



*Photo Credit: Gary Nafis

Rough Skinned and California Newts (*Taricha granulosa*) and (*Taricha torosa*)

Potent, Rough Skinned Natives

Rough skinned and California newts belong to a genus of large, semi-aquatic newts. These are large stocky bodied newts with a broad head and that can range in dorsal color from light brown, olive brown, blackish, reddish, to reddish brown (in the California Newt), and the skin is highly granular. The underside, or ventral surface ranges from yellowish, orange, to yellow orange. This genera of newts possess potent tetrodotoxins (toxins derived from newts) that they are able to secrete through glands along their granular bodies as a defense against predation. These species are also known to exhibit an unken reflex, which is a primitive defense mechanism used by some caudates and other amphibians that involves arching the head, tail, and/or bodies to display their bright aposematic ventral coloration as a warning. Rough skinned and California newts, as well as possibly some other related species are a controlled, regulated, or prohibited species in some states. Always check any applicable federal, state, and local laws and ordinances that may pertain to the specific possession of these species.

Taxonomy

Life: All living, physical, and animate entities

Domain: Eukaryota

Kingdom: Animalia

Phylum/Sub Phylum: Chordata/Vertebrata

Class: Amphibia

Order: Caudata/Urodela

Suborder: Salamandroidea

Family: Salamandridae

Genus: *Taricha*

Species: *Taricha granulosa** and *Taricha torosa**

*Taxonomy subject to change and revision.

Lifespan and Longevity

If provided the proper care, California and rough skinned newts can attain longevity of 5 to 10 years or more.

Distribution and Habitat

The California newt is a large species of newt, which is indigenous to the western coast of the United States, namely within the state of California to the northern west coast of Mexico. Rough

skinned newts are similarly indigenous to the California west coast, further northward along the western Canadian coast to the state of Alaska. Other, isolated and disjunct populations of these species of newts are also found in other states of the U.S. Pacific Northwest. Within this range, these newts can occupy both terrestrial and aquatic environments depending on their reproductive status, seasonality, and other local conditions. They may occupy slow moving or stagnant, well vegetated ponds, lakes, streams and rivers, ephemeral ponds and wetlands, ditches, and other seasonally flooded wetlands.

Origin/History

Taricha granulosa (Skilton, 1849); *Taricha torosa* (Rathke, in Eschscholtz, 1833).

It is uncertain as to when exactly *Taricha* spp. first were kept or became available in the pet trade, although they likely have been for many decades, or at least since the 1950's or 1960's when herpetoculture generally began. *Taricha* spp. would occasionally be thrown into what were among the only amphibian tanks in many aquarium pet stores during the 1970's and 1980's, along with *Bombina* spp. (Fire bellied toads), *Cynops* spp. (Fire-bellied newts), and other inexpensive, easily imported amphibian species during the time. Most would be wild-collected, although U.S. states in which these newts are native to would also implement added protection and regulation for their native amphibian and reptile species over time.

Experience Level Required

Intermediate/Moderate.

Size

California and rough skinned newts are large species of newts that can range from 4.5 to 8.0 inches in total snout-to-tail length, depending on the species. Adults range from about 2.7 to 3.4 inches in snout-to-vent length (SVL).

Housing and Enclosure

Enclosure System: Aquatic to Moist-Terrestrial. Although the lifestyles of these species of newts vary depending on seasonality, environmental conditions, and life stages, California and rough skinned newts are generally semi-aquatic species, and require the appropriate semi-aquatic setup. Housing must be sealed and escape proof with a secured top or aquarium hood. A relatively large enclosure should be provided such as a 20 to 30 gallon aquarium, terrarium, or other enclosure. They can also be kept communally in proportionally larger housing. The enclosure should consist of a primarily aquatic setup with a floating platform, substrate dam, or other dry area these newts can resort to on a sand or gravel substrate. An appropriate filter and canister can be used to help maintain water clarity and cleanliness. Also provide ample hiding opportunities in the aquarium using live plants and rocks. Enclosures should be spot cleaned, sterilized, and water cleaned and changed regularly every 1 to 2 weeks. Humidity is not applicable for aquatic newts, while humidity for terrestrial phases should be kept high, at 70 to 80%.

Temperature, Lighting, and Humidity

California and Rough skinned newts have simple and undemanding heating and lighting requirements in captivity, and do not require additional UVA/UVB lighting, although providing it in moderated amounts can be greatly beneficial for their health, immune system, and overall wellness. These newts otherwise do not require any other special lighting or heating unless live plants are also maintained, although water temperatures should be maintained at around 60 to 70 degrees F. Water and ambient temperatures can be allowed to be decreased to 40 to 50 degrees F. during winter or cooler months of the year. For any supplemental heating that may be needed,

use a low wattage incandescent or UVA/UVB bulb, radiant or ceramic heat emitter, submersible water heater, or UTH (under tank heating element). They are susceptible to health and husbandry related issues if water temperatures are too cold or too warm for these unusual amphibians. More specific lighting, heating, and humidity product suggestions and recommendations that can best suit one's needs, as well as those of one's animals can be given as well.

Feeding, Diet, and Nutrition

Insectivorous to Carnivorous; California and Rough skinned newts are largely carnivorous and opportunistic feeders in the wild, feeding on small fish and fish eggs, a wide variety of insects, arthropods, worms, crustaceans, and other invertebrates. In captivity, these newts are easily fed, and can readily be given chopped nightcrawlers, worms, isopods, feeder crickets, roaches, waxworms, and mealworms at least two to three times weekly, with this being their recommended feeding frequency. Any feeder insects should also be gut loaded and dusted with additional calcium and vitamin D3 supplements as well prior to feeding to ensure optimal nutrition and health. More specific dietary and supplementary product suggestions and recommendations that can best suit one's needs, as well as those of one's animals can be given as well.

Handling

As with most amphibians, these species of newts are fragile animals, and handling should be done carefully or avoided and kept to a minimum whenever possible. California and Rough skinned newts do possess and can secrete potentially potent neurotoxins known as tetrodotoxins that defend these newts from predation. While typically not dangerous to most people, these newts should still nonetheless be handled carefully, as their toxins can cause skin and/or mucous membrane irritation if contact is made. All amphibians breathe and respire through their skin, as well as absorb water through this means. It is therefore important to avoid wearing any chemicals or lotions on your hands, which can be potentially harmful or even fatal to amphibians. It is also important to wash or rinse hands thoroughly, and ensure they are adequately moistened before and after handling any amphibians in order to prevent them from drying out.

****Also be sure to practice basic cleanliness and hygiene associated with proper husbandry after touching or handling any animals or animal enclosures to prevent the possibility of contracting salmonellosis or any other zoonotic pathogens****

Contact

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