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Family-group names of fossil fishes

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Abstract. The family-group names of animals (superfamily, family, subfamily, supertribe, tribe and subtribe) are regulated by the *International Code of Zoological Nomenclature*. Particularly, the family names are very important, because they are among the most widely used of all technical animal names. A uniform name and spelling are essential for the location of information. To facilitate this, a list of family-group names for fossil fishes has been compiled. I use the concept 'Fishes' in the usual sense, i.e., starting with the Agnatha up to the †Osteolepidiformes. All the family-group names proposed for fossil fishes found to date are listed, together with their author(s) and year of publication. The main goal of the list is to contribute to the usage of the correct family-group names for fossil fishes with a uniform spelling and to list the author(s) and date of those names. No valid family-group name description could be located for the following family-group names currently in usage: †Brindabellaspidae, †Diabolepididae, †Dorsetichthyidae, †Erichalcidae, †Holodipteridae, †Kentuckiidae, †Lepidaspididae, †Loganelliidae and †Pituriaspididae.

Keywords. Nomenclature, ICZN, Vertebrata, Agnatha, Gnathostomata.

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Contents

Introduction

Family names in zoology are useful tools for the storage and retrieval of biological and non-biological information attached to a group of related species and are among the most widely used of all technical names for fossil fishes.

These zoological family-group names, the names for the family-series: superfamily (suffix **-oidea**), family (suffix **-idae**), subfamily (suffix **-inae**), tribe (suffix **-ini**) and subtribe (suffix **-ina**), are regulated by the *International Code of Zoological Nomenclature* (hereafter named the Code) as published by the *International Commission on Zoological Nomenclature* (ICZN). The fourth edition of the Code (in effect from 1 January 2000) provides a set of rules for the naming of animals and the resolution of nomenclatural problems. Articles within the Code are called out in the text of this article using the abbreviations Art. or Arts.

The *principle of priority* also applies to family-group names, with some restrictions (see Van der Laan *et al.* 2014: 8–9). In order to be available, a family-group name proposed before 1931 must be a scientific name (i.e., in Latinized form) in the nominative plural based on the stem of an available genus name then used as valid in the new suprageneric taxon (Art. 11.7). New family-group names proposed between 1931 and 1999 had to be described in words or associated with a bibliographic reference to such a description in order to be considered available (Arts 13, 15). A family-group name proposed in that time period without a description is available from its original publication (Art. 13.1.3), only if it was used as valid before 2000 and not rejected by an author who, after 1960 and before 2000, expressly applied Art. 13 of the then current editions of the Code (Art. 13.2.1). Family-group names proposed since 2000 have to be explicitly indicated as new and the name of the type genus has to be clearly cited in order to be available (Art. 16).

Given the importance of family names in the scientific literature, it is very important to use uniform family-group names (Van der Laan *et al.* 2014: 3). A uniform name and spelling diminishes the trouble of finding the information connected with the family name. A single spelling of the stem is also important for having uniform names in the order series. For example, it is somewhat confusing to state the family †Astraspidae (with stem Astrasp-) as belonging to the order †Astraspidiformes (with stem Astraspid-).

Locating the widely scattered family-group names in the literature is not easy and workers have often ignored priority of these names. A lot of works do not have accurate authors and dates for families and subfamilies. For easy access it is useful to have accurate family-group name lists (Van der Laan *et al.* 2014; see for more examples Bouchet & Rocroi 2005 or Bouchard *et al.* 2011).

Family-group names of Recent fishes were published by Van der Laan *et al.* (2014) and are regularly updated (e.g. Van der Laan 2018).

A note on the dagger (†) symbol

Fossils can sample lineages close in time to relatively deep splitting events. They may bridge problematic morphological gaps and display combinations of character states that are not found in the extant biota, thereby subdividing long branches and improving phylogenetic accuracy (Cobbett *et al.* 2007; Edgecombe 2010). To make use of this advantage, many studies use fossil taxa in combination with Recent taxa in phylogenetic analyses (e.g., Grande & Bemis 1991, 1998; Santini & Tyler 2003, 2004; Grande & Hilton 2006; Davesne *et al.* 2014; Bemis *et al.* 2018). When fossil fishes appear alongside living fishes in the same classification scheme, it is important to distinguish if a certain taxon contains fossil or Recent fishes, or both. This distinction conveys the meaning that the information about the fossil taxon is necessarily less complete than it would be for an extant taxon (Bemis 2016: 321). Thus, in this work, I use the dagger symbol "†" preceding the scientific name, to denote all taxa containing *exclusively* fossil fishes.

Methods

The concept 'Fishes' is used in the usual, non-monophyletic sense (Bemis 2016: 312), i.e., starting with Agnatha and including all non-tetrapods. Although Fowler (1964: 20) included the lancelets in

his famous *A Catalog of World Fishes*, these fish-like marine chordates are nowadays classified in the subphylum Cephalochordata and no longer included in 'Fishes'. The debate over conodont relationships still remains a somewhat open question and I have not included the conodont family names in this list of 'Fishes'.

As with the family-group names for Recent fishes (Van der Laan *et al.* 2014), problems were encountered with the priority of some names for fossil fishes and with the spelling of certain family names. Some seniority problems can be easily solved by applying the Code, but there are many senior 'overlooked / forgotten' names that are not in use. Changing a well-established family name to a little-known older name (although in line with the present Code), will seriously upset the classification and cause unneeded confusion. In this list, the practical concept of *prevailing recent practice* is followed (Van der Laan *et al.* 2014).

For example, the family-group name †Crossognathidae Woodward, 1901 is a well-known family of fossil fishes (hundreds of citations). However, earlier in 1901, Cragin (1901) proposed two family-group names, †Syllaemidae and †Pelecorapidae. As long as the type genera are thought to belong to the same family, one of the names of Cragin has priority (†Pelecorapidae was selected by the first revisor). Art. 23.9 Reversal of Priority cannot be evoked, because both senior names are used after 1899 (Art. 23.9.1.1). Changing the familiar family name †Crossognathidae (also echoed in the name of the order †Crossognathiformes) is clearly undesirable. The formal solution is to appeal to the Commision (Art. 23.9.3). With the practical concept of *prevailing recent practice*, the time-consuming appeal process can be avoided. In contrast to the names of species, where 'stability is ignorance' (Raposo *et al.* 2017), the names and spelling of families can easily be stabilized.

The spelling of family-group names ending in -aspidae or -aspididae (genus name ending in *-aspis*), -lepidae or -lepididae (genus name ending in *-lepis*) and -odidae or -odontidae (genus name ending in *-odus*) is a source of confusion. Besides the arguments expressed in Van der Laan *et al.* (2014), I think it is probably best to follow the advice of Woodward (1891a: xxii), Gill (1893: 129) and Jarvik (1985: 10) to use the shorter version for clarity and simplicity, unless the longer version is in *prevailing recent practice* (see Van der Laan *et al.* 2014: 4). However, there is a definite trend in the literature to use the longer family names. When in doubt which of the spellings is used more often, it is probably best to retain the original spelling.

Another problem is the lack of a database for the species of fossil fishes, equivalent to the *Catalog of Fishes* for Recent fishes (Eschmeyer *et al.* 2018).

Searching for the correct author / date combination of a fossil fish genus, its validity, and its current systematic placement required a great deal of time and in some cases proved insufficient. I checked all the type genera in Neave's *Nomenclator Zoologicus* with the help of Internet and generally follow the given describer(s) and date. As already noted by Bemis (2016: 323), a dedicated, comprehensive and scholarly *Catalog of Fossil Fishes*, that has been carefully interpreted using the Code, is sorely missed.

Internet was searched with the help of:
- http://ubio.org/NomenclatorZoologicus/ [Neave S.A. *Nomenclator Zoologicus*, 10 Volumes, names published from 1758 to 2004];
- http://www.itis.gov/ [Integrated Taxonomic Information System];
- http://fossilworks.org/ [Gateway to the Paleobiology Database];
- http://www.organismnames.com/query.htm [Index to Organism Names (ION)];
- http://www.gbif.org/ [Global Biodiversity Information Facility, Vanhoorne 2017];
- http://taxonomicon.taxonomy.nl/Default.aspx [the Taxonomicon & Systema Naturae 2000];

- http://palaeos.com/vertebrates/dendrograms/chordata.html [Palaeos, a multi-authored encyclopedia on the history of life on Earth];
- https://shark-references.com/ [Pollerspöck J. & Straube N. 2015, Bibliography database of living/fossil sharks, rays and chimaeras (Chondrichtyes: Elasmobranchii, Holocephali)].

The family-group names of fishes are presented in several modern classifications of the 'Fishes' (Wiley & Johnson 2010; Long 2011; Betancur-R. *et al.* 2013; Westheide & Rieger 2015; Nelson *et al.* 2016; Betancur-R. *et al.* 2016, 2017; Cavin 2017; Hughes *et al.* 2018). Phylogenetic relationships of basal vertebrates have not yet reached a stable consensus. For the higher classification to be somewhat comparable, I also consulted the classification used in the series *Handbook of Paleoichthyology* (Denison 1978, 1979; Zangerl 1981; Cappetta 1987, 2012; Stahl 1999; Märss *et al.* 2007; Ginter *et al.* 2010), somewhat modified based on the classification put forward by Nelson *et al.* (2016). They present higher ranks at a somewhat lower rank than does the *Catalogue of Life* initiative (Ruggiero *et al.* 2015).

Because there are few comprehensive genus-based phylogenies of fossil fishes, the phylogenetic framework used here is a compilation of phylogenies found in the literature for each order, family and genus. The family-group names are indexed, so searching for a possible family-group name based on a genus (but placed in a different family in this work), should be straightforward.

If the systematic placement is in doubt (taxonomic groups that are difficult to place with any degree of certainty), then I have listed the family-group names alphabetically under a higher rank with the remark *incertae sedis*.

If the name is dubious and has not recently been used as a separate family (or nowadays not used at all), I simply state the name in one line. If the name is dubious, but has recently been used as a separate family, then the name is stated as a separate family.

As the rules of the ICZN do not require the use of commas in the authorship, they were left out in this paper for the family-group names and the type genera. All authorships of family-group names have been included in the bibliography.

The more than eleven-hundred family-group names in the list below are presented in the following way:

Original name and spelling [correction of obvious type-setting error] author year: page number (rank) type *Genus* author year [comments on spelling / correction of the stem / availability / validity].

Synonymous family-group names are listed according to decreasing priority under the valid family name. I do not list all the invalid vernacular or non-typical names used for fossil fishes. Moreover, some very old family names that are nowadays used exclusively in the ordinal series are not listed.

Every stem of the family name found in the literature has been mentioned, so electronically searching with the stem should find a proposed family-group name.

Rules for the family-group names and how the comments are reported in the list

The important articles of the Code for the family-group names as applied herein are listed below. I came across so many errors in the family-group names that I found it useful to quote most articles in full (sometimes with comments inserted in brackets). I have deleted a few instances where the sections of the code were repeated elsewhere or were unnecessary (see *The Code Online*, http://iczn.org/iczn/index.jsp, for the entire document). In between the articles (between << >>) are explanations of how I report my findings in the family-group names list.

The International Commission on Zoological Nomenclature has recently expanded and refined the methods of publication allowed by the Code, particularly in relation to electronic publication. The amendment allows **electronic publication** after 2011 under certain conditions and disallows publication on optical discs after 2012. The requirements for electronic publications are that the work be registered in **ZooBank** before it is published, that the work itself state the date of publication and contain evidence that registration has occurred, and that the ZooBank registration state both the name of an electronic archive intended to preserve the work and the ISSN or ISBN associated with the work.

Article 11.6. **Publication as a synonym.** A name which when first published in an available work was treated as a junior synonym of a name then used as valid is not thereby made available.

11.6.1. However, if such a name published as a junior synonym had been treated before 1961 as an available name and either adopted as the name of a taxon or treated as a senior homonym, it is made available thereby but dates from its first publication as a synonym.

11.6.3. A name first published after 1960 and treated as a junior synonym on that occasion cannot be made available from that act under Art. 11.6.

<< If a family-group name was published as a synonym and is not available, I add the remark: **[name in synonymy; treated as available before 1961?; not available, Art. 11.6.1]**. Or I add: **[published after 1960 as a junior synonym; not available, Art. 11.6.3]**.>>

Article 11.7.1. **A family-group name when first published must meet all the following criteria**. It must:

11.7.1.1. be a noun in the nominative plural formed from the stem of an available generic name [Art. 29, *this generic name is called the* ***type genus*** *Art. 63*] (indicated either by express reference to the generic name or by inference from its stem, but for family-group names proposed after 1999 see Art. 16.2); the generic name must be a name then used as valid in the new family-group taxon [Arts 63–64] (use of the stem alone in forming the name is accepted as evidence that the author used the generic name as valid in the new family-group taxon unless there is evidence to the contrary).

<<If the family-group name is not formed from the stem of an available generic name I add the remark: **[no stem of the type genus, not available, Art. 11.7.1.1]**. I only list some old atypical names.

If the family-group name is formed from the stem of a, not used as a valid, available generic name I add: **[no valid type genus, not available, Art. 11.7.1.1]**. This usage is sometimes difficult to find (and easily missed!) as the synonymy of the type genus is sometimes in a different part of the publication.

If the type genus is not mentioned, but the stem of an available generic name has been used in forming the name and there is no evidence of invalidity of the type genus, I add: **[type genus inferred from the stem, Art. 11.7.1.1]**, and I treat the name as available.

If an author published a few papers mentioning the invalidity of the potential type genus before and after the publication with the new family-group name, then I determined there was evidence to the contrary (Art. 11.7.1.1), and I add: **[no valid type genus, not available, Art. 11.7.1.1]**. If it is evident from the publication that an author listed all of the valid genera and the type genus is not among them, then I also determined there was evidence to the contrary (Art. 11.7.1.1), and I add: **[no valid type genus, not available, Art. 11.7.1.1]**.

If the type genus is not mentioned and the inference is questionable, I add a question mark before the family-group name (and sometimes add: **[family uncertain]** if the systematic position of the family-group name is uncertain), and I treat the name as not available.>>

11.7.1.2. be clearly used as a scientific name to denote a suprageneric taxon and not merely as a plural noun or adjective referring to the members of a genus.

<<If an author used the nominative singular to denote a new family-group name (against Art. 11.7.1.1), but it is otherwise very obvious that the author used the name for a suprageneric taxon (for multiple genera), I treat the name as available.

If merely a plural noun I add the remark: **(no family-group name)**. I only list those plural nouns that were referred to by some author as a potential family-group name.>>

11.7.1.3. end with a family-group name suffix except as provided in Art. 11.7.2; a family-group name of which the family-group name suffix [Art. 29.2] is incorrect is available with its original authorship and date, but with a corrected suffix [Arts 29, 32.5.3];

11.7.1.4. not be based on certain names applied only to fossils and ending in the suffix *-ites*, *-ytes* or *-ithes* [Art. 20];

11.7.1.5. not be based on a genus-group name that has been suppressed by the Commission [Art. 78].

11.7.2. If a family-group name was published before 1900, in accordance with the above provisions of this article but not in latinized form, it is available with its original author and date only if it has been latinized by later authors and has been generally accepted as valid by authors interested in the group concerned and as dating from that first publication in vernacular form.

<<If the family-group name is not proposed in a latinized form and has been latinized by later authors I add the remark: **[latinized to {family-group name} by {author year: page number}]**. If the family-group name has been generally accepted as valid by authors interested in the group concerned and as dating from that first publication in vernacular form, I add: **[considered valid with this authorship by {author year: page number} Art. 11.7.2]**. If I state both provisions, then I treated the name as available.

For fossil fishes, it is very difficult to find authors who mention the author(s)/date of family-group names. For fishes, Art. 11.7.2 can be difficult and lead to different opinions. I tried to establish the most accepted author(s) / date combination.

If not treated as valid and as dating from the first publication in vernacular form, I add: **[published not in latinized form before 1900, not available, Art. 11.7.2]**. I list only some early vernacular names that possibly could have been latinized by a later author, and I do not present an exhaustive list of all the vernacular family-group names.

If the family-group name is not proposed in a latinized form after 1899, I add: **[published not in latinized form after 1899, not available]**.>>

Article 12. **Names published before 1931**

12.1. Requirements. To be available, every new name published before 1931 must satisfy the provisions of Art. 11 and must be accompanied by a description or a definition of the taxon that it denotes, or by an indication.

12.2. Indications. For the purposes of this article the word 'indication' denotes only the following:

12.2.1. A bibliographic reference to a previously published description or definition even if the description or definition is contained in a work published before 1758, or that is not consistently binominal, or that

has been suppressed by the Commission (unless the Commission has ruled that the work is to be treated as not having been published [Art. 8.7]);

12.2.2. The inclusion of a name in an index to a work that is not consistently binominal, provided that the provisions of Art. 11.4.3 are satisfied;

12.2.3. The proposal of a new replacement name (*nomen novum*) for an available name, whether or not required by any provision of the Code;

12.2.4. The formation of a family-group name from an available generic name [Art. 29].

Article 13. **Names published after 1930**

13.1. Requirements. To be available, every new name published after 1930 must satisfy the provisions of Art. 11 and must

13.1.1. be accompanied by a description or definition that states in words characters that are purported to differentiate the taxon, or

13.1.2. be accompanied by a bibliographic reference to such a published statement, even if the statement is contained in a work published before 1758, or in one that is not consistently binominal, or in one that has been suppressed by the Commission (unless the Commission has ruled that the work is to be treated as not having been published [Art. 8.7]), or

13.1.3. be proposed expressly as a new replacement name (*nomen novum*) for an available name, whether required by any provision of the Code or not.

13.2. Family-group names. To be available, every new family-group name published after 1930 must satisfy the provisions of Art. 13.1 and must be formed from an available genus-group name then used as valid by the author in the family-group taxon [Arts 11.7.1.1 and 29].

13.2.1. A family-group name first published after 1930 and before 1961 which does not satisfy the provisions of Art. 13.1 is available from its original publication only if it was used as valid before 2000, and also was not rejected by an author who, after 1960 and before 2000, expressly applied Art. 13 of the then current editions of the Code.

13.5. Combined description of new family-group taxon and new genus. The combined description or definition of a new nominal family-group taxon and a single new nominal genus of which the name provides the basis for the new family-group name [Art. 11.5] is deemed to confer availability on each name under Art. 13.1.1, but for such names published after 1930 availability is not conferred on either name unless a type species is fixed for the new nominal genus [Arts 13.2 and 13.3].

<<If there is no description of the taxon, I add the remark: **[name only]**. If the family-group name was published before 1961 and if used as valid before 2000, I add: **[name only, but used as valid by {author year}: page number Art. 13.2.1]**, and I treat the name as **available**. If I could not find a validating usage, I add: **[name only, used as valid before 2000?; not available]**.

If the family-group name was published before 1961 and has been rejected with the help of Art. 13 after 1960 and before 2000, I add: **[name only, rejected by {author year}: page number with the help of Art. 13; not available]**. If the family-group name was published after 1960, I add: **[name only, published after 1960, not available, Art. 13.1.1]**.>>

Article 16. **Names published after 1999**

16.1. All names: intention of authors to establish new nominal taxa to be explicit. Every new name published after 1999, including new replacement names (nomina nova), must be explicitly indicated as intentionally new.

16.2. Family-group names: type genus to be cited. In addition to satisfying the provisions of Arts 13–15, a new family-group name published after 1999 must be accompanied by citation of the name of the type genus (i.e., the name from which the family-group name is formed).

<<If a family-group name proposed after 1999 does not satisfy the provisions of Arts 13–16, I add the remark: **[not published according to the rules, not available]**. In most cases the publication lacks an exact description or definition that states ***in words*** characters that are purported to differentiate the taxon or the indication '**new**' is absent.>>

Article 23. **Principle of Priority**

23.1. Statement of the Principle of Priority. The valid name of a taxon is the oldest available name applied to it, unless that name has been invalidated or another name is given precedence by any provision of the Code or by any ruling of the Commission. For this reason priority applies to the validity of synonyms [Art. 23.3], to the relative precedence of homonyms [Arts 53–60], the correctness or otherwise of spellings [Arts 24, 32], and to the validity of nomenclatural acts (such as acts taken under the Principle of the First Reviser [Art. 24.2] and the fixation of name-bearing types [Arts 68–69, 74.1.3, 75.4]).

23.1.1. For exceptions for certain family-group names see Arts 35.5 and 40.

23.1.2. For the case of disused family-group names which are homonyms see Art. 55.3.1.1.

23.2. **Purpose**. In accordance with the objects of the Code (see Preamble), the Principle of Priority is to be used to promote stability and it is not intended to be used to upset a long-accepted name in its accustomed meaning by the introduction of a name that is its senior synonym or homonym (for certain such cases see Art. 23.9), or through an action taken following the discovery of a prior and hitherto unrecognized nomenclatural act (such as a prior type fixation; for such cases see Arts 70.2 and 75.6).

23.3.1. **Priority** of the name of a nominal taxon is not affected by elevation or reduction in rank of the taxon within the family group, genus group or species group [Arts 36, 43, 46], nor by any mandatory change in suffix of a family-group name consequent upon change in rank [Art. 34].

23.9. **Reversal of precedence**. In accordance with the purpose of the Principle of Priority [Art. 23.2], its application is moderated as follows:

23.9.1. prevailing usage must be maintained when the following conditions are both met:

23.9.1.1. the senior synonym or homonym has not been used as a valid name after 1899, and

23.9.1.2. the junior synonym or homonym has been used for a particular taxon, as its presumed valid name, in at least 25 works, published by at least 10 authors in the immediately preceding 50 years and encompassing a span of not less than 10 years.

<<Use of Art. 23.9.1.1 is straightforward, but Art. 23.9.1.2 presents some problems with family-group names that appear rarely in publications. If I have evidence that the name of a family-group taxon is a long-accepted name in its accustomed meaning, I add: **Name in prevailing recent practice** behind

the family-group name regardless of whether it met the criteria of "25 works, published by at least 10 authors in the immediately preceding 50 years and encompassing a span of not less than 10 years".>>

23.9.2. An author who discovers that both the conditions of 23.9.1 are met should cite the two names together and state explicitly that the younger name is valid, and that the action is taken in accordance with this article; at the same time the author must give evidence that the conditions of Art. 23.9.1.2 are met, and also state that, to his or her knowledge, the condition in Art. 23.9.1.1 applies. From the date of publication of that act the younger name has precedence over the older name. When cited, the younger but valid name may be qualified by the term '**nomen protectum**' and the invalid, but older, name by the term '**nomen oblitum**'. In the case of subjective synonymy, whenever the names are not regarded as synonyms the older name may be used as valid.

23.9.3. If the conditions of 23.9.1 are not met but nevertheless an author considers that the use of the older synonym or homonym would threaten stability or universality or cause confusion, and so wishes to maintain use of the younger synonym or homonym, he or she must refer the matter to the Commission for a ruling under the plenary power [Art. 81]. While the case is under consideration use of the junior name is to be maintained [Art. 82].

23.9.4. If the case is one of homonymy in family-group names resulting from similarity but not identity in the names of type-genera, see Art. 55.3.

Article 24. **Precedence between simultaneously published names, spellings or acts**

24.1. Automatic determination of precedence of names. When homonyms or synonyms are established simultaneously, but proposed at different ranks, in the family group, genus group or species group the name proposed at higher rank takes precedence [Arts 55.5, 56.3 and 57.7].

Article 29. **Family-group names**

29.1. Formation of family-group names. A family-group name is formed by adding to the stem of the name [Art. 29.3] of the type genus, or to the entire name of the type genus [see Art. 29.6], a suffix as specified in Art. 29.2.

29.2. Suffixes for family-group names. The suffix -OIDEA is used for a superfamily name, -IDEA for a family name, -INAE for a subfamily name, -INI for the name of a tribe, and -INA for the name of a subtribe. These suffixes must not be used at other family-group ranks. The suffixes of names for taxa at other ranks in the family-group are not regulated.

29.2.1. Names in the genus and species groups which have endings identical with those of the suffixes of family-group names are not affected by this article.

29.3. Determination of stem in names of type genera. The stem of a family-group name is based on the name of its type genus [Art. 63] and determined as follows.

29.3.1. If a generic name is or ends in a Greek or Latin word, or ends in a Greek or Latin suffix, the stem for the purposes of the Code is found by deleting the case ending of the appropriate genitive singular.

29.3.1.1. If the stem so formed ends in -id, those letters may be elided before adding the family-group suffixes. If, however, the unelided form is in prevailing usage, that spelling is to be maintained, whether or not it is the original spelling.

29.3.2. If the name of a genus is or ends in a Greek word latinized with a change in ending, the stem is that appropriate to the latinized form, as determined in Art. 29.3.1.

29.3.3. If a generic name is or ends in a word not Greek or Latin, or is an arbitrary combination of letters, the stem for the purposes of the Code is that adopted by the author who establishes the new family-group taxon, either the entire generic name (see Art. 29.6), or the entire generic name with the ending elided, or the entire generic name with one or more appropriate linking letters incorporated in order to form a more euphonious family-group name.

<<In some cases, the **stem** of the type genus is not the correct grammatical stem, but is the genitive without its case-ending. See Steyskal (1980) for some guidance in forming the stem. Also the extract from the 3rd edition of the Code on the ICZN website (http://iczn.org/content/formation-names; accessed 1 Apr. 2014) can be of some help. Sheiko (2013) also lists many stems.

I add the remark: **[changed to ... by {author year:page number}]** to present a different spelling by an author (changed by mistake or insight or dislike?), or **[corrected to ... by {author year:page number}]** to present a possibly intentional different spelling by an author [a bit arbitrarily], or **[emended to ... by {author year:page number}]** in the strict sense of Art. 33.2.1 of the Code; i.e., an explicit statement of intentional change of spelling with citation of **both** spellings. I tried to establish the stem in prevailing recent practice.

As nomenclature is based on the examination of individual cases, one cannot extend a certain stem to all such generic name endings (for instance, although the correct stem of a type genus ending in *-ichthys* is -ichthy-, a different stem can be found in the accepted family-names).>>

29.4. Acceptance of originally formed stem. If after 1999 a new family-group name is based on a generic name which is or ends in a Greek or Latin word or ends in a Greek or Latin suffix, but its derivation does not follow the grammatical procedures of Arts 29.3.1 or 29.3.2, its original spelling must be maintained as the correct original spelling, provided

29.4.1. it has a correctly formed suffix [Art. 29.2], and

29.4.2. its stem is formed from the name of the type genus as though it were an arbitrary combination of letters [Art. 29.3.3].

29.5. **Maintenance of current spellings**. If a spelling of a family-group name was not formed in accordance with Art. 29.3 but is in prevailing usage, that spelling is to be maintained, whether or not it is the original spelling and whether or not its derivation from the name of the type genus is in accordance with the grammatical procedures in Arts 29.3.1 and 29.3.2.

<<The central issue of Arts 29.3 and 29.5 is whether the emendation of a family-group name is justified. Today a growing number of zoologists (perhaps a majority) is against changing the originally proposed stem. Art. 29.5 shifts the balance between the two principles of zoological nomenclature: original intent/linguistic correction vs stability, towards stability. I applied Art. 29.5 with the working principle of **prevailing recent practice**.>>

29.6. Avoidance of homonymy in family-group names. An author wishing to establish a new family-group name must avoid its homonymy with any known previously established names by forming an appropriate stem from the name of the type genus. (See Art. 55.3.1 for the elimination of homonymy between existing family-group names).

