

Common Name:       **Bumphead parrotfish**, also known as humphead parrotfish



Photographs by John E. Randall, B.P. Bishop Museum

Scientific Name: *Bolbometopon muricatum* (Valenciennes in Cuvier and Valenciennes, 1840)

Taxonomy: Class: Actinopterygii; Order: Perciformes; Family: Scaridae

Area of Concern: *Bolbometopon muricatum* is found throughout the Indo-Pacific including the Red Sea and East Africa to the Line Islands and Samoa; north to Yaeyama, south to the Great Barrier Reef and New Caledonia; Palau, Caroline, Mariana in Micronesia. In the U.S. it occurs in Guam, American Samoa, CNMI and the Wake Islands in the Pacific Remote Island Areas (PRIAs), but not Hawaii. It occurs in coral reef habitats from 1 - 30 m depth. Juveniles are found in lagoons while adults prefer clear outer lagoon and seaward reefs. The species is usually found in small groups.

Year First Listed as a "Species of Concern": 2004

Species Description:

Bumphead parrotfish is the largest of all the parrotfishes, growing to 1.3m in length. The species is slow growing and long-lived, with delayed reproduction and low replenishment rates. These species appear to recruit at low levels throughout the year but are not very selective about which habitats they settle into. The species has a low minimum population doubling time of 4.5 - 14 years.

The species is herbivorous, but it also grazes substantial amounts of live coral, contributing significantly to the bioerosion of reefs.

Rationale for "Species of Concern" Listing:

Demographic and Diversity Concerns:

These fish have very wide ranges, but population abundances have been declining throughout their range due to overexploitation. The species has nearly disappeared from Guam's reefs, and have declined in American Samoa. No bumphead parrotfish were encountered during intensive *in situ* diver surveys made at Swains Island and Rose Atoll, and at the main islands of Ofu, Olosega, Tau, and Tutuila in American Samoa, on a NMFS research cruise in Feb-Mar 2002. During 3-years of analogous surveys at Howland and Baker Islands in the Phoenix Island chain and at Jarvis Island and Palmyra and Kingman atolls in the Line Islands, bumphead parrotfish were encountered only at Palmyra, where large adults were rare. They have been classified as vulnerable on the IUCN red list due to large declines in abundance and localized extinctions in many areas.

Factors for decline

The main threats are 1) overexploitation and destructive fishing techniques; 2) degradation and loss of coral reef habitats; and 3) a vulnerable life history.

The bumphead parrotfish is one of the most desirable and most vulnerable nearshore reef fishes in the U.S. Western Pacific Islands. It is an important component of the live reef fish trade and more recently the aquarium trade, but catches have declined dramatically over the past few decades. The life history traits render them particularly susceptible to overexploitation. In addition to slow growth and late maturity, these species sleep on the reef at night making them vulnerable to capture by divers. The use of SCUBA gear for spearfishing is still legal in Guam and spearfishing and the use of "bangsticks" for taking humphead parrotfish are recognized as a major problem.

It is listed as Management Unit Species (Currently Harvested Coral Reef Taxa) in the Coral Reef Ecosystems FMP. American Samoa (U.S.) banned the use of spear-fishing with SCUBA gear in April 2001.

Status Reviews/Research Completed or Underway:

References:

*For further information on this Species of Concern, or on the Species of Concern Program in general, please contact Ms. Marta Nammack, NMFS, Office of Protected Resources, 1315 East West Highway, Silver Spring, MD 20910, (301) 713-1401, [Marta.Nammack@noaa.gov](mailto:Marta.Nammack@noaa.gov); or Dr. Jason Baker, NMFS, Pacific Islands Fishery Science Center, 2570 Dole Street, Honolulu, HI 96822-2396, (808) 983-5303, [Jason.Baker@noaa.gov](mailto:Jason.Baker@noaa.gov).*