

A PRELIMINARY LIST OF ENGLISH COMMON NAMES FOR AS YET UNNAMED FISH FAMILIES¹

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ABSTRACT

Of the 515 families recognized in the last edition (2006) of J. Nelson's *Fishes of the World*, 34 lack English common names, of which 20 have common names ending in 'id', i.e., no true common names. Similarly, of the 530 families recognized in W.N. Eschmeyer's 2006 edition of the *Catalog of Fishes*, 122 lack common names, while 8 have names ending in 'id'. Given the need for such names in FishBase and other applications, common names were coined for these families, mainly by translating and adapting the scientific names.

The common names proposed in this preliminary work do not overlap with already used English common names and meet the criteria of the American Fisheries Society's (AFS) Committee on Names of Fishes. They are presented here in two separate lists, i.e., those without common names and those ending in 'id', from Amarsipidae to Xenisthmidae, with the etymologies and, where required, reasons for the choices taken. We also include a list of common names included in the 2006 edition of J. Nelson's *Fishes of the World*, but not in the 1994 edition.

INTRODUCTION

Common names of organisms serve a number of functions, notably as bridge between specialists and the lay public (Palomares and Pauly, 1998). As such, common names must be widely understandable, and preferably, describe some peculiar and memorable features of the organisms in question.

Multiple common names exist for many organisms, and their standardization and stabilization, e.g., for legal purposes, merely involves a choice from a number of available names (see, e.g., Robins *et al.*, 1991 and Nelson *et al.*, 2004).

¹ Cite as: Palomares, M.L.D., Bailly, N., Froese, R., Pauly, D., 2006. A preliminary list of English common names for as yet unnamed fish families. *In*: Palomares, M.L.D., Stergiou, K.I., Pauly, D. (eds.), *Fishes in Databases and Ecosystems*. Fisheries Centre Research Reports 14(4), pp. 38-48. Fisheries Centre, University of British Columbia [ISSN 1198-6727].

However, new, small or rare species and higher taxa of plants, animals and other organisms are rarely assigned common names in the scientific literature. In such cases, new common names must be coined. Robins *et al.* (1991) proposed a series of criteria for new common names in fishes, notably:

1. "A single vernacular name shall be accepted for each species or taxonomic unit included and no two species on the list shall have the same proposed name";
2. "Only clearly defined and well-marked taxonomic entities shall be assigned common names (which shall not be intimately tied to the scientific name) and names intended to honor persons are discouraged in that they are without descriptive value";
3. "Names shall not violate the tenets of good taste" and are appropriate if they are colorful, romantic, fanciful, metaphorical, distinctive and original and describe structural attributes, color and color patterns, ecological characteristics and geographic distribution;
4. Native names are welcome for adoption as common names. However, commonly-employed names adopted from traditional English usage are given considerable latitude in taxonomic placement;
5. "The duplication of common names of fishes and other organisms should be avoided if possible, but names in general use need not be rejected on this basis alone"; and
6. Common names ending in 'id', i.e., adaptation of the scientific name to English, e.g., Adrianichthyidae to adrianichthyids, are not considered as true common names.

The most recent edition (2006) of Nelson's *Fishes of the World* recognizes 515 families, 100 of which are broken down to 206 non-nominal subfamilies. Of these families, 34 do not have true common names; and of these, 7 have no common names, 20 have names ending in 'id', 7 are recategorized taxa. Similarly, the most recent edition (2006) of Eschmeyer's *Catalog of Fishes* recognizes 530 families, 72 of which are broken down into 138 non-nominal subfamilies. Of these families, 122 lack common names, while 8 have names ending in 'id'. Finally, the August 2006 version of FishBase (www.fishbase.org) recognizes 530 families, 79 of which are broken down into 170 non-nominal subfamilies. Of these families, 74 lack common names and 2 have names ending in 'id'.

Note that in this contribution, we only venture to propose common names for the currently-recognized fish families. Proposals for common names of currently-recognized subfamilies (and tribes) could be the subject of a future contribution. For instance, when a subfamily is raised to family level, a new common name is required (e.g., Dalatiidae: Etmopteriinae in Nelson, 1994, raised to Etmopteriidae in Nelson, 2006). The taxa of the family-group (super-, sub-, families and tribes) could carry over their common names irrespective of their rank and/or their parent taxon. On the other hand: when a family is split into subfamilies, the nominal subfamily sometimes takes the same common name as the whole family. When families are lumped into one family and are taken down to the subfamily level, the new family takes either the common name of the nominal subfamily or a list of the common names of all or some subfamilies. Note that the second case is not desirable, e.g., Scombridae with the composite common name of mackerels, tunas, bonitos, which is the list of common names of 3 tribes of one of the two subfamilies. It would then be difficult to choose between 'tunas' and 'mackerels' to represent the family. The common names aid in keeping trace of the taxa irrespective of the changes in taxonomic category.

Comparison of the lists mentioned above left us with 25 families for which no true common names are available and for which we suggest English common names. This list was generated with the intention that it should be subjected to the scrutiny of fish experts, and then encoded into FishBase.

MATERIALS AND METHODS

The scientific names of the families were translated using Greek and Latin dictionaries (notably *Perseus*, the online dictionary at www.perseus.tufts.edu/cgi-bin/resolveform), and/or by consulting the source of the family names, which usually also described and frequently gave the etymology of the type genus of the family. The main source here was the *Catalog of Fishes* database by W. Eschmeyer as included in FishBase and also accessible through the Internet (see www.calacademy.org).

