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A country checklist to the amphibians and reptiles of
Nicaragua

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Foto de Portada: *Scaphiodontophis annulatus* from Cerro Mogotón, Nueva Segovia (Foto: José G. Martínez-FONSECA).

A country checklist to the amphibians and reptiles of Nicaragua

Javier Sunyer¹ and José Gabriel Martínez-Fonseca^{2,3}

RESUMEN

Actualizamos la lista patrón de las 77 especies de anfibios y 188 especies de reptiles de Nicaragua con comentarios y referencias sobre los últimos cambios taxonómicos y de nomenclatura. Incluimos fotografías de 68 especies de anfibios y 154 especies de reptiles pertenecientes a 47 familias. La herpetofauna de Nicaragua está constituida de dos clases, seis órdenes, 51 familias, 143 géneros y 265 especies, 13 de las cuales son endémicas al país y seis de origen exótico.

Palabras clave: América Central, anfibios, biodiversidad, herpetofauna, herpetología, lista patrón, reptiles.

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ABSTRACT

We provide an updated checklist of the 77 amphibian and 188 reptile species of Nicaragua with comments and references on recent taxonomical and nomenclature changes. We include photographs of 68 species of amphibians and 154 reptile species from 47 families. The herpetofauna of Nicaragua is made up of two classes, six orders, 51 families, 143 genera, and 265 species, 13 of which are endemic to the country and six are of exotic origin.

Keywords: Biodiversity, Central America, herpetofauna, herpetology.

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Introduction

Central America, and thus, Nicaragua are a globally important biodiversity hotspot (Gutiérrez-García and Vázquez-Domínguez 2013). The country lies in the center of the American continent, where northern and southern flora and fauna meet, resulting in a unique species profile (Sunyer and Köhler 2010, Sunyer 2014). In the last years, a substantial amount of Nicaraguan taxa has changed (e.g., Acevedo *et al.* 2016, McCranie 2018, Breuil *et al.* 2019, McCranie *et al.* 2020, Jadin *et al.* 2020, Gutiérrez-Rodríguez *et al.* 2021, Schools and Hedges 2021) and a considerable number of herpetofaunal species have been recorded for the first time in the country (e.g., Fernández *et al.* 2017, Loza *et al.* 2017, Salazar-Saavedra *et al.* 2018, Leets-Rodriguez *et al.* 2019, Martínez-Fonseca *et al.* 2019, 2024), have been resurrected (e.g., McCranie 2017, Meza-Lázaro and Nieto-Montes de Oca 2015), or have been recently described (e.g., Koch *et al.* 2019).

Herpetological work in Nicaragua has followed trends that are also shared with other taxa including mammals (Medina-Fitoria and Martínez-Fonseca 2019). In addition to the new taxa recorded in Nicaragua, the last decade has also seen a large number of scientific publications that improve the knowledge on the distribution of herpetofauna species within Nicaragua (e.g., Sunyer *et al.* 2014, 2016, Diaz-Gómez *et al.* 2017, Martínez-Fonseca *et al.* 2024). Importantly, in 2010 and 2017, evaluations of the conservation status of the herpetofauna in Nicaragua allowed to prioritize species of concern (Sunyer and Köhler 2010, Robleto-Hernández *et al.* 2017). We hope that scientific research and its consequent conservation policies in the upcoming years will continue in the country, despite de tumultuous political and global climate.

In this work, we present an update that is overdue from the herpetofauna checklists made during the 21st century in Nicaragua (i.e., Köhler 2001, Ruiz and Buitrago 2003, Sunyer and Köhler 2010, Sunyer 2014, HerpetoNica 2015, and Robleto-Hernández *et al.* 2017; see Figure 1). Here, we record 13 additional species to the last available checklist from Nicaragua (Robleto-Hernández *et al.* 2017) for a total 265 species of herpetofauna, which averages around two additional species to the country each passing year. If this trend continues, we predict Nicaragua to reach 300 species of herpetofauna by ca. 2040.

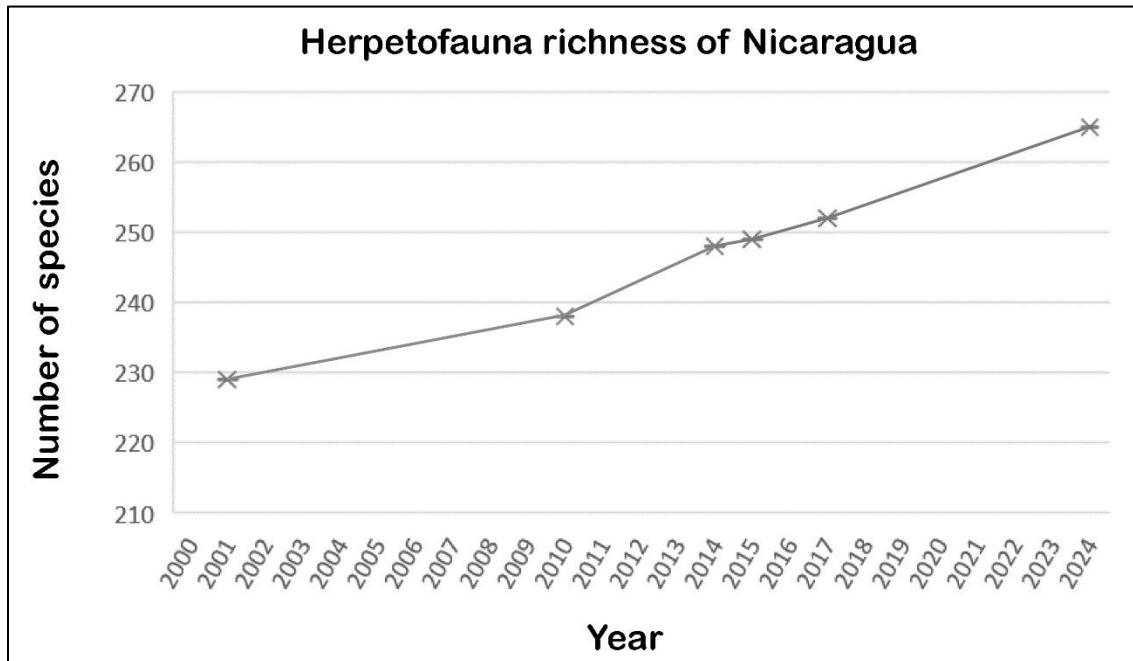


Figure 1. Nicaraguan herpetofauna richness recorded during the 21st century.

