

Sparisoma rubripinne (Yellowtail or Redfin Parrotfish)

Family: Scaridae (Parrotfish)

Order: Perciformes (Perch and Allied Fish)

Class: Actinopterygii (Ray-finned Fish)



Fig. 1. Yellowtail parrotfish, *Sparisoma rubripinne*.

[<http://www.tusentakk2.com/images/Other%20Photos/Underwater/Pec-Swimmers/YellowtailParrot.jpg>, downloaded 11 April 2016]

TRAITS. Parrotfish can be recognised by their beak-like fused teeth which are a tightly packed mosaic. The yellowtail or redfin parrotfish occurs in two colour phases. The terminal phase (Fig. 1) is the mature male with blue to green colour, a black spot at the base of the pectoral fin, and the tail fin with a yellow centre and translucent margin. The drab or initial phase includes either mature females or immature males, and has a light grey-brown colour with a white ventral region, alternate dark and pale bars along the chin, a yellow caudal peduncle (fin base) and tail fin, and red anal and pelvic fins (Fig. 2). The juvenile has a mottled pattern (Fig. 3). Fins include ten dorsal soft rays, nine dorsal spines, three anal spines and three anal soft rays. The length of the fish is 48cm in adult males (Randall, 1996).

DISTRIBUTION. The species is found mostly in the western Atlantic and the Caribbean (Fig. 4). The fish is native to Trinidad and Tobago (Rocha et al., 2012).

HABITAT AND ACTIVITY. Found in marine systems. The habitat ranges from reefs to sea grass beds of depth 1-15m. They inhabit shallow as well as rocky coral reefs, generally in the high energy areas of the reef. The juvenile fish is associated with sea grass beds. Both juveniles and adults feed on benthic algae as well sea grasses and a small percentage of sponges. They are

diurnally active fish, and rest during the night at the bottom. Spawning is a group activity (Bohlke and Chaplin, 1993).

FOOD AND FEEDING. These fishes are typically herbivorous. The fish, both juvenile and adults feed on benthic algae, *Halimeda* sp., as well as sea grasses and a small percentage (0.04%) of sponges (Randall, 1967). The species usually feeds in groups. In general parrotfish use their specialized beak-like teeth to gouge algae and sponges from coral (Wikipedia, 2016).

POPULATION ECOLOGY. The fish can be found in groups (Bohlke and Chaplin, 1993). The male fish may grow to 48cm total length while the female reaches maturity at a length of 16cm (Fishbase, 2016).

REPRODUCTION. These fishes are protogynous hermaphrodite, changing sex from female to male. There are different colour phases during the sex change, the drab or initial and the terminal phase. The terminal phase indicates that the fish has become an adult male (Allsop and West, 2003), and occurs at a length of 25cm. Spawning occurs daily and year round with the species forming aggregations of between 100-400 fish. The spawning involves a single female and 2-15 males. The sex ratio during spawning is three males to one female. The aggregations usually occur at a depth of 18m which is of a greater depth than the water they are usually found in, shallow waters of 1-15m (Ruffo and Nemeth, n.d.). The fertilization process is external, sperm are released into the water around the female.

APPLIED ECOLOGY. The IUCN has listed the species as least concern (LC) under its Red List of threatened species (Iucnredlist, 2016). This indicates that the species is not threatened by any form of extinction. There is no major threat to the species. There have been increasing numbers of the species in the Caribbean but no indication of global decline in the size of the population (Friedlander and Beets, 2008). In the densely populated areas around Haiti and Jamaica there have been declines the population size of the species (Hawkins and Roberts, 2004). According to IUCN there is no species-specific conservation for this species, but its distribution overlaps marine protected areas (Iucnredlist, 2016). There is no information concerning harvesting and hunting of the fish, but it is associated with ciguatera poisoning (Olsen et al., 1984).

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Fig. 2. Yellowtail parrotfish, drab or initial phase.

[http://www.fishbase.us/images/species/Sprub_u3.jpg, downloaded 9 March 2016]



Fig. 3. Yellowtail parrotfish, juvenile.

[<http://www.forestventure.com/speciesdetail.cshhtml?id=75193> , downloaded 10 March 2016]



Fig. 4. Yellowtail parrotfish, geographic distribution.

[http://www.aquamaps.org/receive.php?type_of_map=regular , downloaded 10 March 2016]