceus*. They recognized the named subspecies as evolutionary lineages within each species, though they did not evaluate the subspecies *M. f. ruddocki.* Myers et al. (2017, Molecular Phylogenetics and Evolution 127(2018):356–366) and Myers et al. (2019, Molecular Ecology 28:1–14) also found these two lineages meeting at the Cochise Filter Barrier using mtDNA and genome-scale data. The English name was modified to differentiate this species from the other species called "Coachwhips."

M. f. flagellum (Shaw, 1802)—Eastern Coachwhip
M. f. lineatulus Smith, 1941—Lined Coachwhip
M. f. testaceus (Say in James, 1822)—Western Coachwhip
M. fuliginosus (Cope, 1895)—Baja California Coachwhip
O'Connell and Smith (2018, Molecular Phylogenetics and Evolution 127: 356–366) support recognizing *M. fuliginosus* as a species.

M. lateralis (Hallowell, 1853)—Striped Racer
M. l. euryxanthus Riemer, 1954—Alameda Striped Racer
M. l. lateralis (Hallowell, 1853)—California Striped Racer
M. piceus (Cope, 1892)—Desert Coachwhip
See comments under *M. flagellum*. The epithet *C. piceum* was introduced by Cope (1875, Bulletin of the United States National Museum 1: 1–104) as a nomen nudum. It was formally proposed by Cope (1892, Proceedings of the United States National Museum 14: 589–694), in an issue dated "1891". Crombie (1994, Smithsonian Herpetological Information Service (101): 40), gives the date of Cope's paper in which the formal description appeared as 28 March 1892.

M. p. cingulum Lowe and Woodin, 1954—Sonoran Coachwhip
M. p. piceus (Cope, 1892)—Red Racer
M. p. ruddocki Brattstrom and Warren, 1953—San Joaquin Coachwhip
M. schotti Baird and Girard, 1853—Schott's Whipsnake
M. s. ruthveni Ortenburger, 1923—Ruthven's Whipsnake
M. s. schotti Baird and Girard, 1853—Schott's Striped Whipsnake
M. taeniatus (Hallowell, 1852)—Striped Whipsnake
M. t. girardi (Stejneger and Barbour, 1917)—Central Texas Whipsnake

M. t. taeniatus (Hallowell, 1852)—Desert Striped Whipsnake

Micruroides Schmidt, 1928—Sonoran Coralsnakes
M. euryxanthus (Kennicott, 1860)—Sonoran Coralsnake
M. e. euryxanthus (Kennicott, 1860)—Arizona Coralsnake

Micrurus Wagler, in Spix, 1824—American Coralsnakes
The authority corrected to relate that Wagler named the taxon in a work authored by Spix.
M. fulvius (Linnaeus, 1766)—Harlequin Coralsnake
M. tener (Baird and Girard, 1853)—Texas Coralsnake
Streicher et al. (2016, Evolution 70: 1435–1449, recognized no subspecies within *M. tener*

Nerodia Baird and Girard, 1853—North American Watersnakes
N. clarkii (Baird and Girard, 1853)—Saltmarsh Snake
Rautsaw et al. (2021, Molecular Biology and Evolution 38: 745–760) demonstrated reduced gene flow due to isolation by environment between *N. clarkii* and *N. fasciata*. While showing that the three subspecies of *N. clarkii* can be detected using genomic data; the authors also demonstrated significant gene flow among these lineages. The authors suggest that these subspecies may result from isolation by distance, thus questioning the continued recognition of these taxa.
N. c. clarkii (Baird and Girard, 1853)—Gulf Saltmarsh Snake
The standardized English name was changed from "Gulf Saltmarsh Watersnake" to better align with the species name.
N. c. compressicauda Kennicott, 1860—Mangrove Saltmarsh Snake
The standardized English name was changed from "Mangrove Saltmarsh Watersnake" to better align with the species name.
N. c. taeniata (Cope, 1895)—Atlantic Saltmarsh Snake
The standardized English name was changed from "Atlantic Saltmarsh Watersnake" to better align with the species name.
N. cyclopion (Duméril, Bibron, and Duméril, 1854)—Mississippi Green Watersnake
N. erythrogaster (Forster, 1771)—Plain-bellied Watersnake
Makowsky et al. (2010, Molecular Phylogenetics and Evolution 55: 985–995), using mtDNA data, concluded that the studied populations of *N. erythrogaster* as a whole were "part of a freely interbreeding, widespread species, with the possible exception of" the eastern populations, which represent the nominate subspecies. Based on the separation of the U. S. populations into two within Alabama, and lack of genetic data for Mexican subspecies, we retain two subspecies in the U. S. No subspecies of *N. erythrogaster* were recognized in the prior edition of this list.
N. e. erythrogaster (Forster, 1771)—Red-bellied Watersnake
N. e. transversa (Hallowell, 1852)—Yellow-bellied Watersnake
N. fasciata (Linnaeus, 1766)—Southern Watersnake
Rautsaw et al. (2021, Molecular Biology and Evolution 38: 745–760) examined lineage structure between Florida populations/subspecies. While showing that *N. f. fasciatus* and *N. f. pictiventris* can be detected using genomic data, the authors also demonstrated significant gene flow among these lineages. The authors suggest that these subspecies may result from isolation by distance, thus questioning if they should continue to be recognized.
N. f. confluens (Blanchard, 1923)—Broad-banded Watersnake
N. f. fasciata (Linnaeus, 1766)—Banded Watersnake
N. f. pictiventris (Cope, 1895)—Florida Watersnake

N. floridana (Goff, 1936)—Florida Green Watersnake
N. harteri (Trapido, 1941)—Brazos Watersnake
The English name was changed from "Brazos River Watersnake" to align it with the Concho Watersnake.
N. paucimaculata (Tinkle and Conant, 1961)—Concho Watersnake
N. rhombifer (Hallowell, 1852)—Diamond-backed Watersnake
N. r. rhombifer (Hallowell, 1852)—Northern Diamond-backed Watersnake
N. sipedon (Linnaeus, 1758)—Common Watersnake
N. s. insularum (Conant and Clay, 1937)—Lake Erie Watersnake
N. s. pleuralis (Cope, 1892)—Midland Watersnake
N. s. sipedon (Linnaeus, 1758)—Northern Watersnake
N. s. williamengelsi (Conant and Lazell, 1973)—Carolina Watersnake
N. taxispilota (Holbrook, 1838)—Brown Watersnake

Opheodrys Fitzinger, 1843—Greensnakes
O. aestivus (Linnaeus, 1766)—Northern Rough Greensnake
Rittmeyer et al. (2021, Journal of Herpetology 55: 342–354) used multiple loci to detect three divergent lineages within *O. aestivus*. They elevate the sister lineage *O. carinatus* from subspecies to species based on its diagnosability from morphological and genetic data. Another lineage was detected from the Edwards Plateau of central Texas. Due to geographic gaps in sampling and undetermined morphological diagnosis, this central Texas clade was included within a broader concept of *O. aestivus*.
O. carinatus Grobman, 1984—Florida Rough Greensnake
See comments under *O. aestivus*.
O. vernalis (Harlan, 1827)—Smooth Greensnake

Oxybelis Wagler, 1830—American Vinesnakes
Taxonomy follows Jadin et al. (2020, Organisms Diversity and Evolution 20: 723–746), who subdivided *O. aeneus* into six species based on genetic and morphological differences.
O. microphthalmus Barbour and Amaral, 1926—Thornscrub Brown Vinesnake
See comments under *Oxybelis*.

Pantherophis Fitzinger, 1843—North American Ratsnakes
Hillis and Wüster (2021, Herpetological Review 52: 51–52) and Burbrink et al. (2020, Evolution 75: 260-277), substituted *P. alleghaniensis* for *P. spiloides*, and resurrected *P. quadrivittatus*).
P. alleghaniensis (Holbrook, 1836)—Central Ratsnake
See comment under *P. obsoletus*.
P. bairdi (Yarrow in Cope, 1880)—Baird's Ratsnake
See comment under *P. obsoletus*.
P. emoryi (Baird and Girard, 1853)—Great Plains Ratsnake
See comment under *P. guttatus*.
P. e. emoryi (Baird and Girard, 1853)—Emory's Ratsnake
P. e. meahllmorum (Smith, Chiszar, Staley and Tepedelen, 1994)—South Texas Ratsnake
P. guttatus (Linnaeus, 1766)—Red Cornsnake
Using genome-scale data, Myers et al. (2020, Molecular Ecology 29: 797–811) found support for three previously recognized species: *P. guttatus*, *P. slowinskii*, and *P. emoryi*. Subsequently, Marshall et al. (2021, Molecular Phylogenetics and Evolution 162: 1–12) demonstrated support for the same three taxa but also found *P. emoryi* could further be divided into the subspecies

P. e. meahllmorum and *P. e. emoryi*, and also suggested that *P. slowinskii* be considered a subspecies of *P. emoryi*. When subspecies are found to be distinct lineages, they are no different from the rank of species (see Burbrink et al., 2022, Ecology and Evolution 12: 1–17). We note that *P. e. slowinskii* is sister taxon to the other proposed subspecies of *P. emoryi*, and that all are distinct evolutionary lineages. In the present case, we at least, recognize *P. slowinskii* as a species, and recognize that *P. emoryi* consists of two taxa. See Burbrink et al. (2024, Ecology and Evolution 14: e70263) for reanalysis and evaluation of Marshall et al. (2021) demonstrating species status.

P. obsoletus (Say in James, 1822)—Western Ratsnake

The date of publication is corrected to 1822 based on Neal (2010, Archives of Natural History 37: 28–38). Using genome-scale data, Burbrink et al. (2020, Evolution 75: 260–277) demonstrated support for continued recognition of *P. obsoletus* and *P. bairdi* as a sister species, but that the geographic range of *P. spiloides* extended further east and therefore overlapped with the locality of the type specimen of *P. alleghaniensis* at the summit of the Blue Ridge in Virginia (see Hillis and Wüster, 2021, Herpetological Review 52: 51–52 and Burbrink et al., 2021, Herpetological Review 53: 537–547). Thus, the former *P. spiloides* becomes *P. alleghaniensis*. The former *P. alleghaniensis* was then found to occupy the range of the former subspecies *P. o. quadrivittatus*, along the Southeastern Coast and Florida and thus becomes *P. quadrivittatus*. Suggestions that the ratsnakes *P. obsoletus*, *P. alleghaniensis*, and *P. quadrivittatus* should be considered subspecies of *P. obsoletus* (Hillis and Wüster, 2021, *op. cit.*) renders *P. obsoletus* paraphyletic with respect to the sister species *P. bairdi*. This, along with evidence showing that all four taxa are distinct lineages, indicates that they should remain at the species rank (Burbrink et al., 2020, *op. cit.*).

P. quadrivittatus (Holbrook, 1836)—Yellow Ratsnake

See comment under *P. obsoletus*.

P. ramspotti (Crother, White, Savage, Eckstut, Graham and Gardner, 2011)—Western Foxsnake

P. slowinskii (Burbrink, 2002)—Slowinski's Cornsnake

See comment under *P. guttatus*

P. vulpinus (Baird and Girard, 1853)—Eastern Foxsnake

Phyllorhynchus Stejneger, 1890—Leaf-nosed Snakes

P. browni Stejneger, 1890—Saddled Leaf-nosed Snake

P. decurtatus (Cope, 1868)—Spotted Leaf-nosed Snake

Pituophis Holbrook, 1842—Bullsnakes

The English name for the genus is simplified to "Bullsnakes" because it is descriptive for all of the species.

P. catenifer (Blainville, 1835)—Gophersnake

- ***P. c. affinis*** Hallowell, 1852—Sonoran Gophersnake
- ***P. c. annectens*** Baird and Girard, 1853—San Diego Gophersnake
- ***P. c. catenifer*** (Blainville, 1835)—Pacific Gophersnake
- ***P. c. deserticola*** Stejneger, 1893—Great Basin Gophersnake
- ***P. c. pumilus*** Klauber, 1946—Santa Cruz Island Gophersnake
- ***P. c. sayi*** (Schlegel, 1837)—Bullsnake

P. melanoleucus (Daudin, 1803)—Eastern Pinesnake

Nikolakis et al. (2021, Zoologica Scripta 51: 133–146) analyzed ultra-conserved elements that showed *P. melanoleucus* to consist of continuous populations that did not correspond to previously recognized subspecies.

P. ruthveni Stull, 1929—Louisiana Pinesnake

Regina Baird and Girard, 1853—Crawfish Snakes
Nuñez et al. (2023, Molecular Phylogenetics and Evolution 186: 1–12) using genome-scale data found that *R. grahamii* and *R. septemvittata* are sister taxa and as a clade are sister to the genus *Nerodia*, thus supporting the continued recognition of both taxa in this genus.
R. grahamii Baird and Girard, 1853—Graham's Crawfish Snake
R. septemvittata (Say, 1825)—Queensnake

Rena Baird and Girard, 1853—North American Threadsnakes
"North American" is added to the English name to differentiate *Rena* from other Threadsnake genera. Taxonomy follows Flores-Villela et al. (2022, Revista Mexicana de Biodiversidad 93: e933933), who reviewed geographical variation in morphology and modified the taxonomic results of previous studies: *R. dissecta* is re-synonymized with *R. dulcis*, and *R. segrega* is elevated to species. No subspecies are recognized.
R. dulcis Baird and Girard, 1853—Texas Threadsnake
R. humilis Baird and Girard, 1853—Western Threadsnake
R. segrega Klauber, 1939—Trans-Pecos Threadsnake
See comment under *Rena*.

Rhadinaea Cope, 1863—Littersnakes
R. flavilata (Cope, 1871)—Pine Woods Littersnake

Rhinocheilus Baird and Girard, 1853—Long-nosed Snakes
R. lecontei Baird and Girard, 1853—Long-nosed Snake
Genetic data coincide with Myers et al. (2019, Molecular Ecology 2019: 1–14) and Dahn et al. (2018, Molecular Phylogenetics and Evolution 129: 214–225) showing two primary lineages on either side of the continental divide. This matches the classic split between the two morphological subspecies that Manier (2004, Biological Journal of the Linnaean Society 83: 65–85) examined. However, none of those studies suggested taxonomic changes.

Salvadora Baird and Girard, 1853—Patch-nosed Snakes
Taxonomy follows Hernández-Jiménez et al. (2021, European Journal of Taxonomy 764: 85–118), who produced a phylogeny of the genus using parsimony analysis of morphological characters. They re-elevate *S. deserticola* and *S. lineata* to species. See also Myers et al. (2017, Journal of Biogeography 44: 461–474) and Myers et al. (2019, Molecular Ecology 2019: 1–14).
S. deserticola Schmidt, 1940—Big Bend Patch-nosed Snake
See comment under *Salvadora*.
S. grahamiae Baird and Girard, 1853—Mountain Patch-nosed Snake
The elevation of *S. g. lineata* leaves *Salvadora grahamiae* without subspecies. The standardized English name of the former subspecies S. g. grahamiae "Mountain Patch-nosed Snake" replaces the former species name for *S. grahamiae* "Eastern Patch-nosed Snake"
S. hexalepis (Cope, 1866)—Western Patch-nosed Snake
S. h. hexalepis (Cope, 1866)—Desert Patch-nosed Snake
S. h. mojavensis Bogert, 1945—Mohave Patch-nosed Snake
S. h. virgultea Bogert, 1935—Coast Patch-nosed Snake
S. lineata Schmidt, 1940—Texas Patch-nosed Snake
See comments under *Salvadora*.

Seminatrix Cope, 1895—Black Swampsnakes

Using genome-scale data, Nuñez et al. (2023, Molecular Phylogenetics and Evolution 186: 1-12) placed *S. pygaea* back into the genus *Seminatrix* from *Liodytes*.

S. pygaea (Cope, 1871)—Black Swampsnake

See comment under *Seminatrix*.

S. p. cyclas Dowling, 1950—South Florida Swampsnake

S. p. paludis Dowling, 1950—Carolina Swampsnake

S. p. pygaea (Cope, 1871)—North Florida Swampsnake

Senticolis Dowling and Fries, 1987—Green Ratsnakes

S. triaspis (Cope, 1866)—Green Ratsnake

Roth-Monzón et al. (2021, Ichthyology & Herpetology 109: 1026–1035), using morphometric and DNA data, detected a deep, north-south split in *Senticolis* populations along Mexico's transverse volcanic province. However, they did not recommend taxonomic changes. See also Dahn et al. (2018, Molecular Phylogenetics and Evolution 129: 214–225).

S. t. intermedia (Boettger, 1883)—Northern Green Ratsnake

Sistrurus Garman, 1883—Pygmy Rattlesnakes

The English name was simplified to one that characterized all of the species within the genus.

S. catenatus (Rafinesque, 1818)—Eastern Massasauga

S. miliarius (Linnaeus, 1766)—Pygmy Rattlesnake

S. m. barbouri Gloyd, 1935—Dusky Pygmy Rattlesnake

S. m. miliarius (Linnaeus, 1766)—Carolina Pygmy Rattlesnake

S. m. streckeri Gloyd, 1935—Western Pygmy Rattlesnake

S. tergeminus (Say, in James, 1822)—Western Massasauga

Date of publication is corrected to 1822 based on Woodman (2010, Archives of Natural History 37: 28–38).

S. t. edwardsii (Baird and Girard, 1853)—Desert Massasauga

S. t. tergeminus (Say, in James, 1822)—Prairie Massasauga

Sonora Baird and Girard, 1853—North American Groundsnakes

Taxonomy follows Cox et al. (2018, Journal of Natural History 52: 945–988). Cox et al. (*op. cit.*) used mt- and nDNA data to produce a phylogeny in which *Chilomeniscus* and *Chionactis* are paraphyletic with respect to *Sonora*. Their phylogeny also recommends modification of species content through resurrection and elevation of several taxa: *Sonora cincta*, *S. episcopa*, *S. taylori*.

S. annulata (Baird, 1859)—Tricolor Shovel-nosed Snake

See comments under *Sonora*.

S. a. annulata (Baird, 1859)—Colorado Desert Shovel-nosed Snake

S. a. klauberi Stickel, 1941—Tucson Shovel-nosed Snake

S. cincta (Cope, 1861)—Banded Sandsnake

See comments under *Sonora*.

S. episcopa (Kennicott in Baird, 1859)—Great Plains Groundsnake

See comments under *Sonora*. The authority was corrected to reflect the name first appeared by Kennicott in a work by Baird.

S. occipitalis (Hallowell, 1854)—Mohave Shovel-nosed Snake

See comments under *Sonora*.

