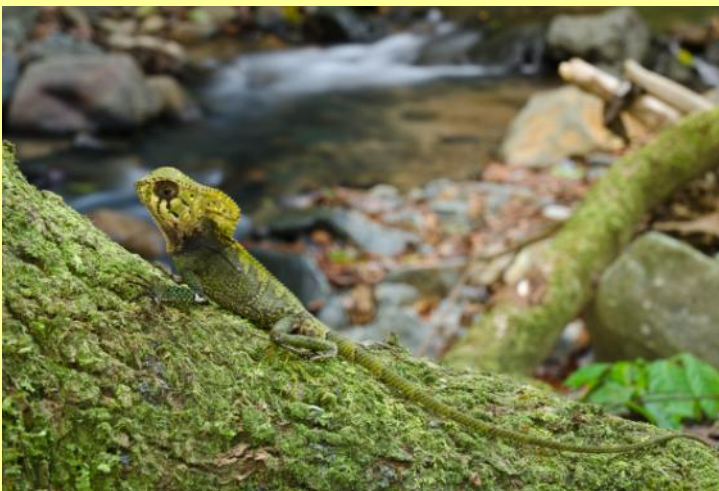


Amphibians and Reptiles of Cocobolo Nature Reserve



Herpetofauna of the Cocobolo Nature Reserve

AMPHIBIANS - 47 (43 confirmed)

Caecilians - 1

Oscaecilia ochrocephala Caeciliidae

Salamanders - 2

Bolitoglossa cf. *cuna* Plethodontidae

Oedipina cf. *complex* Plethodontidae

Frogs & Toads - 44 (40 confirmed)

Atelopus limosus Bufonidae

Rhaebo (*Bufo*) *haematiticus* Bufonidae

Rhinella (*Bufo*) *alata* ? Bufonidae

Rhinella (*Bufo*) *marina* Bufonidae

Hyalinobatrachium colymbiophyllum Centrolenidae

Sachatamia ilex Centrolenidae

Teratohyla pulverata Centrolenidae

Teratohyla spinosa Centrolenidae

Craugastor '*bransfordii*' Craugastoridae

Craugastor crassidigitus Craugastoridae

Craugastor fitzingeri Craugastoridae

Craugastor gollmeri Craugastoridae

Craugastor opimus Craugastoridae

Craugastor tabasarae Craugastoridae

Craugastor talamancae Craugastoridae

Andinobates fulguritus Dendrobatidae

Andinobates minutes Dendrobatidae

Colostethus panamensis Dendrobatidae

Dendrobates auratus ? Dendrobatidae

Silverstoneia flotator Dendrobatidae

Silverstoneia nubicola Dendrobatidae

Diasporus diastema Eleutherodactylidae

Diasporus quidditus Eleutherodactylidae

Diasporus vocator Eleutherodactylidae

Agalychnis callidryas Hylidae

Dendropsophus ebraccatus ? Hylidae

Hyloscirtus palmeri Hylidae

Hypsiboas boans Hylidae

Hypsiboas rosenbergi Hylidae

Scinax ruber Hylidae

Smilisca phaeota Hylidae

Smilisca sila Hylidae

Engystomops pustulosus Leptodactylidae

Leptodactylus fragilis Leptodactylidae

Leptodactylus melanonotus Leptodactylidae

Leptodactylus poecilochilus Leptodactylidae

Leptodactylus savage Leptodactylidae

Rana warszewitschii ? Ranidae

Pristimantis cerasinus Strabomantidae

Pristimantis cruentus Strabomantidae

Pristimantis gaigei Strabomantidae

Pristimantis pardalis Strabomantidae

Pristimantis ridens Strabomantidae

Pristimantis taeniatus Strabomantidae

REPTILES -51 (48 confirmed)**Crocodylians -1**

Caiman crocodiles	Alligatoridae
-------------------	---------------

Turtles - 1

Kinosternon scorpioides	Kinosternidae
-------------------------	---------------

Lizards - 22

Gonatodes albogularis	Gekkonidae
Hemidactylus garnotti	Gekkonidae
Lepidoblepharis xanthostigma	Gekkonidae
Sphaerodactylus lineolatus	Gekkonidae
Thecadactylus rapicauda	Gekkonidae
Anadia vittata	Gymnophthalmidae
Echinosaura palmeri	Gymnophthalmidae
Leposoma southi	Gymnophthalmidae
Ptychoglossus festae	Gymnophthalmidae
Norops apletophallus	Iguanidae
Norops capito	Iguanidae
Norops humilis	Iguanidae
Norops poecilopus	Iguanidae
Norops vittigerus	Iguanidae
Basiliscus basiliscus	Iguanidae
Corytophanes cristatus	Iguanidae
Enyalioides heterolepis	Iguanidae
Iguana iguana	Iguanidae
Mabuya unimarginata	Scincidae
Ameiva ameiva	Teiidae
Ameiva leptophrys	Teiidae
Ameiva festiva	Teiidae

Snakes - 27 (25 confirmed)

Boa constrictor	Boidae
Corallus ruschenbergerii	Boidae
Chironius grandisquamis	Colubridae
Clelia clelia	Colubridae
Coniophanes fissidens	Colubridae
Dryadophis melanolomus	Colubridae
Dryadophis pleei	? Colubridae
Enuliophis sclateri	Colubridae
Imantodes cenchoa	Colubridae
Imantodes inornatus	Colubridae
Leptophis depressirostris	Colubridae
Leptophis ahaetulla	Colubridae
Ninia maculate	Colubridae
Oxybelis aeneus	Colubridae
Oxybelis fulgidus	Colubridae
Oxyrhopus petola	Colubridae
Pseudoboa newiedii	Colubridae
Pseustes poecilonotus	Colubridae
Sibon nebulatus	Colubridae
Spilotes pullatus	Colubridae
Urotheca euryzonus	Colubridae
Micrurus multifasciatus	Elapidae
Micrurus nigrocinctus	Elapidae
Bothriechis schlegelii	Viperidae
Bothrops asper	Viperidae
Lachesis stenophrys	? Viperidae
Porthidium nasutum	Viperidae