We believe three more species should be additionally recognized to the country checklist of Nicaragua: *Drymobius maydis*, *Tretanorhinus obscurus*, and *Micrurus babaspul*. These three snake species are endemic to Great Corn Island (Caribbean Nicaragua) and are currently under the synonymy of mainland forms: *Drymobius margaritiferus maydis* Villa, 1968, *Tretanorhinus nigroluteus obscurus* Villa, 1969, and *Micrurus nigrocinctus babaspul* Roze, 1967. However, we prefer to await specific research on these species complexes before a formal proposal to elevation to species level.

Methods

Work was conducted under research permits by the national authority Ministerio de Ambiente y Recursos Naturales (MARENA) No. DGPB-IC-025-2018; DGPB-090622-P2491-0; DGPB-050723-P3347-0. This checklist uses Sunyer (2014), HerpetoNica (2015), and Robleto-Hernández *et al.* (2017) as a baseline along to an extensive literature search referenced on each of the species' entries. We organize our species taxonomically by order, and within orders alphabetically by family.

Checklist of the herpetofauna of Nicaragua

2 classes, 6 orders, 51 families, 143 genera, 265 species, 13 endemic species, 6 exotic species

* Indicates endemic species

** Indicates non-native species

CLASS AMPHIBIA Blainville, 1816 (3 orders, 14 families, 37 genera, 77 species, 7 endemic species, 1 exotic species)

ORDER ANURA Duméril, 1805 (12 families, 32 genera, 66 species, 2 endemic species, 1 exotic species)

FAMILY AROMOBATIDAE Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006 (1 genus, 1 species)

Allobates Zimmermann and Zimmermann, 1988 (1)

Allobates talamancae (Cope, 1875)

FAMILY BUFONIDAE Gray, 1825 (3 genera, 7 species)

Incilius Cope, 1863 (5)

Incilius coccifer (Cope, 1866)

Incilius coniferus (Cope, 1862)

Incilius luetkenii (Boulenger, 1891)

Incilius melanochlorus (Cope, 1877)

Incilius valliceps (Wiegmann, 1833)

Rhaebo Cope, 1862 (1)

Rhaebo haematinicus (Cope, 1862)

Rhinella Fitzinger, 1826 (1)

Rhinella horribilis (Wiegmann, 1833). Nicaraguan populations of this species were addressed as *R. marina* in Sunyer (2014). Acevedo *et al.* (2016) assigned them to *R. horribilis*, although we believe they should be referred as *R. angustipes* (McCranie *et al.*, 2019).

FAMILY CENTROLENIDAE Taylor, 1951 (5 genera, 7 species)

Cochranella Taylor, 1951 (1)

Cochranella granulosa (Taylor, 1949)

Espadarana Guayasamin, Castroviejo-Fisher, Trueb, Ayarzagüena, Rada, and Vilà, 2009 (1)

Esparadana prosoblepon (Boettger, 1892)

Hyalinobatrachium Ruiz-Carranza and Lynch, 1991 (1)

Hyalinobatrachium fleischmanni (Boettger, 1893)

Sachatamia Guayasamin, Castroviejo-Fisher, Trueb, Ayarzagüena, Rada, and Vilà, 2009 (2)

Sachatamia albomaculata (Taylor, 1949)

Sachatamia ilex (Savage, 1967)

Teratohyla Taylor, 1951 (2)

Teratohyla pulverata (Peters, 1873)

Teratohyla spinosa (Taylor, 1949)

FAMILY CRAUGASTORIDAE Hedges, Duellman, and Heinicke, 2008 (2 genera, 12 species)

Craugastor Cope, 1862 (10)

Craugastor bransfordii (Cope, 1886). We believe *C. polyptychus*, a species described from southeastern Nicaragua, to be junior synonym of *C. bransfordii* (Savage 1973, Sunyer and Köhler 2010).

*Craugastor chingopetaca** Köhler and Sunyer, 2006

Craugastor fitzingeri (Schmidt, 1857)

Craugastor laevissimus (Werner, 1896)

Craugastor lauraster (Savage, McCranie, and Espinal, 1996)

Craugastor megacephalus (Cope, 1875)

Craugastor mimus (Taylor, 1955)

Craugastor noblei (Barbour and Dunn, 1921)

Craugastor ranoides (Cope, 1886)

Craugastor talamancae (Dunn, 1931)

Pristimantis Jiménez de la Espada, 1870 (2)

Pristimantis cerasinus (Cope, 1875)

Pristimantis ridens (Cope, 1866)

FAMILY DENDROBATIDAE Cope, 1865 (3 genera, 3 species)

Dendrobates Wagler, 1830 (1)

Dendrobates auratus (Girard, 1855)

Oophaga Bauer, 1994 (1)

Oophaga pumilio (Schmidt, 1857)

Phyllobates Bibron, 1840, *In De la Sagra* 1840 (1)

Phyllobates lugubris (Schmidt, 1857)

FAMILY ELEUTHERODACTYLIDAE Lutz, 1954 (2 genera, 2 species)

Diasporus Hedges, Duellman, and Heinicke, 2008 (1)

Diasporus diastema (Cope, 1875). We believe this taxon corresponds to a species complex (Batista *et al.*, 2016). If so, the nominal name *D. chica* would be available for, at least, the Atlantic lowland populations of Nicaragua (Noble 1918). Whether the highland populations of this species complex in central Nicaragua also corresponds to *D. chica* or to an undescribed species needs further study (Sunyer, 2009).

Eleutherodactylus Duméril and Bibron 1841 (1)

*Eleutherodactylus planirostris*** (Cope 1862). This exotic species was recently recorded in Cayo Mayor in the “Reserva Biológica Marina Cayos Miskitos y Franja Costera Inmediata”, Caribbean Nicaragua, based on observations made in 1992 (Villa 2015).

FAMILY HYLIDAE Rafinesque, 1815 (9 genera, 17 species)

Boana Gray, 1825 (1)

Boana rufitela (Fouquette, 1961). This species was addressed as *Hypsiboas rufitelus* in Sunyer (2014). Recently, this species was included within the genus *Boana* (Dubois 2017).

Dendropsophus Fitzinger, 1843 (3)

Dendropsophus ebraccatus (Cope, 1874)
Dendropsophus microcephalus (Cope, 1886)
Dendropsophus phlebodes (Stejneger, 1906)

Ecnomiohyla Faivovich, Haddad, Garcia, Frost, Campbell, and Wheeler, 2005 (1)

Ecnomiohyla miliaria (Cope, 1886)

Plectrohyla Brocchi, 1877

Plectrohyla guatemalensis Brocchi, 1877. Köhler (2001) recorded tadpoles, metamorphs, and juveniles of this genus from Northern Nicaragua but did not allocate it to a specific species. Señaris and Sunyer (*in prep.*) record *P. guatemalensis* from the first time in Nicaragua, although this name might be tentative since *P. guatemalensis* corresponds to a species complex (Duellman and Campbell 1992).