S. palarostris Klauber, 1937—Sonoran Shovel-nosed Snake

See comments under *Sonora*.

S. p. organica (Klauber, 1951)—Organ Pipe Shovel-nosed Snake

S. semiannulata Baird and Girard, 1853—Western Groundsnake

S. taylori (Boulenger, 1894)—South Texas Groundsnake

Storeria Baird and Girard, 1853—North American Brownsnakes

S. dekayi (Holbrook, 1839)—Dekay's Brownsnake

Pyron et al. (2016, Zoological Journal of the Linnean Society 2016: 1-13) inferred an 'eastern' and 'western' clade for *S. dekayi*. They did not evaluate Gulf Coast or Mesoamerican populations.

S. occipitomaculata (Storer, 1839)—Red-bellied Snake

Pyron et al. (2016. Zoological Journal of the Linnean Society 2016: 1-13) detected four lineages within *S. occipitomaculata*, three of which conform to previously recognized subspecies.

S. victa Hay, 1892—Florida Brownsnake

Tantilla Baird and Girard, 1853—Black-headed Snakes

The English name for the genus is simplified to "Black-headed Snakes" because it is descriptive for nearly all of the species.

T. atriceps (Günther, 1895 in Salvin and Godman, 1885-1902)—Mexican Black-headed Snake

T. coronata Baird and Girard, 1853—Southeastern Crowned Snake

T. cucullata Minton, 1956—Trans-Pecos Black-headed Snake

T. gracilis Baird and Girard, 1853—Flat-headed Snake

T. hobartsmithi Taylor, 1937—Southwestern Black-headed Snake

The name was changed to "Smith's Black-headed Snake" starting with the 7th edition (2012). "Southwestern" confers some geographic information about its range, and therefore we are returning to the previous name.

T. nigriceps Kennicott, 1860—Plains Black-headed Snake

T. oolitica Telford, 1966—Rim Rock Crowned Snake

T. planiceps (Blainville, 1835)—California Black-headed Snake

The English name was changed from "Western Black-headed Snake" to better relate to its geographic distribution relative to other *Tantilla*.

T. relicta Telford, 1966—Florida Crowned Snake

Schrey et al. (2015, Journal of Herpetology 49: 415–419), using mtDNA data, found a genetic, north-South split in mid-peninsular populations.

T. r. neilli Telford, 1966—Central Florida Crowned Snake

T. r. pamlica Telford, 1966—Coastal Dunes Crowned Snake

T. r. relicta Telford, 1966—Peninsula Crowned Snake

T. wilcoxi Stejneger, 1902—Chihuahuan Black-headed Snake

Date of publication corrected by Crombie (1994, Smithsonian Herpetological Information Service (101): 1–40).

T. yaquia Smith, 1942—Yaqui Black-headed Snake

Thamnophis Fitzinger, 1843—North American Gartersnakes

Hallas et al. (2022, Molecular Phylogenetics and Evolution 167: 1-13) and Nuñez et al. (2023, Molecular Phylogenetics and Evolution 186: 1-12), both using genome-scale data, found a deep division between Mexican and primarily U. S./ Canada clades. No taxonomic changes were recommended.

T. atratus (Kennicott, in Cooper, 1860)—Aquatic Gartersnake

The authority was corrected to indicate that the name was published in a publication by Cooper.

T. a. atratus (Kennicott, in Cooper, 1860)—Santa Cruz Gartersnake

T. a. hydrophilus Fitch, 1936—Oregon Gartersnake

T. a. zaxanthus Boundy, 1999—Diablo Range Gartersnake

T. brachystoma (Cope, 1892)—Short-headed Gartersnake

T. butleri (Cope, 1889)—Butler's Gartersnake

T. couchii (Kennicott, 1859)—Sierra Gartersnake

T. cyrtopsis (Kennicott, 1860)—Black-necked Gartersnake

T. c. cyrtopsis (Kennicott, 1860)—Western Black-necked Gartersnake
T. c. ocellatus (Cope, 1880)—Eastern Black-necked Gartersnake
T. elegans (Baird and Girard, 1853)—Terrestrial Gartersnake
Using genomic data, Hallas et al. (2021, Journal of Biogeography 48: 2226–2245) confirmed that *T. elegans* consists of three well-differentiated groups that conform to the three currently recognized subspecies.
T. e. elegans (Baird and Girard, 1853)—Mountain Gartersnake
T. e. terrestris Fox, 1951—Coast Gartersnake
T. e. vagrans (Baird and Girard, 1853)—Wandering Gartersnake
T. eques (Reuss, 1834)—Mexican Gartersnake
T. e. megalops (Kennicott, 1860)—Brown Gartersnake
T. gigas Fitch, 1940—Giant Gartersnake
Wood et al. (2015, Conservation Genetics 16: 1025–1039) using microsatellite data identified lineages within this species.
T. hammondii (Kennicott, 1860)—Two-striped Gartersnake
T. marcianus (Baird and Girard, 1853)—Checkered Gartersnake
Myers et al. (2017, Journal of Biogeography 44: 461–474), using mtDNA data, detected divergence between Chihuahuan and Sonoran Desert populations, which correspond to a previous taxonomic split based on morphology determined by Mittleman (1949, Bulletin of the Chicago Academy of Sciences 8: 235–249). However, with genome-scale data, Myers et al. (2019, Molecular Ecology 28: 4535–4548) showed that this divergence was unclear at the intersection of those deserts.
T. m. marcianus (Baird and Girard, 1853)—Marcy's Checkered Gartersnake
T. ordinoides (Baird and Girard, 1852)—Northwestern Gartersnake
T. proximus (Say in James, 1822)—Western Ribbonsnake
The publication date is corrected to 1822 based on Woodman (2010, Archives of Natural History 37: 28–38).
T. p. diabolicus Rossman, 1963—Arid Land Ribbonsnake
T. p. orarius Rossman, 1963—Gulf Coast Ribbonsnake
T. p. proximus (Say in James, 1822)—Orange-striped Ribbonsnake
T. p. rubrilineatus Rossman, 1963—Red-striped Ribbonsnake
T. radix (Baird and Girard, 1853)—Plains Gartersnake
T. rufipunctatus (Cope, in Yarrow, 1875)—Narrow-headed Gartersnake
Authority was corrected to relate that the name was published in a work by Yarrow.
T. saurita (Linnaeus, 1766)—Eastern Ribbonsnake
T. s. nitae Rossman, 1963—Blue-striped Ribbonsnake
T. s. sackenii (Kennicott, 1859)—Peninsula Ribbonsnake
T. s. saurita (Linnaeus, 1766)—Common Ribbonsnake
T. s. septentrionalis Rossman, 1963—Northern Ribbonsnake
T. sirtalis (Linnaeus, 1758)—Common Gartersnake
Jones et al. (2023, Journal of Biogeography 50: 2012–2029) using genome-scale data did not find support for the traditional subspecies of *T. sirtalis* but rather discovered four distinct geographic lineages across North America. No taxonomic suggestions were indicated.
T. s. annectens Brown, 1950—Texas Gartersnake
T. s. concinnus (Hallowell, 1852)—Red-spotted Gartersnake
T. s. dorsalis (Baird and Girard, 1853)—New Mexico Gartersnake
T. s. fitchi Fox, 1951—Valley Gartersnake
T. s. infernalis (Blainville, 1835)—California Red-sided Gartersnake
T. s. pallidulus Allen, 1899—Maritime Gartersnake
T. s. parietalis (Say in James, 1822)—Red-sided Gartersnake
The date of publication is corrected to 1822 based on Woodman (2010, Archives of Natural History 37: 28–38).

T. s. pickeringii (Baird and Girard, 1853)—Puget Sound Gartersnake
T. s. semifasciatus (Cope, 1892)—Chicago Gartersnake
The authority was corrected to add parentheses to signify that the species was originally described under another genus.
T. s. similis Rossman, 1965—Blue-striped Gartersnake
T. s. sirtalis (Linnaeus, 1758)—Eastern Gartersnake
T. s. tetrataenia (Cope in Yarrow, 1875)—San Francisco Gartersnake
Authority was corrected to relate that the name was published in a work by Yarrow.

Trimorphodon Cope, 1861—Lyresnakes
T. lambda Cope, 1886—Sonoran Lyresnake
T. lyrophanes (Cope, 1860)—California Lyresnake
T. vilkinsonii Cope, 1886—Texas Lyresnake

Tropidoclonion Cope, 1860—Lined Snakes
T. lineatum (Hallowell, 1856)—Lined Snake

Virginia Baird and Girard, 1853—Earthsnakes
V. striatula (Linnaeus, 1766)—Rough Earthsnake
*U*sing genome-scale data, Nuñez et al. (2023, Molecular Phylogenetics and Evolution 186: 1-12) demonstrated that *V. valeriae* and *Haldea striatula* were sister species and recommended returning *striatula* to the genus *Virginia*.
V. valeriae Baird and Girard, 1853—Smooth Earthsnake
V. v. elegans Kennicott, 1859—Western Smooth Earthsnake
V. v. pulchra (Richmond, 1954)—Mountain Earthsnake
V. v. valeriae Baird and Girard, 1853—Eastern Smooth Earthsnake

Testudines – Turtles

Travis W. Taggart[1] (Chair) and John Carr[2]

[1]Sternberg Museum of Natural History, Fort Hays State University, Hays, KS 67601
[2]Department of Biology, The University of Louisiana at Monroe, Monroe, LA 71209

Actinemys Agassiz, 1857—Western Pond Turtles
- ***A. marmorata*** (Baird and Girard, 1852)—Northwestern Pond Turtle
- ***A. pallida*** (Seeliger, 1945)—Southwestern Pond Turtle

Apalone Rafinesque, 1832—North American Softshells
- ***A. ferox*** (Schneider, 1783)—Florida Softshell
- ***A. mutica*** (LeSueur, 1827)—Smooth Softshell
  - ***A. m. calvata*** (Webb, 1959)—Gulf Coast Smooth Softshell
  - ***A. m. mutica*** (LeSueur, 1827)—Midland Smooth Softshell
- ***A. spinifera*** (LeSueur, 1827)—Spiny Softshell
  - ***A. s. aspera*** (Agassiz, 1857)—Gulf Coast Spiny Softshell
  - ***A. s. emoryi*** (Agassiz, 1857)—Texas Spiny Softshell
  - ***A. s. guadalupensis*** (Webb, 1962)—Guadalupe Spiny Softshell
  - ***A. s. pallida*** (Webb, 1962)—Pallid Spiny Softshell
  - ***A. s. spinifera*** (LeSueur, 1827)—Northern Spiny Softshell

The standard English name was changed from Eastern Spiny Softshell in Turtle Taxonomy Working Group (2021, Chelonian Research Monographs (8): 1–472) to reflect its distribution relative to other US softshells.

Caretta Rafinesque, 1814—Loggerhead Sea Turtles

Hedges et al. (2019, Caribbean Herpetology (67): 1-53) used the English name "Loggerhead Seaturtle(s)" for all members of this genus. We have followed the traditional English name usage of Turtle Taxonomy Working Group (2021, Chelonian Research Monographs (8): 1–472).

- ***C. caretta*** (Linnaeus, 1758)—Loggerhead Sea Turtle

Shamblin et al. (2014, PLoS One 9: e85956), using samples from 42 nesting rookeries, identified 59 different mitochondrial haplotypes. They made no taxonomic recommendations.

Chelonia Brongniart, 1800—Green Sea Turtles

Hedges et al. (2019, Caribbean Herpetology (67): 1-53) used the English name to "Green Seaturtle(s)" for all members of this genus. We have followed the traditional English name usage of Turtle Taxonomy Working Group (2021, Chelonian Research Monographs (8): 1–472).

- ***C. mydas*** (Linnaeus, 1758)—Green Sea Turtle

Okamoto and Kamezaki (2014, Current Herpetology 33: 46–56) demonstrated the presence of two phenotypes and argued that one form represented *Chelonia agassizii*. Turtle Taxonomy Working Group (2021, Chelonian Research Monographs (8): 1–472) considered *C. agassizii* to be a synonym of *C. mydas*. Naro-Maciel et al. (2014, Journal of Experimental Marine Biology and Ecology 461: 306–316) revealed a barrier to dispersal between the northern and southern Atlantic populations but made no taxonomic recommendations. Álvarez-Varas et al. (2021, Proceedings of the Royal Society of London B. 288:1-10) found a genetic divergence between morphotypes supporting their evolutionary distinctness but made no taxonomic recommendations pending more extensive sampling.

Chelydra Schweigger, 1812—American Snapping Turtles
The standard English name changed from Snapping Turtles to American Snapping Turtles to negate confusion with *Macrochelys*, the Alligator Snapping Turtles.

C. serpentina (Linnaeus, 1758)—North American Snapping Turtle
The standardized English name changed from Snapping Turtle to North American Snapping Turtle to better differentiate it from the Alligator Snapping Turtles (*Macrochelys* spp.) and align with the usage of the Turtle Taxonomy Working Group (2021, Chelonian Research Monographs (8): 1–472).

Chrysemys Gray, 1844—Painted Turtles

C. dorsalis Agassiz, 1857—Southern Painted Turtle

C. picta (Schneider, 1783)—Painted Turtle
Jensen et al. (2014, Conservation Genetics 15: 261–274) examined genetic variation among populations of *C. picta*. They found local population clusters that supported the continued recognition of *C. dorsalis* and *C. picta* but made no taxonomic recommendations. Jensen et al. (2015, Journal of Herpetology 49: 314–324) further examined the range-wide genetic variation of *C. picta* and found no support for the currently recognized subspecies. Reid et al. (2018, Heredity 122: 441–457) found genetic and morphological variability throughout its range. However, they did not reject subspecies outright. Turtle Taxonomy Working Group (2021, Chelonian Research Monographs (8): 1–472) continue to recognize three subspecies of *C. picta*.

C. p. bellii (Gray, 1830)—Western Painted Turtle
The prior editions of this list (e.g., Iverson et al. (2017. Pp. 82–91 in Crother (ed.) Herpetological Circulars (43):1-102) gave the authority as (Gray, 1831). Cowan (1969, Journal of the Society for the Bibliography of Natural History 5: 137–140) provided evidence that the actual date of publication was 1830. The conclusions of Cowan (*op. cit.*) are discussed in and followed by Turtle Taxonomy Working Group (2021, Chelonian Research Monographs (8): 1–472) page 385.

C. p. marginata Agassiz, 1857—Midland Painted Turtle

C. p. picta (Schneider, 1783)—Eastern Painted Turtle

Clemmys Ritgen, 1828—Spotted Turtles

C. guttata (Schneider, 1792)—Spotted Turtle
Davy and Murphy (2014, Canadian Journal of Zoology 92: 149–162) identified significant genetic structure within Canadian populations of *C. guttata*. They made no taxonomic recommendations.

Deirochelys Agassiz, 1857—Chicken Turtles

D. reticularia (Latreille in Sonnini de Manoncourt and Latreille, 1801)—Chicken Turtle

D. r. chrysea Schwartz, 1956—Florida Chicken Turtle

D. r. miaria Schwartz, 1956—Western Chicken Turtle

D. r. reticularia (Latreille in Sonnini de Manoncourt and Latreille, 1801)—Eastern Chicken Turtle

Dermochelys Blainville, 1816—Leatherback Sea Turtles
Hedges et al. (2019, Caribbean Herpetology (67): 1-53) used the English name to "Leatherback Seaturtle(s)" for all members of this genus. We have followed the traditional English name usage of Turtle Taxonomy Working Group (2021, Chelonian Research Monographs (8): 1–472).

D. coriacea (Vandelli, 1761)—Leatherback Sea Turtle
Molfetti et al. (2013, PLoS One 8: e58061) and Dutton et al. (2013, Conservation Genetics 14: 625–636) demonstrated genetic structure within *Dermochelys cori-*

acea in the Atlantic Ocean. They made no taxonomic recommendations.

Emydoidea Gray, 1870—Blanding's Turtles

E. blandingii (Holbrook, 1838)—Blanding's Turtle

Distinct genetic units have been identified in Canada (Davy et al., 2014, Canadian Journal of Zoology 92: 149–162), the midwestern USA (Sethuraman et al., 2014, Conservation Genetics 15: 61–73), and New York (McCluskey et al., 2016, Journal of Herpetology 50: 7–76). None of these studies made any taxonomic recommendations. Turtle Taxonomy Working Group (2021, Chelonian Research Monographs (8): 1–472) recommended additional range-wide studies of this genetically diverse taxon.

Eretmochelys Fitzinger, 1843—Hawksbill Sea Turtles

Hedges et al. (2019, Caribbean Herpetology (67): 1-53) used the English name to "Hawksbill Seaturtle(s)" for all members of this genus. We have followed the traditional English name usage of Turtle Taxonomy Working Group (2021, Chelonian Research Monographs (8): 1–472).

E. imbricata (Linnaeus, 1766)—Hawksbill Sea Turtle

Bowen and Karl (2007, Molecular Ecology 16: 4886–4907) reviewed population genetics and phylogeography of marine turtles and while they noted mtDNA divergence between Indo-Pacific and Atlantic *Eretmochelys imbricata*, they recognized no taxa below the species level. Gaos et al. (2016, Ecology and Evolution 6: 1251–1264) suggested that Eastern Pacific *E. imbricata* are more closely related to those from the Indo-Pacific than those in the Atlantic. However, they made no taxonomic recommendations affecting the currently recognized subspecies. Turtle Taxonomy Working Group (2021, Chelonian Research Monographs (8): 1–472) recognized no subspecies, treating *E. i. bissa* (Rüppell, 1835) as a synonym of *E. imbricata*.

Glyptemys Agassiz, 1857—Sculpted Turtles

G. insculpta (LeConte, 1830)—Wood Turtle

G. muhlenbergii (Schoepff, 1801)—Bog Turtle

Gopherus Rafinesque, 1832—North American Tortoises

Standard English name changed from Gopher Tortoises to better reflect the content of *Gopherus*.

G. agassizii (Cooper, 1861)—Mojave Desert Tortoise

Iverson et al. (2017. Pp. 82–91 in Crother (ed.) Herpetological Circulars (43):1-102) changed the name "Mojave Desert Tortoise" to "Mohave Desert Tortoise" to be consistent with the standard English names of several other taxa while recognizing that both names are acceptable (detailed on page 64). With respect to this turtle, "Mojave" is in the greatest usage (e.g., Turtle Taxonomy Working Group (2021, Chelonian Research Monographs (8): 1–472)) and the standard English name Mojave Desert Tortoise is retained.