Article 32. **Original spellings**

32.5.3. A family-group name is an incorrect original spelling and must be corrected if it

32.5.3.1. has an incorrectly formed suffix [Art. 29.2], or

32.5.3.2. is formed from an unjustified emendation of a generic name (unless the unjustified emendation has become a substitute name), or

32.5.3.3. is formed from an incorrect subsequent spelling of a generic name [Art. 35.4.1], or

32.5.3.4. is formed from one of two or more original spellings of a genus-group name which was not that selected by the First Reviser [Art. 24.2.3].

<<I place the correction of an obvious spelling error (type-setting error) in the family-group name in brackets immediately behind the name; e.g., †Jekelotodontidae [†Jaekelotodontidae] Glickman 1964a: 11 (family) †*Jaekelotodus* Menner 1928.

If an incorrect spelling of the type genus was used, I add after the type genus the remark: **[type genus as {*used incorrect spelling of the type genus*}, name must be corrected Art. 32.5.3 to …]**; e.g., †Acanthoëssidae Hay 1902: 273 (family) †*Acanthoessus* Agassiz 1832 [type genus as †*Acanthoëssus*, name must be corrected Art. 32.5.3 to †Acanthoessidae]>>

Article 34. **Mandatory changes in spelling consequent upon changes in rank or combination**

34.1. Family-group names. The suffix of a family-group name must be changed when the taxon denoted by the name is raised or lowered in rank; the author and date of the name remain unchanged [Arts 23.3.1, 29.2, 50.3.1].

Article 35. **The family group**

35.1. Definition. The family group encompasses all nominal taxa at the ranks of superfamily, family, subfamily, tribe, subtribe, and any other rank below superfamily and above genus that may be desired (see also Art. 10.3 for collective groups and ichnotaxa).

<<Most early English and American writers used the family-group name **group** (and **subgroup**) for a grouping of some genera (equivalent to the currently used term **tribe**/**subtribe**). The word **Gruppe** of early writers (e.g., Bassani, Jaekel, Wagner) is also more or less equivalent to the currently used term **tribe**. I list the family-group names when they were used for grouping genera below the family. I did not list the (non-regulated) higher rank names of the order/class-series.>>

35.2. Provisions applicable to all family-group nominal taxa and their names. Family-group nominal taxa and their names are subject to the same provisions whatever their rank, except in respect of their suffixes [Art. 29.2] (for the application of the Principle of Coordination to family-group names, see Art. 36).

35.3. Application of family-group names. The application of each family-group name is determined by reference to the type genus of the nominal taxon [Arts 61–65].

35.4. Formation and treatment of family-group names. A family-group name is to be formed and treated in accordance with Art. 11.7 and the relevant provisions of Arts 25–34.

35.4.1. A family-group name based upon an unjustified emendation (but see Art. 35.4.2) or an incorrect spelling of the name of the type genus must be corrected, unless it is preserved under Art. 29.5 or unless the spelling of the genus-group name used to form the family-group name is preserved under Arts 33.2.3.1 or 33.3.1.

35.4.2. If an unjustified emendation of the name of the type genus becomes its substitute name, the family-group name is then to be based on it by correcting the name to the spelling formed from the stem of the substitute name, or the whole substitute name [Art. 29.1]; the author and date of the family-group name remain unchanged.

35.5. Precedence for names in use at higher rank. If after 1999 when a name in use for a family-group taxon (e.g. for a subfamily) is found to be older than a name in prevailing usage for a taxon at higher rank in the same family-group taxon (e.g. for the family within which the older name is the name of a subfamily) the older name does not displace the younger name.

<<If I found an older subfamily name, I add after the family name: **Name in prevailing recent practice, Art. 35.5**. If I found an older family name and if I have evidence that the current family name (or the current spelling) is in prevailing recent practice, I add: **Name (or spelling) in prevailing recent practice**.

I checked the family-group names against Nelson *et al.* (2016) and recent literature. If I use the same name and spelling as in most of these recent works, I add: **Name in prevailing recent practice**, or if I use the same spelling, I add: **Spelling in prevailing recent practice** where appropriate, or I use a combination of both phrases.>>

Article 36. **Principle of Coordination**

36.1. Statement of the Principle of Coordination applied to family-group names. A name established for a taxon at any rank in the family group is deemed to have been simultaneously established for nominal taxa at all other ranks in the family group; all these taxa have the same type genus, and their names are formed from the stem of the name of the type genus [Art. 29.3] with appropriate change of suffix [Art. 34.1]. The name has the same authorship and date at every rank.

36.2. Type genus. When a nominal taxon is raised or lowered in rank in the family group its type genus remains the same [Art. 61.2.2].

Article 37. **Nominotypical taxa**

37.1. Definition. When a family-group taxon is subdivided, the subordinate taxon that contains the type genus of the superior taxon is denoted by the same name (except for suffix) with the same author and date [Art. 36.1]; this subordinate taxon is termed the "nominotypical taxon".

37.2. Effect of change of name on nominotypical taxa. If the name in use for a family-group taxon is unavailable or invalid it must be replaced by the name valid under Art. 23.3.5; any subordinate taxa containing the type genus of the substitute nominal taxon (and therefore denoted by the valid family-group name, with appropriate suffixes) become nominotypical taxa.

Article 39. **Invalidity due to homonymy or suppression of the name of the type genus**

The name of a family-group taxon is invalid if the name of its type genus is a junior homonym or has been totally or partially suppressed (see Arts 81.2.1 and 81.2.2) by the Commission. If that family-group

name is in use it must be replaced either by the next oldest available name from among its synonyms [Art. 23.3.5], including the names of its subordinate family-group taxa, or, if there is no such synonym, by a new name based on the valid name (whether a synonym or a new replacement name (*nomen novum*)) of the former type genus.

<<If a family-group taxon is based on a junior homonym or on a suppressed generic name, I add the remark: [**invalid, Art. 39**].>>

Article 40. **Synonymy of the type genus**

40.1. Validity of family-group names not affected. When the name of a type genus of a nominal family-group taxon is considered to be a junior synonym of the name of another nominal genus, the family-group name is not to be replaced on that account alone.

40.2. Names replaced before 1961. If, however, a family-group name was replaced before 1961 because of the synonymy of the type genus, the substitute name is to be maintained if it is in prevailing usage.

40.2.1. A name maintained by virtue of this article retains its own author but takes the priority of the replaced name, of which it is deemed to be the senior synonym.

Recommendation 40A. Citation of author and date. If the author and date are cited, a family-group name maintained under the provisions of Art. 40.2.1 should be cited with its original author and date (see Recommendation 22A.2.2), followed by the date of its priority as determined by this article; the date of priority should be enclosed in parentheses.

<<The changing of the rules over the century (particularly if the type genus was found to be a junior synonym) was responsible for many new family-group names. Some came into prevailing practice, others disappeared. If I have found evidence that a name replaced before 1961 is in prevailing practice, I add the remark: **({date of priority}) Name in prevailing recent practice, Art. 40.2**.>>

Article 53. **Definitions of homonymy in the family group, genus group and species group**

53.1. Homonyms in the family group. In the family group, two or more available names having the same spelling or differing only in suffix [Art. 29.2] and denoting different nominal taxa are homonyms.

Article 55. **Homonymy in family-group names**

55.1. Application of the Principle of Homonymy. The Principle of Homonymy applies to all family-group names, including names of ichnotaxa at the family-group level.

55.2. Homonymy from identical generic names. See Art. 39.

55.3. Homonymy from similar generic names. Homonymy between family-group names may result from similarity but not identity of the names of their type genera.

55.3.1. Such a case involving family-group names must be referred to the Commission for a ruling to remove homonymy unless the senior homonym is a *nomen oblitum*.

55.3.1.1. When the senior homonym is determined to be a *nomen oblitum* under the conditions of Art. 23.9.2, a new family-group name (a *nomen novum*) based on the same type genus may be proposed, but choosing a new stem from the name of the type genus which avoids the homonymy [Arts 29.1, 29.4 and 29.6].

55.4. One-letter difference. Even if the difference between two family-group names is only one letter, they are not homonyms.

55.5. Precedence of names at higher rank. Of two homonymous family-group names of identical date but established at different ranks, the one established at the higher rank is deemed to be the senior homonym [Art. 24.1].

<<I note the cases of homonymy as: **[preoccupied by {family-group name} in {…}; not to be used, Art. 55.3]**.>>

Article 61.3. **Name-bearing types and synonymy**

61.3.2. If two or more objectively synonymous generic names have been used as the basis for names in the family group, the family-group names are objective synonyms.

<< If two objectively synonymous generic names have been used as the basis for family names, I add: **[junior objective synonym of {family-group name author year}, invalid, Art. 61.3.2]** or **[senior objective synonym of {family-group name author year}]**; e.g., †Acanthoëssidae Hay 1902: 273 (family) †*Acanthoessus* Agassiz 1832 [type genus as †*Acanthoëssus*, name must be corrected Art. 32.5.3 to †Acanthoessidae; junior objective synonym of †Acanthodidae Agassiz 1844, invalid, Art. 61.3.2].>>

How to use the family-group names list

A researcher wishing to create a new family-group name can use this list in the following way:

First determine the desired level, such as subtribe, tribe, subfamily or family.

Check to see if any of the genera (and their synonyms) to be included in the new taxon are in the family-group names list (if there are Recent fishes classified in the family-group name, check Van der Laan *et al.* 2014 and the cumulative addenda to this publication on http://www.calacademy.org/scientists/catalog-of-fishes-family-group-names/).

If none is in the list, then a new name can be proposed according to the Code. State the new family-group name, indicate the name as NEW, give a diagnosis of the new taxon and state the (valid) type genus. Use the dagger notation (†) correctly.

If one genus to be included in the new taxon is in the list of family-group names, check the original reference and transfer the name to the desired rank with the correct suffix. Do not change the stem of the family-group name to prevent confusion.

If two or more genera to be included in the new taxon are in the list of family-group names, check the original references, take the oldest name (to satisfy the rule of priority) and transfer the name to the desired rank with the correct suffix.

Check if the stem to be used has been used in a family-group name for any animal, not only fishes, to avoid homonymy. This can be done efficiently by searching for the stem on Google.

Mention the to be created family-group name in the abstract and in the keywords of the new publication.

Family-group names of fossil fishes

No valid family-group name description could be located for the following family-group names currently in usage:

†Brindabellaspidae, †Diabolepididae, †Dorsetichthyidae, †Erichalcidae, †Holodipteridae, †Kentuckiidae, †Lepidaspididae, †Loganelliidae and †Pituriaspididae.

Family-group names not anymore in 'Fishes'

†Angustidontidae Cooper 1936: 93 (family) †*Angustidontus* Cooper 1936 [jaws of a shrimp]
†Pseudodontichthyidae Obruchev 1964c: 255 (family) †*Pseudodontichthys* Skeels 1962 [a phyllocarid crustacean, Andrews *et al.* 1967: 675]

Family-group names with unknown systematic placement

†Propenserinae Applegate 1970: 398 (subfamily) †*Propenser* Applegate 1970 [fossilized portions of a coelacanth and a pycnodont]
†Palaeodontidae Obruchev 1964a: 43 (family) †*Palaeodus* Rohon 1890
†Rogeniidae Jordan 1919: 8 (family) †*Rogenio* Jordan 1907 [family name sometimes seen as †Rogenionidae]

CHORDATA
SUBPHYLUM CRANIATA
Order †Myllokunmingiiformes
Family †Myllokunmingiidae Shu 2003
†Myllokunmingiidae Shu 2003: 727 (family) †*Myllokunmingia* Shu, Zhang & Han 1999

INFRAPHYLUM MYXINOMORPHI
CLASS MYXINI
Order Myxiniformes
Family Myxinidae Rafinesque 1815

INFRAPHYLUM VERTEBRATA
CLASS PETROMYZONTIDA (CEPHALASPIDOMORPHI)
†Gilpichthyidae Halstead 1993: 580 (family) †*Gilpichthys* Bardack & Richardson 1977 [name only, published after 1960, not available, Art. 13.1.1]
†Pipisciidae Halstead 1993: 580 (family) †*Pipiscius* Bardack & Richardson 1977 [name only, published after 1960, not available, Art. 13.1.1]

Order Petromyzontiformes
†Hardistiellidae Halstead 1993: 580 (family) †*Hardistiella* Janvier & Lund 1983 [name only, published after 1960, not available, Art. 13.1.1]
Family †Mayomyzontidae Bardack & Zangerl 1971
†Mayomyzontidae Bardack & Zangerl 1971: 80 (family) †*Mayomyzon* Bardack & Zangerl 1968 [family name sometimes seen as †Mayomyzonidae]
Family Petromyzontidae Bonaparte 1831
Family Geotriidae Gill 1893
Family Mordaciidae Gill 1893

SUPERCLASS †PTERASPIDOMORPHI
CLASS †PTERASPIDOMORPHA
Subclass †ASTRASPIDA

Order †Astraspidiformes
Family †Astraspididae Eastman 1917, spelling in prevailing recent practice
†Astraspidae Eastman 1917: 237 (family) †*Astraspis* Walcott 1892 [family name also seen as †Astraspididae]
Family †Oniscolepididae Märss & Karatajūtė-Talimaa 2009
†Oniscolepididae Märss & Karatajūtė-Talimaa 2009: 45 (family) †*Oniscolepis* Pander 1856
Family †Tesakoviaspididae Karatajūtė-Talimaa & Smith 2004
†Tesakoviaspididae Karatajūtė-Talimaa & Smith 2004: 56 (family) †*Tesakoviaspis* Karatajūtė-Talimaa & Smith 2004
Family †Eriptychiidae Tarlo 1962
†Eriptychiidae Tarlo 1962: 254 (family) †*Eriptychius* Walcott 1892

Subclass †ARANDASPIDA
†Aseraspididae Halstead 1993: 573 (family) †*Aseraspis* Dineley & Loeffler 1976 [name only, published after 1960, not available, Art. 13.1.1]

Order †Arandaspidiformes
Family †Arandaspididae Ritchie & Gilbert-Tomlinson 1977
†Arandaspididae Ritchie & Gilbert-Tomlinson 1977: 351 (family) †*Arandaspis* Ritchie & Gilbert-Tomlinson 1977
†Porophoraspidae Halstead 1993: 573 (family) †*Porophoraspis* Ritchie and Gilbert-Tomlinson 1977 [name only, published after 1960, not available, Art. 13.1.1]

Subclass †HETEROSTRACI
Family †Ariaspididae Elliott & Swift 2010
†Ariaspididae Elliott & Swift 2010: 1874 (family) †*Ariaspis* Denison 1963

Order †Cardipeltiformes
Family †Cardipeltidae Bryant 1933
†Cardipeltidae Bryant 1933: 307 (family) †*Cardipeltis* Branson & Mehl 1931 [family name sometimes seen as †Cardipeltididae]

Order †Corvaspidiformes
Family †Corvaspididae Dineley 1955, spelling in prevailing recent practice
†Corvaspidae Dineley 1955: 178 (family) †*Corvaspis* Woodward 1934 [family name also seen as †Corvaspididae]

Order †Lepidaspidiformes
Family †Lepidaspididae
†Lepidaspididae Halstead 1993: 573 (family) †*Lepidaspis* Dineley & Loeffler 1976 [name only, published after 1960, not available, Art. 13.1.1; family name sometimes seen as †Lepidaspidae]

Order †Tesseraspidiformes
Family †Tesseraspididae Berg 1955, spelling in prevailing recent practice
†Tesseraspidae Berg 1955: 25 (family) †*Tesseraspis* Wills 1935 [family name also seen as †Tesseraspididae]
†Natlaspididae Halstead 1993: 575 (family) †*Natlaspis* Dineley & Loeffler, 1976 [name only, published after 1960, not available, Art. 13.1.1]

Order †Traquairaspidiformes
Family †Traquairaspididae Kiaer 1932, spelling in prevailing recent practice

†Traquairaspidae Kiaer 1932: 25 (family) †*Traquairaspis* Kiaer 1932 [family name also seen as †Traquairaspididae]

†Weigeltaspiden Brotzen 1933: 655 (family) †*Weigeltaspis* Brotzen 1933 [published not in latinized form after 1899, not available]

†Weigeltaspidae Berg 1940: 361 [family name sometimes seen as †Weigeltaspididae; could date to Obruchev 1937 from an article in *Трансактионс оф тхе Палеонтологикал институте* [*Transactions of the Paleontological Institute*], not located yet]

†Phialaspididae White 1946b: 236 (family) †*Phialaspis* Wills 1935 [family name sometimes seen as †Phialaspidae]

Order †Tolypelepidiformes

Family †Tolypelepididae Strand 1934 (1932), name and spelling in prevailing recent practice, Art. 40.2

†Tolypaspidae Kiaer 1932: 24 (family) †*Tolypaspis* Schmidt 1893 [senior objective synonym of †Tolypelepidae; family name sometimes seen as †Tolypaspididae]

†Tolypelepidae Strand 1934: 328 (family) †*Tolypelepis* Pander 1856 [junior objective synonym of †Tolypaspidae, invalid, Art. 61.3.2, but name in prevailing recent practice Art. 40.2; family name also seen as †Tolypelepididae]

Order †Cyathaspidiformes

Suborder †Amphiaspidoidei

Family †Amphiaspididae Obruchev 1939

†Amphiaspididae Obruchev 1939: 327 (family) †*Amphiaspis* Obruchev 1936 [family name sometimes seen as †Amphiaspidae]

Family †Gabreyaspididae Novitskaya 1968

†Gabreyaspididae Novitskaya 1968: 49 (family) †*Gabreyaspis* Novitskaya 1968

Family †Olbiaspididae Obruchev 1964

†Olbiaspididae Obruchev 1964a: 78 (family) †*Olbiaspis* Obruchev 1964 [family name sometimes seen as †Obliaspidae]

†Angaraspididae Halstead 1993: 576 (family) †*Angaraspis* Obruchev 1964 [name only, published after 1960, not available, Art. 13.1.1]

Family †Edaphaspididae Novitskaya 1968

†Edaphaspididae Novitskaya 1968: 57 (family) †*Edaphaspis* Novitskaya 1968

Suborder †Hibernaspidoidei

Family †Eglonaspididae Tarlo 1962

†Eglonaspididae Tarlo 1962: 268 (family) †*Eglonaspis* Obruchev 1959

Family †Hibernaspididae Obruchev 1939

†Hibernaspididae Obruchev 1939: 320 (family) †*Hibernaspis* Obruchev 1939

Family †Aphataspididae Novitskaya 1971

†Aphataspididae Novitskaya 1971: 104 (family) †*Aphataspis* Obruchev 1964

Suborder †Siberiaspidoidei

Family †Siberiaspididae Novitskaya 1968

†Siberiaspididae Novitskaya 1968: 59, 60 (family) †*Siberiaspis* Obruchev 1964

†Tuxeraspididae Novitskaya 1968: 59 (family) †*Tuxeraspis* Novitskaya 1971 [no valid type genus, not available, Art. 11.7.1.1; also name only]

†Tuxeraspididae Novitskaya 1971: 43 (family) †*Tuxeraspis* Novitskaya 1971

Suborder †Cyathaspidoidei

Family †Cyathaspididae Kiaer 1932, name and spelling in prevailing recent practice

†Poraspidae Kiaer 1932: 12 (family) †*Poraspis* Kiaer 1930 [family name sometimes seen as †Poraspididae or as subfamily †Poraspidinae]

†Dinaspidae Kiaer 1932: 15 (family) †*Dinaspis* Kiaer 1932 [type genus preoccupied by *Dinaspis* Leonardi 1911 in Hemiptera; invalid, Art. 39; family name sometimes seen as †Dinaspididae]
†Palaeaspidae Kiaer 1932: 15 (family) †*Palaeaspis* Claypole 1885 [type genus preoccupied by †*Palaeaspis* Gray 1870 in Reptilia; invalid, Art. 39; family name sometimes seen as †Palaeaspididae]
†Anglaspidae Kiaer 1932: 19 (family) †*Anglaspis* Jaekel 1927 [family name sometimes seen as †Anglaspididae]
†Cyathaspidae Kiaer 1932: 21 (family) †*Cyathaspis* Lankester 1865 [family name also seen as †Cyathaspididae]
†Diplaspidae Kiaer 1932: 25 (family) †*Diplaspis* Matthew 1887 [family name sometimes seen as †Diplaspididae]
†Dinaspidellidae Strand 1934: 327 (family) †*Dinaspidella* Strand 1934
†Irregularaspidae [†Irregulareaspidae] Kiaer & Heinz 1935: 42 (family) †*Irregulareaspis* Zych 1931 [family name sometimes seen as †Irregulareaspididae]
†Dictyonaspidae [†Dictyaspidae] Berg 1940: 362 (family) †"*Dictyonaspis*" (? †*Dictyaspis* Kiaer 1932) [no valid type genus, not available, Art. 11.7.1.1; probably a printing error for †Dictyaspidae, also Berg 1955: 27; type genus preoccupied by *Dictyaspis* Haeckel 1887 in Radiozoa; invalid, Art. 39; family name corrected to †Dictyaspididae by Schultz 1948: 221]
†Americaspidae Fowler 1947: 3 (family) †*Americaspis* White & Moy-Thomas 1941 [family name sometimes seen as †Americaspididae]
†Dictyaspidellidae Fowler 1947: 4 (family) †*Dictyaspidella* Strand 1934
†Torpedaspididae Halstead 1993: 574 (family) †*Torpedaspis* Broad & Dineley 1973 [name only, published after 1960, not available, Art. 13.1.1]
†Boothiaspidinae Elliott 2016: 1213 (subfamily) †*Boothiaspis* Broad, 1973

Family †Ctenaspididae Kiaer 1930, spelling in prevailing recent practice
†Ctenaspidae Kiaer 1930: 5 (family) †*Ctenaspis* Kiaer 1930 [family name also seen as †Ctenaspididae]

Order †Pteraspidiformes

Incertae sedis:

†Belgicaspinae Zych 1931: 86 (subfamily) †*Belgicaspis* Zych 1931
†Larnovaspididae Novitskaya 1986: 91 (family) †*Larnovaspis* Blieck 1984 [variously credited to Holstead or Halstead, but Novitskaya is responsible for the description and can be credited as author]
†Penygaspididae Halstead 1993: 575 (family) †*Penygaspis* Stensiö 1958 [name only, published after 1960, not available, Art. 13.1.1]
†Podolaspinae Zych 1931: 86 (subfamily) †*Podolaspis* Zych 1931 [also as a new family, †Podolaspididae, in Novitskaya 1983: 161]
†Protaspidae Bryant 1933: 287 (family) †*Protaspis* Bryant 1933 [family name sometimes seen as †Protaspididae]
†Psephaspididae Novitskaya 1983: 165 (family) †*Psephaspis* Ørvig 1961 [name only, published after 1960, not available, Art. 13.1.1]
†Pteraspididae Claypole 1885: 56 (family) †*Pteraspis* Kner 1847 [type genus inferred from the stem, Art. 11.7.1.1; family name sometimes seen as †Pteraspidae]
†Rostraspinae Zych 1931: 86 (subfamily) ? [no valid type genus, not available, Art. 11.7.1.1]
†Skalviaspididae Karatajūtė-Talimaa 1989: 79 (family) †*Skalviaspis* Karatajūtė-Talimaa 1989

Suborder †Pteraspidoidei

Family †Anchipteraspididae Elliott 1984
†Anchipteraspidinae Elliott 1984: 173 (subfamily) †*Anchipteraspis* Elliott 1984

Family †Doryaspididae Heintz 1962

†Doryaspididae Heintz in Tarlo 1962: 265 (family) †*Doryaspis* White 1935
†Lyktaspididae Heintz 1968: 79 (family) †*Lyktaspis* Heintz 1968
Family †Protopteraspididae Novitskaya 1983
†Protopteraspididae Novitskaya 1983: 161 (family) †*Protopteraspis* Leriche 1924
†Gigantaspididae Pernègre & Elliott 2008: 397 (family) †*Gigantaspis* Heintz 1962
Family †Rhinopteraspididae Novitskaya 1983
†Rhinopteraspiden Brotzen 1933: 655 (family) †*Rhinopteraspis* Jaekel 1919 [published not in latinized form after 1899, not available]
†Rhinopteraspididae Novitskaya 1983: 164 (family) †*Rhinopteraspis* Jaekel 1919
Suborder †Psammosteoidei
Family †Drepanaspididae Traquair 1900, spelling in prevailing recent practice
†Drepanaspidae Traquair 1900: 844 (family) †*Drepanaspis* Schlüter 1887 [family name also seen as †Drepanaspididae]
Family †Guerichosteidae Tarlo 1965
†Guerichosteidae Tarlo 1965: 113 (family) †*Guerichosteus* Tarlo 1965
Family †Obrucheviidae Tarlo 1965 (1955), name in prevailing recent practice, Art. 40.2
†Aspidosteidae Berg 1955: 23 (family) †*Aspidosteus* Obruchev 1941 [senior objective synonym of †Obrucheviidae Tarlo 1965]
†Obrucheviidae Tarlo 1965: 117 (family) †*Obruchevia* Whitley 1940 [junior objective synonym of †Aspidosteidae, invalid, Art. 61.3.2, but name in prevailing recent practice Art. 40.2]
Family †Pycnosteidae Tarlo 1962
†Pycnosteidae Tarlo 1962: 261 (family) †*Pycnosteus* Preobrazhensky 1911 [type genus author also seen as Preobrajensky or Preobrashensky]
Family †Psammolepididae Tarlo 1962
†Psammolepididae Tarlo 1962: 261 (family) †*Psammolepis* Agassiz 1844
Family †Psammosteidae Traquair 1896
†Psammosteidae Traquair 1896: 260 (family) †*Psammosteus* Agassiz 1845
†Placosteinae Glinskiy 2018: 231 (subfamily) †*Placosteus* Agassiz 1844

SUPERCLASS †ANASPIDOMORPHI
Order †Jamoytiiformes
Family †Jamoytiidae White 1946
†Jamoytiidae White 1946a: 96 (family) †*Jamoytius* White 1946
Family †Achanarellidae Newman 2002
†Achanarellidae Newman 2002: 934 (family) †*Achanarella* Newman 2002
Family †Euphaneropidae Woodward 1900
†Euphaneropidae Woodward 1900: 418 (family) †*Euphanerops* Woodward 1900 [family name sometimes seen as †Euphaneropsidae or †Euphaneropididae]
†Lasaniidae Goodrich 1909: 202 (family) †*Lasanius* Traquair 1898

CLASS †ANASPIDA
Order †Endeiolepidiformes
Family †Endeiolepididae Stensiö 1939, spelling in prevailing recent practice
†Endeiolepidae Stensiö 1939: 18 (family) †*Endeiolepis* Stensiö 1939 [family name also seen as †Endeiolepididae]

Order †Anaspidiformes
Family †Birkeniidae Traquair 1900
†Birkeniidae Traquair 1900: 837 (family) †*Birkenia* Traquair 1898
Family †Pterygolepididae Obruchev 1964 (1947), name and spelling in prevailing recent practice, Art. 40.2

†Pterolepidae Abel 1919: ix (family) †*Pterolepis* Kiaer 1911 [type genus preoccupied by *Pterolepis* Rambur 1838 in Orthoptera; invalid, Art. 39; family name sometimes seen as †Pterolepididae]

†Pterolepidopidae Fowler 1947: 5 (family) †*Pterolepidops* Fowler 1947 [senior objective synonym of †Pterygolepididae Obruchev 1964]

†Pterygolepididae Obruchev 1964a: 112 (family) †*Pterygolepis* Cossmann 1920 [junior objective synonym of †Pterolepidopidae, but name in prevailing recent practice Art. 40.2; family name also seen as †Pterygolepidae]