Ptychohyla Taylor, 1944 (1)

Ptychohyla hypomykter McCranie and Wilson, 1993

Scinax Wagler, 1830 (3)

Scinax boulengeri (Cope, 1887)
Scinax elaeochroa (Cope, 1875)
Scinax staufferi (Cope, 1865)

Smilisca Cope, 1865 (5)

Smilisca baudinii (Duméril and Bibron, 1841). *Smilisca baudinii* was considered to occur throughout the country of Nicaragua. Recently, McCranie (2017) resurrected the Atlantic populations of this species as *S. manisorum* (see below).

Smilisca manisorum (Taylor, 1954). McCranie (2017) resurrected *S. manisorum* for the Atlantic populations of Nicaragua, which were previously referred to as *S. baudinii*.

Smilisca phaeota (Cope, 1862)

Smilisca puma (Cope, 1885)

Smilisca sordida (Peters, 1863)

Tlalocohyla Faivovich, Haddad, Garcia, Frost, Campbell, and Wheeler, 2005 (1)

Tlalocohyla loquax (Gaige and Stuart, 1934)

Trachycephalus Tschudi, 1838 (1)

Trachycephalus vermiculatus (A place-holder "taxon" for all names available for former *Trachycephalus typhonius* from Chocoan South America to southern and eastern Mexico; Frost, 2023). Ron *et al.* (2016) suggest that Central American populations of this species are not conspecific with *T. typhonius*, which is the name previously associated with this species.

FAMILY LEPTODACTYLIDAE Werner, 1896 (2 genera, 4 species)

Engystomops Jiménez de la Espada, 1872 (1)

Engystomops pustulosus (Cope, 1864)

Leptodactylus Fitzinger, 1826 (3)

Leptodactylus fragilis (Brocchi, 1877)

Leptodactylus melanonotus (Hallowell, 1861)

Leptodactylus savagei Heyer, 2005

FAMILY MICROHYLIDAE Günther, 1858 (1 genus, 2 species)

Hypopachus Keferstein, 1867 (2)

Hypopachus pictiventris (Cope, 1886)

Hypopachus variolosus (Cope, 1866)

FAMILY PHYLLOMEDUSIDAE Günther, 1858 (2 genera, 3 species).

This family was included within Hylidae in Sunyer (2014). We follow Duellman *et al.* (2016) and consider it as a distinct family, although Frost (2023) considers Phyllomedusinae a subfamily of Hylidae.

Agalychnis Cope, 1864 (2)

Agalychnis callidryas (Cope, 1862). We believe this to be a species complex in Central America and all Nicaraguan populations should be addressed as *A. heleneae* (Solano-Flórez 2012, McCranie *et al.* 2019).

Agalychnis saltator Taylor, 1955

Cruziohyla Faivovich, Haddad, Garcia, Frost, Campbell, and Wheeler, 2005 (1)
Cruziohyla sylviae Gray, 2018. Nicaraguan populations of this species were addressed as *C. calcarifer* in Sunyer (2014). Gray (2018) recently described the distinctiveness of *C. sylviae* for all Central American populations of this species complex.

FAMILY RANIDAE Batsch, 1796 (1 genus, 7 species)

Lithobates Fitzinger, 1843 (7)

Lithobates brownorum (Sanders, 1973)

Lithobates forreri (Boulenger, 1883). Luque-Montes *et al.* (2018) referred to all Nicaraguan populations of this species complex as *Lithobates cf. forreri* to demonstrate its distinctiveness from its nominal form from Mexico.

Lithobates maculatus (Brocchi, 1877)

*Lithobates miadis** (Barbour and Loveridge, 1929).

Lithobates taylori (Smith, 1959)

Lithobates vaillanti (Brocchi, 1877)

Lithobates warszewitschii (Schmidt, 1857)

FAMILY RHINOPHRYNIDAE Günther, 1859 (1 genus, 1 species)

Rhinophryalus Duméril and Bibron, 1841 (1)

Rhinophryalus dorsalis Duméril and Bibron, 1841

ORDER CAUDATA Fischer von Waldheim, 1813 (1 family, 3 genera, 9 species, 5 endemic species)

FAMILY PLETHODONTIDAE Gray, 1850 (3 genera, 9 species)

Bolitoglossa Duméril, Bibron, and Duméril, 1854 (4)

Bolitoglossa indio Sunyer, Lotzkat, Hertz, Wake, Alemán, Robleto, and Köhler, 2008

*Bolitoglossa insularis** Sunyer, Lotzkat, Hertz, Wake, Alemán, Robleto, and Köhler, 2008

*Bolitoglossa mombachoensis** Köhler and McCranie, 1999

Bolitoglossa striatula (Noble, 1918)

Nototriton Wake and Elias, 1983 (1)

*Nototriton saslaya** Köhler, 2002

Oedipina Keferstein, 1868 (4)

Oedipina collaris (Stejneger, 1907)

Oedipina cyclocauda Taylor, 1952

*Oedipina koehleri** Sunyer, Townsend, Wake, Travers, Gonzalez, Obando, and Quintana, 2011

*Oedipina nica** Sunyer, Wake, Townsend, Travers, Rovito, Papenfuss, Obando, and Köhler, 2010

ORDER GYMNOPHIONA Müller, 1832 (1 family, 2 genera, 2 species)

FAMILY DERMOPHIIDAE Taylor, 1969 (2 genera, 2 species)

Dermophis Peters, 1880 (1)

Dermophis mexicanus (Duméril and Bibron, 1841)

Gymnopus Peters, 1874 (1)

Gymnopus multiplicata Peters, 1874

CLASS REPTILIA Laurenti, 1768 (3 orders, 37 families, 106 genera, 188 species, 6 endemic species, 5 exotic species)

ORDER CROCODYLIA Owen, 1842 (2 families, 2 genera, 2 species)

FAMILY ALLIGATORIDAE Cuvier, 1807 (1 genus, 1 species)

Caiman Spix, 1825 (1)

Caiman crocodilus (Linnaeus, 1758)

FAMILY CROCODYLIDAE Cuvier, 1807 (1 genus, 1 species)

Crocodylus Laurenti, 1768 (1)

Crocodylus acutus (Cuvier, 1807)

ORDER SQUAMATA Oppel, 1811 (28 families, 94 genera, 171 species, 6 endemic species, 4 exotic species)

SQUAMATA--LIZARDS (17 families, 28 genera, 60 species, 3 endemic species, 3 exotic species)

FAMILY ANGUIDAE Gray, 1825 (1 genus, 1 species)

Abronia Gray 1838 (1)

Abronia moreletii (Bocourt, 1871). This species was addressed as *Mesaspis moreletii* in Sunyer (2014). Gutiérrez-Rodríguez *et al.* (2021) recently placed it under the genus *Abronia*.