The translations were then compared with the common names of species in the family, and with the English common names for species and higher taxa already in FishBase. Non-English common names were translated literally using Babel Fish (babelfish.altavista.com), e.g., Chinese names in Chinese characters. Note that not all of the literal translations made sense. Thus, only the recurring words used in the common names of species within a family were noted. If a translation led to a unique common name, and was acceptable using the criteria of Robins *et al.* (1991), the name was used. Otherwise, a new name was coined, based on marked attributes of the species in the family in question.

Also, the following were applied:

1. If a family is monotypic, the common name of the species is used, in plural, to distinguish it from the species name, and to avoid the need for changing the name should more species be joined to the family;
2. Similar to rule 16 of Robins *et al.* (1991), the common name of the respective order is used in composite names where appropriate;
3. Variations of existing family common names were used only within the same order, e.g., wasp scorpionfishes (new) and scorpionfishes are both in the order Scorpaeniformes;
4. Similar to rule 4 of Robins *et al.* (1991), simple names were preferred, such as ‘Lutefishes’ instead of ‘Guitar characins’ for Citharinidae;
5. Misleading family names are not perpetuated as common names, e.g., Bathyclupeidae translates straightforwardly to ‘deep sea herrings’; however, species in this family belong to the Order Perciformes and to the Order Clupeiformes. Thus, the name ‘deep-sea scalyfins’ was coined instead from a prominent character of members of this family; and
6. As far as possible, names should be ‘telling’ and easy to remember, i.e., reflect obvious characters or relationships.

RESULTS

In the process of comparing the list of families currently included in FishBase with the lists of scientific and common names of Nelson (1994; 2006) and Eschmeyer (2006), we found 9 families which Nelson (2006) has recategorized into subfamilies or lumped with other families (Table 1). We also found that some of the families for which Nelson (2006) used common names ending in ‘id’ have FishBase English names. The families for which no common names were assigned are included in the lists of suggested common names presented in the following pages.

Table 1. Families recognized in FishBase (www.fishbase.org), Eschmeyer (2006) and Nelson (1994), but reclassified in Nelson (2006). Included also are families recognized in FishBase but with no proper common name in Nelson (2006).

Scientific name	Reclassification (Nelson, 2006)	Order	Common name	Source of common name
Adrianichthyidae	–	Beloniformes	Adrianichthyids; Ricefishes	Nelson (2006); FishBase (18 August 2006 version)
Aracnidae	Subfamily Aracninae (p. 455)	Tetraodontiformes	–	–
Badidae	Subfamily Badinae (p. 382)	Perciformes	–	–
Bedotiidae	Subfamily Bedotiinae (p. 2710)	Atheriniformes	Madagascar rainbowfishes	Nelson (1994); FishBase (18 August 2006 version)
Cottocomephoridae	Lumped with Cottidae (p. 334)	Scorpaeniformes	–	–
Dentatherinidae	Subfamily Dentatherininae (p. 273)	Atheriniformes	Tusked silversides	Nelson (1994); FishBase (18 August 2006 version)
Eschmeyeridae	Lumped with Scorpaenidae (p. 320)	Scorpaeniformes	–	–
Lateolabracidae	Lumped with Moronidae (p. 344)	Perciformes	Asian seaperches	Eschmeyer (2006)
Synaceiidae	Tribe Synaceiini (p. 324)	Scorpaeniformes	Stonefishes	Nelson (1994); FishBase (18 August 2006 version)
Zanclorhynchidae	Lumped with Congiopodidae (p. 327)	Scorpaeniformes	–	–

The following presents the scientific names (**in bold characters**) of the 59 families considered here, the Order in which they belong (in parenthesis), their etymology, the proposed common name (**in bold characters**), and where required, the reason for the choice of the proposed name. Separate lists are presented for: (i) 7 families for which Nelson (2006) has not included an English common name; (ii) 20 families whose common names end in 'id'; (iii) 7 families for which we would like to propose alternative common names to those used in Nelson (2006); and (iv) 25 families for which Nelson (1994) had no common names and the corresponding common names published in Nelson (2006), as well as the likely rationale for the choices that Nelson (2006) made in coining the common names.²

(i) *Families without English common names*

Apistidae (Scorpaeniformes, scorpionfishes and flatheads): Greek, 'apistos', i.e., 'suspicious' (Romero, 2002); Latin 'apis', i.e., 'bee' (Liddel and Scott, 1889). **Wasp scorpionfishes**. English names are available only for *Apistus carinatus* (Bloch and Schneider, 1801) and *Apistops caloundra* (De Vis, 1886) and these include the word 'waspfish'. 'Wasp fishes' is preoccupied by Family Tetrarogidae (Scorpaeniformes). *Apistus carinatus* is distinguished by a brightly-colored and long pectoral fin which, when spread, deters predators (Kuiter and Tonzuka, 2001).

Cottocomephoridae (Scorpaeniformes, scorpionfishes and flatheads): Greek, 'kottos', i.e., a river fish, derived from 'kotta', i.e., 'head'; Greek, 'komê', 'komes', i.e., 'hair', 'mane'; Greek, 'pherein', i.e., 'to carry' (Romero, 2002). **Bighead sculpins**. 'Sculpins' is preoccupied by Family Cottidae (Scorpaeniformes) and 'bullhead' is in the composite common name for Family Heterodontidae (Heterodontiformes). Some available Russian common names include the word 'bighead', while some Chinese common names include the word 'frog head' and 'shell-lake'.