G. berlandieri (Agassiz, 1857)—Texas Tortoise

G. flavomarginatus Legler, 1959—Bolson Tortoise

Newly listed taxon. Currently confined to the Bolson de Mapimi basin of Chihuahua, Coahuila, and Durango, Mexico. This species recently occurred as far north as New Mexico, USA, and south as Aguascalientes, Mexico (Affenberg and Franz, 1978, Catalogue of American Amphibians and Reptiles (214): 1–2; Morafka, 1982, North American tortoises: Conservation and ecology. Wildlife Research Report 12. United States Department of the Interior, Fish and Wildlife Service, Washington, D.C.). The Bolson Tortoise underwent a severe and rapid extirpation from most of its range late in the Pleistocene (Morafka, 1988, Annals of Carnegie

Museum 57: 47–72). In 1979, the Bolson Tortoise was listed as endangered under the United States Endangered Species Act (USFWS, 2006, Federal Register 44: 23062–23064). Sixteen adult tortoises from the Mapimi Biosphere Reserve (Mexico) were translocated to an enclosed captive-breeding program on the Appleton Research Ranch in Elgin, Arizona, between 1971 and 1976 (Appleton, 1978, Proceedings of the Desert Tortoise Council Symposium. Desert Tortoise Council, Las Vegas, Nevada). In September 2006, 37 tortoises were moved from the Appleton Research Ranch to three locations in New Mexico (Zylstra, 2006, Sonoran Herpetologist 20: 50–54).

G. morafkai Murphy, Berry, Edwards, Leviton, Lathrop, and Riedle, 2011—Sonoran Desert Tortoise

G. polyphemus (Daudin, 1802)—Gopher Tortoise

Graptemys Agassiz, 1857—Map Turtles

Praschag et al. (2017, Zoologica Scripta 46: 675–682) examined the genetic variation and phylogeography for 89 specimens of all recognized species in *Graptemys*. Their results supported the monophyly of *G. geographica* and its sister relationship to all other *Graptemys*. Their results also supported both broad-headed and narrow-headed clades. The authors concluded (as had Walker and Avise (1998, Annual Review of Ecology and Systematics 29: 23–58)) that *G. geographica*, *G. barbouri*, *G. caglei*, *G. versa*, and *G. sabinensis* were well supported, but the remaining taxa were oversplit. They suggested (without making explicit revisions) that a) *G. flavimaculata* and *G. nigrinoda* be relegated to a subspecies of *G. oculifera* (see also Mertens and Wermuth, 1955, Zoologische Jahrbucher 83: 323–440); b) that *G. ernsti*, *G. gibbonsi*, *G. pearlensis*, and *G. pulchra* are conspecific; and c) that *G. ouachitensis* should be relegated to subspecies of *G. pseudogeographica*. While Praschag et al. (*op. cit.*). Thomson et al. (2018, Molecular Phylogenetics and Evolution 121: 61-70) disagreed, citing that a) all of the species, except for the False Map Turtle complex and *G. flavimaculata*, are monophyletic with strong support, b) most species are easily recognizable using morphology alone, and c) several taxon pairs within the complex occur sympatrically and appear to remain distinct both morphologically and genetically. Turtle Taxonomy Working Group (2021, Chelonian Research Monographs (8): 1–472) await further clarification before adopting any changes.

G. barbouri Carr and Marchand, 1942—Barbour's Map Turtle

G. caglei Haynes and McKown, 1974—Cagle's Map Turtle

Ward et al. (2013, Copeia 2013: 723–728) found divergence in microsatellites, life history, morphology, and coloration between populations in the Upper Guadalupe River compared to those in the Middle Guadalupe and San Marcos Rivers. No taxonomic recommendations were made.

G. ernsti Lovich and McCoy, 1992—Escambia Map Turtle

G. flavimaculata Cagle, 1954—Yellow-blotched Map Turtle

G. geographica (LeSueur, 1817)—Northern Map Turtle

G. gibbonsi Lovich and McCoy, 1992—Pascagoula Map Turtle

G. nigrinoda Cagle, 1954—Black-knobbed Map Turtle

Ennen et al. (2014, Biological Journal of the Linnean Society 111: 810–822) determined that there is not sufficient evidence for the recognition of *G. n. delticola*. Turtle Taxonomy Working Group (2021, Chelonian Research Monographs (8): 1–472) did not recognize the subspecies *G. n. delticola* and *G. n. nigrinoda*.

G. oculifera (Baur, 1890)—Ringed Map Turtle

Previously thought to be endemic to the Pearl River system of central Mississippi and eastern Louisiana until Glorioso et al. (2024, Herpetological Conservation and Biology 19: 96-105) discovered a disjunct and genetically distinct population in a section of the Bogue Falaya, Saint Tammany Parish, Louisiana.

G. ouachitensis Cagle, 1953—Ouachita Map Turtle

G. pearlensis Ennen, Lovich, Kreiser, Selman, and Qualls, 2010—Pearl River Map Turtle

G. pseudogeographica (Gray, 1831)—False Map Turtle

Lindeman et al. (2015, Herpetological Review 46: 179–185) demonstrated that *G. pseudogeographica* from the Calcasieu River drainage in southwestern Louisiana differs from other populations in having a unique eye color and variable chin pattern. They made no taxonomic recommendations.

G. p. kohnii (Baur, 1890)—Mississippi Map Turtle

Thomson et al. (2018, Molecular Phylogenetics and Evolution 121: 61-70) placed this taxon outside the *Graptemys pseudogeographica* complex and nested between the Texas map turtle group and the sawback group of Louisiana, Mississippi, and Alabama.

G. p. pseudogeographica (Gray, 1831)—Northern False Map Turtle

G. pulchra Baur, 1893—Alabama Map Turtle

G. sabinensis Cagle, 1953—Sabine Map Turtle

G. versa Stejneger, 1925—Texas Map Turtle

Kinosternon Spix, 1824—American Mud Turtles

K. baurii (Garman, 1891)—Striped Mud Turtle

K. flavescens (Agassiz, 1857)—Yellow Mud Turtle

K. hirtipes (Wagler, 1830)—Rough-footed Mud Turtle

K. h. murrayi Glass and Hartweg, 1951—Mexican Plateau Mud Turtle

K. sonoriense LeConte, 1854—Sonora Mud Turtle

K. s. longifemorale Iverson, 1981—Sonoyta Mud Turtle

K. s. sonoriense LeConte, 1854—Desert Mud Turtle

K. steindachneri (Siebenrock, 1906)—Florida Mud Turtle

K. stejnegeri (Hartweg, 1938)—Arizona Mud Turtle

McCord (2016, Historical Biology 28: 310–315) recommended restricting *Kinosternon arizonense* to fossil material and resurrecting the name *K. stejnegeri* for extant populations. Joyce and Bourque (2016, Bulletin of the Peabody Museum of Natural History 57: 57–95) accepted this arrangement. Turtle Taxonomy Working Group (2021, Chelonian Research Monographs (8): 1–472) list *K. stejnegeri* as the extant species, with *K. arizonense* considered a separate extinct species from the Pliocene-Pleistocene.

K. subrubrum (Bonnaterre, 1789)—Eastern Mud Turtle

(Lacépède, 1788) was listed as the authority in previous editions of this list. That work was suppressed for nomenclatural purposes by ICZN (2005, Bulletin of Zoological Nomenclature 62: 55) as published in a rejected and invalid non-binomial work and replaced with (Bonnaterre, 1789). Turtle Taxonomy Working Group (2021, Chelonian Research Monographs (8): 1–472 [382]) agreed.

K. s. hippocrepis Gray, 1856—Mississippi Mud Turtle

"(Gray, 1855)" [Catalogue of shield reptiles in the collection of the British Museum. Part I. Testudinata (Tortoises). Taylor and Francis, London, England] was listed as the authority in previous editions of this list. That publication didn't appear until 8 March 1856 (Webb, 1995, Chelonian Conservation and Biology 1: 322–32). Gray (1856, Proceedings of the Zoological Society of London 1855: 197–202) was published on 5 February 1856 (Webb, *op. cit.*), and therefore has priority. Iverson et al. (2013, Molecular Phylogenetics and Evolution 69: 929–939) supports the species-level recognition *hippocrepis*. Bourque (2016, Journal of Paleontology 89: 821-844) elevated this taxon to species status. However, Turtle Taxonomy Working Group (2021, Chelonian Research Monographs (8): 1–472) did not follow that recommendation pending additional research. Hurtado-Gómez et al. (2024, Molecular Phylogenetics and Evolution 197: 1–19) supported

the elevation of *K. s. subrubrum* and *K. s. hippocrepis* (noting a divergence time of more than 11 million years and paraphyly) but stopped short of making that declaration formally.

K. s. subrubrum (Bonnaterre, 1789)—Southeastern Mud Turtle

Previous editions of this list gave (Lacépède, 1788) as the authority. That work was suppressed for nomenclatural purposes by ICZN (2005, Bulletin of Zoological Nomenclature 62: 55) as published in a rejected and invalid non-binomial work and replaced with (Bonnaterre, 1789). Turtle Taxonomy Working Group (2021, Chelonian Research Monographs (8): 1–472 [382]) agreed. Hurtado-Gómez et al. (2024, Molecular Phylogenetics and Evolution 197: 1–19) supported the elevation of *K. s. subrubrum* and *K. s. hippocrepis* (noting a divergence time of more than 11 million years). Still, they stopped short of making that declaration formally.

Lepidochelys Fitzinger, 1843—Ridley Sea Turtles

Hedges et al. (2019, Caribbean Herpetology (67): 1-53) compounded "Sea" and "Turtle(s)" in the English name for all members of this genus. We have followed the traditional English name usage of Turtle Taxonomy Working Group (2021, Chelonian Research Monographs (8): 1–472).

L. kempii (Garman, 1880)—Kemp's Ridley Sea Turtle

L. olivacea (Eschscholtz, 1829)—Olive Ridley Sea Turtle

While not explicitly discussed in the 8th Edition (2017) Flores-Villa et al. (2016, Chelonian Conservation and Biology 15: 57–162) reported that the source of the name *Chelonia olivacea* (now *Lepidochelys olivacea*), previously credited to (Eschscholtz, 1829, Zoologischer Atas, Enthaltend Abbildungen und Beschreibungen neuer Thierarten, während des Flottcapitains v. Kotzebue zweiter Reise um die Welt, auf der russisch-kaiserlichen Kriegsschlupp Predpriaetië in den Jahren 1823–1826. Bei G. Reimer, Berlin, Germany) (published after May 1829), was actually first published in January of that year by Eschscholtz (1829, Quatember 1: 10–18).

Macrochelys Gray, 1856—Alligator Snapping Turtles

"(Gray, 1855)" [Catalogue of shield reptiles in the collection of the British Museum. Part I. Testudinata (Tortoises). Taylor and Francis, London, England] was listed as the authority in previous editions of this list. That publication didn't appear until 8 March 1856 (Webb, 1995, Chelonian Conservation and Biology 1: 322–32). Gray (1856, Proceedings of the Zoological Society of London 1855: 197–202) was published on 5 February 1856 (Webb, *op. cit.*), and therefore has priority.

M. suwanniensis Thomas, Granatosky, Bourque, Krysko, Moler, Gamble, Suarez, Leone, Enge, and Roman, 2014—Suwannee Alligator Snapping Turtle

M. temminckii (Harlan, 1835)—Western Alligator Snapping Turtle

The standard English name is changed from Alligator Snapping Turtle to differentiate it from the Suwannee Alligator Snapping Turtle. Western Alligator Snapping Turtle is in use, e.g., Munscher et al. (2021, Herpetology Notes 14: 985–994) and Turtle Taxonomy Working Group (2021, Chelonian Research Monographs (8): 1–472).

Malaclemys Gray, 1844—Diamondback Terrapins

M. terrapin (Schoepff, 1793)—Diamondback Terrapin

Hart et al. (2014, Conservation Genetics 15: 593–603) and Drabeck et al. (2014, Journal of Herpetology 48: 125–136) examined genetic geographic variation across the range of *M. terrapin*. They both questioned if the current subspecies designations were warranted; however, they made no explicit taxonomic

recommendations. Turtle Taxonomy Working Group (2021, Chelonian Research Monographs (8): 1–472) retained the existing subspecies pending additional studies with more complete geographic sampling. TTWG (*op. cit.*) use "Diamondback" in the standardized English name for *M. terrapin* and all of its subspecies. "Diamondback Terrapin" is used by the IUCN Red List and most conservation organizations (Anders Rhodin, personal communication).

M. t. centrata (Latreille in Sonnini de Manoncourt and Latreille, 1801)—Carolina Diamondback Terrapin

M. t. littoralis (Hay, 1904)—Texas Diamondback Terrapin

M. t. macrospilota (Hay, 1904)—Ornate Diamondback Terrapin

M. t. pileata (Wied-Neuwied, 1865)—Mississippi Diamondback Terrapin

M. t. rhizophorarum Fowler, 1906—Mangrove Diamondback Terrapin

M. t. tequesta Schwartz, 1955—Eastern Florida Diamondback Terrapin

M. t. terrapin (Schoepff, 1793)—Northern Diamondback Terrapin

Pseudemys Gray, 1856—Cooters

P. alabamensis Baur, 1893—Alabama Red-bellied Cooter

P. concinna (LeConte, 1830)—River Cooter

Turtle Taxonomy Working Group (2021, Chelonian Research Monographs (8): 1–472) recognized two subspecies, *Pseudemys c. concinna* and *P. c. suwanniensis*, and treated *P. floridana* as a distinct species.

P. c. concinna (LeConte, 1830)—Eastern River Cooter

P. c. suwanniensis Carr, 1937—Suwannee Cooter

Considered a subspecies of *P. concinna* by Turtle Taxonomy Working Group (2021, Chelonian Research Monographs (8): 1–472)

P. floridana (LeConte, 1830)—Coastal Plain Cooter

Recognized as a species distinct from *P. concinna* by Turtle Taxonomy Working Group (2021, Chelonian Research Monographs (8): 1–472).

P. gorzugi Ward, 1984—Rio Grande Cooter

P. nelsoni Carr, 1938—Florida Red-bellied Cooter

P. peninsularis Carr, 1938—Peninsula Cooter

P. rubriventris (LeConte, 1830)—Northern Red-bellied Cooter

P. texana Baur, 1893—Texas Cooter

Sternotherus Gray, 1825—Musk Turtles

S. carinatus (Gray, 1856)—Razor-backed Musk Turtle

"(Gray, 1855)" [Catalogue of shield reptiles in the collection of the British Museum. Part I. Testudinata (Tortoises). Taylor and Francis, London, England] was listed as the authority in previous editions of this list. That publication didn't appear until 8 March 1856 (Webb, 1995, Chelonian Conservation and Biology 1: 322–32). Gray (1856, Proceedings of the Zoological Society of London 1855: 197–202) was published on 5 February 1856 (Webb, *op. cit.*), and therefore has priority. Based on species-tree and demographic modeling, Scott et al. (2018, Molecular Phylogenetics and Evolution 120: 1–15) found strong support for the recognition of *S. carinatus* as has been previously defined.

S. depressus Tinkle and Webb, 1955—Flattened Musk Turtle

Scott and Rissler (2015, Biological Conservation 192: 294–303) reported a decline in the historical range of *S. depressus* and unidirectional mtDNA introgression from *S. peltifer*. Turtle Taxonomy Working Group (2021, Chelonian Research Monographs (8): 1–472) noted that this hybridization is changing the morphology of *S. depressus* and threatens its continued distinction.

S. intermedius Scott, Glenn, and Rissler, 2018—Intermediate Musk Turtle

Named by Scott et al. (2018, Molecular Phylogenetics and Evolution 120: 1–15) for its historic recognition as a hypothetical "intermediate" form between *S. pel-*

tifer and *S. minor* (e.g., Ernst et al., 1988, The American Midland Naturalist 120: 282–288) and supported by Turtle Taxonomy Working Group (2021, Chelonian Research Monographs (8): 1–472).

S. minor (Agassiz, 1857)—Loggerhead Musk Turtle

Turtle Taxonomy Working Group (2021, Chelonian Research Monographs (8): 1–472) elevated *S. m. peltifer* based on Scott et al. (2018, Molecular Phylogenetics and Evolution 120: 1–15) and recognized no subspecies within *S. minor*.

S. odoratus (Latreille, 1802)—Eastern Musk Turtle

S. peltifer Smith and Glass, 1947—Stripe-necked Musk Turtle

Bourque (2016) suggested the elevation of this taxon to species status based on the work of Iverson et al. (2013, Molecular Phylogenetics and Evolution 69: 929–939) and Bourque and Schubert (2015, Journal of Vertebrate Paleontology 35(doi: 10.1080/02724634.2014.885441)). Additionally, Guyer (2015, Turtles of Alabama. University of Alabama Press) recommended elevating this taxon based on the work of Walker et al. (1995, Molecular Ecology 4: 365–373). Elevated in Turtle Taxonomy Working Group (2021, Chelonian Research Monographs (8): 1–472) based on Scott et al. (2018, Molecular Phylogenetics and Evolution 120: 1–15).

Terrapene Merrem, 1820—American Box Turtles

T. carolina (Linnaeus, 1758)—Eastern Box Turtle

Vitek (2018, PLoS One 13: e0193437) examined the morphometrics, including fossil forms, and found considerable overlap among *Terrapene carolina* (including *T. c. major*), *T. bauri*, and *T. triunguis* such that differences among the taxa were not diagnosable. Martin et al. (2020, Molecular Ecology 29: 4186–4202) and Martin et al. (2021, Molecular Ecology Resources 21: 2801–2817) bolstered their prior work by further refining phylogenetic relationships at taxonomic boundaries. Turtle Taxonomy Working Group (2021, Chelonian Research Monographs (8): 1–472) recognized *T. baurii*, *T. mexicana* (extralimital), *T. triunguis*, and *T. yucatana* (extralimital) as separate species and retained *T. c. major* as a subspecies.

T. c. bauri Taylor, 1895—Florida Box Turtle

Listed as a full species in the prior version of this list, Iverson et al. (2017. Pp. 82–91 in Crother (ed.) Herpetological Circulars (43):1-102). Turtle Taxonomy Working Group (2021, Chelonian Research Monographs (8): 1–472) listed this species as "*T. carolina bauri* (or *T. bauri*)" (pages 183 and 368) following Martin et al. (2021, Molecular Ecology Resources 21: 2801–2817). The authority for this taxon was listed as Taylor, 1894, in previous editions of this list. TTWG (*op. cit.*) listed Taylor (1895, Proceedings of the United States National Museum 17: 573–588) as the authority.

