

## A checklist of the Amphibians and Reptiles of Costa Rica: Additions and nomenclatural revisions

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### Abstract

A list of amphibians and reptiles of Costa Rica is actualized. A total of 425 species (190 amphibians and 235 reptiles) are recognized.

**Key words:** Herpetofauna, diversity, Mesoamerica

### Resumen

Se actualiza la lista de anfibios y reptiles de Costa Rica. Se reconocen un total de 425 especies (190 anfibios y 235 reptiles).

### Introduction

The knowledge of the herpetofauna of Costa Rica continues to grow since the publication of the comprehensive coverage in Savage (2002) through discovery of new species, establishment of new country records and recognition of taxa resurrected from synonymy. In addition, major advances in understanding of the phylogeny and status of many supraspecific groups have led to numerous name changes for previously known species. The purpose of the following checklist is to update the known composition of the Costa Rica herpetofauna and provide revisions in nomenclature that reflect the well supported conclusions of recent studies on relationships.

In addition to the individual papers cited as the basis for inclusion of new taxa and records or nomenclatural changes, we have depended heavily on Faivovich *et al.* (2005), Frost *et al.* (2006), Grant *et al.* (2006) and Hedges *et al.* (2008) for revisions to amphibian nomenclature, Solórzano (2004) for names of snakes and those for turtles by Fritz and Havas (2006). In the few cases where we differ from these authors on taxonomy the basis is briefly explained.

In this list, the number of families and genera are indicated by F and G, respectively. Asterisks (\*) denote introduced taxa. The number within parenthesis following most valid species names indicates the page location for the appropriate account in Savage (2002). In all but one case, the original descriptions were based wholly or in part on Costa Rican specimens. When specimens are cited Leviton *et al.* (1985) is followed.

**COSTA RICAN HERPETOFAUNA 44F/150 + 6\*G (425) (416 + 9\*)****CLASS AMPHIBIA Linné, 1758 16F/45 + 3\*G (190) (187 + 3\*)****ORDER GYMNOPHIONA Müller, 1832 1F/3G (7)**

## FAMILY CAECILIIDAE Rafinesque, 1814 3G (7)

*Dermophis* W. Peters, 1880 (5)*Dermophis costaricensis* Taylor, 1955 (839)*Dermophis glandulosus* Taylor, 1955 (839)*Dermophis gracilior* Günther, 1902 (117, 839)*Dermophis occidentalis* Taylor, 1955 (839)*Dermophis parviceps* (Dunn, 1924) (118)*Gymnopsis* W. Peters, 1874 (1)*Gymnopsis multiplicata* W. Peters, 1874 (119)*Osaecilia* Taylor, 1968 (1)*Osaecilia osae* Lahanas & Savage, 1992 (120)**ORDER CAUDATA Scopoli, 1777, 1F/3G (43)**

## FAMILY PLETHODONTIDAE J. E. Gray, 1850 3G (44)

*Bolitoglossa* C. Duméril, Bibron, & A. Duméril, 1854 (23)

The generic classification for the nominal genus *Bolitoglossa* follows Parra-Olea, García-París and Wake (2004). We are inclined to recognize all the subgenera (*Bolitoglossa*, *Eladinea*, *Magnadigita*, *Mayamandra*, *Nanotriton*, *Oaxakia*, and *Pachymandra*) proposed for the major clades within this taxon as valid genera as will be the inevitable result of their recognition as monophyletic groups.

Subgenus *Bolitoglossa* C. Duméril, Bibron, & A. Duméril, 1854 (2)*Bolitoglossa lignicolor* (W. Peters, 1873) (133)*Bolitoglossa striatula* (Noble, 1918) (138)Subgenus *Eladinea* Miranda Ribeiro, 1937 (20)*Bolitoglossa bramei* Wake, Savage, & Hanken, 2007*Bolitoglossa cerroensis* (Taylor, 1952) (130)*Bolitoglossa colonnea* (Dunn, 1924) (131)*Bolitoglossa compacta* Wake, Brame, & Duellman, 1973 (131)*Bolitoglossa diminuta* Robinson, 1976 (132)*Bolitoglossa epimela* Wake & Brame, 1963 (132)*Bolitoglossa gomezi* Wake, Savage, & Hanken, 2007*Bolitoglossa gracilis* Bolaños, Robinson & Wake, 1987 (133)*Bolitoglossa marmorea* (Tanner & Brame, 1961) (839)*Bolitoglossa minutula* Wake, Brame, & Duellman, 1973 (134)*Bolitoglossa nigrescens* (Taylor, 1949) (135)*Bolitoglossa obscura* Hanken, Wake, & Savage, 2005*Bolitoglossa pesrubra* (Taylor, 1952) (136)*Bolitoglossa robinsoni* Bolaños & Wake, 2009*Bolitoglossa robusta* (Cope, 1894) (136)*Bolitoglossa schizodactyla* Wake & Brame, 1966 (137)

*Bolitoglossa sombra* Hanken, Wake, & Savage, 2005

*Bolitoglossa sooyorum* Vial, 1963 (137)

*Bolitoglossa subpalmata* (Boulenger, 1896) (139)

*Bolitoglossa tica* García-París, Parra-Olea & Wake, 2008

Subgenus *Pachymandra* Parra-Olea, García-París & Wake, 2004 (1)

*Bolitoglossa alvaradoi* Taylor, 1954 (129)

*Nototriton* Wake & Elias, 1983 (7)

*Nototriton abscondens* (Taylor, 1948)(141)

*Nototriton gamezi* García-París & Wake, 2000 (142)

*Nototriton guanacaste* Good & Wake, 1993 (142)

*Nototriton major* Good & Wake, 1993 (143)

*Nototriton picadoi* (Stejneger, 1911) (144)

*Nototriton richardi* (Taylor, 1949) (144)

*Nototriton tapanti* Good & Wake, 1993 (145)

*Oedipina* Keferstein, 1868 (14)

*Oedipina alfaroi* Dunn, 1921 (150)

*Oedipina alleni* Taylor, 1954 (149)

*Oedipina altura* Brame, 1968 (151)

*Oedipina carablanca* Brame, 1968 (149)

*Oedipina collaris* (Stejneger, 1907) (151)

*Oedipina cyclocauda* Taylor, 1952 (152)

*Oedipina gracilis* Taylor, 1952 (153)

*Oedipina grandis* Brame & Duellman, 1970 (153)

*Oedipina pacificensis* Taylor, 1952 (154)

*Oedipina paucidentata* Brame, 1968 (154)

*Oedipina poelzi* Brame, 1963 (155)

*Oedipina pseudouniformis* Brame, 1968 (156)

*Oedipina savagei* García-París & Wake, 2000 (150)

*Oedipina uniformis* Keferstein, 1868 (156)

#### **ORDER ANURA Hogg, 1839 14F/39+3\*G (139) (136 + 3\*)**

The following family was included in the Dendrobatidae by Savage (2002). Grant *et al.* (2006) recognized it as distinct from the latter family:

**FAMILY AROMOBATIDAE** Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, & Wheeler, 2006, 1G (1)

*Allobates* Zimmermann & Zimmermann, 1988 (1)

Grant *et al.* (2006) recognized *Allobates* as distinct from *Colostethus*.

