



# Reptiles of Arizona

Gordon W. Schuett | Charles F. Smith | Bob Ashley

Chiricahua Desert Museum

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This list updates the publication by Thomas Brennan and Andrew Holycross (2006)

## Reptilia (117 species; 111 native and 6 non-native)

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### Testudines – Turtles (10 species; 7 native and 3 non-native)

#### Chelydridae (Snapping Turtles)

*Chelydra* Schweigger, 1812 — Snapping Turtles

H. Bradley Shaffer and colleagues (2008) concluded that *C. serpentina* is a “single, virtually invariant lineage” and did not recognize the subspecies *C. s. osceola*.

*Chelydra serpentina* (Snapping Turtle) Non-native

#### Emydidae (Box and Pond Turtles)

Philip Spinks and colleagues (2016) reviewed the phylogeny and temporal diversification of the New World pond turtles (Emydidae).

*Chrysemys* Gray, 1844 — Painted Turtles

*Chrysemys picta* (Schneider, 1783) — Painted Turtle

*Chrysemys picta bellii* (Western Painted Turtle)

*Terrapene* Merrem, 1820 — American Box Turtles

*Terrapene ornata* (Agassiz, 1857) — Ornate Box Turtle

*Terrapene ornata luteola* (Desert Box Turtle) Protected

Bradley Martin and colleagues (2013) found no support for a distinction between the subspecies *ornata* and *luteola*, and thus recommended their synonymy. See Uwe Fritz and Peter Havaš (2014) for comments on the results of Martin and colleagues (2013).

*Trachemys Agassiz, 1857* — Sliders

*Trachemys scripta* (Schoepff, 1792) — Pond Slider

*T. s. elegans* (Red-eared Slider) Non-native

### **Kinosternidae** (American Mud and Musk Turtles)

*Kinosternon* Spix, 1824 — American Mud Turtles

John Iverson and colleagues (2013) provide updates on the phylogeny of American kinosternid turtles.

*Kinosternon arizonense* (Arizona Mud Turtle)  
*Kinosternon flavescens* (Yellow Mud Turtle)  
*Kinosternon sonoriense* (Sonora Mud Turtle)

### **Testudinidae** (Tortoises)

*Gopherus* Rafinesque, 1832 — Gopher Tortoises

*Gopherus morafkai* Murphy and colleagues (2011) — Sonoran Desert Tortoise Protected

In parts of its range, the desert tortoise was formerly recognized as *Gopherus agassizii*. Robert Murphy and colleagues (2011) provide taxonomic updates on the tortoises of North America.

*Gopherus agassizii* (Cooper, 1861) — Mohave Desert Tortoise Protected

### **Trionychidae** (Softshells)

*Apalone* Rafinesque, 1832 — North American Softshells

*Apalone spinifera* (Spiny Softshell) Non-native

## **Squamata – Lizards & Snakes** (115 species; 112 native and 3 non-native)

## **Sauria – Lizards** (63 Species; 3 non-native)

**Anguidae** (Glass lizards and Alligator Lizards)

*Elgaria* Gray, 1838 — Western Alligator Lizards

*Elgaria kingii* (Madrean Alligator Lizard)

**Crotaphytidae** (Collard and Leopard Lizards)

*Crotaphytus* Holbrook, 1842 — Collared Lizards

*Crotaphytus bicinctores* (Great Basin Collard Lizard)

*Crotaphytus collaris* (Eastern Collard Lizard)

*Crotaphytus nebrius* (Sonoran Collard Lizard)

*Gambelia* Baird 1859 “1858” — Leopard Lizards

*Gambelia wislizenii* (Long-nosed Leopard Lizard)

**Eublepharidae** (Terrestrial Geckos)

*Coleonyx* Gray, 1845 — Banded Geckos

*Coleonyx variegatus* (Western Banded Gecko)

**Gekkonidae** (Geckos)

*Hemidactylus* Gray, 1825 — House Geckos

*Hemidactylus turcicus* (Mediterranean House Gecko) Non-native

**Helodermatidae** (Gila Monster and Beaded Lizards)

*Heloderma* Wiegmann, 1829 — Gila Monsters and Beaded Lizards

*Heloderma suspectum* (Gila monster) Venomous;  
Protected

**Iguanidae** (Iguanas and Relatives)

*Callisaurus* Blainville, 1835 — Zebra-tailed Lizards

*Callisaurus draconoides* (Zebra-tailed Lizard)