Family †Rhyncholepididae Kiaer 1924, spelling in prevailing recent practice

†Rhyncholepidae Kiaer 1924: 129 (family) †*Rhyncholepis* Kiaer 1911 [family name also seen as †Rhyncholepididae]

Family †Pharyngolepididae Kiaer 1924, spelling in prevailing recent practice

†Pharyngolepidae Kiaer 1924: 62 (family) †*Pharyngolepis* Kiaer 1911 [family name also seen as †Pharyngolepididae]

Family †Tahulalepididae Blom, Märss & Miller 2002

†Tahulalepididae Blom, Märss & Miller 2002: 305 (family) †*Tahulalepis* Blom, Märss & Miller 2002

Family †Septentrioniidae Blom, Märss & Miller 2002

†Septentrioniidae Blom, Märss & Miller 2002: 307 (family) †*Septentrionia* Blom, Märss & Miller 2002

Family †Ramsaasalepididae Blom, Märss & Miller 2003

†Ramsaasalepididae Blom, Märss & Miller 2003: 57 (family) †*Ramsaasalepis* Blom, Märss & Miller 2003

SUPERCLASS †THELODONTOMORPHI

CLASS †THELODONTI

Family †Helenolepididae Wilson & Märss 2009

†Helenolepididae Wilson & Märss 2009: 306 (family) †*Helenolepis* Karatajūtė-Talimaa 1978

Family †Longodidae Märss 2006

†Longodidae Märss 2006: 59 (family) †*Longodus* Märss 2006 [family name sometimes seen as †Longodontidae]

Family †Oeseliidae Märss 2005

†Oeseliidae Märss 2005: 183 (family) †*Oeselia* Märss 2005

Order †Archipelepidiformes

Family †Archipelepididae Märss 2001

†Archipelepididae Märss in Soehn, Märss, Caldwell & Wilson 2001: 652 (family) †*Archipelepis* Märss 2001

Family †Boothialepididae Märss 1999

†Boothialepididae Märss 1999: 1082 (family) †*Boothialepis* Märss 1999

Order †Furcacaudiformes

Family †Furcacaudidae Wilson & Caldwell 1998

†Furcacaudidae Wilson & Caldwell 1998: 15 (family) †*Furcacauda* Wilson & Caldwell 1998

Family †Pezopallichthyidae Wilson & Caldwell 1998

†Pezopallichthyidae Wilson & Caldwell 1998: 12 (family) †*Pezopallichthys* Wilson & Caldwell 1998

Family †Nikoliviidae Karatajūtė-Talimaa 1978

†Nikoliviidae Karatajūtė-Talimaa 1978: 140 (family) †*Nikolivia* Karatajūtė-Talimaa 1978

Family †Lanarkiidae Obruchev 1949

†Lanarkiidae Obruchev 1949: 316 (family) †*Lanarkia* Traquair 1898

Family †Drepanolepididae Wilson & Märss 2009

†Drepanolepididae Wilson & Märss 2009: 306 (family) †*Drepanolepi*s Wilson & Caldwell 1998

Family †Barlowodidae Märss, Wilson & Thorsteinsson 2002

†Barlowodidae Märss, Wilson & Thorsteinsson 2002: 113 (family) †*Barlowodus* Märss, Wilson & Thorsteinsson 2002 [family name sometimes seen as †Barlowodontidae]

Family †Apalolepididae Turner 1976

†Apalolepididae Turner 1976: 15 (family) †*Apalolepis* Karatajūtė-Talimaa 1968

Order †Thelodontiformes

Family †Thelodontidae Jordan 1905, name in prevailing recent practice

†Coelolepiden Pander 1856: 64 (family) †*Coelolepis* Pander 1856 [latinized to †Coelolepidae by Woodward 1891a: 157 and by Berg 1940: 363; considered valid with this authorship by Woodward 1891a: 157, by Traquair 1900: 828, by Obruchev 1964a: 42, by Karatajūtė-Talimaa 1968: 34 and by Halstead 1993: 576; family name sometimes seen as †Coelolepididae]

†Thelodontidae Jordan 1905: 573 (family) †*Thelodus* Agassiz 1838 [Jordan 1923: 85 and Burrow *et al.* 2013: 1046 claim †Thelodontidae as the correct family name; family name sometimes seen as †Thelodontididae]

Family †Eestilepididae Märss, Wilson & Thorsteinsson 2002

†Eestilepididae Märss, Wilson & Thorsteinsson 2002: 112 (family) †*Eestilepis* Märss, Wilson & Thorsteinsson 2002

Family †Turiniidae Obruchev 1964

†Turiniidae Camp & Allison 1961: 502 (family) †*Turinia* Traquair 1896 [name only, published after 1960, not available, Art. 13.1.1]

†Turiniidae Obruchev 1964a: 43 (family) †*Turinia* Traquair 1896 [family name sometimes seen as †Turinidae]

Family †Talivaliidae Märss, Wilson & Thorsteinsson 2002

†Talivaliidae Märss, Wilson & Thorsteinsson 2002: 110 (family) †*Talivalia* Märss, Wilson & Thorsteinsson 2002

Order †Sandiviiformes

Family †Sandiviidae Karatajūtė-Talimaa & Märss 2004

†Sandiviinae Karatajūtė-Talimaa 1997b: 6 (subfamily) †*Sandivia* Karatajūtė-Talimaa 1997 [name only, published after 1960, not available, Art. 13.1.1]

†Sandiviidae Karatajūtė-Talimaa & Märss 2004: 21 (family) †*Sandivia* Karatajūtė-Talimaa 1997

Family †Stroinolepididae Märss & Karatajūtė-Talimaa 2004

†Stroinolepididae Märss & Karatajūtė-Talimaa in Karatajūtė-Talimaa & Märss 2004: 22 (family) †*Stroinolepis* Märss & Karatajūtė-Talimaa 2002

Family †Angaralepididae Märss & Karatajūtė-Talimaa 2004

†Angaralepidinae Karatajūtė-Talimaa 1997b: 14 (subfamily) †*Angaralepis* Karatajūtė-Talimaa 1997 [name only, published after 1960, not available, Art. 13.1.1]

†Angaralepididae Märss & Karatajūtė-Talimaa in Karatajūtė-Talimaa & Märss 2004: 22 (family) †*Angaralepis* Karatajūtė-Talimaa 1997

Order †Loganelliiformes

Family †Loganelliidae

†Loganiidae Karatajūtė-Talimaa 1978: 66 (family) †*Logania* Gross 1967 [type genus preoccupied by *Logania* Distant 1884 in Lepidoptera; invalid, Art. 39]

†Loganellidae Halstead 1993: 576 (family) †*Loganellia* Fredholm 1990 [name only, published after 1960, not available, Art. 13.1.1]

†Loganelliinae Karatajūtė-Talimaa 1997b: 14 (subfamily) †*Loganellia* Fredholm 1990 [name only, published after 1960, not available, Art. 13.1.1]
†Loganelliidae Märss, Wilson & Thorsteinsson 2002: 90 (family) †*Loganellia* Fredholm 1990 [not published according to the rules, not available]
†Loganelliidae Karatajūtė-Talimaa & Märss 2004: 23 (family) †*Loganellia* Fredholm 1990 [not published according to the rules, not available]
†Loganelliidae Nelson, Grande & Wilson 2016: 32 (family) †*Loganellia* Fredholm 1990 [not published according to the rules, not available]

Family †Nunavutiidae Märss, Wilson & Thorsteinsson 2002
†Nunavutiidae Märss, Wilson & Thorsteinsson 2002: 94 (family) †*Nunavutia* Märss, Wilson & Thorsteinsson 2002

Order †Shielliiformes

Family †Shieliidae Märss, Wilson & Thorsteinsson 2002
†Shieliidae Märss, Wilson & Thorsteinsson 2002: 95 (family) †*Shielia* Märss 1998

Order †Phlebolepidiformes

Family †Phlebolepididae Berg 1940, spelling in prevailing recent practice
†Phlebolepidae Berg 1940: 363 (family) †*Phlebolepis* Pander 1856 [family name also seen as †Phlebolepididae]

Family †Katoporodidae Märss, Wilson & Thorsteinsson 2002
†Katoporidae Karatajūtė-Talimaa 1970: 40 (family) †*Katoporus* Gross 1967 [type genus preoccupied by *Katoporus* John 1956 in Lepidoptera; invalid, Art. 39]
†Katoporodidae Soehn, Märss, Caldwell & Wilson 2001: 656 (family) †*Katoporodus* Turner in Turner & Peel 1986 [not published according to the rules, not available]
†Katoporodidae Märss, Wilson & Thorsteinsson 2002: 98 (family) †*Katoporodus* Turner & Peel in Peel 1986 [family name sometimes seen as †Katoporididae and †Katoporodontidae]

SUPERCLASS †OSTEOSTRACOMORPHI
CLASS †OSTEOSTRACI
Order †Cephalaspidiformes
Suborder †Ateleaspidoidei

Family †Ateleaspididae Traquair 1900, spelling in prevailing recent practice
†Ateleaspidae Traquair 1900: 834 (family) †*Ateleaspis* Traquair 1900 [family name also seen as †Ateleaspididae or †Ateleasididae]
†Hemicyclaspinae Heintz 1940: 98 (subfamily) †*Hemicyclaspis* Lankester 1870 [family name also seen as †Hemicyclaspididae]
†Hirellidae Heintz 1949: 321 (family) †*Hirella* Cossmann 1920
†Aceraspidae Stensiö 1958: 216 (family) †*Aceraspis* Kiaer 1911 [family name sometimes seen as †Aceraspididae]

Family †Kalanaspididae Tinn & Märss 2018
†Kalanaspididae Tinn & Märss 2018: [3] (family) †*Kalanaspis* Tinn & Märss 2018

Suborder †Cephalaspidoidei

Family †Cephalaspididae Agassiz 1844, spelling in prevailing recent practice
†Cephalaspides Agassiz 1844 Tome II pt. 1: 308 (family) †*Cephalaspis* Agassiz 1835 [family name sometimes seen as †Céphalaspides; latinized to †Cephalaspidini by Bonaparte 1846: 4 (subfamily), latinized to †Cephalaspidae by Owen 1846: 50, Huxley 1861: 38 and Günther 1880: 353, latinized to †Cephalaspides by Giebel 1846: 64 and Giebel 1847: 261, latinized to †Cephalaspida by Asmuss 1856: 10; considered valid with this authorship by Müller 1846: 122, 151, by M'Coy 1848: 6, by Bronn 1849: 656, by Quenstedt 1852: 231, by M'Coy 1855:

598, by Pander 1856: 43, by Bleeker 1859: XI, by Denison 1951: 188 and by Halstead 1993: 578 Art. 11.7.2; not the order Cephalaspidea Fischer 1883 in Mollusca]

Family †Parameteoraspididae Afanassieva 1991

†Parameteoraspididae Afanassieva 1991: 79 (family) †*Parameteoraspis* Blieck, Goujet & Janvier 1987

†Escuminaspididae Arsenault & Janvier 1995: 20 (family) †*Escuminaspis* Ørvig 1957

Family †Superciliaspididae Scott & Wilson 2014

†Superciliaspididae Scott & Wilson 2014: 169 (family) †*Superciliaspis* Adrain & Wilson 1994

Suborder †Scolenaspidoidei

Family †Scolenaspididae Afanassieva 1991

†Scolenaspididae Afanassieva 1991: 91 (family) †*Scolenaspis* Jarvik 1954

Family †Zenaspididae Stensiö 1958, spelling in prevailing recent practice

†Zenaspididae Stensiö 1958: 215 (family) †*Zenaspis* Lankester 1870 [family name also seen as †Zenaspidae]

Order †Thyestiformes

Family †Procephalaspididae Stensiö 1958

†Procephalaspididae Stensiö 1958: 215 (family) †*Procephalaspis* Denison 1951

Family †Thyestidae Rohon 1892

†Thyestidae Rohon 1892: 85 (family) †*Thyestes* Eichwald 1854 [Pierce in Fowler 1947: 4 and Fowler 1965a: 179 used †Thyesteidae; family name sometimes seen as †Thyestiidae]

Family †Witaaspididae Afanassieva 1991

†Witaaspididae Afanassieva 1991: 67 (family) †*Witaaspis* Robertson 1939

Family †Trematapididae Woodward 1891, spelling in prevailing recent practice

†Trematapidae Woodward 1891a: 201 (family) †*Trematapis* Schmidt 1866 [family name also seen as †Trematapididae]

†Odontotodontidae Jordan 1905: 506 (family) †*Odontotodus* Pander 1856

†"new family" Patten 1931: 672 (family) †*Dartmuthia* Patten 1931 [as a new family, but without the name, not available]

†Dartmuthiidae Robertson 1935: 282 (family) †*Dartmuthia* Patten 1931

†Oeselaspidae Robertson 1935: 282 (family) †*Oeselaspis* Robertson 1935 [family name sometimes seen as †Oeselaspididae or as subfamily †Oeselaspidinae]

†Didymaspidae Berg 1940: 357 (family) †*Didymaspis* Lankester 1867 [family name sometimes seen as †Didymaspididae or as subfamily †Didymaspidinae]

†Sclerodidae Berg 1940: 357 (family) †*Sclerodus* Agassiz 1839 [corrected to †Sclerodontidae by Fowler 1947: 4, confirmed by Romer 1966: 347 and by Halstead 1993: 578]

†Stigmolepidae Fowler 1947: 4 (family) †*Stigmolepis* Pander 1856

†Timanaspidinae Obruchev in Kossovoy & Obruchev 1962: 1149 (subfamily) †*Timanaspis* Obruchev 1962 [English translation: 108; also as a new family, †Timanaspididae, in Halstead 1993: 578]

†Tannuaspididae Obruchev 1964a: 97 (family) †*Tannuaspis* Obruchev 1956

†Tyriaspididae Halstead 1993: 578 (family) †*Tyriaspis* Heintz 1967 [name only, published after 1960, not available, Art. 13.1.1]

†Aestiaspidinae Afanassieva 1996: 567 (subfamily) †*Aestiaspis* Janvier & Lelièvre 1994 [English edition: 69]

Family †Kiaeraspididae Stensiö 1932, spelling in prevailing recent practice

†Kiaeraspinae Stensiö 1932b: 75 (subfamily) †*Kiaeraspis* Stensiö 1927 [family name also seen as †Kiaeraspididae]

†Nectaspididae Stensiö 1958: 220 (family) †*Nectaspis* Wängsjö 1952 [changed to †Nectaspidae by Fowler 1965b: 348]
†Axinaspididae Janvier 1981: 115 (family) †*Axinaspis* Wängsjö 1952
†Acrotomaspididae Janvier 1981: 115 (family) †*Acrotomaspis* Wängsjö 1952 [also as new subfamily †Acrotomaspidinae]

Order †Benneviaspidiformes
Family †Mimetaspididae Stensiö 1958
†Mimetaspididae Stensiö 1958: 213 (family) †*Mimetaspis* Stensiö 1958
Family †Pattenaspididae Stensiö 1958
†Pattenaspididae Stensiö 1958: 216 (family) †*Pattenaspis* Stensiö 1958 [changed to †Pattenaspidae by Fowler 1965a: 177]
Family †Benneviaspididae Denison 1951, spelling in prevailing recent practice
†Benneviaspinae Denison 1951: 190 (subfamily) †*Benneviaspis* Stensiö 1927 [family name also seen as †Benneviaspididae]
Family †Boreaspididae Berg 1955, spelling in prevailing recent practice
†Boreaspidae Berg 1955: 17 (family) †*Boreaspis* Stensiö 1927 [corrected to †Boreaspididae by Stensiö 1958: 213]
†Hoelaspididae Stensiö 1958: 214 (family) †*Hoelaspis* Stensiö 1927

CLASS †GALEASPIDOMORPHI
Incertae sedis:
†Hyperaspididae Pan 1992: 64 (family) †*Hyperaspis* Pan 1992 [type genus preoccupied by *Hyperaspis* Redtenbacher 1843 in Coleoptera Coccinellidae; invalid, Art. 39]

Order †Hanyangaspidiformes
Family †Hanyangaspididae Pan & Liu 1975, spelling in prevailing recent practice
†Hanyangaspidae Pan & Liu in Pan, Wang & Liu 1975: 147 (family) †*Hanyangaspis* Pan & Liu 1975 [family name also seen as †Hanyangaspididae]
Family †Xiushuiaspididae Pan & Wang 1983, spelling in prevailing recent practice
†Xiushuiaspidae Pan & Wang 1983: 505 (family) †*Xiushuiaspis* Pan & Wang 1983 [family name also seen as †Xiushuiaspididae]
Family †Dayongaspididae Pan & Zeng 1985, spelling in prevailing recent practice
†Dayongaspidae Pan & Zeng 1985: 207, 212 (family) †*Dayongaspis* Pan & Zeng 1985 [family name also seen as †Dayongaspididae]

Order †Eugaleaspidiformes
Family †Sinogaleaspididae Pan & Wang 1980, spelling in prevailing recent practice
†Sinogaleaspidae Pan & Wang 1980: 10 (family) †*Sinogaleaspis* Pan & Wang 1980 [family name also seen as †Sinogaleaspididae]
Family †Eugaleaspididae Liu 1980, spelling in prevailing recent practice
†Galeaspidae Liu 1965: 125, 130 (family) †*Galeaspis* Liu 1965 [type genus preoccupied by †*Galeaspis* Ivshin 1955 in Trilobita; invalid, Art. 39]
†Liuaspidinidae [†Liuaspididae] Whitley 1976: 48 (family) †*Liuaspis* Whitley 1976 [type genus preoccupied by *Liuaspis* Borchsenius 1960 in Hemiptera; invalid, Art. 39]
†Eugaleaspidae Liu 1980: 256 (family) †*Eugaleaspis* Liu 1980 [family name also seen as †Eugaleaspididae]
†Tridensaspidae Liu 1986: 2, 9 (family) †*Tridensaspis* Liu 1986 [family name sometimes seen as †Tridensaspididae]

Superorder †Polybranchiaspidida
Incertae sedis:
Family †Geraspididae Pan & Chen 1993
†Geraspididae Pan & Chen 1993: 226, 230 (family) †*Geraspis* Pan & Chen 1993

Order †Polybranchiaspidiformes
Family †Pentathyraspididae Pan 1992, spelling in prevailing recent practice
†Pentathyraspididae Pan 1992: 58 (family) †*Pentathyraspis* Pan 1992 [family name also seen as †Pentathyraspidae]
†Microhoplonaspididae Pan 1992: 60 (family) †*Microhoplonaspis* Pan 1992
Family †Duyunolepididae Pan & Wang 1982, spelling in prevailing recent practice
†Duyunoaspidae Pan & Wang 1978: 301 (family) †*Duyunaspis* Pan & Wang 1978 [type genus preoccupied by †*Duyunaspis* Zhang & Qian 1977 in Trilobita; invalid, Art. 39]
†Duyunolepidae Pan & Wang 1982: 370 (family) †*Duyunolepis* Pan & Wang 1982 [family name also seen as †Duyunolepididae]
Family †Polybranchiaspididae Liu 1965, spelling in prevailing recent practice
†Polybranchiaspidae Liu 1965: 128, 133 (family) †*Polybranchiaspis* Liu 1965 [family name also seen as †Polybranchiaspididae]
†Cyclodiscaspidae Liu 1975: 211 (family) †*Cyclodiscaspis* Liu 1975 [family name sometimes seen as †Cyclodiscaspididae]

Order †Zhaotongaspidiformes
Family †Zhaotongaspididae Wang & Zhu 1994
†Zhaotongaspididae Wang & Zhu 1994: 234 (family) †*Zhaotongaspis* Wang & Zhu 1994

Order †Huananaspidiformes
Family †Sanchaspididae Pan & Wang 1981, spelling in prevailing recent practice
†Sanchaspidae Pan & Wang 1981: 114, 120 (family) †*Sanchaspis* Pan & Wang 1981 [family name also seen as †Sanchaspididae]
Family †Gantarostrataspididae Wang & Wang 1992, spelling in prevailing recent practice
†Gantarostrataspidae Wang & Wang 1992: 186, 192 (family) †*Gantarostrataspis* Wang & Wang 1992 [family name also seen as †Gantarostrataspididae]
Family †Sanqiaspididae Liu 1975, spelling in prevailing recent practice
†Sanqiaspidae Liu 1975: 211 (family) †*Sanqiaspis* Liu 1975 [family name also seen as †Sanqiaspididae]
Family †Huananaspididae Liu 1973, spelling in prevailing recent practice
†Huananaspidae Liu 1973: 133 (family) †*Huananaspis* Liu 1973 [family name also seen as †Huananaspididae]
†Lungmenshanaspididae Pan 1992: 45 (family) †*Lungmenshanaspis* Pan & Wang 1975
†Macrothyraspididae Pan 1992: 49 (family) †*Macrothyraspis* Pan 1992
†Qingmenaspididae Halstead 1993: 580 (family) †*Qingmenaspis* Pan & Wang 1981 [name only, published after 1960, not available, Art. 13.1.1]
Family †Nanpanaspididae Liu 1975, spelling in prevailing recent practice
†Nanpanaspidae Liu 1975: 203 (family) †*Nanpanaspis* Liu 1965 [family name also seen as †Nanpanaspididae]

Order †Pituriaspidiformes
Family †Pituriaspididae
†Pituriaspida Young 1991: 86 (Class) [no family-group name]

†Pituriaspididae Davis 1994: 8 (family) †*Pituriaspis* Young 1991 [name only, published after 1960, not available, Art. 13.1.1]

†Neeyambaspididae Davis 1994: 8 (family) †*Neeyambaspis* Young 1991 [name only, published after 1960, not available, Art. 13.1.1]

SUPERCLASS GNATHOSTOMATA

CLASS †PLACODERMI

Incertae sedis:

†Cratoselachiidae Woodward 1932: 60 (family) †*Cratoselache* Woodward 1924 [family name sometimes seen as †Cratoselachidae]

Order †Brindabellaspida

Family †Brindabellaspidae

†Brindabellaspidae Gardiner 1993a: 583 (family) †*Brindabellaspis* Young 1980 [name only, published after 1960, not available, Art. 13.1.1]

†Brindabellaspididae Davis 1994: 10 (family) †*Brindabellaspis* Young 1980 [name only, published after 1960, not available, Art. 13.1.1]

Order †Stensioelliformes

Family †Stensioellidae Berg 1940

†Stensiöellidae Berg 1940: 370 (family) †*Stensioella* Broili 1933 [type genus as †*Stensiöella*, name must be corrected Art. 32.5.3; family name sometimes seen as †Stensiollidae]

Order †Pseudopetalichthyiformes

Family †Paraplesiobatidae Berg 1940, spelling in prevailing recent practice

†Paraplesiobatidae Berg 1940: 363 (family) †*Paraplesiobatis* Broili 1933 [family name also seen as †Paraplesiobatididae; correct stem would be Paraplesiobatid-, no correction needed Art. 29.3.1.1]

†Pseudopetalichthyidae Gregory 1973: 702, 718 (family) †*Pseudopetalichthys* Moy-Thomas 1939 [downgraded from ordinal series?; name only, published after 1960, not available, Art. 13.1.1]

†Nessariostomidae Gregory 1973: 718 (family) †*Nessariostoma* Broili 1933 [name only, published after 1960, not available, Art. 13.1.1]

†Pseudopetalichthyidae Goujet 1984a: 213 (family) †*Pseudopetalichthys* Moy-Thomas 1939 [name only, published after 1960, not available, Art. 13.1.1]

Order †Acanthothoraci

Incertae sedis:

†Weejasperaspidae White 1978: 155 (family) †*Weejasperaspis* White 1978 [family name sometimes seen as †Weejasperaspididae]

Family †Radotinidae Arambourg 1958

†Radotinidae Arambourg 1958: 2003 (family) †*Radotina* Gross 1950 [also as new family in Obruchev 1964b: 132]

Family †Kolymaspididae Bystrow 1956, spelling in prevailing recent practice

†Kolymaspidae Bystrow 1956: 7 (family) †*Kolymaspis* Bystrow 1956 [family name also seen as †Kolymaspididae]

Family †Palaeacanthaspidae Stensiö 1944, spelling in prevailing recent practice

†Palaeacanthaspidae Stensiö 1944: 70 (family) †*Palaeacanthaspis* Brotzen 1934 [family name also seen as †Palaeacanthaspididae or †Palaeacanthaspidea]

Family †Hagiangellidae Dupret, Phuong, Thanh, Phong, Janvier & Clément 2011

†Hagiangellidae Dupret, Phuong, Thanh, Phong, Janvier & Clément 2011: 532 (family) †*Hagiangella* Janvier 2005

Order †Rhenanida

Family †Asterosteidae Woodward 1891

†Asterosteidae Woodward 1891a: 312 (family) †*Asterosteus* Newberry 1875

†Gemuendinidae Traquair 1903: 734 (family) †*Gemuendina* Traquair 1903

†Jagorinidae Woodward 1932: 59 (family) †*Jagorina* Jaekel 1921

†ANTIARCHI

Incertae sedis:

†Minicranidae ? Jia 2008: 14 (family) †*Minicrania* Zhu & Janvier 1996 [correct stem would be Minicrani-; unavailable publication, family-group name not available]

Family †Liujiangolepidae Wang 1987, spelling in prevailing recent practice

†Liujiangolepidae Wang 1987: 82, 88 (family) †*Liujiangolepis* Wang 1987 [family name also seen as †Liujiangolepididae]

Family †Silurolepidae Zhang, Wang, Wang, Wang & Zhu 2010, spelling in prevailing recent practice

†Silurolepidae Zhang, Wang, Wang, Wang & Zhu 2010: 129 (family) †*Silurolepis* Zhang *et al.* 2010 [family name also seen as †Silurolepididae]

Order †Yunnanolepidiformes

Family †Yunnanolepididae Gross 1965, spelling in prevailing recent practice

†Yunnanolepidinae Gross 1965: 77 (subfamily) †*Yunnanolepis* Liu 1963 [also as a new family in Zhang 1978b: 148; family name also seen as †Yunnanolepidae]

Family †Chuchinolepididae Zhang 1978, spelling in prevailing recent practice

†Chuchinolepidae Zhang 1978a: 296 (family) †*Chuchinolepis* Zhang 1978 [family name also seen as †Chuchinolepididae; author also seen as Chang]

†Qujinolepidae Zhang 1978b: 173 (family) †*Qujinolepis* Zhang 1978 [family name sometimes seen as †Qujinolepididae]

†Procondylolepidae Zhang 1984: 82 (family) †*Procondylolepis* Zhang 1984

Order Sinolepiformes

Family †Sinolepidae Liu & Pan 1958, spelling in prevailing recent practice

†Sinolepidae Liu & Pan 1958: 8 (family) †*Sinolepis* Liu & Pan 1958 [family name also seen as †Sinolepididae]

†Grenfellaspididae Davis 1994: 18 (family) †*Grenfellaspis* Ritchie, Wang, Young & Zhang 1992 [name only, published after 1960, not available, Art. 13.1.1]

Order †Asterolepidiformes

Family †Asterolepididae Traquair 1888, name and spelling in prevailing recent practice

†Chelonichthyda Asmuss 1856: 10 (family) †*Chelonichthys* Agassiz 1844 [type genus inferred from the stem, Art. 11.7.1.1]

†Asterolepidae Traquair 1888a: 485 (family) †*Asterolepis* Eichwald 1840 [family name also seen as †Astrolepidae, †Astrolepididae and †Asterolepididae]