Caecilians



↑
Limbless & eyeless—with short tentacle on each side of head near nostril

Oscaecilia ochrocephala
Caecilian
Caecilliidae
Least Concern

Salamanders



↑
Somewhat robust with powerful limbs and pad-like, fully webbed hands and feet

Bolitoglossa cf. cuna
Cuna Salamander
Plethodontidae
Data Deficient





Light area on top of snout diagnostic



Bolitoglossa cf. cuna
Cuna Salamander
Plethodontidae
Data Deficient



Oedipina cf. complex
Worm Salamander
Plethodontidae
Least Concern



Worm-like with miniscule limbs

Frogs & Toads



Juvenile

Angular body; long, skinny limbs

Atelopus limosus
Limosa Harlequin Toad
Bufonidae
Endangered



Rhaebo (Bufo) haematiticus
Smooth-skinned Toad
Bufonidae
Least Concern

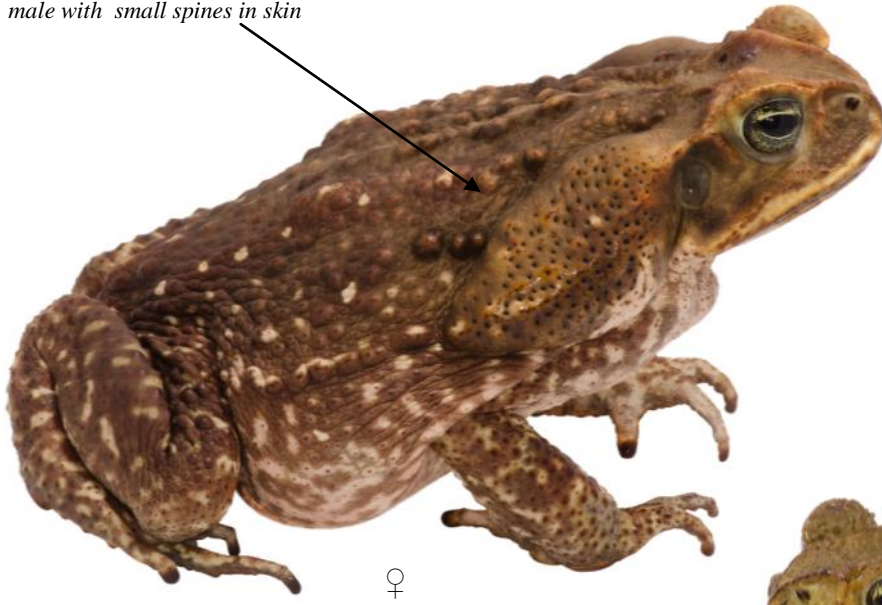
Smooth skin; large paratoid glands; 'dead leaf' color pattern



Juvenile



Huge size with enormous paratoid glands; female with rounded warts, male with small spines in skin



♀



Juvenile



♂

Rhinella (Bufo) marina
Cane Toad, Marine Toad
Bufonidae
Least Concern



When stressed, all toads can excrete a cocktail of toxic chemicals from their paratoid glands and skin; contact with the white, milky substance may cause eye and skin irritation - ingesting it can be very dangerous!

Hyalinobatrachium colymbiphyllum
Bare-hearted Glass Frog
Centrolenidae
Least Concern



Truncated, vertical snout profile without raised nostrils; faint cream or yellow spots on a green dorsum; venter almost completely transparent—beating heart clearly visible



Huge eyes with striking reticulated pattern



Raised nostrils give snout a truncated, vertical profile



Sachatamia ilex
Ghost Glass Frog
Centrolenidae
Least Concern

Teratohyla pulverata
Powdered Glass Frog
Centrolenidae
Least Concern



↑
*Pattern of tiny light 'dust specks';
sloping snout profile*



Teratohyla spinosa
Dwarf Glass Frog
Centrolenidae
Least Concern

*Very small size—like a miniature ver-
sion of Sachatamia ilex - but usually
with bronze-colored iris and lacking
raised nostrils; white membrane covers
entire underside*



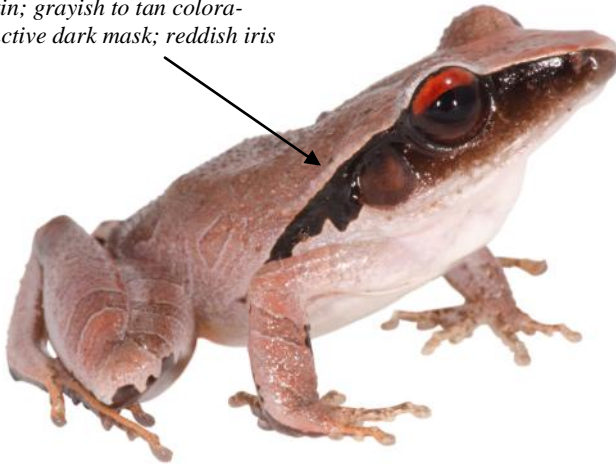


Craugastor cf. bransfordii
Bransford's Litter Frog
Craugastoridae
Least Concern

Extremely variable in coloration and pattern; lacks webbing between fingers and toes and lacks enlarged finger and toe disks; warty skin



Smooth skin; grayish to tan coloration; distinctive dark mask; reddish iris



Craugastor gollmeri
Southern Masked Rain Frog
Craugastoridae
Least Concern

Juveniles lack the reddish iris





Craugastor crassidigitus
Slim-fingered Rain Frog
Craugastoridae
Least Concern

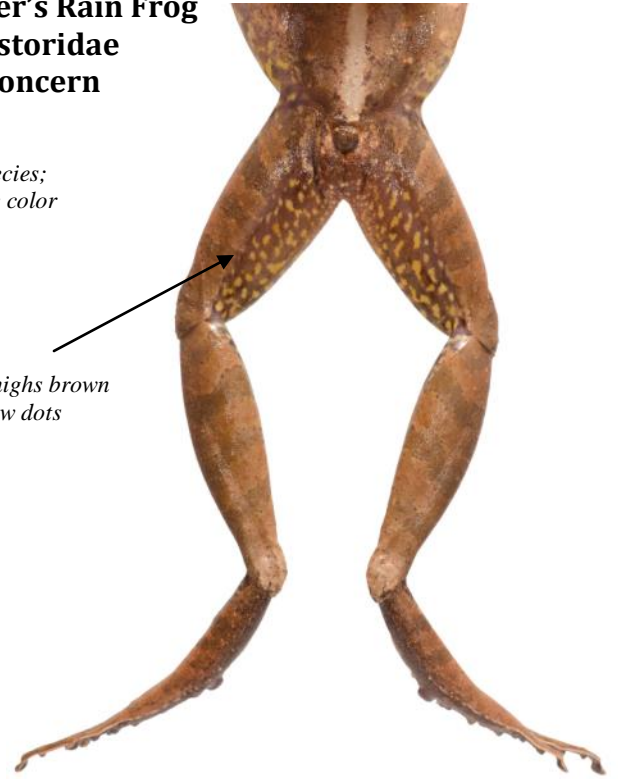


Craugastor fitzingeri
Fitzinger's Rain Frog
Craugastoridae
Least Concern

*Both extremely variable and similar species;
only reliably distinguished based on the color
on the back of the thighs*



*Back of thighs
solid reddish-
brown*



*Back of thighs brown
with yellow dots*





Craugastor opimus
Broad-headed Rain Frog
Craugastoridae
Least Concern

Somewhat toad-like with a very broad head; hourglass-shaped ridge on back; venter with pattern of light polka-dots.

Craugastor tabasarae
Tabasara Rain Frog
Craugastoridae
Critically Endangered

Widely expanded disks on outer fingers; pointed tubercle on top of each eyelid; pointed heel tubercle; striking eyes



♀

Craugastor talamancae
Talamancan Rain Frog
Craugastoridae
Least Concern



♂

White lateral stripe; long legs



Andinobates fulguritus
Dwarf Poison-dart Frog
Dendrobatidae
Least Concern



Andinobates minutus
Dwarf Poison-dart Frog
Dendrobatidae
Least Concern

Colostethus panamensis
Rocket Frog
Dendrobatidae
Least Concern



Robust build, with powerful legs;
lateral light stripe incomplete; yellow
flash marks in groin



Lateral light stripe runs from insertion
of hind leg to eye

Silverstoneia flotator
Rocket Frog
Dendrobatidae
Least Concern



Silverstoneia nubicola
Rocket Frog
Dendrobatidae
Near Threatened



Lateral light stripe incomplete; vertical
dark bars on hind limbs



Salmon-orange to pink coloration; each toe with alternating white and dark brown bands; arboreal; call a loud 'tink'

Diasporus diastema
Common Tink Frog
Eleutherodactylidae
Least Concern



Very similar to Common Tink Frog, but smaller, more rugose skin; tan with dark brown blotches; terrestrial, found in stream beds