The following species was called *Colostethus talamancae* by Savage (2002):

*Allobates talamancae* (Cope, 1875) (381)

**FAMILY BUFONIDAE** J. E. Gray, 1825 5G (17)

*Atelopus* C. Duméril & Bibron, 1841(3)

*Atelopus chiriquiensis* Shreve, 1936 (187)

*Atelopus senex* Taylor, 1952 (188)

*Atelopus varius* (Lichtenstein & von Martens, 1856) (189)

*Chaunus* Wagler, 1828 (1)

Frost *et al.* (2006) recognized *Chaunus* (type species by monotypy: *Chaunus marmoratus* Wagler, 1828 = *Bufo granulatus* Spix, 1824) and *Rhinella* Fitzinger, 1826 (type species by monotypy: *Oxyrhynchus proboscideus* Spix, 1824) as genera distinct from *Bufo*. Chaparro, Pramuk and Gluesenkamp (2007) placed *Chaunus* as a synonym of *Rhinella*. Contrary to these authors implied statement that *Chaunus* is nested within *Rhinella*, this is not the case. Their phylogenetic tree shows that two monophyletic clades (sister groups) are subsumed within their concept of *Rhinella*. One of these includes the *marinus*, *crucifer*, and *spinulosus* groups and constitutes the genus *Chaunus* as used here. The other, *Rhinella (sensu stricto)*, includes the *margaritifera* group of which *Rhinella proboscidea* is a member and a number of additional South American subclades.

The following species was called *Bufo marinus* in Savage (2002):

*Chaunus marinus* (Linné, 1758) (199)

*Crepidophryne* Cope, 1889 (3)

The following species were included in *Crepidophryne epiotica* by Savage (2002):

*Crepidophryne chompipe* Vaughan & Mendelson, 2007

*Crepidophryne epiotica* (Cope, 1875) (211)

*Crepidophryne guanacaste* Vaughan & Mendelson, 2007

*Incilius* Cope, 1863 (9)

Frost *et al.* (2006) recognized *Cranopsis* Cope, 1875 as distinct from *Bufo*. Inasmuch as *Cranopsis* is a junior homonym, Frost, Grant and Mendelson (2006) applied the name *Ollotis* to this genus. Unfortunately, the name *Incilius* Cope, 1863 (type species: *Chilophryne conifera* Cope, 1862 = *Bufo coniferus* Cope, 1862 by subsequent designation of Kellogg 1932) has priority over *Ollotis* (D. R. Frost, pers. comm.).

The following species were included in *Bufo* by Savage (2002):

The following species was included in *Bufo melanochlorus* by Savage (2002) but was recognized as distinct by O'Neill & Mendelson (2004):

*Incilius ancoinae* (O'Neill & Mendelson, 2004)

*Incilius coccifer* (Cope, 1866) (203)

*Incilius coniferus* (Cope, 1862) (207)

*Incilius fastidiosus* (Cope, 1875) (195)

*Incilius holdridgei* (Taylor, 1952) (196)

*Incilius luetkenii* (Boulenger, 1891) (208)

*Incilius melanochlorus* (Cope, 1877) (209)

*Incilius periglenes* (Savage, "1966", 1967) (202)

*Incilius valliceps* (Wiegmann, 1833) (210)

*Rhaebo* Cope, 1862 (1)

Frost *et al.* (2006) recognized *Rhaebo* as distinct from *Bufo*.

The following species was called *Bufo haematiticus* by Savage (2002):

*Rhaebo haematiticus* Cope, 1862 (198)

## FAMILY CENTROLENIDAE Taylor, 1951 3G (13)

*Centrolenella* Noble, 1920 (2)

*Centrolenella illex* Savage, 1967 (360)

*Centrolenella prosoblepon* (Boettger, 1892) (361)

*Cochranella* Taylor, 1959 (5)

*Cochranella albomaculata* (Taylor, 1949) (365)

*Cochranella euknemos* (Savage & Starrett, 1967) (363)

*Cochranella granulosa* (Taylor, 1949) (363)

The following species was called *Hyalinobatrachium pulveratum* by Savage (2002) but was transferred to *Cochranella* by Cisneros-Heredia and McDiarmid (2006):

*Cochranella pulverata* (W. Peters, 1873) (368)

*Cochranella spinosa* (Taylor, 1949) (365)

*Hyalinobatrachium* Ruiz and Lynch, 1991 (6)

*Hyalinobatrachium chirripoi* (Taylor, 1958) (369)

*Hyalinobatrachium colymbiphylum* (Taylor, 1949) (370)

*Hyalinobatrachium fleischmanni* (Boettger, 1893) (371)

*Hyalinobatrachium talamancae* (Taylor, 1952) (373)

*Hyalinobatrachium valerioi* (Dunn, 1931) (374)

*Hyalinobatrachium vireovittatum* (Starrett & Savage, 1973) (375)

Costa Rica members of the following family were referred to the family Leptodactylidae by Savage (2002) but Frost *et al.* (2006) placed them in the Brachycephalidae. Hedges *et al.* (2008) recognized them as distinct from both families.

FAMILY CRAUGASTORIDAE Hedges, Duellman & Heinicke, 2008, 1G (28)

*Craugastor* Cope, 1862 (28)

Crawford and Smith (2005) recognized *Craugastor* as distinct from *Eleutherodactylus*.

The following species were included in *Eleutherodactylus* by Savage (2002):

*Craugastor andi* (Savage, 1974) (237)

*Craugastor angelicus* (Savage, 1975) (248)

*Craugastor bransfordii* (Cope, "1885", 1886) (257)

*Craugastor catalinae* (Campbell & Savage, 2000) (840)

*Craugastor crassidigitus* (Taylor, 1952) (238)

*Craugastor cuaquero* (Savage, 1980) (239)

*Craugastor escoces* (Savage, 1975) (249)

*Craugastor fitzingeri* (O. Schmidt, 1857) (240)

*Craugastor fleischmanni* (Boettger, 1892) (250)

*Craugastor gollmeri* (W. Peters, 1863) (245)

*Craugastor gulosus* (Cope, 1875) (253)

*Craugastor megacephalus* (Cope, 1875) (254)

*Craugastor melanostictus* (Cope, 1875) (241)

*Craugastor mimus* (Taylor, 1955) (246)

*Craugastor noblei* (Barbour & Dunn, 1921) (247)

*Craugastor obesus* (Barbour, 1928) (840)

*Craugastor persimilis* (Barbour, 1926) (258)

*Craugastor phasma* (Lips & Savage, 1996) (242)

*Craugastor podiciferus* (Cope, 1875) (259)

*Craugastor polyptychus* (Cope, "1885", 1886) (260)

*Craugastor ranoides* (Cope, "1885", 1886) (251)

*Craugastor rayo* (Savage & DeWeese, 1979) (243)

*Craugastor rhyacobatrachus* (Campbell & Savage, 2000) (840)

*Craugastor rugosus* (W. Peters, 1873) (255)

*Craugastor stejnerianus* (Cope, 1893) (261)

*Craugastor talamancae* (Dunn, 1931) (244)

*Craugastor taurus* (Taylor, 1958) (252)

*Craugastor underwoodi* (Boulenger, 1896) (262)

FAMILY DENDROBATIDAE Cope, 1865 (1850) 4G (7)

*Dendrobates* Wagler, 1830 (1)

*Dendrobates auratus* (Girard, "1854", 1855) (383)

*Oophaga* Bauer, 1994 (2)

Grant *et al.* (2006) recognized *Oophaga* as distinct from *Dendrobates*.

