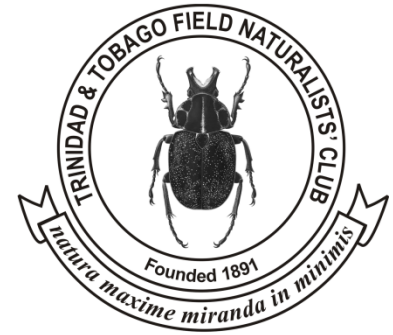


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Ryan S. Mohammed and Harnarine Lalla

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The mean freshwater and riverine ichthyofaunal species richness for Trinidad and Tobago, according to Phillip (1998), was calculated to be 38.7 using a wide range of species richness estimators, with the recorded observed being 38 fish species. Since then there have been numerous taxonomic disputes causing this richness estimate to change. Mohammed *et al.* (2010) documented an additional species, the gouramy, *Trichogaster trichopterus* in the south-central Oropuche drainage of Trinidad. Prior to this, Kenny (1995) reported 43 freshwater fish species listed for Trinidad and Tobago. In this account, the historical occurrences of the elongate hatchetfish, *Triportheus elongatus* (Family: Characidae) and driftwood catfish, *Trachelyopterus galeatus* (Family: Auchenipteridae) were noted, but both were suspected to be extinct. Neither species were reported in Phillip's (1998) account, and subsequently were absent in the taxonomic keys for freshwater fishes by Phillip and Ramnarine (2001). Recently, *T. elongatus* was reported in south-east Trinidad (Mohammed *et al.* 2010), and *T. galeatus* has been re-discovered in 2011 in the central drainages of the Caroni Plain.

During March 2011, recreational fishermen caught a single specimen of *T. galeatus* in the Caroni River at St. Helena (GPS: 20P 680899° E, 1170784° N) using hook and line. By the time the fish was recognized as being 'a different looking catfish', it had already suffered from having the hook removed; however it was photographed, but unfortunately used as bait. A second specimen was caught, again using hook and line, in the Guayamare River (GPS: 20P 673775° E, 1171240° N) during April 2011 by the same fishermen, but by now they were alerted to the rarity and 'value' of the fish. This specimen was kept alive for several months and the identification confirmed using Bail *et al.* (2000). Based on taxonomic descriptions and comparisons from the photographs, the first specimen was male and the second was an adult female (21.0 cm standard length).

Kenny (1995) reported finding hundreds of dead specimens at the Uriah Butler Highway crossing of the Caroni River in 1959, and stated that this species has a preference for wide-open rivers with slightly brackish conditions. This species occurs in swamps and is well adapted to hypoxic environments (Bail *et al.* 2000). Adults feed on small fishes, arthropods, worms and sometimes on fruits. Interestingly, sperm can be kept in the female's genital tract for several months, owing to a gelatinous emission from the seminal vesicle of the male (Boujard *et al.* 1997). Relatively large, adhesive, gelatinous eggs (approximately

3.0 mm in diameter) can represent as much as 20% of the gravid female's weight (Boujard *et al.* 1997). It can be found in rivers from northern South America to Central America, from Panama to Argentina (Nelson 2006).

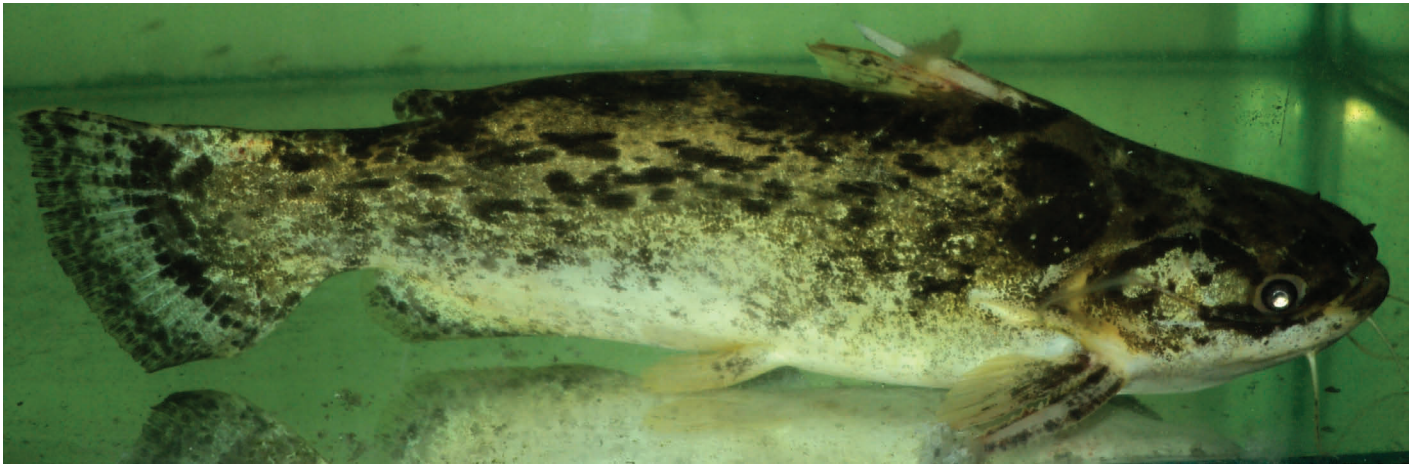
It is uncertain if these individuals are representatives of the historical populations or recent introductions. On the one hand, this drainage has been regarded as part of the 'Unstable Relict' zoogeographic zone (Kenny 1995; Phillip 1998). Within the last decade, the odd specimen of *T. galeatus* has been imported in the freshwater ornamental trade, mixed in with shipments of other catfishes or intentionally imported as an oddity. This usually comprised of individuals ranging between 6.0 cm to 12.0 cm (personal communications with Fisheries Division). Both collection sites are within 5.0 km of at least two importation facilities for the ornamental fish trade. Additionally, it is not unheard of for some aquarium hobbyists to release unwanted pets into local rivers, which they assume represent suitable habitats; a practice that should not be condoned due to the unknown ecological impacts.

There are substantial numbers of riverine fishes found in the Orinoco that have been collected in the Gulf of Paria, and can therefore make it to Trinidad. However, not every species that frequents the Gulf of Paria becomes established within Trinidad's drainages. Such examples are the members of the *Brycon falcatus* group (Lasso *et al.* 2010, 2004) and the red-bellied piranha *Pygocentrus nattereri* which has been caught by artisanal fishermen around the south-western peninsula of Trinidad after increased discharges from the Orinoco (author's observations). This is possible due to decrease in salinity below 15.0 ‰ (ppt) in the Columbus Channel and the Gulf of Paria (Kenny 1995).

In conclusion, though it may be tempting to assume that the capture of individuals at the two sites is not coincidental, it is not possible to conclude that these two individuals represent stable breeding populations; such an assessment would depend on the repeated capture of individuals over a longer time span. Further monitoring of Trinidad and Tobago's inland drainage systems therefore needs to be conducted, and freshwater fish assemblages updated. It is recommended that this species should now be reinstated in our archives of biodiversity.

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