Diasporus quidditus
Tink Frog
Eleutherodactylidae
Least Concern



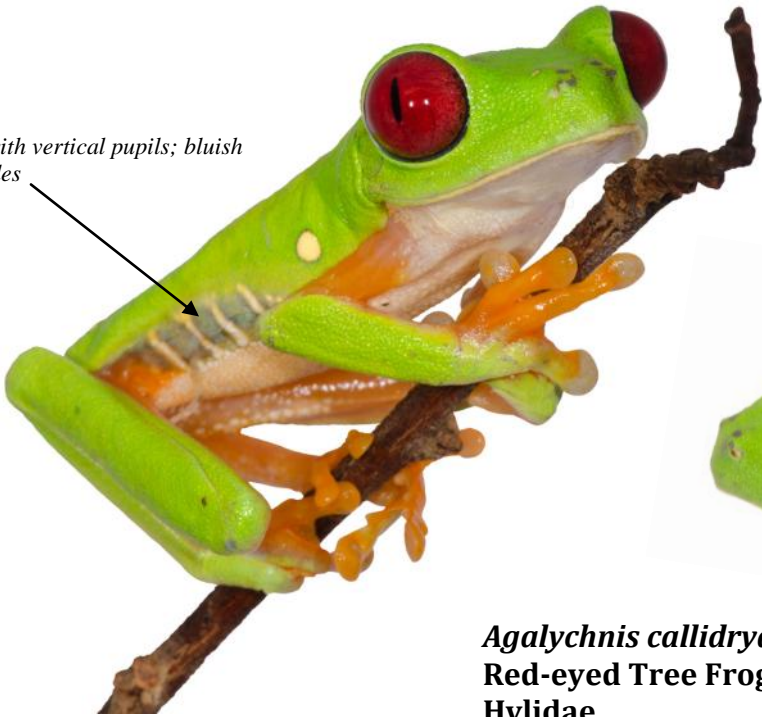
Very similar to Common Tink Frog, but smaller; relatively large eyes and short snout (about as long as diameter of eye)



Diasporus vocator
Tink Frog
Eleutherodactylidae
Least Concern



Red eyes with vertical pupils; bluish bars on sides



Agalychnis callidryas
Red-eyed Tree Frog
Hylidae
Least Concern



Dendropsophus ebraccatus
Hourglass Tree Frog
Hylidae
Least Concern

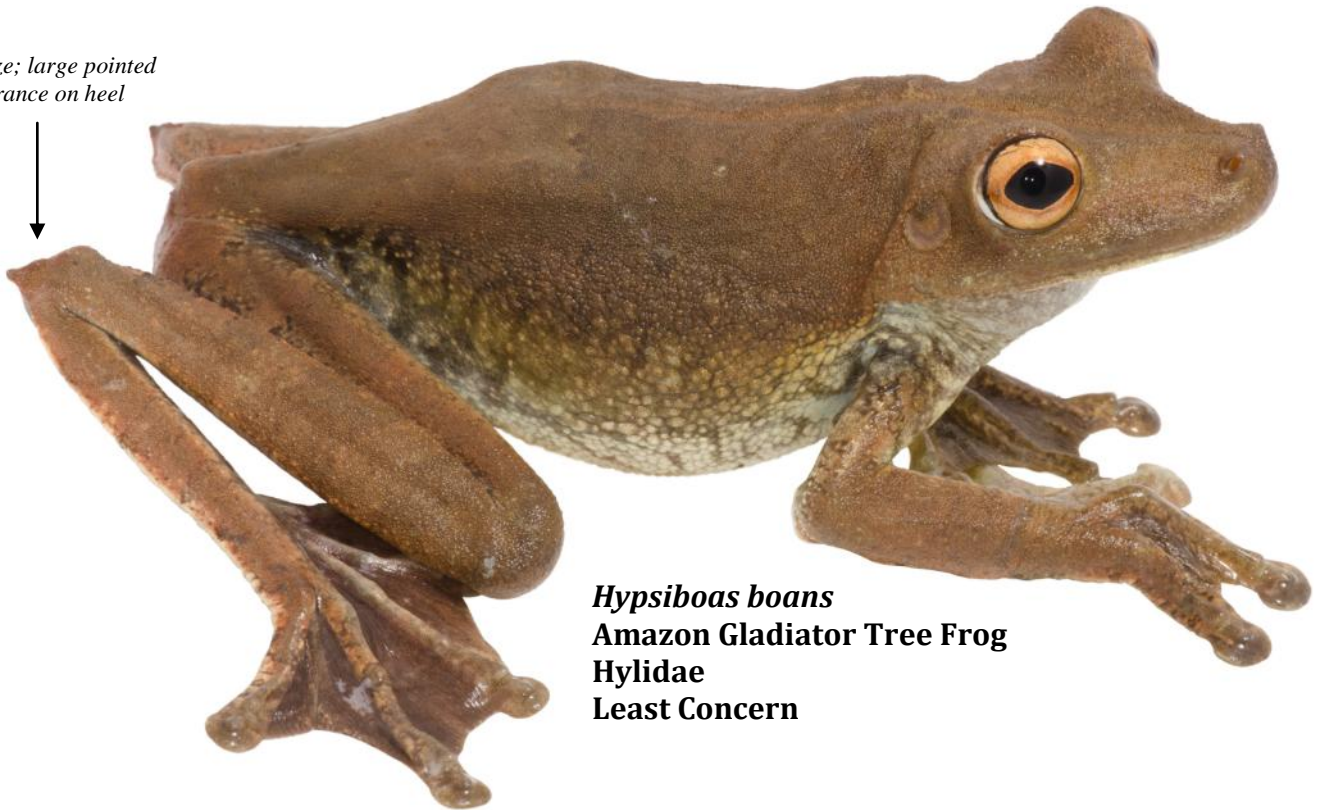
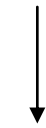


Hyloscirtus palmeri
Green Stream Frog
Hylidae
Least Concern

Metamorph shown; adults call from below large boulders in rocky streams



Huge size; large pointed protuberance on heel



Hypsiboas boans
Amazon Gladiator Tree Frog
Hylidae
Least Concern

large size; small protuberance on heel; black line on center of dorsum



Juveniles colored very differently than adults—often confused with glass frogs

Hypsiboas rosenbergi
Gladiator Tree Frog
Hylidae
Least Concern



Green or tan with dark brown mask;
white stripe along upper lip and often
with green on side of snout



Smilisca phaeota
Masked Tree Frog
Hylidae
Least Concern



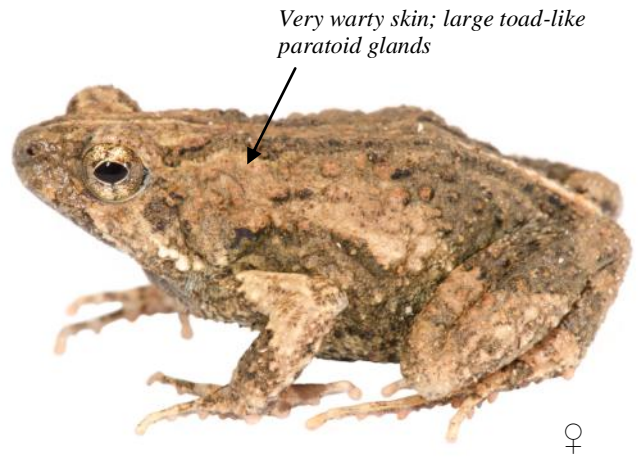
Smilisca sila
Stream-breeding Tree Frog
Hylidae
Least Concern



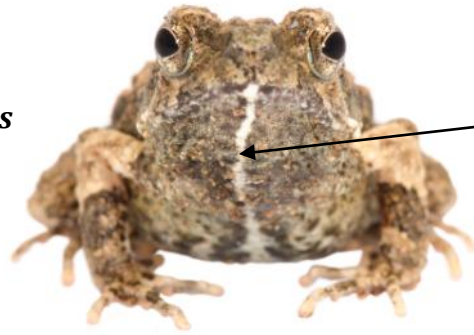
*Juveniles (and some adults) with
pattern of small green spots*



*Skin fold over top of tympanum;
skin granular; always
found in or near rocky
streams*



Engystomops pustulosus
Tungara Frog
Leptodactylidae
Least Concern



Conspicuous white stripe on throat and belly

Streamlined appearance; no webbing between toes; light stripe on back of thighs; white lip stripe.