*Cophosaurus* Troschel, 1852 "1850" — Greater Earless Lizards

*Cophosaurus texanus* (Greater Earless Lizard)

*Dipsosaurus* Hallowell, 1854 — Desert Iguanas

*Dipsosaurus dorsalis* (Desert Iguana)

*Sauromalus* Duméril, 1856 — Chuckwallas

*Sauromalus ater* (Common Chuckwalla)

*Ctenosaura* Wiegmann, 1828 — Spiny-tailed Iguanas

*Ctenosaura* hybrids (Spiny-tailed Iguana) Non-native

### **Phrynosomatidae** (Horned Lizards, Spiny Lizards, and Relatives)

*Holbrookia* Girard, 1851 — Lesser Earless Lizards

*Holbrookia maculata* (Lesser Earless Lizard)

*Holbrookia elegans* (Elegant Earless Lizard)

*Phrynosoma* Wiegmann, 1828 — Horned Lizards

*Phrynosoma cornutum* (Texas Horned Lizard)

*Phrynosoma goodei* (Goode's Horned Lizard)

*Phrynosoma hernandesi* (Greater Shorthorn Horned Lizard)

*Phrynosoma mcallii* (Flat-tailed Horned Lizard)

*Phrynosoma modestum* (Round-tailed Horned Lizard)

*Phrynosoma platyrhinos* (Desert Horned Lizard)

*Phrynosoma solare* (Regal Horned Lizard)

*Sceloporus* Wiegmann, 1828 — Spiny Lizards

*Sceloporus bimaculosus* (Twin-spotted Spiny Lizard)

*Sceloporus clarkii* (Clark's Spiny Lizard)

*Sceloporus cowlesi* (Southwestern Fence Lizard)

*Sceloporus graciosus* (Sagebrush Lizard)

*Sceloporus jarrovi* (Yarrow's Spiny Lizard)

*Sceloporus magister* (Desert Spiny Lizard)

*Sceloporus slevini* (Slevin's Bunchgrass Lizard)

*Sceloporus tristichus* (Plateau Lizard)

*Sceloporus uniformis* (Yellow-backed Spiny Lizard)

*Sceloporus virgatus* (Striped Plateau Lizard)

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

<i>Uma rufopunctata</i>	(Yuman Fringe-toed Lizard)
<i>Uma scoparia</i>	(Mohave Fringe-toed lizard)

*Urosaurus* Hallowell, 1854 — Tree and Brush Lizards

<i>Urosaurus graciosus</i>	(Long-tailed Brush Lizard)
<i>Urosaurus ornatus</i>	(Ornate Tree Lizard)

*Uta* Baird and Girard, 1852 — Side-blotched Lizards

<i>Uta stansburiana</i>	(Side-blotched Lizard)
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**Scincidae** (Skinks)

*Plestiodon* Duméril & Bibron, 1839 — Toothy Skinks <sup>3</sup>

<i>Plestiodon callicephalus</i>	(Mountain Skink)
<i>Plestiodon gilbert</i>	(Gilbert's Skink)
<i>Plestiodon multivirgatus</i>	(Many-lined Skink)
<i>Plestiodon obsoletus</i>	(Western Skink)
<i>Plestiodon skiltonianus</i>	(Western Skink)

**Teiidae** (Whiptails, Tegus, and Relatives)

*Aspidoscelis* Fitzinger, 1843 — Whiptails

<i>Aspidoscelis arizonae</i>	(Arizona Striped Whiptail)	
<i>Aspidoscelis burti</i>	(Canyon Spotted Whiptail)	
<i>Aspidoscelis exsanguis</i>	(Chihuahuan Spotted Whiptail)	Parthenogenetic
<i>Aspidoscelis flagellicauda</i>	(Gila Spotted Whiptail)	Parthenogenetic
<i>Aspidoscelis neomexicana</i>	(New Mexico Whiptail)	Non-native
<i>Aspidoscelis pai</i>	(Pai Striped Whiptail)	
<i>Aspidoscelis tigris</i>	(Tiger Whiptail)	
<i>Aspidoscelis uniparens</i>	(Desert Grassland Whiptail)	Parthenogenetic
<i>Aspidoscelis velox</i>	(Plateau Striped Whiptail)	Parthenogenetic
<i>Aspidoscelis xanthonota</i>	(Red-backed Whiptail)	

