The Families of the Order Siluriformes
By
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Carl Ferraris and Mario di Pinna after an in-depth review of the relevant literature, have published a comprehensive list of all family-group and other suprageneric names proposed for the order Siluriformes. Their findings will undoubtedly cause a few groans from hobbyists, as we now have to learn some new names. Still other hobbyists may be disappointed that the authors chose not to retain such families as the Ageneiosidae. However, this new paper is important. While the rules that govern generic and specific names are very stringent, family level names do not come under such scrutiny. For many years it has been nearly impossible to know exactly how many Catfish families legally (legal as defined by the International Code of Zoological Nomenclature) exist. Hopefully, this paper will provide some, at least temporary, stability to the number of catfish families.

A complete discussion of taxonomic terminology is beyond the scope of this paper, but a brief introduction to some of the terminology is certainly in order. Phylogeny (from the Greek phylon = tribe and genesis = origin) is the evolutionary history of a species or group of related species. These genealogies trace evolutionary relationships. Reconstructing phylogenetic history is part of the scope ot systematics, the branch of biology concerned with the diversity of life. Systematics encompasses taxonomy, which is the identification and classification of species. A family, as used in this paper, is a taxonomic grouping below order and above genus. Family names for plants always end in acae while those of animals, like catfishes, always end in idae.

The family level is an important classification for hobbyists. If the aquarist knows which family a fish belongs to they can immediately make inferences about the fish's diet, adult size, natural habitat, and other important information for captive maintenance. This is especially true in those cases where the aquarist is lucky enough to make when of those truly rare finds. At these times, it can be almost impossible to identify the fish to genus, let alone species and identification to family is the best we can hope for.

Below is a list of the 35 catfish families accepted by the authors after their review of the literature. I will make a few comments under each family to point out any radical changes or changes that affect popular aquarium catfishes. I will also point out common family names where they exist or have been confused and comment on the family's availability in the aquarium trade. I have taken the liberty of suggesting a few common names for some of the newer families.

Akysidae

Asian family rarely imported for the aquarium trade. Collectively known as the Asian banjo cat-fishes (Ferraris, 1991: 164) or stream catfishes (Jayaram, 1999: 266).

The family Parakysidae, (Roberts, 1989), pustulous catfishes (Kottelat et al 1993: 105), is included in this family.

Amblycipitidae

Very rarely imported family from Asia. Collectively known as the loach-catfishes (Burgess, 1989: 107).

Amphiliidae

Very rarely imported family found in Africa. Collectively known as the African hillstream cat-fishes (Burgess: 109) or mountain catfishes (Skelton, 1993: 218).

Anchariidae

Erected by Glaw and Vences, 1994 to accomodate *Ancharius*, Steindachner 1881. The family was proposed by de Pinna in an unpublished thesis. I have not seen the original description and thus can not add much. The family is found on Madagascar. I am not aware of any common name or importations.

Andinichthyidae

Proposed by Gayet, 1988 to accommodate the fossil genus and species *Andinichthys bolivianensis* from South America. Obviously not an aquarium import.

Ariidae

A world-wide family known as the sea catfishes (Burgess, 1989: 158; Ferraris, 1991: 82) or shark catfishes (Baensch & Riehl, 1997: 434) even though some members are restricted to freshwater. Allen (1 989:47) uses the term fork-tailed catfishes. Known in the hobby mainly for the *Arius* species imported as "shark catfish"

Aspredinidae

A South American family known as the banjo catfishes (Burgess: 295). A number of species are common imports.

Astroblepidae

South American hillstream catfishes (Burgess: 446) or Andes catfishes (Ferraris: 166). Restricted to South America and likely never imported.

Auchenipteridae

Collectivly known as the driftwood catfishes (Burgess: 226). The family Ageneiosidae, the slopehead cat-fishes, appears to be included under this family, but is not specifically

discussed. Imports range from the common (e.g. the Zamora or midnight catfish) to the rare (e.g. the jaguar catfish) to the very rare.

