*Cynoscion acoupa (*Acoupa Weakfish)

Family: Sciaenidae (Croakers)
Order: Perciformes (Perch and Allied Fish)
Class: Actinopterygii (Ray-finned Fish)

Fig. 1. Acoupa weakfish, *Cynoscion acoupa.*

[http://biogeodb.stri.si.edu/caribbean/en/thefishes/species/3769, downloaded 7 March 2016]

TRAITS. The acoupa weakfish, *Cynoscion acoupa*, has dorsal and anal spines as well as dorsal and anal soft rays. The body of the fish is silver and light yellowish-orange (Fig. 1). There are dark areas present along the base of the dorsal fin. The caudal, pelvic and pectoral fins are a darker yellowish-orange colour. The mouth of the fish is large and oblique (Luna, 2016). The upper jaw contains a pair of large canine-like teeth and the lower jaw contains a row of enlarged teeth that increase with the increasing size of the fish. The lower jaw is slightly protruding outwards. The snout of the fish contains two marginal pores while the chin has no pores or barbels present (Luna, 2016). There is a pair of horn-like appendages on the gas bladder, and the soft portion of the dorsal fin is unscaled. The pelvic and pectoral fins are nearly the same length. It can grow up to 1.1m in length.

DISTRIBUTION. The acoupa weakfish occurs in the western Atlantic from Argentina to Panama (Rodriguez et al., 2008), at a depths down to 20m. They are found in the northeastern part of South America, in Brazil, Argentina, Panama, Venezuela, and Trinidad (Fig. 2).

HABITAT AND ACTIVITY. This species of fish is usually found near the mouths of rivers over sandy mud bottoms. This fish is a demersal (living near the bottom), coastal and brackish water marine species that form schools. The juveniles that exist in these schools are restricted to fresh water and they retreat into mangrove swamps. They use these as nursery grounds and this gives them protection from predators as well as shelter from the harsh environmental conditions. They do this as part of their life cycle. They are secretive during the day and the hide in crevices to escape predators. Thus the adults of this species are mainly found near the mouths of rivers and mangroves while the juveniles are found in more fresh water areas higher up the river. Spawn aggregations are formed by the adults in this species when they return to estuaries to breed. These fishes feed on smaller fishes as well as crustaceans (shrimps).

FOOD AND FEEDING. *Cynoscion acoupa* is a fish that feeds on smaller fish and crustaceans (shrimp). These fish are very secretive during the day and mainly hide in crevices for protection and shelter. They go hunting at night for these smaller fishes and shrimp and they mainly operate at a depth of up to 20m. Because of the sandy mud bottoms of the habitats they live in, it is easy for them to find crustaceans and they will mainly eat this type of food. They eat smaller fish when this source of food is not available.

REPRODUCTION. These types of fishes are known as croakers and their reproductive behaviour is dependent on estuaries (Rodriguez et al., 2008). This species of fish is oviparous meaning that they produce young that is encased in an egg. The adults in this species use the estuaries in these areas to breed and form spawning aggregations. The males in this species fertilize the eggs externally after the females release them. After the fish hatches, the yolk stays attached to them to provide nourishment. When this runs out, the juvenile fish has to fend for itself. These estuaries are important for the reproductive cycle. These areas act as nurseries to the juveniles in this species serving multiple purposes; allowing protection from predators as well as shelter the younger individuals in the species.

BEHAVIOUR. After the fish hatches, the yolk stays attached to them to provide nourishment. When this runs out, the juvenile fish has to fend for itself. The juveniles that exist in these schools of fish are restricted to fresh water and they retreat into mangrove swamps. They use these as nursery grounds and this gives them protection from predators as well as shelter from the harsh environmental conditions. They come out of the mangroves and when they see a threat, they retreat into the mangroves once again. They stay around the mangroves during the day and they go hunting at nighttime. Once juveniles grow to a certain age, they expand their realized niche and then begin to operate between the mangroves and the sandy-mud floor at the mouth of the river.

APPLIED ECOLOGY. This species of fish is abundant in areas around northeastern South America. There has been no significant visible impact on the size of the population over the last ten years. The adults mainly operate around the mouths of rivers and the juveniles mainly stay in the mangroves. Mangrove degradation that is taking place in different areas are not a threat to this species as they are distributed in multiple areas from Argentina to Panama. This species of fish has been assessed as least concern by IUCN. There is continued monitoring of this species of fish as it is a large-sized commercial species. This fish is the most exploited as it is abundant and used for food by the people the north coast of Brazil (Rodriguez et al., 2008). The distribution of this

species of fish overlaps with protected areas and thus there are no conservation measures that have been installed for the *Cynoscion acoupa*.