FAMILY CORYTOPHANIDAE Fitzinger, 1843 (3 genera, 5 species)

Basiliscus Laurenti, 1768 (3)

Basiliscus basiliscus (Linnaeus, 1758)

Basiliscus plumifrons Cope, 1875

Basiliscus vittatus Wiegmann, 1828

Corytophanes Boie, 1827 (1)

Corytophanes cristatus (Merrem, 1820)

Laemancus Wiegmann, 1834 (1)

Laemancus longipes Wiegmann, 1834. The systematics of Nicaraguan populations of this species needs further studies (McCranie 2018).

FAMILY ANOLIDAE Cocteau, 1836 (1 genus, 18 species).

The family Anolidae has priority over Dactyloidae Fitzinger, 1843 (de Queiroz 2022).

Norops Wagler, 1830 (18)

Norops beckeri (Boulenger, 1881)

Norops biporcatus (Wiegmann, 1834)

Norops capito (Peters, 1863)

Norops carpenteri (Echelle, Echelle, and Fitch, 1971)

Norops cupreus (Hallowell, 1861)

Norops dariense (Fitch and Seigel, 1984)

Norops humilis (Peters, 1863). This species was recently recorded from southern Nicaragua (Phillips *et al.* 2015).

Norops laeviventris (Wiegmann, 1834). We believe Nicaraguan populations of this species to correspond to *N. intermedius*.

Norops lemurinus (Cope, 1861)

Norops limifrons (Cope, 1862)

Norops mccraniei (Peters, 1863). Köhler *et al.* (2016) described *N. mccraniei*, a valid species for all Nicaraguan populations that were referred to as *N. tropidonotus* in Sunyer (2014).

Norops oxylophus (Cope, 1875)

Norops pentaprion (Cope, 1862)

Norops quaggulus (Cope, 1885)

Norops unilobatus (Köhler and Veselý, 2010)

*Norops villai** (Fitch and Henderson, 1976)

Norops wellbornae (Ahl, 1940)

Norops wermuthi Köhler and Obermeier, 1998

FAMILY DIPLOGLOSSIDAE Cope, 1865 (3 genera, 3 species).

This family was considered a subfamily within Anguidae in Sunyer (2014). We here follow McCranie (2018) and consider this a distinct family.

Diploglossus Wiegmann, 1834 (1)

Diploglossus monotropis (Kuhl, 1820)

Mesoamericanus Schools and Hedges, 2021 (1)

Mesoamericanus bilobatus (O'Shaughnessy, 1874). This species was included in the genus *Diploglossus* in Sunyer (2014). Schools and Hedges (2021) assigned this species under the newly described genus *Mesoamericanus*.

***Siderolamprus* Cope, 1861 (1)**

Siderolamprus bivittatus (Boulenger, 1895). This species was included in the genus *Celestus* in Sunyer (2014). Schools & Hedges (2021) placed this species under the genus *Siderolamprus*.

FAMILY EUBLEPHARIDAE Boulenger, 1883 (1 genus, 1 species)

***Coleonyx* Gray, 1845 (1)**

Coleonyx mitratus (Peters, 1863)

FAMILY GEKKONIDAE Gray, 1825 (2 genera, 2 species)**

***Hemidactylus* Cuvier, 1820 (1)**

*Hemidactylus frenatus*** Duméril and Bibron, 1836

***Lepidodactylus* Fitzinger, 1843 (1)**

*Lepidodactylus lugubris*** (Duméril and Bibron, 1836)

FAMILY GYMNOPHTHALMIDAE Merrem, 1820 (1 genus, 1 species)

***Gymnophthalmus* Merrem, 1820 (1)**

Gymnophthalmus speciosus (Hallowell, 1861)

FAMILY IGUANIDAE Gray, 1827 (2 genera, 3 species)

***Ctenosaura* Wiegmann, 1828 (2)**

Ctenosaura quinquecarinata (Gray, 1842)

Ctenosaura similis (Gray, 1831)

***Iguana* Laurenti, 1768 (1)**

Iguana rhinolopha (Wiegemann, 1834). This species was included as

I. iguana in Sunyer (2014). Breuil *et al.* (2022) consider Central American populations to belong to *I. rhinolopha*.

FAMILY MABUYIDAE Mittleman, 1952 (1 genus, 4 species)

***Marisora* Hedges and Conn, 2012 (3)**

Marisora alliacea (Cope, 1875)

Marisora brachypoda (Taylor, 1956)

*Marisora magnacornae** Hedges and Conn, 2012

Marisora roatanae Hedges and Conn, 2012. McCranie *et al.* (2020) included the distribution of this species in northeastern Nicaragua.

FAMILY PHRYNOSOMATIDAE Fitzinger, 1843 (1 genus, 3 species)

Sceloporus Wiegmann, 1828 (3)

Sceloporus malachiticus Cope, 1864. This taxon corresponds to a species complex (McCrane 2018). We believe Nicaraguan populations of this species likely correspond to *S. hondurensis* or to an undescribed species.

Sceloporus squamosus Bocourt, 1874

Sceloporus variabilis Wiegmann, 1834. Some authors refer to Nicaraguan populations of *S. variabilis* species complex as *S. olloporus*. A thorough review using both molecular and morphological data of this species complex is needed (McCrane 2018).

FAMILY PHYLLODACTYLIDAE Gamble, Bauer, Greenbaum, and Jackman, 2008 (2 genera, 2 species)

Phyllodactylus Gray, 1828 (1)

Phyllodactylus tuberculosus Wiegmann, 1834

Thecadactylus Goldfuss, 1820 (1)

Thecadactylus rapicauda (Houttuyn, 1782)

FAMILY POLYCHROTIDAE Fitzinger, 1843 (1 genus, 1 species)

Polychrus Cuvier, 1816 (1)

Polychrus gutturosus Berthold, 1846

FAMILY SCINCIDAE Gray, 1825 (1 genus, 1 species)

Mesoscincus Griffith, Ngo, and Murphy, 2000 (1)

Mesoscincus managuae (Dunn, 1933)

FAMILY SPHAERODACTYLIDAE Underwood, 1954 (3 genera, 5 species)

Gonatodes Fitzinger, 1843 (1)

Gonatodes albogularis (Duméril and Bibron, 1836)