**Xantusidae** (Night Lizards)

*Xantusia* Baird, 1859 "1858" — Night Lizards

<i>Xantusia arizonae</i>	(Arizona Night Lizard)
<i>Xantusia bezyi</i>	(Bezy's Night Lizard)
<i>Xantusia vigilis</i>	(Desert Night Lizard)

## Serpentes – Snakes (53 species, all native)

### Leptotyphlopidae (Threadsnakes)

*Rena* Baird and Girard, 1853 — Threadsnakes

Solný Adalsteinsson and colleagues (2009) demonstrated that the former genus *Leptotyphlops* was composed of two large clades each composed of Old World or New World taxa. The type for the genus *Leptotyphlops* is associated with Old World taxa, leaving the clade of North and Central American threadsnakes as *Rena*, which has been restored.

<i>Rena dissecta</i>	(New Mexico Threadsnake)
<i>Rena humilis</i>	(Western Threadsnake)

### Boidae (Boas)

*Lichanura* Cope, 1861 — Rosy Boas

Dustin Wood and colleagues (2008) used mtDNA and found three main clades within *trivirgata* that do not correspond to currently recognized subspecies. They concluded that these clades corresponded to two species, *Lichanura orcutti* and *Lichanura trivirgata*.

<i>Lichanura orcutti</i>	(Rosy Boa)
<i>Lichanura trivirgata</i>	(Three-lined Rosy Boa)

### Colubridae (Colubrids or “Advanced” Snakes)

*Arizona* Kennicott, in Baird, 1859 — Glossy Snakes

Further study of the Arizona group may result in taxonomic revision (SSAR, 2017).

<i>Arizona elegans</i>	(Glossy Snake)
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*Chilomeniscus* Cope, 1860 — Sandsnakes

<i>Chilomeniscus stramineus</i>	(Variable Sandsnake)
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*Chionactis* Cope, 1860 — Shovel-nosed Snakes

<i>Chionactis palarostris</i>	(Sonoran Shovel-nosed Snake)
<i>Chionactis occipitalis</i>	(Western Shovel-nosed Snake)

*Coluber* Linnaeus, 1758—North American Racers

<i>Coluber constrictor</i>	(North American Racer)
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*Diadophis* Baird and Girard, 1853 — Ring-necked Snakes

There is robust evidence that more than one species (lineage) exists in *Diadophis*.

Feldman and Spicer (2006) and Fontanella and colleagues (2008) discovered at least 14 lineages of *Diadophis* that were not congruent with the geographic range of described subspecies. See Frank Fontanella and Mark E. Siddall (2009).

<i>Diadophis punctatus regalis</i>	(Regal Ring-necked Snake)
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*Gyalopion* Cope, 1861 — Western Hook-nosed Snakes

<i>Gyalopion canum</i>	(Chihuahuan Hook-nosed Snake)
<i>Gyalopion quadrangulare</i>	(Thornscrub Hook-nosed Snake)

*Heterodon* Latreille, 1801 — North American Hog-nosed Snakes

<i>Heterodon kennerlyi</i>	(Mexican Hog-nosed Snake)
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*Hypsiglena* Cope, 1860 — North American Nightsnakes

Mulcahy (2008) recognized six species in formerly what was recognized as a single taxon (sensu *Hypsiglena torquata*). Of these, five are consistent with previously described subspecies, and one represents a unique lineage (species) that is undescribed from the biogeographic region known as Cochise Filter Barrier of southeastern Arizona and New Mexico. Currently, *Hypsiglena torquata* is restricted to Mexico, and three described species occur in the United States.

<i>Hypsiglena chlorophaea</i>	(Desert Nightsnake)
<i>Hypsiglena jani</i>	(Chihuahuan Nightsnake)

*Lampropeltis* Fitzinger, 1843 — Kingsnakes and Milksnakes

Alexander Pyron & Frank Burbrink (2009 a, b) elevated many of the subspecies of *Lampropeltis getula* to full species. Changes in milksnake taxonomy are provided by Sara Ruana and colleagues (2014, 2015). See P. David Polly and colleagues (2016) for information on geometric morphometrics in taxonomy. Taxonomic changes of mountain kingsnakes of Arizona and Mexico are presented by Frank Burbrink and colleagues (2011).