Leptodactylus fragilis
White-lipped Frog
Leptodactylidae
Least Concern



Leptodactylus poecilochilus
Brown-backed Frog
Leptodactylidae
Least Concern

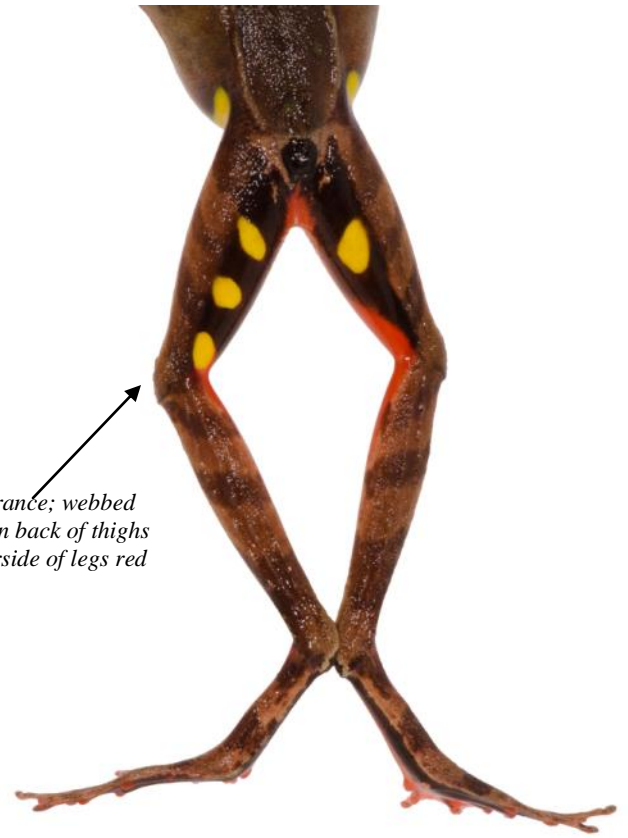


Leptodactylus melanonotus
Black-backed Frog
Leptodactylidae
Least Concern



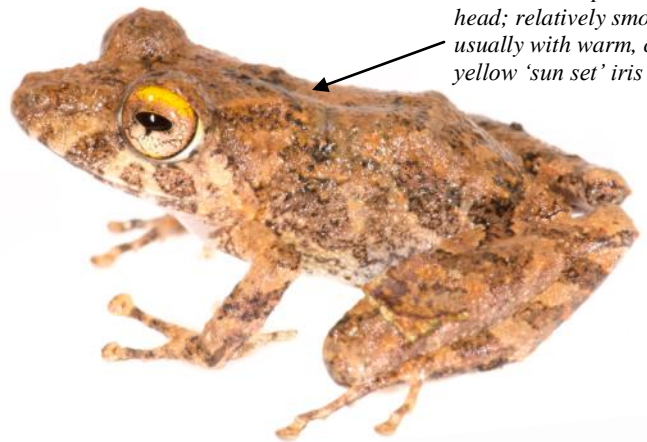
Juvenile; note the characteristic series of lateral skin folds

Leptodactylus savagei
Central American Bullfrog
Leptodactylidae
Least Concern



Streamlined appearance; webbed feet; yellow spots on back of thighs and in groin; underside of legs red

Rana warszewitschii
Brilliant Forest Frog
Ranidae
Least Concern



Raised, W-shaped ridge behind head; relatively smooth skin; usually with warm, copper to yellow 'sun set' iris

Pristimantis cerasinus
Clay-colored Rain Frog
Strabomantidae





Pristimantis cruentus
Golden-groined Rain Frog
Strabomantidae
Least Concern



Rugose skin with raised, W-shaped ridge behind head; strongly reticulated iris, barred pattern on legs and sides—often with a contrasting flash color (red, orange, yellow) in the groin area; pointed tubercle on heel



Pristimantis gaigei
Mimicking Rain Frog
Strabomantidae
Least Concern

Striking pattern of orange dorsolateral stripes on dark background; sky-blue markings on the lower sides—resembles toxic poison-dart frogs of the genus *Phyllobates* (not known to occur in Cocobolo Nature Reserve)

Photo by Sean Graesser

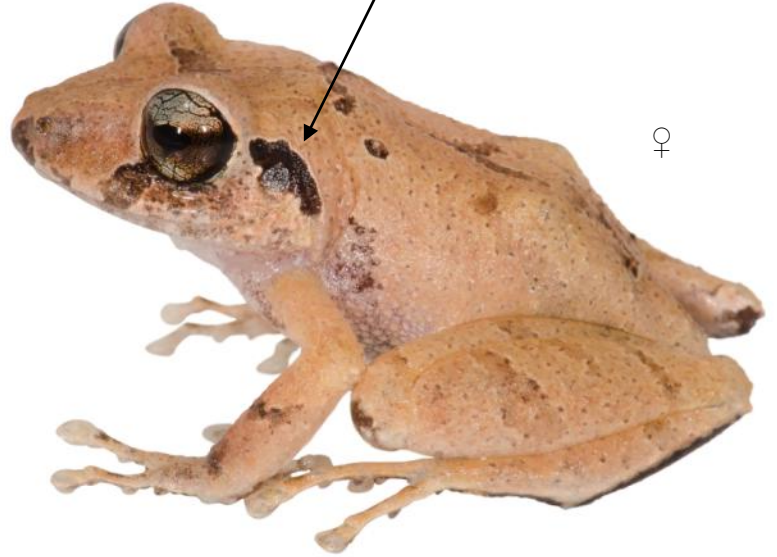


Pristimantis ridens
Pygmy Rain Frog
Strabomantidae
Least Concern

Very small species; dark blotch on tympanum; reddish coloration in groin; extremely variable in coloration and pattern



Medium-sized species; dark blotch on tympanum; underside of feet dark brown



Pristimantis cf. taeniatus
Strabomantidae
Least Concern



Crocodylians

*Bony bridge across snout
between eyelids*

Caiman crocodilus
Spectacled Caiman
Alligatoridae



Turtles

Kinosternon scorpioides
Red-cheeked Mud Turtle
Kinosternidae



Nail-like tip on tail



*Plastron has moveable lobes that allow
these turtles to close themselves com-
pletely inside the shell*

