

# Notes on the Venezuelan Species of *Farlowella* (Siluriformes, Loricariidae)

R. Shane Linder

In 1996, Retzer and Page published their findings on the systematics of the stick catfishes of the genus *Farlowella*. Prior to this publication, there were no less than 37 described species of *Farlowella*. Eleven of these species were described from Venezuela. After a careful review of the previously described species, Retzer and Page validated 25 species in the genus, of which, eight are found in Venezuela. Retzer and Page divided the genus into seven species groups: *F. curtirostra* group, *F. mariaelenae* group, *F. nattereri* group, *F. acus* group, *F. amazona* group, *F. knerii* group, and a group of species of uncertain phylogenetic origins. In the paper, they also described six new *Farlowella* species.

Of the above species groups, members of the *F. curtirostra*, *F. mariaelenae*, *F. nattereri*, and *F. acus* groups are found in Venezuela as well as the species *F. oxyrryncha* (Kner, 1853) that is of uncertain relation to the known species groups. The *F. curtirostra* group consists of two species that are restricted to the Lake Maracaibo basin. Interestingly, these are the only two species of *Farlowella* found in the basin. *F. mariaelenae* Martin Salazar, 1964 is the only member of its species group and is found throughout the Orinoco drainage and in the Rios Meta and Guaviare in Colombia. From the Amazonian *F. nattereri* group, only *F. odontotumulus* Retzer and Page, 1996 is present in the southern most part of Venezuela. The majority of Venezuelan *Farlowella* belong to the *F. acus* group that is found throughout the Orinoco basin and in the coastal Rio Yaracuy drainage. The final species, *F. oxyrryncha*, is found throughout the Amazon drainage and in the Rio Cauru, upper Orinoco.

The river systems of Venezuela are fairly well defined. Traditionally, the country is divided into six drainages: Lake Maracaibo, the coastal drainages, Lake Valencia, Rio Orinoco, Rio Cuyuni (Guayana), and Rio Negro (Amazon). The largest coastal drainages are ecosystems in their own right and include the Rio Tocuyo, Rio Yaracuy, Rio Tuy, and Rio Unare systems. These coastal systems are largely unexplored and promise to produce many species previously unknown to science. *F. martini* Fernandez Yepez, 1972 is the only species described from a coastal drainage and is restricted to the Yaracuy system. Earlier this year, I encountered what appears to be a second coastal *Farlowella* species in the Rio Guare, a tributary of the upper Rio Tuy system. Sadly, I only collected two sub-adult specimens, but they appear to be an undescribed member of the *F. acus* group with a long thin rostrum similar to that of *F. vittata*.

Throughout Venezuela, *Farlowella* are referred to as "aguja" which means needle. This name may also be applied to some *Sturisoma*. Robust bodied loricariids are called "corroncho" or "panaque" and *Loricaria* and *Rineloricaria* are treated together as "paleta" or "tabla." A paleta is a small shovel or trowel and tabla means board. *Farlowella*, due to their very slender body, are one of the few loricariids not eaten.

Adult *Farlowella* species found in the Orinoco basin appear to be migratory, retreating to the largest rivers such as the Orinoco and Apure in the high dry season from February through April. Sampling of the Rios Guarico and Orituco, Guarico State and the Rios Santo Domingo and Tinaco, Cojedes State in April 2001 produced only juvenile *Farlowella* under eight centimeters. Whether this is a true migration or simply an ebb and flow with rising and falling water levels, I can not say for sure. Most large loricariids such as *Panaque nigrolineatus*, *Loricaria*, *Lamontichthys llanero*, and *Hypostomus* appear to also retreat to the largest rivers while adult *Hypoptopoma* and *Otocinclus* can be found at the same locations year round.

Aquarium books have traditionally applied the names *F. acus*, *F. vittata*, *F. gracilis*, and *F. knerii* to photographs of *Farlowella*. However, the vast majority of these identifications are incorrect. *F. acus* comes from a very restricted area near Lake Valencia and is endangered. *F. gracilis* appears to have a very restricted range within the Rio Caqueta, Colombia and *F. knerii* is known only from the upper Rios Napo and Pastazo where there is little to no commercial collection of aquarium fishes. Since most South American aquarium fishes are shipped from Manaus, Brazil and Iquitos, Peru, many of the *Farlowella* imported for the aquarium trade are Amazonian species. Most imported species are likely to be *F. nattereri*, *F. oxyrryncha*, and/or *F. platyrhynchus*. *F. amazona* is also common throughout this area, but it is very distinct looking and I have never seen a photo of a *Farlowella* that resembles this species in hobby literature nor seen them in the trade. *F. vittata* is a common llanos species and is imported for the aquarium hobby mainly from

Colombia. After a careful review of *Farlowella* spawning articles in hobbyist publications that included photos, it appears that *F. vittata* is the *Farlowella* species most commonly spawned by aquarists.

