

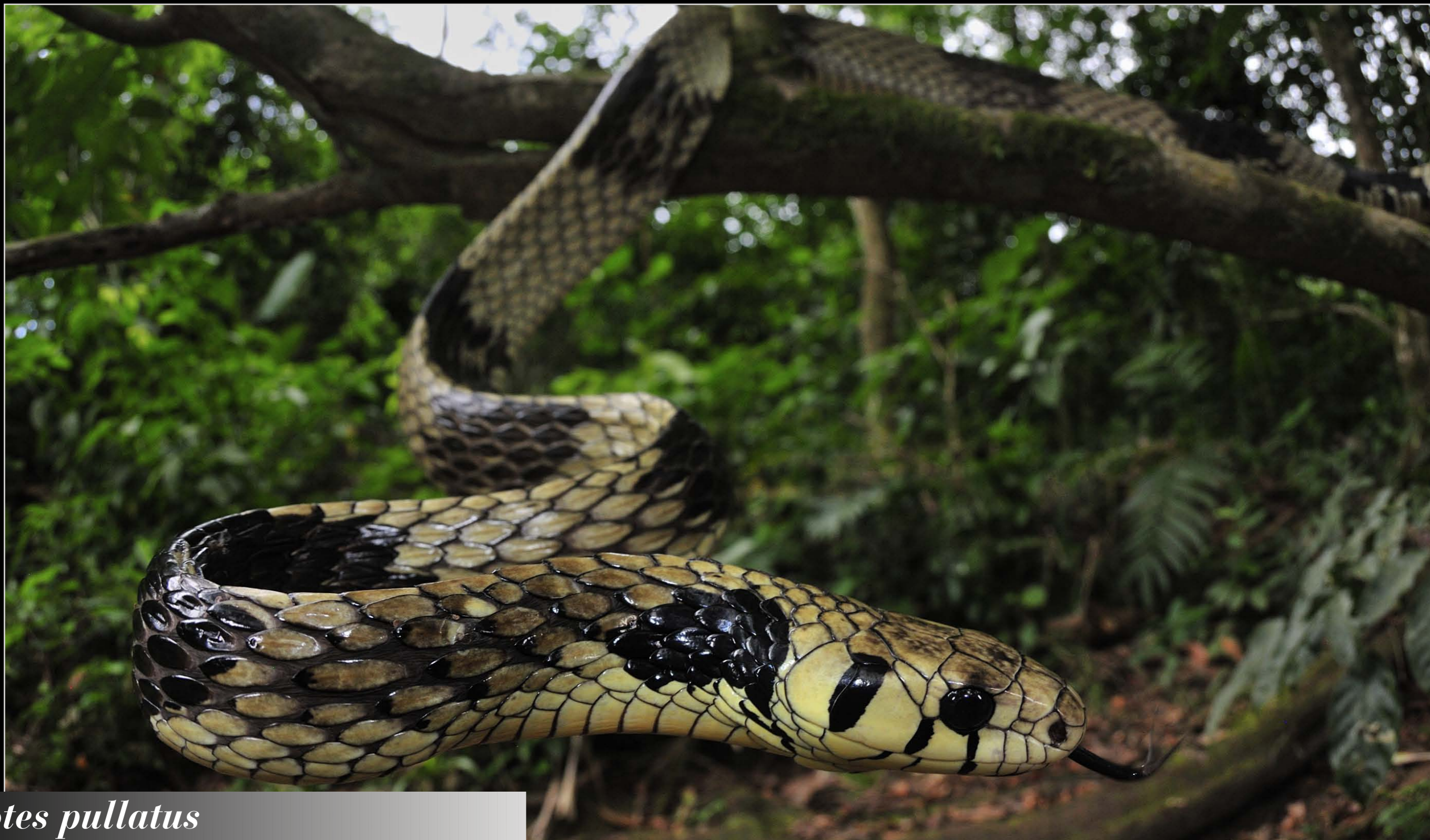
Beauty of the Beast



SNAKES OF COSTA RICA

A DEADLY CHARM

Large and small, colorful or drab, harmless or dangerously venomous - meet some of the most fascinating ophidians of Mesoamerica



Spilotes pullatus

Powerful, muscular, agile and fast-moving, this diurnal and highly variable species can attain a length of 2.6 meter / 8.5 feet. Relatively common in dry lowland riverine forest from Mexico to Argentina, it makes for an impressive encounter in the field, offering a most effective defensive display which includes mouth gaping, loud hissing and extreme inflating of the throat.



