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Crested and Marbled Newts *(Triturus spp.)*

Mossy Green Marbles

Triturus are a genus of European newts ranging from Great Britain, through most of the continental Europe, and eastward to western Siberia and the Caspian Sea region. These newts live and breed in, and near well-vegetated woodland ponds and other seasonally flooded wetlands for anywhere from two to six months, as well as the cool, moist, shaded surrounding terrestrial habitats. As with many other newt species, crested and marbled newts undergo several different life stages, beginning as aquatic larvae, and terrestrial phases, or forms of the adults, which return to their seasonal breeding wetlands up to one to three times each year.

Marbled newts can be identified from their vibrant green and black mottled coloration, and reddish-orange dorsal stripe running the length of their bodies. Marbled newts also develop a less pronounced crest than crested newts. Crested newts vary in color from dark brown, greenish, to olive brown with darker spots and mottling along their sides, and a yellowish to orangish dark blotched ventral surface or belly. During breeding, this species also changes its appearance and develops much more prominent dorsal crests, light banding, and skin seems.

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: Triturus
Species: *Triturus spp.**
**Taxonomy subject to change and revision.*

Lifespan and Longevity

Captive longevity is uncertain, but potentially up to 5 years or more. They can attain longevity of 10 to 15 years in the wild.

Species

Crested and marbled newts are large, slender to stocky bodied newts consisting of 9 species

altogether. Crested newts comprise of seven (7) species including the Anatolian crested newt (*T. anatolicus*), Balkan crested newt (*T. ivanbureschi*), Danube crested newt (*T. dobrogicus*), Italian crested newt (*T. carnifex*), Macedonian crested newt (*T. macedonicus*), Southern crested newt (*T. karelinii*), and Northern crested newt (*T. cristatus*). Marbled newts comprise of the remaining two species, the Marbled newt (*T. marmoratus*) and Southern Marbled newt (*T. pygmaeus*).

Distribution and Habitat

Crested and marbled newts live and reproduce in vegetation rich, fishless ponds, ditches, marshes, channels, or rice paddies, and during their terrestrial phases, surrounding deciduous to coniferous woodlands and forests, or other cover rich habitats. The Triturus genus of newts is widely distributed over much of Europe or Eurasia depending on the exact species, from western to eastern Europe in Great Britain, France, and Spain and the Iberian Peninsula to west Siberia, with *T. cristatus* being the most widespread species.

Origin/History

Triturus cristatus (Laurenti, 1768); Triturus marmoratus (Latreille, 1800).

Triturus spp. would be fairly easy to find in European herpetoculture, but much less so in U.S. pet trade. Unfortunately, there is not much specific information or history behind when marbled or crested newts first were imported or kept in the U.S. or other overseas pet industry, although they likely have been for many decades. However, in 2016, the U.S. Fish and Wildlife Service would amend its regulations under the Lacey Act to create an interim rule adding all species of salamanders from 20 genera, of which there are 201 species, to the list of injurious amphibians. This was due to efforts to prevent the introduction, establishment, and spread of the chytrid fungus Batrachochytrium salamandrivorans (or Bsal) into ecosystems of the United States.

With this interim rule, both importation into the United States and interstate transportation between States, the District of Columbia, the Commonwealth of Puerto Rico, or any territory or possession of the United States of any live or dead specimen, including parts, of these 20 genera of salamanders would be prohibited, except by permit for zoological, educational, medical, or scientific purposes. This rule would most certainly impact the U.S. herpetoculture industry and pet trade when it came to its reliance on importing this, and many other of its caudate (salamander and newt) species into the U.S.

Experience Level Required

Intermediate/Moderate.

Size

Depending on the life stage, sex, and species, crested and marbled newts typically range in size from 3.5 to 6.5 inches in total snout-to-tail length, although up to 8.5 inches snout-to-tail length is not unheard of. Snout to vent length varies depending on the species and sex, but generally can be from 1.9 to 2.4 inches snout-to-vent length (SVL).

Housing and Enclosure Plus Temperature, Lighting, and Humidity

Enclosure System: Aquatic to Moist-Terrestrial. Both crested and marbled newts can be hardy and robust newt species that tolerate a wide variety of environments, and can be housed either in terrestrial or aquatic setups as simple or complex as one prefers. Housing must be sealed and escape proof with a secured top or aquarium hood. A 15 to 20 gallon aquarium, terrarium, or other enclosure is suitable for these newts. They can also be kept communally in proportionally larger housing. The aquatic enclosure should consist of a primarily aquatic setup with a floating platform or other dry area these newts can resort to on a sand, gravel, or bare substrate. An

appropriate filter can be used to help maintain water clarity and cleanliness, but conditions should still be kept as still/stagnant as possible as they do not tolerate fast flowing conditions. Also provide ample hiding opportunities in the aquarium using live or artificial planted or floating plants and rocks, or pieces of broken clay pipe. Enclosures should be spot cleaned, sterilized, and water cleaned and changed regularly every 1 to 2 weeks and water temperatures should be kept at around 50 to 75 degrees F in order to maintain these newts in their aquatic stages. These newts can also be found in a wide range of depths, although a minimum water depth of 6 inches or more will suffice.
Alternatively, these newts can be allowed to occupy terrestrial setups in temperatures over 75 degrees F but should not be allowed to become too dry or too wet, and adequate ventilation should be provided. They should be kept in a moist terrestrial setup of similar proportions consisting of a moist, chemical and pesticide free potting soil, peat or sphagnum moss, or damp paper towels that should be misted and cleaned regularly. Additional pieces of cork bark, log hides, or rock hides should also provide additional cover for these terrestrial phases of newts. A large, shallow water dish or pan should also be provided in the terrestrial setups as well to help prevent desiccation or drying out. 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. Humidity is not applicable for aquatic newts, while humidity for terrestrial phases should be kept high, at least around 70 to 80%.

Feeding, Diet, and Nutrition

Insectivorous to Carnivorous; Crested and marbled 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, crested and marbled newts are fragile animals, and handling should be done carefully or avoided and kept to a minimum whenever possible. Terrestrial phases or specimens should also be handled carefully as well, since most terrestrial newt species also have irritating, potentially toxic tetrodotoxins. Ideally, an aquarium net of appropriate size can be used to move aquatic caudates whenever necessary. 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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