<i>Lampropeltis californiae</i>	(California Kingsnake)
<i>Lampropeltis nigrita</i>	(Western Black Kingsnake)
<i>Lampropeltis splendida</i>	(Desert Kingsnake)
<i>Lampropeltis gentilis</i>	(Western Milk)
<i>Lampropeltis pyromelana</i>	(Arizona Mountain Kingsnake)
<i>Lampropeltis knoblochi</i>	(Madrean Mountain Kingsnake)

*Masticophis* Linnaeus, 1758 — North American Racers, Coachwhips, and Whipsnakes

For a recent taxonomic review of this group, see Edward Myers and colleagues (2017).

<i>Masticophis bilineatus</i>	(Sonoran Whipsnake)
<i>Masticophis taeniatus</i>	(Striped Whipsnake)
<i>Masticophis flagellum</i>	(Coachwhip)

*Oxybelis* Wagler, 1830 — American Vinesnakes

<i>Oxybelis aeneus</i>	(Brown Vinesnake)
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*Pituophis* Holbrook, 1842 — Bullsnares, Pinesnakes, and Gophersnakes

Further study of the *Pituophis* group may result in taxonomic revision (SSAR, 2017).

<i>Pituophis catenifer</i>	(Gophersnake)
<i>Pituophis catenifer affinis</i>	(Sonoran Gophersnake)

*Phyllorhynchus* Stejneger, 1890 — Leaf-nosed Snakes

<i>Phyllorhynchus browni</i>	(Saddled Leaf-nosed Snake)
<i>Phyllorhynchus decurtatus</i>	(Spotted Leaf-nosed Snake)

*Rhinocheilus* Baird and Girard, 1853—Longnosed Snakes

<i>Rhinocheilus lecontei</i>	(Long-nosed Snake)
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*Salvadora* Baird & Girard, 1853 — Patch-nosed Snakes

<i>Salvadora grahamiae</i>	(Eastern Patch-nosed Snake)
<i>Salvadora hexalepis</i>	(Western Patch-nosed Snake)

*Senticolis* Dowling and Fries, 1987 — Green Ratsnakes

<i>Senticolis triaspis intermedia</i>	(Northern Green Ratsnake)
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*Sonora* Baird and Girard, 1853 — North American Groundsnakes

<i>Sonora semiannulata</i>	(Western Groundsnake)
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*Trimorphodon* Cope, 1861 — Lyresnakes

<i>Trimorphodon lambda</i>	(Sonoran Lyresnake)
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*Tantilla* Baird and Girard, 1853 — Black-headed Snakes

<i>Tantilla hobartsmithi</i>	(Smith's Black-headed Snake)
<i>Tantilla nigriceps</i>	(Plain's Black-headed Snake)
<i>Tantilla wilcoxi</i>	(Chihuahuan Black-headed Snake)
<i>Tantilla yaquia</i>	(Yaqui Black-headed Snake)

*Thamnophis* Fitzinger, 1843 — North American Gartersnakes

<i>Thamnophis c. cyrtopsis</i>	(Western Black-necked Gartersnake)	
<i>Thamnophis elegans vagrans</i>	(Wandering Gartersnake)	
<i>Thamnophis marcianus</i>	(Checkered Gartersnake)	
<i>Thamnophis eques</i>	(Mexican Gartersnake)	Protected
<i>Thamnophis rufipunctatus</i>	(Narrow-headed Gartersnake)	Protected

Taxonomic changes for Mexican populations of this lineage are in Dustin Wood and colleagues (2011).

**Elapidae** (1 species, native). DANGEROUSLY VENOMOUS

*Micruroides* Schmidt, 1928 — Sonoran Coralsnakes

*Micruroides euryxanthus* (Kennicott, 1860) — Sonoran Coralsnake

<i>Micruroides e. euryxanthus</i>	(Arizona Coralsnake)
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**Viperidae** (16 species, all native). **DANGEROUSLY VENOMOUS**

*Crotalus* Linnaeus, 1758 — Rattlesnakes

Michael Douglas and colleagues (2002) elevated most of the subspecies of *Crotalus viridis* and synonymized *C. v. nuntius* with *C. v. viridis*.