Family †Remigolepididae Stensiö 1931, spelling in prevailing recent practice

†Remigolepidae Stensiö 1931: 156 (family) †*Remigolepis* Stensiö 1931 [family name also seen as †Remigolepididae]

Family †Lepadolepididae Berg 1955, spelling in prevailing recent practice

†Ceratolepidae Gross 1933: 16 (family) †*Ceratolepis* Gross 1933 [type genus preoccupied by *Ceratolepis* Chapuis 1873 in Coleoptera; invalid, Art. 39]

†Lepadolepinae Berg 1955: 38 (subfamily) †*Lepadolepis* White & Moy-Thomas 1940 [senior objective synonym of †Ceratolepichthyinae Fowler 1965; family name also seen as †Lepadolepididae]

†Ceratolepichthyinae Fowler 1965b: 347 (subfamily) †*Ceratolepichthys* Whitley 1940 [junior objective synonym of †Lepadolepinae Berg 1955, invalid, Art. 61.3.2]

Family †Pterichthyodidae Stensiö 1948

†Pterichthidae M'Coy in Sedgwick & M'Coy 1855: 579 (family) †*Pterichthys* Agassiz 1841 [type genus preoccupied by *Pterichthys* Swainson 1839 in fishes Apistidae; invalid, Art. 39; family name sometimes seen as †Pterichthyidae]

†Ceraspidae Woodward 1891a: 233 (family) †*Ceraspis* Schlüter 1887 [type genus preoccupied by *Ceraspis* Le Peletier & Audinet Serville 1825 in Coleoptera; invalid, Art. 39; family name sometimes seen as †Ceraspididae]

†Byssacanthidae Gross 1937: 19 (family) †*Byssacanthus* Agassiz 1845 [type genus inferred from the stem, Art. 11.7.1.1; name only, but used as valid by Romer 1945: 575 and (as subfamily) by Stensiö 1948: 219 and by Gross 1965: 15 Art. 13.2.1; subfamily name sometimes seen as †Byssacanthidinae]

†Cornaspidae Whitley 1940: 242 (family) †*Cornaspis* Whitley 1940 [name only, but as substitute for †Ceraspidae; also used as valid by Fowler 1965b: 346 Art. 13.2.1; senior objective synonym of †Grossaspidae Stensiö 1959]

†Pterichthyodidae Stensiö 1948: 38 (family) †*Pterichthyodes* Bleeker 1859

†Gerdalepinae Stensiö 1948: 219 (subfamily) †*Gerdalepis* Hoffmann 1916 [family name sometimes seen as †Gerdalepididae]

†Grossaspidae Stensiö 1959: 7 (family) †*Grossaspis* White & Moy-Thomas 1940 [name only; junior objective synonym of †Cornaspidae Whitley 1940, invalid, Art. 61.3.2]

Family †Asperaspididae Moloshnikov 2012

†Asperaspididae Moloshnikov 2012: 1124 (family) †*Asperaspis* Panteleyev 1993

Family †Pambulaspidae Young 2010

†Pambulaspididae Davis 1994: 52 (family) †*Pambulaspis* Young 1983 [name only, published after 1960, not available, Art. 13.1.1]

†Pambulaspidae Young 2010: 85 (family) †*Pambulaspis* Young 1983

Order †Bothriolepidiformes

Family †Dianolepididae Long 1983, name in prevailing recent practice

†Wudinolepidae Chang 1965: 1, 6 (family) †*Wudinolepis* Chang 1965 [family name sometimes seen as †Wudinolepididae]

†Dianolepididae Long 1983a: 318 (family) †*Dianolepis* Chang 1965

†Jiangxilepidae Zhang & Liu 1991: 196 (family) †*Jiangxilepis* Zhang & Liu 1991 [family name sometimes seen as †Jiangxilepididae]

†Tenizolepidinae Moloshnikov 2012: 1131 (subfamily) †*Tenizolepis* Malinovskaja 1977

Family †Microbrachiidae Stensiö 1931

†Microbrachiinae Stensiö 1931: 157 (subfamily) †*Microbrachius* Traquair 1888

Family †Bothriolepididae Cope 1886

†Bothriolepididae Cope 1886: 1031 (family) †*Bothriolepis* Eichwald 1840 [family name sometimes seen as †Bothriolepidae]

†Monarolepidinae Moloshnikov 2012: 1180 (subfamily) †*Monarolepis* Young 1988

†Livnolepidinae Moloshnikov 2012: 1180 (subfamily) †*Livnolepis* Moloshnikov 2008

Family †Tubalepididae Moloshnikov 2011

†Tubalepididae Moloshnikov 2011: 303 (family) †*Tubalepis* Panteleyev 2003

Order †Macropetalichthyiformes

Family †Macropetalichthyidae Eastman 1898

†Acanthaspidae Woodward 1891: 3 (family) †*Acanthaspis* Newberry 1875 [type genus preoccupied by *Acanthaspis* Amyot & Audinet Serville 1843 in Hemiptera; invalid, Art. 39]

†Macropetalichthidae Eastman 1898: 372 (family) †*Macropetalichthys* Norwood & Owen 1846 [correct stem is Macropetalichthy-]

†Polyaspidae Heintz 1929: 25, 69 (family) ? †*Polyaspis* ?? [no stem of the type genus, not available, Art. 11.7.1.1; also *Polyaspis* preoccupied by Berlese 1882 in mites Acari, then invalid, Art. 39]

†Lunaspidae Gross 1933: 28 (family) †*Lunaspis* Broili 1929 [name only, but used as valid by Fowler 1965b: 356 Art. 13.2.1]

†Heintzaspidae Strand 1942: 384 (family) †*Heintzaspis* Strand 1932

Family †Quasipetalichthyidae Liu 1991

†Quasipetalichthyidae Liu 1991: 167 (family) †*Quasipetalichthys* Liu 1973

Order †Ptyctodontiformes

Family †Ptyctodontidae Woodward 1891

†Ptyctodontidae Woodward 1891a: 37 (family) †*Ptyctodus* Pander 1858 [family name sometimes seen as †Pyctodontidae]

†Rhynchodonta Jaekel 1907: 186 (Gruppe?) ? [not †*Rhynchodus* Newberry 1873] [no stem of the type genus, not available, Art. 11.7.1.1]

†Aulacosteidae Fowler 1947: 6 (family) †*Aulacosteus* Eichwald 1846

†ARTHRODIRA

Incertae sedis:

†Mediaspidae Heintz 1929: 25, 66 (family) †*Mediaspis* Heintz 1929 [family name sometimes seen as †Mediaspididae]

†Pholidosteiden Jaekel 1907: 176 (family?) †*Pholidosteus* Jaekel 1907 [published not in latinized form after 1899, not available]

†Pholidosteidae Gross 1932: 11 (family) †*Pholidosteus* Jaekel 1907

†Prescottaspidae White 1961: 297 (family) †*Prescottaspis* White 1961 [corrected by Miles 1969: 125 to †Prescottaspididae]

Order †Actinolepidiformes

Family †Antarctaspididae White 1968, spelling in prevailing recent practice

†Antarctaspidae White 1968: 18 (family) †*Antarctaspis* White 1968 [family name also seen as †Antarctaspididae]

Family †Wuttagoonaspididae Ritchie 1973, spelling in prevailing recent practice

†Wuttagoonaspidae Ritchie 1973: 70 (family) †*Wuttagoonaspis* Ritchie 1973 [family name also seen as †Wuttagoonaspididae]

Family †Kujdanowiaspididae Berg 1955, spelling in prevailing recent practice

†Kujdanowiaspidae Berg 1955: 41 (family) †*Kujdanowiaspis* Stensiö 1942 [family name also seen as †Kujdanowiaspididae]

Family †Gavinaspididae Dupret & Zhu 2008

†Gavinaspididae Dupret & Zhu 2008: 259 (family) †*Gavinaspis* Dupret & Zhu 2008

Family †Phyllolepididae Woodward 1891, spelling in prevailing recent practice

†Phyllolepidae Woodward 1891a: 313 (family) †*Phyllolepis* Agassiz 1844 [family name also seen as †Phyllolepididae]

Family †Actinolepididae Gross 1940, spelling in prevailing recent practice
†Actinolepidae Gross 1940: 54 (family) †*Actinolepis* Agassiz 1845 [family name also seen as †Actinolepididae]

Order †Phlyctaeniiformes
Suborder †Phlyctaenioidei
Family †Phlyctaeniidae Fowler 1947 (1929), name in prevailing recent practice, Art. 40.2
†Phlyctaenaspiden Jaekel 1903: 58 (? family) †*Phlyctaenaspis* Traquair 1890 [published not in latinized form after 1899, not available]
†Phlyctaenaspiden Jaekel 1907: 176 (? family) †*Phlyctaenaspis* Traquair 1890 [published not in latinized form after 1899, not available]
†Phlyctaenaspi Jaekel 1911: 46 (suborder) [no family-group name]
†Monaspidae Heintz 1929: 25, 26 (family) †*Monaspis* Heintz 1929 [type genus preoccupied by *Monaspis* Smith 1849 in Reptilia; invalid, Art. 39]
†Phlyctaenaspinae Hay 1929: 651 (subfamily) †*Phlyctaenaspis* Traquair 1890 [name only, but in reference to †phlyctaenaspids Stensiö 1925, and used as valid by Romer 1945: 574 and by Romer 1966: 348 Art. 13.2.1; senior objective synonym of †Phlyctaeniidae]
†Jaekelaspidae Heintz 1932: 210 (family) †*Jaekelaspis* Heintz 1929
†Heterogaspidae Strand 1933: 120 (family) †*Heterogaspis* Strand 1932
†Phlyctaeniidae Fowler 1947: 5 (family) †*Phlyctaenius* Traquair 1890 [junior objective synonym of †Phlyctaenaspinae, invalid, Art. 61.3.2, but name in prevailing recent practice Art. 40.2; †*Phlyctaenius* Traquair not preoccupied by †*Phlyctaenium* Zittel 1879]
†Williamsaspidae White 1952: 254 (family) †*Williamsaspis* White 1952 [family name sometimes seen as †Williamsaspididae]
†Aggeraspididae Miles 1969: 125, 145 (family) †*Aggeraspis* Gross 1962 [name only, published after 1960, not available, Art. 13.1.1]
Family †Arctolepididae Heintz 1937, spelling in prevailing recent practice
†Arctolepidae Heintz 1937: 14 (family) †*Arctolepis* Eastman 1908 [family name also seen as †Arctolepididae]
Family †Gronlandaspididae Obruchev 1964
†Groenlandaspididae Obruchev 1964b: 143 (family) †*Gronlandaspis* Heintz 1932 [type genus as †*Groenlandaspis*, name must be corrected Art. 32.5.3 and 32.5.2.1; type genus corrected to †*Gronlandaspis* by Snitting & Blom 2009: 269]
†Tiaraspididae Miles 1969: 125, 145 (family) †*Tiaraspis* Gross 1962 [name only, published after 1960, not available, Art. 13.1.1; family name sometimes seen as †Tiaraspidae]
Family †Arctaspididae Goujet 1984
†Arctaspididae Goujet 1978 (family) †*Arctaspis* Heintz 1929 [unpublished PhD thesis, not available]
†Arctaspididae Goujet 1984b: 251 (family) †*Arctaspis* Heintz 1929
Family †Holonematidae Obruchev 1933, spelling in prevailing recent practice
†Holonemidae Obruchev 1933: 97 (family) †*Holonema* Newberry 1890 [family name also seen as †Holonematidae]
Suborder †Brachythoraci
Family †Homostiidae Eastman 1907
†Homosteiden Jaekel 1903: 58 (? family) †*Homostius* Asmuss 1856 [type genus as †*Homosteus*; published not in latinized form after 1899, not available]
†Homosteidae Eastman 1907: 23 (family) †*Homostius* Asmuss 1856 [type genus as †*Homosteus*, name must be corrected Art. 32.5.3; corrected to †Homostiidae by Heintz 1934: 85, confirmed by Camp & Vanderhoof 1940: 489]
†Euleptaspididae Obruchev 1964b: 144 (family) †*Euleptaspis* White & Moy-Thomas 1940

†Burrinjucosteidae White 1978: 177 (family) †*Burrinjucosteus* White 1978
†Goodradigbeeonidae White 1978: 162 (family) †*Goodradigbeeon* White 1978
Family †Buchanosteidae White 1952
†Buchanosteidae White 1952: 266 (family) †*Buchanosteus* Stensiö 1945
†Taemasosteidae White 1952: 276 (family) †*Taemasosteus* White 1952
Family †Parabuchanosteidae Long, Mark-Kurik & Young 2014
†Parabuchanosteidae Long, Mark-Kurik & Young 2014: 37 (family) †*Parabuchanosteus* White & Toombs 1972
Family †Gemuendenaspidae Miles 1962
†Gemuendenaspidae Miles 1962: 74 (family) †*Gemuendenaspis* Miles 1962 [family name sometimes seen as †Gemuendenaspididae]

†Coccosteomorphi
Family †Coccosteidae Asmuss 1856
†Coccosteida Asmuss 1856: 6 (family) †*Coccosteus* Agassiz 1841 [type genus inferred from the stem, Art. 11.7.1.1]
? †Solenosteidae Heintz 1932: 210 (family) ? †"*Solenosteus*" [no valid type genus, not available, Art. 11.7.1.1] [family uncertain]
†Millerosteidae Stensiö 1963: 392 (family) †*Millerosteus* Stensiö 1959
Family †Torosteidae Gardiner & Miles 1990
†Torosteidae Gardiner & Miles 1990: 159 (family) †*Torosteus* Gardiner & Miles 1990
Family †Trematosteidae Gross 1932
†Trematosteidae Gross 1932: 30 (family) †*Trematosteus* Gross 1932
Family †Camuropiscidae Dennis & Miles 1979
†Camuropiscidae Dennis & Miles 1979: 297 (family) †*Camuropiscis* Dennis & Miles 1979
†Incisoscutidae Denison 1984: 396 (family) †*Incisoscutum* Dennis & Miles 1981 [also as a new family in Gardiner 1993a: 587]
Family †Mylostomatidae Woodward 1891
†Mylostomatidae Woodward 1891a: 315 (family) †*Mylostoma* Newberry 1883 [family name sometimes seen as †Mylostomidae]
†Trachosteidae Dean 1901: 120 (family) †*Trachosteus* Newberry 1890
†Kendrickichthyidae Gardiner 1993a: 587 (family) †*Kendrickichthys* Dennis & Miles 1980 [name only, published after 1960, not available, Art. 13.1.1]
Family †Bungartiidae Denison 1975
†Bungartiidae Denison 1975: 19 (family) †*Bungartius* Dunkle 1947

†Pachyosteomorphi
Family †Rhachiosteidae Stensiö 1963
†Rhachiosteidae Stensiö 1963: 392 (family) †*Rhachiosteus* Gross 1938 [family name sometimes seen as †Rachiosteidae]
Family †Panxiosteidae Wang 1979
†Panxiosteidae Wang 1979: 179 (family) †*Panxiosteus* Wang 1979
†Plourdosteidae Vézina 1990: 677 (family) †*Plourdosteus* Ørvig 1951
Family †Dunkleosteidae Stensiö 1963, name in prevailing recent practice
†Heterosteiden Jaekel 1903: 58 (family) † *Heterostius* Asmuss 1856 [type genus as †*Heterosteus*; published not in latinized form after 1899, not available]
†Heterostii Jaekel 1919: 98 (no family-group name)
†Heterosteidae Gross 1932: 55 (family) †*Heterostius* Asmuss 1856 [type genus as †*Heterosteus*, name must be corrected Art. 32.5.3; corrected to †Heterostiidae by Gross 1933: 38, confirmed by Berg 1940: 368]

†Ichthyosauroididae Fowler 1947: 5 (family) †*Ichthyosauroides* Kutorga 1837
†Dunkleosteidae Stensiö 1963: 387 (family) †*Dunkleosteus* Lehman 1956
†Hussakofiidae Obruchev 1964b: 148 (family) †*Hussakofia* Cossman 1910
†Aspinothoracidi
Family †Dinichthyidae Newberry 1885
†Dinichthidae Newberry 1885: 28 (family) †*Dinichthys* Newberry 1868 [corrected to †Dinichthyidae by Cope 1889: 856; correct stem is Dinichthy-]
Family †Brachydeiridae Gross 1932
†Auchenosteidae Jaekel 1911: 48 (family) †*Auchenosteus* Jaekel 1919 [no valid type genus, not available, Art. 11.7.1.1]
†Brachydiridae Gross 1932: 34 (family) †*Brachydeirus* Koenen 1880 [type genus as †*Brachydirus*, name must be corrected Art. 32.5.3; corrected to †Brachydeiridae by Fowler 1947: 6, confirmed by Fowler 1965b: 378]
Family †Braunosteidae Stensiö 1963
†Braunosteidae Stensiö 1963: 387 (family) †*Braunosteus* Stensiö 1959 [“represents a separate family”, but not named by Stensiö 1959: 113]
Family †Hadrosteidae Gross 1932
†Hadrosteidae Gross 1932: 26 (family) †*Hadrosteus* Gross 1932 [family name sometimes seen as †Hadrostiidae]
Family †Selenosteidae Dean 1901
†Selenosteidae Dean 1901: 120 (family) †*Selenosteus* Dean 1901
†Pachyosteidae Gross 1932: 16 (family) †*Pachyosteus* Jaekel 1903
†Rhinosteidae Stensiö 1963: 387 (family) †*Rhinosteus* Jaekel 1911
Family †Leiosteidae Stensiö 1963
? †Leiosteidae Jaekel 1919: 106 (family) ? †*Leiosteus* Gross 1932 [type genus inferred from the stem, Art. 11.7.1.1; no valid type genus, not available, Art. 11.7.1.1] [family uncertain]
†Leiosteidae Stensiö 1963: 387 (family) †*Leiosteus* Gross 1932
†Erromenosteidae Obruchev 1964b: 150 (family) †*Erromenosteus* Jaekel 1919
Family †Leptosteidae Gross 1932
†Leptosteidae Jaekel 1911: 48 (family) †*Leptosteus* Jaekel 1919 [no valid type genus, not available, Art. 11.7.1.1]
†Leptosteidae Gross 1932: 27 (family) †*Leptosteus* Jaekel 1919
Family †Titanichthyidae Dean 1901
†Titanichthyidae Dean 1901: 120 (family) †*Titanichthys* Newberry 1885
†Leiosteiden Jaekel 1919: 90 (family) †*Oxyosteus* Jaekel 1911 [no stem of type genus, not available, Art. 11.7.1.1; and published not in latinized form after 1899, not available]
†Oxyosteidae Gross 1932: 39 (family) †*Oxyosteus* Jaekel 1911
†Synaucheniidae Gross 1932: 44 (family) †*Synauchenia* Jaekel 1919 [name only, but used as valid by Gross 1933: 45 (as †Synauchenidae), by Berg 1940: 368 and by Fowler 1965b: 379 Art. 13.2.1]
Family †Bulbocanthidae Young & Goujet 2003
†Bulbocanthidae Young & Goujet 2003: 24 (family) †*Bulbocanthus* Bryant 1932

CLASS †ACANTHODII
Incertae sedis:
†Onchidae Jordan 1923: 92 (family) †*Onchus* Agassiz 1837

Family †Machaeracanthidae Burrow & Young 2005
†Machaeracanthidae Burrow & Young 2005: 17 (family) †*Machaeracanthus* Newberry 1857

Family †Sinacanthidae Zhu 1998
†Sinacanthidae Zhu 1998: 161 (family) †*Sinacanthus* Pan 1959
Family †Tchunacanthidae Karatajūtė-Talimaa & Smith 2003
†Lenacanthidae Karatajūtė-Talimaa & Smith 2003: 281 (family) †*Lenacanthus* Karatajūtė-Talimaa & Smith 2003
†Tchunacanthidae Karatajūtė-Talimaa & Smith 2003: 286 (family) †*Tchunacanthus* Karatajūtė-Talimaa & Smith 2003 [Valiukevičius & Burrow 2005: 642 gave precedence to Tchunacanthidae over Lenacanthidae]

Order †Diplacanthiformes
Family †Culmacanthidae Long 1983
†Culmacanthidae Long 1983b: 52 (family) †*Culmacanthus* Long 1983
Family †Diplacanthidae Bleeker 1859
†Diplacanthidae Bleeker 1859: XVII (family) †*Diplacanthus* Agassiz 1844 [family name sometimes seen as †Diplocanthidae]
Family †Gladiobranchidae Bernacsek & Dineley 1977
†Gladobranchidae [†Gladiobranchidae] Bernacsek & Dineley 1977: 13 (family) †*Gladiobranchus* Bernacsek & Dineley 1977

Order †Ischnacanthiformes
Family †Tetanopsyridae Gagnier, Hanke & Wilson 1999
†Tetanopsyridae Gagnier, Hanke & Wilson 1999: 83 (family) †*Tetanopsyrus* Gagnier, Hanke & Wilson 1999
Family †Ischnacanthidae Woodward 1891
†Ischnacanthidae Woodward 1891a: 20 (family) †*Ischnacanthus* Powrie 1864
†Ictinocephalidae Jordan 1923: 91 (family) †*Ictinocephalus* Page 1864 [name in synonymy; treated as available before 1961?; not available, Art. 11.6.1]
Family †Acritolepidae Valiukevičius & Burrow 2005
†Acritolepidae Valiukevičius & Burrow 2005: 644 (family) †*Acritolepis* Valiukevičius 2003 [family name sometimes seen as †Acritolepididae]
Family †Poracanthodidae Vergoossen 1997
†Poracanthodidae Vergoossen 1997: 44 (family) †*Poracanthodes* Brotzen 1934

Order †Acanthodiformes
Family †Mesacanthidae Moy-Thomas 1939
†Mesacanthidae Moy-Thomas 1939: 34 (family) †*Mesacanthus* Traquair 1888
Family †Cheiracanthidae Bleeker 1859
†Cheiracanthoidei Bleeker 1859: XVII (family) †*Cheiracanthus* Agassiz 1835
Family †Acanthodidae Agassiz 1844
†Acanthodiens Agassiz 1844 Tome II pt. 1: 308 (family) †*Acanthodes* Agassiz 1833 [latinized to †Acanthoidini by Bonaparte 1846: 4 (subfamily), latinized to †Acanthodei by Owen 1846: 50, latinized to †Acanthodides by Giebel 1846: 65, latinized to †Acanthodii by Giebel 1847: 227, latinized to †Achantodontini [†Acanthodontini] by Bonaparte 1850a: 455; considered valid with this authorship by Müller 1846: 122, 151, by Bronn 1849: 656 and by Pander 1860: 69 Art. 11.7.2; senior objective synonym of †Acanthoessidae Hay 1902]
†Acanthoëssidae Hay 1902: 273 (family) †*Acanthoessus* Agassiz 1832 [type genus as †*Acanthoëssus*, name must be corrected Art. 32.5.3 to †Acanthoessidae; junior objective synonym of †Acanthodidae Agassiz 1844, invalid, Art. 61.3.2]
†Howittacanthidae Zajíc 1995: 168 (family) †*Howittacanthus* Long 1986

Order †Climatiiformes

Family †Climatiidae Berg 1940, name in prevailing recent practice
- †Brachyacanthidae Moy-Thomas 1939: 34 (family) †*Brachyacanthus* Egerton 1860
- †Climatiidae Berg 1940: 373 (family) †*Climatius* Agassiz 1845
- †Parexidae Berg 1940: 373 (family) †*Parexus* Agassiz 1845

Family †Gyracanthidae Woodward 1906
- †Gyracanthidae Woodward 1906: 3 (family) †*Gyracanthus* Agassiz 1835 [family name sometimes seen as †Gyracanthididae]
- †Gyracanthididae Miles 1971: 28 (family) †*Gyracanthides* McCoy 1890

Family †Vesperaliidae Valiukevičius & Burrow 2005
- †Vesperaliidae Valiukevičius & Burrow 2005: 643 (family) †*Vesperalia* Valiukevičius 2004

Family †Euthacanthidae Berg 1940
- †Euthacanthidae Berg 1940: 373 (family) †*Euthacanthus* Powrie 1864

Family †Brochoadmonidae Bernacsek & Dineley 1977
- †Brochoadmonidae Bernacsek & Dineley 1977: 17 (family) †*Brochoadmones* Bernacsek & Dineley 1977

CLASS CHONDRICHTHYES

Incertae sedis:

Family †Bandringidae Zangerl 1969
- †Bandringidae Zangerl 1969: 157 (family) †*Bandringa* Zangerl 1969

Family †Kathemacanthidae Gagnier & Wilson 1996
- †Kathemacanthidae Gagnier & Wilson 1996: 243 (family) †*Kathemacanthus* Gagnier & Wilson 1996

Family †Palaeospondylidae Gill 1896
- †Palaeospondylidae Gill 1896a: 11 (family) †*Palaeospondylus* Traquair 1890

Family †Polysentoridae Zangerl 1979
- †Polysentoridae Zangerl 1979: 458, 460 (family) †*Polysentor* Zangerl 1979

Family †Protodontidae Woodward 1932
- †Protodontidae Woodward 1932: 56 (family) †*Protodus* Woodward 1892

Family †Wellingtonellidae Märss, Wilson & Thorsteinsson 2002
- †Wellingtonellidae Märss, Wilson & Thorsteinsson 2002: 117 (family) †*Wellingtonella* Märss, Wilson & Thorsteinsson 2002

Order †Altholepidiformes

Family †Altholepididae Andreev, Coates, Shelton, Cooper, Smith & Sansom 2015
- †Altholepididae Andreev, Coates, Shelton, Cooper, Smith & Sansom 2015: 693 (family) †*Altholepis* Karatajūtė-Talimaa 1997

Family †Tazakidae Andreev, Coates, Shelton, Cooper, Smith & Sansom 2015
- †Tazakidae Andreev, Coates, Shelton, Cooper, Smith & Sansom 2015: 694 (family) †*Tazakia* Andreev, Coates, Shelton, Cooper, Smith & Sansom 2015 [correct stem would be Tazaki-]

Order †Elegestolepidida

Family †Kannathalepididae Märss & Gagnier 2001
- †Kannathalepididae Märss & Gagnier 2001: 695 (family) †*Kannathalepis* Märss & Gagnier 2001

Family †Elegestolepididae Andreev, Coates, Karatajūtė-Talimaa, Shelton, Cooper & Sansom 2017
- †Elegestolepididae Andreev, Coates, Karatajūtė-Talimaa, Shelton, Cooper & Sansom 2017: e1245664-4 (family) †*Elegestolepis* Karatajūtė-Talimaa 1973

Order †Mongolepidiformes
Family †Mongolepididae Karatajūtė-Talimaa & Novitskaya 1990
†Mongolepididae Karatajūtė-Talimaa & Novitskaya in Karatajūtė-Talimaa, Novitskaya, Rozman & Sodov 1990: 79 (family) †*Mongolepis* Karatajūtė-Talimaa & Novitskaya 1990 [family name sometimes seen as †Mongolepidae]
Family †Shiqianolepidae Sansom, Aldridge & Smith 2000
†Shiqianolepidae Sansom, Aldridge & Smith 2000: 259 (family) †*Shiqianolepis* Sansom, Aldridge & Smith 2000 [family name sometimes seen as †Shiqianolepididae]

Order †Polymerolepidiformes
Family †Polymerolepididae Karatajūtė-Talimaa 1968
†Polymerolepididae Karatajūtė-Talimaa 1968: 37 (family) †*Polymerolepis* Karatajūtė-Talimaa 1968