Below is a list of *Farlowella* recorded from Venezuela with notes on each species. They are presented by species group and diagnostic characteristics are included that would be useful for identification in the field or of living aquarium specimens.

*F. curtirostra* Group

Diagnosis: 3 rows of abdominal scutes, snout short and blunt, males possess thickened odontodes along the side of the head (not on the snout).

*F. curtirostra* Myers, 1942

Holotype: Quebrada Tabor, Rio Motatan, Trujillo State. Found throughout the Maracaibo basin.

Diagnosis: Blunt snout and wide body in comparison to *F. taphorni*.

*F. taphorni* Retzer and Page, 1997

Holotype: Rio Muyapas, Merida State (not known from any other location)

Diagnosis: Snout longer and thinner than *F. curtirostra*.

*F. mariaelenae* Group

Diagnosis: 3 rows of abdominal scutes, short breeding odontodes cover the head of males, snout thin and short.



*F. mariaelenae* Martin Salazar, 1964

Holotype: Rio Salinas (tributary of Rio Pao Viejo), Cojedes State. Found throughout the Orinoco basin and in the Rios Meta and Guaviare, Colombia.

*F. nattereri* Group

Diagnosis: 3 rows of abdominal scutes, snout long and thin, breeding odontodes short in patches on the head.

*F. odontotumulus* Retzer and Page, 1997

Holotype: Caño Mavaquita near confluence with Rio Mavaca. Found throughout the Upper Orinoco, Amazonas State.



### F. acus Group

Diagnosis: 2 rows of abdominal scutes, snout short and blunt (except *F. vittata*), breeding odontodes long on snout and head.

*F. acus* (Kner, 1853)

Holotype: Listed only as "Venezuela." Found in Lake Valencia drainages and Rio Torito, Carabobo State.

Notes: Retzer and Page found that *F. acus* could be divided into two populations. The population in the eastern and northern tributaries has different caudal fin markings from populations from the Rio Torito and southern drainages. This species is in grave danger of extinction. The city of Maracay has built an industrial park on the lake's eastern edge and the city of Valencia has built two industrial parks on the western edge. The northern and eastern drainages are now channeled ditches full of trash and industrial waste. I have only been able to find this fish in the upper reaches of the Rio Aragua, which is one of the very few unpolluted portions of the Valencia drainage.

*F. martini* Fernandez Yopez, 1972

Holotype: Rio Yaracuy. Found throughout the Rios Yaracuy and Aroa

*F. venezuelensis* Martin Salazar, 1964

Holotype: Rio Colorado, Guarapiche drainage, Monagas State. Found throughout the Upper Rio Guarapiche, Monagas State, northeastern Venezuela.

*F. vittata* Myers, 1942

Holotype: Tributary of the Rio Uribante, Tachira State. Found throughout the Orinoco Basin.



**Notes:**

Martin Salazar (1964) described four species which Retzer and Page place within *F. vittata*. These include *F. angosturae*, *F. guaricensis*, *F. agustini*, and *F. roncalli*. I have collected *F. guaricensis* throughout the Rio Guarico and *F. agustini* in the Rio Chirgua. In the wild, and in captivity, these two species are readily distinguishable. Specimens from the Rio Guarico are golden brown dorsally with very distinct caudal pigmentation while Rio Chirgua specimens are gray brown dorsally with less pronounced caudal pigmentation. *F. agustini* also inhabits a very different habitat than *F. guaricensis*. *F. agustini* is found over rocky substrates in fast flowing waters alongside *Chaetostoma* and *Ancistrus*. *F. guaricensis* is only found among vegetation and dead branches in slower sections of the Rio Guarico. In the aquarium, *F. guaricensis* remains on driftwood pieces, plants,



and the aquarium glass. *F. agustini*, in contrast, is extremely reophilic and rarely leaves the aquarium substrate. These two morphologically similar fish raise an interesting point in species definition. If two fish possess similar physical morphology, but are found in very different habitats and show markedly different behaviors, are they one or two species?

**Uncertain relations**

*F. oxyryncha* (Kner, 1853)

Holotype: Rio Mamore, Rondonia State, Brazil. Found in the Rio Cauru, Upper Orinoco in Venezuela.

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**Selected Resources:**

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