Lizards

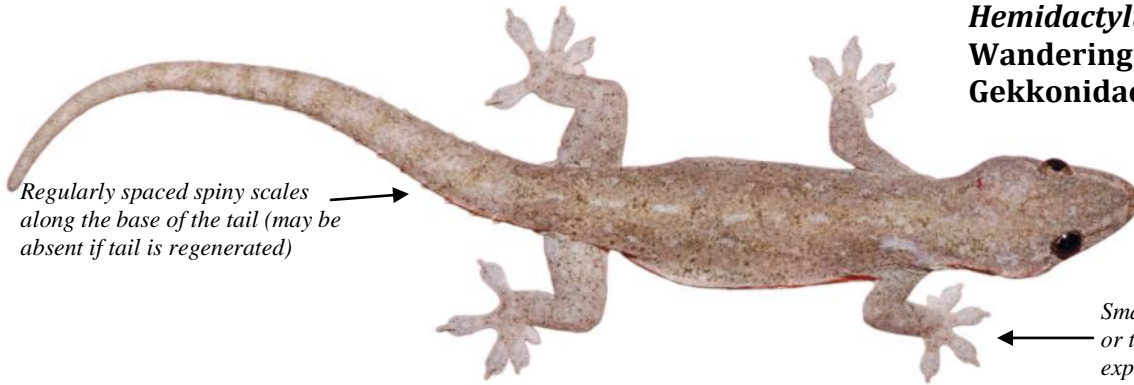


Gonatodes albogularis
Yellow-headed Gecko
Gekkonidae

Diurnal gecko with round pupils; lacks expanded finger and toe disks



Hemidactylus garnottii
Wandering Gecko
Gekkonidae



Small nocturnal gecko; pale grey or tan with vertically slit pupil; expanded finger and toe tips; vocalizes at night—
INTRODUCED



Small diurnal gecko; drab; flap-like ridge over eye; round pupil

Lepidoblepharus xanthostigma
Leaf Litter Gecko
Gekkonidae



Small diurnal gecko; colorful;
spiky scale on top of eyelid;
round pupil



Sphaerodactylus lineolatus
Streaked Dwarf Gecko
Gekkonidae



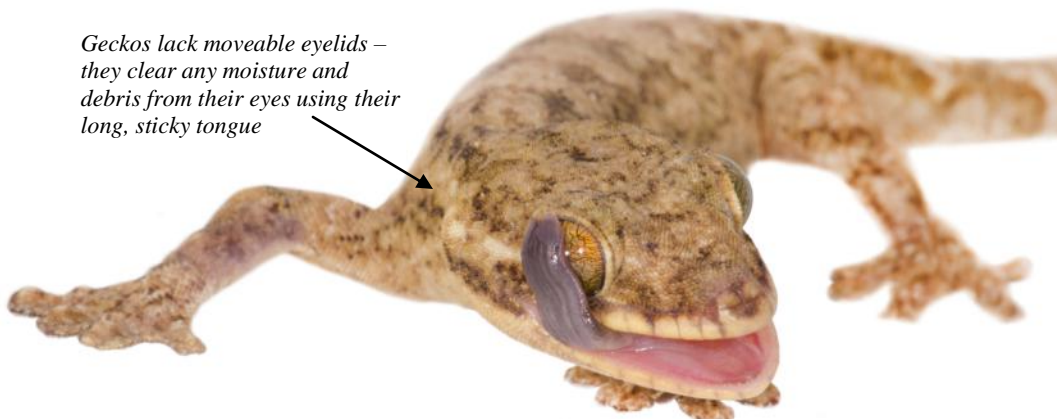
Large nocturnal gecko;
large hands and feet
with widely expanded
toe pads; vertical pupil

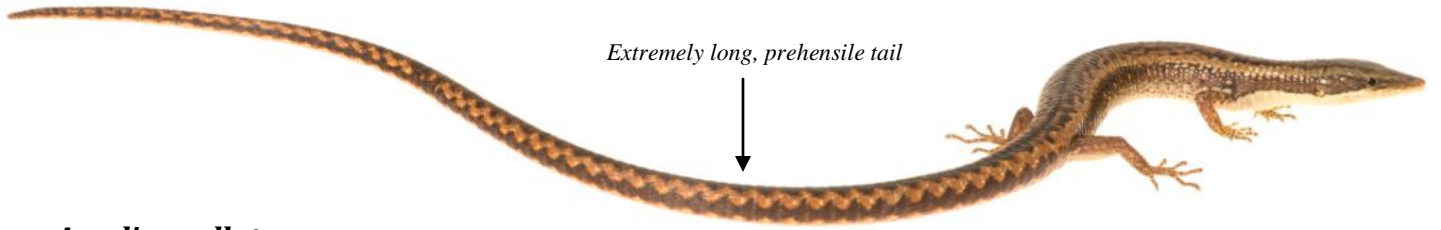


Thecadactylus rapicauda
Turnip-tail Gecko
Gekkonidae



Geckos lack moveable eyelids –
they clear any moisture and
debris from their eyes using their
long, sticky tongue





Anadia ocellata
Bromeliad Lizard
Gymnophthalmidae

*This, or a closely related and similar-looking species (*Anadia vittata*) was recently recorded at Cocobolo Nature Reserve*



Small leaf litter lizard often found near streams; with intricate pattern of keeled scales on body and whorls of pointed scales around tail



Echinosaura panamensis
Spiny Leaf Litter Lizard
Gymnophthalmidae

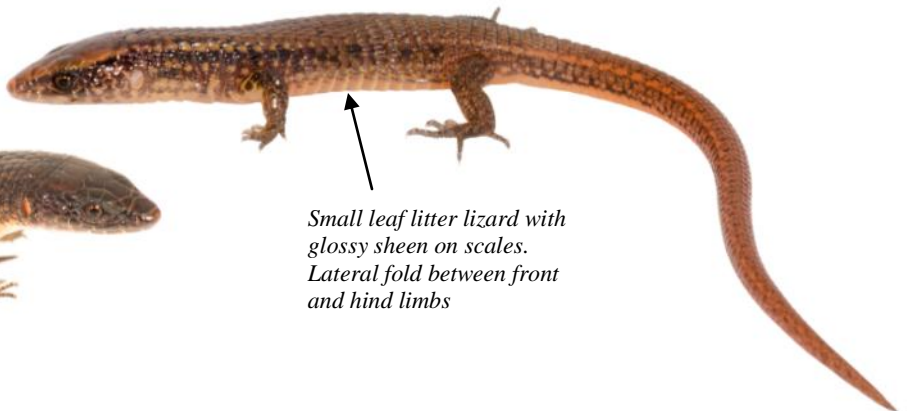
Leposoma southi
Keeled Litter Lizard
Gymnophthalmidae

Small leaf litter lizard with velvety sheen on scales. Scales on top of head distinctly keeled



Ptychoglossus festae
Leaf Litter Lizard
Gymnophthalmidae

Small leaf litter lizard with glossy sheen on scales. Lateral fold between front and hind limbs





Slender body, alternating black and light bands on tail. Dewlap yellow-orange with white scales



