



## Amphiumas (*Amphiuma* spp.)

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### **It's an Eel...no, it's a Snake...no, it's an Amphibian!**

Also widely known by a variety of local, common names including “Congo” or “Conger” snakes or eels, amphiumas are neither reptiles or fish, and do not originate in the Congo. Instead, they are elongated, mostly aquatic caudates (salamanders). Although mostly aquatic, amphiumas will move over land during rainy weather or to disperse to new habitats. Amphiumas are most often a gray, grayish-brown, to black in color with two pairs of very small, remnant or vestigial limbs that have variable numbers of toes depending on the species. These amphibians also lack eyelids, have flattened, pointed heads, and have visible lateral lines. Three species of amphiumas are recognized: the One toed Amphiuma (*A. pholeter*), the smallest of the species, the Two toed Amphiuma (*A. means*), and the Three toed Amphiuma (*A. tridactylum*). Amphiumas are not widely bred in captivity, but are often available as wild caught specimens or from biological/research supply companies.

### **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:** Amphiumidae

**Genus:** Amphiuma

**Species:** *Amphiuma* spp.\*

\*Taxonomy subject to change and revision.

### **Lifespan and Longevity**

Captive and wild longevity of amphiumas has ranged from 10 to 20 years or more.

### **Distribution and Habitat**

Amphiumas indigenous to the permanent to semi-permanent ditches, swamps, slow moving streams and riverways, and other wetlands of the southeastern United States.

### **Conservation Status**

Conservation status is dependent upon the species. Most are IUCN Red List Least Concern (LC).

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*A. pholeter* is IUCN Near Threatened (NT).

### **Legal and Regulatory Status (\*Subject to Change)**

Consult with your local, municipal, and state ordinances and regulations for any ownership restrictions.

### **Experience Level Required**

Intermediate/Moderate.

### **Size**

The one toed amphiuma is the smallest of the species, and reaches 8 to 10 inches on average. The other two species, the two-toed and three-toed amphiumas are larger, and can be up to 45 ½ inches.

### **Housing and Enclosure**

Amphiumas are primarily aquatic, and should be provided a secure, escape proof aquarium or terrarium designed to hold water. They do not require any dry land space. Depending on the size and species, and number of amphiumas to be housed, a 20 gallon long or larger aquarium is of sufficient size depending on the number of animals being housed. Amphiumas can be housed together, but some care should be required during feeding to prevent them from biting or injuring one another. In general, it is also preferable that amphiumas not be housed with fish or other species, since they may compete for food and resources as well as possibly predate upon one another depending on their sizes and circumstances. Provide an appropriate filtration system as well as water heating, which will assist in maintaining water clarity and quality as well as sufficient water temperatures for amphiumas. Although these they respire, or breathe primarily through their skin, they will also breathe air and should be provided with several inches of air space in the enclosure. Other furnishings to increase safety and security in the enclosure can also be provided, including live plants, rocks, slabs, logs, and other suitable hides. Substrates that allow for burrowing should also be included, and can include fine organic topsoil and dried leaves/vegetation. They can also be maintained on bare substrate as well if viewing is important, but should still be given access to hides or shelter. Any live or floating plants in the enclosure should be firmly and securely planted to prevent uprooting. In order to prevent substrate from being stirred up and clogging any filters that may be used, a sponge filter and weekly 10 to 15% water changes are recommended. All water used in amphiuma enclosures should be aged and dechlorinated. Distilled water should only be used to replace evaporated water, as these water types lack sufficient ions and other nutrients required for these salamanders, and may result in calcium loss.

### **Temperature, Lighting, and Humidity**

Amphiumas 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. They otherwise do not require any other special lighting or heating unless live plants are also maintained, although water temperatures should be maintained at around 77 to 80 degrees F. 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 can tolerate temperatures as low as 40 degrees F or below. They are susceptible to health and husbandry related issues if water temperatures are too cold or too warm for these unusual amphibians. Do not exceed 80 degrees F. More specific lighting, heating, and humidity product suggestions and recommendations that can best suit one's needs, as well as those of one's

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animals can be given as well.

### **Feeding, Diet, and Nutrition**

***Primarily Carnivorous;*** Amphiumas are primarily carnivorous in the wild. They will feed on most small fish, frogs, smaller amphibians and reptiles, carrion, crustaceans, worms, snails, mollusks, and other aquatic insects and other invertebrates that they can catch and ingest. In captivity, amphiumas can be fed weekly and will consume appropriately sized feeder fish, redworms, bloodworms, waxworms, earthworms, mealworms, crickets and other feeder insects and larvae, as well as some commercially available pelleted fish foods of appropriate nutritional value and raw or cooked shrimp or crayfish. Any uneaten foods should be cleaned or removed regularly to maintain water clarity and quality. Amphiumas can also be cannibalistic, and caution should be used not to house specimens of different sizes together in the same enclosure. 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 other aquatic and terrestrial caudates, amphiumas are delicate and sensitive skinned amphibians that should not really be handled, and are more suitable for viewing. Use a suitable sized aquarium net to move amphiumas when cleaning the enclosure or whenever necessary. Amphiumas also have powerful jaws, and can inflict a painful bite if carelessly handled as well. \*\*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**

Authored by Eric Roscoe. For any additional questions, comments, and/or concerns regarding this animal, group of animals, or this care sheet, please email and contact the Madison Area Herpetological Society at [info@madisonherps.org](mailto:info@madisonherps.org)

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