Acyrtops beryllinus (Emerald Clingfish)

Family: Gobiesocidae (Clingfish)
Order: Gobiesociformes (Clingfish)
Class: Actinopterygii (Ray-finned Fish)

Fig. 1. Emerald clingfish, *Acrytops beryllinus.*
[http://biogeodb.stri.si.edu/caribbean/en/thefishes/species/3205, downloaded 24 October 2016]

TRAITS. *Acyrtops beryllinus* has a short body, having a maximum length of 2.5cm, but its head and eyes are relatively large. This species is a bright green colour, with either white spots or brown spots and patches (Fig. 1). These fish are flattened and are equipped with a remarkable suction disc formed from the pelvic fins and part of the pectoral fins. These discs are covered with tiny papillae which help the fish to cling on to hard surfaces to resist the waves.

DISTRIBUTION. This species can be found only in sea grass beds, in temperate and tropical regions of the western Atlantic (Fig. 2), including the Florida Keys and the Caribbean Sea (Snyder and Burgess, 2016).

HABITAT AND ECOLOGY. Emerald clingfish mainly exist in shallow waters with a depth of less than 1m, in beds of turtle grass (*Thalassia*), adhering to the bottom of the

leaves (Fig. 1). They are particularly associated with seagrass beds which are relatively sediment free. Their main food are small crustaceans: isopods, amphipods, harpacticoids and ostracods.

REPRODUCTION. The pair glides side by side to each other (Fig. 3), either head to head or head to tail (Gould, 1965). Their bodies flex as they swim making their tails stroke each other. The male then makes slow undulating side to side movements interrupted by short, quick twitches signalling deposition of the eggs. Fertilization probably occurs during the time of release of eggs. Females can lay approximately 10-25 eggs at a time, on the surface of the turtle grass blades (Snyder and Burgess, 2016), an entire clutch of eggs takes about 20-30 minutes at 3 minute intervals. It takes the embryos up to ten days for development to occur. Males are mature when they are at about 17mm in total length, females at 15mm (Gould, 1965). Reproduction has been observed in waters of temperatures ranging from 18-30°C, but never above 31°C.

BEHAVIOUR. Since these fish are extremely small, this enables them to occupy very cryptic microhabitats (Goncalves et al., 1998). The male may show parental care after the eggs have been deposited, remaining in close proximity for approximately 20 minutes and nudging other fish away from the eggs. When faced with a predator *A. beryllinus* does not show any defence mechanism.

APPLIED BIOLOGY. This species of clingfish is listed as of Least Concern on the IUCN Red List and so is not endangered (Craig and William, 2015). Its habitat may be endangered by either loss of biodiversity or change due to anthropogenic activity. However, since *Thalassia* is protected by international treaties, its habitat is protected.

REFERENCES

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Fig. 2. Emerald clingfish geographical distribution.

[http://www.iucnredlist.org/details/full/185922/0, downloaded 24 October 2016]

Fig. 3. Pair of emerald clingfish mating.

[https://seaframes.wordpress.com/, downloaded 24 October 2016]