

Centropyge aurantonotus (Flameback Pygmy Angelfish)

Family: Pomacanthidae (Angelfish)

Order: Perciformes (Perch and Allied Fish)

Class: Actinopterygii (Ray-finned Fish)



Fig. 1. Flameback pygmy angelfish, *Centropyge aurantonotus*.

http://eol.org/data_objects/32353014, downloaded 20 October 2016]

TRAITS. The flameback pygmy angelfish is a marine angelfish of the genus *Centropyge*. The majority of its oval-shaped body is deep blue, with yellow coloration above (Fig. 1), and it can be as large as 6cm in length (Burgess, 2002). Some species of this genus have similar features but *Centropyge aurantonotus* can be differentiated by the yellow-orange coloration which gives its common name (Blasiola, 1976). The flameback angelfish has a short snout and small mouth. Its dorsal fin has about 15 spines and 16 soft rays. Its anal fins consist of about 17 soft rays and 3 spines. The anal and pelvic fins are bluish-black while the dorsal fin is yellow. Around the eyes is a blue ring. Juvenile flameback pygmy angelfish have the same body colour except that the yellow-orange coloration spreads further back (Burgess, 2002). Males are larger than females (Bauer and Bauer, 1981).

DISTRIBUTION. *Centropyge aurantonotus* can be found in the waters near Venezuela, southern Brazil, the Lesser Antilles and Curacao. This range is highlighted in yellow in Fig. 2.

Specimens have been taken from a depth of about 15m to 20m deep in a region of stony corals of the genus *Acropora*. Some in St. Lucia were found 300m deep. Flameback angelfish are native to Barbados, Brazil, Grenada, St. Lucia and Trinidad and Tobago just to name a few (Pyle et al., 2010).

HABITAT AND ECOLOGY. The flameback pygmy angelfish can be found in the rubble rock areas and reefs along the western Atlantic coast in small groups or swimming by itself. This debris rock environment contains mostly granitic rocks which are covered with sponges and algae which they feed on (Blasiola, 1976). In southeastern Brazil, *C. aurantonotus* are mostly found in the shallow, but in the northeast they swim deeper (Feitoza et al., 2005). Flameback angelfish are long-lived in their natural habitat and can also survive in aquaria for more than eight years (Bauer and Bauer, 1981). Flameback pygmy angelfish can be found individually or in a small shoal. When in groups, the fish distance themselves from each other (Blasiola, 1976). When *C. aurantonotus* are preyed upon by larger fish, they are often skittish and tend to hide under rocks (Fatherree, 2007).

REPRODUCTION. At dusk, the female flameback angelfish goes to her usual coral prominence and stays within it. The male keeps watch over the spawning zone and meticulously retraces his route at 2-6 minutes intervals. Each male visits each female station successively and searches for the female that is on or inside her coral. He performs brief courtship gestures for her and the intensity and duration of these gestures increase with each round. The female, being approached by the male, swims out and meets him. The male then swims faster, encircling the female, and increases his lateral curved body surface with its unpaired fins giving a complete fan-like erection. As the male continues his rounds, his paired fins flutter and his whole body quivers and goes pale. His unpaired fins widens fully. After numerous rounds and encounter with the male, the female finally shows her willingness for spawning. She does this by swimming over her coral and fluttering her fins. Her body also quivers and goes pale having a complete erection of her unpaired fins. The spawning partners line up and their bodies quiver as the male releases his gametes. The male gametes are ejaculated into the egg cluster when the male pushes his snout against her ovarian area. At this point fertilization takes place. About six hours after spawning, fertile eggs float to the water's surface (Bauer and Bauer, 1981). Most species of *Centropyge* follow this same spawning ritual.

APPLIED BIOLOGY. This species is found on the IUCN list but it is characterized as Least Concern. *C. aurantonotus* occurs in the Abrolhos Marine National Park, Brazil, which is a protected area. More than the maximum quota of *C. aurantonotus* exports has been reached in the Brazilian aquarium trade (Pyle et al., 2010). Flameback pygmy angelfish can adapt well as pets in an aquarium (Bauer and Bauer, 1981).

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Fig. 2. Flameback pygmy angelfish geographic distribution.

[<http://maps.iucnredlist.org/map.html?id=165865> downloaded 27 October 2016]