T. c. carolina (Linnaeus, 1758)—Woodland Box Turtle

Kimble et al. (2014, PLoS One 9: e92274) found little range-wide genetic structure range wide. The Appalachian Mountains present a modest barrier to gene flow as evidenced among the 11 microsatellite loci examined.

T. c. major (Agassiz, 1857)—Gulf Coast Box Turtle

Turtle Taxonomy Working Group (2021, Chelonian Research Monographs (8): 1–472) recognized *T. mexicana* (extralimital), *T. triunguis*, and *T. yucata-*

na (extralimital) as separate species, and retained *T. c. major* as a subspecies.

T. ornata (Agassiz, 1857)—Ornate Box Turtle

Martin et al. (2013, Molecular Phylogenetics and Evolution 68: 119–134) found no support for a distinction between subspecies *ornata* and *luteola* and recommended their synonymy. Iverson et al. (2017. Pp. 82–91 in Crother (ed.) Herpetological Circulars (43):1-102) cautiously retained both subspecies pending further geographic and molecular study. Turtle Taxonomy Working Group (2021, Chelonian Research Monographs (8): 1–472) synonymized *luteola* in *ornata;* however, they state that more complete genetic sampling may revise this decision.

T. triunguis (Agassiz, 1857)—Three-toed Box Turtle

Martin et al. (2013, Molecular Phylogenetics and Evolution 68: 119–134) found support for a western (including *triunguis*, *mexicana*, and *yucatana*) and an eastern group (*carolina*, *baurii*, and *major*, plus *coahuila*) within *T. carolina*. They elevated the former to species status (*T. mexicana*, the oldest name) with three subspecies (including *triunguis*). However, Fritz and Havas (2014, Zootaxa (3835): 295–298) argued against the recognition of *mexicana* (including *triunguis*) as a separate species because of demonstrated genetic introgression between *triunguis* and *carolina*. Nevertheless, because of documented interspecific hybridization between many other closely related turtle species, Martin et al. (2014, Zootaxa (3835): 292–294) reaffirmed and bolstered (2020, Molecular Ecology 29: 4186–4202; 2021, Molecular Ecology Resources 21: 2801–2817) their support for recognizing *mexicana* (including *triunguis*) and *carolina* as separate species. Turtle Taxonomy Working Group (2021, Chelonian Research Monographs (8): 1–472) tentatively recognized the Three-toed Box Turtle as a distinct species (*Terrapene triunguis*) (see taxonomic comments on p. 368; account p. 187), rather than a subspecies of either *T. carolina* or *T. mexicana*.

Trachemys Agassiz, 1857—Sliders

Fritz et al. (2024, Vertebrate Zoology 74: 435-452) examined all continental *Trachemys* taxa except for *Trachemys hartwegi* (extralimital) using mitochondrial and nuclear DNA sequences and found that *Trachemys* represents a well-supported monophyletic group.

T. gaigeae (Hartweg, 1939)—Big Bend Slider

Forstner et al. (2014, Proceedings of the Sixth Symposium on the Natural Resources of the Chihuahuan Desert Region) and Parham et al. (2015, Proceedings of the California Academy of Science 62: 359–367) elevated *T. g. hartwegi* (extralimital) to species status based on genetic differences between it and *T. g. gaigeae*. Parham et al. (2015, *op. cit.*) also demonstrated the close relatedness of *T. hartwegi* to *T. taylori* and *T. venustus*. Turtle Taxonomy Working Group (2021, Chelonian Research Monographs (8): 1–472) accepted this arrangement.

T. scripta (Thunberg in Schoepff, 1792)—Pond Slider

Hedges et al. (2019, Caribbean Herpetology (67): 1-53) used the English name "Pondslider". We have followed the traditional English name usage of Turtle Taxonomy Working Group (2021, Chelonian Research Monographs (8): 1–472).

T. s. elegans (Wied, 1838)—Red-eared Slider

T. s. scripta (Thunberg in Schoepff, 1792)—Yellow-bellied Slider

T. s. troostii (Holbrook, 1836)—Cumberland Slider

Established Exotic Species

Kenneth Krysko[1] (Chair) and Travis W. Taggart[2]

[1] Florida Museum of Natural History, University of Florida, Department of Natural Science, St. Petersburg College, Clearwater Campus, Clearwater, FL
[2] Sternberg Museum of Natural History, Fort Hays State University, Hays, KS 67601

Introduced species are organisms that are, with the aid of humans, transported or travel to new areas where they are not native. Once an introduced species begins to reproduce in its nonnative environment, it is considered established. Most introduced species do not become established nor invasive. Although some researchers prefer not to use the term invasive (Colautti and MacIsaac. 2004. Diversity and Distributions 10: 135-141), an invasive species is defined as an established introduced species that has 1) invaded or spread a considerable distance from its original introduction site, or 2) caused harm to either the environment, economy, or human health (Executive Order 13112, Invasive Species Advisory Committee. 2006. Available at https://www.invasivespeciesinfo.gov/invasive-species-definition-clarification-and-guidance; Kraus. 2009. Alien Reptiles and Amphibians: A Scientific Compendium and Analysis. SpringerVerlag, Heidelberg, Germany; Krysko et al. 2011. Zootaxa (3028): 1-64).

In this edition, we provide a list of established introduced species in the United States. It is beyond the scope of this work to include native species in the United States that have also established nonnative populations in the United States; a more extensive list has been provided by Kraus (2009. *op. cit.*) and Krysko et al. (2016. Reptiles and Amphibians. 23: 110-143).

Established Exotic Species - Anurans

Dendrobates Wagler, 1830—Poison Dart Frogs

D. auratus (Girard, 1855)—Green-and-black Poison Dart Frog

Native to southern Nicaragua, south to Colombia. It is established in the canyons above Honolulu, O'ahu, Hawai'i (McKeown, 1996, Diamond Head Publishing, Incorporated, Los Osos, California).

Eleutherodactylus Duméril and Bibron, 1841—Rain Frogs

The English name Caribbean and Mexican Landfrogs is used by Hedges et al. (2019, Caribbean Herpetology (67): 1–53).

E. coqui Thomas, 1966—Coquí

Native to Puerto Rico. It was introduced to Connecticut (Beard and Pitt. 2005, Diversity and Distributions 2005: 427–433), Florida (Austin and Schwartz 1975, Copeia 1975: 188), and Louisiana (Schwartz, and Henderson. 1988, Milwaukee Public Museum Contributions in Biology and Geology 74: 1–264; Kraus, 2009, Alien Reptiles and Amphibians: A Scientific Compendium and Analysis. SpringerVerlag, Heidelberg, Germany). It is established in California (Beard and Pitt. 2005, *op. cit.*; Kraus. 2009, *op. cit.*) and Hawai'i (islands of Hawai'i, Kaua'i, Maui, and O'ahu; McKeown. 1996, A Field Guide to Reptiles and Amphibians in the Hawaiian Islands. Diamond Head Publishing, Inc., Los Osos, California). In California, it was originally introduced in a plant nursery in San Diego County (Beard and Pitt. 2005, Diversity and Distributions 2005: 427–433; Erikson and Weston 2019, Bulletin of the Southern California Acad-

emy of Sciences 118: 76–78). It is unknown if individuals in California are reproducing in the wild or being replenished by the tropical plant trade. The English name Puerto Rican Coqui is used by Hedges et al. (2019, Caribbean Herpetology (67): 1–53).

E. planirostris (Cope, 1862)—Greenhouse Frog

Native to Cuba and the Isla de Juventud, Grand Cayman and Cayman Brac, and Little Bahama Bank. It is established in southern Alabama (Carey, 1982, Herpetological Review 13: 130; Kraus, 2009, Alien Reptiles and Amphibians: A Scientific Compendium and Analysis. SpringerVerlag, Heidelberg, Germany), Florida (Cope, 1863, Proceedings of the Academy of Natural Sciences of Philadelphia 15: 43–54; Neil, 1951, The Florida Naturalist 24: 61–66; Dalrymple, 1994, Non-indigenous amphibians and reptiles. Pages in 72–86, An assessment of invasive non-indigenous species in Florida's public land. Technical Report No. TSs-94–100. Florida Department of Environmental Protection, Tallahassee, Florida; Krysko et al., 2011, Zootaxa 3028: 1–64), southern Georgia (Jensen, 2008, Greenhouse frog. *Eleutherodactylus* (*Euhyas*) *planirostris*. Pages 92–93 in Amphibians and Reptiles of Georgia. University of Georgia Press, Athens), Hawai'i (Kraus et al., 1999, Herpetological Review 30: 21–25; Kraus and Campbell, 2002, Biological Invasions 4: 327–332), southern Louisiana (Dundee and Rossman, 1989, The Amphibians and Reptiles of Louisiana. Louisiana State University Press, Baton Rouge, Louisiana; Boundy and Carr, 2017, Amphibians and Reptiles of Louisiana: An Identification and Reference Guide Louisiana State University Press, Baton Rouge, Louisiana), Mississippi (Dinsmore, 2004, Herpetological Review 35: 403), southern South Carolina (Dillman and Gibbons, 2016, Herpetological Review 47: 76–77), and southeastern Texas (Simpson et al., 2019, Herpetological Review 50: 96). The English name Cuban Flat-headed Frog is used by Powell et al. (2016, Peterson Field Guide to Reptiles and Amphibians of Eastern and Central North America. Houghton Mifflin Harcourt, Boston) and Hedges et al. (2019, Caribbean Herpetology (67): 1–53).

Glandirana Fei, Ye, and Huang, 1990—Wrinkled Frogs

G. rugosa (Temminck and Schlegel, 1838)—Japanese Wrinkled Frog

Native to Japan. It was introduced as a biological control in 1876 and is established in Hawai'i (islands of Hawai'i, Kaua'i, Maui, and O'ahu) (McKeown 1996, Field Guide to Reptiles and Amphibians in the Hawaiian Islands. Diamond Head Publishing, Incorporated, Los Osos, California).

Osteopilus Fitzinger, 1843—West Indian Treefrogs

The English name North Caribbean Treefrogs is used by Hedges et al. (2019, Caribbean Herpetology (67): 1–53).

O. septentrionalis (Duméril and Bibron, 1841)—Cuban Treefrog

Native to The Bahamas, Cayman Islands, Cuba, and Virgin Islands. It was first observed during the 1920s on Key West, Florida, where it likely arrived as a stowaway in shipping containers and is now established throughout Florida (Barbour, 1931, Copeia 1931: 140; Allen and Neil, 1953, Copeia 1953: 127–128; Enge, 2019, *Osteopilus septentrionalis*. Pages 171–174 in Krysko et al. (Editors). Amphibians and reptiles of Florida. University of Florida Press, Gainesville, Florida), north along the Atlantic coast to Savannah, Georgia (Johnson, 2007, Herpetological Review 38: 349), and in New Orleans, Louisiana (Glorioso et al., 2018, Biological Invasions 20: 2707–271). Meshaka et al. (2022, Exotic Amphibians and Reptiles of the United States. University Press of Florida, Gainesville, Florida) speculated that it may have been native to Key West.

Rhinella Fitzinger, 1826—South American Toads

R. marina (Linnaeus, 1758)—South American Cane Toad

Native to northern South America east of the Andes (Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Peru, Suriname, Trinidad and Tobago, and Venezuela). The history of the introduction of this species complex (all treated as *R. marina*) into the United States is detailed by many authors (Lobdell, 1936, Pages 123–124 in Annual Report for the Fiscal Year Ending June 30, 1936, Agricultural Experiment Station, University of Florida, Gainesville, Florida; Neil, 1957, Bulletin of the Florida State Museum, Biological Series 2: 175–220; Riemer, 1959, Quarterly Journal of the Florida Academy of Sciences 21: 207–211; King and Krakauer, 1966, Quarterly Journal of the Florida Academy of Sciences 29: 144–154; Easteal, 1981, Biological Journal of the Linnean Society 16: 93–113; Krysko 2019, *Rhinella marina*. Pages 144–146 in Krysko et al. (Editors). Amphibians and reptiles of Florida. University of Florida Press, Gainesville, Florida). Building upon prior studies (Slade and Craig, 1998, Proceedings of the Royal Society of London B. 265: 769–777; Vallinoto et al., 2010, Zoologica Scripta 39: 128–140), Acevedo (2016, Zootaxa 4103: 574–586), provided formal names for the lineages east (*R. marina*) and west (*R. horribilis*) of the Andes. In a range-wide genetic analysis, Mittan-Moreau et al. (2022, Molecular Ecology 31: 6440–6456) found that their samples from central (Tampa, Hillsborough County and Lakeland, Polk County) and southern (Miami, Miami-Dade County) Florida were *R. horribilis* (monophyletic and sister to a clade from Panama and Texas). They found no evidence that the many purported introductions of *R. marina* lineages (from the Guianas and Puerto Rico) into Florida persist but that the imported toads from Colombia (King and Krakauer, *op. cit.*) do. Many areas in Florida remain unsampled to determine if *R. marina* occurs in Florida. The species is established in Hawai'i (islands of Hawai'i, Kaua'i, Lana'i, Moloka'i, Maui, and O'ahu; McKeown, 1996, Diamond Head Publishing, Incorporated, Los Osos, California; Mittan-Moreau et al. (*op. cit.*).

Xenopus Wagler, 1827—Clawed Frogs

X. laevis (Daudin, 1802)—African Clawed Frog

Native to sub-Saharan Africa, including Angola, Botswana, Democratic Republic of the Congo, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Zambia, and Zimbabwe. It is established at a golf course in Tucson, Arizona (Dodd, 2023, Frogs of the United States and Canada. Second Edition. John Hopkins University Press, Baltimore, Maryland); in several counties in California (Bury and Luckenbach, 1976, Biological Conservation 10: 1–14; St. Amant et al., 1973, California Fish and Game 59: 151–153); and in King, Snohomish, and Thurston counties, Washington (Ojala-Barbour et al., 2021, African Clawed Frog (*Xenopus laevi*s) Risk Assessment, Strategic Plan, and Past Management for Washington State Department of Fish and Wildlife. Washington Department of Fish and Wildlife, Olympia, Washington). It was introduced after the intentional release of ~200 individuals in a canal in Hialeah, Miami-Dade County, Florida, in 1964, but no frogs were found at this site thereafter (King and Krakauer, 1966, Quarterly Journal of the Florida Academy of Sciences 29: 144–154). An adult female was collected in a retention pond in Titusville, Brevard County, Florida in 2010 (Krysko et al., 2011, Zootaxa 3028: 1–64), and another frog was found in Homestead, Miami-Dade County in 2014 (Somma and Krysko, 2019, *Xenopus laevis*. Pages 210–212 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida). It was initially believed that the established population in Riverview, Hillsborough County, Florida was *X. laevis* (Hill et al., 2017, BioInvasions Records 6: 87–94; Krysko et al., 2016, Reptiles & Amphibians. 23: 110–143; Somma and Krysko, *op. cit.*; Meshaka et al., 2022, Exotic Amphibians and Reptiles of the United States. University of Florida Press, Gainesville, Flori-

da) until it was concluded to be *X. tropicalis* (Goodman et al., 2021, Journal of Herpetology 55: 62–69).

X. tropicalis (Gray, 1864)—Tropical Clawed Frog

Newly listed species. Native to the coastal regions of southern western Africa from Gabon, west through Equatorial Guinea, Cameroon, Nigeria, Benin, Togo, Ghana, Cote D'Ivoire, Mali, Liberia, Sierra Leone, Guinea, and Senegal. Evans et al. (2015, PLoS One, 10: e0142823) revised the genus to such an extent that it leaves doubt on all prior species assignments. During the mid-1970s, a *Xenopus* was collected among a large complex of active and abandoned tropical fish breeding ponds in Riverview, Hillsborough County, Florida; between 2013 and 2016, four adults were collected on residential properties adjacent to the fishponds (Krysko et al., 2016, Reptiles & Amphibians. 23: 110–143; Somma and Krysko, 2019, *Xenopus laevis*. Pages 210–212 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida). In 2016, >10,000 tadpoles and metamorphs were collected in a nearby retention pond (Hill et al., 2017, BioInvasions Records 6: 87–94; Somma and Krysko. *op. cit.*). It was initially believed that the established population in Riverview was *X. laevis* (Hill et al., *op. cit.*; Krysko et al., *op. cit.*; Somma and Krysko, *op. cit.*; Meshaka et al., 2022, Exotic Amphibians and Reptiles of the United States. University of Florida Press, Gainesville, Florida) until it was concluded to be *X. tropicalis* (Goodman et al., 2021, Journal of Herpetology 55: 62–69).

Established Exotic Species - Caecilians

Typhlonectes Peters, 1880—Aquatic Caecilians

T. natans (Fischer in Peters, 1880)—Rio Cauca Caecilian

Newly listed species. Native to the Cauca River and Magdalena River drainage systems in western and northern Colombia and around the Maracaibo River Basin in northwestern Venezuela. It has been introduced via the pet trade in Miami, Miami-Dade County, Florida. A single specimen was found in 2019 in the extensive waterways of the Tamiami Canal (C–4) just south of the Miami International Airport (Sheehy et al., 2021, Reptiles & Amphibians 28: 355–357). Between 2019 and 2024, at least 110 specimens have been vouchered from five localities (dispersed over 10.5 km) in Miami-Dade County (Florida Museum of Natural History [FLMNH] 190000, 192195–6, 192311–40, 192401–48, 193493–507, 193948, 194665–8, 194670–8).

Established Exotic Species - Crocodilians

Caiman Spix, 1825—Caimans

C. crocodilus (Linnaeus, 1758)—Spectacled Caiman

Native to southern Mexico south into the Amazon basin in Peru, northern Bolivia, and Brazil. It was introduced via the pet trade ca. 1960 and is established in drainage canals at the Homestead Air Reserve Base, Miami-Dade County, Florida (Ellis, 1980, Copeia 1980: 152–154). It now has established populations throughout The Everglades in Miami-Dade and Monroe counties, north to Brevard County (Rochford et al., 2019, *Caiman crocodilus*. Pages 306–308 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida).