Lepidoblepharis Peracca, 1897 (1)

Lepidoblepharis xanthonotus (Noble, 1916)

Sphaerodactylus Wagler, 1830 (3)

*Sphaerodactylus argus*** Gosse, 1850

Sphaerodactylus homolepis Cope, 1886

Sphaerodactylus millepunctatus Hallowell, 1861

FAMILY SPHENOMORPHIDAE Welch, 1982 (1 genus, 1 species)

Scincella Mittleman, 1950 (1)

Scincella cherriei (Cope, 1893)

FAMILY TEIIDAE Gray, 1827 (3 genera, 8 species)

Aspidoscelis Fitzinger, 1843 (2)

Aspidoscelis deppii (Weigmann, 1834)

Aspidoscelis motaguae (Sackett, 1941)

Cnemidophorus Wagler, 1830 (1)

Cnemidophorus ruatanus Barbour, 1928

Holcosus Cope, 1862 (5)

Holcosus festivus (Lichtenstein and von Martens, 1856)

*Holcosus miadis** (Barbour and Loveridge, 1929). This endemic species from the Corn Islands, Caribbean Nicaragua, was recently resurrected (Meza-Lázaro and Nieto-Montes de Oca 2015).

Holcosus parvus (Barbour and Noble, 1915). This species was resurrected by Meza-Lázaro and Nieto-Montes de Oca (2015) and was included as *H. undulatus* (Pacific populations) in Sunyer (2014).

Holcosus pulcher (Hallowell, 1860). This species was resurrected by Meza-Lázaro and Nieto-Montes de Oca (2015) and was included as *H. undulatus* (Caribbean populations) in Sunyer (2014).

Holcosus quadrilineatus (Hallowell, 1861)

FAMILY XANTUSIIDAE Baird, 1859 (1 genus, 1 species)

Lepidophyma Duméril, 1851 (1)

Lepidophyma flavimaculatum Duméril, 1851

SQUAMATA--SNAKES (11 families, 66 genera, 111 species, 3 endemic species, 1 exotic species)

FAMILY ANOMALEPIDIDAE Taylor, 1939 (1 genus, 1 species)

Anomalepis Jan, 1860 (1)

Anomalepis mexicanus Jan, 1860

FAMILY BOIDAE Gray, 1825 (3 genera, 4 species)

Boa Linnaeus, 1758 (1)

Boa imperator Daudin, 1803

Corallus Daudin, 1803 (1)

Corallus annulatus (Cope, 1875)

Ungaliophis Müller, 1880 (2). This genus was included within the family

 Charinidae in Sunyer (2014). Quintero A. and Shear (2016) considered Charinidae a synonym of Ungaliophinae, within the family Boidae.

Ungaliophis continentalis Müller, 1880

Ungaliophis panamensis Schmidt, 1933

FAMILY COLUBRIDAE Oppel, 1811 (20 genera, 39 species)

Chironius Fitzinger, 1826 (1)

Chironius grandisquamis (Peters, 1868)

Coluber Linnaeus, 1758 (1)

Coluber mentovarius (Duméril, Bibron, and Duméril, 1854). This species was included in the genus *Masticophis* in Sunyer (2014). We follow Myers *et al.* (2017) and place under the genus *Coluber*.

Dendrophidion Fitzinger, 1843 (3)

Dendrophidion aphanocybe Cadle, 2012

Dendrophidion percarinatum (Cope, 1893)

Dendrophidion rufiterminorum Cadle and Savage, 2012

Drymarchon Fitzinger, 1843 (1)

Drymarchon melanurus (Duméril, Bibron, and Duméril, 1854)

Drymobius Fitzinger, 1843 (4)

Drymobius chloroticus (Cope, 1886)

Drymobius margaritiferus (Schlegel, 1837)

Drymobius melanotropis (Cope, 1875)

Drymobius rhombifer (Günther, 1860)

Lampropeltis Fitzinger, 1843 (1)

Lampropeltis abnorma (Bocourt, 1886). Previously considered a subspecies of *L. triangulum* (Ruane *et al.* 2014). However, the validity of *L. abnorma* as a distinct species from *L. polyzona* is still in debate (Chambers and Hillis 2020).

Leptodrymus Amaral, 1927 (1)

Leptodrymus pulcherrimus (Cope, 1874)

Leptophis Bell, 1825 (4)

Leptophis depressirostris (Cope, 1861)

Leptophis mexicanus (Duméril, Bibron, and Duméril, 1854).

Leptophis nebulosus Oliver, 1942

Leptophis occidentalis (Günther, 1859). This species was referred to as *L. ahaetulla* in Sunyer (2014). De Albuquerque and Fernandes (2022) recently resurrected *L. occidentalis* and allocated all Nicaraguan populations of this species to this taxon.

Mastigodryas Amaral, 1935 (2)

Mastigodryas alternatus (Bocourt, 1884)

Mastigodryas dorsalis (Bocourt, 1890)

Oxybelis Wagler, 1830 (3)

Oxybelis brevirostris (Cope, 1861)

Oxybelis fulgidus (Daudin, 1803)

Oxybelis koehleri Jadin, Blair, Orlofske, Jowers, Rivas, Vitt, Ray, Smith, and Murphy, 2020. This species was referred to as *O. aeneus* in Sunyer (2014). Jadin *et al.* (2020) recently described *O. koehleri* and allocated all Nicaraguan populations of this species to this new taxon.

- Phrynonax* Cope, 1862 (1)
 Phrynonax poecilonotus (Günther, 1858)
Pseudelaphe Mertens and Rosenberg, 1943 (1)
 Pseudelaphe flavirufa (Cope, 1867)
Rhinobothryum Wagler, 1830 (1)
 Rhinobothryum bovallii (Andersson, 1916). This species was first recorded
 for Nicaragua by Martínez-Fonseca *et al.* (2019).
Scolecophis Fitzinger, 1843 (1)
 Scolecophis atrocinctus (Schlegel, 1837)
Senticolis Dowling and Fries, 1987 (1)
 Senticolis triaspis (Cope, 1866)
Spilotes Wagler, 1830 (1)
 Spilotes pullatus (Linnaeus, 1758)
Stenorhina Duméril, 1853 (2)
 Stenorhina degenhardtii (Berthold, 1846)
 Stenorhina freminvillii (Duméril, Bibron, and Duméril, 1854)
Tantilla Baird and Girard, 1853 (8)
 Tantilla alticola (Boulenger, 1903)
 Tantilla armillata Cope, 1875
 Tantilla reticulata Cope, 1860
 Tantilla ruficeps (Cope, 1894)
 Tantilla schistosa (Bocourt, 1883)
 Tantilla supracincta (Peters, 1863)
 Tantilla taeniata Bocourt, 1883. McCranie (2011) considered this nominal
 form as a species complex.
 Tantilla vermiciformis (Hallowell, 1861)
Tantillita Smith, 1941 (1)
 Tantillita lintoni (Smith, 1940)
Trimorphodon Cope, 1862 (1)
 Trimorphodon quadruplex Smith, 1941