The following species were included in *Dendrobates* by Savage (2002):

*Oophaga granulifera* (Taylor, 1958) (384)

*Oophaga pumilio* (O. Schmidt, 1857) (386)

*Phyllobates* C. Duméril & Bibron, 1841(2)

*Phyllobates lugubris* (O. Schmidt, 1857) (388)

*Phyllobates vittatus* (Cope, 1893) (390)

*Silverstoneia* Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, & Wheeler, 2006, (2)

Grant *et al.* (2006) recognized *Silverstoneia* as distinct from *Colostethus*.

The following species were included in *Colostethus* by Savage (2002):

*Silverstoneia flotator* (Dunn, 1931) (378)

*Silverstoneia nubicola* (Dunn, 1924) (380)

Costa Rica members of the following family were referred to the family Leptodactylidae by Savage (2002) but Frost *et al.* (2006) placed them in the Brachycephalidae. Hedges *et al.* (2008) recognized them as distinct from both of these families.

FAMILY ELEUTHERODACTYLIDAE Lutz, 1954 1+1 G\* (5) (4+1\*)

*Diasporus* Hedges, Duellman & Heinicke (2008) (4)

Heinicke *et al.* (2008) referred members of this genus to *Pristimantis* but Hedges *et al.* (2008) recognized *Diasporus* as distinct from *Eleutherodactylus* and *Pristimantis*.

The following species were included in *Eleutherodactylus* by Savage (2002):

*Diasporus diastema* (Cope, 1875) (272)

*Diasporus hylaeformis* (Cope, 1875) (273)

*Diasporus tigrillo* (Savage, 1997) (274)

*Diasporus vocator* (Taylor, 1955) (274)

*Eleutherodactylus* C. Duméril & Bibron, 1841 (1\*)

The following species does not seem to be established in the country:

\**Eleutherodactylus johnstonei* Barbour, 1914 (271)

The family status of the following is unsettled. Frost *et al.* (2006) assigned the genus to the Amphignathodontidae Boulenger, 1882. Wiens *et al.* (2007) placed it into a more inclusive Hemiphractidae Peters, 1862. We have taken a conservation position and follow the latter authors.

FAMILY HEMIPHRACTIDAE Peters, 1862 1G (1)

*Gastrotheca* Fitzinger, 1843 (1)

*Gastrotheca cornuta* (Boulenger, 1898) (294)

FAMILY HYLIDAE Rafinesque, 1815 15 + 1\*G (42) (41+1\*)

Subfamily HYLINAE Rafinesque, 1815 12 + 1\*G (36) (35+1\*)

*Anotheca* H. M. Smith, 1939 (1)

*Anotheca spinosa* (Steindachner, 1864) (295)

*Dendropsophus* Fitzinger, 1843 (3)



Faivovich *et al.* (2005) recognized *Dendropsophus* as distinct from *Hyla*.

The following species were included in *Hyla* by Savage (2002):

*Dendropsophus ebraccatus* (Cope, 1874) (313)

*Dendropsophus microcephalus* (Cope, "1885", 1886) (316)

*Dendropsophus phlebodes* (Stejneger, 1906) (318)

*Duellmanohyla* Campbell & E. Smith, 1992 (3)

*Duellmanohyla lythrodes* (Savage, 1968) (297)

*Duellmanohyla rufiocularis* (Taylor, 1952) (298)

*Duellmanohyla uranochroa* (Cope, 1875) (299)

*Ecnomiohyla* Faivovich, Haddad, Garcia, Frost, Campbell & Wheeler, 2005, **new genus** (2)

Faivovich *et al.* (2005) recognized *Ecnomiohyla* as distinct from *Hyla*.

The following species were included in *Hyla* by Savage (2002):

*Ecnomiohyla fimbrimembra* (Taylor, 1948) (332)

*Ecnomiohyla miliaria* (Cope, "1885", 1886) (334)

*Hyloscirtus* W. Peters, 1882 (2)

Faivovich *et al.* (2005) recognized *Hyloscirtus* as distinct from *Hyla*.

The following species were included in *Hyla* by Savage (2002):

*Hyloscirtus colymba* (Dunn, 1931) (306)

*Hyloscirtus palmeri* (Boulenger, 1908) (307)

*Hypsiboas* Wagler, 1830 (2)

Faivovich *et al.* (2005) recognized *Hypsiboas* as distinct from *Hyla*.

The following species were included in *Hyla* by Savage (2002):

*Hypsiboas rosenbergi* (Boulenger, 1898) (303)

*Hypsiboas rufitelus* (Fouquette, 1961)(302)

*Isthmohyla* Faivovich, Haddad, Garcia, Frost, Campbell & Wheeler, 2005 (11)

Faivovich *et al.* (2005) recognized *Isthmohyla* as distinct from *Hyla*.

The following species were included in *Hyla* by Savage (2002):

*Isthmohyla angustilineata* (Taylor, 1952) (327)

*Isthmohyla calypsa* (Lips, 1996) (310)

*Isthmohyla debilis* (Taylor, 1952) (320)

*Isthmohyla lancasteri* (Barbour, 1928) (311)

*Isthmohyla picadoi* (Dunn, 1937) (336)

*Isthmohyla pictipes* (Cope, 1875) (321)

*Isthmohyla pseudopuma* (Günther, 1901) (328)

*Isthmohyla rivularis* (Taylor, 1952) (323)

*Isthmohyla tica* (Starrett, 1966) (324)

*Isthmohyla xanthosticta* (Duellman, 1968) (326)

*Isthmohyla zeteki* (Gaige, 1929) (337)

\**Osteopilus* Fitzinger, 1843 (1)

\**Osteopilus septentrionalis* (C. Duméril & Bibron, 1841) (338)

*Ptychohyla* Taylor, 1944 (1)

Faivovich *et al.* (2005) recognized *Ptychohyla* as distinct from *Hyla*.

The following species was called *Hyla legleri* by Savage (2002):

*Ptychohyla legleri* (Taylor, 1958) (331)

*Scinax* Wagler, 1830 (3)

*Scinax boulengeri* (Cope, 1887) (343)

*Scinax elaeochroa* (Cope, 1875) (345)

*Scinax staufferi* (Cope, 1865) (346)

*Smilisca* Cope, 1865 (5)

*Smilisca baudinii* (C. Duméril & Bibron, 1841) (349)

*Smilisca phaeota* (Cope, 1862) (351)

*Smilisca puma* (Cope, "1884", 1885) (352)

*Smilisca sila* Duellman & Trueb, 1966 (354)

*Smilisca sordida* (W. Peters, 1863) (355)

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

Faivovich *et al.* (2005) recognized *Tlalocohyla* as distinct from *Hyla*.

The following species was called *Hyla loquax* by Savage (2002):

*Tlalocohyla loquax* (Gauge & Stuart, 1934) (308)

*Trachycephalus* Tschudi, 1838 (1)

Faivovich *et al.* (2005) synonymized *Phrynohyas* with *Trachycephalus*.