Established Exotic Species – Squamata (excluding snakes) - Lizards

Acanthodactylus Wiegmann, 1834—Fringe-fingered Lizards

A. boskianus (Daudin, 1802)—Bosc's Fringe-toed Lizard

Newly listed species. Native to northern Africa and the Arabian Peninsula. It is

established in a small area of coastal Ventura County, California, by October 2023 (Hansen and Shedd. 2025, California Amphibians and Reptiles. Princeton University Press. 520 pp) (Los Angeles County Museum [LACM] 195828; California State University, Northridge [CSUN] 4259, 5831). An effort is underway to eradicate the species before it spreads further (Robert N. Fisher, USGS, San Diego, California, personal communication).

Agama Daudin, 1802—Agamas

A. picticauda Peters, 1877—Peters's Rock Agama

Native to western Africa. It was introduced to Georgia (Brennan et al., 2022, Herpetological Review 53: 272–273) and is established in Florida (Enge et al., 2004, Florida Scientist 67: 303–310). It was first introduced in Florida during the 1970s (Wilson and Porras, 1983, University of Kansas Museum of Natural History, Special Publication No. 9, Lawrence), but this population was extirpated. It was subsequently introduced via the pet trade and became established in many areas in peninsular Florida and the Florida Keys (Enge et al., 2004, *op. cit.*; Enge et al., 2019, *Agama picticauda*. Pages 350–352 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida). Earlier confusion about the taxonomy of these lizards in Florida was resolved by Nuñez et al. (2016, Bulletin of the Florida Museum of Natural History 9: 138–146).

Ameiva Meyer, 1795—Ameivas

The English name South American Ameivas is used by Hedges et al. (2019, Caribbean Herpetology (67): 1–53).

A. ameiva (Linnaeus, 1758)—Giant Ameiva

Native to Brazil north to Venezuela and the Lesser Antilles. It was introduced via the pet trade in 1954 and is established in Miami, Miami-Dade County, Florida (Neil, 1957, Bulletin of the Florida State Museum, Biological Sciences 2: 175–220; Duellman and Schwartz, 1958, Bulletin of the Florida State Museum, Biological Sciences 3: 181–324; King and Krakauer, 1966, Quarterly Journal of the Florida Academy of Sciences 29: 144–154; Crowder, 1974, The exotic vertebrates of south Florida. South Florida Environmental Project Ecological Report No. DI–SFEP–74–30. U.S. Department of the Interior, Bureau of Sport Fisheries and Wildlife Pb-235 214, Atlanta, Georgia, USA. 45pp). It has since been found in Broward, Collier, and Monroe counties (Krysko, 2019, *Ameiva ameiva ameiva*. Pages 425–426 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida). Earlier confusion about the taxonomy of these lizards (Wilson and Porras, 1983, The Ecological Impact of Man on the South Florida Herpetofauna. University of Kansas Museum of Natural History, Special Publication 9: i–vi + 1–89) has been resolved by Ugueto and Harvey (2011, Herpetological Monographs. 25: 113–170). The English name Neotropical Ameiva is used by Hedges et al. (2019, Caribbean Herpetology (67): 1–53).

A. praesignis (Baird and Girard, 1852)—Dusky Giant Ameiva

Native to Costa Rica south to Colombia and Venezuela. It was introduced prior to 1979 and is established at the Crandon Park Zoo on Key Biscayne, Miami-Dade County, Florida (Wilson and Porras, 1983, The Ecological Impact of Man on the South Florida Herpetofauna. University of Kansas Museum of Natural History, Special Publication 9: i–vi + 1–89; Krysko et al., 2010, Herpetological Conservation and Biology 5: 132–142; Krysko, 2019, *Ameiva praesignis*. Pages 427–428 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida). Earlier confusion about the taxonomy of these lizards (Wilson and Porras, 1983, *op. cit.*) has been resolved by Ugueto and Harvey (2011, Herpetological Monographs. 25: 113–170).

Anolis Daudin, 1802—Anoles

Poe et al. (2017, Systematic Biology 66: 663–697) presented a revised taxonomy of anoles following the principles of phylogenetic nomenclature (e.g., Cantino and de Queiroz, 2020, International Code of Phylogenetic Nomenclature, CRC Press, Boca Raton), which is followed here. See Nicholson et al. (2018, Zootaxa 4461: 573–586) for a rank-based alternative. The English name Typical Anoles is used by Hedges et al. (2019, Caribbean Herpetology (67): 1–53).

A. (Ctenocercus) allisoni Barbour, 1928—Cuban Blue Anole

Newly listed species. Native to Belize, Cuba, Honduras, and southeastern Mexico. It was introduced via the pet trade prior to 2013 in Tampa, Hillsborough Co., Florida (Krysko et al., 2015, Reptiles & Amphibians: Conservation and Natural History 22: 128–131) and is established in Naples, Collier County (Donini and Allman, 2017, Herpetological Review 48: 587–588; Krysko et al., 2019, *Anolis allisoni*. Pages 364–366 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida). Use of the subgeneric name follows Poe et al. (2017, Systematic Biology 66: 663–697).

A. (Deiroptyx) chlorocyanus Duméril and Bibron, 1837—Hispaniolan Green Anole

Native to Hispaniola, it was first introduced via the pet trade in 1986 in Port Mayaca, Martin County, Florida (Camposano and Krysko, 2019, *Anolis chlorocyanus*. Pages 369–370 in Krysko et al. (Editors). Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida). It is also established in Parkland, Broward (Moler, 1988, A Checklist of Florida's Amphibians and Reptiles. Florida Game and Freshwater Fish Commission, Nongame Wildlife Program, Tallahassee; Butterfield et al., 1994, Herpetological Review 25: 77–78; Kolbe et al., 2007, Conservation Biology 21: 1612–1625) and West Palm Beach, Palm Beach (Camposano et al., 2009, Herpetological Review 40: 363–364; Camposano and Krysko, 2019, *op. cit.*) counties. Previously established populations in Martin (Camposano and Krysko, 2019, *op. cit.*) and Miami-Dade (Bartlett, 1988, In Search of Reptiles. E. J. Brill, New York, New York; Meshaka et al., 2004, The Exotic Amphibians and Reptiles of Florida. Krieger Publishing Company, Melbourne, Florida) counties in Florida have been extirpated. Use of the subgeneric name follows Poe et al. (2017, Systematic Biology 66: 663–697). The English name Dominican Green Anole is used by Hedges et al. (2019, Caribbean Herpetology (67): 1–53).

A. (Ctenonotus) cristatellus Duméril and Bibron, 1837—Crested Anole

Native to Puerto Rico (including many offshore islands), Dominica, and the British and United States Virgin Islands. It was introduced in Highlands County, Florida (Lawson, et al., 2019, Herpetological Review 50: 524) and is established in Broward, Miami-Dade, and Monroe counties in Florida (Brach, 1977, Copeia 1977: 184–185; Camposano and Krysko, 2019, *Anolis cristatellus*. Pages 370–372 in Krysko et al. (Editors). Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida). Use of the subgeneric name follows Poe et al. (2017, Systematic Biology 66: 663–697). The English name Puerto Rican Crested Anole is used by Hedges et al. (2019, Caribbean Herpetology (67): 1–53).

A. (Ctenonotus) c. cristatellus Duméril and Bibron, 1837—Puerto Rican Crested Anole

Native to Puerto Rico (including many offshore islands). It was first introduced and became established on Key Biscayne, Miami-Dade County, Florida in 1975 (Schwartz and Thomas, 1975, Carnegie Museum of Natural History, Special Publication 1: 1–216) and has since been found in other areas in Miami-Dade, Broward, and Monroe counties (Brach, 1977, Copeia 1977: 184–185; Wilson and Porras, 1983, University of Kansas Museum of Natural History, Special Publication No. 9, Lawrence; Schwartz and Henderson, 1988, Milwaukee Public Museum Contributions in Biology and Geology 74: 1–264; Schwartz and Henderson,

1991, Amphibians and Reptiles of the West Indies. University of Florida Press, Gainesville, Florida; Meshaka et al., 2004, The Exotic Amphibians and Reptiles of Florida. Krieger Publishing Company, Melbourne, Florida; Krysko et al., 2010, Herpetological Conservation and Biology 5: 132–142; Camposano, 2011, M.S. thesis, University of Florida, Gainesville; Camposano and Krysko, 2019, *Anolis cristatellus*. Pages 370–372 in Krysko et al. (Editors). Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida). Kolbe et al. (2007, Conservation Biology 21: 1612–1625) suggested that Florida populations originated from at least two localities in Puerto Rico.

A. (Audantia) cybotes Cope, 1862—Large-headed Anole

Native to Hispaniola. It was first intentionally introduced prior to 1965 in Sunset Park, Miami-Dade County, Florida, but these individuals did not establish (King and Krakauer, 1966, Quarterly Journal of the Florida Academy of Sciences 29: 144–154). It was subsequently introduced at a residence in Miami, Miami-Dade County in 1967 (Ober, 1973, HISS News Journal 1: 99); in Port Mayaca, Martin County in 1986 (Camposano and Krysko, 2019, *Anolis cybotes cybotes*. Pages 372–373 in Krysko et al. (Editors). Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida), and Parkland, Broward County in the 1980s (Butterfield et al., 1994, Herpetological Review 25: 77–78). Wilson and Porras (1983, University of Kansas Museum of Natural History, Special Publication No. 9, Lawrence) found this species at the Miami residence site (Ober, 1973, *op. cit.*), but no individuals were found during visits in 2001 and 2008 (Camposano and Krysko, 2019, *op. cit.*). Genetic data of individuals from Parkland, Broward County and Port Mayaca, Martin County suggest two Use of the subgeneric name follows Poe et al. (2017, Systematic Biology 66: 663–697). The English name Hispaniolan Stout Anole is used by Hedges et al. (2019, Caribbean Herpetology (67): 1–53).

A. (Audantia) c. cybotes Cope, 1862—Common Large-headed Anole

The Miami-Dade County, Florida population was identified as *A. c. cybotes* (Schwartz and Henderson, 1988, Milwaukee Public Museum Contributions in Biology and Geology 74: 1–264) and this taxonomy was followed for populations in Broward and Martin counties (Camposano and Krysko, 2019, *Anolis cybotes cybotes*. Pages 372–373 in Krysko et al. (Editors). Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida). The English name Hispaniolan Stout Anole is used by Meshaka et al. (2022, Exotic Amphibians and Reptiles of the United States. University of Florida Press, Gainesville, Florida).

A. (Ctenonotus) distichus Cope, 1861—Bark Anole

Native to Hispaniola and The Bahamas. It was introduced in Colorado and is established in Florida (Kraus, 2009, Alien Reptiles and Amphibians: A Scientific Compendium and Analysis. SpringerVerlag, Heidelberg, Germany). It was first found in Brickell Park, Miami-Dade County, Florida in the 1940s (Smith and McCauley, 1948, Proceedings of the Biological Society of Washington 61: 159–166), where it was likely introduced as a stowaway in cargo (King and Krakauer, 1966, Quarterly Journal of the Florida Academy of Sciences 29: 144–154; Krysko et al., 2011, Zootaxa 3028: 1–64). It has since been introduced Broward, Collier, Lee, Martin, Monroe, and Palm Beach counties, Florida (Camposano and Krysko, 2019, *Anolis distichus*. Pages 373–375 in Krysko et al. (Editors). Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida). Smith and McCauley (1948, *op.cit.*) described *A. d. floridanus* based on morphological differences between specimens from Miami and those from The Bahamas and Hispaniola. Schwartz (1968, Bulletin of the Museum of Comparative Zoology 137: 255–310) confirmed these differences and suggested that *A. d. floridanus* colonized Florida recently, either by natural dispersal or human introduction, and that the Bimini chain (*A. d. biminiensis*) and Andros Island (*A. d. distichoides*) represented the

most likely sources. Beckles (2020, Ph.D. dissertation. University of Miami, Coral Gables, Florida) found that some *A. distichus* mtDNA haplotypes from Florida are most similar to Hispaniolan haplotypes, while others, although most similar to Bahamian haplotypes, are divergent from them, suggesting another, possibly natural, colonization of Florida from The Bahamas and a more recent introduction from Hispaniola. Extant populations show evidence of hybridization between introduced *A. d. dominicensis* [now *A. dominicensis* (Glor and Laport, 2012, Molecular Phylogenetics and Evolution 64: 255–260) and *A. d. floridanus* (Miyamoto et al., 1986, Copeia 1986: 76–86)], but the origin of the other form is currently unknown. A detailed study of genetic variation in *A. distichus*, similar to that done for *A. sagrei* (Kolbe et al., 2004, Nature 431: 177–18) would help to resolve this issue. Use of the subgeneric name follows Poe et al. (2017, Systematic Biology 66: 663–697). The English name North Caribbean Bark Anole is used by Hedges et al. (2019, Caribbean Herpetology (67): 1–53).

A. (Ctenonotus) d. floridanus Smith and McCauley, 1948—Florida Bark Anole

Schwartz (1968, Bulletin of the Museum of Comparative Zoology 137: 255–310) discussed hypotheses concerning the occurrence of *Anolis distichus floridanus* in Florida and suggested that this taxon was most likely introduced from Andros Island, The Bahamas; nevertheless, Wilson and Porras (1983, University of Kansas Museum of Natural History, Special Publication No. 9, Lawrence) considered it a native component of the Florida herpetofauna. Although specimens of *A. d. floridanus* examined by Schwartz (*op. cit.*) were distinguishable from those of *A. d. dominicensis* (now, *A. dominicensis* [Glor and Laport, 2012, Molecular Phylogenetics and Evolution 64: 255–260), more recent samples from Florida form a continuum, suggesting intergradation between the two subspecies (Miyamoto et al., 1986, Copeia 1986: 76–86).

A. (Ctenonotus) dominicensis Reinhardt and Lütken, 1862—Green Bark Anole

A new species to the list, formerly listed as *Anolis distichus dominicensis*. Native to Haiti and the Dominican Republic. Elevated to specific status by Glor and Laport (2012, Molecular Phylogenetics and Evolution 64: 255–260). It was introduced in Miami, Miami-Dade County, Florida (King and Krakauer, 1966, Quarterly Journal of the Florida Academy of Sciences 29: 144–154; Wilson and Porras, 1983, University of Kansas Museum of Natural History, Special Publication No. 9, Lawrence). Another form, *Anolis distichus ignigularis* (now *A. ignigularis* (Glor and Laport, 2012, Molecular Phylogenetics and Evolution 64: 255–260), was introduced to Miami-Dade County (King and Krakauer, *op. cit.*; Schwartz and Henderson, 1988, Milwaukee Public Museum Contributions in Biology and Geology 74: 1–264; 1991, Amphibians and Reptiles of the West Indies. University of Florida Press, Gainesville, Florida); however, according to Wilson and Porras (*op. cit.*), this population is no longer extant. Hybridization appears to have occurred between *A. dominicensis* and *A. distichus floridanus* (Miyamoto et al., 1986, Copeia 1986: 76–86; see comment under *A. d. floridanus*). Use of the subgeneric name follows Poe et al. (2017, Systematic Biology 66: 663–697).

A. (Deiroptyx) equestris Merrem, 1820—Knight Anole

Native to Cuba. It was introduced to Oah'u, Hawai'i (McKeown, 1996, A Field Guide to Reptiles and Amphibians in the Hawaiian Islands. Diamond Head Publishing, Incorporated, Los Osos, California; Lazell and McKeown, 1998, Bulletin of the Chicago Herpetological Society 33: 181) and is established in Florida (Camposano and Krysko, 2019, *Anolis equestris equestris*. Pages 375–377 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida). It was first introduced in Florida at the University of Miami's old North Campus in Coral Gables, Miami-Dade County, Florida in 1952

(Neill, 1957, Bulletin of the Florida State Museum, Biological Series 2: 175–220; King and Krakauer, 1966, Quarterly Journal of the Florida Academy of Sciences 29: 144–154; Camposano and Krysko, 2019, *op. cit.*). It was subsequently introduced to many other areas from Key West, Monroe County north to St. Augustine, St. Johns County, Florida (Brown, 1972, Florida Naturalist 45: 130; Brach, 1976, Copeia 1976: 187–189; Dalrymple, 1980, Journal of Herpetology 14: 412–415; Wilson and Porras, 1983, University of Kansas Museum of Natural History, Special Publication No. 9, Lawrence; Camposano and Krysko, 2019, *op. cit.*). Genetic data from Florida specimens suggest two different native range origins in Cuba (Kolbe et al., 2007, Conservation Biology 21: 1612–1625). Use of the subgeneric name follows Poe et al. (2017, Systematic Biology 66: 663–697). The English name Cuban Giant Anole is used by Hedges et al. (2019, Caribbean Herpetology (67): 1–53).

A. (Deiroptyx) e. equestris Merrem, 1820—Western Knight Anole
The nominate subspecific identification for Florida populations was determined by Schwartz and Henderson (1988, Milwaukee Public Museum Contributions in Biology and Geology 74: 1–264; 1991, Amphibians and Reptiles of the West Indies. University of Florida Press, Gainesville, Florida); that for the Hawaiian population was given by Lazell and McKeown (1998, Bulletin of the Chicago Herpetological Society 33: 181).

A. (Placopsis) garmani Stejneger, 1899—Jamaican Giant Anole
Native to Jamaica. It was introduced via the pet trade prior to 1975 and is established in Miami, Miami-Dade County, Florida (Wilson and Porras, 1983, University of Kansas Special Publication : 1–89; Krysko, 2019, *Anolis garmani*. Pages 377–379 in Krysko et al. (Editors). Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida). Use of the subgeneric name follows Poe et al. (2017, Systematic Biology 66: 663–697).

A. (Ctenocercus) porcatus Gray, 1840—Cuban Green Anole
Native to Cuba. It was first reported in the Florida Keys (Barbour, 1904, Bulletin of the Museum of Comparative Zoology 46: 55—61) where it was likely introduced as a stowaway in cargo (Krysko et al., 2011, Zootaxa 3028: 1–64). It was subsequently found on the southern Florida mainland (see Meshaka et al. 1997, Herpetological Review 28: 101–102; Wegener et al., 2019, Ecology and Evolution 9: 4138–4148). Despite its genetic material being confirmed in Miami, Miami-Dade County (Kolbe et al., 2007, Conservation Biology 21: 1612–1625), its genome in Florida is likely at very low abundance (Krysko et al., 2011, *op. cit.*). Because there is no current evidence that the species is established (Kolbe et al., 2007, Conservation Biology 21: 1612–1625) and it cannot be distinguished morphologically from the native *A. carolinensis* that it readily hybridizes with (Camposano, 2011, M.S. thesis, University of Florida, Gainesville), *A. porcatus* is not treated as an established nonnative species in Florida (Krysko and Alfonso, 2019, *Anolis carolinensis* and *Anolis porcatus*. Pages 367–368 in Krysko et al. (Editors). Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida). Use of the subgeneric name follows Poe et al. (2017, Systematic Biology 66: 663–697).