FAMILY DIPSADIDAE Bonaparte, 1838 (26 genera, 43 species)

- Adelphicos* Jan, 1862 (1)
 Adelphicos quadrivirgatum Jan, 1862
Amastridium Cope, 1861 (1)
 Amastridium veliferum Cope, 1861
Clelia Fitzinger, 1826 (1)
 Clelia clelia (Daudin, 1803)
Coniophanes Hallowell, 1861 (3)
 Coniophanes bipunctatus (Günther, 1858)
 Coniophanes fissidens (Günther, 1858)
 Coniophanes piceivittis Cope, 1870
Conophis Peters, 1860 (1)
 Conophis lineatus (Duméril, Bibron, and Duméril, 1854)

- Crisantophis* Villa, 1971 (1)
 Crisantophis nevermanni (Dunn, 1937)
- Dipsas* Laurenti, 1768 (2)
 Dipsas articulata (Cope, 1868)
 Dipsas bicolor (Günther, 1895)
- Enuliophis* McCranie and Villa, 1993 (1)
 Enuliophis sclateri (Boulenger, 1894)
- Enulius* Cope, 1871 (1)
 Enulius flavitorques (Cope, 1869)
- Erythrolamprus* Boie, 1826 (1)
 Erythrolamprus mimus (Cope, 1869)
- Geophis* Wagler, 1830 (2)
 *Geophis dunni** Schmidt, 1932
 Geophis hoffmanni (Peters, 1859)
- Hydromorphus* Peters, 1859 (1)
 Hydromorphus concolor Peters, 1859
- Imantodes* Duméril, 1853 (3)
 Imantodes cenchoa (Linnaeus, 1758)
 Imantodes gemmistratus (Cope, 1862)
 Imantodes inornatus (Boulenger, 1896)
- Leptodeira* Fitzinger, 1843 (3)
 Leptodeira nigrofasciata (Günther, 1868)
 Leptodeira rhombifera (Günther, 1872)
 Leptodeira septentrionalis (Kennicott, 1859). Barrio-Amorós (2019)
 proposed elevating to species group to *L. ornata* (Bocourt, 1884)
 and *L. polysticta* (Günther, 1895) from the *L. septentrionalis*
 species group. However, we prefer not undertake these changes at
 this time until further studies are carried out.
- Ninia* Baird and Girard, 1853 (2)
 Ninia maculata (Peters, 1861)
 Ninia sebae (Duméril, Bibron, and Duméril, 1854)
- Nothopsis* Cope, 1871 (1)
 Nothopsis rugosus Cope, 1871
- Oxyrhopus* Wagler, 1830 (1)
 Oxyrhopus petolarius (Linnaeus, 1758)
- Pliocercus* Cope, 1860 (1)
 Pliocercus euryzonus Cope, 1862
- Rhadinaea* Cope, 1863 (1)
 Rhadinaea decorata (Günther, 1858)
- Rhadinella* Smith, 1941 (3)
 Rhadinella godmani (Günther 1865). This species was first recorded for
 Nicaragua by (Loza *et al.* 2017)
 Rhadinella kinkelini (Boettger, 1898)
 *Rhadinella rogerromani** (Köhler and McCranie, 1999)

Sibon Fitzinger, 1826 (5)

Sibon annulatus (Günther, 1872)

Sibon anthracops (Cope, 1868)

Sibon dimidiatus (Günther, 1872)

Sibon longifrenis (Stejneger, 1909)

Sibon nebulatus (Linnaeus, 1758)

Tretanorhinus Duméril, Bibron, and Duméril, 1854 (1)

Tretanorhinus nigroluteus Cope, 1862

Trimetopon Cope, 1885 (1)

Trimetopon pliolepis Cope, 1894. This species was first recorded for Nicaragua by Gutiérrez-Rodríguez and Sunyer (2016)

Tropidodipsas Günther, 1858 (1)

Tropidodipsas sartorii Cope, 1863. Grünwald *et al.* (2021) refers to this species as *Geophis sartorii*, but we so far prefer to maintain this snail-eating snake under the genus *Tropidodipsas*.

Urotheca Bibron, 1843 (3)

Urotheca decipiens (Günther, 1893)

Urotheca guentheri (Dunn, 1938)

Urotheca pachyura (Cope, 1875)

Xenodon Boie, 1826 (1)

Xenodon angustirostris (Peters, 1864)

FAMILY ELAPIDAE Boie, 1827 (2 genera, 4 species)

Hydrophis Latreille, 1801 (1)

Hydrophis platurus (Linnaeus, 1766)

Micrurus Wagler, 1824 (4)

Micrurus allenii Schmidt, 1936

Micrurus mosquitensis Schmidt, 1933. This species was listed as synonym of *Micrurus nigrocinctus* in Köhler (2001, 2008), Sunyer and Köhler (2010), Sunyer (2014), Wallach *et al.* (2014), HerpetoNica (2015), and in Robledo-Hernández *et al.* (2017).

Micrurus multifasciatus (Jan, 1858)

Micrurus nigrocinctus (Girard, 1854).

FAMILY LEPTOTYPHLOPIDAE Stejneger, 1892 (1 genus, 2 species)

Epictia Gray, 1845 (2)

Epictia ater (Taylor, 1940)

*Epictia rioignis** Koch, Martins, and Schweiger, 2019. This species was recently described from Nicaragua and constitutes the first endemic reptile species for the Pacific versant of the country (Koch *et al.* 2019).

FAMILY LOXOCEMIDAE Cope, 1861 (1 genus, 1 species)

Loxocemus Cope, 1861 (1)

Loxocemus bicolor Cope, 1861

FAMILY NATRICIDAE Bonaparte, 1838 (1 genus, 2 species)

Thamnophis Fitzinger, 1843 (2)

Thamnophis marcianus (Baird and Girard, 1853)

Thamnophis proximus (Say, 1823)

FAMILY SIBYNOPHIIDAE Dunn, 1928 (1 genus, 2 species)

Scaphiodontophis Taylor and Smith, 1943 (2)

Scaphiodontophis annulatus (Duméril, Bibron, and Duméril, 1854). This species was first recorded for Nicaragua by Salazar-Saavedra *et al.* (2018).