The following species was called *Phrynohyas venulosus* by Savage (2002):

*Trachycephalus venulosus* (Laurenti, 1768) (340)

Subfamily PHYLLOMEDUSINAE Günther, 1858 3G (6)

*Agalychnis* Cope, 1864 (4)

*Agalychnis annae* (Duellman, 1963) (278)

*Agalychnis callidryas* (Cope, 1862) (281)

*Agalychnis saltator* Taylor, 1955 (283)

*Agalychnis spurrelli* Boulenger, 1913 (285)

*Cruzirohyla* Faivovich, Haddad, Garcia, Frost, Campbell & Wheeler, 2005 (1)

Faivovich *et al.* (2005) recognized *Cruzirohyla* as distinct from *Agalychnis*.

The following species was called *Agalychnis calcarifer* by Savage (2002):

*Cruzirohyla calcarifer* (Boulenger, 1902) (279)

*Hylomantis* W. Peters "1872", 1873 (1)

Faivovich *et al.* (2005) recognized *Hylomantis* as distinct from *Phyllomedusa*.

The following species was called *Phyllomedusa lemur* by Savage (2002):

*Hylomantis lemur* (Boulenger, 1882) (286)

The members of the following family were included in the Leptodactylidae by Savage (2002). Frost *et al.* (2006) recognized it as distinct from the latter family.

FAMILY LEIUPERIDAE Bonaparte, 1850 1G (1)

*Engystomops* Jiménez de la Espada, 1872 (1)

Nascimento, Caramaschi, and Cruz (2005), recognized *Engystomops* as distinct from *Physalaemus*.

The following species was called *Physalaemus pustulosus* by Savage (2002):

*Engystomops pustulosus* (Cope, 1864) (224)

FAMILY LEPTODACTYLIDAE Werner, 1896 (1838) 1G (5)

*Leptodactylus* Fitzinger, 1826 (5)

The following species was called *Leptodactylus labialis* by Savage (2002). Heyer (2002) recognized it as a distinct species:

*Leptodactylus fragilis* (Brocchi, 1877) (221)

The following species was called *Leptodactylus bolivianus* by Savage (2002) but is recognized as a distinct species by W. R. Heyer (pers. comm.):



*Leptodactylus insularum* Barbour, 1906 (217)

*Leptodactylus melanonotus* (Hallowell, "1860", 1861) (215)

*Leptodactylus poecilochilus* (Cope, 1862) (222)

The following species was included in *Leptodactylus pentadactylus* by Savage (2002):

*Leptodactylus savagei* Heyer, 2005 (219)

FAMILY MICROHYLIDAE Günther, 1858 (1843) 3G (3)

*Gastrophryne* Fitzinger, 1843 (1)

*Gastrophryne pictiventris* (Cope, "1885", 1886) (393)

*Hypopachus* Keferstein, 1867(1)

*Hypopachus variolosus* (Cope, 1866) (394)

*Nelsonophryne* Frost, 1987(1)

*Nelsonophryne aterrima* (Günther, 1900) (396)

FAMILY RANIDAE Rafinseque, 1814 1G (6) (5+1\*)

*Lithobates* Fitzinger, 1843 (6) (5+1\*)

Frost *et al.* (2006) recognized *Lithobates* as distinct from *Rana* a result confirmed by Che *et al.* (2007).

The following species does not seem to be established in the country:

\**Lithobates catesbeianus* (Shaw, 1802), **addition to fauna**

The following species were included in *Rana* by Savage (2002):

*Lithobates forreri* (Boulenger, 1883) (399)

*Lithobates taylori* (H. M. Smith, 1959) (400)

*Lithobates vaillanti* ( Brocchi, 1877) (402)

*Lithobates vibicarius* (Cope, 1894) (403)

*Lithobates warszewitschii* (O. Schmidt, 1857) (404)

FAMILY RHINOPHRYNIDAE Günther, "1858", 1859 1G (1)

*Rhinophrynus* C. Duméril & Bibron, 1841(1)

*Rhinophrynus dorsalis* C. Duméril & Bibron, 1841 (183)

Costa Rica members of the following family were referred to the family Leptodactylidae by Savage (2002) but Frost *et al.* (2006) placed them in the Brachycephalidae. Hedges *et al.* (2008) recognized them as distinct from both of these families.

STRABOMANTIDAE Hedges, Duellman & Henicke, 2008, 2G (9)

*Pristimantis* Jiménez de la Espada, "1870", 1871 (8)

Henicke, Duellman, and Hedges (2007) recognized *Pristimantis* as distinct from both *Craugator* and *Eleutherodactylus*.

The following species were included in *Eleutherodactylus* by Savage (2002):

*Pristimantis altae* (Dunn, 1942) (265)

*Pristimantis caryophyllaceus* (Barbour, 1928) (266)

*Pristimantis cerasinus* (Cope, 1875) (264)

*Pristimantis cruentus* (W. Peters, 1873) (267)

*Pristimantis gaigeae* (Dunn, 1931) (263)

*Pristimantis moro* (Savage, 1965) (268)

*Pristimantis pardalis* (Barbour, 1928) (269)

*Pristimantis ridens* (Cope, 1866) (269)

*Strabomantis* Peters, 1863 (1)

Heinicke *et al.* (2006) recognized *Lymnophis* Jiménez de la Espada, “1870”, 1871 as distinct from *Craugastor* and *Eleutherodactylus*. Inasmuch as *Lymnophys* is a junior homonym, Hedges *et al.* (2008) applied the name *Strabomantis* to this genus.

The following species was included in *Eleutherodactylus* by Savage (2002):

*Strabomantis bufoniformis* (Boulenger, 1896) (256)

**CLASS REPTILIA Laurenti, 1768 28F/105 + 3\*G (235) (229 + 6\*)**

**ORDER SQUAMATA Oppel, 1811 20F/94 + 3\*G (218) (212 + 6\*)**

**SAURIA Macartney, 1802 11F/30 + 3\*G (79) (73 + 6\*)**

FAMILY ANGUIDAE J. E.Gray, 1825 4G (7)

*Celestus* J. E.Gray, 1839 (3)

*Celestus cyanochloris* Cope, 1894 (527)

*Celestus hylaius* Savage & Lips, 1993 (529)

*Celestus orobius* Savage & Lips, 1993 (529)

*Coloptychon* Tihen, 1943 (1)

*Coloptychon rhombifer* (W. Peters, 1876) (532)

*Diploglossus* Wiegmann, 1834 (2)

*Diploglossus bilobatus* (O'Shaughnessy, 1874) (530)

*Diploglossus monotropis* (Kuhl, 1820) (531)

*Mesaspis* Cope, 1877 (1)

*Mesapis monticola* (Cope, “1878”, 1877) (533)

FAMILY CORYTOPHANIDAE Merrem, 1820 2G (4)

*Basiliscus* Laurenti, 1768 (3)

*Basiliscus basiliscus* (Linné, 1758) (428)

*Basiliscus plumifrons* Cope, 1875 (430)

*Basiliscus vittatus* Wiegmann, 1828 (431)

*Corytophanes* Merrem, 1820 (1)

*Corytophanes cristatus* (Merrem, “1821”, 1822) (432)

FAMILY EUBLEPHARIDAE Boulenger, 1883 1G (1)

*Coleonyx* J. E. Gray, 1845 (1)

*Coleonyx mitratus* (W. Peters, 1863) (481)

FAMILY GEKKONIDAE J. E.Gray, 1845 5 + 2\*G (12) (8 + 4\*)

Subfamily GEKKONINAE J. E. Gray, 1845 2+2\*G (6) (2 + 4\*)

\**Hemidactylus* Oken, 1817 (3)

\**Hemidactylus frenatus* Schlegel, 1836 (484)

