



Tawny-bellied screech owl (*Megascops watsonii*). Its precise and smooth flight makes it a deadly threat for large insects and mammals within the dense foliage of the Amazon. The owl's profile and cryptic camouflage goes unnoticed to the eyes of potential predators.

SPECIES SPOTLIGHT

AMAZONIAN NIGHTLIFE

PHOTOGRAPHS BY
ORIOLE MASSANA AND ADRIÀ LOPEZ

The Amazon rainforest does not sleep, and neither did this research team... in darkness at least.

"The Amazon rainforest, the most biodiverse ecosystem on Earth, is a hot spot for any naturalist to experience the diversity of life. We worked and lived in the most remote location in this rainforest for 3 full months, as if we were part of one of the ancient natural expeditions we always dreamed about. Our study focused on nocturnal fauna and so our routine was quite simple. We always started walking in the late afternoon, returning only when the first signs of sunlight dripped through the trees.

Naturalists that hike and work in the tropical rainforest during the night are likely to have been taught, as we were, survival techniques, first aid protocols and safety rules to avoid unnecessary dangers. We are so used to hearing "always bring security headlamps," "protect against snake bites," "don't forget the first aid kit...compass...map...radio transmitter... batteries," "do not touch this and that," "do not sit on the floor without checking what's hiding between the leaves..." The list of precautions went on. However, when walking on those small paths in the heart of the wild Amazon, we started to realise what we were never advised to do.

To stop, and look through the darkness. To observe how animals survive, in the darkest darkness of the Amazon. We started to realise the astonishing diversity of strategies that had already developed among many different nocturnal fauna, from the perfectly cryptic camouflage of the "bacuraus" to the sky gliding technique of some tiny frogs.

Everything we were advised for, and prepared for, nature had its own set of survival techniques that were far more impressive than our compasses and head lamps."



With its arboreal prehensile tail, this small marsupial is able to escape from the clutches of its predators by nimbly navigating between branches and jumping between trees.



**Left: Velvet worms
(*Onychophora* spp.)**

are slow but effective predators of small insects. They catch them by secreting a strong and stretchy 'slime,' made up of water and proteins like collagen. It can use this slime in defense too, and may even block the chelicerae (jaws) of some spiders! They have a life of up to 6 years and are social animals that live in groups of one to 15 individuals with a strong hierarchical structure.

Right: Captured by an array of water and land predators (especially capuchin monkeys!), crabs have adapted to life in the jungle and have colonised the deepest corner of the Amazon thanks to their unique climbing ability, strong shell and claws that can save them from many attacks.



The pigmentation on the back of the **marbled tree frog** (*Dendropsophus marmoratus*)

allows a remarkable camouflage against a branch, but when the frog is surprised by a predator, it jumps and displays a dazzling colour, serving to distract its predator.





The showy colouration of the **big red bat** (*Lasiurus egregius*) is seen as a quick and subtle glimpse of colour as it soars in high speed acrobatics between leaves and branches into the intricate world of the jungle canopy.

Rainbow Boa (*Epicrates cenchria*)
With remarkably strong musculature, this boa of up to 2 meters explores the forest floor in search of prey. Its color goes unnoticed between the litter, even though it has iridescent scales that give rise to its name.

The yellow-footed tortoise (*Chelonoidis denticulata*),
Having developed robust protection against land predators, their main threat are the jaws of the jaguar. Female tortoises, whose importance to the survival of the species is much higher, have evolved an even bigger resistant shell. They are listed as Vulnerable by the IUCN.



The pauraque (*Nyctidromus albigollis*) is part of the nightjar family. It manages to survive in the jungle camouflaged in leaf litter thanks to its incredible cryptic colouration. These birds have an agile flight, and have specialised sensory feathers near the beak that act as whiskers. They are active hunters of nocturnal insects.



The smooth-front caiman (*Paleosuchus trygonatus*) is a fearsome predator in tropical rivers. It lies hidden among vegetation or within dark cavities underwater, waiting for its unsuspecting prey that it catches with a force equivalent to 100kg in its powerful jaws.





IMAGE OF THE ISSUE

Oriol Massana

This is just one of a beautiful series of photos highlighting the diversity of nocturnal life in the Amazon rainforest. Turn to the Photo Series to see the rest!

The turnip-tailed gecko (*Thecadactylus rapicauda*) can avoid danger through autonomy - losing and regenerating its tail. It is a common strategy, with 70% of individuals breaking their tails at least one in their lives.