Davis and colleagues (2016) combined mtDNA and geometric morphometric analyses to provide support for Douglas et al. (2002) and the six species proposed within the *Crotalus viridis* rattlesnake group.

Western Group (sometimes called the *Crotalus viridis* group)

<i>Crotalus abyssus</i>	(Grand Canyon Rattlesnake)
<i>Crotalus cerberus</i>	(Arizona Black Rattlesnake)
<i>Crotalus concolor</i>	(Midget Faded Rattlesnake)
<i>Crotalus lutosus</i>	(Great Basin Rattlesnake)
<i>Crotalus viridis</i>	(Prairie Rattlesnake)

For recent studies of lineage diversity in *Crotalus atrox*, see Drew Schield and colleagues (2015).

<i>Crotalus atrox</i>	(Western Diamond-backed Rattlesnake)
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Michael Douglas and colleagues (2006) used mtDNA and found several geographically distinct lineages within *C. cerastes*. Only one of these lineages corresponded to a recognized subspecies. (*C. c. laterorepens*).

<i>Crotalus cerastes</i>	(Sidewinder)
<i>Crotalus c. cerastes</i>	(Mohave Desert Sidewinder)
<i>Crotalus c. cercobombus</i>	(Sonoran Sidewinder)
<i>Crotalus c. laterorepens</i>	(Colorado Desert Sidewinder)
<i>Crotalus lepidus klauberi</i>	(Banded Rock Rattlesnake)
<i>Crotalus molossus</i>	(Black-tailed Rattlesnake)
<i>Crotalus pricei</i>	(Twin-spotted Rattlesnake)
<i>Crotalus scutulatus</i>	(Mohave Rattlesnake)

Jesse M. Meik and colleagues (2015) demonstrated that *Crotalus mitchellii pyrrhus* is a distinct species from *Crotalus mitchellii*, which is now restricted to Baja California, Mexico. The new arrangement is *Crotalus pyrrhus*.

<i>Crotalus pyrrhus</i>	(Southwestern Speckled Rattlesnake)
<i>Crotalus tigris</i>	(Tiger Rattlesnake)

David G. Barker (2016) proposed elevating the 5 subspecies of *Crotalus willardi* to species.

*Crotalus obscurus* (New Mexico Ridge-nosed Rattlesnake)

*Crotalus willardi* (Arizona Ridge-nosed Rattlesnake)

*Sistrurus* Garman, 1883 — Massauga and Pygmy Rattlesnakes

*Sistrurus catenatus* (Rafinesque, 1818) — Eastern Massasauga

*Sistrurus tergeminus* (Western Massasauga)

Andrew T Holycross and colleagues (2008) discuss taxonomic mistakes and corrective procedures for this taxon. A molecular (DNA) analysis by Laura S. Kubatko and colleagues (2011) revealed two distinct groups (clades) among the three subspecies of *Sistrurus catenatus*. One clade contained the eastern subspecies (*Sistrurus c. catenatus*) and the other clade contained the two western subspecies (*S. c. tergeminus* and *S. c. edwardsii*). The SSAR (2017) follows the recommendation of Kubatko et al. (2011) and recognizes *Sistrurus tergeminus* as a species; no recognized subspecies for *S. catenatus*.

## LITERATURE CITED

- Solný A. Adalsteinsson, William R. Branch, S. Trape, Laurie J. Vitt, and S. Blair Hedges. 2009. Molecular phylogeny, classification, and biogeography of snakes of the family Leptotyphlopidae (Reptilia, Squamata). *Zootaxa* **2244**, 1–50.
- David G. Barker. 2016. Species accounts. *Crotalus willardi* (Ridgenose Rattlesnake), Pp. 655–700 *In* Gordon W. Schuett, Martin J. Feldner, Charles F. Smith, and Randall S. Reiserer (Eds.), *Rattlesnakes of Arizona, volume 1*. ECO Publishing, Rodeo, New Mexico.
- Frank T. Burbrink, Helen Tao, Matthew Ingrasci, Robert W. Bryson Jr., and Timothy J. Guiher, and Sara Ruane. 2011. Speciation at the Mogollon Rim in the Arizona Mountain Kingsnake (*Lampropeltis pyromelana*). *Molecular Phylogenetics and Evolution* **60**, 445–454.
- Mark A. Davis, Marlis R. Douglas, M.L. Collyer, and Michael E. Douglas. 2016. Deconstructing a species-complex: geometric morphometric and molecular analyses define species in the western rattlesnake (*Crotalus viridis*). *PLoS ONE* **11**, e0149712.
- Michael E. Douglas, Marlis R. Douglas, Gordon W. Schuett, Louis W. Porras, and Andrew T. Holycross. 2002. Phylogeography of the western rattlesnake (*Crotalus viridis*) complex, with emphasis on the Colorado Plateau, Pp.11–50 *In* Gordon W. Schuett, Mats Höggren, Michael E. Douglas, and Harry W. Greene (Eds.), *Biology of the Vipers*. Eagle Mountain Publishing, Eagle Mountain, Utah.
- Michael E. Douglas, Marlis R. Douglas, Gordon W. Schuett, and Louis W. Porras. 2006. Evolution of rattlesnakes (Viperidae; *Crotalus*) in the warm deserts of western North America shaped by Neogene vicariance and Quaternary climate change. *Molecular Ecology* **15**, 3353–3374.