\**Hemidactylus garnotii* C. Duméril & Bibron, 1836 (785)

\**Hemidactylus mabouia* (Moreau de Jonnés, 1818), (Abarca 2006)

\**Lepidodactylus* Fitzinger, 1843 (1)

\**Lepidodactylus lugubris* (C. Duméril & Bibron, 1836) (486)

*Phyllodactylus* J. E. Gray, 1828 (1)

*Phyllodactylus tuberculosus* Wiegmann, "1834", 1835 (487)

*Thecadactylus* Oken, 1817 (1)

*Thecadactylus rapicauda* (Houttuyn, 1782) (488)

Subfamily SPAHERODACTYLINAE Underwood, 1954 3G (6)

*Gonatodes* Fitzinger, 1843 (1)

*Gonatodes albogularis* (C. Duméril & Bibron, 1836) (490)

*Lepidoblepharis* Peracca, 1897 (1)

*Lepidoblepharis xanthostigma* (Noble, 1916) (491)

*Sphaerodactylus* Wagler, 1830 (4)

*Sphaerodactylus graptolaemus* Harris & Kluge, 1984 (494)

*Sphaerodactylus homolepis* Cope, "1885", 1886 (494)

*Sphaerodactylus millepunctatus* Hallowell, "1860", 1861 (495)

*Sphaerodactylus pacificus* Stejneger, 1903 (496)

FAMILY GYMNOPHTHALMIDAE MacLean, 1974 6G (6)

*Anadia* J. E. Gray, 1845 (1)

*Anadia ocellata* J. E. Gray, 1845 (518)

*Bachia* J. E. Gray, 1845 (1)

*Bachia blairi* (Dunn, 1940) (520)

*Gymnophthalmus* Merrem, 1820 (1)

*Gymnophthalmus speciosus* (Hallowell, "1860", 1861) (521)

*Leposoma* Spix, 1825 (1)

*Leposoma southi* Ruthven & Gaige, 1924 (522)

*Potamites* Doan and Castoe, 2005, (1)

Doan and Castoe (2005) recognized *Potamites* as distinct from *Neusticurus*.

The following species was called *Neusticurus apodemus* by Savage (2002):

*Potamites apodemus* (Uzzell, 1966) (523)

*Ptychoglossus* Boulenger, 1890 (1)

*Ptychoglossus plicatus* (Taylor, 1949) (524)

FAMILY IGUANIDAE J. E. Gray, 1827 2G (3)

*Ctenosaura* Wiegmann, 1828 (2)

*Ctenosaura quinquecarinata* (J. E. Gray, 1842) (434)

*Ctenosaura similis* (J. E. Gray, 1831) (435)

*Iguana* Laurenti, 1768 (1)

*Iguana iguana* (Linné, 1758) (437)

FAMILY PHYRNSOMATIDAE Fitzinger, 1843 1G (3)

*Sceloporus* Wiegmann, 1828 (3)

*Sceloporus malachiticus* Cope, 1864 (441)

*Sceloporus squamosus* Bocourt, 1874 (442)

*Sceloporus variabilis* Wiegmann, 1834 (443)

FAMILY POLYCHROTIDAE Fitzinger, 1843 3 + 1\*G (32) (30 + 2\*)

Some authors (e.g. Jackman *et al.* 1999; Poe 2004) prefer to place all “anole” lizards, including the next three genera below, into a single genus, *Anolis* (*sensu lato*). We prefer to continue recognition of these taxa as phylogenies in the cited papers confirm that each constitutes a well-supported monophyletic group of species.

*Ctenonotus* Fitzinger, 1843 (1)

\**Ctenonotus cristatellus* (C. Duméril & Bibron, 1837) (452)

*Dactyloa* Wagler, 1830 (4)

*Dactyloa chocorum* (Williams & Duellman, 1967) (456)

*Dactyloa frenata* (Cope, 1899) (454)

*Dactyloa insignis* (Cope, 1871) (455)

*Dactyloa microtus* (Cope, 1871) (455)

*Norops* Wagler, 1830 (25 + 1\*)

*Norops altae* (Dunn, 1930) (468)

The following species was recently collected (UCR 20081-20082) in the area near Buenos Aires, Puntarenas:

*Norops auratus* (Daudin, 1802), **addition to fauna**

*Norops aquaticus* (Taylor, 1956) (458)

*Norops biporcatus* (Wiegmann, 1834) (475)

*Norops capito* (W. Peters, 1863) (476)

*Norops carpenteri* (A. A. Echelle, A. F. Echelle & Fitch, 1971) (469)

The following species was originally based on specimens from western Panama, but Köhler and Sunyer (2008) identified a specimen (UCR 8477) from Cero Nimaso, Limón Province as this species:

*Norops cryptolimifrons* (Köhler & Sunyer, 2008)

*Norops cupreus* (Hallowell, “1860”, 1861) (458)

*Norops fungosus* (C. Myers, 1971) (477)

*Norops humilis* (W. Peters, 1863) (460)

*Norops intermedius* (W. Peters, 1863) (462)

Hulebak and Poe (2006) synonymized *Norops pandoensis* Savage & Guyer, “1998”, 1999 recognized as valid by Savage (2002) with the following species:

*Norops kemptoni* (Dunn, 1940) (473)

*Norops lemurinus* (Cope, 1861) (463)

*Norops limifrons* (Cope, 1862) (470)

We recognize as distinct the following species, included in *Norops humilis* by Savage (2002), because the diagnostic characters provided by Taylor (1956) for *Anolis humilis marsupialis* amply distinguish it as a distinct taxon from *N. humilis* and *N. quaggalus* as recently redescribed by Köhler *et al.* (2003):

*Norops marsupialis* (Taylor, 1956)

*Norops oxylophus* (Cope, 1875) (472)

*Norops pachypus* (Cope, 1875) (464)

*Norops pentaprion* (Cope, 1862) (477)

*Norops polylepis* (W. Peters, “1873”, 1874) (473)

The following species, included in *Norops humilis* by Savage (2002), was removed from synonymy by Köhler *et al.* (2003):

*Norops quaggulus* (W. Peters, 1863)

The following species was recently collected (UCR 20552-20553) in the area near Limón:

\**Norops sagrei* (C. Dumeril and Bibron, 1837), **addition to fauna**

*Norops sericeus* (Hallowell, 1856) (465)

*Norops townsendi* (Stejneger, 1900)

*Norops tropidolepis* (Boulenger, 1885) (467)

*Norops vociferans* (C. Myers, 1971) (478)

*Norops woodi* (Dunn, 1940) (479)

*Polychrus* Cuvier “1817”, 1816 (1)

*Polychrus gutturosus* Berthold, 1845 (445)

**FAMILY SCINCIDAE J. E. Gray, 1825 3G (3)**

*Mabuya* Fitzinger, 1826 (1)

*Mabuya unimarginata* Cope, 1862 (503)

*Mesoscincus* Griffith, Ngo, & Murphy, 2000 (1)

Griffith, Ngo, and Murphy (2000) recognized *Mesoscincus* as distinct from *Eumeces*.