Order †Omalodontiformes
Family †Omalodontidae Ginter, Liao & Valenzuela-Ríos 2008
†Omalodontidae Ginter, Liao & Valenzuela-Ríos 2008: 167 (family) †*Omalodus* Ginter & Ivanov 1992
Family †Aztecodontidae Hairapetian, Ginter & Yazdi 2008
†Aztecodontidae Hairapetian, Ginter & Yazdi 2008: 174 (family) †*Aztecodus* Long & Young 1995

Order †Antarctilamniformes
Family †Antarctilamnidae Ginter, Liao & Valenzuela-Ríos 2008
†Antarctilamnidae Davis 1994: 58 (family) †*Antarctilamna* Young 1982 [name only, published after 1960, not available, Art. 13.1.1]
†Antarctilamnidae Ginter, Liao & Valenzuela-Ríos 2008: 169 (family) †*Antarctilamna* Young 1982
Family †Coronodontidae Romer 1945
†Coronodontidae Romer 1945: 576 (family) †*Coronodus* Bryant 1935 [name only, but used as valid by Schultz 1948: 224, by Harris 1951: 683, by Fowler 1966b: 331, by Romer 1966: 349 and by Andrews *et al.* 1967: 667 Art. 13.2.1]

Order †Phoebodontiformes
Family †Phoebodontidae Williams 1985, name in prevailing recent practice
†Diademodidae Arambourg 1958: 2021 (family) †*Diademodus* Harris 1951
†Phoebodontidae Williams 1979 (family) †*Phoebodus* St. John & Worthen 1875 [unavailable publication, family-group name not available]
†Phoebodontidae Williams in Zangerl 1981: 54 (family) †*Phoebodus* St. John & Worthen 1875 [name only, published after 1960, not available, Art. 13.1.1]
†Phoebodontidae Williams 1985: 124 (family) †*Phoebodus* St. John & Worthen 1875
†Thrinacodontidae Grogan & Lund 2008: 971 (family) †*Thrinacodus* St. John & Worthen 1875
Family †Jalodontidae Ginter, Hairapetian & Klug 2002
†Jalodontidae Ginter, Hairapetian & Klug 2002: 188 (family) †*Jalodus* Ginter 1999

Superorder †Cladoselachimorpha (†Cladodontomorphi)
Order †Cladoselachiformes
Family †Cladoselachidae Dean 1894
†Cladoselachidae Dean 1894: 111 (family) †*Cladoselache* Dean 1894

Order †Symmoriiformes

Family †Symmoriidae Dean 1909

†Symmoriidae Dean 1909: 242 (family) †*Symmorium* Cope 1893

†Stethacanthidae Lund 1974: 164 (family) †*Stethacanthus* Newberry 1890

Family †Falcatidae Zangerl 1990, name in prevailing recent practice

†Deneidae Fournier & Pruvost 1928: 16 (family) †*Denaea* Pruvost 1922 [type genus as †*Denea*, name must be corrected Art. 32.5.3; corrected to †Denaeidae by Berg 1940: 376, confirmed by Fowler 1966a: 121]

†Falcatidae Zangerl 1990: 139 (family) †*Falcatus* Lund 1985

Superorder †Ctenacanthimorpha

Order †Ctenacanthiformes

Family †Ctenacanthidae Bonaparte 1850, name in prevailing recent practice

†Cladodini Giebel 1846: 62 (family) †*Cladodus* Agassiz 1843 [stem changed to Cladodont- by Bonaparte 1850a: 454, confirmed by Woodward 1889a: 16 and by Lydekker in Nicholson & Lydekker 1889: 927; †Cladodontidae used after 1900, *e.g.*, by Hay 1902: 267 and by Jordan 1905: 520]

†Ctenacanthini Bonaparte 1850a: 454 (subfamily) †*Ctenacanthus* Agassiz 1837 [type genus inferred from the stem, Art. 11.7.1.1; also as a new family in Dean 1909: 242]

†Tamiobatidae Hay 1902: 315 (family) †*Tamiobatis* Eastman 1897 [also Woodward in Zittel 1902: 41]

Family †Heslerodidae Maisey 2010

†Heslerodidae Maisey 2010: 14 (family) †*Heslerodus* Ginter 2002 [family name sometimes seen as †Heslerodontidae]

Order †Squatinactiformes

Family †Squatinactidae Lund & Zangerl 1974

†Squatinactidae Lund & Zangerl 1974: 44 (family) †*Squatinactis* Lund & Zangerl 1974 [also as a new family in Cappetta, Duffin & Zidek 1993: 598]

Superorder †Xenacanthimorpha (†Pleuracanthodii)

Order †Bransonelliformes †*Bransonella* Harlton 1933

Order †Xenacanthiformes

Family †Diplodoselachidae Dick 1981

†Orthacanthidae Jordan 1923: 91 (family) †*Orthacanthus* Agassiz 1843 [name in synonymy; treated as available before 1961?; not available, Art. 11.6.1]

†Diplodoselachidae Dick in Zangerl 1981: 64 (family) †*Diplodoselache* Dick 1981 [also Dick 1981: 99]

†Orthacanthidae Heyler & Poplin 1990: 70 (family) †*Orthacanthus* Agassiz 1843

†Lebachacanthidae Soler-Gijón 1997: 3 (family) †*Lebachacanthus* Soler-Gijón 1997

Family †Xenacanthidae Geinitz 1860

†Xenacanthi Geinitz 1860: 468 (family) †*Xenacanthus* Beyrich 1848 [corrected to †Xenacanthidae by Hoernes 1884: 430]

†Pleuracanthidae Hasse 1878b: 169 (no family-group name)

†Pleuracanthidae Woodward 1889a: 1 (family) †*Pleuracanthus* Agassiz 1837 [type genus preoccupied by *Pleuracanthus* Gray 1832 in Coleoptera; invalid, Art. 39]

Subclass HOLOCEPHALI (Euchondrocephali / Subterbranchialia)
Incertae sedis:
†Desmiodontidae Hansen 1985: 523 (family) †*Desmiodus* St. John & Worthen 1875 [also as a new family in Cappetta, Duffin & Zidek 1993: 596; †*Desmiodus* is a nomen dubium, no longer recognized as a valid genus]

Family †Gregoriidae Lund & Grogan 2004
†Gregoriidae Lund & Grogan 2004b: 506 (family) †*Gregorius* Lund & Grogan 2004
Family †Harpacanthidae Lund & Grogan 2004
†Harpacanthidae Lund & Grogan 2004a: 172 (family) †*Harpacanthus* Traquair 1886
Family †Lagarodontidae Lebedev 2008
†Lagarodontidae Lebedev 2008: 201 (family) †*Lagarodus* Jaekel 1898

Order †Iniopterygiformes
Family †Iniopterygidae Zangerl & Case 1973
†Iniopterygidae Zangerl & Case 1973: 6 (family) †*Iniopteryx* Zangerl & Case 1973
Family †Sibyrhynchidae Zangerl & Case 1973
†Sibyrhynchidae Zangerl & Case 1973: 35 (family) †*Sibyrhynchus* Zangerl & Case 1973

Order †Orodontiformes
Family †Leiodontidae Ginter, Hampe & Duffin 2010
†Leiodontidae Ginter, Hampe & Duffin 2010: 116 (family) †*Leiodus* St. John & Worthen 1875 [not Leiodidae Fleming 1821 in Coleoptera]
Family †Orodontidae de Koninck 1878
†Orodontidae de Koninck 1878: 29 (family) †*Orodus* Agassiz 1838

Order †Eugeneodontiformes
Suborder †Eugeneodontoidei
Family †Caseodontidae Zangerl 1981
†Caseodontoidea Zangerl 1981: 79 (superfamily) †*Caseodus* Zangerl 1981 [also as new family]
Family †Eugeneodontidae Zangerl 1981
†Eugeneodontidae Zangerl 1981: 82 (family) †*Eugeneodus* Zangerl 1981
Suborder †Edestoidei
Family †Helicoprionidae Karpinsky 1911
†Helicoprionidae Karpinsky 1911: 1113 (family) †*Helicoprion* Karpinsky 1899 [family name sometimes seen as †Helicopriidae]
†Agassizodontidae Zangerl 1981: 86 (family) †*Agassizodus* St. John & Worthen 1875
Family †Edestidae Leidy 1857
†Edestina Leidy 1857: 302 (family) †*Edestus* Leidy 1856

Order †Petalodontiformes
Family †Belantseidae Lund 1989
†Belantseidae Lund 1989: 352 (family) †*Belantsea* Lund 1989
Family †Petalodontidae Newberry & Worthen 1866
†Petalodontes Giebel 1847: 344 (? subfamily) †*Petalodus* Owen 1845 [published not in latinized form before 1900, not available, Art. 11.7.2]
†Petalodontidae Newberry & Worthen 1866: 31 (family) †*Petalodus* Owen 1845
†Polyrhizodontinae Jaekel 1898: 49 (subfamily) †*Polyrhizodus* M'Coy 1848 [subfamily name sometimes seen as †Polyrhizontinae]
Family †Pristodontidae Woodward 1889

†Pristodontidae Woodward 1889a: 62 (family) †*Pristodus* Davis 1883
†Peripristidae Eastman 1902: 389 (family) †*Peripristis* St. John 1870
Family †Janassidae Jaekel 1898
†Janassinae Jaekel 1898: 49 (subfamily) †*Janassa* Münster 1839
Family †Petalorhynchidae Lund, Grogan & Fath 2014
†Petalorhynchidae Lund, Grogan & Fath 2014: 1026 (family) †*Petalorhynchus* Morris & Roberts 1862
Family †Obruchevodidae Lund, Grogan & Fath 2014
†Obruchevodidae Lund, Grogan & Fath 2014: 1026 (family) †*Obruchevodus* Grogan, Lund & Fath 2014

Order †Debeeriiformes
Family †Debeeriidae Grogan & Lund 2000
†Debeeriidae Grogan & Lund 2000: 220 (family) †*Debeerius* Grogan & Lund 2000

Order †Helodontiformes
Family †Helodontidae Jaekel 1898
†Helodontinae Jaekel 1898: 50 (subfamily) †*Helodus* Agassiz 1838

Superorder Holocephalimorpha
Order †Psammodontiformes
Family †Psammodontidae de Koninck 1878
†Psammodonten Pander 1856: 77 (family) †*Psammodus* Agassiz 1838 [published not in latinized form before 1900, not available, Art. 11.7.2]
†Psammodontidae de Koninck 1878: 38 (family) †*Psammodus* Agassiz 1838

Order †Copodontiformes
Family †Copodontidae Davis 1883
†Copodontidae Davis 1883: 57 (family) †*Copodus* Morris & Roberts 1862

†Cochliodontomorpha
Order †Squalorajiformes
Family †Squalorajidae Hasse 1878
†Squalorajidae Hasse 1878a: 247, 257 (family) †*Squaloraja* Riley 1833 [family name sometimes seen as †Squaloraiidae]

Order †Chondrenchelyiformes
Family †Chondrenchelyidae Jordan 1923
†Chondrenchelyidae Jordan 1923: 92 (family) †*Chondrenchelys* Traquair 1888

Order †Menaspiformes
Family †Menaspidae Woodward 1891, spelling in prevailing recent practice
†Trachyacanthidae Jaekel 1890: 130 (family) †*Menaspis* Ewald 1848 [no stem of the type genus, not available, Art. 11.7.1.1]
†Menaspidae Woodward 1891b: 424 (family) †*Menaspis* Ewald 1848 [family name sometimes seen as †Menaspididae or †Manaspidae]
Family †Deltoptygiidae Patterson 1965
†Deltoptygiidae Patterson 1965: 149 (family) †*Deltoptygius* Morris & Roberts 1862
Family †Traquairiidae Lund & Grogan 1997
†Traquairiidae Lund & Grogan 1997: 477 (family) †*Traquairius* Lund & Grogan 1997 [family name sometimes seen as †Traquairidae]

Order †Cochliodontiformes
Family †Cochliodontidae Owen 1867
†Cochliodontidae Owen 1867: 59 (family) †*Cochliodus* Agassiz 1838
†Rhadamantidae Woodward 1932: 73 (family) †*Radamas* Münster 1843 [type genus as †*Rhadamas*, name must be corrected Art. 32.5.3; corrected to †Radamantidae by Berg 1940: 383, confirmed by Fowler 1966b: 317]
†Deltodontidae Zangerl 1981: 42, 46 (family) †*Deltodus* Morris & Roberts 1862 [name only, published after 1960, not available, Art. 13.1.1]
Family †Psephodontidae Jaekel 1898
†Psephodontinae Jaekel 1898: 50 (subfamily) †*Psephodus* Morris & Roberts 1862

Chimaerimorpha
Order Chimaeriformes
Suborder †Echinochimaeroidei
Family †Echinochimaeridae Lund 1977
†Echinochimaeridae Lund 1977: 198 (family) †*Echinochimaera* Lund 1977
Suborder †Myriacanthoidei
Family †Myriacanthidae Woodward 1889
†Myriacanthidae Woodward 1889b: 279 (family) †*Myriacanthus* Agassiz 1837
†Acanthorhinidae Patterson 1965: 146 (family) †*Acanthorhina* Fraas 1910
Family †Chimaeropsidae Jaekel 1919
†Chimaeropsidae Jaekel 1919: 107 (family) †*Chimaeropsis* Zittel 1887
Suborder Chimaeroidei
Family Callorhinchidae Garman 1901
†Edaphodontidae Owen 1846: 51 (family) †*Edaphodon* Buckland 1838 [also as a new subfamily †Edaphodontinae in Stahl 1999: 138]
Family Rhinochimaeridae Garman 1901
Family Chimaeridae Rafinesque 1815

Subclass EUSELACHII
Incertae sedis:
Family †Listracanthidae Martill, Del Strother & Gallien 2014
†Listracanthidae Martill, Del Strother & Gallien 2014: 7 (family) †*Listracanthus* Newberry & Worthen 1870

Order †Protacrodontiformes
Family †Protacrodontidae Zangerl 1981
†Protacrodontoidea Zangerl 1981: 61 (superfamily) †*Protacrodus* Jaekel 1925 [also as a new family, †Protacrodontidae, in Cappetta, Duffin & Zidek 1993: 596]

Infraclass †HYBODONTA
Order †Hybodontiformes
Family †Hybodontidae Agassiz 1843
†Hybodontes Agassiz 1843 Tome III: 206 (family) †*Hybodus* Agassiz 1837 [latinized to †Hybodontidae by Owen 1846; latinized to †Hybodontes by Giebel 1846: 152 and Giebel 1847: 311, latinized to †Hybondontini [†Hybodontini] by Bonaparte 1850a: 453; considered valid with this authorship by Bronn 1849: 650, by Bleeker 1859: XII and by de Koninck 1878: 26 Art. 11.7.2]
Family †Thaiodontidae Cuny, Suteethorn, Kamha & Buffetaut 2008

†Thaiodontidae Cuny, Suteethorn, Kamha & Buffetaut 2008: 98 (family) †*Thaiodus* Cappetta, Buffetaut & Suteethorn 1990

Family †Tristychiidae Moy-Thomas 1939

†Tristychiidae Moy-Thomas 1939: 65 (family) †*Tristychius* Agassiz 1837

Family †Distobatidae Werner 1989

†Distobatidae Werner 1989: 88 (family) †*Distobatus* Werner 1989

Family †Acrodontidae Giebel 1846

†Acrodini Giebel 1846: 152 (family) †*Acrodus* Agassiz 1834 [corrected to †Acrodontidae by Fraas 1896: 17]

Family †Polyacrodontidae Glickman 1964

†Polyacrodontidae Glickman 1964a: 10 (family) †*Polyacrodus* Jaekel 1889 [also Glickman 1964b: 212]

Family †Lonchidiidae Herman 1977

†Londichiidae [†Lonchidiidae] Herman 1977: 40, 44 (family) †*Lonchidion* Estes 1964 [family name sometimes seen as †Lonchidionidae]

Family †Steinbachodontidae Reif 1980

†Steinbachodontidae Reif 1980: 63 (family) †*Steinbachodus* Reif 1980

Family †Pseudodalatiidae Reif 1978

†Pseudodalatiidae Reif 1978: 55 (family) †*Pseudodalatias* Reif 1978

Family †Homalodontidae Mutter, Neuman & de Blanger 2008

†Wapitiodidae Mutter, de Blanger & Neuman 2007: 309 (family) †*Wapitiodus* Mutter, de Blanger & Neuman 2007 [type genus preoccupied by †*Wapitiodus* Orchard 2005 in Conodonta; invalid, Art. 39]

†Homalodontidae Mutter, Neuman & de Blanger 2008: 419 (family) †*Homalodontus* Mutter, Neuman & de Blanger 2008

Family †Sphenacanthidae Maisey 1982, name in prevailing recent practice

? †Xenosynechodontidae Glickman 1980: ? (family) †*Xenosynechodus* Glickman 1980 [in ? †Xenacanthidae, family uncertain]

†Sphenacanthidae Maisey 1982: 21 (family) †*Sphenacanthus* Agassiz 1837

Infraclass ELASMOBRANCHII (Neoselachii)

Incertae sedis:

Family †Agaleidae Rees 2000

†Agaleidae Rees 2000: 412 (family) †*Agaleus* Duffin & Ward 1983

Family †Anachronistidae Duffin & Ward 1983

†Anachronistidae Duffin & Ward 1983: 95 (family) †*Anachronistes* Duffin & Ward 1983 (= †*Cooleyella* Gunnell 1933) [family name sometimes seen as †Cooleyellidae]

Family †Lugalepididae Karatajūtė-Talimaa 1997

†Lugalepididae Karatajūtė-Talimaa 1997a: 25 (family) †*Lugalepis* Karatajūtė-Talimaa 1997

Family †Mcmurdodontidae White 1968

†Mcmurdodontidae White 1968: 9 (family) †*Mcmurdodus* White 1968

Family †Ostenoselachidae Duffin 1998

†Ostenoselachidae Duffin 1998: 5 (family) †*Ostenoselache* Duffin 1998

Superorder Galeomorphi (Selachimorpha)

Incertae sedis:

Family †Ptychodontidae Jaekel 1898

†Ptychodontinae Jaekel 1898: 50 (subfamily) †*Ptychodus* Agassiz 1838

†Hylaeobatidae Herman & van Waes 2014: 161 (family) †*Hylaeobatis* Woodward 1916 [not published according to the rules, not available]

Order †Synechodontiformes
Family †Palaeospinacidae Regan 1906
†Palaeospinacinae Regan 1906: 723, 750 (subfamily) †*Palaeospinax* Egerton 1872 [†*Palaeospinax* is a nomen dubium, no longer recognized as a valid genus]
†Synechodontidae Casier 1947b: 34 (family) †*Synechodus* Woodward 1888
†Orthacodidae Glickman 1957: 114 (family) †*Orthacodus* Woodward 1889 [corrected to †Orthacodontidae by Beaumont 1960: 4]
†Paraorthacodidae Glickman 1958: 668 (family) †*Paraorthacodus* Glickman 1957 [family name sometimes seen as †Paraorthacodontidae]
Family †Pseudonotidanidae Underwood & Ward 2004
†Welcommiidae Leidner & Delsate 2000: 46 (family) †*Welcommia* Capetta 1990 [unavailable publication, family-group name not available]
†Welcommiidae Delsate 2001: 59 (family) †*Welcommia* Capetta 1990 [not published according to the rules, not available]
†Pseudonotidanidae Underwood & Ward 2004: 474 (family) †*Pseudonotidanus* Underwood & Ward 2004

Order Heterodontiformes
Family Heterodontidae Gray 1851
†Paracestrationidae Herman & van Waes 2012c: 11 (family) †*Paracestracion* Koken 1911 [type genus as †*Paracestration*, name must be corrected Art. 32.5.3; corrected to †Paracestracionidae by Herman & van Waes 2014: 171]

Order Orectolobiformes
Incertae sedis:
†Palaeocarcharidae Applegate 2001a (family) †*Palaeocarcharias* Beaumont 1960 [unavailable publication, family-group name not available]

Family †Phorcynidae Herman & van Waes 2014
†Phorcynidae Herman & van Waes 2014: 114, 135, 173 (family) †*Phorcynis* Thiollière 1854 [family name sometimes seen as †Phorcinidae]

Suborder Parascyllioidei
Family Parascylliidae Gill 1862

Suborder Orectoloboidei
Family Brachaeluridae Applegate 1974
Family Orectolobidae Gill 1896
Family Hemiscylliidae Gill 1862
Family Ginglymostomatidae Gill 1862
Pseudoginglymostomatidae Herman & van Waes 2014: 118 (family) *Pseudoginglymostoma* Dingerkus 1986 [not published according to the rules, not available]
Family Stegostomatidae Gill 1862
Family Rhincodontidae Müller & Henle 1841 [ICZN Opinion 1278]

Order Lamniformes
Family †Haimirichiidae Vullo, Guinot & Barbe 2016
†Haimirichiidae Vullo, Guinot & Barbe 2016: 1004 (family) †*Haimirichia* Vullo, Guinot & Barbe 2016
Family †Otodontidae Glickman 1964
†Otodontidae Glickman 1964a: 103 (family) †*Otodus* Agassiz 1838

Family †Xiphodolamiidae Glickman 1964
†Xipodolamiinae [†Xiphodolamiinae] Glickman 1964a: 105 (subfamily) †*Xiphodolamia* Leidy 1877
Family †Cardabiodontidae Siverson 1999
†Cardabiodontidae Siverson 1999: 49 (family) †*Cardabiodon* Siverson 1999
Family †Cretoxyrhinidae Glickman 1958
†Cretoxyrhinidae Glickman 1958: 669 (family) †*Cretoxyrhina* Glickman 1958
Family †Archaeolamnidae Underwood & Cumbaa 2010
†Archaeolamnidae Underwood & Cumbaa 2010: 921 (family) †*Archaeolamna* Siverson 1992
Family †Pseudoscapanorhynchidae Herman 1979
†Pseudoscapanorhynchidae Herman 1979: 361 (family) †*Pseudoscapanorhynchus* Herman 1977
Family †Anacoracidae Casier 1947
†Coracidae sometimes used for fossil fishes? (family) †*Corax* Agassiz 1843 [type genus preoccupied by *Corax* Ledru 1810 in Aves; invalid, Art. 39; not Coraciidae Rafinesque 1815 in Aves]
†Anacoracidae Casier 1947a: 5 (family) †*Anacorax* White & Moy-Thomas 1940 [also Casier 1947b: 36; also as a new family in Glickman 1956; senior objective synonym of †Squalicoracidae Patterson 1967]
†Squalicoracidae Patterson in Andrews, Gardiner, Miles & Patterson 1967: 671 (family) †*Squalicorax* Whitley 1939 [junior objective synonym of †Anacoracidae Casier 1947, invalid, Art. 61.3.2]
†Ptychocoracidae Herman & van Waes 2012a: 8 (family) †*Ptychocorax* Glickman & Istchenko 1980
†Paracoracidae Herman & van Waes 2014: 186 (family) †*Paracorax* Cappetta 1977 [not published according to the rules, not available; also type genus preoccupied by *Paracorax* Lambrecht 1933 in Aves; invalid, Art. 39]
Family †Pseudocoracidae Capetta 2012
†Pseudocoracidae Capetta 2012: 249 (family) †*Pseudocorax* Priem 1897
Family Mitsukurinidae Jordan 1898
†Scapanorhynchidae White 1936a: 4 (family) †*Scapanorhynchus* Woodward 1889
†Anomotodontidae Herman 1979: 362 (family) †*Anomotodon* Arambourg 1952
Family Odontaspididae Müller & Henle 1839 [ICZN Opinion 723]
†Jekelotodontidae [†Jaekelotodontidae] Glickman 1964a: 11 (family) †*Jaekelotodus* Menner 1928
†Eostriatolamiidae Glickman in Zhelezko & Glickman 1971: 179 (family) †*Eostriatolamia* Glickman 1979 [no valid type genus, Art. 11.7.1.1; also name only, published after 1960, not available, Art. 13.1.1]
†Striatolamiidae Glickman, Mertiniene & Nessov in Glickman, Mertiniene, Nessov, Rozhdestvensky, Khosatzky & Yakovlev 1987: 252 (family) †*Striatolamia* Glickman 1964 [name only, published after 1960, not available, Art. 13.1.1]
†Striatolamidae Zhelezko 1989: 16 (family) †*Striatolamia* Glickman 1964 [correct stem would be Striatolami-; name only, published after 1960, not available, Art. 13.1.1]
†Johnlonginae Shimada, Popov, Siversson, Welton & Long 2015: 2 (subfamily) †*Johnlongia* Siverson 1996 [correct stem would be Johnlongi-]
Family Carchariidae Müller & Henle 1838 [ICZN Opinion 1459]
Family Pseudocarchariidae Taylor, Compagno & Struhsaker 1983
Family Alopiidae Bonaparte 1835
Family Megachasmidae Taylor, Compagno & Struhsaker 1983
Family Cetorhinidae Gill 1861

Family Lamnidae Bonaparte 1835
†Lamiostomatidae Glickman 1964a: 11, 105 (family) †*Lamiostoma* Glickman 1964
Family †Paraisuridae Herman 1979
†Paraisuridae Herman 1979: 361 (family) †*Paraisurus* Glickman 1957
Family †Serratolamnidae Landemaine 1991
†Serratolamnidae Landemaine 1991: 12 (family) †*Serratolamna* Landemaine 1991
Family †Eoptolamnidae Kriwet, Klug, Canudo & Cuenca-Bescós 2008
†Eoptolamnidae Kriwet, Klug, Canudo & Cuenca-Bescós 2008: 280 (family) †*Eoptolamna* Kriwet, Klug, Canudo & Cuenca-Bescós 2008 [family name sometimes seen as †Eoleptolamnidae]

Order Carcharhiniformes
Family Scyliorhinidae Gill 1862
†Megascyliorhinidae Pfeil 1984: 112 (family) †*Megascyliorhinus* Cappetta & Ward 1977
†Premontreinae Cappetta 1992a: 644 (subfamily) †*Premontreia* Cappetta 1992
†Pteroscylliinae Cappetta 1992a: 644 (subfamily) †*Pteroscyllium* Cappetta 1980
†Palaeoscylliidae Herman & van Waes 2012d: 50 (family) †*Palaeoscyllium* Wagner 1857
Family Pentanchidae Smith 1912
Holohalaeluridae Herman & van Waes 2012d: 51 (family) *Holohalaelurus* Fowler 1934 [not published according to the rules, not available; Recent, omitted in Van der Laan *et al.* 2014]
Family Proscylliidae Fowler 1941
Family Pseudotriakidae Gill 1893
Family Leptochariidae Gray 1851
Family Triakidae Gray 1851
Family Hemigaleidae Hasse 1878
Family Carcharhinidae Jordan & Evermann 1896
Galeocerdidae Herman & van den Eeckhaut 2010: 51 (family) *Galeocerdo* Müller & Henle 1837 [Recent, omitted in Van der Laan *et al.* 2014]
Triaenodonidae Herman & van den Eeckhaut 2010: 52 (family) *Triaenodon* Müller & Henle 1834 [Recent, omitted in Van der Laan *et al.* 2014; correct stem would be Triaenodont-]
Family Sphyrnidae Bonaparte 1840

Superorder Squalomorphi
Order Hexanchiformes
Family Chlamydoselachidae Garman 1884
Family †Crassodontidanidae Kriwet & Klug 2016
†Crassonotidae Kriwet & Klug 2011: S108 (family) †*Crassodontidanus* Kriwet & Klug 2011 [no stem of the type genus, not available, Art. 11.7.1.1]
†Crassodontidanidae Kriwet & Klug 2016: 1 (family) †*Crassodontidanus* Kriwet & Klug 2011
Family Hexanchidae Gray 1851
†Eonotidanidae Pfeil 1983: 25 (family) †*Eonotidanus* Pfeil 1983
Family Heptranchidae Barnard 1925