Neosebastidae (Scorpaeniformes, scorpionfishes and flatheads): Greek, 'neos', i.e., 'new'; Greek, 'sebastes', i.e., 'august', 'admirable', epithet given to the Roman emperor Augustus (Romero, 2002). **Gurnard scorpionfishes**. Many of the available common names include the words 'gurnard perch'.

Omosudidae (Aulopiformes, grinders): Greek, 'omo', i.e., 'shoulder'; Latin, 'sudis', i.e., esox, fish of the Rhine, cited by Plinius 9.15; also 'stake' (Romero, 2002). **Hammerjaws**. Members of this species are characterized with dentaries each with one huge fang (Nelson, 1994). Sole representative, *Omosudis lowii* Günther, 1887 assigned the FishBase English name of 'hammerjaw'.

Parabembridae (Scorpaeniformes, scorpionfishes and flatheads): Greek, 'para', i.e., 'from the side of', 'from', 'beside', 'alongside'; Greek, 'bembras', 'membras', i.e., a kind of sprat or anchovy (Liddel and Scott, 1889). **Sprat-like flatheads**. Members are characterized with a depressed head and pelvic fins below the pectoral base (Nelson, 1994).

Plectrogenidae (Scorpaeniformes, scorpionfishes and flatheads): Greek, 'plektron', i.e., anything to strike with, e.g., 'stick'; Greek, 'genos', 'gene', i.e., 'race' (Romero, 2002). **Stinger flatheads**. Members of this family have heads usually with spines and ridges, and venom gland in dorsal, anal and pelvic spines (Nelson, 1994). Some Chinese common names include the word 'flathead'.

Setarchidae (Scorpaeniformes, scorpionfishes and flatheads): Latin, 'saeta', i.e., a thick, stiff hair on an animal, 'bristle' (Liddel and Scott, 1889); and 'arch'. **Deep-sea bristly scorpionfishes**. Description of the family is not available in FishBase. Available common names include the words 'scorpionfish', 'rockfish' and 'deep-sea'. Four of the 5 species in FishBase are all found in deep waters; the exception is a pelagic species.

² Proposed English common names for families included in an earlier version of this paper provided to J. Nelson before the publication of the 2006 edition of *Fishes of the World* are marked with asterisks.

(ii) Families with common names ending in 'id'

Acestrorhynchidae (Characiformes, characins): Greek, 'akestra', i.e., 'needle'; Greek, 'rhyngchos', i.e., 'jaw' (Romero, 2002). **Smallscale pike characins**. Members of this family are characterized by very elongate (pike-like) bodies covered with small scales, conical teeth and strong canines are present on the premaxilla (Nelson, 1994). Available Chinese common names include the words 'fat carp', Spanish, Portuguese, German and French names include the word 'dog' and 'tooth'. Note that 'dogtooth' is used in composite common names by some species of cardinalfishes, grenadiers, groupers, herrings, lampfishes, snappers and tunas and proposed as English name for Family Cynodontidae (see below). 'Pike characin' is used by two species of *Oligosarcus* (Characidae, Characiformes) and two species of *Acestrorhynchus*. 'Pike characids' is preoccupied by Family Ctenoluciidae (Characiformes).

Amarsipidae (Perciformes, perch-likes): Greek, 'a', i.e., without; Greek, 'marsipos', i.e., 'bag' (Romero, 2002). **Bagless glassfishes**. These species have translucent bodies without coloration and do not have pharyngeal sacs (Nelson, 1994). Only one common name is available, i.e., for *Amarsipus carlsbergi* Haedrich, 1969, in Chinese, and which translates to 'non-pouch pomfret'. 'Glassfish' is used in composite names of species in the Family Ambassidae (Perciformes). 'Pomfrets' is preoccupied by the Family Bramidae (Perciformes). 'Silver pomfret' is preoccupied by *Pampus argenteus* (Euphrasen, 1788) (Stromateidae, Perciformes).

Aphyonidae (Ophidiiformes, cusk eels): Greek, 'aphyo', 'aphye', i.e., 'sardine', 'anchovy', in the sense of whitish, with the color of sardine (Romero, 2002). **Blind cusk eels**. The only English name available, for *Aphyonus gelatinosus* Günther, 1878, is 'gelatinous blindfish'. In addition, many of the available Chinese names in FishBase include the root word 'blind', which corroborates with the diagnosis that the eyes of members of this Family are rudimentary (Nelson, 1994).

Bathyclupeidae (Perciformes, perch-likes): Greek, 'bathys', i.e., 'deep'; Latin, 'clupea', i.e., 'sardine' (Romero, 2002). **Deep-sea scalyfins**. Members of this family have dorsal and anal fins covered with scales. Some of the available common names include the words 'deep water', 'bottom' and 'herring'. 'Herrings' is preoccupied by Order Clupeiformes. 'Scalyfin' is used in composite common names as adjectives for some members of Pomacentridae, Sciaenidae, Haemulidae and Serranidae (all Perciformes).