The following species was called *Eumeces managuae* by Savage (2002):

*Mesoscincus managuae* (Dunn, 1933) (502)

*Sphenomorphus* Fitzinger, 1843 (1)

*Sphenomorphus cherriei* (Cope, 1893) (504)

**FAMILY TEIIDAE J. E. Gray, 1827 2G (6)**

*Ameiva* Meyer, 1795 (5)

*Ameiva ameiva* (Linné, 1758) (508)

*Ameiva festiva* (Lichtenstein & von Martens, 1856) (510)

*Ameiva leptophrys* (Cope, 1893) (511)

*Ameiva quadrilineata* (Hallowell, “1860”, 1861) (512)

*Ameiva undulata* (Wiegmann, 1834) (513)

*Aspidoscelis* Fitzinger, 1843 (1)

Reeder *et al.* (2002) recognized *Aspidoscelis* as distinct from *Cnemidophorus*.

The following species was called *Cnemidophorus deppii* by Savage (2002):

*Aspidoscelis deppii* (Wiegmann, 1834) (515)

**FAMILY XANTUSIIDAE Baird, 1859 1G (2)**

*Lepidophyma* A. Duméril, 1851 (2)

*Lepidophyma flavimaculatum* A. Duméril, 1851 (498)

*Lepidophyma reticulatum* Taylor, 1955 (500)

**SERPENTES Linné, 1758 9F/64G (139)**

**FAMILY ANOMALEPIDIDAE Taylor, 1939 3G (3)**

*Anomalepis* Jan in Jan & Sordelli, 1860 (1)

*Anomalepis mexicanus* Jan in Jan & Sordelli, 1860 (554)

*Helminthophis* W. Peters, 1860 (1)

*Helminthophis frontalis* (W. Peters, 1860) (554)

*Liotyphlops* W. Peters, 1881 (1)

*Liotyphlops albirostris* (W. Peters, 1857) (555)

**FAMILY BOIDAE J. E. Gray, 1825 3G (4)**

*Boa* Linné, 1758 (1)

*Boa constrictor* Linné, 1758 (563)

*Corallus* Daudin, 1803 (2)*Corallus annulatus* (Cope, 1875) (564)The following species was called *Corallus hortulanus* in Savage (2002):*Corallus ruschenbergerii* (Cope, 1875) (566)*Epicrates* Wagler, 1830 (1)Savage (2002) applied the name *Epicrates cenchria* to this taxon. According to Chippaux (1986) and Matz (2004) the Central America members of this genus represent a species distinct from *Epicrates cenchria**Epicrates maurus* Gray, 1849 (567)

## FAMILY COLUBRIDAE Opper, "1810", 1811 44G (106)

## Subfamily COLUBRINAE Opper, "1810", 1811 19G (39)

*Chironius* Fitzinger, 1826(3)*Chironius carinatus* (Linné, 1758) (648)*Chironius exoletus* (Linné, 1758) (649)*Chironius grandisquamis* (W. Peters, 1868) (650)*Coluber* Linné, 1758 (1)*Coluber mentovarius* (C. Duméril, Bibron & A. Duméril, 1854) (651)*Dendrophidion* Fitzinger, 1843 (4)*Dendrophidion nuchale* (W. Peters, 1863) (654)*Dendrophidion paucicarinatum* (Cope, 1894) (656)*Dendrophidion percarinatum* (Cope, 1893) (657)*Dendrophidion vinitor* H. M. Smith, 1941 (655)*Drymarchon* Fitzinger, 1843 (1)The following species, included in *Drymarchon corais* by Savage (2002), was removed from synonymy by Wüster *et al.* (2001):*Drymarchon melanurus* (C. Duméril, Bibron & A. Duméril, 1854) (658)*Drymobius* Fitzinger, 1843 (3)*Drymobius margaritiferus* (Schlegel, 1837) (660)*Drymobius melanotropis* (Cope, 1875) (661)*Drymobius rhombifer* (Günther, 1860) (662)*Lampropeltis* Fitzinger, 1843 (1)*Lampropeltis triangulum* (Lacépède, 1788) (665)*Leptodrymus* Amaral, 1927 (1)*Leptodrymus pulcherrimus* (Cope, 1874) (667)*Leptophis* Bell, 1825 (5)*Leptophis ahaetulla* (Linné, 1758) (668)*Leptophis depressirostris* (Cope, "1860", 1861) (670)*Leptophis mexicanus* C. Duméril, Bibron & A. Duméril, 1854 (671)*Leptophis nebulosus* Oliver, 1942 (672)*Leptophis riveti* Despax, 1910 (672)*Mastigodryas* Amaral, "1934", 1935 (1)*Mastigodryas melanolomus* (Cope, 1868) (673)*Oxybelis* Wagler, 1830 (3)*Oxybelis aeneus* (Wagler, 1824) (676)*Oxybelis brevirostris* (Cope, "1860", 1861) (677)



*Oxybelis fulgidus* (Daudin, 1803) (678)

*Pseustes* Fitzinger, 1843 (1)

*Pseustes poecilonotus* (Günther, 1858) (679)

*Rhinobothryum* Wagler, 1830 (1)

*Rhinobothryum bovallii* Andersson, 1916 (681)

*Scaphiodontophis* Taylor & H. M. Smith, 1943 (1)

The following species, included in *Scaphiodontophis annulatus* by Savage (2002), was removed from synonymy by McCranie (2006):

*Scaphiodontophis venustissimus* (Günther, 1894) (682)

*Scolecophis* Fitzinger, 1843 (1)

*Scolecophis atrocinctus* (Schlegel, 1837) (685)

*Senticolis* Dowling & Fries, 1987(1)

Solórzano (2004) recognized *Senticolis* as distinct from *Elaphe*.

The following species was called *Elaphe triaspis* by Savage (2002):

*Senticolis triaspis* (Cope, 1866) (664)

*Spilotes* Wagler, 1830 (1)

*Spilotes pullatus* (Linné, 1758) (686)

*Stenorrhina* C. Duméril, 1853 (2)

*Stenorrhina degenhardtii* (Berthold, 1845) (688)

*Stenorrhina freminivillii* C. Duméril, Bibron & A. Duméril, 1854 (689)

*Tantilla* Baird and Girard, 1853 (7)

*Tantilla alticola* (Boulenger, 1903) (691)

*Tantilla armillata* Cope, 1875 (692)

*Tantilla reticulata* Cope, 1860 (693)

*Tantilla ruficeps* (Cope, 1894) (694)

*Tantilla schistosa* (Bocourt, 1883) (695)

*Tantilla supracincta* (W. Peters, 1863) (696)

*Tantilla vermiformis* (Hallowell, "1860", 1861) (697)

*Trimorphodon* Cope, 1861 (1)

The following species, included in *Trimorphodon biscutatus* by Savage (2002), was recognized as distinct from that species by Devitt *et al.* (2008):

*Trimorphodon quadruplex* (C. Duméril, Bibron & A. Duméril, 1854) (698)

Subfamily DIPSADINAE Bonaparte, 1838 16G (54)

Lawson *et al.* (2005), based on limited samples, synonymized this subfamily with the Xenodontinae. We continue to recognize this clade as distinct following Zaher (1999).