Scaphiodontophis venustissimus (Günther, 1894)

FAMILY TYPHLOPIDAE Fitzinger, 1826 (2 genera, 2 species)

Amerotyphlops Hedges, Marion, Lipp, Marin, and Vidal, 2014 (1)

Amerotyphlops costaricensis (Jiménez and Savage, 1962)

Virgatyphlops Wallach, 2020 (1)

*Virgatyphlops braminus*** (Daudin, 1803). This exotic and parthenogenetic species was first recorded for Nicaragua by Leets-Rodriguez *et al.* (2019). This species has been recently included in the genera *Indotyphlops* and *Ramphotyphlops* (Wallach 2020).

FAMILY VIPERIDAE Oppel, 1811 (8 genera, 10 species)

Agkistrodon Palisot de Beauvois, 1799 (1)

Agkistrodon howardgloydii (Conant, 1984)

Bothriechis Peters, 1859 (1)

Bothriechis nigroadspersus (Steindachner, 1870). Arteaga *et al.* (2024) review the *B. schlegelii* species complex and resurrect *B. nigroadspersus* (Steindachner, 1870) for the Central American populations.

Bothrops Wagler, 1824 (1)

Bothrops asper (Garman, 1884)

Cerrophidion Campbell and Lamar, 1992 (1)

Cerrophidion wilsoni Jadin, Townsend, Castoe, and Campbell, 2012. This species was first recorded for Nicaragua by Fernández *et al.* (2017).

Crotalus Linnaeus, 1758 (1)

Crotalus simus Latreille, 1801

Lachesis Daudin, 1803 (1)

Lachesis stenophrys Cope, 1875

Metlapilcoatlus Campbell, Frost, and Castoe, 2019 (2). This genus was addressed as *Atropoides* in Sunyer (2014). Campbell *et al.* (2019) recently described the genus *Metlapilcoatlus*.

Metlapilcoatlus indomitus (Smith and Ferrari-Castro, 2008). First record of this species in Nicaragua (Martínez-Fonseca *et al.*, 2024).

Metlapilcoatlus mexicanus (Duméril, Bibron, and Duméril, 1854).

Porthidium Cope, 1871 (2)

Porthidium nasutum (Bocourt, 1868)

Porthidium ophryomegas (Bocourt, 1868)

ORDER TESTUDINES Batsch, 1788 (7 families, 10 genera, 15 species, 1 exotic species)

FAMILY CHELONIIDAE Oppel, 1811 (4 genera, 4 species)

Caretta Rafinesque, 1814 (1)

Caretta caretta (Linnaeus, 1758)

Chelonia Brongniart, 1800 (1)

Chelonia mydas (Linnaeus, 1758)

Eretmochelys Fitzinger, 1843 (1)

Eretmochelys imbricata (Linnaeus, 1766)

Lepidochelys Fitzinger, 1843 (1)

Lepidochelys olivacea (Eschscholz, 1829)

FAMILY CHELYDRIDAE Swainson, 1839 (1 genus, 1 species)

Chelydra Schweigger, 1812 (1)

Chelydra acutirostris Peters, 1862

FAMILY DERMOCHELYIDAE Blainville, 1816 (1 genus, 1 species)

Dermochelys Blainville, 1816 (1)

Dermochelys coriacea (Vandelli, 1761)

FAMILY EMYDIDAE Rafinesque, 1815 (1 genus, 2 species)

Trachemys Agassiz, 1857 (2)

Trachemys emolli (Legler, 1990)

Trachemys venusta (Gray, 1855)

FAMILY GEOEMYDIDAE Theobald, 1868 (1 genus, 3 species)

Rhinoclemmys Fitzinger, 1835 (3)

Rhinoclemmys annulata (Gray, 1860)

Rhinoclemmys funerea (Cope, 1875)

Rhinoclemmys pulcherrima (Gray, 1856)

FAMILY KINOSTERNIDAE Agassiz, 1857 (1 genus, 3 species)

Kinosternon Spix, 1824 (3)

Kinosternon albogulare (Bocourt, 1870). Nicaraguan populations of this species were addressed as *K. scorpioides* in Sunyer (2014). McCranie (2018) assigned them to *K. albogulare*.

Kinosternon angustipons Legler, 1965

Kinosternon leucostomum (Duméril and Bibron, 1851)

FAMILY TESTUDINIDAE Batsch, 1788 (1 genus, 1 species)

Chelonoidis Fitzinger, 1835 (1)

*Chelonoidis carbonarius*** (Spix, 1824). Wild specimens of this exotic pet species were first recorded in Nicaragua by Salazar-Saavedra *et al.* (2015).

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**Photographic records of selected amphibian and reptile species from
Nicaragua**

All photographs are taken by the authors from wild Nicaraguan individuals except if specified otherwise.

AMPHIBIANS

Family Aromobatidae.



Allobates talamancae

Family Bufonidae.



Incilius coccifer



Incilius coniferus



Incilius luetkenii



Incilius melanochlorus



Incilius valliceps



Rhaebo haematiticus



Rhinella horribilis

Family Centrolenidae.



Cochranella granulosa



Espadarana prosoblepon



Hyalinobatrachium fleischmanni



Sachatamia albomaculata



Teratohyla pulverata



Teratohyla spinosa

Family Craugastoridae.



Craugastor bransfordii



Craugastor chingopetaca



Craugastor fitzingeri



Craugastor laevissimus



Craugastor lauraster



Craugastor megacephalus



Craugastor mimus



Craugastor noblei



Pristimantis cerasinus



Pristimantis ridens

Family Dendrobatidae.



Dendrobates auratus



Oophaga pumilio



Phyllobates lugubris

Family Eleutherodactylidae.



Diasporus diastema

Family Hylidae.



Boana rufitela



Dendropsophus ebraccatus



Dendropsophus microcephalus



Dendropsophus phlebodes



Plectrohyla guatemalensis
Guatemala.



Ptychohyla hypomykter



Scinax boulengeri



Scinax elaeochroa



Scinax staufferi



Smilisca baudinii



Smilisca phaeota



Smilisca puma



Smilisca sordida



Tlalocohyla loquax



Trachycephalus vermiculatus

Family Leptodactylidae.



Engystomops pustulosus



Leptodactylus fragilis



Leptodactylus melanotinus



Leptodactylus savagei

Family Microhylidae.



Hypopachus pictiventris



Hypopachus variolosus

Family Phyllomedusidae.



Agalychnis callidryas



Cruziohyla sylviae

Family Ranidae.



Lithobates brownorum



Lithobates forreri



Lithobates maculatus



Lithobates miadis



Lithobates vaillanti



Lithobates warszewitschii

Family Rhinophrynidæ.



