AMPHIBIANS: TOADS, FROGS

1 Mitred Toad *Rhinella margaritifera* 7.8cm/3in

Any toad in Ecuador that resembles a leaf and has a spear-shaped head is likely to be Mitred Toad. Each individual is different, and this makes it one of the most variable species in the tropics. It also is one of the most famous toads of the Amazon forest, because it is extremely common, easily found in daytime, and widespread throughout many tropical environments.

2 Cane Toad *Rhinella marina* 14cm/5.5in

Most inhabitants of the New World tropics and subtropics are familiar with this extremely common large toad. It is the second-largest species of toad in the world, and is common not only in the Americas but also overseas, such as in Australia, where it has been introduced. It is an opportunistic predator that feeds on anything that is not too large to swallow, mostly insects but also rotting garbage. Cane Toad is one of the most prolific species of amphibians known. A single female may lay up to 36,100 eggs in a single clutch.

3 Little-devil Poison-Frog *Oophaga sylvatica* 3.8cm/1.5in

This spectacular and colorful amphibian is famous in Ecuador for its variable coloration and because the adult females of the species feed their tadpoles with unfertilized eggs. You can find these “little devils” in forests of the Pacific lowlands. Unique toxins present all over the skin characterize this frog and others in its family. Some of these toxins are used in medicine, for which reason conservation of this species is needed. Illegal wildlife trafficking is the principal threat to this poison-frog.

4 Darwin Wallace Poison-Frog *Epipedobates darwinwallacei* 1.9cm/0.75in

The most remarkable feature of this frog is its coloration: blackish overlaid with a contrasting golden-yellow netlike pattern. Not surprisingly, these colors signal danger. The species has a number of toxic skin compounds that have not yet been studied by scientists. This Ecuador endemic is closely associated with water bodies in open areas. Its very restricted habitat is prone to chemical pollution, and for this reason the species is classified as Endangered. Farther south on the western slope *E. darwinwallacei* is replaced by the similar Phantasmal Poison-Frog (*E. anthonyi*, previously *E. tricolor*), which has light blue stripes on a dark reddish-brown body. In 1972, in the skin of *E. anthonyi*, from specimens found in Ecuador, scientists discovered a nonaddictive alkaloid 200 times stronger than morphine, which was named epibatidine; it has been synthetized for medicinal development (e.g., in analgesics), but so far the toxicity involved is too strong for a viable use in humans.

For general queries, contact webmaster@press.princeton.edu