REFERENCES

Luna, S. M. 2016. Cynoscion acoupa Summary Page. *Fishbase*. http://fishbase.sinica.edu.tw/summary/SpeciesSummary.php?ID=1169&AT=Schelvis.

Rodrigues, R., Schneider, H., Santos, S., Vallinoto, M., Saint-Paul, U. and Sampaio, I. 2008. Low Levels Of Genetic Diversity Depicted From Mitochondrial DNA Sequences In A Heavily Exploited Marine Fish (Cynoscion Acoupa, Sciaenidae) From The Northern Coast Of Brazil. *Genetics And Molecular Biology* 31 (2): 487-492.

Author: Devaughn Williams
Posted online: 2016

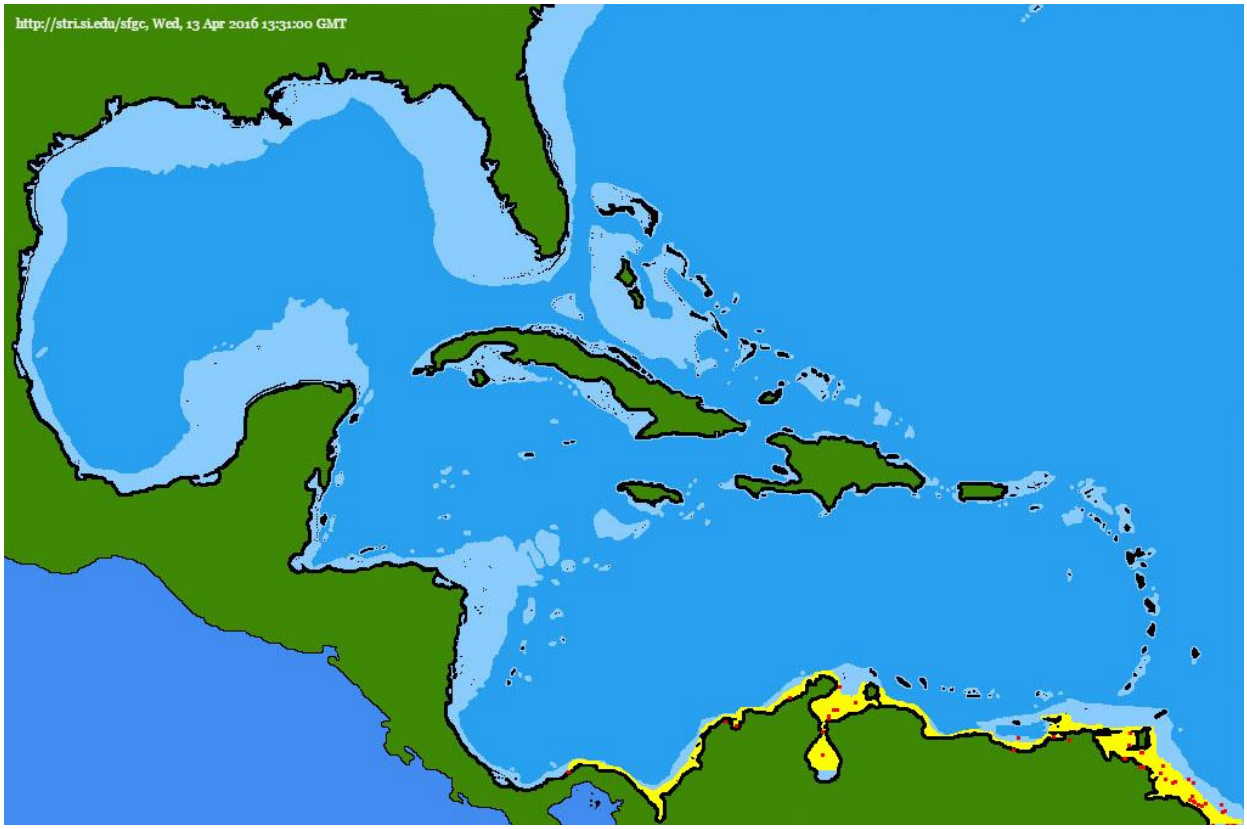

Fig. 2. Distribution of acoupa weakfish in the Caribbean.

[http://biogeodb.stri.si.edu/caribbean/en/thefishes/species/3769, downloaded 13 April 2016]