Bathysauroididae (Aulopiformes, grinders): Greek, 'bathys', i.e., 'deep'; Greek, 'sauroides', similar to a lizard (Romero, 2002). **Largescale deep-sea lizardfishes**. 'Deep-sea lizardfish' is preoccupied by *Bathysaurus ferox* Günther, 1878 (Synodontidae, Aulopiformes). 'Largescale lizardfish' is used by *Saurida undosquamis* (Richardson, 1848) and *Saurida brasiliensis* Norman, 1935. The available Chinese common name for the sole representative, *Bathysauroides gigas* (Kamohara, 1952), translates to 'Large-scale deep sea nine spines fish'.

Bathysauropsidae (Aulopiformes, grinders): Greek, 'bathys', i.e., 'deep'; Greek, 'sauros', i.e., 'lizard'; Greek, 'opsis', i.e., 'appearance' (Romero, 2002). **Lizard greeneyes**. New family in Nelson (2006; not in August 2006 version of FishBase). Members of this family are mesobenthic and widespread (Nelson, 2006). The available Chinese common name for one of the three species in this family, *Bathysauropsis gracilis* (Günther, 1878) translates to 'filament body deep sea nine spines fish', while the other available English names are 'black lizardfish' (retained as the FishBase name) and 'deep-water greeneye'. 'Greeneyes' is preoccupied by Family Chlorophthalmidae (Aulopiformes), which are also found in deep waters.

Citharinidae (Characiformes, characins): Greek, 'kitharia', i.e., 'cittern', a Renaissance stringed instrument like a guitar with a flat pear-shaped body, also 'guitar' and 'lute' (Merriam-Webster online dictionary). **Lutefishes**. 'Guitarfishes' is preoccupied by Family Rhinobatidae (Rajiformes).

Cynodontidae (Characiformes, characins): Greek, 'kyon', 'kyonos', i.e., 'dog'; Greek, 'odous', i.e., 'teeth' (Romero, 2002). **Dogtooth characins**. Members of this family are carnivorous with dentary canines to stab prey (Nelson, 1994). Many of the available Brazilian common names include the word 'dog' while many of the Chinese common names include 'carp'. 'Daggertooths' is preoccupied by Anotopteridae (Aulopiformes), 'sabertooth fishes' by Evermannellidae (Aulopiformes), 'fangtooths' by Anoplogasteridae (Beryciformes), and 'sawtooths' by Serrivomeridae (Anguilliformes).

Diplophidae (Stomiiformes, lightfishes and dragonfishes): Greek, 'diploos', i.e., 'double'; Greek, 'phos', i.e., 'light' (Romero, 2002). **Porthole lightfishes**. New family in Nelson (2006; not in August 2006 version of FishBase). The available Chinese common names include the words 'double', 'light', and 'lamp'. The available English name includes 'porthole', which is used in composite names by: *Gonostoma elongatum* Günther, 1878 and *Cyclothone microdon* (Günther, 1878) (Gonostomatidae, Stomiiformes); *Dianema longibarbis* Cope, 1872 (Callichthyidae, Siluriformes) and *Hemisorubim platyrhynchos* (Valenciennes, 1840) (Pimelodidae, Siluriformes); and *Poeciliopsis gracilis* (Heckel, 1848) (Poeciliidae, Cyprinodontiformes).

Erethistidae (Siluriformes, catfishes): Greek, 'erethismos', 'erethizein', i.e., 'irritate' (Romero, 2002). **South Asian river catfishes**. Members of this family have four pairs of barbels and the adipose fin is usually large (Nelson, 1994), found in rivers, streams and moving freshwaters of southern Asia (Nelson, 2006). Note that 'river catfish' is used in composite names of other siluriform catfishes, e.g., *Clupisoma garua* (Hamilton, 1822) (Schilbeidae), *Corydoras metae* Eigenmann, 1914 (Callichthyidae), *Hemibagrus nemurus* (Valenciennes, 1840) (Bagridae), *Pangasius pangasius* (Hamilton, 1822) (Pangasidae) and *Porochilus meraukensis* (Weber, 1913) (Plotosidae).

Hemiodontidae (Characiformes, characins): Greek, 'hemi', i.e., 'half'; Greek, 'odous', i.e., 'tooth', 'teeth' (Romero, 2002). **Halfteeths**. Members of this family have small and toothless lower jaws (Nelson, 1994). Available Chinese common names include the words 'half tooth fat carp'.

Heptapteridae (Siluriformes, catfishes): Greek, 'hepta', i.e., 'seven'; Greek, 'pteron', i.e., 'fin' (Romero, 2002). **Three-barbeled catfishes**. A speciose family whose members are not externally differentiable with members of the Family Pimelodidae (long-whiskered catfishes; see Nelson, 2006). Members of this family usually have naked skin, three pairs of barbels, large adipose fin and a deeply forked caudal fin (Nelson, 2006). Available common names do not have any root words in common.

Hispidoberycidae (Stephanoberyciformes, pricklefishes, bigscales and gibberfishes): Latin, 'hispidus', i.e., 'rough', 'shaggy', 'hairy', 'bristly' (Whitaker, 1998-2000). **Spiny-scale pricklefishes**. This family is monospecific. *Hispidoberyx ambagiosus* Kotlyar, 1981 is a deep sea fish with spinulose scales, operculum with a long, stout spine, the dorsal with 4-5 spines and the anal fin with 3 spines (Kotlyar, 2004). 'Pricklefishes' is preoccupied by Family Stephanoberycidae (Beryciformes), 'spinyfins' by Family Diretmidae (Beryciformes).

