

## Species Profile: *Xystichromis phytophagus*

The genus *Xystichromis* is rooted in the Greek "xyster" meaning scraper which is indicative of the cichlid species comprising this group.

These fish are small (in the 10cm range), colorful, and to some degree incorporate algae scraping into their diets. The outer teeth are mostly bicuspid while the inner are lined in 4-6 rows, are large and of tricuspid structure. The intestines are coiled

and 3-4 times the body length. There are a number of undescribed fish that fit the *Xystichromis* assemblage including the sp. "flameback". The *Xystichromis* genus share close affinities with *Neochromis* and *Astatotilapia* but differ in cranial structure and dentition.



Photo by Dave Hansen

*Xystichromis phytophagus* was once found in Ugandan waters of Lake Victoria near Jinja and Bunjako as well as Kisumu Bay Kenya. Today this species is found in Lake Kanyaboli Kenya, a small lake in the Yala Basin. This area is an extensive papyrus swamp which has acted as a protective barrier for species which the Nile perch (*Lates niloticus*) preyed upon. Lake Kanyaboli has a surface area of 10.50 km<sup>2</sup> and an average depth of 3.0m. The entire Yala Swamp watershed is in danger of being drained to provide agricultural areas for a growing

population. This region is a world renowned birding expanse as well.

My first experience with *Xystichromis phytophagus* occurred in 1999 when I obtained a small group of fry that were descendants of Loiselle's wild stock. This group provided one very beautiful male with coloration that would have to be seen in person to be fully appreciated. It was obviously apparent why the common name of "Christmas fulu" was pinned to this species. Unfortunately that winter my region was hit with a large ice storm and in the ensuing power outage I lost my group. In the time since I had been searching for this

species but many of the fish I found did not have the same coloration or even body shape of my original group. In the spring of 2005, a fellow hobbyist who shares my affliction for the cichlids of Lake Victoria sent me a dozen very small fry labeled "phytophagus". These were placed in a 20 gallon tank with a sponge filter to grow. I fed Cyclop-eeze® and crushed flake to the young. They grew rapidly and after six months were large enough to be placed in a 55 gallon tank where they remain today. I was extremely happy to see the

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coloration these cichlids developed and are even more colorful than my initial colony that was presumably nearer to wild stock.

Greenwood suggested that *Xystichromis phytophagus* did not graze algae as many similar species did, but actually obtained diatoms from biting into the plants themselves (Greenwood, 1969). Favored habitat is over a sandy bottom in areas of dense plant growth. Relating this information to aquatic husbandry, *Xystichromis phytophagus* appreciates some greenery in its diet. This can be easily supplied with a good spirulina flake. Good quality flake food with occasional treats of brine shrimp or the like will serve well to conditioning the "Christmas fulu".

Our tank décor is quite simple. The substrate is about 5cm deep and consists of light colored pool sand. A formation of rockwork on one end seems to be a gathering point for the colony but does not appear to serve a territorial purpose nor do the fish retreat into it when frightened. I don't use live plants with this species but have heard another reputable aquarist recommend the use of hornwort planted in strands (Newman, 1997). My group shares their tank space with a couple *Synodontis ocellifer* which has been a good mix. We do not alter our water as it comes from the tap at pH of 8.6. Readings from Yala Swamp range from 7.5-8.2 pH (Loiselle, 1996). I contend that when maintaining species of cichlids from the Victorian region, parameters are not near con-

cerning as is quality. Frequent water changes as well as good quality filtration will suffice for maintaining a healthy colony of *Xystichromis phytophagus*.

The mature male *Xystichromis phytophagus* is second to none in coloration. The head is a light blue-grey and has a convex cranial slope. The upper and lower jaws extend equally and are lined with bright blue lips. Two horizontal bars cross the forehead, one just above the lips, the other at mid eye level. The top of the forehead on down to the gill plates is purple. Immediately behind the gills and along the back is colored orange-red. The abdomen is lime-green and extends halfway up the flanks and laterally onto the caudal peduncle. The frontal portion of the dorsal fin is powder-blue. The spines on the back half of the dorsal are red. This red coloration is also found on the caudal fin. The pelvic fins are jet-black with the first ray extending slightly beyond the others. The anal fin is light blue with a red blotch frontally. A small number of egg spots dot the back portion at its base. Two lines of black blotching streaks the body midway and frontally along the lateral line. Several vertical bars are visible to some degree that is mood dependant. The female *Xystichromis phytophagus* is a dull gold color with a yellow tinge to the fins. There is slight sexual dimorphism with males reaching 11cm and females 9.5cm.

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The male *Xystichromis phytophagus* will excavate a pit at the base of an object (usually rock). This activity is a certain indication that procreation is imamate. I have found this species to be rather docile in comparison to other furu however, with the onset of breeding, some territorial displaying and defending of the pit area takes place. These displays consist of fin flaring and short runs at rival males. The male will shimmy to one side with fins flared each time his ripe female approaches. In between dancing to his female and excavating his pit, the male defends against conspecifics nearing his territory. The female will eventually give in to the males advances. The protrusion of an ovipositor on the female is a sure sign that spawning is certain. The actual act of spawning will occur in the male's pit. The typical *haplochromine* method of shaking and circling, dropping eggs, nipping at the males egg spots and picking them up is employed by this maternal mouth brooder. *Xystichromis phytophagus* is not a particularly tough species to coax into spawning. It is highly prolific and broods of 50 fry are not uncommon. The gestation period is 18 days. The female will tend her fry for another two weeks. I strip the female at 16 days post spawning. At this time the fry have absorbed most of their egg sac and will take first feedings of Cyclop-eeze® and powdered flake. The young grow rapidly reaching maturity in 10 months.

The native habitat of *Xystichromis phytophagus* is shrinking rapidly. This wonderful little cichlid remains intact in as part of the LVSSP. Stable populations reside in hobbyists' aquari-



Photo by Greg Steeves

ums as well, and it is from this latter group that good quality future stock of this Victorian gem will endure.

### References:

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- Newman, Lee, 1997; "Aquarium Husbandry of the Christmas Fulu, Haplochromis (*Xystichromis*) *phytophagus*". Cichlid News Oct. Vol. 6 No. 4. 18-22.

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