Order Squaliformes
Family †Eoscymnidae Herman & van den Eeckhaut 2010
†Eoscymnidae Herman & van den Eeckhaut 2010: 39 (family) †*Eoscymnus* Herman & van den Eeckhaut 2010 [family name sometimes seen as †Eoscymnorhinidae]
Family Centrophoridae Bleeker 1859
Family Etmopteridae Fowler 1934
Aculeolidae Herman & van Waes 2012b: 8 (family) *Aculeola* de Buen 1959 [Recent, omitted in Van der Laan *et al.* 2014]

Family Somniosidae Jordan 1888
Family Oxynotidae Gill 1863
Family Dalatiidae Gray 1851
Family Squalidae de Blainville 1816

Order †Protospinaciformes
Family †Protospinacidae Woodward 1919
†Protospinacidae Woodward 1919: 232 (family) †*Protospinax* Woodward 1919

Order Echinorhiniformes
Family †Pseudoechinorhinidae Herman & van Waes 2014
†Pseudoechinorhinidae Herman & van Waes 2014: 166 (family) †*Pseudoechinorhinus* Pfeil 1983
Family †Orthechinorhinidae Herman & van Waes 2014
†Orthechinorhinidae Herman & van Waes 2014: 167 (family) †*Orthechinorhinus* Adnet 2006
Family Echinorhinidae Gill 1862

Order Squatiniformes
Family †Pseudorhinidae Klug & Kriwet 2012
†Pseudorhinidae Klug & Kriwet 2012: 94 (family) †*Pseudorhina* Jaekel 1898
Family Squatinidae de Blainville 1816

Order Pristiophoriformes
Family Pristiophoridae Bleeker 1859

Division Batomorphi
Incertae sedis:
†Archaeobatidae Delsate & Candoni 2001: 132 (family) †*Toarcibatis* Delsate & Candoni 2001 [no stem of the type genus, not available, Art. 11.7.1.1; family name sometimes seen as †Archaeobatididae]
†Arthropteridae Jordan 1905: 553 (family) †*Arthropterus* Agassiz 1843 [type genus preoccupied by *Arthropterus* M'Leay 1838 in Carabidae Coleoptera; invalid, Art. 39]
†Asterodermini Bonaparte 1850a: 453 (subfamily) †*Asterodermus* Agassiz 1843 [type genus inferred from the stem, Art. 11.7.1.1; family name sometimes seen as †Asterodermatidae and †Astrodermidae]
†Belemnobatidae Suteethorn, Le Loeuff, Buffetaut, Suteethorn & Wongko 2013: 461 (family) †*Belemnobatis* Thiollière 1854 [not published according to the rules, not available; family name sometimes seen as †Belemnobatididae]
Centrobatidae Jaekel 1898: 51 [ref. 34311] (family) ? [no valid type genus, not available; Recent, omitted in Van der Laan *et al.* 2014]
Rhinorajidae Jaekel 1898: 51 (family) ? [not based on *Rhinoraja*; no valid type genus, not available; Recent, omitted in Van der Laan *et al.* 2014]
†Spathobatidae Dames 1888: 130 (family) †*Spathobatis* Thiollière 1854 [type genus inferred from the stem, Art. 11.7.1.1]

Order Torpediniformes
Family Torpedinidae Henle 1834
Family Hypnidae Gill 1862
Family Narcinidae Gill 1862
Family Narkidae Fowler 1934

Order Rajiformes
Family †Cyclobatidae Jaekel 1911

†Cyclobatidae Jaekel 1911: 64 (family) †*Cyclobatis* Egerton 1844 [family name sometimes seen as †Cyclobatididae]
Family †Hypsobatidae Cappetta 1992
†Hypsobatidae Cappetta 1992b: 33 (family) †*Hypsobatis* Cappetta 1992 [family name sometimes seen as †Hypsobatididae]
Family †Parapalaeobatidae Cappetta 1992
†Parapalaeobatidae Cappetta 1992b: 50 (family) †*Parapalaeobates* Weiler 1930
Family Rajidae de Blainville 1816
Rostrorajinae Ishihara, Treloar, Bor, Senou & Jeong 2012: 31 (subfamily) *Rostroraja* [not published according to the rules, not available; Recent, omitted in Van der Laan *et al.* 2014]
Family Anacanthobatidae von Bonde & Swart 1923
Family Crurirajidae Hulley 1972
Family Arhynchobatidae Fowler 1934
Family Gurgesiellidae Buen 1959

Order Rhinopristiformes
Family Trygonorrhinidae Last, Séret & Naylor 2016
Family Rhinobatidae Bonaparte 1835
Family Rhinidae Müller & Henle 1841
Family Glaucostegidae Last, Séret & Naylor 2016
Family Pristidae Bonaparte 1835

Order †Sclerorhynchiformes
Family †Sclerorhynchidae Cappetta 1974, name in prevailing recent practice
†Ischyrhizidae Cope 1875: 280 (family) †*Ischyrhiza* Leidy 1856
†Ganopristinae Arambourg 1941: 139 (subfamily) †*Ganopristis* Arambourg 1935 [sometimes seen as †Ganopristiinae]
†Sclerorhynchidae Cappetta 1974: 225 (family) †*Sclerorhynchus* Woodward 1889
†Schizorhizinae Kirkland & Aguillón-Martínez 2002: 21 (subfamily) †*Schizorhiza* Weiler 1930
Family †Ptychotrygonidae Kriwet, Nunn & Klug 2009
†Ptychotrygonidae Kriwet, Nunn & Klug 2009: 333 (family) †*Ptychotrygon* Jaekel 1894 [also as a new family in Herman & van Waes 2012a: 4]

Order Myliobatiformes
Suborder Platyrhinoidei
Family Platyrhinidae Jordan 1923
Suborder Myliobatoidei
Family †Rhombodontidae Cappetta 1987
†Rhombodontidae Cappetta 1987: 174 (family) †*Rhombodus* Dames 1881
Family Zanobatidae Fowler 1934
Family Hexatrygonidae Heemstra & Smith 1980
Family Dasyatidae Jordan & Gilbert 1879
Family Potamotrygonidae Garman 1877
Family Urotrygonidae McEachran, Dunn & Miyake 1996
Family Gymnuridae Fowler 1934
Family Plesiobatidae Nishida 1990
Family Urolophidae Müller & Henle 1841
Family Aetobatidae Agassiz 1858
Family Myliobatidae Bonaparte 1835
†Hypolophitinae White 1935a: 34 (subfamily) †*Hypolophites* Stromer 1910

†Rhizochlatridae Silva Santos & Travassos 1960: 16 (family) †*Rhizochlatrus* Silva Santos & Travassos 1960

†Brachyrhizodontidae Herman & van Waes 2012a: 10 (family) †*Brachyrhizodus* Romer 1942

Family Rhinopteridae Jordan & Evermann 1896

†Zygzabatidae Mendiola 1995: 2 (family) †*Zygzabatis* Mendiola 1995

Family Mobulidae Gill 1893

CLASS OSTEICHTHYES (Euteleostomi)

Incertae sedis:

†Andreolepididae Märss 2001: 179 (family) †*Andreolepis* Gross 1968

†Halecopsidae Casier 1946: 114 (family) †*Halecopsis* Woodward 1901 [family name sometimes seen as †Halecopsididae]

†Histiothrissinae Arambourg 1955: 40 (subfamily) †*Histiothrissa* Woodward 1901

†Lophosteidae Gross 1969: 17 (family) †*Lophosteus* Pander 1856

†Mesolepidae Young 1866: 316 (family) †*Mesolepis* Young 1866 [family name sometimes seen as †Mesolepididae]

Order †Dialipiniformes

†*Dialipina* Schultze 1968

Subclass ACTINOPTERYGII

Incertae sedis:

†Coccolepidae Berg 1940: 400 (family) †*Coccolepis* Agassiz 1844 [family name also seen as †Coccolepididae]

†Tienshaniscidae Liu & Wang 1978: 3 (family) †*Tienshaniscus* Liu & Wang 1978 [Lu & Chen 2010: 7 wrote †Tienshanididae]

†Uighuroniscidae Su 1985: 65, 129 (family) †*Uighuroniscus* Su 1985

Order †Cheirolepidiformes

Family †Acropholidae Kazantseva-Selezneva 1977

†Acropholidae Kazantseva-Selezneva 1977: 102 (family) †*Acropholis* Aldinger 1935 [family name sometimes seen as †Acropholididae]

Family †Cheirolepididae Pander 1860, spelling in prevailing recent practice

†Cheirolepiden Pander 1860: 69 (family) †*Cheirolepis* Agassiz 1835 [family name sometimes seen as †Cheirolépidés Eichwald 1860: 1572; latinized to †Cheirolepini by Huxley 1861: 40 and by Traquair 1875: 238, latinized to †Chirolepidae by Hoernes 1884: 438; considered valid with this authorship by Huxley 1861: 40, by Traquair 1875: 238, by Berg, Kazantseva & Obruchev 1964: 336, by Andrews *et al.* 1967: 644, by Kazantseva-Selezneva 1977: 99, by Beltan 1990: 79 and by Gardiner 1993b: 611 Art. 11.7.2; family name also seen as †Cheirolepididae]

Family †Karaunguriidae Kazantseva-Selezneva 1977

†Karaunguriidae Kazantseva-Selezneva 1977: 102 (family) †*Karaunguria* Kazantseva-Selezneva 1977

Order †Palaeonisciformes

Incertae sedis:

Family †Acrolepididae Aldinger 1937, spelling in prevailing recent practice

†Acrolepidae Aldinger 1937: 32, 250 (family) †*Acrolepis* Agassiz 1833 [family name also seen as †Acrolepididae]

Family †Asarotidae Schaeffer 1968

†Asarotidae Schaeffer 1968: 4 (family) †*Asarotus* Schaeffer 1968

Family †Atherstoniidae Gardiner 1967

†Atherstoniidae Gardiner 1967: 176 (family) †*Atherstonia* Woodward 1889

Family †Birgeriidae Aldinger 1937
? †Xenesthidae Jordan 1923: 160 (family) †*Xenesthes* Jordan 1907 [family uncertain]
†Birgeriidae Aldinger 1937: 377 (family) †*Birgeria* Stensiö 1919 [name only, but used as valid by Berg 1940: 172, by Romer 1945: 579, by Schultz 1948: 228 and by Andrews *et al.* 1967: 645 Art. 13.2.1]
Family †Boreolepididae Aldinger 1937, spelling in prevailing recent practice
†Boreolepidae Aldinger 1937: 122, 304 (family) †*Boreolepis* Aldinger 1937 [family name also seen as †Boreolepididae]
Family †Brazilichthyidae Cox & Hutchinson 1991
†Brazilichthyidae Cox & Hutchinson 1991: 563 (family) †*Brazilichthys* Cox & Hutchinson 1991
Family †Canobiidae Aldinger 1937
†Canobiidae Aldinger 1937: 317 (family) †*Canobius* Traquair 1881
Family †Carbovelidae Romer 1945
†Carbovelidae Romer 1945: 579 (family) †*Carbovelus* White 1927 [name only, but used as valid by Schultz 1948: 229, by Romer 1966: 352, by Andrews *et al.* 1967: 645 and by Gardiner 1993b: 614 Art. 13.2.1]
Family †Centrolepididae Gardiner 1960, spelling in prevailing recent practice
†Centrolepididae Gardiner 1960: 248 (family) †*Centrolepis* Egerton 1858 [family name also seen as †Centrolepidae]
Family †Coccocephalichthyidae Fowler 1951 (1945), name in prevailing recent practice, Art. 40.2
†Cocconiscidae Romer 1945: 579 (family) †*Cocconiscus* White & Moy-Thomas 1940 [name only, but used as valid by Schultz 1948: 228 Art. 13.2.1; senior objective synonym of †Coccocephalichthyidae Fowler 1951]
†Coccocephalichthyidae Fowler 1951: 2 (family) †*Coccocephalichthys* Whitley 1940 [type genus inferred from the stem, Art. 11.7.1.1; junior objective synonym †Cocconiscidae Romer 1945, invalid, Art. 61.3.2, but name in prevailing recent practice Art. 40.2; family name sometimes seen as †Coccocephalichthidae]
†Monesedeiphidae Beltan 1990: 79 (family) †*Monesedeiphus* Beltan 1990
†Irajapintoseidae Beltan 1990: 81 (family) †*Irajapintoseidon* Beltan 1990 [correct stem is Irajapintoseid-; original, spelling a printing error?]
Family †Commentryidae Gardiner 1963
†Commentryidae Gardiner 1963: 290 (family) †*Commentrya* Sauvage 1888
Family †Cornuboniscidae White 1939
†Cornuboniscidae White 1939: 42 (family) †*Cornuboniscus* White 1939
Family †Cosmolepididae Gardiner 1967
†Cosmolepididae Gardiner 1967: 177 (family) †*Cosmolepis* Egerton 1858 [family name sometimes seen as †Cosmolepidae]
Family †Cosmoptygiidae Gardiner 1963
†Cosmoptygiidae Gardiner 1963: 259 (family) †*Cosmoptygius* Traquair 1877 [family name sometimes seen as †Cosmoptygidae]
Family †Cryphiolepididae Moy-Thomas 1939, spelling in prevailing recent practice
†Cryphiolepidae Moy-Thomas 1939: 112 (family) †*Cryphiolepis* Traquair 1881 [family name also seen as †Cryphiolepididae]
Family †Dicellopygidae Romer 1945
†Dicellopygidae Romer 1945: 579 (family) †*Dicellopyge* Brough 1931 [name only, but used as valid by Schultz 1948: 228, by Romer 1966: 352, by Andrews *et al.* 1967: 647, by Fowler 1971c: 381 and by Kazantseva-Selezneva 1977: 107 Art. 13.2.1]
Family †Eigiliidae Kazantseva-Selezneva 1977
†Eigiliidae Kazantseva-Selezneva 1977: 112 (family) †*Eigilia* Kazantseva-Selezneva 1977 [family name sometimes seen as †Eigillidae]

Family †Elonichthyidae Aldinger 1937
†Elonichthyidae Aldinger 1937: 16, 204 (family) †*Elonichthys* Giebel 1848
Family †Eurynotoididae Minikh & Minikh 1990
†Eurynotoidiidae [†Eurynotoididae] Minikh & Minikh 1990: 86 (family) †*Eurynotoides* Berg 1940
Family †Gyrolepidotidae Gardiner 1967
†Gyrolepidotidae Gardiner 1967: 175 (family) †*Gyrolepidotus* Rohon 1889
Family †Holuridae Moy-Thomas 1939
†Holuridae Moy-Thomas 1939: 113 (family) †*Holurus* Traquair 1881
Family †Lawniidae Gardiner 1967
†Lawniidae Gardiner 1967: 176 (family) †*Lawnia* Wilson 1953
Family †Pygopteridae Fitzinger 1873
†Pygopteri Fitzinger 1873: 52 (family) †*Pygopterus* Agassiz 1833
Family †Sceletophoridae Štamberg 2006
†Sceletophoridae Štamberg 2006: 217 (family) †*Sceletophorus* Frič 1894
Family †Strepheoschemidae Gardiner 1985
†Strepheoschemidae Gardiner 1985: 61 (family) †*Strepheoschema* White 1927 [family name sometimes seen as †Strepheoschematidae]
Family †Trissolepididae Frič 1893, spelling in prevailing recent practice
†Trissolepidae Frič 1893: 76 (family) †*Trissolepis* Frič 1893 [senior objective synonym of †Sphaerolepidae Fowler 1951; family name also seen as †Trissolepididae]
†Gymnoniscidae Berg 1936: 345 (family) †*Gymnoniscus* Berg 1936
†Sphaerolepidae Fowler 1951: 2 (family) †*Sphaerolepis* Frič 1877 [name only; junior objective synonym of †Trissolepidae Frič 1893, invalid, Art. 61.3.2; family name sometimes seen as †Sphaerolepididae]
Family †Urosthenidae Woodward 1931
†Urosthenidae Woodward 1931: 366 (family) †*Urosthenes* Dana 1848 [family name sometimes seen as †Urostheneidae]
Family †Varialepididae Minikh 1990
†Varialepididae Minikh 1990: 71 (family) †*Varialepis* Minikh 1986
Family †Whiteichthyidae Kazantseva-Selezneva 1977
†Whiteichthyidae Kazantseva-Selezneva 1977: 108 (family) †*Whiteichthys* Moy-Thomas 1942
Family †Stegotrachelidae Gardiner 1963, name in prevailing recent practice
†Tegeolepidae Romer 1945: 579 (family) †*Tegeolepis* Miller 1892 [name only, but used as valid by Schultz 1948: 228, by Gardiner 1963: 299, by Romer 1966: 352, by Andrews *et al.* 1967: 645, by Moy-Thomas & Miles 1971: 92, by Fowler 1971c: 383 and by Gardiner 1993b: 612 Art. 13.2.1; family name also seen as †Tegeolepididae]
†Stegotrachelidae Gardiner 1963: 294 (family) †*Stegotrachelus* Woodward & White 1926
Family †Kentuckiidae
†Kentuckiidae Gardiner 1993b: 612 (family) †*Kentuckia* Rayner 1951 [name only, published after 1960, not available, Art. 13.1.1]
Family †Howqualepididae Long, Choo & Young 2008
†Howqualepididae Long, Choo & Young 2008: 396 (family) †*Howqualepis* Long 1988
Family †Moythomasiidae Kazantseva 1971
†Moythomasiidae Kazantseva 1971: 164 (family) †*Moythomasia* Gross 1950
†Mimiidae Gardiner 1993b: 611 (family) †*Mimia* Gardiner & Bartram 1977 [name only, published after 1960, not available, Art. 13.1.1; also type genus preoccupied by *Mimia* Evans 1953 in Lepidoptera; invalid, Art. 39; type genus replaced by †*Mimipiscis* Choo 2012, if found to belong to a separate family, a new family-group name is needed]
Family †Rhabdolepididae Gardiner 1963, spelling in prevailing recent practice

†Rhabdolepididae Gardiner 1963: 284 (family) †*Rhabdolepis* Troschel 1857 [family name also seen as †Rhabdolepidae]

†Osorioichthyidae Gardiner 1967: 175 (family) †*Osorioichthys* Casier 1954

†Willomorichthyidae Gardiner 1969: 423, 438 (family) †*Willomorichthys* Gardiner 1969

Family †Aesopichthyidae Poplin & Lund 2000

†Aesopichthyidae Poplin & Lund 2000: 429 (family) †*Aesopichthys* Poplin & Lund 2000

Family †Amblypteridae Romer 1945

†Heterocercoidei Bleeker 1859: XIV (family) †*Amblypterus* Agassiz 1833 [no stem of the type genus, not available, Art. 11.7.1.1]

†Amblypteridae Romer 1945: 579 (family) †*Amblypterus* Agassiz 1833 [name only, but used as valid by Schultz 1948: 228, by Gardiner 1963: 290, by Romer 1966: 352, by Andrews *et al.* 1967: 646, by Fowler 1971c: 376, by Kazantseva-Selezneva 1977: 107 and by Gardiner 1993b: 614 Art. 13.2.1]

Family †Paramblypteridae Blot 1966

†Paramblypteridae Blot 1966: 15 (family) †*Paramblypterus* Sauvage 1888

Family †Rhadinichthyidae Romer 1945

†Rhadinichthyidae Romer 1945: 579 (family) †*Rhadinichthys* Traquair 1877 [name only, but used as valid by Schultz 1948: 228, by Romer 1966: 352, by Andrews *et al.* 1967: 645, by Fowler 1971b: 40, by Kazantseva-Selezneva 1977: 107 and by Gardiner 1993b: 613 Art. 13.2.1]

Family †Palaeoniscidae Bonaparte 1846

†Palaeoniscini Bonaparte 1846: 4 (subfamily) †*Palaeoniscum* de Blainville 1818 [type genus inferred from the stem, Art. 11.7.1.1]

†Oxygnathidae Berg 1940: 400 (family) †*Oxygnathus* Egerton 1854 [type genus preoccupied by *Oxygnathus* Dejean 1826 in Carabidae Coleoptera; invalid, Art. 39]

†Thrissonotidae Berg 1955: 121 (family) †*Thrissonotus* Agassiz 1844

†Turseoidae Bock 1959: 4 (family) †*Turseodus* Leidy 1857 [family name also seen as †Turseodidae; correct stem is Turseodont-]

Family †Gonatodidae Gardiner 1967, spelling in prevailing recent practice

†Gonatodidae Gardiner 1967: 146 (family) †*Gonatodus* Traquair 1877 [family name also seen as †Gonatodontidae]

Order †Dorypteriformes

Family †Dorypteridae Fitzinger 1873

†Doryopteri Fitzinger 1873: 51 (family) †*Dorypterus* Germar 1842 [type genus as †*Doryopterus*, name must be corrected Art. 32.5.3; corrected to †Dorypteridae by Cope 1877a: 58, confirmed by Steinmann & Döderlein 1890: 567]

Order †Platysomiformes

Family †Platysomidae Bleeker 1859

†Platysomatoidei Bleeker 1859: XVII (family) †*Platysomus* Agassiz 1833 [not Platysomatidae Bickhardt 1914 in Diptera; family name corrected to †Platysomidae by Young 1866: 316 and confirmed by Günther 1880: 370; family name corrected to †Platysomidae or not by Nicholson 1879: x, 979 and erratum slip in Volume II for p. 134 and 138; senior objective synonym of †Stroteidae Fowler 1951]

†Eurysomidae Young 1866: 316 (family) †*Eurysomus* Agassiz 1833

†Scroteidae [†Stroteidae] Jordan 1923: 112 (family) †*Strotes* Gistel 1848 [name in synonymy, not available; or, if treated as available with the help of Art. 11.6.1, junior objective synonym of †Platysomatoidei Bleeker 1859, invalid, Art. 61.3.2]

†Cheirodidae Moy-Thomas 1939: 126 (family) ? †*Cheirodopsis* Traquair 1881 or ? †*Chirodus* M'Coy 1848 [name only, used as valid before 2000?; not available]
†Stroteidae Fowler 1951: 2 (family) †*Strotes* Gistel 1848 [name only; junior objective synonym of †Platysomatoidei Bleeker 1859, invalid, Art. 61.3.2]
†Uropterygidae Fowler 1958: 3 (family) †*Uropteryx* Agassiz 1835
†Chirodontidae Moy-Thomas & Miles 1971: 94 (family) †*Chirodus* M'Coy 1848 [family name sometimes seen as †Cheirodontidae, this spelling preoccupied by Cheirodontinae Eigenmann 1915 in fishes]
Family †Bobasatraniidae Stensiö 1932
†Bobasatraniidae Stensiö in Koch 1931: 74 (family) †*Bobasatrania* White 1932 [no valid type genus, not available, Art. 11.7.1.1]
†Bobasatraniidae Stensiö 1932a: 96, 125 (family) †*Bobasatrania* White 1932

Order †Tarrasiiformes
Family †Tarrasiidae Traquair 1881
†Tarrasiidae Traquair 1881a: 61 (family) †*Tarrasius* Traquair 1881 [family name sometimes seen as †Tarrassiidae]

Order †Guildayichthyiformes
Family †Guildayichthyidae Lund 2000
†Guildayichthyidae Lund 2000: 173 (family) †*Guildayichthys* Lund 2000

Order †Phanerorhynchiformes
Family †Phanerorhynchidae Stensiö 1931
†Phanerorhynchidae Stensiö in Koch 1931: 74 (family) †*Phanerorhynchus* Gill 1923 [type genus inferred from the stem; name only, but used as valid by Stensiö 1932a: 74, 97, by Berg 1940: 402, by Romer 1966: 353 and by Andrews *et al.* 1967: 648 Art. 13.2.1]

Order †Saurichthyiformes
Family †Saurichthyidae Bleeker 1859
†Saurichthyoidei Bleeker 1859: XVI (family) †*Saurichthys* Agassiz 1834
†Rhynchodontidae Zittel 1887: 219 (family) ? [not †*Rhynchodus* Newberry 1873] [no stem of the type genus, not available, Art. 11.7.1.1]
†Belonorhynchidae Woodward 1889c: 407 (family) †*Belonorhynchus* Bronn 1858 [type genus inferred from the stem, Art. 11.7.1.1; family name sometimes seen as †Belonorynchidae]
†Saurorhynchidae Jordan 1905: 17 (family) †*Saurorhynchus* Reis 1892
Family †Yelangichthyidae Wu, Chang, Sun & Xu 2013
†Yelangichthyidae Wu, Chang, Sun & Xu 2013: 2 (family) †*Yelangichthys* Wu *et al.* 2013

Order †Redfieldiiformes
Family †Redfieldiidae Berg 1940, name in prevailing recent practice
†Catopteridae Woodward 1890a: 424 (family) †*Catopterus* Redfield 1837 [also Woodward 1890b: 15; type genus preoccupied by †*Catopterus* Agassiz 1833 in fishes; invalid, Art. 39]
†Dictyopygidae Hay 1899: 789 (family) †*Dictyopyge* Egerton 1847 [family name sometimes seen as †Dictypygidae]
†Redfieldiidae Berg 1940: 404 (family) †*Redfieldius* Hay 1899
†Brookvaliidae Berg 1940: 404 (family) †*Brookvalia* Wade 1933
†Schizurichthyidae Hutchinson 1973: 285 (family) †*Schizurichthys* Wade 1935
Family †Igornichthyidae Heyler 1977
†Igornichthyidae Heyler 1977: 13 (family) †*Igornichthys* Heyler 1969

Order †Ptycholepidiformes
Family †Ptycholepididae Brough 1939, spelling in prevailing recent practice
†Ptycholepidae Brough 1939: 57 (family) †*Ptycholepis* Agassiz 1832 [family name also seen as †Ptycholepididae]
†Boreosomidae Gardiner 1967: 177 (family) †*Boreosomus* Stensiö 1921
Family †Chungkingichthyidae Su 1974
†Chungkingichthyidae Su 1974: 1, 14 (family) †*Chungkingichthys* Su 1974

Infraclass CLADISTIA
Order Polypteriformes
Family Polypteridae Bonaparte 1835

Infraclass ACTINOPTERI
Incertae sedis:
†Dwykiidae Gardiner 1969: 423, 443 (family) †*Dwykia* Gardiner 1969
†Inichthyidae Kazantseva-Selezneva 1981: 579 (family) †*Inichthys* Kazantseva-Selezneva 1979 [English edition 1982: 7]
†Kenderlichthyidae Kazantseva-Selezneva 1977: 106 (family) †*Kenderlichthys* Kazantseva-Selezneva 1977
†Nematoptychiidae Kazantseva-Selezneva 1977: 104 (family) †*Nematoptychius* Traquair 1875
†Palaeobergiidae Kazantseva 1968: 104 (family) †*Palaeobergia* Matveeva 1958

Order †Paphosisciformes
Family †Paphosiscidae Grogan & Lund 2015
†Paphosiscidae Grogan & Lund 2015: 112 (family) †*Paphosiscus* Grogan & Lund 2015

Order †Discordichthyiformes
Family †Discordichthyidae Minikh 1998
†Discordichthyidae Minikh 1998: 49 (family) †*Discordichthys* Minikh 1998