Lophichthyidae (Lophiidormes, anglerfishes): Greek, 'lophos', i.e., 'crest'; Greek, 'ichthys', i.e., 'fish' (Romero, 2002). **Crested frogfishes**. Members of this family have no humped nape, the first dorsal spines are modified to an illicium (i.e., lure) and have palatine teeth (Nelson, 1994). The only representative is *Lophichthys boschmai* Boeseman, 1964 (FishBase common name: Boschma's frogfish). The available Chinese common name includes the word 'wave', i.e., 'crest'.

Myrocongridae (Anguiliformes, eels and morays): Greek, 'myros', i.e., male of moray eel; Latin, 'conger', i.e., 'conger' (Romero, 2002). **Atlantic red eels**. This family is monogeneric. 'Moray' is preoccupied by Family Muraenidae (Order Anguiliformes) and 'conger' is preoccupied by Family Congridae (Order Anguiliformes).

Normanichthyidae (Scorpaeniformes, scorpionfishes and flatheads): Named after John Roxburgh Norman, British ichthyologist 1898-1944 (Romero, 2002). **Barehead scorpionfishes**. Members of this family have armorless heads, one spine on pelvic fin and lack ribs (Nelson, 1994).

Ostracoberycidae (Perciformes, perch-likes): Greek, 'ostrakon', i.e., an earthen vessel, tile, also the hard shell of testaceous animals, as snails, muscles, tortoises (Liddle and Scott, 1889). **Shellskin alfonsinos**. Members of this family have a prominent spine extending backward from the lower limb of proopercle (Nelson, 1994). 'Alfonsinos' is preoccupied by Family Berycidae (Beryciformes, sawbellies).

Parodontidae (Characiformes, characins): Greek, 'para', i.e., 'the side of'; Greek, 'odous', i.e., 'teeth' (Romero, 2002). **Scrapeteeths**. Members of this family have ventral mouths with teeth modified for scraping algae off rocks, highly mobile and enlarged premaxillaries, no adipose eyelid and with expanded and flattened pectoral fins (Nelson, 2006). Available Chinese common names include the words 'cheek',

'tooth', and 'fat carp'. Some of the available Spanish common names include the word 'mouse'. Some of the Brazilian Portuguese common names include the word 'pen knife'.

Tetrabrachiidae (Lophiiformes, anglerfishes): Greek, 'tetra', i.e., 'four'; Greek, 'brachion', i.e., 'arm' (Romero, 2002). **Four-armed frogfishes**. FishBase English name of sole species in FishBase, *Tetrabrachium ocellatum* Günther, 1880, is 'four-armed frogfish'.

Xenisthmidae (Perciformes, perch-likes): Greek, 'xenos', i.e., 'strange', 'rare'; Greek, 'isthmia', i.e., 'neck', 'throat', 'narrow passage' (Romero, 2002). **Collared wrigglers**. Available common names include the word 'wiggler'.

(iii) Alternative common names for families with common names in Nelson (2006)

Centracanthidae (Perciformes, perch-likes): Greek, 'kentron', i.e., 'thorn', 'sting'; Greek, 'akantha', i.e., 'thorn' (Romero, 2002). **Picarels**. Most of the species in this family have composite English names including the word 'picarel'. Nelson (2006) uses 'picarel porgies'. The name 'picarels' is not preoccupied and is simpler than 'picarel porgies'.

Champsodontidae (Perciformes, perch-likes): Greek from Egyptian, 'champsai', i.e., 'crocodile'; Greek, 'odous', i.e., 'teeth' (Romero, 2002). **Crocodile toothfishes**. The only available English common name is 'gaper' for *Champsodon capensis* Regan, 1908. Available Chinese common names include the word 'toothfish'. 'Crocodilefish' is preoccupied by *Cymbacephalus beauforti* (Knapp, 1973) and 'toothfish' is preoccupied by several species of the Family Nototheniidae (Perciformes). 'Gaper' which is used in Nelson (2006) is also preoccupied by *Serranus cabrilla* (Linnaeus, 1758) (Serranidae, Perciformes) and used in the composite name of *Chaunax stigmaeus* Fowler, 1946 (Chaunacidae, Lophiiformes). However, 'crocodile toothfish' is not preoccupied by any species.

Chaudhuriidae (Synbranchiformes, spiny eels): From 'chaudhuria', i.e., a Burmese local name for a fish (Romero, 2002), named after B.L. Chaudhuri, an Indian Ichthyologist. **Spineless eels**. Members of this family have no dorsal or anal fin spines. Several of the available English composite common names include the words 'spineless eel'. Nelson (2006) used 'earthworm eels', 'earthworm' being used in the composite common name for *Yirrkala lumbricoides* (Bleeker, 1853) (Ophichthidae, Anguiliformes). We believe that 'spineless eel' represents the most striking morphological character of this group without having to refer to another animal, e.g., 'earthworm'.

Chiasmodontidae (Perciformes, perch-likes): Greek, 'chiasma', i.e., 'cross', 'chiasmus', i.e., 'diagonal'; Greek, 'odous', i.e., 'tooth', 'teeth' (Romero, 2002). **Snaketooth fishes**. Some of the available English common names include the word 'swallower', the name used in Nelson (2006) but which is preoccupied by Family Saccopharyngidae (Saccopharyngiformes). Some of the available Chinese common names include the words 'snake-toothed' and occasionally 'fork-toothed' and 'long-toothed'.