A. (Trachypilus) sagrei Dumeril and Bibron, 1837—Brown Anole
Native to the Cayman Islands, Cuba and The Bahamas. It was first introduced prior to 1887 in the Florida Keys, Monroe County, Florida (Garman, 1887, Bulletin of the Essex Institute 19: 1–50), where it was likely introduced as a stowaway in cargo (Krysko et al., 2011, Zootaxa 3028: 1–64).It has since established throughout all of Florida (Campbell, 2003, Herpetological Review 34: 173–174; Krysko, 2019, *Anolis sagrei sagrei*. Pages 379–382 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida). It was introduced in 13 other states (Kraus, 2009, Alien Reptiles and Amphibi-

ans: A Scientific Compendium and Analysis. SpringerVerlag, Heidelberg, Germany) and is established in Alabama (Steffen and Birkhead, 2007, Herpetological Review 38: 353; Guyer et al., 2019, University of Alabama Press, Tuscaloosa, Alabama), California (Mahrdt et al., 2014, Herpetological Review 45: 658–659; Fisher et al., 2020, PeerJ 8(e8937): 1–12), Georgia (Campbell and Hammontree, 1995, Herpetological Review 26: 107), Hawai'i (Kishinami and Kishinami, 1996, Bishop Museum Occasional Papers 46: 45–46), Louisiana (Thomas et al., 1990, Herpetological Review 21: 22), North Carolina (Bean, 2019, Herpetological Review 50: 538–542) and Texas (King et al., 1987, Texas Journal of Science 39: 289–290; Dixon, 2000, Amphibians and Reptiles of Texas: With Keys, Taxonomic Synopses, Bibliography, and Distribution Maps). Reports from many southern states require confirmation of establishment. Poe et al. (2017, Systematic Biology 66: 663–697) consider *ordinatus* and *greyi* synonyms of *sagrei*. Nicholson et al. (2018, Zootaxa 4461: 573–586) does not list *mayensis* but does recognize *A. s. greyi* and *A. ordinatus*. All invasive populations (in Florida) show evidence of hybridization among native-range lineages (Bock et al., 2021, Proceedings of the National Academy of Sciences (PNAS) 118: 1–10). Introduced individuals have most commonly been reported as *A. s. sagrei*, however, Kolbe et al. (2004, Nature 431: 177–181; 2007, Conservation Biology 21: 1612–1625) identified the sources of Florida populations as having native range origins from eastern and western Cuba, as well as The Bahamas; therefore *A. s. greyi*, *A. s. ordinatus*, and *A. s. sagrei* may all be involved, and more research is needed. Use of the subgeneric name follows Poe et al., (*op. cit.*). The English name Cuban Brown Anole is used by Hedges et al. (2019, Caribbean Herpetology (67): 1–53).

A. (Trachypilus) s. sagrei Dumeril and Bibron, 1837—Cuban Brown Anole

According to Conant and Collins (1991, Reptiles and Amphibians of Eastern and Central North America, Houghton Mifflin Co.), two subspecies, *A. s. sagrei* and *A. s. ordinatus* were introduced to southern Florida, but they can no longer be distinguished from one another and are a mixture of both original subspecific taxa. Lee (1992, Copeia 1992: 942–954) presented evidence that the Florida populations bear a much stronger phenotypic resemblance to populations from Cuba (*A. s. sagrei*) than to those from The Bahamas (*A. s. ordinatus*). Kolbe et al. (2004, Nature 431: 177–181) suggested that multiple introductions of this species occurred from Cuba to Florida, which suggests that *A. s. greyi* may also have been involved.

A. (Dactyloa) trinitatis Reinhardt and Lütken, 1862—St. Vincent Bush Anole

Native to St. Vincent, many coastal cays, and Chateaubelair Island, Lesser Antilles. It was introduced via the pet trade in 2004 and is established in Miami Beach, Miami-Dade County, Florida (Krysko et al., 2011, Zootaxa 3028: 1–64; Krysko, 2019, *Anolis trinitatis*. Pages 382–383 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida). Not listed in Meshaka et al. (2022, Exotic Amphibians and Reptiles of the United States. University of Florida Press, Gainesville, Florida). Use of the subgeneric name follows Poe et al. (2017, Systematic Biology 66: 663–697).

Aspidoscelis Fitzinger, 1843—Whiptails

A. motaguae Sackett, 1941—Giant Whiptail

Native to Mexico south to Nicaragua. It was introduced during the 1980s and established in Hialeah and Opa-Locka, Miami-Dade County, Florida (Bartlett, 1995, U.S. Tropical Fish Hobbyist 43: 112, 114–119, 121–122, 124–126; Meshaka et al., 2004, The Exotic Amphibians and Reptiles of Florida. Krieger Publishing Company, Malabar, Florida). It has since been found at other localities in Miami-Dade County (Smith and Krysko, 2007, Caribbean Journal of Science 43: 260–265)

and Summerland Key, Monroe County (Enge et al., 2015, Herpetological Review 46: 567; Enge and Krysko, 2019, *Aspidoscelis motaguae*. Pages 428–429 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida).

Basiliscus Laurenti, 1768—Basilisks

B. vittatus Wiegmann, 1828—Brown Basilisk

Native to Central America and northern South America. It was first introduced via the pet trade prior to 1976 at the Miami International Airport, Miami-Dade County, Florida (Wilson and Porras, 1983, The Ecological Impact of Man on the South Florida Herpetofauna. University of Kansas Museum of Natural History, Special Publication 9: i–vi + 1–89; Krysko et al., 2006, Iguana 13: 24–30; Enge and Krysko, 2019, *Basiliscus vittatus*. Pages 362–364 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida). It has since been found in many areas of central and southern Florida, including the Florida Keys, Monroe County (Greene et al., 2012, Reptiles & Amphibians 19: 265–266; Enge and Krysko, 2009, *op. cit.*).

Calotes Cuvier, 1817—Bloodsuckers

C. versicolor Daudin, 1802—Variable Bloodsucker

Native to southern Asia. It was introduced via the pet trade in Broward and St. Lucie counties, Florida (Enge and Krysko, 2004, Florida Scientist 67: 226–230; Enge and Krysko, 2019, *Calotes "versicolor"* complex. Pages 352–353 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida), and is established in St. Lucie County after a reptile dealer imported and released lizards from Pakistan in 1978 (Enge and Krysko, 2004, *op. cit.*; Krysko et al., 2019, *op. cit.*). Zug et al. (2006, Proceedings of the California Academy of Sciences, Fourth Series 57: 35–68) demonstrated that *C. versicolor* is a species complex but did not include specimens from Pakistan or Florida to identify which cryptic species they belong to.

Chalcides Laurenti, 1768—Skinks

C. ocellatus (Forskål, 1775)—Ocellated Skink

Native to the Mediterranean region, Middle East, and northern Africa. It is established in Arizona (Gunn et al., 2012, Herpetological Review 43: 551–553), California (Pauly et al., 2024, Herpetological Review 54: 402–403), and Florida (Krysko et al., 2011, Zootaxa 3028: 1–64; Enge and Krysko, 2019, *Chalcides ocellatus*. Pages 406–407 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida).

Chamaeleo Laurenti, 1768—Chameleons

C. calyptratus Duméril, 1851—Veiled Chameleon

Native to the southwestern Arabian Peninsula to Yemen. It was introduced via the pet trade and is established in Florida and Hawai'i. In Florida, it was first introduced via the pet trade prior to 2004 in Fort Myers, Lee County (Krysko et al., 2004, Florida Scientist 67: 249–253) but has since been introduced in other areas in the peninsula (Enge and Krysko, 2019, *Chamaeleo calyptratus*. Pages 357–359 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida). In Hawai'i, it established during the 2000s; 59 individuals were removed from a 1.5 ha area on Maui (Kraus and Duvall, 2004, Bishop Museum Occasional Papers 79: 63.

Cnemidophorus Wagler, 1830—South American Whiptails

C. lemniscatus (Linnaeus, 1758)—Rainbow Whiptail

Native to Guatemala south to Argentina. It was introduced via the pet trade during the 1960s in Hialeah, Miami-Dade County, Florida but these individuals did not establish (King and Krakauer, 1966, Quarterly Journal of the Florida Academy of Sciences 29: 144–154; Wilson and Porras, 1983, The Ecological Impact of Man on the South Florida Herpetofauna. University of Kansas Museum of Natural History, Special Publication 9: i–vi + 1–89). It has since established at other localities in northern Miami-Dade County (Bartlett, 1995, U.S. Tropical Fish Hobbyist 43: 112, 114–119, 121–122, 124–126; Punzo, 2001, Herpetological Review 32: 85–87; Meshaka et al., 2004, The Exotic Amphibians and Reptiles of Florida. Krieger Publishing Company, Malabar, Florida; Enge and Krysko, 2019, *Cnemidophorus lemniscatus*. Pages 432–433 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida). Several species, both uni- and bisexual, have been described for different parts of the taxon that was formerly known as *C. lemniscatus* (King and Krakauer, 1966, Quarterly Journal of the Florida Academy of Sciences 29: 144–154; Cole and Dessauer, 1993, American Museum Novitates. 3081: 1–30; Markezich et al., 1997, American Museum Novitates. 3207: 1–60). This introduced population is bisexual but has not yet been associated with one or more of those species.

Cryptoblepharus Wiegmann, 1834—Snake-eyed Skinks

C. poecilopleurus (Wiegmann, 1834)—Pacific Snake-eyed Skink

Native to many Pacific islands. It is established throughout Hawai'i (Stejneger, 1899, Proceedings of the United States National Museum 21: 783–813; McGregor, 1904, Proceedings of the United States National Museum 28: 115–118; McKeown, 1996, A Field Guide to Reptiles and Amphibians in the Hawaiian Islands. Diamond Head Publishing, Incorporated, Los Osos, California; Alvarez et al., 2023, Pacific Science 77: 87–101).

Ctenosaura Wiegmann, 1828—Spiny-tailed Iguanas

C. conspicuosa Dickerson, 1919—Isla San Esteban Spiny-tailed Iguana

Native to Isla San Esteban, Sonora, Mexico. A population of *Ctenosaura* established at the Arizona-Sonora Desert Museum in Arizona contains mitochondrial DNA from the Isla San Esteban Spiny-tailed Iguana, but it remains uncertain whether this represents a pure population of this species or a hybrid swarm with the *C. macrolopha* (Edwards et al., 2005, Sonoran Herpetologist 18: 122–125). Not listed in Meshaka et al. (2022, Exotic Amphibians and Reptiles of the United States. University of Florida Press, Gainesville, Florida).

C. macrolopha Smith, 1972—Sonoran Spiny-tailed Iguana

Native to Mexico. A population of *Ctenosaura* established at the Arizona-Sonora Desert Museum in Arizona contains mitochondrial DNA from the Sonoran Spiny-tailed Iguana, but it remains uncertain whether this represents a pure population of this species or a hybrid swarm with the *C. conspicuosa* (Edwards et al., 2005, Sonoran Herpetologist 18: 122–125). Not listed in Meshaka et al. (2022, Exotic Amphibians and Reptiles of the United States. University of Florida Press, Gainesville, Florida).

C. pectinata (Wiegmann, 1834)—Mexican Spiny-tailed Iguana

Native to Central America. It was introduced via the pet trade during the 1960s and is established in Miami, Miami-Dade County, Florida (Eggert, 1978, Florida Wildlife 31: 9–10.; Krysko et al., 2003, Florida Scientist 66: 141–146; Townsend et al., 2003, Herpetozoa 16: 67–72; Enge and Krysko, 2019, *Ctenosaura pectinata*. Pages 383–385 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida) and Texas (Smith and Kohler, 1977, Transactions of the Kansas Academy of Science 80: 241; Locey et al., 2008, Herpetological Review 39: 328–349).

C. similis (Gray, 1830)—Gray's Spiny-tailed Iguana
Native to Central America. It was introduced to Georgia (Brennan et al., 2022, Herpetological Review 53: 272–273) and is established in many areas of Florida since the 1970s (Butterfield et al., 1997, pp. 123–138. In: D. Simberloff, D. C. Schmitz, and T. C. Brown (Editors), Strangers in Paradise: Impact and Management of Nonindigenous Species in Florida. Island Press, Washington, D.C.; Krysko and Nuñez, 2019, *Ctenosaura similis*. Pages 385–387 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida). Based on genetic analysis, most Florida populations are the result of independent introductions with native range origins of Honduras (Nuñez, 2016, M.S. thesis, University of Florida, Gainesville). Cowan (1969, Journal of the Society for the Bibliography of Natural History 5: 137–140) listed the authority date as 1830 (not 1831). The English name Common Spiny-tailed Iguana is used by Hedges et al. (2019, Caribbean Herpetology (67): 1–53).

Cyrtopodion Fitzinger, 1843—Bow-fingered Geckos
C. scabrum (Heyden in Rüppell, 1827)—Rough-tailed Gecko
Native to the Middle East and northeastern Africa. It is established in Arizona (Babb, 2014, Herpetological Review 45: 461), California (Hansen and Nafis, 2021, Herpetological Review 52: 795), Nevada (Stocking and Jones, 2017, Herpetological Review 48: 389), and Texas (Selcer and Bloom, 1984, Southwestern Naturalist 29: 499–500; Bloom et al., 1986, Southwestern Naturalist 31: 129–131; Kraus, 2009, Alien Reptiles and Amphibians: A Scientific Compendium and Analysis. SpringerVerlag, Heidelberg, Germany).

Emoia Gray, 1845—Emoias
E. cyanura (Lesson, 1830)—Copper-tailed Skink
Native to the Pacific islands. It was established on Kaua'i, Hawai'i, but may now be extirpated there (Fisher and Ineich, 2012, Oryx 46: 187–195).
E. impar (Werner, 1898)—Azure-tailed Skink
Native to the Pacific islands. It was established on Kaua'i, Hawai'i, but may now be extirpated there (Fisher and Ineich, 2012, Oryx 46: 187–195).

Eutropis Fitzinger, 1843—Asian Mabuyas
Transferred from *Mabuya* to *Eutropis* (Mausfeld and Schmitz, 2003, Organisms Diversity & Evolution 3: 161–171) since the last list.
E. multifasciata (Kuhl, 1820)—Brown Mabuya
Native to Southern Asia. It was introduced via cargo during the 1990s and is established in Coconut Grove, Miami-Dade County, Florida (Meshaka, 1999, Florida Scientist 62: 153–157; Smith and Krysko, 2019, *Eutropis multifasciata*. Pages 403–404 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida).

Furcifer Fitzinger, 1843—Madagascan Chameleons
F. oustaleti (Mocquard, 1894)—Oustalet's Chameleon
Native to Madagascar. It was introduced via the pet trade during the late 1990s and is established in Florida City, Miami-Dade County, Florida (Gillette et al., 2010, Reptiles & Amphibians 17: 248–249). It was subsequently introduced in Palm Beach County (Rochford et al., 2019, *Furcifer oustaleti*. Pages 359–361 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida).
F. pardalis (Cuvier, 1829)—Panther Chameleon
Native to Madagascar. It was introduced via the pet trade in Broward, DeSoto, and Miami-Dade counties, Florida and was established in 2008 in Coconut

Creek, Broward County (Rochford et al., 2013, Reptiles & Amphibians 20: 205–207; Rochford and Krysko, 2019, *Furcifer pardalis*. Pages 361–362 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida).

Gehyra Gray, 1834—Dtellas

G. mutilata (Wiegmann, 1834)—Mutilating Gecko

Native to southern Asia through the Pacific islands. It was introduced in California (Shaw, 1946, Herpetologica 3: 125–126; Kraus, 2009, Alien Reptiles and Amphibians: A Scientific Compendium and Analysis. SpringerVerlag, Heidelberg, Germany), Florida (Meshaka et al., 2004, The Exotic Amphibians and Reptiles of Florida. Krieger Publishing Company, Malabar, Florida), and is established in Hawai'i (Hunsaker and Breese, 1967, Pacific Science 21: 423–428; Kraus, 2009, *op. cit.*). The date of publication of the name *Hemidactylus mutilatus* (=*Gehyra mutilata*) is sometimes given as 1835 (e.g., Kluge, 1991, Smithsonian Herpetological Information Service (85): 1–35) presumably based on the idea that the species was first described by Wiegmann in Nova Acta Academiae Caesareae Leopoldino-Carolinae Naturae Curiosorum the date of which is either 1834 or 1835; however, the first valid use of the name is in Wiegmann (1834, Herpetologica Mexicana; see Bauer and Adler, 2001, Archives of Natural History, 28: 313–326 for a discussion of the dates of the relevant publications).

Gekko Laurenti, 1768—Typical Geckos

The English name Calling Geckos is used by Hedges et al. (2019, Caribbean Herpetology (67): 1–53).

G. badenii Szczerbak and Nekrasova, 1994—Golden Gecko

Native to Vietnam. It was introduced via the pet trade during the 2000s and is established in Hollywood, Broward County, Florida (Krysko et al., 2011, Zootaxa 3028: 1–64; Krysko and Rochford, 2019, *Gekko badenii*. Pages 323–324 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida).

G. gecko (Linnaeus, 1758)—Tokay Gecko

Native to southeastern Asia. It was introduced via the pet trade during the 1960s and is established in Miami, Miami-Dade County, Florida (King and Krakauer, 1966, Quarterly Journal of the Florida Academy of Sciences 29: 144–154; Rochford and Krysko, 2019, *Gekko gecko*. Pages 324–326 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida) and on O'ahu, Hawai'i (McKeown, 1996, Diamond Head Publishing, Incorporated, Los Osos, California; Kraus, 2009, Alien Reptiles and Amphibians: A Scientific Compendium and Analysis. SpringerVerlag, Heidelberg, Germany). It has since been introduced in the Florida Keys, Monroe County, north to Leon County, Florida (Rochford and Krysko, 2019, *op. cit.*). Based on both genetic and morphological data, two distinct lineages (*G. g. gecko* and undescribed Form B) have been found throughout both Miami-Dade County and the Florida Keys (Fieldsend et al., 2023, bioRxiv doi: https://doi.org/10.1101/2023.02.07.527561). It has apparently been eradicated on O'ahu, Hawai'i (Kraus and Krysko, 2017, Alien species. Pp. 92–102 in Crother (editor). Herpetological Circulars (43): 1–102.