Austroglanididae

Collectively known as the rock catfishes (Skelton, 1993: 215), this family was erected by Mo, 1991 to accomodate the south African genus *Austroglanis*. All three species contained in the family are rare in nature and threatened or endangered by habitat destruction.

Bagridae

The family Bagridae, after Mo's 1991 revision, is now an exclusively Asian family with the exception of a single genus, *Bagrus*, that occurs in Africa. The family Olyridae, bannertail catfishes (Burgess: 153), is also now included in the Bagridae. Many members of the family are common to rare imports. Collectively known as the bagrid catfishes.

Callichthyidae

A South American family well known in the aquarium hobby especially for the members of the genus *Corydoras*. Collectively known as the armored catfishes Riehl & Baensch (1991: 453).

Cetopsidae

A South American family known as the whale catfishes (Burgess: 289). One or two species are rarely imported. Helogenidae, the marbled catfishes (Burgess: 287), is included in Cetopsidae.

Chacidae

A small Asian family of three species that are uncommonly imported. Collectively known as the frog-mouth catfishes (Burgess: 151). The common name angler catfishes has also been applied (Ferraris: 109) but should not be used as it appears that *Chaca* do not angle (Linder, 1998: 3).

Clariidae

Collectively known as the labyrinth catfishes (Burgess: 135), walking catfishes (Baensch & Riehl, 1997: 484), and air-breathing catfishes (Skelton: 227) this family is widely distributed throughout Africa and Asia. The U.S. Fish and Wildlife Service has declared them "injurious wildlife" and their import is banned (Ferraris: 113). Occasional specimens come in to the U.S. as by-catch or contaminants.

Claroteidae Erected by Mo, 1991 to accommodate most of the African genera that were formerly of the Bagridae. This family is composed of 13 genera and over 90 species and

are referred to simply as Claroteid catfishes (Skelton: 211). A few members of the genera *Auchenoglanis, Parauchenoglanis, Chrysichthys, Clarotes, Gephyrogianis, Lophiobagrus*, and *Phyilonemus* are uncommonly to rarely imported (Glaser, 2000).

Cranoglanididae

Known as Chinese catfishes (Burgess: 72) this Asian family contains but one species that has not been imported.

Diplomystidae

A South American family known as the Patagonian catfishes (Burgess: 23). This small family, with about four species, has not been imported. They are found in swift cool streams in Chile and Argentina.

Doradidae

A popular South American family known as the talking catfishes (Burgess: 199 Ferraris: 114) and thorny catfishes (Riehl & Baensch, 1991:) Importations range from common (the so called raphaels) to rare

Erethistidae

This Asian family consists of *Conta, Laguvia, Pseudolaguvia, Erethistoides, Hara*, and *Erethistes* which are genera removed from the family Sisoridae. A few genera are uncommon to rare imports. No common name has been applied to this family.
The family was erected by de Pinna in 1996. However, some subsequent authors (e.g. Jayaram, 1999) have not followed de Pinna's findings, while others have (e.g. Grant, 1999: 9). Hopefully, Ferraris and de Pinna's 1999 paper will stabilize the use of this family.

Heteropneustidae

This small Asian family are referred to as airsac catfishes (Burgess, 148), fossil catfishes, and stinging catfishes (Ferraris, 121). Imports have become rare in recent years. Perhaps because of the restrictions placed on the closely related family Clariidae.

Hypsidoridae

Erected for the catfish genus *Hypsidoris*, Lundberg and Case 1970.

Ictaluridae

A primarily North American family. Although maintained by a few specialist aquarists there is no organized commercial trade in place for the aquarium hobby. The only species commercially traded are juvenile channel cattishes that are brought into the hobby trade

by aquaculture enterprises. Riehl and Baensch (1991: 453) use horned pouts as a common name and Burgess (1989: 26) uses bullhead cattishes . However, this latter name is normally applied only to members ot the genus *Ameiurus.* Members of Ictalurus are commonly known as forktail catfishes, *Pylodictus* as the flathead cattish, and the largest genus *Noturus* as the madtoms. The common name should be standardized as North American catfishes as it is the only family native to the continent.

