Frog



 The [oldest fossil "proto-frog"](https://en.wikipedia.org/wiki/Triadobatrachus) appeared in the [early Triassic](https://en.wikipedia.org/wiki/Early_Triassic) of [Madagascar](https://en.wikipedia.org/wiki/Madagascar), but [molecular clock dating](https://en.wikipedia.org/wiki/Molecular_clock)suggests their origins may extend further back to the [Permian](https://en.wikipedia.org/wiki/Permian), 265 million years ago. Frogs are widely distributed, ranging from the [tropics](https://en.wikipedia.org/wiki/Tropics" \o "Tropics)to [subarctic](https://en.wikipedia.org/wiki/Subarctic) regions, but the greatest concentration of [species diversity](https://en.wikipedia.org/wiki/Species_diversity) is in [tropical rainforests](https://en.wikipedia.org/wiki/Tropical_rainforest). There are approximately 4,800 recorded species, accounting for over 85% of extant amphibian species. They are also one of the five most diverse [vertebrate](https://en.wikipedia.org/wiki/Vertebrate) orders. Warty frog species tend to be called [toads](https://en.wikipedia.org/wiki/Toad), but the distinction between frogs and toads is informal, not from [taxonomy](https://en.wikipedia.org/wiki/Taxonomy_(biology)) or evolutionary history.

An adult frog has a stout body, protruding [eyes](https://en.wikipedia.org/wiki/Eye), cleft [tongue](https://en.wikipedia.org/wiki/Tongue), limbs folded underneath, and no [tail](https://en.wikipedia.org/wiki/Tail). Frogs have [glandular](https://en.wikipedia.org/wiki/Gland) skin, with secretions ranging from distasteful to toxic. Their skins varies in colour from well-[camouflaged](https://en.wikipedia.org/wiki/Camouflage) dappled brown, grey and green to vivid patterns of bright red or yellow and black to show toxicity and [ward off predators](https://en.wikipedia.org/wiki/Aposematism). Adult frogs live in fresh water and on dry land; some species are adapted for living underground or in trees.

Frogs typically lay their [eggs](https://en.wikipedia.org/wiki/Egg_(biology)) in water. The eggs hatch into aquatic [larvae](https://en.wikipedia.org/wiki/Larva) called [tadpoles](https://en.wikipedia.org/wiki/Tadpole) that have tails and internal [gills](https://en.wikipedia.org/wiki/Gill). They have highly specialized rasping mouth parts suitable for [herbivorous](https://en.wikipedia.org/wiki/Herbivore), [omnivorous](https://en.wikipedia.org/wiki/Omnivore) or [planktivorous](https://en.wikipedia.org/wiki/Planktivore" \o "Planktivore) diets. The [life cycle](https://en.wikipedia.org/wiki/Biological_life_cycle) is completed when they [metamorphose](https://en.wikipedia.org/wiki/Metamorphosis) into adults. A few species deposit eggs on land or bypass the tadpole stage. Adult frogs generally have a carnivorous diet consisting of small invertebrates, but omnivorous species exist and a few feed on fruit. Frogs are extremely efficient at converting what they eat into body mass. They are an important food source for [predators](https://en.wikipedia.org/wiki/Predation) and part of the [food web](https://en.wikipedia.org/wiki/Food_web) dynamics of many of the world's [ecosystems](https://en.wikipedia.org/wiki/Ecosystem). The skin is [semi-permeable](https://en.wikipedia.org/wiki/Semi-permeable), making them susceptible to dehydration, so they either live in moist places or have special adaptations to deal with dry habitats. Frogs produce a wide range of [vocalizations](https://en.wikipedia.org/wiki/Animal_communication), particularly in their [breeding season](https://en.wikipedia.org/wiki/Breeding_season), and exhibit many different kinds of complex [behaviours](https://en.wikipedia.org/wiki/Ethology) to attract mates, to fend off predators and to generally survive.

Frogs are valued as food by humans and also have many cultural roles in literature, symbolism and religion. Frog populations have declined significantly since the 1950s. More than one third of species are considered to be [threatened](https://en.wikipedia.org/wiki/Threatened_species) with [extinction](https://en.wikipedia.org/wiki/Extinct) and over 120 are believed to have become extinct since the 1980s.[[1]](https://en.wikipedia.org/wiki/Frog#cite_note-Stuart-1) The number of malformations among frogs is on the rise and an emerging [fungal](https://en.wikipedia.org/wiki/Fungus)