# *Corydoras aeneus* (Bronze Corydoras)

Family: Callichthyidae (Plated Catfish)
Order: Siluriformes (Catfish)
Class: Actinopterygii (Ray-finned Fish)

**Fig. 1.** Bronze corydoras, *Corydoras aeneus*.

[http://www.planetcatfish.com/images/mid(r)/siluriformes/callichthyidae/corydoras/aeneus/1.jpg, downloaded 13 February 2016]

**TRAITS.** The adult male bronze corydoras is around 6.5cm long, the female is slightly larger at roughly 7cm. This size difference occurs because the females have a larger abdominal region (Khoda, 2002). There is a very sharp barb which is present in the pectoral, anal and dorsal fins. There is brown colour on the head and green on the upper sides, and the body and fins can be a bit yellow or pink. The stomach region is white and the head and back of the fish are blue-grey (Fig. 1). The fish is armoured with overlapping scales, and it has barbels around the mouth (Fig. 2) (Elson and Lucanus, 2003).

**DISTRIBUTION.** This species is widely distributed and native throughout South America (Fig. 3) ranging from Columbia and Trinidad as well as the Rio de Plata (Elson and Lucanus, 2003).

With regards to being found in Trinidad, it is found in many river systems including rivers located in southern and central Trinidad.

**HABITAT AND ACTIVITY.** *Corydoras aeneus* can be found in shallow pools with clear water, shallow muddy water or running water. The water can be either stagnant, slow moving or fast flowing. They do not dwell in waters with any sort of tidal influence. In its native habitat, this fish occupies water with certain characteristics, such as a pH of 6-8 and temperature range of 25-28 °C Linked with its ability to thrive in shallow waters, the fish may utilize bimodal respiration, whereby it has the ability to gulp in air as well as use their gills to breathe. They come up to the surface of the water, gulp in air which is stored in the walls of the intestine (Kramer and McClure, 1980). Surplus quantities of air are expelled through the vent. These fishes are commercially bred and are widely kept in aquariums.

**FOOD AND FEEDING.** Bronze corydoras are omnivores and feed on insects, crustaceans, brine shrimps, bloodworms, black-worms, daphnia, Mysis shrimps and plant matter (Elson and Lucanus, 2003). They normally disregard food that floats or is located near the surface of the water and consume food that sinks to the bottom. Even though they do not consume other fish, they will feed on flesh from dead or injured fish. They are usually more active during the night and they are nocturnal (Elson and Lucanus, 2003).

**POPULATION ECOLOGY.** These fish usually stay in shoals of 20-30, sometimes even hundreds or thousands of this species. They are usually found in their groups close to the margins of ponds or rivers as well as streams that are covered with plants.

**REPRODUCTION.** Reproduction occurs in the rainy season. The female can produce approximately 25 to 30 egg clutches utilizing different males, but each clutch is inseminated from one male only. They show a unique reproductive behaviour. For fertilization to occur, the male will present his abdomen for the female. She will then put her mouth over the opening, creating what is known as a T-position (Khoda 2002) (Fig. 4). Then she will consume the sperm in her mouth and swallow it. The sperm then travels through her intestines and together with her eggs; they are discharged into a pouch, created by her pelvic fins. After, the female will locate a safe position to deposit her eggs, usually on waterweeds (Fig. 5). These eggs stick to the surface on which they are deposited, or they may stick to each other, due to villi-like (minute hair-like) structures found on the surface of the eggs (Huysentruyt and Adriaens, 2005). The eggs take about 3-4 days to hatch. The eggs change colour by getting darker, and prior to hatching they turn a much darker shade of brown. Corydoras in captivity can produce up to 200 eggs per day.

**BEHAVIOUR.** Juvenile behaviour: Juveniles do not need to feed for 2-3 days after hatching as they are able to draw nourishment from the yolk sac. After this store of nutrients has been used up, they will actively go on searching for food on their own, although they generally keep to the bottom whilst feeding on detritus and any fine food that is available (Elson and Lucanus, 2003).