Corallus ruschenbergerii

About 2 meters / 6.6 feet long, relatively thin but strong and muscular, this nocturnal and strictly arboreal species is part of the Corallus complex, numbering several species all restricted to Central and northern South America. Non-venomous but ready to inflict multiple and very painful bites thanks to its greatly elongated frontal fangs.

TEXTS BY POMPILIO CAMPOS BONILLA & ANDREA FERRARI
PHOTOS BY ANDREA & ANTONELLA FERRARI
and POMPILIO CAMPOS CHINCHILLA

Costa Rica is a Central American tropical country which thanks to its prevailing environmental conditions can boast a rich diversity of snakes, with a total of 11 families, 64 genera and 139 ophidian species of aquatic, terrestrial and arboreal habits, distributed in almost all its territory, from sea level to an elevation of about 3000 meters. Only 22 of these possess a venom capable of causing harm to human health - these belong to the family *Viperidae* (pit vipers with heat-sensitive loreal pits, with haemotoxic venom) and *Elapidae* (coral and sea snakes, with neurotoxic venom). Due to the geological conditions present in the country, lowland areas feature several types of ecosystems, leading to the occurrence of cases of endemism - there are 13 endemic species of snakes in Costa Rica. Costa Rica has been a pioneer in research on venoms, currently producing high-quality antivenoms which cater not only nationally but also to neighbouring countries. This has led to a low percentage of deaths - on an average of 500 snakebite incidents annually, only 5 to 10 people die, these deaths usually occurring because the treatment was started many hours post-bite. Costa Rica has a very competent law in protecting wildlife, being included

in major international treaties and conventions for the conservation of nature. A member of CITES, it follows strict rules regulating the international trade in endangered species - therefore snakes enjoy benefits conferred by law, ensuring their survival. However, because of the myths and popular beliefs about snakes, many species of great ecological importance are still victims of human ignorance and are regularly killed, mainly in agricultural areas where workers are afraid of being bitten. The species that cause most accidents is the Terciopelo (*Bothrops asper*), which is found in different types of habitat including urban rural areas - this species is responsible for 80% of bites to people. Its haemotoxic venom has powerful necrotizing effects, so in many cases the person can survive but is left with the amputation of a limb. In Costa Rica there are several different centers specializing in herpetofauna - some are governmental, some private - where research, outreach and environmental education are regularly conducted.

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Atropoides mexicanus

Formerly classified as *Atropoides nummifer*, this is an extremely stout, medium-sized pit viper which can get 90cm /3 feet long.

Terrestrial and nocturnal, it won't flee if approached but will stand its ground and readily bite if touched.

This medium-elevation species is most often observed on forested mountain slopes from Mexico to Nicaragua.

Atropoides mexicanus





Boa constrictor

A heavy-bodied, beautifully-patterned, terrestrial and arboreal giant snake which can reach a length of 4.5 meters / 15 feet and whose distribution – in its many different subspecies – ranges from Mexico to Argentina. A powerful, mostly nocturnal, non-venomous species which can however inflict painful and messy bites if mishandled or disturbed.

Boa constrictor



photo Pompilio Campos



Porthidium volcanicum



photo Pompilio Campos

Another very rare, beautifully patterned Hog-nosed pit viper which is related to the extremely common *Porthidium nasutum* but which is less than 50 cm / 1.6 feet long, being endemic to Costa Rica and only known from the Valle del General in the province of Puntarenas.



Atropoides picadoi

This colorful but well-camouflaged pit viper – endemic to the steep, cool Cordilleras of Costa Rica – can attain a length of 1.20 meter / 4 feet and is generally found in premontane rainforests, where it lies in ambush among buttressed tree roots and forest floor leaf litter. Bites are rare as the species is uncommon, but its venom is strong enough to be life-threatening.