*Amastridium* Cope, "1860", 1861 (1)

*Amastridium veliferum* Cope, "1860", 1861 (583)

*Coniophanes* Hallowell, 1860 (3)

*Coniophanes bipunctatus* (Günther, 1858) (592)

*Coniophanes fissidens* (Günther, 1858) (593)

*Coniophanes piceivittis* Cope, "1869", 1870 (595)

*Crisantophis* Villa, 1971 (1)

*Crisantophis nevermanni* (Dunn, 1937) (586)

*Dipsas* Laurenti, 1768 (3)

*Dipsas articulata* (Cope, 1868) (597)

- Dipsas bicolor* (Günther, 1895) (597)  
*Dipsas tenuissima* Taylor, 1954 (598)
- Enulius* Cope “1870”, 1871 (2)  
*Enulius flavitorques* (Cope, 1869) (588)  
*Enulius sclateri* (Boulenger, 1894) (589)
- Geophis* Wagler, 1830 (7)  
*Geophis brachycephalus* (Cope, 1871) (602)  
*Geophis downsi* Savage, 1981 (600)  
*Geophis godmani* Boulenger, 1894 (600)  
*Geophis hoffmanni* (W. Peters, 1859) (603)  
*Geophis ruthveni* Werner, 1925 (601)  
*Geophis talamancae* Lips & Savage, 1994 (604)  
*Geophis zeledoni* Taylor, 1954 (604)
- Hydromorphus* W. Peters, 1859 (1)  
*Hydromorphus concolor* W. Peters, 1859 (605)
- Imantodes* C. Duméril, 1853 (3)  
*Imantodes cenchoa* (Linné, 1758) (606)  
*Imantodes gemmistratus* Cope, 1861 (608)  
*Imantodes inornatus* Boulenger, 1896 (609)
- Leptodeira* Fitzinger, 1843 (4)  
*Leptodeira annulata* (Linné, 1758) (611)  
*Leptodeira nigrofasciata* Günther, 1868 (613)  
*Leptodeira rubricata* (Cope, 1893) (612)  
*Leptodeira septentrionalis* (Kennicott, 1859) (614)
- Ninia* Baird & Girard, 1853 (4)  
*Ninia celata* McCranie & Wilson, 1995 (617)  
*Ninia maculata* (W. Peters, 1861) (618)  
*Ninia psephota* (Cope, 1875) (619)  
*Ninia sebae* (C. Duméril, Bibron & A. Duméril, 1854) (620)
- Rhadinaea* Cope, 1863 (5)  
*Rhadinaea calligaster* (Cope, 1875) (622)  
*Rhadinaea decorata* (Günther, 1858) (624)  
*Rhadinaea godmani* (Günther, 1865) (625)  
*Rhadinaea pulveriventris* Boulenger, 1896 (627)  
*Rhadinaea serperaster* Cope, 1871 (226)
- Sibon* Fitzinger, 1843 (7)  
*Sibon annulatus* (Günther, 1872) (629)  
*Sibon anthracops* (Cope, 1868) (630)  
*Sibon argus* (Cope, 1875) (632)  
*Sibon dimidiatus* (Günther, 1872) (631)  
*Sibon lamari* Solórzano, 2001  
*Sibon longifrenis* (Stejneger, 1909) (633)  
*Sibon nebulatus* (Linné, 1758) (634)
- Tretanorhinus* C. Duméril, Bibron & A. Duméril, 1854 (1)  
*Tretanorhinus nigroluteus* Cope, 1861 (635)

*Trimetopon* Cope, "1884", 1885 (5)*Trimetopon gracile* (Günther, 1872) (637)*Trimetopon plirolepis* Cope, 1894 (637)*Trimetopon simile* Dunn, 1930 (638)*Trimetopon slevini* Dunn, 1940 (639)*Trimetopon viquezi* Dunn, 1937 (639)*Tropidodipsas* Günther, 1858 (1)*Tropidodipsas sartorii* Cope, 1863, **addition to fauna** (Solórzano, 2004)*Urotheca* Bibron in Cocteau & Bibron, 1843 (6)*Urotheca decipiens* (Günther, 1893) (641)*Urotheca euryzona* (Cope, 1862) (642)*Urotheca fulviceps* (Cope, "1885", 1886) (644)*Urotheca guentheri* (Dunn, 1938) (645)*Urotheca myersi* Savage & Lahanas, 1989 (646)*Urotheca pachyura* (Cope, 1875) (646)

## Subfamily NATRICINAE Bonaparte, 1840 1G (2)

*Thamnophis* Fitzinger, 1843 (2)*Thamnophis marcianus* (Baird & Girard, 1853) (700)*Thamnophis proximus* (Say, 1823) (701)

## Subfamily XENODERMINAE Cope, 1898 1G (1)

The composition and relationships of members of this group are controversial. Dowling and Pinou (2003) include both Asian and Neotropical genera in the subfamily. Lawson *et al.* (2005) regard this group as a subfamily of the Elapidae containing only the Asian genera. The latter authors place the American "xenodermines" in the Xenodontinae (Dipsadinae) *insertae sedis*.

Note that, the generic name *Xenodermus* is from the Greek *xenos* + *derma* (strange skin). Although derma is neuter. The Latinized name *Xenodermus* is treated as masculine under the International Rules of Zoological Nomenclature (Art. 30.1.3). Consequently, the correct family-group name is Xenoderminae, the orthography originally used by Cope, 1898, not Xenodermatidae as used by some authors (e.g. Zaher 1999; Dowling & Pinou 2003).

*Nothopsis* Cope, 1871 (1)

Assignment to subfamily follows Dowling and Pinou (2003).

*Nothopsis rugosus* Cope, 1871 (590)

## Subfamily XENODONTINAE Bonaparte, 1845 7G (10)

*Clelia* Fitzinger, 1826 (3)*Clelia clelia* (Daudin, 1803) (573)

According to Zaher (1996) the following two species both occur in Costa Rica and were included in *Clelia scytalina* by Savage (2002). Most Costa Rica examples appear to be *Clelia equatoriana*:

*Clelia equatoriana* (Amaral, 1924), **addition to fauna**

Inclusion of the following species is based on MNHN 1897.376 from "Costa Rica". As the species is not known from any other locality south of Guatemala we remain dubious that the data are correct:

*Clelia scytalina* (Cope, "1866", 1867) (574)*Conophis* W. Peters, 1860 (1)*Conophis lineatus* (C. Duméril, Bibron & A. Duméril, 1854) 585

*Erythrolamprus* F. Boie, 1826 (2)

*Erythrolamprus bizona* Jan, 1863 (578)

*Erythrolamprus mimus* (Cope, "1868", 1869) (579)

*Liophis* Wagler, 1830 (1)

Savage (2002) used the incorrect spelling *Liophis epinephalus* for the following taxon. In the original printing of Cope's description the specific name was spelled *epinephalus* through a printer's error. An errata accompanying the journal when it was issued corrected the spelling to *epinephelus* which under the International Code of Zoological Nomenclature (Art. 32.5.1.1) stands as the correct spelling.

*Liophis epinephelus* Cope, 1862 (580)

*Oxyrhopus* Wagler, 1830 (1)

*Oxyrhopus petolarius* (Linné, 1758) (575)

*Siphlophis* Fitzinger, 1843 (1)

Zaher and Prudente (2003) synonymized *Tripanurgos* with *Siphlophis*.