Order †Amphicentriformes
Family †Teleopterinidae Berg 1936
†Teleopterinidae Berg 1936: 346 (family) †*Teleopterina* Berg 1936
†Eurylepidae Moy-Thomas 1939: 112 (family) †*Eurylepis* Newberry 1857 [type genus preoccupied by *Eurylepis* Blyth 1854 in Reptilia; invalid, Art. 39]
Family †Styracopteridae Moy-Thomas 1937
†Styracopteridae Moy-Thomas 1937: 353 (family) †*Styracopterus* Traquair 1890
†Chichiidae Lu & Chen 2010: 7 (family) †*Chichia* Liu & Wang 1978 [name only?]
Family †Amphicentridae Young 1866
†Amphicentridae Young 1866: 316 (family) †*Amphicentrum* Young 1866

Order †Scanilepidiformes
Family †Scanilepididae Aldinger 1937, spelling in prevailing recent practice
†Scanilepidae Aldinger 1937: 220 (family) †*Scanilepis* Aldinger 1937 [family name also seen as †Scanilepididae]
Family †Evenkiidae Selezneva 1985
†Evenkiidae Selezneva 1985: 71 (family) †*Evenkia* Berg 1941 [not Evenkidae based on †*Evenka* Rasnitsyn 1983 in Protoptera Insecta]

Order †Aeduelliformes
Family †Aeduellidae Romer 1945

†Aeduellidae Romer 1945: 579 (family) †*Aeduella* Westoll 1937 [name only, but used as valid by Schultz 1948: 228, by Romer 1966: 352, by Andrews *et al.* 1967: 645, by Heyler 1969: 97, by Moy-Thomas & Miles 1971: 93, by Fowler 1971c: 379, by Kazantseva-Selezneva 1977: 107 and by Gardiner 1993b: 614 Art. 13.2.1]

†Platysellidae Heyler & Poplin 1983: 41 (family) †*Platysella* Heyler & Poplin 1983

Family †Haplolepidae Westoll 1944, spelling in prevailing recent practice

†Haplolepidae Westoll 1944: 63 (family) †*Haplolepis* Miller 1892 [family name also seen as †Haplolepididae]

Superdivision CHONDROSTEI

Order †Chondrosteiformes

Family †Chondrosteidae Huxley 1861

†Gyrosteini Bonaparte 1850b (subfamily) †*Gyrosteus* Agassiz or Morris 1854 [type genus inferred from the stem; no valid type genus, not available, Art. 11.7.1.1]

†Chondrosteidae Huxley 1861: 40 (family) †*Chondrosteus* Egerton 1858

Family †Errolichthyidae Lehman 1952

†Errolichthyidae Lehman 1952: 122 (family) †*Errolichthys* Lehman 1952

Order Acipenseriformes

Suborder †Peipiaosteoidei

Family †Peipiaosteidae Liu & Zhou 1965

†Peipiaosteidae Liu & Zhou 1965: 237, 244 (family) †*Peipiaosteus* Liu & Zhou 1965

†Spherosteinae Grande & Bemis 1996: 112 (subfamily) †*Spherosteus* Jakovlev 1977

†Stichopterinae Grande & Bemis 1996: 112 (subfamily) †*Stichopterus* Reis 1910

Suborder Acipenseroidei

Family Polyodontidae Bonaparte 1835

†Paleopsephurinae Grande & Bemis 1991: 113 (subfamily) †*Paleopsephurus* MacAlpin 1941

†Protopsephurinae Grande & Bemis 1996: 112 (subfamily) †*Protopsephurus* Lu 1994

Family Acipenseridae Bonaparte 1831

Sturionidae Owen 1840: 68 (family) *Sturio* Rafinesque 1810 [junior objective synonym of Acipenseridae Bonaparte 1831, invalid, Article 61.3.2; Recent, omitted in Van der Laan *et al.* 2014]

†Psammorhynchinae Grande & Hilton 2006: 5 (subfamily) †*Psammorhynchus* Grande & Hilton 2006 [type genus preoccupied by *Psammorhynchus* Meixner in Turbellaria Platyhelminthes; invalid, art. 39]

†Priscosturioninae Grande & Hilton 2009: 318 (subfamily) †*Priscosturion* Grande & Hilton 2009

Pseudoscaphirhynchinae Hilton, Grande & Bemis 2011: 157 [ref. 31407] (subfamily) *Pseudoscaphirhynchus* Nikolskii 1900 [Recent, omitted in Van der Laan *et al.* 2014]

Superdivision NEOPTERYGII

Incertae sedis:

Family †Lombardinidae Saint-Seine 1955

†Lombardinidae Saint-Seine 1955: 73 (family) †*Lombardina* Saint-Seine 1955

Family †Signeuxellidae Saint-Seine 1955

†Signeuxellidae Saint-Seine 1955: 74 (family) †*Signeuxella* Saint-Seine 1955 [family name sometimes seen as †Signeusellidae]

Family †Sphaerodontidae Giebel 1846

†Sphaerodini Giebel 1846: 294 (family) †*Sphaerodus* Agassiz 1844 [correct stem is Sphaerodont-; family name also seen as †Sphaerodontes]

Order †Pycnodontiformes
Suborder †Gyrodontoidei
Family †Mesturidae Nursall 1996
†Mesturidae Nursall 1996: 134 (family) †*Mesturus* Wagner 1862
Family †Gyrodontidae Berg 1940
†Gyrodontidae Berg 1940: 413 (family) †*Gyrodus* Agassiz 1833
Suborder †Pycnodontoidei
Family †Gibbodontidae Nursall 1999
†Gibbodontidae Nursall 1999: 189, 199, 210 (family) †*Gibbodon* Tintori 1981
Family †Brembodontidae Tintori 1981
†Brembodontidae Tintori 1981: 796 (family) †*Brembodus* Tintori 1981 [family name sometimes seen as †Brembodidae]
Family †Macromesodontidae Nursall & Maisey 1991
†Macromesodontidae Nursall & Maisey in Maisey 1991: 130 (family) †*Macromesodon* Blake 1905
Family †Coccodontidae Berg 1940
†Coccodontidae Berg 1940: 413 (family) †*Coccodus* Pictet 1850
†Trewavasiidae Nursall 1996: 140 (family) †*Trewavasia* White & Moy-Thomas 1941
Family †Pycnodontidae Agassiz 1833
†Pycnodontae Agassiz 1832: 141 (family) †*Pycnodus* Agassiz 1833 [no valid type genus, not available, Art. 11.7.1.1]
†Pycnodontes Agassiz 1833 Tome I: 2, 15 (family) †*Pycnodus* Agassiz 1833 [latinized to †Pycnodontidae by Bonaparte 1845: 387, by Owen 1846: 50 and by Günther 1880: 366, latinized to †Pycnodontes by Giebel 1846: 156 and Giebel 1847: 158, latinized to †Pycnodonti by M'Coy in Sedgwick & M'Coy 1855: 579; considered valid with this authorship by Müller 1846: 151, by Bronn 1849: 665, by Cope 1877a: 57, by Quenstedt 1885: 325, by Gardiner 1993b: 618 and by Kriwet 1999: 217 Art. 11.7.2]
†Palaeobalistidae Blot 1987: 87 (family) †*Palaeobalistum* de Blainville 1818
†Nursalliidae Blot 1987: 119 (family) †*Nursallia* Blot 1987 [family name sometimes seen as †Nursallidae; correct stem is Nursalli-]
†Tepexichthyinae Applegate 2001b: 3 (subfamily) †*Tepexichthys* Applegate 1992 [unavailable publication, family-group name not available]
†Nahuaichthyinae Applegate 2001b: 3 (subfamily) ? [unavailable publication, family-group name not available]
†Huehueichthyinae Applegate 2001b: 3 (subfamily) ? [unavailable publication, family-group name not available]
†Matzichthyinae Applegate 2001b: 3 (subfamily) ? [unavailable publication, family-group name not available]
†Proscinetinae Poyato-Ariza & Wenz 2002: 221 (subfamily) †*Proscinetes* Gistel 1848 [curiously as "new rank"; subfamily name also seen as †Proscinitinae]
†Turboscinetinae Ebert 2016: 18 (subfamily) ? †*Turboscinetes* Ebert 2016 [incorrectly (?) cited with type genus †*Proscinetes* Gistel 1848; unneeded family-group name if †*Proscinetes* Gistel 1848 is also included in the clade]
Family †Hadrodontidae Thurmond & Jones 1981
†Hadrodontidae Thurmond & Jones 1981: 82 (family) †*Hadrodus* Leidy 1857
Family †Gladiopycnodontidae Taverne & Capasso 2013
†Gladiopycnodontidae Taverne & Capasso 2013: 4 (family) †*Gladiopycnodus* Taverne & Capasso 2013
Family †Gebrayelichthyidae Nursall & Capasso 2004
†Gebrayelichthyidae Nursall & Capasso 2004: 318 (family) †*Gebrayelichthys* Nursall & Capasso 2004

Order †Pholidopleuriformes
Family †Pholidopleuridae Abel 1919
†Pholidopleuridae Abel 1919: x (family) †*Pholidopleurus* Bronn 1858 [also as a new family in Wade 1932: 473]
†Australosomidae Burton 1931: 45 (family) †*Australosomus* Piveteau 1930
Family †Brachydegmidae Gardiner 1967
†Brachydegmidae Gardiner 1967: 177 (family) †*Brachydegma* Dunkle 1939 [family name sometimes seen as †Brachydegmatidae or †Brachidegmidae]

Order †Perleidiformes
Family †Platysiagidae Brough 1939
†Platysiagidae Brough 1939: 14 (family) †*Platysiagum* Egerton 1872
Family †Fuyuanperleididae Sun, Lombardo, Tintori, Jiang, Hao, Sun & Lin 2012
†Fuyuanperleididae Sun, Lombardo, Tintori, Jiang, Hao, Sun & Lin 2012: 362 (family) †*Fuyuanperleidus* Geng, Jin, Wu & Wang 2012
Family †Colobodontidae Andersson [= Stensiö] 1916
†Colobodontidae Andersson 1916: 17 (family) †*Colobodus* Agassiz 1844
†Asterodontidae Jordan 1923: 112 (family) †*Asterodon* Münster 1841 [not *Asterodon* Perrier 1891 in Asteroidea: Odontasteridae]
Family †Cleithrolepididae Wade 1935, spelling in prevailing recent practice
†Cleithrolepidae Wade 1935: 47 (family) †*Cleithrolepis* Egerton 1864 [family name also seen as †Cleithrolepididae]
Family †Gabanelliidae Tintori & Lombardo 1996
†Gabanellidae Tintori & Lombardo 1996: 229 (family) †*Gabanellia* Tintori & Lombardo 1996 [correct stem is Gabanelli-]
Family †Perleididae Brough 1931
†Perleididae Brough 1931: 280 (family) †*Perleidus* Deecke 1911
Family †Hydropessidae Hutchinson 1973
†Hydropessidae Hutchinson 1973: 316 (family) †*Hydropessum* Broom 1909
Family †Pseudobeaconiidae López-Arbarello & Zavattieri 2008
†Pseudobeaconiidae López-Arbarello & Zavattieri 2008: 1031 (family) †*Pseudobeaconia* Bortdas 1944
Family †Eosemionotidae Bürgin, Eichenberger, Furrer & Tschanz 1991
†Eosemionotidae Bürgin, Eichenberger, Furrer & Tschanz 1991: 953 (family) †*Eosemionotus* Stolley 1920
Family †Cephaloxenidae Brough 1939
†Cephaloxenidae Brough 1939: 19 (family) †*Cephaloxenus* Brough 1939

Order †Peltopleuriformes
Family †Polzbergiidae Griffith 1977
†Polzbergiidae Griffith 1977: 11 (family) †*Polzbergia* Griffith 1977 [family name sometimes seen as †Polzbergidae]
Family †Peltopleuridae Brough 1939
†Peltopleuridae Brough 1939: 23 (family) †*Peltopleurus* Kner 1866
Family †Habroichthyidae Gardiner 1967
†Habroichthyidae Gardiner 1967: 178 (family) †*Habroichthys* Brough 1939
Family †Thoracopteridae Griffith 1977
†Thoracopteridae Griffith 1977: 1 (family) †*Thoracopterus* Bronn 1858
Family †Venusichthyidae Xu & Zhao 2016
†Venusichthyidae Xu & Zhao 2016: 339 (family) †*Venusichthys* Xu & Zhao 2016

Order †Luganoiiformes
Family †Luganoiidae Brough 1939
†Luganoiidae Brough 1939: 39 (family) †*Luganoia* Brough 1939 [family name sometimes seen as †Luganoidae]
Family †Aetheodontidae Brough 1939
†Aetheodontidae Brough 1939: 51 (family) †*Aetheodontus* Brough 1939 [also seen as †*Aethodontus* and †Aethodontidae or †Aethedontidae]

Division Ginglymodi
Incertae sedis:
Family †Kyphosichthyidae Sun & Ni 2017
†Kyphosichthyidae Sun & Ni 2017: 67 (family) †*Kyphosichthys* Xu & Wu 2012

Order †Dapediiformes
Family †Dapediidae Bleeker 1859
†Dapediden Vogt 1851: 133 (family) †*Dapedium* Leach 1822 [published not in latinized form before 1900, not available, Art. 11.7.2]
†Dapedioidei Bleeker 1859: XVII (family) †*Dapedium* Leach 1822 [type genus as †*Dapedius* Agassiz 1833]

Order Lepisosteiformes
Family †Obaichthyidae Grande 2010
†Obaichthyidae Grande 2010: 792 (family) †*Obaichthys* Wenz & Brito 1992
Family Lepisosteidae Agassiz 1832 [correction of Van der Laan *et al.* 2014]
Lepidostei Agassiz 1832: 144 (family) *Lepisosteus* [type genus as *Lepidosteus*, name must be corrected Art. 32.5.3, see Van der Laan *et al.* 2014: 28; Agassiz 1833: 10 placed *Lepidosteus* in Sauroides]
†Masillosteinae Grande 2010: 661 (subfamily) †*Masillosteus* Micklich & Klappert 2001
†Cuneatini Grande 2010: 792 (tribe) †*Cuneatus* Grande 2010

Order †Semionotiformes
Incertae sedis:
Family †Uarbryichthyidae Bartram 1977
†Uarbryichthyidae Bartram 1977: 204 (family) †*Uarbryichthys* Wade 1941

Family †Semionotidae Woodward 1890, name in prevailing recent practice
†Lépidoïdes Agassiz 1833 Tome II pt. 1: 1 (family) †*Lepidotes* Agassiz 1832 [latinized to †Lepidoidei by Owen 1846: 50, latinized to †Lepidotini by Giebel 1847: 185, latinized to †Lepidoidea by M'Coy 1855: 605, latinized to †Lepidotidae by Owen 1860: 143; considered valid with this authorship by Bronn 1849: 657, by Eichwald 1868: 1208 and by Cope 1877a: 57 Art. 11.7.2]
†Stylodontes Wagner 1863: 613 (family) ? [no stem of the type genus, not available, Art. 11.7.1.1]
†Pleurolepididae Lütken 1871: 333 (family) †*Pleurolepis* Quenstedt 1852 [changed to †Pleurolepidae by Günther 1880: 366; not the ordinal series name †Pleurolepidae Quenstedt 1852 / †Lepidopleuridae Young 1866; to avoid confusion it is probably better not to treat †Pleurolepididae in the family-group series]
†Stylodontidae Günther 1880: 368 (family) ? †*Tetragonolepis* Bronn 1830 [no stem of the type genus, not available, Art. 11.7.1.1; also preoccupied by †Stylodontidae Marsh 1879 in Mammalia]

†Sphaerodontidae Günther 1880: 368 (family) †*Lepidotes* Agassiz 1832 [type genus as †*Lepidotus*; no stem of the type genus, not available, Art. 11.7.1.1; also preoccupied by †Sphaerodontidae Giebel 1846 in fishes]
†Semionotidae Woodward 1890b: 30 (family) †*Semionotus* Agassiz 1832
†Acentrophoridae Berg 1936: 345 (family) †*Acentrophorus* Traquair 1877

Family †Callipurbeckiidae López-Arbarello 2012
†Paralepidotidae Stolley 1920: 53 (family) †*Paralepidotus* Stolley 1920 [mentioned as a possible new family name, not proposed conditionally in the sense of Art. 15; not available]
†Callipurbeckiidae López-Arbarello 2012: 35, 41 (family) †*Callipurbeckia* López-Arbarello 2012 [family name sometimes seen as †Callipurbeckidae]

Family †Macrosemiidae Wagner 1860, name in prevailing recent practice
"une troisième famille qui réduira un peu le nombre de ces formes génériques encore flottantes. Elle aura pour type le genre †*Macrosemius*, A." Thiollière 1858: 791 (family) †*Macrosemius* Agassiz 1834 [no family name used, not available]
†Propteroidei Bleeker 1859: XVII (family) †*Propterus* Agassiz 1834
†Macrosemii Wagner 1860a: 399 (Gruppe) †*Macrosemius* Agassiz 1834 [corrected to †Macrosemiidae by Cope 1889: 858]

Division Halecomorphi

Incertae sedis:

†Gigantodontidae Weiler 1935: 26, 29 (family) †*Stromerichthys* Weiler 1935 [no stem of the type genus, not available, Art. 11.7.1.1]
†Pingolepidae Chang & Chou 1974: 184 (family) †*Pingolepis* Chang & Chou 1974 [also Chang & Chou 1977: 23, 56]
†Praesemionotidae Jörg 1969: 89, 94 (family) †*Praesemionotus* Jörg 1969

Order †Parasemionotiformes

Family †Parasemionotidae Stensiö 1931
†Ospiidae Stensiö in Koch 1931: 74 (family) †*Ospia* Stensiö 1932 [no valid type genus, not available, Art. 11.7.1.1]
†Bronghiidae [†Broughiidae] Koch 1931: 88 (family) ? †*Broughia* Stensiö 1932 [no valid type genus, not available, Art. 11.7.1.1]
†Parasemionotidae Stensiö in Koch 1931: 74 (family) †*Parasemionotus* Piveteau 1929 [type genus inferred from the stem; name only, but used as valid by Stensiö 1932a: 97, 183, by Gardiner 1960: 333, by Griffith & Patterson 1963: 33, by Romer 1966: 354, by Andrews *et al.* 1967: 652, by Fowler 1971c: 403 and by Gardiner 1993b: 618 Art. 13.2.1]
†Ospiidae Stensiö 1932a: 97, 183 (family) †*Ospia* Stensiö 1932
†Tungusichthyidae Berg 1940: 406 (family) †*Tungusichthys* Berg 1941 [no valid type genus, not available, Art. 11.7.1.1]
†Tungusichthyidae Berg 1941: 462 (family) †*Tungusichthys* Berg 1941
†Promecosominidae Wade 1941a: 380 (family) †*Promecosomina* Wade 1935
†Paracentrophoridae Gardiner 1960: 347 (family) †*Paracentrophorus* Piveteau 1941

Order †Panxianichthyiformes

Family †Panxianichthyidae Sun, Tintori, Xu, Lombardo, Ni & Jiang 2016
†Panxianichthyidae Sun, Tintori, Xu, Lombardo, Ni & Jiang 2016: 224 (family) †*Panxianichthys* Xu & Shen 2015

Order †Ophiopsiformes

Incertae sedis:

†Furidae Jordan 1923: 116 (family) †*Furo* Gistel 1848 [family name sometimes seen as †Furonidae]

†Ophiopsidae Bartram 1975: 201 (family) †*Ophiopsis* Agassiz 1834 [family name sometimes seen as †Ophiopsididae]

Family †Ophiopsiellidae Ebert 2018
†Ophiopsiellidae Ebert 2018: [15] (family) †*Ophiopsiella* Lane & Ebert 2015

Order Amiiformes
Family †Ionoscopidae Lehman 1966
†Ionoscopidae Lehman 1966: 141 (family) †*Ionoscopus* Costa 1853
†Oshuniidae Grande & Bemis 1998: 606 (family) †*Oshunia* Wenz & Kellner 1986
Suborder †Caturoidei
Family †Caturidae Owen 1860, name in prevailing recent practice
†Trapeziolepidoidei Bleeker 1859: XVI (family) †*Caturus* Agassiz 1834 [no stem of the type genus, not available, Art. 11.7.1.1]
†Lophiostomatoidei Bleeker 1859: XVII (family) †*Lophiostomus* Egerton 1852
†Caturidae Owen 1860: 139 (family) †*Caturus* Agassiz 1834 [also †Caturini Wagner 1860a: 396, published later]
†Cyclolepidoti Zittel 1887: 227 (family) ? †*Caturus* Agassiz 1834 [no stem of the type genus, not available, Art. 11.7.1.1]
†Eugnathidae Lydekker in Nicholson & Lydekker 1889: 986 (family) †*Eugnathus* Agassiz 1844 [type genus preoccupied by *Eugnathus* Schönherr 1833 in Coleoptera; invalid, Art. 39]
†Isopholidae Hay 1899: 790 (family) †*Isopholis* Zittel 1887
†Liodesmidae Jordan 1905: 34 (family) †*Liodesmus* Wagner 1859
Suborder Amioidei
Family †Sinamiidae Berg 1940
†Sinamiidae Berg 1940: 412 (family) †*Sinamia* Stensiö 1935
Family Amiidae Bonaparte 1831
†Megaluridae Zittel 1895: 584 (family) †*Megalurus* Agassiz 1833 [type genus preoccupied by *Megalurus* Horsfield 1821 in Aves; invalid, Art. 39; not Megaluridae in Aves]
†Vidalamiinae Grande & Bemis 1998: 337 (subfamily) †*Vidalamia* White & Moy-Thomas 1941 [also as new tribe †Vidalamiini]
†Solnhofenamiinae Grande & Bemis 1998: 450 (subfamily) †*Solnhofenamia* Grande & Bemis 1998
†Amiopsinae Grande & Bemis 1998: 483 (subfamily) †*Amiopsis* Kner 1863
†Calamopleurini Grande & Bemis 1998: 405 (tribe) *Calamopleurus* Agassiz 1841

Superdivision TELEOSTEOMORPHA
Incertae sedis:
†Palaeolabridae Estes 1969b: 2 (family) †*Palaeolabrus* Casier 1967
†Pseudoberycidae Berg 1940: 420 (family) †*Pseudoberyx* Pictet & Humbert 1866

Division †Aspidorhynchei
Order †Aspidorhynchiformes
Family †Aspidorhynchidae Bleeker 1859
†Aspidorhynchoidei Bleeker 1859: XVI (family) †*Aspidorhynchus* Agassiz 1833
†Vinctiferidae Silva Santos 1990: 252 (family) †*Vinctifer* Jordan 1920

Order †Pachycormiformes
Family †Pachycormidae Lydekker 1889, name in prevailing recent practice
†Saurotomini [†Saurostomini] Bonaparte 1846: 4 (subfamily) †*Saurostomus* Agassiz 1843 [genus inferable from the stem?; corrected to †Saurostomini by Bonaparte 1850a: 455; corrected to †Saurostomata by Fitzinger 1873: 50]

†Pelecopteridae Cope 1875: 244A (family) †*Pelecopterus* Cope 1875
†Sauropsidae Cope 1877a: 60 (family) †*Sauropsis* Agassiz 1832
†Erisichtheidae Cope 1877b: 822 (family) †*Erisichthe* Cope 1872 [family name sometimes seen as †Erisichthidae or †Eriscichtheidae]
†Microlepidoti Zittel 1887: 223 (family) ? †*Pachycormus* Agassiz 1833 [no stem of the type genus, not available, Art. 11.7.1.1]
†Pachycormidae Lydekker in Nicholson & Lydekker 1889: 989 (family) †*Pachycormus* Agassiz 1833
†Protosphyraenidae Lydekker in Nicholson & Lydekker 1889: 996 (family) †*Protosphyraena* Leidy 1857
†Diphyodontidae Jordan 1923: 113 (family) †*Diphyodus* Lambe 1902

Order †Prohaleciteiformes
Family †Prohaleciteidae Arratia 2017
†Prohaleciteidae Arratia 2017: 23 (family) †*Prohalecites* Deeke 1889

Division Teleostei
Incertae sedis:
Family †Sorbinicharacidae Taverne 2003
†Sorbinicharacidae Taverne 2003: 29 (family) †*Sorbinicharax* Taverne 2003

Order †Pholidophoriformes
†Mjollnirulidae Lund 1968 (family) †'*Mjollnirulus*' [unavailable publication, family-group name not available]
†Nybelineidae Lund 1968 (family) †'*Nybelinea*' [not *Nybelinea* Whitley 1976: 48; unavailable publication, family-group name not available]
†Tjalvidae Lund 1968 (family) †'*Tjalvis*' [unavailable publication, family-group name not available]

Family †Ligulellidae Saint-Seine 1955
†Ligulellidae Saint-Seine 1955: 103 (family) †*Ligulella* Saint-Seine 1955
Family †Siyuichthyidae Su 1980
†Siyuichthyidae Su 1980: 77 (family) †*Siyuichthys* Su 1980 [also Su 1985: 73, 130]
Family †Eurycormidae Arratia 2017
†Eurycormidae Arratia 2017: 23 (family) †*Eurycormus* Wagner 1863
Family †Pholidophoridae Wagner 1860
†Monostichii Giebel 1847: 203 (family) †*Pholidophorus* Agassiz 1832 [no stem of the type genus, not available, Art. 11.7.1.1]
†Pholidophori Wagner 1860b: 402 (Gruppe) †*Pholidophorus* Agassiz 1832
Family †Archaeomaenidae Boulenger 1904
†Archaeomaenidae Boulenger 1904a: 163 (family) †*Archaeomaene* Woodward 1895
†Aetheolepidae Wade 1941b: 80 (family) †*Aetheolepis* Woodward 1895
†Aphnelepidae Wade 1941b: 78 (family) †*Aphnelepis* Woodward 1895 [family name sometimes seen as †Aphnelepididae]
Family †Protelopidae Saint-Seine 1949
†Protelopidae Saint-Seine 1949: 261 (family) † *Protelops* Laube 1885
Family †Pleuropholidae Saint-Seine 1949
†Pleuropholidae Saint-Seine 1949: 249, 255 (family) †*Pleuropholis* Egerton 1858 [family name sometimes seen as †Pleuropholididae]
Family †Galkiniidae Yakovlev 1962
†Galkiniidae Yakovlev 1962: 93 (family) †*Galkinia* Berg 1949

Family †Majokiidae Saint-Seine 1955
†Majokiidae Saint-Seine 1955: 107 (family) †*Majokia* Saint-Seine 1955
Family †Oligopleuridae Woodward 1895
†Oligopleuridae Woodward 1895: 490 (family) †*Oligopleurus* Thiollière 1850
Family †Catervariolidae Saint-Seine 1955
†Catervariolidae Saint-Seine 1955: 18 (family) †*Catervariolus* Saint-Seine 1955
Family †Ichthyokentemidae Griffith & Patterson 1963
†Ichthyokentemidae Griffith & Patterson 1963: 6 (family) †*Ichthyokentema* Woodward 1941 [family name sometimes seen as †Ichthyokentematidae]
Family †Ankylophoridae Gaudant 1978
†Ankylophoridae Gaudant 1967b: 373 (family) †*Ankylophorus* Gaudant 1978 [no valid type genus, not available, Art. 11.7.1.1]
†Ankylophoridae Gaudant 1978: 113 (family) †*Ankylophorus* Gaudant 1978

Order †Dorsetichthyiformes
Family †Dorsetichthyidae
†Dorsetichthyidae Nelson, Grande & Wilson 2016: 130 (family) †*Dorsetichthys* Arratia 2013 [not published according to the rules, not available]
†Dorsetichthyidae Arratia 2017: 24 (family) †*Dorsetichthys* Arratia 2013 [not published according to the rules, not available]