Atropoides picadoi



photo Pompilio Campos

Agkistrodon bilineatus

Popularly known as "Cantil", this is a stoutly-built pit viper which can attain a length of 50 cm / 1.6 feet and which can be easily identified by the two light longitudinal lines on its head. Terrestrial, venomous and ready to bite if molested, it inhabits semiarid woodland from the Yucatan peninsula of Mexico to north-western Costa Rica.



Bothriechis schlegelii

The Eyelash pit viper is one of Costa Rica's most famous venomous snakes – and one of its most dangerous. It can get about 90cm /3 feet long, it is usually superbly cryptic and can be readily identified by the diagnostic enlarged, horn-like scales above its eyes. Highly variable, nocturnal and arboreal, this exquisitely camouflaged snake is ready to bite if touched. This is the so-called "lichen" phase.



Bothriechis schlegelii



Cerrophidion godmani

A small, dark-blotched mountain species which reaches a maximum of 80cm /2.7 feet. Diurnal, terrestrial and rather uncommon, it feeds mostly on small rodents and inhabits cool, moist montane environments from Mexico to Western Panama.

photo Pompilio Campos



Micrurus mipartitus

A ringed, bicolored Coral snake up to 1.2 meter / 4 feet long, uncommonly observed in the undisturbed Atlantic lowland and premontane rainforests of Costa Rica. Its distribution range extends from Nicaragua to Panama on the Atlantic versant and from Panama to Ecuador on the Pacific slope. Nocturnal and usually very timid, but potentially deadly as all Coral snakes.



Cerrophidion godmani



Bothrops asper

Locally known as "Terciopelo" ("Velvet") due to the lustrous sheen of its cryptic, colorful livery, a large and dangerous species which can reach a length of 2,50 meters /8 feet. Superbly camouflaged and highly venomous, agile, fast and very aggressive if disturbed, this is a very common Central American species which is to be admired as much as it is to be feared.

Bothrops asper





Leptophis ahaetulla

About 2 meter / 6.6 feet long, thin and fast-moving, this bright green and agile arboreal snake is normally active during the day, when it can be occasionally observed as it hunts for lizards and sleeping frogs on trees and shrubs. If disturbed it will try to intimidate the intruder with an impressive open-mouth display, followed by repeated biting if the disturbance persists.



Leptophis ahaetulla



photo Pompilio Campos

Bothriechis lateralis

A bright green arboreal pit viper which shows a diagnostic light lateral stripe on the side of the body and which barely reaches a length of 1 meter/ 3.3 feet. This is another rarely observed, exceptionally cryptic species of the undisturbed premontane and montane (700-2000 meters) rainforests of Costa Rica and western Panama.



Lachesis stenophrys

A gigantic, relatively slender pit viper which can grow to be 4 meter /13 feet long, equipped with a beautiful cryptic livery, long fangs and extremely toxic venom. Nocturnal, terrestrial and very aggressive if harassed, this is a truly impressive species which is however rarely encountered in the field in Costa Rica. The three species belonging to this Genus are the largest venomous snakes of the Americas.



Oxybelis aeneus

Pencil-thin but almost 1 meter / 3.3 feet long, this exceptionally cryptic and unmistakable species is almost invisible when resting on tree or low shrubs branches. If disturbed it will readily offer an impressive gaping-mouth display, showing the blue-black lining of its oral cavity and attempting to bite. This mildly venomous species' bulging and front-facing eyes offer binocular vision.



Oxybelis aeneus



photo Pompilio Campos

Bothriechis supraciliaris

This colorfully patterned but nevertheless highly cryptic Eyelash pit viper is strictly related to the more common *Bothriechis schlegelii*, but its endemic range is apparently restricted to southwestern Costa Rica, where it is found at higher elevations (800-1.700 meters) than the former. Commonly known as the Blotched Palm pit viper.



Crotalus simus

Formerly classified as *Crotalus durissus*, this Costa Rican rattlesnake can get 1.80 meter / 6 feet long. This is an agile, thickly-built and beautifully patterned pit viper which inhabits the semiarid premontane and lowland forests of Costa Rica's Pacific slope. Fast-moving and ready to aggressively defend itself if threatened, this is a very dangerous species due to its large size and its powerful venom.



Crotalus simus



Porthidium nasutum

The Hog-nosed pit viper is a colorful, cryptic and highly variable species about 60 cm /2 feet long. Venomous and ready to bite in self-defense, it is restricted to Costa Rican rainforest habitats and it is often found lying - in ambush and perfectly camouflaged - among leaf litter or near rotting logs.