- Joshua R. Ennen, Wilfredo A. Matamoros, Mickey Agha, Jeffrey E. Lovich, Sarah C. Sweat, and Christopher W. Hoagstrom. 2017. Hierarchical, quantitative biogeographic provinces for all North American turtles and their contribution to the biogeography of turtles and the continent. *Herpetological Monographs* **31**, 114–140.
- Chris R. Feldman and Greg S. Spicer. 2006. Comparative phylogeography of woodland reptiles in California: repeated patterns of cladogenesis and population expansion. *Molecular Ecology* **15**, 2201–2222.
- Frank Fontanella and Mark E. Siddall. 2009. Evaluating hypotheses on the origin and diversification of the ringneck snake *Diadophis punctatus* (Colubridae: Dipsadinae). *Zoological Journal of the Linnean Society* **158**, 629–640.
- Frank M. Fontanella, Chris R. Feldman, Mark E. Siddall, and Frank T. Burbrink. 2008. Phylogeography of *Diadophis punctatus*: extensive lineage diversity and repeated patterns of historical demography in trans-continental snake. *Molecular Phylogenetics and Evolution* **46**, 1049–1070.
- Uwe Fritz and Peter Havaš. 2014. On the reclassification of box turtles (*Terrapene*): a response to Martin et al. (2013). *Zootaxa* **3835**, 295–298.
- Andrew T. Holycross, Thomas G. Anton, Michael E. Douglas, and Darrel R. Frost. 2008. The type localities of *Sistrurus catenatus* and *Crotalus viridis* (Serpentes: Viperidae), with the unraveling of a most unfortunate tangle of names. *Copeia* 2008, 421–424.
- John B. Iverson, Minh Le, and Colleen Ingram. 2013. Molecular phylogenetics of the mud and musk turtle family Kinosternidae. *Molecular Phylogenetics and Evolution* **69**, 929–939.
- Laura S. Kubatko, H. Lisle Gibbs, and Erik W. Bloomquist. 2011. Inferring species-level phylogenies and taxonomic distinctiveness using multilocus data in *Sistrurus* rattlesnakes. *Systematic Biology* **60**, 393–409.
- Bradley T. Martin, Neil P. Bernstein, Roger D. Birkhead, Jim F. Koukl, Steven M. Musmann, and John S. Placyk Jr. 2013. Sequence-based molecular phylogenetics and phylogeography of the American box turtles (*Terrapene* spp.) with support from DNA barcoding. *Molecular Phylogenetics and Evolution* **68**, 119–134.
- Jesse M. Meik, Jeffrey W. Streicher, A. Michelle Lawing, Oscar Flores-Villela, and Matthew K. Fujita. 2015. Limitations of climatic data for inferring species boundaries: insights from speckled rattlesnakes. *PLoS ONE* **10**, e0131435.
- Daniel G. Mulcahy. 2008. Phylogeography and species boundaries of the western North American nightsnake (*Hypsiglena torquata*): revisiting the subspecies concept. *Molecular Phylogenetics and Evolution* **46**, 1095–1115.
- Robert W. Murphy, Kristin H. Berry, Taylor Edwards, Alan E. Leviton, Amy Lathrop, and J. Daren Riedle. 2011. The dazed and confused identity of Agassiz's land tortoise, *Gopherus agassizii* (Testudines, Testudinidae), with the description of a new species, and its consequences for conservation. *ZooKeys* **113**, 39–71.
- Edward A. Myers, Jamie L. Burgoon, Julie M. Ray, Juan E. Martínez-Gómez, Noemi Matías-Ferrer, Daniel G. Mulcahy, and Frank T. Burbrink. 2017. Coalescent species tree inference of *Coluber* and *Masticophis*. *Copeia* **105**, 642–650.