Curimatidae (Characiformes, characins): From 'Curimatá', a locality in Piauí State, Brazil, and used in Creole French as a local name for a fish in French Guyana (Romero, 2002). **Toothless characins**. Available Chinese common names include the words 'toothless fat carp' while Spanish common names include 'smallmouth'. A distinct characteristic of the members of this family is the loss or the reduction of dentition on the fifth upper pharyngeal tooth plate (Nelson, 1994). The word 'characin' probably came from Latin, 'characias', 'characiae', i.e., 'reed' for making 'stakes', a kind of 'spurge' (Whitaker, 1998-2000; Pliny the Elder, 1906), derived from Greek, 'charax', i.e., 'a pointed stake', 'a vine-prop or pole' (Liddle and Scott, 1889). Romero (2002) provides the following: Greek, 'charax', i.e., a marine fish; Latin, 'forma', i.e., 'shape'. Members of this family are usually found in riverine and lacustrine habitats and feed on organic matter, microdetritus, microvegetation, and filamentous algae common in those habitats (Nelson, 1994). 'Reedfish' is preoccupied by *Erpetoichthys calabaricus* Smith, 1865 (Polypteridae, Polypteriformes); 'smallmouth' is preoccupied by *Haemulon chrysargyreum* Günther, 1859 (Haemulidae, Perciformes). 'Carps' is preoccupied by Order Cypriniformes. Nelson (2006) used 'toothless characiforms'; the word 'characiforms' deviates from 'characins'.

Ereuniidae (Scorpaeniformes, scorpionfishes and flatheads): Greek, 'ereyn', 'aireoo', i.e., 'to catch'; also Greek, 'ereyna', 'ereynes', i.e., 'inquiry', 'search' (Romero, 2002). **Deepwater bullhead sculpins**. The available Chinese names include the word 'bullhead', which is appropriate as members of this family have

large heads compared to their narrow and long tails (Nelson, 1994). 'Bullhead' is used in the composite name for 'bullhead sharks' (Heterodontidae, Heterodontiformes). Nelson (2006) used 'deepwater sculpins', which is used by *Myoxocephalus thompsonii* (Girard, 1851) (Cottidae, Scorpaeniformes); note that the word 'sculpin' is also preoccupied by Family Cottidae (Scorpaeniformes).

Monognathidae (Saccopharyngiformes, swallowers and gulpers): Greek, 'monos', i.e., 'only'; Greek, 'gnathos', i.e., 'jaw' (Romero, 2002). **Onejaws**. Members of this family lack maxilla and premaxilla (Nelson, 1994). 'Gulpers' is preoccupied by Family Eurypharyngidae (Saccopharyngiformes). Nelson (2006) used 'onejaw gulpers'.

Valenciidae (Cyprinodontiformes, rivulines, killifishes and live bearers): Available common names include the words 'Valencia' and 'Spain', indicating that the family name might have been derived from the name of the city. **Toothcarps**. The two species represented have common names which include 'toothcarp'. 'Toothcarp' also used in composite names for some species of Family Cyprinodontidae (pupfishes) and Poeciliidae (poeciliids) both belonging to the Order Cyprinodontiformes. Nelson (2006) used 'Valencia toothcarps'.

(iv) Families without common names in Nelson (1994) and which have new names in Nelson (2006)³

Banjosidae (Perciformes, perch-like): English, 'banjo', i.e., musical instrument with a drumlike body, a fretted neck, and usually four or five strings (Merriam-Webster Online Dictionary; www.m-w.com/cgi-bin/dictionary). **Banjofishes*** from 'Banjofish' for *Banjos banjos* (Richardson, 1846).

Bathylutichthyidae (Scorpaeniformes, scorpionfishes and flatheads): Greek, 'bathys', i.e., 'deep'; Greek, 'lousos', 'louteon', i.e., 'bath', 'to immerse'; Greek, 'ichthys', i.e., 'fish' (Romero, 2002). **Antarctic sculpins**. Known only from South Georgia Island, Antarctica.

Centrogeniidae (Perciformes, perch-like): Greek, 'kentron', i.e., 'thorn', 'sting'; Greek, 'genos', i.e., 'race' (Romero, 2002). **False scorpionfishes***. Taken from the English name of *Centrogenys vaigiensis* (Quoy and Gaimard, 1824), sole representative of this family.

Centrophoridae (Squaliformes, bramble, sleeper and dogfish sharks): Greek, 'kentron', i.e., 'thorn', 'sting'; Greek, 'pherein', i.e., 'to carry' (Romero, 2002); Latin, 'phor', 'phoreo', with several meanings including 'putting food into one's mouth'. **Gulper sharks***. Many of the available English names include the words 'dogfish' and 'gulper'. However, 'dogfishes' (Squalidae, Squaliformes) and 'gulpers' (Eurypharyngidae, Saccopharyngiformes) are both preoccupied.

Colocongridae (Anguilliformes, eels and morays): Greek, 'kolos', i.e., 'tail'; Latin, 'conger', i.e., 'sea eel' (Romero, 2002). **Short-tail eels***. 'Short tail conger' is preoccupied by *Paraconger similis* (Wade, 1946) (Congridae, Anguilliformes). The available Chinese and Czech common names include the words 'short tail conger eel' and 'serpentine'.