Porthidium nasutum



photo Pompilio Campos



Lachesis melanocephala

A giant pit viper which can reach a length of almost 4 meter /13 feet and which is occasionally encountered in the undisturbed lowland rainforests of the southern Pacific slope of Costa Rica, near the Panama border. Very dangerous and often aggressive, the three *Lachesis* species are commonly known as Bushmasters and are the only American crotalids to lay eggs.



Drymobius margaritiferus

One of the most commonly seen species of snakes in Costa Rica, this harmless, beautifully patterned and fast-moving species is about 1 meter /3.3 feet long and is usually active during daylight. Its distribution ranges from Southern Texas to Nicaragua and El Salvador. This specimen was about to shed its skin and for this reason it is not as brightly colored as it usually is.



Bothriechis schlegelii

Aptly called "Oropel" ("Golden skin") in Costa Rica, this is possibly the most spectacular of the Eyelash pit viper's numerous color phases. This dangerously venomous species is found in lowland and premontane rainforests from Mexico to Ecuador and Venezuela, but this stunning all-yellow morph appears to be endemic to Costa Rica.

Bothriechis schlegelii



photo Pompilio Campos

Micrurus nigrocinctum



photo Pompilio Campos

A typical tri-colored Coral snake which reaches a maximum length of 1 meter / 3.3 feet. Common but very shy, strictly nocturnal and rarely encountered under wet lowland and premontane rainforest debris and leaf litter. Albeit small-fanged, like all Coral snakes this species is extremely dangerous and perfectly capable of delivering a deadly bite thanks to its powerful neurotoxic venom.



Oxybelis viridis

A large and bright green species which can reach a length of about 2 meters / 6.6 feet, this diurnal, narrow-headed, stunningly beautiful snake can be occasionally observed on shrubs and low trees where it forages for frogs, lizards and small birds. Mildly venomous, it will readily bite if handled. Its distribution ranges from Mexico all the way to Argentina.



Lampropeltis triangulum

Commonly known as "Milk snakes", these 50 cm / 1.6 feet long terrestrial and crepuscular constrictors are as fast-moving and shy as they are colorful, spending most of their life hiding among leaf litter. Their ringed livery probably mimics that of the deadly venomous and equally shy Coral snakes which live in the same rainforest environments.



Pseustes poecilonotus

A usually very colorful but wildly variable semiarboreal, active, diurnal snake which cannot be always easily identified in the field. Fast-moving and robustly built, this active species can reach a length of about 2.5 meter / 8 feet. Its distribution ranges from Mexico to Ecuador and the Brazilian Amazon.

Pseustes poecilonotus



photo Pompilio Campos



Porthidium porrasi

photo Pompilio Campos



The White-tailed Hog-nosed Viper is a recently described (2003) and rather uncommon species which is closely related to the much more common *Porthidium nasutum* but whose distribution is restricted to the Osa Peninsula and the southwestern Pacific slope of Costa Rica. This snake is less than 1 meter /3 feet long, usually orangish in shade and found among leaf litter.



Porthidium ophryomegas

A relatively common, beautifully patterned, 80cm /2.7 feet long pit viper species which is primarily found in lowland semi-arid forest on the northern and central Pacific slope of Costa Rica, Guatemala and Honduras. It is not generally considered dangerous for humans due to the small amount of venom injected in case of a bite.

Porthidium ophryomegas





Trimorphodon quadruplex

About 1.6 meter / 5.5 feet, rather lightly built and semiarboreal, this relatively common snake is mildly venomous and usually nocturnal. This is an active species which is not easily photographed as one would like and whose broad distribution ranges from Utah and Nevada in the USA to Costa Rica, Honduras and Nicaragua.



Trimorphodon quadruplex



photo Pompilio Campos

Bothriechis nigroviridis

A bright green, black-flecked pit viper about 1 meter / 3.3 feet long (most adults are usually smaller) which is restricted to the undisturbed premontane and montane (700-2.400 meters) rainforests of Costa Rica and western Panama. This is an uncommon, nocturnal and strictly arboreal species which is normally observed 2-3 meters above the ground in shrubs and small trees.