- P. David Polly, Elizabeth R. Dumont, Stephanie E. Pierce, Emily J. Rayfield, and Kenneth D. Angielczyk. 2016. Combining geometric morphometrics and finite element analysis with evolutionary modeling: towards a synthesis. *Journal of Vertebrate Paleontology* **35** 10.1080/02724634.2016.1111225.
- R. Alexander Pyron and Frank T. Burbrink. 2009a. Lineage diversification in a widespread species: roles for niche divergence and conservatism in the common kingsnake, *Lampropeltis getula*. *Molecular Ecology* **18**, 3443–3457.
- R. Alexander Pyron and Frank T. Burbrink. 2009b. Systematics of the common kingsnake (*Lampropeltis getula*; Serpentes: Colubridae) and the burden of heritage in taxonomy. *Zootaxa* **2241**, 22–32.
- Sara Ruane. 2015. Using geometric morphometrics for integrative taxonomy: an examination of head shapes of milksnakes (genus *Lampropeltis*). *Zoological Journal of the Linnean Society* **174**, 394–413.
- Sara Ruane, Robert W. Bryson, Jr., R. Alexander Pyron, and Frank T. Burbrink. 2014. Coalescent species delimitation in milksnakes (genus *Lampropeltis*) and impacts on phylogenetic comparative analyses. *Systematic Biology* **63**, 231–250.
- Drew R. Schield, Daren C. Card, Richard H. Adams, Tereza Jezkova, Jacobo Reyes-Velasco, F. Nicole Proctor, Carol L. Spencer, Hans-Werner Herrmann, Stephen P. Mackessy, and Todd A. Castoe. 2015. Incipient speciation with biased gene flow between two lineages of the western diamond-back rattlesnake (*Crotalus atrox*). *Molecular Phylogenetics and Evolution* **83**, 213–223.
- Peter A. Scott, Travis C. Glenn, and Leslie J. Rissler. 2018. Resolving taxonomic turbulence and uncovering cryptic diversity in the musk turtles (*Sternotherus*) using robust demographic modeling. *Molecular Phylogenetics and Evolution* **120**, 1–15.
- H. Bradley Shaffer, D. E. Starkey, and Matthew K. Fujita. 2008. Molecular insights into the systematics of the snapping turtles (Chelydridae), Pp. 44–49 In Anthony C. Steyermark, M. S. Finkler, and Ronald J. Brooks (Eds.), *Biology of the Snapping Turtle (Chelydra serpentina)*. Johns Hopkins University Press, Baltimore Maryland.
- Philip Q. Spinks, Robert C. Thomson, Evan McCartney-Melstad, and H. Bradley Shaffer. 2016. Phylogeny and temporal diversification of the New World pond turtles (Emydidae). *Molecular Phylogenetics and Evolution* **103**, 85–97.
- SSAR. 2017. *Scientific and Standard English Names of Amphibians and Reptiles of North America North of Mexico, With Comments Regarding Confidence in Our Understanding*. 8<sup>th</sup> Edition. Committee on Standard English and Scientific Names. Brian I. Crother (Committee Chair). SSAR Herpetological Circular No. 43, Shoreview, Minnesota.
- Dustin A. Wood, Robert N. Fisher, and Tod W. Reeder. 2008. Novel patterns of historical isolation, dispersal, and secondary contact across Baja California in the Rosy Boa (*Lichanura trivirgata*). *Molecular Phylogenetics and Evolution* **46**, 484–502.
- Dustin A. Wood, A. G. Vandergast, Julio A. Lemos Espinal, R. N. Fisher, and Andrew. T. Holycross 2011. Refugial isolation and divergence in the narrow-headed gartersnake species complex (*Thamnophis rufipunctatus*) as revealed by multilocus DNA sequence data. *Molecular Ecology* **20**, 3856–3878.

