

## *Uca vocator* (Atlantic Hairback Fiddler Crab)

Order: Decapoda (Crabs, Lobsters and Shrimps)

Class: Malacostraca (Crustaceans: Crabs, Sand-hoppers and Woodlice)

Phylum: Arthropoda (Arthropods)



**Fig. 1.** Atlantic Hairback Fiddler Crab, *Uca vocator*.

[<https://www.google.com/search?tbm=isch&q=uca+vocator&hl=en&#imgsrc=TIV81rR5IoYnoM%3A>, downloaded 8 March 2016]

**TRAITS.** The Atlantic hairback fiddler crab has an approximate body width of 3-4cm but can vary depending on the sex. They have 10 legs, 4 pairs used for walking and the front pair with pincers. The female fiddler crab has two very small pincers that are mainly used for feeding while the male has one small and the other very large, sometimes bigger than its body (Fig. 1). Their eyes are on long stalks so as to have an all-round vision, and when not in use they fold down into special grooves. There are various colours that range from dull brown to yellowish and even off-white, with males brighter coloured.

**DISTRIBUTION.** The Atlantic hairback fiddler crab is home on the shores of the western Atlantic Ocean and Gulf of Mexico, ranging from Texas to Brazil and most of the West Indies (Fig. 2). They are native to Trinidad and Tobago.

**HABITAT AND ACTIVITY.** *Uca vocator* is semi terrestrial and dwells in benthic and brackish environments within the tropics. They are found in shaded and muddy areas of mangroves, close to the mouths of streams and also in estuaries. This species functions well both night and day (Crane, 1975).

**FOOD AND FEEDING.** When the Atlantic hairback fiddler crab is at the larva stage, it feeds upon algae, plankton, other crab larvae and detritus. While at the adult phase, they eat algae and detritus. The female fiddler crab uses both claws to scoop the thin layer of detritus off the sand and into their mouths while the male does the same but only with its one tiny pincer, thus taking a longer time. When the sand is in their mouths, the bristle-like mouthparts are used to clean the grains of food. These species mainly eat when the tide is low or going down (Hyman, 1922).

**POPULATION ECOLOGY.** This species tends to live in groups in its habitat, of around 20 individuals (Crane, 1975). They can live up to 2 years depending on predation (Grimes, 1989). The Atlantic hairback fiddler crab is said to be abundant throughout its habitats (Thurman, 1979).

**REPRODUCTION.** Since they live in groups, finding mates is relatively easy. Female fiddler crabs reach sexual maturity from 2-8 months and develop ovaries during winter and spring seasons. Males reach sexual maturity at 3 months. The breeding season for these species are during the summer time. The male uses its bigger claw to attract the females, it stands outside its burrow to signal them by swaying it in the air approximately 8-15 times. Some males even win dominance by fighting another male in order to win over a female. If the female is won over, she then stares at the male thus giving him permission to come toward her and lead her back to his burrow. He then puts her inside it where she incubates her spongy egg mass before release of larvae into the water. The females can sometimes lay more than one clutch per season with each containing approximately 19,000-20,000 eggs. The eggs can either be red or grey in colour and its incubation period lasts 2 weeks. The female expresses parental care by staying in the burrow during the day and carrying the eggs mass in her genital appendages at night for it to be aerated, while the male crab shows no paternal interest after fertilization (Hyman, 1922).

**BEHAVIOUR.** These crabs move via sideways movement of their legs and also use it to dig their burrows. When the tides are too high, they stay in their burrows until it is safe to come out. They stay within their home range at about 1-2m from their burrows (Crane, 1975). The Atlantic hairback fiddler crab communicates mostly via visual medium. The males sway their large claws which helps to stimulate the females. The communication occurs mainly during mating season, and for dominance so they also create noises and vibrations using the claws.

**APPLIED ECOLOGY.** The Atlantic hairback fiddler crab has not been evaluated by the IUCN therefore it cannot be labelled as endangered or threatened (IUCN, 2012). This species is not hunted since it is very small, or even used as pets. It can be considered useful since it may help with disposal of detritus and other decaying matter.

## REFERENCES

- Crane, J. 1975. Fiddler Crabs of the World (Ocypodidae: Genus *Uca*). Princeton, New Jersey: Princeton University Press. Accessed March 9, 2016, <http://decapoda.nhm.org/pdfs/15051/15051-001.pdf>.
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- Hyman, O. 1922. Adventures in the Life of a Fiddler Crab. Washington: Smithsonian Institution.

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Thurman, C. 1979. Fiddler Crabs of the Gulf of Mexico. Ann Arbor, Michigan: University Microfilms International. Accessed March 9, 2016.

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**Fig. 2.** Distribution map for *Uca vocator*.

[[http://www.fiddlercrab.info/u\\_vocator.html](http://www.fiddlercrab.info/u_vocator.html), downloaded 23 April 2016]

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