Norops apletophallus
Southern Slender Anole
Iguanidae

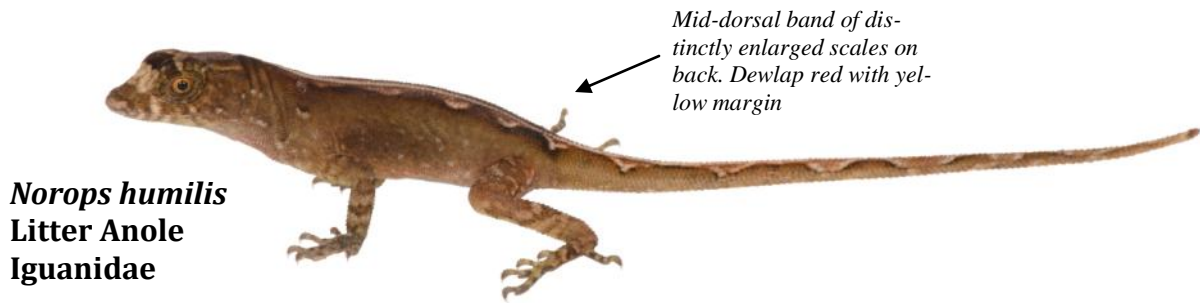


Norops capito
Pug-nosed Anole
Iguanidae



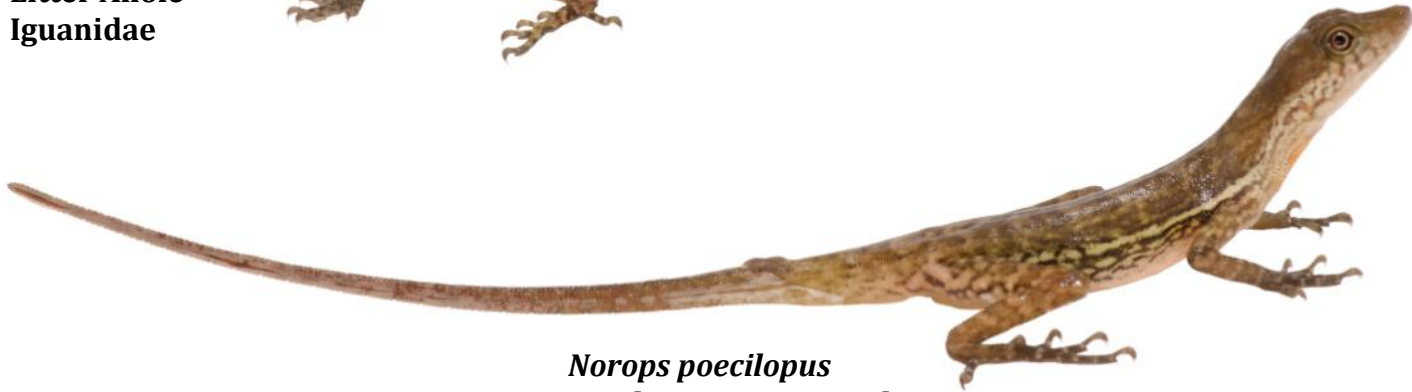
*Short, 'duck-bill' snout
Dewlap very small, olive green*





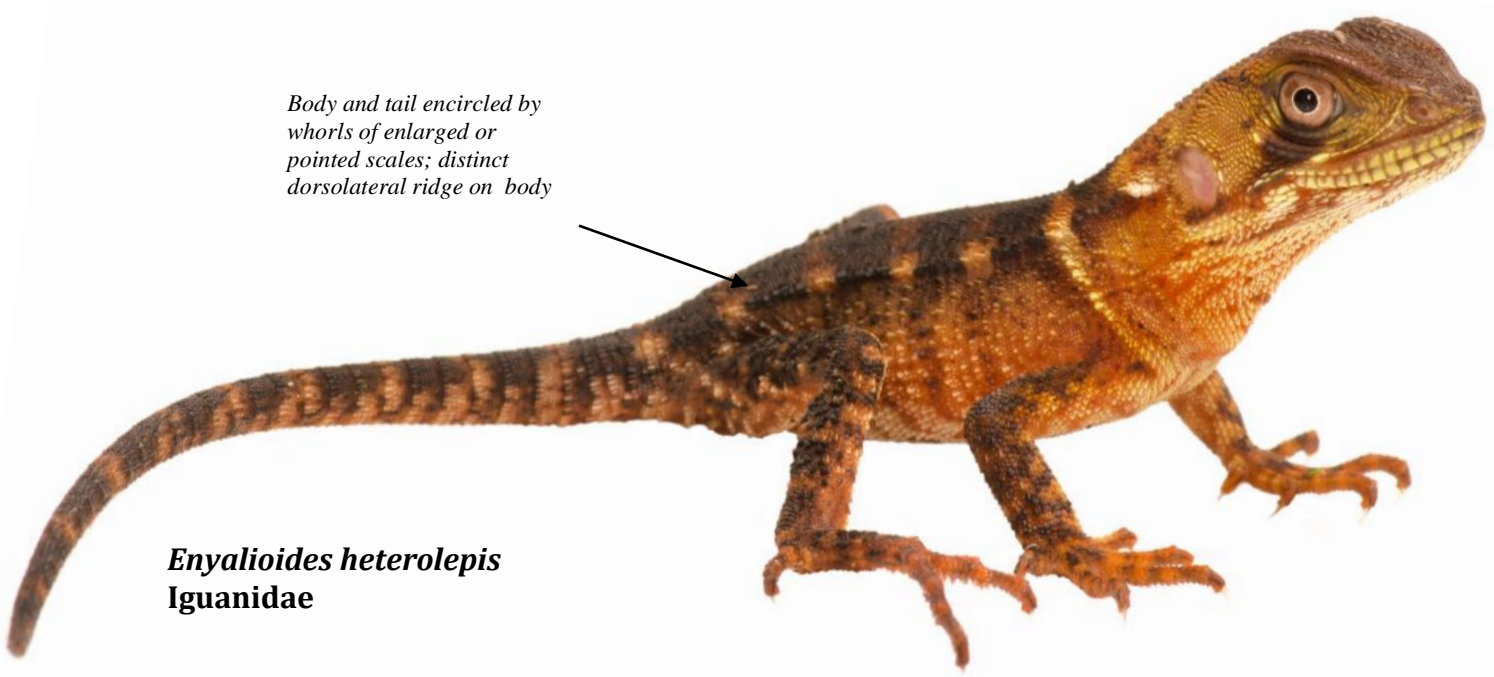
Mid-dorsal band of distinctly enlarged scales on back. Dewlap red with yellow margin

Norops humilis
Litter Anole
Iguanidae



Norops poecilopus
Southern Stream Anole
Iguanidae

Light lateral stripe. Only found in or near streams—often escapes by jumping in water. Dewlap orange with white scales



Body and tail encircled by whorls of enlarged or pointed scales; distinct dorsolateral ridge on body