Rhinophryne dorsalis

Family Plethodontidæ.



Bolitoglossa indio



Bolitoglossa insularis



Bolitoglossa mombachoensis



Bolitoglossa striatula



Nototriton saslaya

Photo: G. Köhler.



Oedipina cyclocauda



Oedipina koehleri



Oedipina nica

Photo: L. A. Obando.

Family Dermophiidae.



Dermophis mexicanus



Gymnopis multiplicata

REPTILES

Family Alligatoridae.



Caiman crocodilus

Family Crocodylidae.



Crocodylus acutus

Family Anguidae.



Abronia moreletii

Family Corytophanidae.



Basiliscus basiliscus (Panamá)



Basiliscus plumifrons



Basiliscus vittatus



Corytophanes cristatus

Family Anolidae.



Norops biporcatus



Norops capito



Norops carpenteri



Norops cupreus



Norops dariense



Norops humilis
(Panamá)



Norops laeviventris



Norops lemurinus



Norops limifroms



Norops mccraniei



Norops oxylophus



Norops pentaprion
(Panamá)



Norops quaggulus



Norops unilobatus



Norops villai



Norops wellbornae



Norops wermuthi

Family Eublepharidae.



Coleonyx mitratus

Family Gekkonidae.



Hemidactylus frenatus



Lepidodactylus lugubris

Family Gymnophthalmidae.



Gymnophthalmus speciosus

Family Iguanidae.



Ctenosaura quinquecarinata



Ctenosaura similis



Iguana rhinolopha

Family Mabuyidae.



Marisora alliacea



Marisora brachypoda

Family Phrynosomatidae.



Sceloporus malachiticus



Sceloporus squamosus



Sceloporus variabilis

Family Phyllodactylidae.



Phyllodactylus tuberculosus



Thecadactylus rapicauda

Family Scincidae.



Mesoscincus managuae

Family Sphaerodactylidae.



Gonatodes albogularis



Lepidoblepharis xanthostigma



Sphaerodactylus millepunctatus

Family Sphenomorphidae.



Scincella cherriei

Family Teiidae.



Aspidoscelis deppii



Aspidoscelis motaguae



Holcosus festivus



Holcosus miadis



Holcosus parvus



Holcosus pulcher



Holcosus quadrilineatus (Panamá)

Family Xantusiidae.



Lepidophyma flavimaculatum

Family Boidae.



Boa imperator



Corallus annulatus



Ungaliophis continentalis
Photo: G. Köhler.



Ungaliophis panamensis

Family Colubridae.



Chironius grandisquamis



Coluber mentovarius



Dendrophidion apharocybe



Dendrophidion percarinatum



Drymarchon melanurus



Drymobius chloroticus

Photo: G. Köhler



Drymobius margaritiferus



Drymobius rhombifer
Photo: G. Köhler (Ecuador).



Lampropeltis abnorma



Leptodrymus pulcherrimus



Leptophis depressirostris



Leptophis mexicanus



Leptophis nebulosus



Leptophis occidentalis



Mastigodryas alternatus



Mastigodryas dorsalis



Oxybelis brevirostris



Oxybelis fulgidus



Oxybelis koehleri



Phrynonax poecilonotus



Rhinobothryum boavallii



Scolecophis atrocinctus



Senticolis triaspis



Spilotes pullatus



Stenorrhina degenhardtii



Stenorrhina freminvillii



Tantilla alticola



Tantilla armillata



Tantilla reticulata
Photo: L. A. Obando.



Tantilla vermiciformis



Trimorphodon quadruplex

Family Dipsadidae.



Adelphicos quadrivirgatum



Clelia clelia



Coniophanes bipunctatus



Coniophanes fissidens



Coniophanes piceivittis



Conophis lineatus



Crisantophis nevermanni



Dipsas articulata



Enuliophis sclateri



Enulius flavitorques



Erythrolamprus mimus



Geophis hoffmanni



Hydromorphus concolor



Imantodes cenchoa



Imantodes gemmistratus



Imantodes inornatus



Leptodeira nigrofasciata



Leptodeira rhombifera



Leptodeira septentrionalis



Ninia maculata



Ninia sebae



Nothopsis rugosus



Oxyrhopus petolarius



Rhadinaea decorata



Rhadinella godmani



Rhadinella kinkelini



Rhadinella rogerromani
Photo: G. Köhler.



Sibon annulatus



Sibon anthracops



Sibon dimidiatus



Sibon longifrenis



Sibon nebulatus



Tretanorhinus nigroluteus



Trimetopon pliolepis
(Panamá)



Tropidodipsas sartorii



Xenodon angustirostris

Family Elapidae.



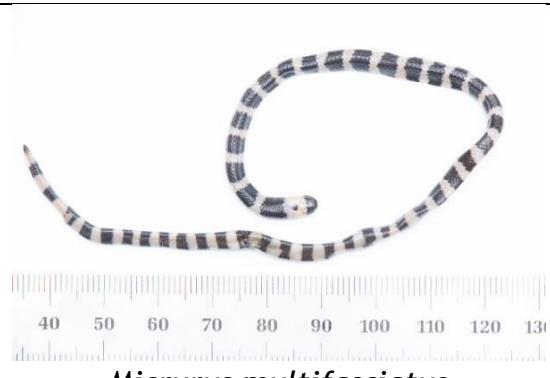
Hydrophis platurus



Micrurus aleni



Micrurus mosquitensis



Micrurus multifasciatus



Micrurus nigrocinctus

Family Leptotyphlopidae.



Epictia ater

Family Loxocemidae.



Loxocemus bicolor

Family Natricidae.



Thamnophis marcianus



Thamnophis proximus

Family Sibynophiidae.



Scaphiodontophis annulatus

Family Viperidae.



Agkistrodon howardgloydii



Bothriechis nigroadspersus (oropel color phase)



Bothrops asper



Cerrophidion wilsoni



Crotalus simus



Lachesis stenophrys
Photo: G. Köhler (Costa Rica)



Metlapilcoatlus indomitus

Porthidium nasutum



Porthidium ophryomegas

Family Cheloniidae.



Chelonia mydas

Lepidochelys olivacea

Family Chelydridae.



Chelydra acutirostris

Family Dermochelyidae.



Dermochelys coriacea

Family Emydidae.



Trachemys emolli



Trachemys venusta

Family Geoemydidae.



Rhinoclemmys annulata



Rhinoclemmys funerea



Rhinoclemmys pulcherrima

Family Kinosternidae.



Kinosternon albogulare



Kinosternon angustipons



Kinosternon leucostomum

Family Testudinidae.



Chelonoidis carbonarius

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