Draconettidae (Perciformes, perch-like): Greek, 'drakos', 'drakaina', i.e., 'dragon'; Greek, 'nessa', 'netta', i.e., 'duck' (Romero, 2002). **Slope dragonets***. Members of this family have relatively big eyes compared to their small heads, two nostrils on each side of the head, with relatively broad gill openings and one straight strong spine on both opercle and subopercle; they are uncommon or relatively rare and are found on the edge of the continental shelf or on seamounts (Nelson, 1994). The available Chinese names include the words 'thick thorn lizard'. 'Lizardfishes' is preoccupied by the Family Synodontidae (Aulopiformes), 'dragonets' by the Family Callionymidae (Perciformes).

Gymnarchidae (Osteoglossiformes, bony tongues): Greek, 'gymnos', i.e., 'naked'; Greek, 'archo', i.e., the extreme of the anus (Romero, 2002). **Abas***. This family is monospecific and the fish has a toothless tongue. The proposed English common name is the chosen FishBase common name for the sole representative, *Gymnarchus niloticus* Cuvier, 1829 and is based on the Ijo language (Nigerian) common name.

³ See footnote (2) on p. 41.

Hepsetidae (Characiformes, characins): Greek, 'epsetas', i.e., 'boiled'; also Greek, 'oí epsetoi', i.e., 'certain fishes'; may be related to 'psetta', i.e., 'grouper' (Romero, 2002). **African pikes**. This family is monospecific and is found widespread in Africa from Senegal to Angola including Niger, Volta, Chad, Ogowe, Democratic Republic of the Congo and upper Zambezi Rivers, as well as in the Cunene, Okavango, and Kafue systems; also widespread in central and West Africa but absent in the Nile River, Zambian Congo and the Great Lakes (Skelton, 1993).

Heterenchelyidae (Anguilliformes, eels and morays): Greek, 'heteros', i.e., 'other'; Greek, 'enchelys', i.e., 'eel' (Romero, 2002). **Mud eels***. Members of this family have large mouths and are scaleless (Nelson, 1994). Available Chinese common names include the words 'short', 'cheek', and 'python'. Nelson (2006) took the AFS official common name and accepted as the FishBase common name for *Pythonichthys asodes* Rosenblatt & Rubinoff, 1972.

Hypopomidae (Gymnotiformes, knifefishes): Greek, 'hypo', i.e., 'under'; Greek, 'pomatos', 'pomatos', i.e., 'cover' (Romero, 2002). **Bluntnose knifefishes**. Members of this family have no teeth on both jaws, snout moderate to short length, small eyes. They resemble eels because they have no caudal or dorsal fin but have the anal-fin origin ventral or posterior to pectoral fin-base. They also possess an electric organ which discharges discrete pulses (Albert, 2003). Nelson (2006) took the English common name used for *Brachyhypopomus brevirostris* (Steindachner, 1868).

Indostomidae (Gasterosteiformes, sticklebacks and seamoths): Latin, 'induere', i.e., 'to cover'; Greek, 'stoma', i.e., 'mouth' (Romero, 2002). **Armored sticklebacks**. Members of this family have slender bodies with a covering of bony scutes; operculum with spines and also has a series of 5 isolated dorsal spines (Nelson, 1994). 'Pricklebacks' is preoccupied by Family Stichaeidae (Perciformes) and 'sticklebacks' by Family Gasterosteidae (Gasterosteiformes).

Ipnopidae (Aulopiformes, grinders): Greek, 'ipnos', i.e., 'oven', 'kiln' (Romero, 2002). **Deep-sea tripod fishes**. Members of this family have eyes which can be minute or large or plate-like and without lenses; the pectoral, pelvic and caudal rays can be elongated on which they stand, and the jaw extends past the orbit of the eye (Nelson, 1994). Most of the common names available for this family include the words 'deep-sea', 'tripodfish', 'spiderfish' and 'deep-pool fish', while some include the words 'stove eye', 'grid eye', 'net eye'. 'Tripodfish' used in composite common names in the Family Triacanthidae (Tetraodontiformes).

Lebiasinidae (Characiformes, characins): Greek, 'lebias', i.e., a kind of fish (Romero, 2002). **Pencilfishes***. Members of this family have elongate, cylindrically-shaped bodies with fairly large scales, lacking a frontal/parietal fontanel and the cheek well covered by orbital and opercular bones (Nelson 1994). Many of the available common names include 'pencilfish', 'fat carp' and 'tetra'. 'Pencil' used in composite names by the Family Trichomycteridae (Siluriformes), 'carp' is preoccupied by Order Cypriniformes and 'tetra' is used in composite names for fishes of the Family Alestiidae (Characiformes).

Microstomatidae (Osmeriformes, smelts): Greek, 'mikros', i.e., 'small'; Greek, 'stoma', i.e., 'mouth' (Romero, 2002). **Pencil smelts**. Members of this family have large eyes (more than twice the length of snout), small mouths, have spineless fins (Nelson, 1994). Available common names include the words 'south', 'argentine', and 'pencilsmelt'. 'Argentine' is used in the composite name for the Family Argentinidae (Salmoniformes), 'pencil' is used in composite names by the Family Trichomycteridae (Siluriformes) and 'smelt' is preoccupied by Family Osmeridae (Salmoniformes).

