

## ENVIRONMENT

# What exactly is a zangee?

ASK any Trinidadian what a zangee is and you are likely to get a range of responses. Some will tell you it is a "swamp eel," others insist on calling it a "water snake." More still will reveal that they are not sure what a zangee is exactly, but they are terrified of them nonetheless; perhaps they have heard the rumours about this mysterious creature, which is said to suck on your toes should you happen to tread barefooted into the water.

The truth is that the zangee, more formally known as *Synbranchus marmoratus*, is actually a type of fish. With their slippery, elongated body (up to 1.5 metres long), the confusion is entirely understandable. Adding to the confusion is the fact that they lack well developed fins and their bodies are essentially scaleless. Indeed, it is surprising to discover that they are not closely related to the true eels at all (which may also be found occasionally in Trinidadian waters), and their resemblance to a snake is entirely superficial.

Sometimes spelt *janjii* or *zangie*, the origin of the name is actually "les anguilles" which is French for eel. Like many local French-derived names that begin with the letter "a," Trinidadians added a "z" and, over time, the word morphed into the zangee that we know today.

Outside of Trinidad, the zangee is found throughout Mexico, Central and South America and on a few islands of the Caribbean. Within TT, it is one of the most widespread fish in the islands' waterways, inhabiting a wide range of habitats from



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muddy swamps and drainage ditches to clear, pristine mountain streams. It is primarily found on the southern slopes of the Northern Range, but has on occasion been found along the north coast at Sans Souci and Yarra.

Like all fish, the zangee absorbs oxygen while underwater via its gills. However, amazingly it is also capable of absorbing atmospheric oxygen via the surfaces of its mouth and throat. This is advantageous in several ways.

Firstly, it grants it the unusual ability to travel overland, between ponds and streams for example, which it takes advantage of mostly after dark when there is less risk of drying out. Indeed, the zangee is primarily nocturnal, emerging from the



CLOSE up of the head of *Synbranchus marmoratus*. PHOTO BY AMY DEACON

edges of the stream at night to feed on small aquatic animals including fish, tadpoles and aquatic insects.

It is also regarded as a scavenger and, in the presence of carrion, zangee have even been spotted on open grass areas in daylight.

Secondly, the ability to breathe atmospheric air also allows it to better survive the dry season should it find itself in a waterway which has dried up.

In such a case the zangee might excavate a small burrow in which it can wait in a semi-dormant state until the rains return. Studies have indicated that these fish can survive out of water like this for as long as nine months.

Finally, because it does not have to rely on oxygenated water, the zangee can survive in stagnant waterways in which other fish may not be able to.

● ZANGEE continues on Page 5B



ENVIRONMENT

# Fear of fish unfounded

●ZANGEE from Page 4B

However, this doesn't seem to prevent them from also making their home in the clear, well oxygenated streams of the lower parts of the Northern Range and elsewhere.

The air breathing ability of the zangee is not its only bizarre trait. They are also hermaphroditic, so that while most individuals are born female, some can and will change into functional males as they mature. Eggs are buried in the river bank and tended to by the male before hatching into larvae. These newly-hatched larvae look quite different to their parents, with greatly exaggerated pectoral fins for gas exchange, which are shed after their first couple of weeks.

Both young and adult zangee face predators such as caiman, waterbirds and large fish, and they use their cryptic marbled reddish-brown colouration to help conceal themselves in muddy environments. While they are also eaten by humans, they are not usually intentionally hunted for food in Trinidad. Rather, specimens may occasionally get



DESPITE its snake-like appearance, the zangee is actually a fish.

caught on the hooks and in the nets of fishermen and are then eaten. Outside of our region however, members of the Synbranchidae are widely consumed, especially in China where stir-fried swamp eel is considered a delicacy.

As with much of our flora and fauna, there is much to learn about our zangee.

For a start, it is clear that any fear we have for this fish is entirely unfounded — it is completely harmless to humans and an important member of our



THE zangee is capable of surviving outside of the water once it remains moist. PHOTOS BY AMY DEACON

freshwater ecosystem. We hope that readers will now have a greater appreciation for this odd yet fascinating fish.

Today's feature was co-written by Amy Deacon and Kris Sookdeo. For more information

on our natural environment, you can contact the Trinidad and Tobago Field Naturalists' Club at [admin@tffnc.org](mailto:admin@tffnc.org) or visit our website at [www.tffnc.org](http://www.tffnc.org). The Club's next monthly meeting will be held on June 12, 2014 at St Mary's College, PoS.