Gonatodes Fitzinger, 1843—American Bent-toed Geckos

The English name Clawed Geckos is used by Hedges et al. (2019, Caribbean Herpetology (67): 1–53).

G. albogularis (Duméril and Bibron, 1836)—Yellow-headed Gecko

Native to Central and South America and the Caribbean. It was introduced

during the 1930s and is established in the Florida Keys, Monroe County, Florida (Carr, 1939, Copeia 1939: 232; Krysko, 2005, Florida Scientist 68: 272–280; Krysko, 2019, *Gonatodes albogularis albogularis*. Pages 343–345 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida). The English name White-throated Clawed Gecko is used by Hedges et al. (2019, Caribbean Herpetology (67): 1–53).

Hemidactylus Oken, 1817—House Geckos

H. frenatus Duméril and Bibron, 1836—Common House Gecko
Native to southeastern Asia from Pakistan east to Japan, Indonesia, the Philippines, and New Guinea. It is established in Florida (Meshaka et al., 1994, Herpetological Review 25: 127–128; Krysko, 2019, *Hemidactylus frenatus*. Pages 326–327 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida), Hawai'i (Hunsaker and Breese, 1967, Pacific Science 21: 423–428), and Texas (McAllister et al., 1990, Journal of the Helminthological Society of Washington 57: 1–4).

H. garnotii Duméril and Bibron, 1836—Indo-Pacific House Gecko
Native to southeastern Asia. It is established in Alabama (Powell et al., 2016, Peterson Field Guide to Reptiles and Amphibians of Eastern and Central North America. Houghton Mifflin Harcourt, Boston), California (Shaw, 1946, Herpetologica 3: 125–126; Kraus, 2009, Alien Reptiles and Amphibians: A Scientific Compendium and Analysis. SpringerVerlag, Heidelberg, Germany; Pauly et al., 2015, Herpetological Review 46: 569), Florida (King and Krakauer, 1966, Quarterly Journal of the Florida Academy of Sciences 29: 144–154; Krysko, 2019, *Hemidactylus garnotii*. Pages 327–329 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida), Georgia (Powell et al., 2016, *op. cit.*), Hawai'i (Girard, 1858, Proceedings of the Academy of Natural Sciences of Philadelphia 9: 195–199; Hunsaker and Breese, 1967, Pacific Science 21: 423–428; Kraus, 2009, *op. cit.*), and Texas (Franklin, 1996, Herpetological Review 27: 152; Kraus, 2009, *op. cit.*). It is parthenogenic (all females). The English name Indopacific Gecko is used by Hedges et al. (2019, Caribbean Herpetology (67): 1–53).

H. mabouia (Moreau de Jonnès, 1818)—Tropical House Gecko
Native to Africa (and perhaps parts of South America and the Caribbean, cf. Kluge, 1969, Miscellaneous Publications, Museum of Zoology, University of Michigan. 138: 1–78). It is established in California (Mahrdt et al., 2021, Herpetological Review 52: 84), Florida (Lawson et al., 1991, Herpetological Review 22: 11–12; Krysko, 2019, *Hemidactylus mabouia*. Pages 329–331 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida) and Texas (Fierro-Cabo and Renfro, 2014, BioInvasions Records 3: 309–312). The standard English name changed from Wood Slave to reflect its contemporary usage.

H. parvimaculatus (Deraniyagala, 1953)—Sri Lankan Spotted House Gecko
Native to Sri Lanka and southern India. It is established in Louisiana (Heckard et al., 2013, Reptiles & Amphibians 20: 192–196) and Texas (Davis and LaDuc, 2019, Herpetological Review 50: 102).

H. platyurus (Schneider, 1792)—Asian Flat-tailed House Gecko
Native to southeastern Asia. It was introduced via the pet trade during the 1980s and is established in Clearwater, Pinellas County, Florida (Meshaka and Lewis, 1994, Herpetological Review 25: 127) and has since been found in Alachua, Broward, Lee, and Miami-Dade counties (Krysko, 2019, *Hemidactylus platyurus*. Pages 332–333 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida). This species was transferred from *Cosymbotus* (Carranza and Arnold (2006, Molecular Phylogenetics

and Evolution 38: 531–545).

H. turcicus (Linnaeus, 1758)—Mediterranean Gecko

Native to the Mediterranean region. It was introduced in 24 states (Kraus, 2009, Alien Reptiles and Amphibians: A Scientific Compendium and Analysis. SpringerVerlag, Heidelberg, Germany) and established in Alabama (Mount, 1975, The Reptiles and Amphibians of Alabama. Auburn University Agricultural Experiment Station, Auburn, Alabama. 347 pp), Arizona (Robinson and Romack, 1973, Journal of Herpetology. 7: 311–312), Arkansas (Paulissen and Buchanan, 1990, Herpetological Review 21: 22), California (Beaman, 2005, Herpetological Review 36: 79), Florida (Fowler, 1915, Proceedings of the Academy of Natural Sciences of Philadelphia 67: 244–269 (a *H. mabouia*); Barbour, 1936, Copeia 1936: 113; King and Krakauer, 1966, Quarterly Journal of the Florida Academy of Sciences 29: 144–154; Krysko, 2019, *Hemidactylus turcicus*. Pages 333–335 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida), Georgia (Bechtel, 1983, Herpetological Review 14: 27–28), Illinois (McDowell et al., 2006, Herpetological Review 37: 495), Kansas (Hare, 2006, Journal of Kansas Herpetology (19): 9), Kentucky (Krusling and Mitchell, 2013, Herpetological Review 44: 107), Louisiana (Etheridge, 1952, Copeia 1952: 47–48), Maryland (Norden and Norden, 1991, The Maryland Naturalist 33: 57–58), Mississippi (Keiser, 1984, Journal of the Mississippi Academy of Sciences. 29: 17–18), Missouri (Bufalino, 2004, Herpetological Review 35: 188), Nevada (Saethre and Medica, 1993, Herpetological Review 24: 154–155), New Mexico (Painter et al., 1992,Herpetological Review 23: 62), North Carolina (Beane, 2019, Herpetological Review 50: 538–542), Oklahoma (Lardie, 2001, Herpetological Review 32: 119), Pennsylvania (Ruhe et al., 2019, Herpetological Review 50: 536–537), South Carolina (Eason and McMillan, 2000, Herpetological Review 31: 53), South Dakota (Platt et al., 2008, Herpetological Review 39: 238), Tennessee (Hively, 2015, Herpetological Review 46: 59), Texas (Conant, 1955, American Museum Novitates (1726): 1–6), Utah (Reed et al., 2006, Herpetological Review 37: 106), and Virginia (Kleopfer et al., 2006, Herpetological Review 37: 106–107; Swartwout et al., 2014, Herpetological Review 45: 92).

Hemiphyllodactylus Bleeker, 1860—Tree Geckos

H. typus Bleeker, 1860—Indo-Pacific Tree Gecko

Native to southeastern Asia and the Pacific. It was introduced in California (Shaw, 1946, Herpetologica 3: 125–126) and is established in Hawai'i (Stejneger, 1899, Proceedings of the United States National Museum 21: 783–813; McKeown, 1996, A Field Guide to Reptiles and Amphibians in the Hawaiian Islands. Diamond Head Publishing, Incorporated, Los Osos, California; Kraus, 2009, Alien Reptiles and Amphibians: A Scientific Compendium and Analysis. SpringerVerlag, Heidelberg, Germany).

Iguana Laurenti, 1768—Iguanas

The English name Typical Iguanas is used by Hedges et al. (2019, Caribbean Herpetology (67): 1–53).

I. iguana (Linnaeus, 1758)—Green Iguana

Native to Central and South America. It was introduced via the pet trade during the 1960s in Miami, Miami-Dade County, Florida and is established throughout much of southern Florida, including the Florida Keys (King and Krakauer, 1966, Quarterly Journal of the Florida Academy of Sciences 29: 144–154; Wilson and Porras, 1983, University of Kansas Special Publication : 1–89; Enge and Krysko, 2019, *Iguana iguana*. Pages 388–391 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida), and 1950s

on O'ahu, Hawai'i (McKeown, 1996, A Field Guide to Reptiles and Amphibians in the Hawaiian Islands. Diamond Head Publishing, Incorporated, Los Osos, California), and Texas (Meshaka et al., 2004, The Exotic Amphibians and Reptiles of Florida. Krieger, Melbourne, Florida).

Lacerta Linnaeus, 1758—Lacertas

L. bilineata (Daudin, 1802)—Western Green Lacerta

Native to western Europe. It was introduced in New Jersey (Conant, 1975, A Field Guide to Reptiles and Amphibians of Eastern and Central North America. 2nd edition, Houghton Mifflin, Boston, Massachusetts; Kraus, 2009, Alien Reptiles and Amphibians: A Scientific Compendium and Analysis. SpringerVerlag, Heidelberg, Germany) and is established in Topeka, Kansas (Collins, 1974, Amphibians and Reptiles in Kansas University of Kansas Museum of Natural History Public Education Series : 283 pp; Kalyabina-Hauf and Deichsel, 2002, Herpetological Review 33: 225–226).

Lampropholis Fitzinger, 1843—Sunskinks

L. delicata De Vis, 1888—Plague Skink

Native to eastern Australia. It is established throughout Hawai'i (Loveridge, 1939, Proceedings of the Biological Society of Washington 52: 1–2; Oliver and Shaw, 1953, Zoologica 38: 65– 95; McKeown, 1978, Hawaiian Reptiles and Amphibians. Oriental Publishing Company, Honolulu, Hawai'i. 80pp; Baker, 1980, Pacific Science 33: 207–212).

Leiocephalus Gray, 1827—Curly-tailed Lizards

The English name Curlytails is used by Hedges et al. (2019, Caribbean Herpetology (67): 1–53).

L. carinatus Gray, 1827—Northern Curly-tailed Lizard

Native to Cuba, The Bahamas, Cayman Islands, and Honduras. It was introduced in Georgia (Brennan et al., 2022, Herpetological Review 53: 272–273) and established during the 1930s at the Opa-Locka Zoo, Miami-Dade County, Florida (Barbour, 1936, Copeia 1936: 113). It was subsequently introduced as a biological control (Weigl et al., 1969, Copeia 1969: 841–842) and via the pet trade (Duellman and Schwartz, 1958, Bulletin of the Florida Museum of Natural History. Biological Sciences. 3: 181–324; King, 1960, Quarterly Journal of the Florida Academy of Science 23: 71–73) and has since been found from Key West, Monroe County north to Jacksonville, Duval County (Alfonso and Krysko, 2019, *Leiocephalus carinatus armouri*. Pages 391–393 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida). The English name Saw-scaled Curlytail is used by Hedges et al. (2019, Caribbean Herpetology (67): 1–53).

L. schreibersii (Gravenhorst, 1837)—Red-sided Curly-tailed Lizard

Native to Hispaniola. It was introduced via the pet trade prior to 1978 in Miami, Miami-Dade County, Florida but failed to establish (Wilson and Porras, 1983, University of Kansas Special Publication : 1–89). It was subsequently introduced and is established in Broward, Charlotte, and Miami-Dade counties, Florida (Krysko and Burgess, 2008, Herpetological Review 39: 368; Alfonso and Krysko, 2019, *Leiocephalus schreibersii*. Pages 393–395 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida). The English name Red-sided Curlytail is used by Hedges et al. (2019, Caribbean Herpetology (67): 1–53).

Leiolepis Cuvier, 1829—Butterfly Lizards

L. belliana (Hardwicke and Gray, 1827)—Butterfly Lizard

Native to southeastern Asia. It was introduced via the pet trade ca. 1992 and is established in Miami, Miami-Dade County, Florida (Krysko and Enge, 2005, Florida Scientist 68: 247–249; Cobb et al., 2016, Bulletin of the Florida Museum of Natural History 54: 131–137; Enge and Krysko, 2019, *Leiolepis belliana belliana*. Pages 354–355 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida). Cobb et al., 2016, *op. cit.* showed that Florida samples are closely related to lizards from Thailand in their native range. The authority has been updated from (Gray, 1827) in the prior list (Kraus and Krysko, 2017, Alien species. Pages 92–102 in Brian I. Crother (Editor). Herpetological Circulars (43): 102) to (Hardwicke and Gray, 1827).

L. rubritaeniata Mertens, 1961—Red-banded Butterfly Lizard

Native to Indochina. It was introduced via the pet trade prior to 2013 and is established in Charlotte and Lee counties, Florida (Krysko et al., 2013, Reptiles & Amphibians 20: 197–198; Krysko and Enge, 2019, *Leiolepis rubritaeniata*. Pages 355–356 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida). Cobb et al. (2016, Bulletin of the Florida Museum of Natural History 54: 131–137) showed that Florida samples are closely related to lizards from Thailand in their native range. This species is not listed in Meshaka et al. (2022, Exotic Amphibians and Reptiles of the United States. University of Florida Press, Gainesville, Florida).

Lepidodactylus Fitzinger, 1843—Indo-Pacific Geckos

The English name Scaly-toed Geckos is used by Hedges et al. (2019, Caribbean Herpetology (67): 1–53).

L. lugubris (Duméril and Bibron, 1836)—Mourning Gecko

Native from southern Asia through much of the Pacific. It was introduced via the pet trade in 2005 and is established in St. Lucie, St. Lucie County, Florida (Meshaka et al., 2004, The Exotic Amphibians and Reptiles of Florida. Krieger, Melbourne, Florida; Krysko et al., 2011, Zootaxa 3028: 1–64; Krysko, 2019, *Lepidodactylus lugubris*. Pages 335–336 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida), and throughout Hawai'i (Oliver and Shaw, 1953, Zoologica 38: 65– 95; Hunsaker and Breese, 1967, Pacific Science 21: 423–428; McKeown, 1978, Hawaiian reptiles and amphibians. Oriental Publishing Company, Honolulu, Hawai'i. 80pp). McKeown (1996, A Field Guide to Reptiles and Amphibians in the Hawaiian Islands. Diamond Head Publishing, Incorporated, Los Osos, California) questioned if *L. lugubris* was present in Hawai'i before the arrival of Europeans. This taxon is a unisexual complex of diploid and triploid populations of apparently independent origins (Moritz et al., 1993, Biological Journal of the Linnean Society 48: 113–133; Volobouev, 1994, Biogeographica 70: 14).

Ornithuroscincus Slavenko, Tamar, Tallowin, Kraus, Allison, Carranza, and Meiri, 2021—Pacific Island Skinks

O. noctua (Lesson, 1830)—Moth Skink

Native to some Pacific islands. It is established throughout Hawai'i (Stejneger, 1899, The land reptiles of Hawaiian Islands. Proceedings of the United States National Museum 21: 783–813; McKeown, 1996, A Field Guide to Reptiles and Amphibians in the Hawaiian Islands. Diamond Head Publishing, Incorporated, Los Osos, California; Austin, 1999, Nature 397: 113–114). Salavenko et al. (2022, Zoological Journal of the Linnean Society 195: 220–227) created the genus *Ornithuroscincus* and transferred *Lipinia noctu*a into it. Slavenko et al. (*op. cit.*) suggested that *Ornithuroscincus noctua* was a species complex in need of further taxonomic resolution.

Phelsuma Gray, 1825—Day Geckos

P. grandis Gray, 1870—Madagascan Day Gecko

Native to Madagascar. It was introduced via the pet trade during the 1990s and is established in the Florida Keys, Monroe County, Florida (Bartlett and Bartlett, 1999, A Field Guide to Florida Reptiles and Amphibians. Gulf Publishing Company, Houston, Texas; Krysko et al., 2003, Florida Scientist 66: 222–225; Krysko, 2019, *Phelsuma grandis*. Pages 336–338 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida) and on O'ahu, Hawai'i (Kraus, 2002, Bishop Museum Occasional Papers 69: 48–52).

P. guimbeaui Mertens, 1963—Orange-spotted Day Gecko

Native to Mauritius. It is established on O'ahu, Hawai'i (McKeown 1996, A Field Guide to Reptiles and Amphibians in the Hawaiian Islands. Diamond Head Publishing, Incorporated, Los Osos, California).

P. laticauda (Boettger, 1880)—Gold Dust Day Gecko

Native to Madagascar and Seychelles. It was introduced via the pet trade in Broward, Miami-Dade, and Pinellas counties, Florida, and is established on Stock Island, Monroe County (Bartlett and Bartlett, 2006, Guide and Reference to the Crocodilians, Turtles, and Lizards of Eastern and Central North America (North of Mexico). University Press of Florida, Gainesville; Krysko et al., 2011, Zootaxa 3028: 1–64; Krysko and Borgia, 2012, Reptiles & Amphibians 19: 217–218; Krysko, 2019, *Phelsuma laticauda laticauda*. Pages 338–339 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida) and throughout Hawai'i (McKeown, 1996, A Field Guide to Reptiles and Amphibians in the Hawaiian Islands. Diamond Head Publishing, Incorporated, Los Osos, California).

Podarcis Wagler, 1830—Wall Lizards

P. muralis (Laurenti, 1768)—Common Wall Lizard

Native to Europe. It was introduced to New Jersey (Conant, 1945, Copeia 1945: 233) and is established in Indiana (Walker and Deichsel, 2005, Herpetological Review 36: 302), Kentucky (Draud and Ferner, 1994, Herpetological Review 25: 33), Ohio (Vigle, 1977, Herpetological Review Supplement 8: 19), and British Columbia (Allan et al., 1993, The ecology of introduced Common Wall Lizards (*Podarcis muralis*) in Saanich, Vancouver Island. Final Report, British Columbia Ministry of Environment. 24pp; Kraus, 2009, Alien Reptiles and Amphibians: A Scientific Compendium and Analysis. SpringerVerlag, Heidelberg, Germany).

P. siculus (Rafinesque, 1810)—Italian Wall Lizard

Native to the northern central Mediterranean, including Croatia, Italy, and Slovenia. It is established in California (Deichsel et al., 2010, Herpetological Review 41: 513–514), Connecticut (Donihue et al., 2014, Herpetological Review 45: 661–662), Kansas (Collins, 1974, Amphibians and Reptiles in Kansas University of Kansas Museum of Natural History Public Education Series : 283pp; Taggart, 2004, Journal of Kansas Herpetology (10): 10), Massachusetts (Donihue, 2017, Herpetological Review 48: 126), Missouri (Briggler et al., 2015, Reptiles & Amphibians 22: 43–45), New Jersey (Silva-Rocha et al., 2014, Acta Herpetologica 9: 253–258), New York (Gossweiler, 1974,M.S. thesis, Cornell University, Ithaca, New York. 49pp.; Gossweiler, 1975, Copeia 1975: 584–585), Pennsylvania (Kauffeld, 1931, Copeia 1931: 163–164; Conant, 1959, Copeia 1959: 335–336), Washington (Raimond and Lambert, 2020, Herpetological Review 51: 272), and British Columbia, Canada (Hanke and Deichsel, 2020, Canadian Field-Naturalist 134: 60–63).

