

Halichoeres pictus (Rainbow Wrasse)

Family: Labridae (Wrasses)

Order: Perciformes (Perch and Allied Fish)

Class: Actinopterygii (Ray-finned Fish)



Fig. 1. Rainbow wrasse, *Halichoeres pictus*.

[<http://www.fishbase.se/photos/UploadedBy.php?autoctr=22290&win=uploaded>, downloaded 19 January 2016]

TRAITS. The wrasse is a marine fish that belongs to the Labridae family, which are often brightly coloured. *Halichoeres pictus*, also known as rainbow wrasse or painted wrasse, has several colour phases. Figure 1 shows an adult male which is blue-green on the upper body and pale blue on the lower part. It also has a large dark spot at the caudal fin base and blue stripes on the head. It grows to a maximum size of 130mm. They have protractile mouths with thick lips and they have separate jaw teeth that protrude outwards. (Pablico, 2016). They are diandric protogynous hermaphrodites and have three stages, the juvenile phase, initial phase and terminal phase. Juveniles (Fig. 2) have grey to white heads, orange-yellow bodies with a black or dark brown stripe from the snout, through the eye and along the flank, with a white stripe above this. In the initial phase (Fig. 3), the upper half is yellow-orange and the bottom is white. A dark brown stripe extends from snout through the eyes to the end of the tail. In the terminal phase (Fig. 4), the upper half of the head and front body goes from green to red and the lower half is blue or white (Claro et al., 2015).

DISTRIBUTION. The species is common and widespread in the western Atlantic from south Florida to the Bahamas, the southern Gulf of Mexico, and throughout the Caribbean Sea to Venezuela (Fig. 5) (Rocha and McEachran, 2015).

HABITAT AND ACTIVITY. The species is found on the outer edges of reefs and resides at depths of about 5-30m, in areas with rocks or coral. They usually clump together in small groups of up to 40 individuals of mixed colour phases. They are one of the most abundant species found in the areas they are located (Warner and Robertson, 1978). Its diet consists of mobile benthic crustaceans, worms and gastropods, zooplankton, and bivalves (Claro et al., 2015).

REPRODUCTION. The Rainbow wrasse is a diandric protogynous hermaphrodite. Some individuals begin life as females and change to a males when necessary. There are primary and secondary males. Primary males were born male while secondary males are those that were born female and changed to male during their lifespan. They go through three distinct stages that are marked by different colour patterns. The first stage is represented by sexually immature juveniles. The second stage is the initial phase, with mixed sexually mature males and females that cannot be told apart unless looked at internally. The final stage is the terminal phase which consists of only sexually mature males, which has a distinct brilliant colour making it easy to tell them apart from the others. Sex change usually occurs when they acquire a length of 7.9cm (Rocha and McEachran, 2015). The terminal phase males usually dominate more than one female in a group (Jamil, 2003). Mating occurs in both wet and dry seasons and the terminal phase male seems to use aggression to get the chance to mate (Warner and Robertson, 1978). Wrasse in general exhibit broadcast spawning, releasing large numbers of planktonic eggs that are dispersed by the water currents.

APPLIED ECOLOGY. It is in the IUCN Red List as a species of least concern. They have commercial use as they are kept as pets because of their bright colours and diversity (Rocha and McEachran, 2015).

REFERENCES

- Claro, R., Van Tassell, J., Pena Escobar, E.A., Posada, J.J, and Robertson, R. 2015. *Species: Halichoeres pictus, Rainbow wrasse*. Accessed February 15, 2016. <http://biogeodb.stri.si.edu/caribbean/en/thefishes/species/3899>.
- Jamil, J. R. 2003. *Labridae Wrasses*. Accessed February 15, 2016. <http://animaldiversity.org/accounts/Labridae/>.
- Pablico, G. 2016. Morphology Data of *Halichoeres pictus*. Edited by Rodolfo B. Reyes. Accessed January 21, 2016. <http://www.fishbase.org/physiology/MorphDataSummary.php?genusname=Halichoeres&speciesname=pictus&autoctr=2261>.
- Rocha, L.A. and McEachran, J.D. 2015. *Halichoeres pictus*. The IUCN Red List of Threatened Species 2015: e.T187444A70341363. . Downloaded on 21 January 2016.
- Warner, R. R, and Robertson, D.R. 1978. Sexual Patterns in the Labroid Fishes of the Western Caribbean, I: The Wrasses (Labridae). *Smithsonian Institution Press* 10.

Author: Tajah Lawrence

Posted online: 2016



Fig. 2. Rainbow wrasse in juvenile stage.

[<http://biogeodb.stri.si.edu/caribbean/en/gallery/specie/3899>, downloaded 26 January 2016]



Fig. 3. Rainbow wrasse in initial phase.

[<http://biogeodb.stri.si.edu/caribbean/en/gallery/specie/3899>, downloaded 26 January 2016]



Fig. 4. Rainbow wrasse in terminal phase.

[<http://biogeodb.stri.si.edu/caribbean/en/thefishes/species/3899>, downloaded 26 January 2016]

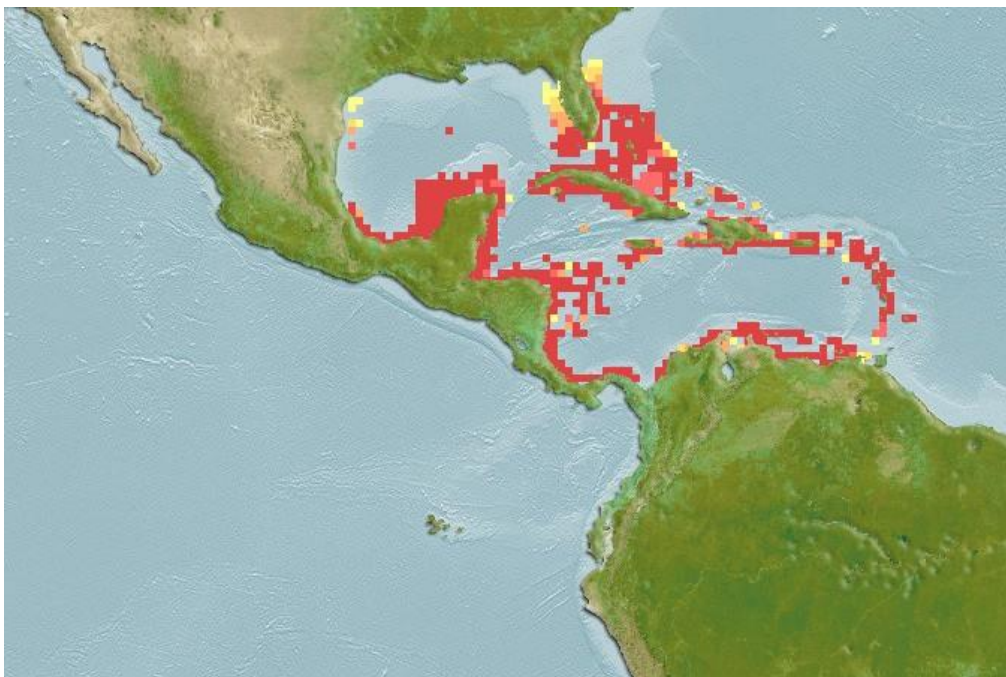


Fig. 5. Distribution range of rainbow wrasse.

[http://www.aquamaps.org/receive.php?type_of_map=regular, downloaded 26 January 2016]

For educational use only - copyright of images remains with original source