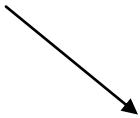
Enyalioides heterolepis
Iguanidae



Corytophanes cristatus
Helmeted Iguana
Iguanidae



Helmet-like crest on head

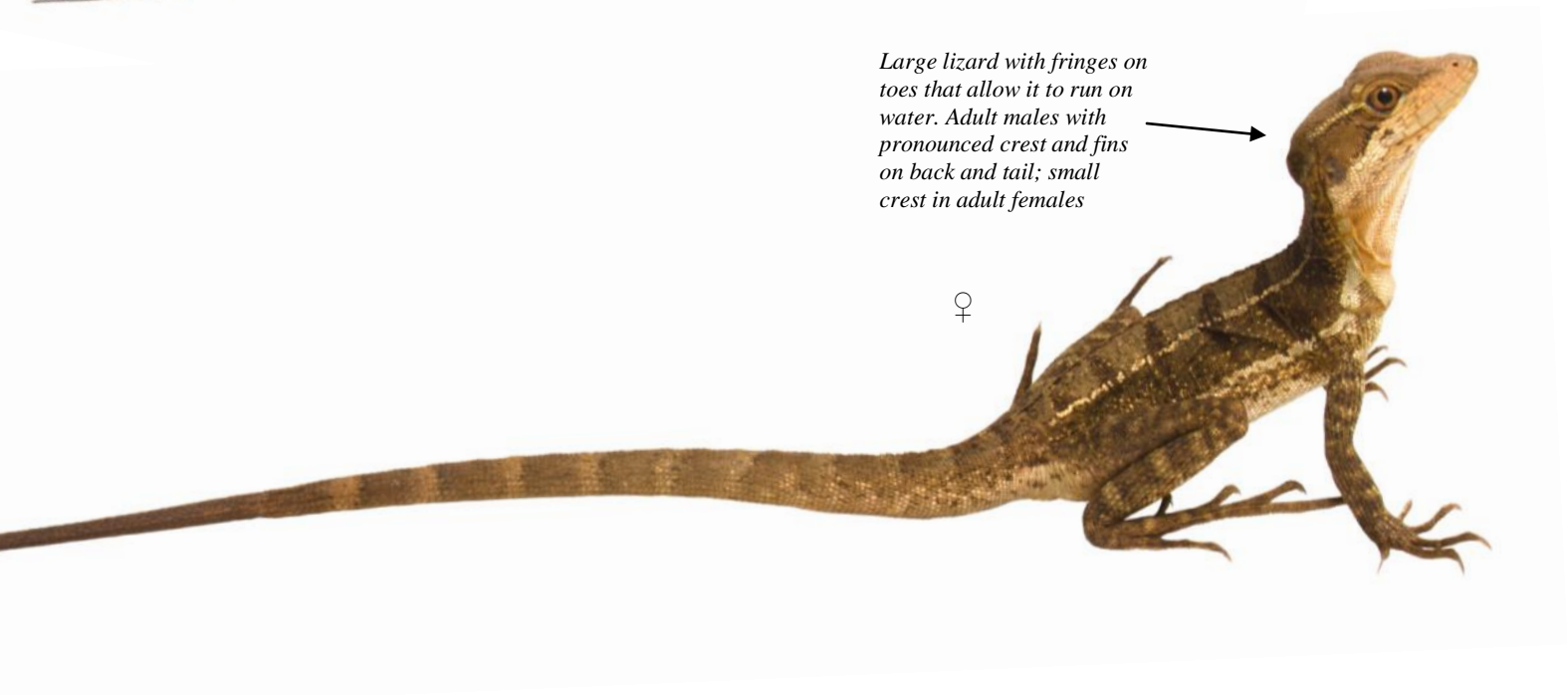




Basiliscus basiliscus
Brown Basilisk
Iguanidae



juvenile



Large lizard with fringes on toes that allow it to run on water. Adult males with pronounced crest and fins on back and tail; small crest in adult females

♀



Iguana iguana
Green Iguana
Iguanidae



Fast-moving lizards—usually seen in leaf litter, but climbs well; slick-looking with cylindrical body and tail; each body scale shiny with multiple keels

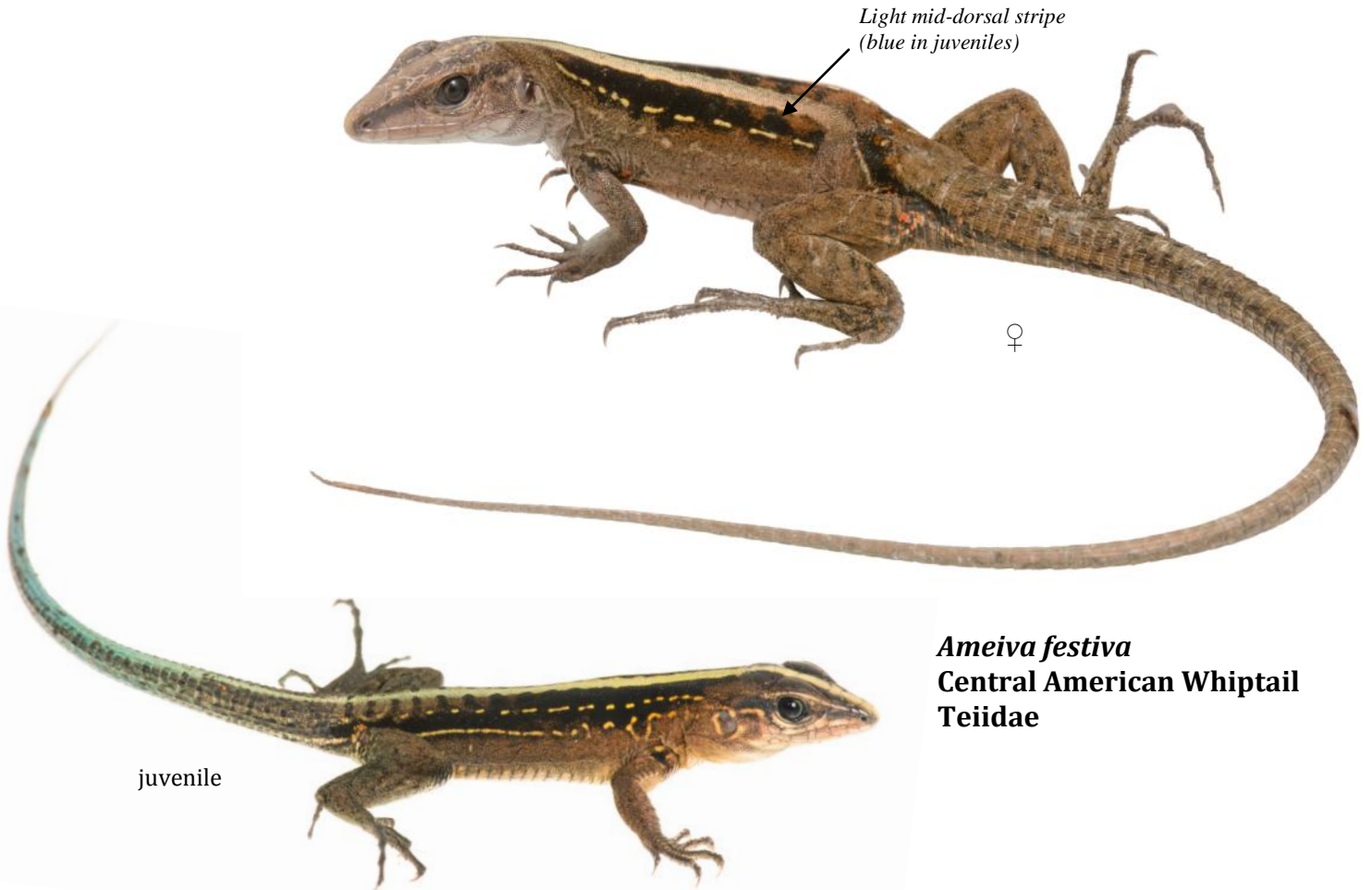
Mabuya unimarginata
Striped Skink
Scincidae





Large; males with spotted dorsal pattern, females with series of lateral and dorsolateral lines