Neoscopelidae (Myctophiformes, lanternfishes): Greek, 'neos', i.e., 'new'; Greek, 'skopelos', i.e., the name of a fish cited by Cuvier, 1817; Greek, 'skopelos', i.e., 'reef', 'rock' (Romero, 2002). **Blackchins**. Some members of this family have photophores (Nelson, 1994). Many of the available common names include the word 'lanternfish', 'glowfish', 'lampfish'. 'Lanternfishes' is preoccupied by Family Myctophidae (Myctophiformes) and 'lampfish' is used in composite names of the Family Myctophidae. Nelson (2006) adapted the FAO English and accepted FishBase common name for *Scopelengys tristis* Alcock, 1890.

Odontobutidae (Perciformes, perch-likes): Greek, 'odont', i.e., tooth; Latin, 'buttos' from 'butinè', i.e., a flask covered with plaited osier (Liddell and Scott, 1889). **Freshwater sleepers**. Members of this family may be distinguished from other gobioid families by the large scapula which excludes the proximal radial from contact with the cleithrum, has six branchiostegal rays and lack of lateral line (Nelson, 1994). Some

of the available names include the word 'sleeper' and 'pond'. 'Sleeper' is preoccupied by Family Eleotridae (Perciformes).

Pseudotriconotidae (Aulopiformes, grinders): Greek, 'pseudes', i.e., 'false', 'falsely'; Greek, 'thirx', i.e., 'hair'; Greek, 'noton', i.e., 'back' (Romero, 2002). **Sand diving lizardfishes**. 'Sanddivers' is the name used for Family Triconotidae (Perciformes).

Psilorhynchidae (Cypriniformes, carps): Greek, 'psilos', i.e., 'bald', 'hairless'; Greek, 'rhynchos', i.e., 'jaw' (Romero, 2002). **Mountain carps**. Members of this family have small inferior mouths, fleshy lips and no barbells and are usually found in mountain streams.

Radiicephalidae (Lampriformes, velifers, tube-eyes and ribbonfishes): Latin, 'radius', i.e., 'radius'; Greek, 'kephale', i.e., 'head' (Romero, 2002). **Tapertails***. Members of this family have elongated scaleless bodies, compressed and attenuated posteriorly to a thin caudal filament. The sole representative of this family is *Radiicephalus elongatus* Osório, 1917, whose FishBase English common name is 'tapertail'. This is used in composite English names for some members of Family Trachipteridae (Lampriformes) and Family Engraulidae (Clupeiformes).

Samaridae (Pleuronectiformes, flatfishes): Latin, 'samara', i.e., seed of the elm (Romero, 2002). Could also be Greek, 'sêma', i.e., 'sign', 'mark', 'token' of the star on a horse's head (Liddel and Scott, 1889). **Crested flounders**. Most available English common names include the words 'righteye flounder'. 'Righteye flounder' is used in composite name for Family Pleuronectidae (Pleuronectiformes). Nelson (2006) adapted a modified form of the scientific name.

Schindleriidae (Perciformes, perch-likes): Named after Dr. D.W. Schindler, University of Alberta, Canada (Eschmeyer, 2006). **Infantfishes**. Members of this family are small and neotenic, with transparent bodies and many undeveloped cartilage and bones. Some of the available common names include the words 'infant' and 'precocious'.

Scombrobracidae (Perciformes, perch-likes): Latin, 'scomber', i.e., 'mackerel'; Latin, 'labrus', i.e., 'lip' (Romero, 2002). **Longfin escolars**. Members of this family are deep water fishes which have serrated operculum and preoperculum and a protusible maxilla (Nelson, 1994). The sole representative, *Scombrobrax heterolepis* Roule, 1921 has the FishBase common name 'longfin escolar'. 'Escolar' is used in composite names in the Family Gempylidae (Perciformes).

Sternoptychidae (Stomiiformes, lightfishes and dragonfishes): Greek, 'sternon', i.e., 'chest', 'breast'; Greek, 'ptyx', 'ptychose', i.e., 'fold', 'crease' (Romero, 2002). **Marine hatchetfishes**. Members of this family have branchiostegal photophores and pseudobranch (Nelson, 1994). Available common names include the words 'hatchetfish', 'hatchet belly', 'axe', 'pearlside', and 'bristle mouth'. 'Hatchetfish' is also used by the Family Gasteropelecidae, i.e., freshwater hatchetfishes.

Symphysanodontidae (Stomiiformes, lightfishes and dragonfishes): Greek, 'symphysis', i.e., 'grown together'; Greek, 'an', i.e., 'without'; Greek, 'odous', i.e., 'teeth' (Romero, 2002). **Slopefishes***. Available common names include the words 'slope', 'shelf', 'covered tooth'.

DISCUSSION

The names presented here are, as mentioned above, suggestions that can and will be discussed in the ichthyological community, then will be entered into FishBase. Following current practice, they also serve as basis for coining new common names for species that lack such names, e.g., by adding modifiers to the family common names. This may contribute to the fishes being the first very speciose group of organisms with all species having common names.

ACKNOWLEDGEMENTS

The authors wish to acknowledge Dr Konstantinos Stergiou for checking the Greek translations and Mr William Cheung for checking the translation and interpretation of Chinese common names.

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