

\*Photo Credit: Chesapeake Bay Program

# Fiddler Crabs (Uca spp.)

## A Fiddler's Hand

Fiddler crabs are a large genus of small, saltwater to brackish (mixture of fresh and saltwater) or marine crabs found across many areas of the world. These crabs consist of about 90 to 100 species that vary greatly in size, color, and shape. They earn their name from their foraging behavior using one or both of their claws to sift through the sand or substrate, which lends to their appearance of playing a fiddle. It is also widely believed that these crabs play an important role in their tidal brackish to marine environments through their sifting feeding behavior, which in turn aerates the substrate and prevents anaerobic conditions. The most distinctive feature are their sexually dimorphic, asymmetrical claws that are large in males, and small and reduced in females and juvenile crabs. These crabs communicate and interact with one another by claw waving and other gestures and actions. Males will also use their large asymmetrical claws during combat over territorial and/or mating disputes. Also as with most crabs, fiddler crabs will periodically shed their hardened exoskeletons through a process of molting, and during, and immediately after this time, are soft bodied and vulnerable to predation, and are thereby more secretive. Claws and/or limbs can also be lost periodically as well, in which case, will regrow following their next molts. Fiddler crabs are occasionally available in the pet trade, where they can make for hardy and inexpensive pet invertebrate species to maintain under the correct conditions.

#### **Taxonomy**

**Life:** All living, physical, and animate entities

Domain: Eukaryota
Kingdom: Animalia
Phylum: Arthropoda
Subphylum: Crustacea
Class: Malacostraca
Order: Decapoda
Infraorder: Brachyura
Family: Ocypodidae

Subfamily: Ucinae Genus: Uca

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**Species**: *Uca spp*.\*

\*Taxonomy subject to change and revision.

## **Origin/History**

Gelasiminae Miers, 1886 Ucinae Dana, 1851.

Similar to hermit crabs, fiddler crabs probably became popular as pets during the mid-20<sup>th</sup> century during the 1950's and 1960's as part of a growing interest in small, low maintenance pets. Interest in keeping marine or brackish water invertebrates grew as advancements in aquarium technology were made, and their unique behaviors and relative ease of care made them popular pets as pet stores began catering more to tropical, exotic, and/or aquatic pets.

### **Lifespan and Longevity**

If provided the correct care and setup, fiddler crabs may live 3 to 5 years in captivity.

#### **Distribution and Habitat**

Fiddler crabs are a large and diverse genus of crabs consisting of approximately 100 different species found throughout much of the world. Depending on the species and genus, they may be found in tropical to sub-tropical, coastal regions of western Africa, the western to mid-Atlantic Ocean and Gulf of Mexico, the eastern Pacific Ocean, and/or the Indo-Pacific. Within these ranges, fiddler crabs occupy a variety of saline to brackish water environments, including the sandy or muddy beaches, shorelines, and coastal areas, as well as mangrove swamps, and salt marshes.

#### **Experience Level Required**

Novice/Beginner to Intermediate/Moderate.

#### Size

Fiddler crabs are small crabs, but can vary in size depending on age and species, from less than ½ an inch to about 2½ inches.

#### **Housing and Enclosure**

Enclosure System: Semi-Aquatic to Moist-Terrestrial. Most fiddler crabs that are available in stores and within the pet industry require a brackish water setup rather than freshwater, as well as access to dry land or other areas they can emerge from the water. Water salinity can be measured using a store purchased hydrometer, and should read at around 1.005 to 1.010. Using varying amounts of commercially available aquarium salt can adjust this accordingly. Fiddler crabs should be housed in a secure, sturdy, adequately ventilated terrarium, aquarium, or other enclosure. Fiddler crabs may be kept communally, meaning they are often found in groups, and multiple crabs can be housed together provided an adequately sized enclosure is accordingly provided, although males may fight. A 10 to 20 gallon or similar sized enclosure or larger depending on the number of crabs maintained is suitable. Crabs that are not provided adequate space may fight and possibly kill one another for resources. A substrate that enables these fiddler crabs to dig and burrow, as well as maintain adequate humidity should also be provided. Sand substrates as well as fine aquarium gravel and mixtures thereof can be used for added security and stimuli including driftwood, artificial foliage, and hides in the form of log or slab hides, rocks, clay flower pots, or other commercially designed hides and cage decor.

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

Adequate humidity is perhaps one of the most important factors for maintaining fiddler crabs, which should at, or around 70 to 85%. A temperature gradient should also be provided in the

enclosure, with around 70 to 85 degrees F for ambient and water temperatures. Crabs that are exposed to direct sunlight or heat constantly may overheat. For any supplemental heating that may be needed, use a low wattage UVA/UVB and/or incandescent bulb, radiant or ceramic heat emitter, or under tank heating element (or UTH). 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. M

#### Feeding, Diet, and Nutrition

Detritivorous to Omnivorous; In the wild, fiddler crabs are primarily omnivorous scavengers, feeding on tiny bits of organic plant and animal matter they are able to locate during foraging. In captivity, a varied, rotating, varied diet for fiddler crabs is recommend. Many commercially available fish and crab foods and diets are available, including algae disks, sinking pellets, commercially available crab and fish foods, and other diets, with some being better and more suitable than others. It is always a good idea to read and understand any labels and ingredients on any such diets that may be used. Fiddler crabs will also eat freeze dried plankton, krill, bloodworms, or shrimp as well. Further information on what constitutes a suitable vs. unsuitable crab diet can be provided upon request. 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**

Fiddler crabs can be handled carefully, although they may pinch (which is not painful or dangerous). They can be allowed to walk on one's hands. Care should be taken to not drop them, however, since this can fracture their shell and/or cause internal injury to them. Overall though, handling fiddler crabs is not necessary or required.

\*\*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: Eric.S.Roscoe@gmail.com

Disclaimer: Note that the information provided in these, or any care sheets, are not intended to be all-exhaustive, and further research and care should always be sought and provided when it comes to any species one may prospectively be interested in. These care sheets are also not intended to serve as substitutes for professional veterinary medical care and husbandry should any animal require it. Always seek proper and professional veterinary care for any animal should the need arise, and be prepared ahead of time for any and all husbandry costs and expenses that may occur with any animal beyond the initial purchase. Any animal owned is ultimately a matter of personal/individual care and responsibility. We cannot make any claims or guarantees regarding any information in this care sheet therein. This care sheet may be reprinted or redistributed only in its entirety.

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