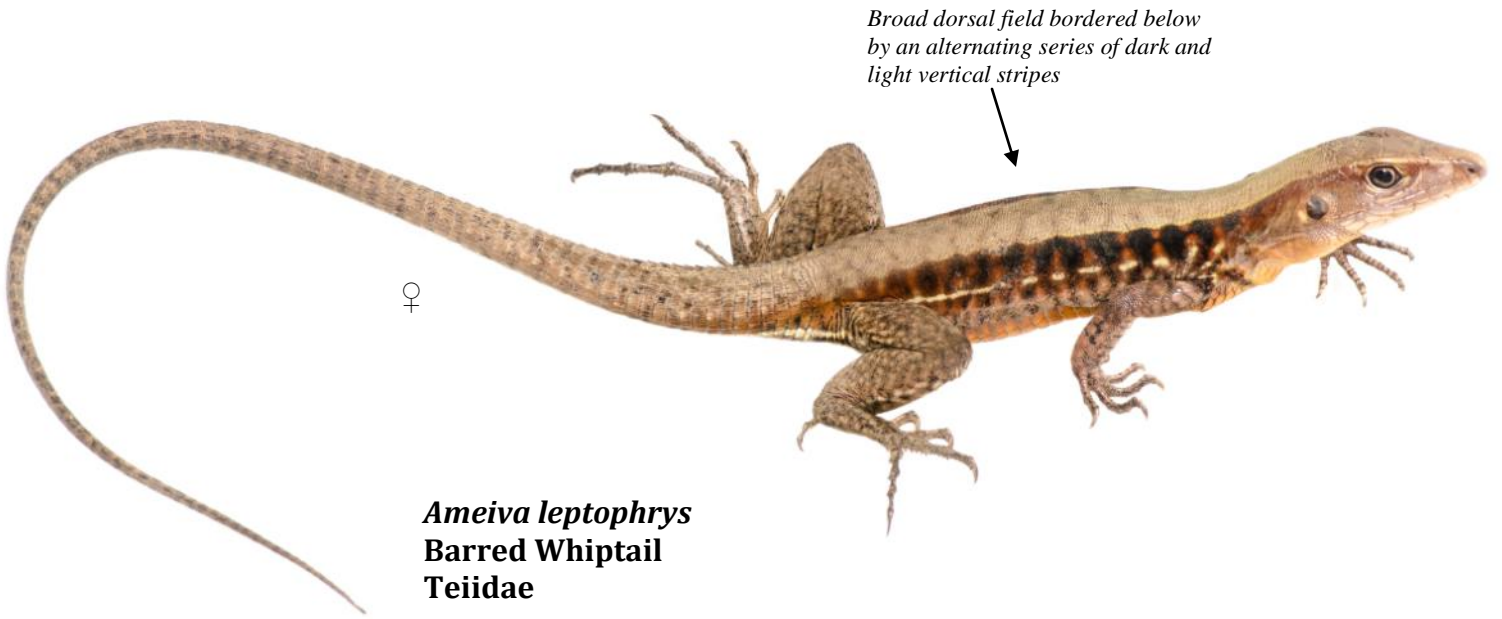
Ameiva ameiva
South American Whiptail
Teiidae



Light mid-dorsal stripe
(blue in juveniles)

Ameiva festiva
Central American Whiptail
Teiidae

juvenile



Broad dorsal field bordered below
by an alternating series of dark and
light vertical stripes

♀

Ameiva leptophrys
Barred Whiptail
Teiidae

Snakes



Boa constrictor
Boa constrictor
Boidae



Corallus ruschenbergerii
Pacific Tree Boa
Boidae



Chironius grandisquamis
Ebony Keelback
Colubridae



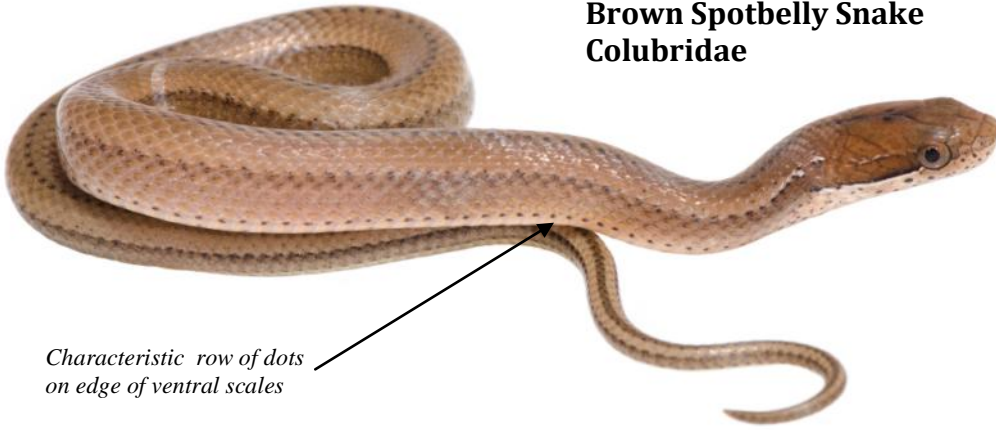
Shiny, large scales cover angular body. Distinct vertebral ridge. Juveniles have blotched color pattern



Juveniles red with black head and neck, yellow collar and white venter. Adults gradually turn uniform slate gray to black, dorsally; sometimes a pale collar remains visible.

Clelia clelia
Mussurana
Colubridae

Coniophanes fissidens
Brown Spotbelly Snake
Colubridae



Characteristic row of dots
on edge of ventral scales



Dryadophis dorsalis
Salmon-bellied Racer
Colubridae

Juvenile with bold checker-
board pattern



Orange ventral coloration
often pale to white in Pacific
slope individuals

Enuliophis sclateri
White-headed Snake
Colubridae

Strikingly colored with white head and dark body; very long tail that breaks easily when restrained



Imantodes inornatus
Yellow Blunt-headed Vine Snake
Colubridae



Very thin body; huge eyes; yellow-tan coloration



Very thin body; huge eyes; greatly enlarged mid-dorsal scales

Imantodes cenchoa
Brown Blunt-headed Vine Snake
Colubridae



Leptophis depressirostris
Satiny Parrot Snake
Colubridae

Large eyes; green dorsum (occasionally suffused with bronze coloration), green below. Two distinct rows of keeled paravertebral scales (may form dual black lines along spine)



Leptophis ahaetulla
Green Parrot Snake
Colubridae

Large eyes; green dorsum, white to cream below



Ninia maculata
Spotted Coffee Snake
Colubridae

Small snake with extremely variable dorsal color and pattern; dorsal scales distinctly keeled giving a rough appearance; bluntly rounded snout and head barely wider than neck. Venter bright white with bold black checkerboard pattern



Oxybelis aeneus
Brown Vine Snake
Colubridae

Vine snakes are extremely slender arboreal snakes with large eyes and a very long and attenuate snout (snout length is considerably longer than eye diameter)



Oxybelis fulgidus
Green Vine Snake
Colubridae



Very large snake; variable coloration but usually with a solid dark-colored top of head and light (white, cream, yellow) coloration on lower jaw.

Juvenile with pattern of faint dorsal blotches. Disappears

Pseustes poecilonotus
Bird-eating Snake
Colubridae



Chunky head with large eyes and short snout; vertically elliptical pupil. Small

Sibon nebulatus
Clouded Snail-eater
Colubridae



Spilotes pullatus
Tiger Rat Snake
Colubridae

Very large snake; variable
pattern of black & yellow-
ish-cream 'tiger stripes' →



Oxyrhopus petola
Calico Snake
Colubridae

*Elongated, narrow head
with long snout; verti-
cally elliptical pupils*



Urotheca euryzona
Halloween Snake
Colubridae

*Orange bands are
cream-white on under-
side of body*



Long, slender body of relatively uniform thickness with a very short tail.

Micrurus multifasciata
Bicolored Coral Snake
Elapidae

VENOMOUS

At least 50 narrow orange bands that completely encircle the body and con-

True, venomous coral snakes have a small rounded head with small, beady eyes and black iris



Very short tail



All bands completely encircle the body; each red band bordered by white or yellow. Tail and head with

Micrurus nigrocinctus
Central American Coral Snake
Elapidae

VENOMOUS



Bothriechis schlegelii
Eyelash Viper
Viperidae

Eyelash-like scales
over eyes

VENOMOUS



Pattern of light-
colored X-marks on
back



VENOMOUS

Bothrops asper
Fer-de-Lance
Viperidae

Porthidium nasutum
Hognosed Viper
Viperidae



Upturned snout
↓

VENOMOUS