Ptyodactylus Goldfus, 1820—Fan-fingered Geckos

Newly listed genus. Native to northern Africa and the Middle East. It is established

in Orange County, California (Hansen and Shedd, 2025, California Amphibians and Reptiles, Princeton University Press. 520 pp).

P. hasselquistii (Donndorff, 1798)—Yellow Fan-Fingered Gecko
Newly listed species. Native to northeastern Africa (Algeria, Cameroon, Egypt, Ethiopia, Eritrea, Somalia, and Sudan) and southern Middle East (Iraq, Israel, Jordan, Saudi Arabia, Sinai [Egypt], and Syria). It is established in Orange County, California (Hansen and Shedd, 2025, California Amphibians and Reptiles, Princeton University Press. 520 pp).

Salvator Duméril and Bibron, 1839—Tegus

S. merianae (Duméril and Bibron, 1839)—Argentine Giant Tegu
Native to Brazil, Uruguay, Bolivia, Paraguay, and Argentina. It was introduced via the pet trade in Washington (Freeman, 2024, The Seattle Times. 21 July) and is established in Florida (Smith and Krysko, 2007, Caribbean Journal of Science 43: 260–265; Krysko et al., 2011, Zootaxa 3028: 1–64; Enge, 2019, *Salvator merianae*. Pages 434–436 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida), Georgia (Haro et al., 2020, Southeastern Naturalist 19: 649–662), and possibly South Carolina (Haro et al. *op. cit.*).

Sphaerodactylus Wagler, 1830—Dwarf Geckos
The English name Geckolets is used by Hedges et al. (2019, Caribbean Herpetology (67): 1–53).

S. argus Gosse, 1850—Ocellated Gecko
Native to Cuba, Jamaica, and The Bahamas. It was introduced via cargo during the 1940s and is established on Key West and Stock Island, Monroe County, Florida (Savage, 1954, Transactions of the Kansas Academy of Science 57: 326–334; Duellman and Schwartz, 1958, Bulletin of the Florida Museum of Natural History. Biological Sciences. 3: 181–324; Wilson and Porras, 1983, University of Kansas Special Publication : 1–89; Lawson et al., 1991, Herpetological Review 22: 11–12; Krysko and Sheehy, 2005, Caribbean Journal of Science 41: 169–172; Alfonso and Krysko, 2019, *Sphaerodactylus argus argus*. Pages 345–346 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida). The English name West Caribbean Ocellated Geckolet is used by Hedges et al. (2019, Caribbean Herpetology (67): 1–53).

S. elegans MacLeay, 1834—Ashy Gecko
Native to Cuba and Hispaniola. it was introduced via cargo during the 1920s and is established on Key West, Monroe County, Florida (Stejneger, 1922, Copeia 1922: 56) and has since been found throughout the Keys north to Miami-Dade and Broward counties (Wilson and Porras, 1983, University of Kansas Special Publication : 1–89; Alfonso and Krysko, 2019, *Sphaerodactylus elegans*. Pages 346–348 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida). The English name Ashy Geckolet is used by Hedges et al. (2019, Caribbean Herpetology (67): 1–53).

Tarentola Gray, 1825—Wall Geckos

T. annularis (Geoffroy Saint-Hilaire, 1827)—Ringed Wall Gecko
Native to northern Africa. It is established in California (Fisher et al., 2021, Herpetological Review 52: 85) and Broward, Lee, Miami-Dade, and St. Lucie counties, Florida (Bartlett, 1997, Reptilian 4: 44–50; Meshaka et al., 2004, The Exotic Amphibians and Reptiles of Florida. Krieger, Melbourne, Florida; Krysko et al., 2016, Reptiles & Amphibians 23: 110–143; Rochford and Krysko, 2019, *Tarantola annularis annularis*. Pages 340–341 in Krysko et al. (Editors)

Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida).

T. mauritanica (Linnaeus, 1758)—Moorish Gecko
Native to the Mediterranean region. It is established in California (Mahrdt, 1998, Herpetological Review 29: 52) and Hollywood, Broward County, Florida (Bartlett and Bartlett, 1999, A Field Guide to Florida Reptiles and Amphibians. Gulf Publishing Company, Houston, Texas.; Krysko et al., 2011, Zootaxa 3028: 1–64; Rochford and Krysko, 2019, *Tarantola annularis annularis*. Pages 342–343 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida).

Trachylepis Fitzinger, 1843—Rainbow Skinks

T. quinquetaeniata (Lichtenstein, 1823)—African Five-lined Skink
Native to sub-Saharan Africa. It was introduced via the pet trade during the 2000s and is established in Port St. Lucie, St. Lucie County, Florida (Krysko et al., 2010, Reptiles & Amphibians 17: 183–184; Krysko, 2019, *Trachylepis quinquetaeniata quinquetaeniata*. Pages 404–406 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida).

Trioceros Swainson, 1839—African Horned Chameleons

T. jacksonii Boulenger, 1896—Jackson's Chameleon
Native to eastern Africa. It was introduced via the pet trade and established in California in 1981 (Kraus, 2009, Alien Reptiles and Amphibians: A Scientific Compendium and Analysis. SpringerVerlag, Heidelberg, Germany) and in Hawai'i on Oah'u, Hawai'i, Kaua'i, Lana'i and Maui as early as 1972 (McKeown, 1996, Diamond Head Publishing, Incorporated, Los Osos, California; Kraus, 2009, *op. cit.*).

Tupinambis Daudin, 1803—Tegus

T. teguixin (Linnaeus, 1758)—Gold Tegu
Native to Brazil, Paraguay, eastern Uruguay, and northern Argentina. It was introduced via the pet trade in 1990 in Seminole County, Florida but did not establish (Anonymous, 1990, The League of Florida Herpetological Societies Newsletter 1990: 24; Krysko et al., 2011, Zootaxa 3028: 1–64) and has since been found and established in many other areas in Florida (Krysko et al., 2011, *op. cit.*; Krysko et al., 2016, Reptiles & Amphibians. 23: 110–143; Edwards et al., 2017, BioInvasions Records 6: 407–410; Edwards and Rochford, 2019, *Tupinambis teguixin*. Pages 437–438 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida).

Varanus Merrem, 1820—Monitor Lizards

V. niloticus Linnaeus, 1766—Nile Monitor
Native to sub-Saharan Africa. It was introduced in Arizona (Goodykoontz, 2024, Arizona Republic. 11 July), Georgia (Brennan et al., 2022, Herpetological Review 53: 272–273) and is established in Florida (Dalrymple, 1994, Non-indigenous amphibians and reptiles. Pages 67–78, An assessment of invasive non-indigenous species in Florida's public land. Technical Report No. TSs-94–100. Florida Department of Environmental Protection, Tallahassee, Florida. 78pp.; Enge et al., 2004, Southeastern Naturalist 3: 571–582; Campbell, 2005, Eradication of introduced carnivorous lizards from the Cape Coral area. Final Report to the Charlotte Harbor National Estuary Program, Fort Myers, Florida; Wood et al., 2016, Journal of Heredity 107: 349–362; Enge and Krysko, 2019, *Varanus niloticus*. Pages 438–440 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida).

Acrochordus Hornstedt, 1787—File Snakes

A. javanicus Hornstedt, 1787—Javanese File Snake

Native to southeastern Asia (western Indonesia [Borneo, Java, Kalimantan, Sumatra], Cambodia, Malaysia, Singapore, Thailand, and Vietnam). It was introduced during the early 1970s when an animal importer released several adult file snakes into an artificial rock pit at Jones Trailer Park in northern Miami-Dade County, Florida (Enge and Krysko, 2019, *Acrochordus javanicus*. Pages 448–450 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida). For at least 25 years, it was observed there swimming; five snakes were collected ca.1979 or 1980; a fisherman caught a large specimen on hook and line ca. 1990 (observed by numerous persons, including two Florida Game and Fish Commission wildlife officers); another fisherman caught and released a snake during the 1990s; a snake measuring ≥2.1 m TL was found floating dead ca. 1998; and one of the trailer park owners reported that residents there observed another snake swimming in the rock pit in 2002 (Enge and Krysko. *op. cit.*). Photographs of these snakes could not be secured, and no voucher exists from this site. Bartlett and Bartlett (2003, Florida's Snakes: A Guide to their Identification and Habits. University Press of Florida, Gainesville, Florida) and Meshaka et al. (2004, The Exotic Amphibians and Reptiles of Florida. Krieger Publishing Company, Melbourne, Florida) reported this species being present in Florida, but they were misled as to the actual location of the rock pit (Krysko et al., 2011, Zootaxa 3028: 1–64). In December 2002, five cold-stunned juveniles were purportedly found floating in the Tamiami Canal just west of Krome Avenue in Miami-Dade County (Krysko et al. *op. cit.*). In 2011, a snake was collected from a reptile dealer's facility in Hollywood, Broward County, Florida, where stock tanks drain outside onto the lawn (Krysko et al. *op. cit.*). It was not listed as established by Meshaka et al. (2022, Exotic Amphibians and Reptiles of the United States. University of Florida Press, Gainesville, Florida) due to the lack of a voucher from the rock pit colony.

Boa Linnaeus, 1758—Boa Constrictors

The standard English name changed from Boas. The English name Typical Boas is used by Hedges et al. (2019, Caribbean Herpetology (67): 1–53).

B. constrictor Linnaeus, 1758—South American Boa Constrictor

The standard English name changed from Boa Constrictor. Native to South America from Colombia, Venezuela, and Trinidad and Tobago, south and east to central Argentina, central Paraguay, and southern Brazil. It was introduced to 13 states and is established in Florida and Puerto Rico (López-González, 1991, Estudio prospectivo de los vertebrados terrestres del corredor turístico Cancún-Tulum, Quintana Roo, Mexico. Tesis de Licenciatura, Universidad Nacional Autónoma de Mexico; Dalrymple, 1994, Pages 72–86 in D. C. Schmitz and T. C. Brown. (Editors). An assessment of invasive non-indigenous species in Florida's public land. Technical Report No. TSs-94–100. Florida Department of Environmental Protection, Tallahassee, Florida; Martínez-Morales and Cuaron, 1999, Biodiversity and Conservation 8: 957–963; Snow et al., 2007, Introduced Populations of *Boa constrictor* (Boidae) and Python molurus bivittatus (Pythonidae) in Southern Florida. Pp. 417–438 in Henderson and Powell (Editors). The Biology of Boas and Pythons. Eagle Mountain Publishing, Eagle Mountain, Utah; Reynolds et al., 2014, Molecular Phylogenetics and Evolution 71: 201–213). Range-wide molecular data (Hynková et al., 2009, Zoological Science 26: 623–631; Reynolds et al., 2014, op. cit.; Suarez-Atilano et al., 2014, Journal of Biogeography 41: 2371–2384; Card et al., 2016, Molecular Phylogenetics and Evolution 102(2016): 104–116; Gonzalez et al. 2024, PLoS ONE 19:e0298159; K. L. Krysko, personal communication)

illustrate that this is a species complex and suggest the taxonomic recognition and distribution of four species: South American Boa Constrictor (*Boa constrictor*) from Argentina northward to Colombia and Venezuela in South America, Atlantic Boa Constrictor (*Boa atlantica*) along the coastal Atlantic Forest along eastern Brazil from Caico´ in Rio Grande do Norte State to Ilha Grande in Rio de Janeiro State, Central American Boa Constrictor (*Boa imperator*) on the western side of the Andes Mountains from Colombia in South America northward through central America to Yucatán in southeastern Mexico of North America, and Mexican West Coast Boa Constrictor (*Boa sigma*) from the Pacific coast of Mexico eastward to the Isthmus of Tehuantepec in North America. The introduced population in Mayagüez, Puerto Rico, was represented by a single haplotype corresponding to *B. constrictor* from South America (Reynolds et al., 2013, op. cit.). Although boas have been introduced throughout Florida, it is known to be established only at the Charles Deering Estate in Miami, Miami-Dade County, since at least the 1970s (Dalrymple, 1994, op. cit.; Snow et al., 2007, op. cit.; Smith et al., 2019, *Boa constrictor*. Pages 452–454 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida; Meshaka, et al., 2022, Exotic Amphibians and Reptiles of the United States. University Press of Florida, Gainesville, Florida). The established population at the Charles Deering Estate consist of multiple and divergent haplotypes most closely related to samples from the native range of Peru and Guyana, hence they are recognized as *B. constrictor*. The established population in Mayagüez, Puerto Rico, shares the same haplotype with boas from multiple introduced areas in Miami-Dade County, Florida, including The Charles Deering Estate, Homestead, and The Everglades along US 41 in western Miami (K. L. Krysko, personal communication).

Epicrates Wagler, 1830—Rainbow Boas

E. cenchria (Linnaeus, 1758)—Rainbow Boa

Newly listed species. Native to the Amazon Basin of South America with a disjunct population in the Atlantic Forest of Brazil. It was introduced via the pet trade in Gainesville, Alachua County, Hollywood, Broward County, and Bushnell, Sumter County, Florida (Krysko et al., 2011, Zootaxa 3028: 1–64), and is established around Turkey Point Power Plant, Homestead, Miami-Dade County, Florida (Asher and Krysko, 2024, Reptiles & Amphibians 31(E22335): 1-2.

Indotyphlops Hedges, Marion, Lipp, Marin, and Vidal, 2014—South Asian Blindsnakes

I. braminus (Daudin, 1803)—Brahminy Blindsnake

Native to southeastern Asia. It was introduced to 13 states and is established in Alabama, Arizona, California, Florida, Georgia, Hawai'i, Louisiana, Massachusetts, Texas, and Virginia (Kraus 2009, Alien Reptiles and Amphibians: A Scientific Compendium and Analysis. SpringerVerlag, Heidelberg, Germany). It is the most widely distributed snake in the world due to it being parthenogenic (all females) as well as transported easily in potted plants (hence the other common English name, Flower Pot Snake).

Python Daudin, 1802—Pythons

P. bivittatus Kuhl, 1820—Burmese Python

Native to southeastern China, Vietnam, Myanmar, Bhutan, Bangladesh, Nepal, northern India, Indonesia, and Java and several other islands. It was introduced to seven states (Kraus, 2009, Alien Reptiles and Amphibians: A Scientific Compendium and Analysis. SpringerVerlag, Heidelberg, Germany). It was first intentionally introduced via the pet trade in 1979 in Florida along the northern boundary of Everglades National Park, established by the mid-1980s, and is now found throughout

much of southern Florida, including the Florida Keys (Meshaka et al., 2000, Florida Scientist 63: 84–103; Snow et al., 2007, Introduced Populations of *Boa constrictor* (Boidae) and *Python molurus bivittatus* (Pythonidae) in Southern Florida. Pages 417–438 In: Henderson, R.W. and R. Powell (Editors). The Biology of Boas and Pythons. Eagle Mountain Publications, Eagle Mountain, Utah; Willson et al., 2011, Biological Invasions 13: 1493–1504; Krysko et al., 2019, *Python bivittatus*. Pages 454–458 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida). The 8th Edition of this list treated the Burmese Python as a subspecies of the Indian Python (*P. molurus*), Jacobs et al. (2009, Sauria 31: 5–16) recognized *P. bivittatus*.

P. sebae (Gmelin, 1788)—Northern African Rock Python

Native to sub-Saharan Africa from Kenya and Tanzania west to Mali and Mauritania. It was introduced via the pet trade in Sarasota and Miami-Dade counties, Florida, and is established in western Miami near US Highway 41 and Krome Avenue, (Reed et al., 2010, Reptiles & Amphibians 17: 52–54; Mendyk et al., 2016, Reptiles & Amphibians 23: 16–20; Krysko et al., 2019, *Python sebae*. Pages 458–460 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida).

Established Exotic Species – Testudines - Turtles

Palea Meylan, 1987—Wattle-necked Softshells

P. steindachneri (Siebenrock, 1906)—Wattle-necked Softshell

Native to southeastern China and northern Vietnam. It was introduced in California (Bury and Luckenbach, 1976, Biological Conservation 10: 1–14) and is established in marshes and canals in Kaua'i and Oah'u, Hawai'i (McKeown and Webb, 1982, Journal of Herpetology 16: 107–111; McKeown, 1996, A Field Guide to Reptiles and Amphibians in the Hawaiian Islands. Diamond Head Publishing, Incorporated, Los Osos, California).

Pelodiscus Fitzinger, 1835—Chinese Softshells

Authority corrected from Gray, 1844.

P. maackii (Brandt, 1858)—Amur River Softshell

Newly listed species. Native to eastern Russia, northeastern China, Korea, and possibly Japan. It is established on O'ahu, Hawai'i (Dong et al., 2016, Conservation Genetics 17: 207–220). It was not listed in Meshaka et al. (2022, Exotic Amphibians and Reptiles of the United States. University of Florida Press, Gainesville, Florida).

P. sinensis (Wiegmann, 1835)—Chinese Softshell

Native to eastern Asia. It was introduced to Maryland (Kraus, 2009, Alien Reptiles and Amphibians: A Scientific Compendium and Analysis. SpringerVerlag, Heidelberg, Germany) and is established on O'ahu and Kaua'i, Hawai'i (Brock, 1947, Copeia 1947: 142; McKeown and Webb, 1982, Journal of Herpetology 16: 107–111; McKeown,1996, Field Guide to Reptiles and Amphibians in the Hawaiian Islands. Diamond Head Publishing, Incorporated, Los Osos, California; Dong et al., 2016, Conservation Genetics 17: 207–220).

Staurotypus Wagler, 1830—Giant Musk Turtles

S. salvinii Gray, 1864—Pacific Coast Giant Musk Turtle

Native to the Pacific lowlands of southern Mexico, El Salvador, and Guatemala. It was introduced via the pet trade ca. 2010 and is established in the canal system in Zoo Miami, Miami-Dade County, Florida (Smith et al., 2011, Reptiles & Amphibians 18: 55–56; Smith and Krysko, 2019, *Staurotypus salvinii*. Pages 283–284 in Krysko et al. (Editors) Amphibians and Reptiles of Florida. University Press of Florida, Gainesville, Florida).