Loricariidae

A large South American family that is very popular in the aquarium hobby. Common names include armoured sucker-mouthed catfishes and armoured catfishes (Ferraris, 126). Armour-plaited catfishes (Riehl and Baensch 1991: 453), suckermouth catfishes (Burgess: 368), sucker-mouthed armoured catfishes (Innes, 1966: 285), and, of course, the plecos. Some scientific papers use armoured catfishes while lsbrücker and Nijssen (two scientists that have done a lot of taxonomic work on the family) consistently use the term mailed catfishes. With so many common names in use, it is impossible to suggest a single universal common name

Melapteruridae

A small African family known as the electric cat-fishes (Burgess: 155, Riehl & Baensch, 1991:453). At least one species is an uncommon import.

Mochokidae

A large and diverse African family. Burgess (182) uses the term upside-down catfishes but only a very few members of a single genus swim in this manner. Also, at least one bagrid is an upside-down swimmer. Skelton (240) divides the family into squeakers (*Synodontis*) and suckermouth catlets (*Chiloglanis*) which is certainly more descriptive. Because the family is so diverse as to defy a common descriptive name, the term mochokid catfishes should be used.

Nematogenyidae

A small South American family consisting of a single genus. I am unaware of any importations of this family for the aquarium trade. The common name should be worm catfishes which follows from the family name and is descriptive of the family.

Pangasiidae

An Asian family referred to as the shark cat-fishes by Burgess (100). This term has also been applied to the Ariidae. One species (*Pangasius hypophthalmus*, the irridescent shark) is common. Other species are showing up in the trade as the result of aquaculture programs.

Pimelodidae

A large and popular South American family. Common names include antenna catfishes (Burgess: 243) and flat hosed (nosed?) catfishes (Riehl and Baensch, 1991: 453). Imports are common to rare depending on the species with *Pseudopimelodus, Microglanis*, and *Pimelodus* the most common. Hypophthalmidae, lookdown catfishes (Burgess: 293), are included in Pimelodidae.

Plotosidae

A widely distriduted family that includes marine species. Common names include tandan catfishes (Burgess: 171), eel-tailed catfishes (Ferraris: 157). The name eel-tailed catfishes is the most commonly accepted (Allen, 1989: 55 Jayaram, 1999: 317, Kottelat et al 1993: 113). Only one species, *Plotosus lineatus*, is a common import for the marine hobby.

Schilbidae

A medium sized family found in Africa and Asia. Sometimes spelled Schilbeidae (Burgess: 87 Jayaram: 249). Common names include glass catfishes (Burgess: 87, Riehl & Baensch 1991: 453) and butter catfishes (Skelton: 224). However, the term schilbid catfishes is more descriptive as very few members are transparent and the term glass catfishes is also often applied to the Siluridae. Importation of one *Eutropieiius* and one *Schilbe* species is common, but all others, especially those from Asia, are rare.

Scoloplacidae

A small family found in South America and referred to as spiny dwarf catfishes (Burgess: 450). Only very rarely imported and usually only as by-catch.

Siluridae

A large family found from Europe (two species) through Asia. Commonly known as sheat cat-fishes (Burgess: 74), glass catfishes (Ferraris: 161), old world catfishes (Riehi & Baensch 1991: 453), and sheath (Baensch & Riehl, 1997: 576). Sheat catfishes is the term preferred in most scientific works and should be used to refer to the family. Importation of Southeast Asian species ranges from common (various *Kryptopterus*) to uncommon (e.g. *Ompok*) to rare (e.g. *Belodontichtys*) with all other species rarely, if ever, imported.

Sisoridae

A large Asian family commonly known as Asian hillstream catfishes (Burgess: 119) and sucking catfishes (Kottelat et al: 106). Asian hill stream catfishes in the most widely used name. Imports are generally rare. This appears to be mainly due to the high oxygen requirements and cooler temperatures demanded by most species. Neither of these requirements is conducive to commercial shipping.

Trichomycteridae

A large South American family known as parasitic catfishes (Burgess: 305). This name is probably undeserved as most species are not parasitic. However, it is likely to remain in usage. Imports are rare and infrequent. These fishes undeserved reputation scares off many would be importers.

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