The following species was called *Tripanurgos compressus* by Savage (2002):

*Siphlophis compressus* (Daudin, 1803) (577)

*Xenodon* H. Boie in F. Boie, 1827 (1)

*Xenodon rabdocephalus* (Wied, 1824) (582)

FAMILY ELAPIDAE F. Boie, 1827 2G (6)

*Micrurus* Wagler in Spix, 1824 (4)

*Micrurus alleni* K. Schmidt, 1936 (709)

*Micrurus clarki* K. Schmidt, 1936 (710)

*Micrurus mipartitus* (C. Duméril, Bibron & A. Duméril, 1854 (712)

The following species, included in *Micrurus nigrocinctus* by Savage (2002), was recognized as distinct from that species by Solórzano (2004):

*Micrurus mosquitensis* K. Schmidt, 1933

*Micrurus nigrocinctus* (Girard, "1854", 1855) (710)

*Pelamis* Daudin, 1803 (1)

Lanza and Boscherini (2000) pointed out that *Pelamis* is feminine in gender.

The following species was called *Pelamis platurus* in Savage (2002):

*Pelamis platura* (Linné, 1766) (714)

FAMILY LEPTOTYPHLOPIDAE Stejneger, "1891", 1892 1G (1)

*Leptotyphlops* Fitzinger, 1843 (1)

*Leptotyphlops ater* Taylor, "1939", 1940 (558)

FAMILY LOXOCEMIDAE Cope, 1861 1G (1)

*Loxocemus* Cope 1861 (1)

*Loxocemus bicolor* Cope, 1861 (561)

FAMILY TYPHLOPIDAE Fitzinger, 1826 1G (1)

*Typhlops* Oppel, "1810". 1811 (1)

*Typhlops costaricensis* Jiménez & Savage, 1962 (557)

FAMILY UNGALIOPHIIDAE McDowell, 1987 1G (1)

*Ungaliophis* Müller, 1880 (1)

*Ungaliophis panamensis* K. Schmidt, 1933 (569)

**FAMILY VIPERIDAE Opper, "1810", 1811 8G (16)***Agkistrodon* Palisot de Beauvois, 1799 (1)*Agkistrodon bilineatus* (Günther, 1863) (718)*Atropoides* Werman, 1992 (2)

The following species, included in *Atropoides nummifer* by Savage (2002), was removed from the synonymy of that species by Campbell and Lamar (2004):

*Atropoides mexicanus* (C. Duméril, Bibron & A. Duméril, 1854) (720)*Atropoides picadoi* (Dunn, 1939) (722)*Bothriechis* W. Peters, 1859 (4)*Bothriechis lateralis* W. Peters, 1862 (723)*Bothriechis nigroviridis* W. Peters, 1859 (724)*Bothriechis schlegelii* (Berthold, 1845) (725)

The following species, included in *Bothriechis schlegelii* by Savage (2002), was removed from the synonymy of that species by Solórzano (2004):

*Bothriechis supraciliaris* (Taylor, 1954)*Bothrops* Wagler, 1824 (1)*Bothrops asper* (Garman, "1883", 1884) (726)*Cerrophidion* Campbell & Lamar, 1992 (1)*Cerrophidion godmani* (Günther, 1863) (728)*Crotalus* Linné, 1758 (1)

The following species, included in *Crotalus durissus* by Savage (2002), was removed from the synonymy of that species by Campbell & Lamar (2004):

*Crotalus simus* Latrielle, 1801 (735)*Lachesis* Daudin, 1803 (2)*Lachesis melanocephala* Solórzano & Cerdas, 1986 (730)*Lachesis stenophrys* Cope, 1875 (731)*Porthidium* Cope, 1871 (4)*Porthidium nasutum* (Bocourt, 1868) (732)*Porthidium ophryomegas* (Bocourt, 1868) (733)*Porthidium porrasi* Lamar & Sasa, 2003*Porthidium volcanicum* Solórzano, 1994 (734)**ORDER TESTUDINATA Opper, 1811 6F/9G (15)****FAMILY CHELONIIDAE J. E. Gray, 1825 4G (5)***Caretta* Rafinesque, 1814 (1)*Caretta caretta* (Linné, 1758) (755)*Chelonia* Brongniart, 1800 (2)*Chelonia agassizii* Bocourt, 1868 (756)*Chelonia mydas* (Linné, 1758) (758)*Eretmochelys* Fitzinger, 1843 (1)*Eretmochelys imbricata* (Linné, 1766) (759)*Lepidochelys* Fitzinger, 1843 (1)*Lepidochelys olivacea* (Eschscholtz, 1829) (760)**FAMILY CHELYDRIDAE Agassiz, 1857 (1839) 1G (1)**

The following species was referred to as *Chelydra serpentina* by Savage (2002). We follow the consensus of turtle authorities (see Bonin *et al.* 2006; Fritz & Havas 2006) in recognizing it as distinct from that species.

*Chelydra* Schweigger, 1812 (1)

*Chelydra acutirostris* W. Peters, 1862 (762)

FAMILY DERMOCHELYIDAE Baur, 1888 (1825) 1G (1)

*Dermochelys* Blainville, 1816 (1)

*Dermochelys coriacea* (Vandelli, 1761) (751)

FAMILY EMYDIDAE Schmid, 1819 1G (2)

*Trachemys* Agassiz, 1857 (2)

The name *Trachemys* is now generally applied to the several species of “sliders”. Savage (2002) used the name *Chrysemys* for this genus which included the painted turtles (*Chrysemys*) and cooters (*Pseudemys*) as well.

The number of species of Mesoamerican sliders is controversial with no agreement among recent authors. In Costa Rica two species are recognized by Vetter (2002) one from the Rio San Juan drainage (*T. emolli*) and the other (*T. venusta*) from the Caribbean and southern Pacific lowlands. Bonin *et al.* (2006) and Fritz and Havas (2006) recognize these two forms but do not apply either name to Pacific versant Costa Rica populations. Both of these nominal taxa were included in *Chrysemys ornata* by Savage (2002):

*Trachemys emolli* (Legler, 1990)

*Trachemys venusta* (J. E. Gray, 1856)

FAMILY GEOEMYDIDAE Theobald, 1868 1 (3)

This taxon was treated as a subfamily (Batagurinae) of the Emydidae by Savage (2002); it is generally recognized as a distinct family (see Vetter 2002; Bonin, Devaux & Dupré 2006; Fritz & Havas 2006).

*Rhinoclemmys* Fitzinger, 1835(3)

*Rhinoclemmys annulata* (J. E. Gray, 1860) (765)

*Rhinoclemmys funerea* (Cope, 1875) (766)

*Rhinoclemmys pulcherrima* (J. E. Gray, 1855) (767)

FAMILY KINOSTERNIDAE J. E. Gray, 1869 1G (3)

*Kinosternon* Spix, 1824 (3)

*Kinosternon angustipons* Legler, 1965 (746)

*Kinosternon leucostomum* (C. Duméril & Bibron, 1851) (747)

*Kinosternon scorpioides* (Linné, 1766) (748)

**ORDER CROCODYLIA Gmelin, “1788”, 1789 2F/2G (2)**

Savage (2002) regarded the following taxon as a subfamily of the Crocodylidae. Most crocodylian systematists (e.g., King & Burke 1989; Richardson, Webb, & Manolis 2002) recognize it as a family distinct from the latter family.

FAMILY ALLIGATORIDAE Cuvier, 1807 1G (1)

*Caiman* Spix, 1825 (1)

*Caiman crocodilus* (Linné, 1758) (776)



FAMILY CROCODYLIDAE Gmelin, “1788”, 1789 1G (1)

*Crocodylus* Laurenti, 1768 (1)

*Crocodylus acutus* (Cuvier, 1807) (778)

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