Antipredator behaviour: Corydoras are known to have very sharp barbs located in the anal and dorsal fins as well as one under each eye. These act as a defence mechanism against predators trying to eat the fish. The barb has the potential to damage the predator's mouth, and the barbs contain a toxin (Elson and Lucanus, 2003).

**APPLIED ECOLOGY.** The conservation status for this fish is not evaluated (IUCN Red List version 3.1). Corydoras fish are common pets for many fish lovers. They are not necessarily poisonous to humans or other fish, but many aquarists have reported mild irritants after handling the fish with their bare hands. When stressed or frightened, the fish releases its toxins and many aquarists have been stung as a result. With the aquarium trade in corydoras on the rise, an albino variety of the fish has been produced, pink or orange in colour with red eyes, and the fry are known to develop very slowly. The albinos are partially blind and the males are partially sterile, due to constant inbreeding (Elson and Lucanus, 2003). Some albinos are reported to be injected with a coloured dye and sold.

**REFERENCES**

Elson, G. and Oliver Lucanus, O. (2003). Catfish: Everything About Natural History, Purchase, Health Care and Breeding.

Huysentruyt, F and Adriaens, D. (2005). Adhesive Structures in the Eggs of *Corydoras aeneus*. http://onlinelibrary.wiley.com/doi/10.1111/j.0022-1112.2005.00647.x/full.

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Kramer, D. and McClure, M. (1980). Aerial Respiration in the Catfish *Corydoras aeneus*. http://www.nrcresearchpress.com/doi/abs/10.1139/z80-273#.VuIZ9H0rLIU.

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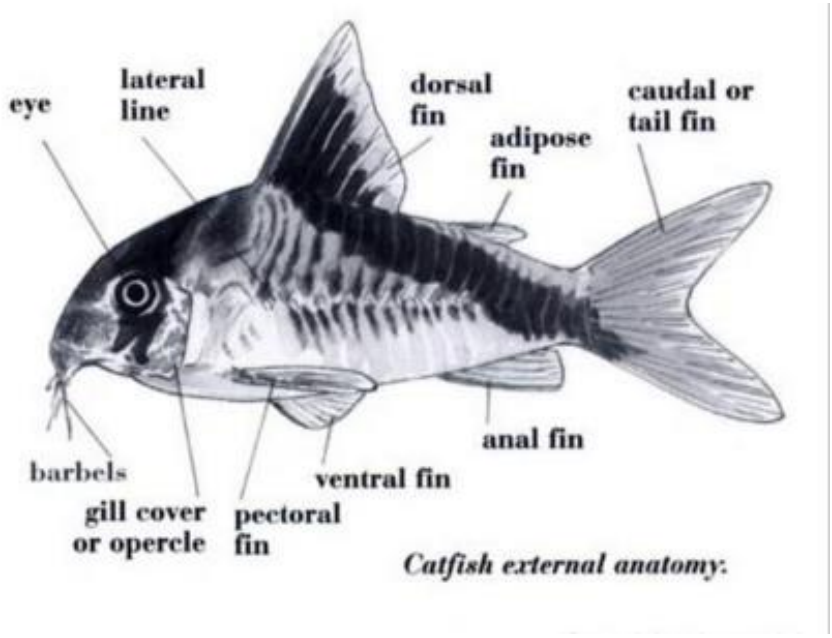


**Fig. 2.** *Corydoras aeneus* external anatomy.

[https://books.google.tt/books?id=L89o1IS1GY4C&pg=PT8&lpg=PT8&dq=corydoras+aeneus, downloaded 18 February 2016]


**Fig. 3.** Bronze corydoras geographic distribution.

[http://akvaristalexikon.hu/e107_plugins/halkatalogus/images/maps/corydoras_aeneus.jpg, downloaded 17 February 2016]


**Fig. 4.** Abino *Corydoras aeneus* in the mating T-position.

[http://www.mindenpictures.com/cache/pcache2/80027530.jpg, downloaded 18 February 2016]

**Fig. 5.** *Corydoras aeneus* eggs.

[http://aqua.reims.free.fr/repro%20corydoras%20aeneus.html, downloaded 17 February 2016]