Order †Leptolepidiformes
Family †Leptolepididae Owen 1860, spelling in prevailing recent practice
†Leptolépides Pictet 1854: 135 (family) †*Leptolepis* Agassiz 1832 [published not in latinized form before 1900, not available, Art. 11.7.2]
†Cyclolepidoidei Bleeker 1859: XVI (family) †*Leptolepis* Agassiz 1832 [no stem of the type genus, not available, Art. 11.7.1.1]
†Leptolepidae Owen 1860: 144 (family) †*Leptolepis* Agassiz 1832 [family name also seen as †Leptolepididae]
? †Ctenolepides Fitzinger 1873: 50 (family) †*Ctenolepis* Agassiz 1844 [family uncertain]
Family †Koonwarriidae Waldman 1971
†Koonwarriidae Waldman 1971: 35 (family) †*Koonwarria* Waldman 1971
Family †Ascalaboidae Arratia 2016
†Ascalaboidae Arratia 2016: 33 (family) †*Ascalabos* Münster 1839 [family name sometimes seen as †Ascalabidae]

Order †Crossognathiformes
Incertae sedis:
†Salminopsidae Gayet 1985b: 896 (family) †*Salminops* Gayet 1985 [also in Gayet 1985c: 93]

Family †Varasichthyidae Arratia 1981
†Varasichthyidae Arratia 1981: 110 (family) †*Varasichthys* Arratia 1981
Family †Chongichthyidae Arratia 1982
†Chongichthyidae Arratia 1982: 132 (family) †*Chongichthys* Arratia 1982
Family †Crossognathidae Woodward 1901, name in prevailing recent practice
†Pelecorapidae Cragin 1901: 30 (family) †*Pelecorapis* Cope 1875 [Hay 1929: 734 selected †Pelecorapidae over †Syllaemidae, confirmed by Fowler 1973: 296; family name sometimes seen as †Pelycorapidae]
†Syllaemidae Cragin 1901: 25 (family) †*Syllaemus* Cope 1875
†Crossognathidae Woodward 1901: 348 (family) †*Crossognathus* Pictet 1858

†Apsopelicidae Romer 1966: 354 (family) †*Apsopelix* Cope 1871 [name only, published after 1960, not available, Art. 13.1.1]

Family †Notelopidae Forey 1977

†Notelopidae Forey 1977: 129 (family) †*Notelops* Woodward 1901

Family †Pachyrhizodontidae Cope 1872

†Pachyrhizodontidae Cope 1872: 343 (family) †*Pachyrhizodus* Dixon 1850 [family name sometimes seen as †Pachyrhizodidae or †Pachyrhizolidae]

†Thrissopatrinae Boulenger 1904b: 562 (subfamily) †*Thrissopater* Günther 1872 [family name sometimes seen as †Thrissopateridae]

†Raphiosauridae Fowler 1911: 151 (family) †*Raphiosaurus* Owen 1842

†Greenwoodellidae Taverne 1973: 5 (family) †*Greenwoodella* Taverne & Ross 1973

Order †Ichthyodectiformes

Family †Allothrissopidae Patterson & Rosen 1977, name in prevailing recent practice

†Thressopina [†Thrissopina] Bassani 1879a: 167 (Gruppe) †*Thrissops* Agassiz 1833 [corrected to †Thrissopina by Bassani 1879b: 204]

†Allothrissopidae Patterson & Rosen 1977: 115, 163 (family) †*Allothrissops* Nybelin 1964

†Occithrissopidae Taverne & Chanet 2000: 32 (family) †*Occithrissops* Schaeffer & Patterson 1984 [not published according to the rules, not available]

†Unamichthyidae Alvarado-Ortega 2004: 803 (family) †*Unamichthys* Alvarado-Ortega 2004

Family †Chuhsiungichthyidae Yabumoto 1994

†Chuhsiungichthiidae [†Chuhsiungichthyidae] Yabumoto 1994: 130 (family) †*Chuhsiungichthys* Lew 1974

Family †Cladocyclidae Maisey 1991

†Cladocyclidae Maisey 1991: 190, 206 (family) †*Cladocyclus* Agassiz 1841

Family †Saurodontidae Bonaparte 1846

†Saurodontidae Bonaparte 1846: 4 (family) †*Saurodon* Hays 1830 [type genus inferred from the stem, Art. 11.7.1.1; also as subfamily †Saurodontini]

†Saurocephalidae Zittel 1888: 262 (family) †*Saurocephalus* Harlan 1824

†Gillicinae Taverne 2008: 224 (subfamily) †*Gillicus* Hay 1898

Family †Ichthyodectidae Crook 1892

†Ichthyodectidae Crook 1892: 111, 121 (family) †*Ichthyodectes* Cope 1870 [family name sometimes seen as †Icthyodectidae based on †*Icthyodectes*]

Family †Luisiellidae Sferco, López-Arbarello & Báez 2015

†Luisiellidae Sferco, López-Arbarello & Báez 2015: 13 (family) †*Luisiella* Bocchino 1967

Order †Tselfatiiformes

Family †Protobramidae Le Danois & Le Danois 1964

†Protobramidae Le Danois & Le Danois 1964: 185 (family) †*Protobrama* Woodward 1942

Family †Eoplethodidae Taverne & Gayet 2005

†Eoplethodidae Taverne & Gayet 2005: 66 (family) †*Eoplethodus* Taverne 2000 [family name sometimes seen as †Eoplethodontidae]

Family †Plethodidae Loomis 1900 [ICZN Opinion 921]

†Plethodidae Loomis 1900: 229 (family) †*Plethodus* Dixon 1850 [changed to †Plethodontidae by Hay 1929: 736, but Plethodontidae preoccupied in Amphibia; the incorrect subsequent spelling †Plethodontidae is invalid, ICZN Opinion 921]

†Thryptodontidae Jordan 1905: 44 (family) †*Thryptodus* Loomis 1900 [family name sometimes seen as †Thryptodidae]

†Anogmiidae Jordan 1925a: 219, 220 (family) †*Anogmius* Cope 1877 [type genus preoccupied by †*Anogmius* Cope 1871 in fishes; invalid, Art. 39]

†Niobraridae Jordan 1925a: 222 (family) †*Niobrara* Jordan 1925
†Tselfatidae Arambourg 1944: 282 (family) †*Tselfatia* Arambourg 1944 [family name also seen as †Tselfatiidae; correct stem is Tselfati-]
†Bananogmiidae Applegate 1970: 413 (family) †*Bananogmius* Whitley 1940 [family name sometimes seen as †Ananogmiidae, possibly based on †*Anangomius* White & Moy Thomas 1940]

Order †Araripichthyiformes
Family †Araripichthyidae Silva Santos 1985
†Araripichthyidae Silva Santos 1985: 135 (family) †*Araripichthys* Silva Santos 1985

Cohort ELOPOMORPHA
Family †Anaethalionidae Gaudant 1967
†Anaethalionidae Gaudant 1967: 309 (family) †*Anaethalion* White 1938 [extended description in Gaudant 1968; family name sometimes seen as †Anaethaliidae]

Order Elopiformes
Family Elopidae Valenciennes 1847
Family Megalopidae Jordan & Gilbert 1883
†Sedenhorstiidae Goody 1969a: 3 (family) †*Sedenhorstia* White & Moy-Thomas 1941
Family †Phyllodontidae Sauvage 1875, spelling in prevailing recent practice
†Phyllodidae Sauvage 1875: 615 (family) †*Phyllodus* Agassiz 1839 [family name also seen as †Phyllodontidae]
†Euphyllodontinae Dartevelle & Casier 1949: 229 (subfamily) ? [no valid type genus, not available, Art. 11.7.1.1]
†Pseudophyllodontinae Dartevelle & Casier 1949: 229 (subfamily) ? [no valid type genus, not available, Art. 11.7.1.1]
†Paralbulinae Estes 1969a: 321 (subfamily) †*Paralbula* Blake 1940

Order Albuliformes
Family †Osmeroididae Forey 1973
†Osmeroididae Forey 1973: 94 (family) †*Osmeroides* Agassiz 1837
Family †Eurokidae Bartholomai 2010
†Eurokidae Bartholomai 2010: 71 (family) †*Euroka* Bartholomai 2010
Family Albulidae Bleeker 1849

Order Notacanthiformes
Family Halosauridae Günther 1868
Family Notacanthidae Rafinesque 1810
†Pronotacanthidae Jordan 1923: 128 (family) †*Pronotacanthus* Woodward 1900

Order Anguilliformes
Incertae sedis:
†Derrhiidae Jordan 1925b: 15 (family) †*Derrhias* Jordan 1925

Family †Anguillavidae Hay 1903
†Anguillavidae Hay 1903: 436 (family) †*Anguillavus* Hay 1903
†Encheliidae Hay 1903: 441 (family) †*Enchelion* Hay 1903
†Mylomyridae Berg 1940: 450 (family) †*Mylomyrus* Woodward 1910
Family †Georgidentidae Sytchevskaya & Prokofiev 2004
†Georgidentidae Sytchevskaya & Prokofiev 2004: 23 (family) †*Georgidens* Sytchevskaya & Prokofiev 2004

Family †Libanechelyidae Taverne 2004
†Libanechelyidae Taverne 2004: 74 (family) †*Libanechelys* Taverne 2004
Family †Milananguillidae Blot 1978
†Milananguillidae Blot 1976a: 510 (family) †*Milananguilla* Blot 1978 [no valid type genus, not available, Art. 11.7.1.1]
†Milananguillidae Blot 1978: 75 (family) †*Milananguilla* Blot 1978
Family †Urenchelyidae Jordan 1905
†Urenchelyidae Jordan 1905: 142 (family) †*Urenchelys* Woodward 1900 [family name sometimes seen as †Urenchelidae]

Suborder Protanguilloidei
Family Protanguillidae Johnson, Ida & Miya 2012
Suborder Synaphobranchoidei
Family Synaphobranchidae Johnson 1862
Suborder Moringuoidei
Family Moringuidae Gill 1885
Suborder Anguilloidei
Family †Anguilloididae Blot 1978
†Anguilloididae Blot 1976: 510 (family) †*Anguilloides* Cadrobbi 1962 [name only, published after 1960, not available, Art. 13.1.1]
†Anguilloididae Blot 1978: 100 (family) †*Anguilloides* Cadrobbi 1962
Family †Patavichthyidae Blot 1981
†Patavichthyidae Blot 1976: 510 (family) †*Patavichthys* Blot 1981 [no valid type genus, not available, Art. 11.7.1.1]
†Patavichthidae Blot 1981: 349 (family) †*Patavichthys* Blot 1981 [family name also seen as †Patavichthyidae; correct stem is Patavichthy-]
Family †Proteomyridae Blot 1981
†Proteomyridae Blot 1976: 510 (family) †*Proteomyrus* Cadrobbi 1962 [name only, published after 1960, not available, Art. 13.1.1]
†Proteomyridae Blot 1981: 348 (family) †*Proteomyrus* Cadrobbi 1962
Family Nemichthyidae Kaup 1859
Family Anguillidae Rafinesque 1810
Suborder Muraenoidei
Family †Paranguillidae Blot 1981
†Paranguillidae Blot 1976: 510 (family) †*Paranguilla* Bleeker 1864 [name only, published after 1960, not available, Art. 13.1.1]
†Paranguillidae Blot 1981: 346 (family) †*Paranguilla* Bleeker 1864
Family Serrivomeridae Trewavas 1932
Family Heterenchelyidae Regan 1912
Family Myrocongridae Gill 1890
Family Muraenidae Rafinesque 1815
Suborder Chlopsoidei
Family Chlopsidae Rafinesque 1815
Suborder Congroidei
Family Congridae Kaup 1856
†Bolcyridae White in Blot 1984: 234 (family) †*Bolcyrus* Blot 1978
Family Derichthyidae Gill 1884
Family Nettastomatidae Kaup 1859
Family Muraenesocidae Kaup 1859
Family †Nardoechelyidae Taverne & Capasso 2014
†Nardoechelyidae Taverne & Capasso 2014: 4 (family) †*Nardoechelys* Taverne 2002

Family Ophichthidae Günther 1870
†Parechelidae Casier 1967: 8 (family) †*Parechelus* Casier 1967
†Asanoinae Sytchevskaya & Prokofiev 2004: 29 (subfamily) †*Asanoa* Sytchevskaya & Prokofiev 2004

Suborder Saccopharyngoidei
Family Cyematidae Regan 1912
Family Monognathidae Trewavas 1937
Family Saccopharyngidae Bleeker 1859
Family Eurypharyngidae Gill 1883

Cohort OSTEOGLOSSOMORPHA
Incertae sedis:
Family †Jiuquanichthyidae Ma 1993
†Jiuquanichthyidae Ma 1993: 23, 92 (family) †*Jiuquanichthys* Ma 1993
Family †Kipalaichthyidae Taverne 1976
†Kipalaichthyidae Taverne 1976: 25, 30 (family) †*Kipalaichthys* Taverne 1976
Family †Kuyangichthyidae Liu, Ma & Liu 1982
†Kuyangichthyidae Liu, Ma & Liu 1982: 101 (family) †*Kuyangichthys* Liu, Ma & Liu 1982

Order †Lycopteriformes
Family †Lycopteridae Cockerell 1924
†Lycopteridae Cockerell 1924: 131 (family) †*Lycoptera* Müller 1848
†Manchurichthynae [†Manchurichthyinae] Takai 1944: 248 (subfamily) †*Manchurichthys* Saito 1936 [correct stem is Manchurichthy-]
Family †Wakinichthyidae Yabumoto 1994
†Wakinichthiidae [†Wakinichthyidae] Yabumoto 1994: 179 (family) †*Wakinichthys* Yabumoto 1994 [correct stem is Wakinichthy-; family name sometimes seen as †Wakinichthidae or †Wakinoichthidae]

Order Hiodontiformes
Family Hiodontidae Valenciennes 1847
†Jiaohichthyidae Ma 1983: 28 (family) †*Jiaohichthys* Ma 1983

Order Osteoglossiformes
Family †Ostariostomidae Schaeffer 1949
†Ostariostomidae Schaeffer 1949: 3 (family) †*Ostariostoma* Schaeffer 1949
Family †Huashiidae Chang & Chou 1974
†Huashiidae Chang & Chou 1974: 185 (family) †*Huashia* Chang & Chou 1974 [also Chang & Chou 1977: 39, 57]
Family Pantodontidae Peters 1876
†Singididae Greenwood & Patterson 1967: 213 (family) †*Singida* Greenwood & Patterson 1967
Family Osteoglossidae Bonaparte 1845
†Phareodontidae Jordan 1925a: 232 (family) †*Phareodus* Leidy 1873 [family name sometimes seen as †Phareodidae]
†Brychaetidae Bonde 1966: 199 (family) †*Brychaetus* Woodward 1901
†Laeliichthyinae Silva Santos 1985b: 161 (subfamily) †*Laeliichthys* Silva Santos 1985
†Foreyichthyidae Taverne 1998: 67 (family) *Foreyichthys* Taverne 1979
Family Notopteridae Bleeker 1851
Family Mormyridae Bonaparte 1831
Family Gymnarchidae Bleeker 1859

Cohort CLUPEOCEPHALA
Incertae sedis:
†Lycoclupeidae Gowda 1967: 119, 123 (family) †*Lycoclupea* Gowda 1967

Subcohort Otomorpha
Incertae sedis:
Family †Clupavidae Bertin & Arambourg 1958
†Clupavidae Bertin & Arambourg 1958: 2230 (family) †*Clupavus* Arambourg 1950
Family †Ganolytidae Jordan 1923
†Ganolytidae Jordan 1923: 118 (family) †*Ganolytes* Jordan 1919

Superorder Clupei
Order †Ellimichthyiformes
Family †Sorbinichthyidae Bannikov & Bacchia 2000
†Sorbinichthyidae Bannikov & Bacchia 2000: 4 (family) †*Sorbinichthys* Bannikov & Bacchia 2000
Suborder †Armigatoidei
Family †Armigatidae Murray & Wilson 2013
†Diplomystidae Patterson 1970: 179 (family) †*Diplomystus* Cope 1877 [Diplomystidae preoccupied in fishes; not to be used, Art. 55.3]
†Armigatidae Murray & Wilson 2013: 282 (family) †*Armigatus* Grande 1982
Suborder †Ellimichthyoidei
Family †Paraclupeidae Chang & Chou 1974
†Paraclupeidae Chang & Chou 1974: 185 (family) †*Paraclupea* Du 1950 [=? †*Paraclupea* Sun 1956] [also Chang & Chou 1977: 28, 56]
†Ellimmichthyidae Grande 1982: 5 (family) †*Ellimichthys* Jordan 1919 [type genus as †*Ellimmichthys*, name must be corrected Art. 32.5.3; correct stem is Ellimichthy-]
†Scutatuspinosinae Silva Santos & Silva Corréa 1985: 169 (subfamily) †*Scutatuspinosus* Silva Santos & Silva Corréa 1985
†Ellimminae Murray & Wilson 2013: 282 (subfamily) †*Ellimma* Jordan 1913
†Thorectichthyinae Murray & Wilson 2013: 282 (subfamily) †*Thorectichthys* Murray & Wilson 2013
†Triplomystini Murray & Wilson 2013: 282 (tribe) †*Triplomystus* Forey, Lu, Patterson & Davies 2003

Order Clupeiformes
Suborder Denticipitoidei
Family Denticipitidae Clausen 1959
Suborder Clupeoidei
Family †Garganoclupeidae Taverne 2014
†Garganoclupeidae Taverne 2014: 28 (family) †*Garganoclupea* Taverne 2014
Family Pristigasteridae Bleeker 1872
Family Engraulidae Gill 1861
Family Chirocentridae Bleeker 1849
Family Clupeidae Cuvier 1816

Superorder Alepocephali
Order Alepocephaliformes
Family Alepocephalidae Bonaparte 1846
Family Platytroctidae Koefoed 1927

Order †Sorbininardiformes
Family †Sorbininardidae Taverne 1999
†Sorbininardidae Taverne 1999: 77 (family) †*Sorbininardus* Taverne 1999

Superorder Ostariophysi
Incertae sedis:
†Ancylostylidae Jordan 1923: 119 (family) †*Ancylostylos* Gorjanović-Kramberger 1895
†Erythrinolepidae Cockerell 1919: 182 (family) †*Erythrinolepis* Cockerell 1919

Section Anotophysa
Order Gonorynchiformes
Family Chanidae Günther 1868
†Rubiesichthyinae Poyato-Ariza 1996: 5, 35 (subfamily) †*Rubiesichthys* Wenz 1984
Family †Apulichthyidae Taverne 1997
†Apulichthyidae Taverne 1997: 402 (family) †*Apulichthys* Taverne 1997
Family Gonorynchidae Fowler 1941 (1848) [correction of Van der Laan *et al.* 2014]
†Notogoneidae Cockerell in Jordan 1923: 120 (family) †*Notogoneus* Cope 1885
†Judeichthyidae Gayet 1985a: 66 (family) †*Judeichthys* Gayet 1985
†Charitosomidae Gayet 1993: 1 (family) †*Charitosomus* von der Marck 1885
Family Kneriidae Günther 1868

Section Otophysa
Family †Chanoididae Taverne 2005
†Chanoididae Taverne 2005: 39 (family) †*Chanoides* Woodward 1901

Order Cypriniformes
Suborder Cyprinoidei
Family Psilorhynchidae Hora 1926
Family Cyprinidae Rafinesque 1815
Family Danionidae Bleeker 1863
Family Paedocyprididae Mayden & Chen 2010
Family Sundadanionidae Mayden & Chen 2010
Family Leptobarbidae Bleeker 1864
Family Xenocyprididae Günther 1868
Family Acheilognathidae Bleeker 1863
Family Tincidae Jordan 1878
Family Gobionidae Bleeker 1863
Family Tanichthyidae Mayden & Chen 2010
Family Leuciscidae Bonaparte 1835

Suborder Cobitoidei
Family †Jianghanichthyidae Liu, Chang, Wilson & Murray 2015
†Jianghanichthyidae Liu, Chang, Wilson & Murray 2015: 4 (family) †*Jianghanichthys* Lei 1987
Family Catostomidae Agassiz 1850
Family Gyrinocheilidae Gill 1905
Family Botiidae Berg 1940
Family Vaillantellidae Nalbant & Bănărescu 1977
Family Cobitidae Swainson 1838 [ICZN Opinion 1500]
†Acanthopsides Heckel & Kner 1857: 296 (family) †*Acanthopsis* Agassiz 1832
Family Balitoridae Swainson 1839
Family Barbuccidae Kottelat 2012

Family Gastromyzontidae Fowler 1905
Family Serpenticobitidae Kottelat 2012
Family Ellopostomatidae Bohlen & Šlechtová 2009
Family Nemacheilidae Regan 1911

Order Characiformes
Suborder Citharinoidei
Family Distichodontidae Günther 1864
Family Citharinidae Günther 1864
Suborder Characoidei
Family Crenuchidae Günther 1864
Family Ctenoluciidae Schultz 1944
Family Lebiasinidae Gill 1889
Family Chalceidae Fowler 1958
Family Acestrorhynchidae Eigenmann 1912
Family Iguanodectidae Eigenmann 1909
Family Triportheidae Fowler 1940
Family Gasteropelecidae Bleeker 1859
Family Bryconidae Eigenmann 1912
Family Characidae Latreille 1825
Family Alestidae Cockerell 1910
Family Hepsetidae Hubbs 1939 (1909)
Family Tarumaniidae de Pinna, Zuanon, Rapp Py-Daniel & Petry, 2017
Family Erythrinidae Valenciennes 1847
Family Cynodontidae Eigenmann 1903
Family Hemiodontidae Bleeker 1859
Family Serrasalmidae Bleeker 1859
Family Parodontidae Eigenmann 1910
Family Prochilodontidae Eigenmann 1909
Family Curimatidae Gill 1858
Family Chilodontidae Eigenmann 1903
Family Anostomidae Günther 1864

Order Gymnotiformes
Suborder Gymnotoidei
Family Gymnotidae Rafinesque 1815
Suborder Sternopygoidei
Family Rhamphichthyidae Regan 1911
Family Hypopomidae Eigenmann 1912
Family Sternopygidae Cope 1871
Family Apteronotidae Jordan 1923

Order Siluriformes
Family †Vorhisiidae Frizzell 1965
    †Vorhisiidae Frizzell 1965: 179 (family) †*Vorhisia* Frizzell 1965
Family †Andinichthyidae Gayet 1988
    †Andinichthyidae Gayet 1988: 833 (family) †*Andinichthys* Gayet 1988
Suborder Diplomystoidei
Family †Bachmanniidae Azpelicueta & Cione 2011
    †Bachmanniidae Azpelicueta & Cione 2011: 259 (family) †*Bachmannia* Dolgopol 1941
Family Diplomystidae Eigenmann 1890

Suborder †Hypsidoroidei
Family †Hypsidoridae Grande 1987
†Hypsidoridae Grande 1987: 28 (family) †*Hypsidoras* Lundberg & Case 1970 [family name sometimes seen as †Hypsidorididae]
Suborder Cetopsoidei
Family Cetopsidae Bleeker 1858
Suborder Loricarioidei
Family Trichomycteridae Bleeker 1858
Family Nematogenyidae Bleeker 1862
Family Callichthyidae Bonaparte 1835
Family Scoloplacidae Bailey & Baskin 1976
Family Astroblepidae Bleeker 1862
Family Loricariidae Rafinesque 1815
Suborder Siluroidei
Family Siluridae Rafinesque 1815
Family Kryptoglanidae Britz, Kakkassery & Raghavan 2014
Family Austroglanididae Mo 1991
Family Pangasiidae Bleeker 1858
Family Chacidae Bleeker 1858
Family Plotosidae Bleeker 1858
Family Ritidae Bleeker 1862
Family Ailiidae Bleeker 1858
Family Horabagridae Jarayam 2006
Family Bagridae Bleeker 1858 [ICZN Opinion 1402]
Family Akysidae Gill 1861
Family Amblycipitidae Day 1873
Family Sisoridae Bleeker 1858
Family Amphiliidae Regan 1911
Family Malapteruridae Bleeker 1858
Family Mochokidae Regan 1912
Family Schilbeidae Bleeker 1858
Family Auchenoglanididae Jarayam 1966
Family Claroteidae Bleeker 1862
Family Lacantuniidae Rodiles-Hernández, Hendrickson & Lundberg 2005
Family Clariidae Bonaparte 1845
Family Heteropneustidae Hora 1936
Family Anchariidae Glaw & Vences 1994
Family Ariidae Bleeker 1858
Torpedinidae Gill 1896b: 162 (family) *Torpedo* Forsskål 1775 [preoccupied by Torpedines Henle 1834 in fishes; not to be used, Art. 55.3; Recent, omitted in Van der Laan *et al.* 2014]
Family Aspredinidae Adams 1854
Family Doradidae Bleeker 1858
Family Auchenipteridae Bleeker 1862
Family Cranoglanididae Myers 1931
Family †Astephidae Grande & Lundberg 1988
†Astephinae Grande & Lundberg 1988: 146 (subfamily) †*Astephus* Cope 1873
Family Ictaluridae Gill 1861
Family Heptapteridae Gill 1861
Family Phreatobiidae Reichel 1927
Family Pimelodidae Bonaparte 1835
Family Pseudopimelodidae Fernández-Yépez & Antón 1966

Subcohort EUTELEOSTEOMORPHA
Incertae sedis:
†Erichalcidae ?? (family) †*Erichalcis* Forey 1973 [correct stem would be Erichalcid-] [author / date not found]

Infracohort Lepidogalaxii
Order Lepidogalaxiiformes
Family Lepidogalaxiidae Rosen 1974

Infracohort Protacanthopterygii
Incertae sedis:
†Bernardichthyidae Huddleston 1981: 38 (family) †*Bernardichthys* Huddleston 1981
Family †Ferrifronsidae Arratia & Chorn 1998
†Ferrifronsidae Arratia & Chorn 1998: 302 (family) †*Ferrifrons* Jordan 1925
Family †Orthogonikleithridae Arratia 1997
†Orthogonikleithridae Arratia 1997: 89 (family) †*Orthogonikleithrus* Arratia 1987

Order Argentiniformes
Family †Pattersonellidae Taverne 1982
†Pattersonellidae Taverne 1974: 57, 58 (family) †*Pattersonella* Taverne 1982 [no valid type genus, not available, Art. 11.7.1.1]
†Pattersonellidae Taverne 1975: 488 (family) †*Pattersonella* Taverne 1982 [no valid type genus, not available, Art. 11.7.1.1]
†Pattersonelloidea Taverne 1982: 1 (superfamily) †*Pattersonella* Taverne 1982
Family Bathylagidae Gill 1884
Family Microstomatidae Bleeker 1859
Family Opisthoproctidae Schmidt 1918
Family Argentinidae Bonaparte 1846

Order Galaxiiformes
Family Galaxiidae Müller 1845

Order Esociformes
Family †Palaeoesocidae Berg 1940
†Palaeoesocidae Berg 1940: 430 (family) †*Palaeoesox* Voigt 1934 [family name sometimes seen as †Palaesocidae]
Family Esocidae Rafinesque 1815
Family Umbridae Bonaparte 1845

Order Salmoniformes
Family Salmonidae Jarocki or Schinz 1822

Infracohort Stomiati
Order Stomiiformes
Suborder Gonostomatoidei
Family Gonostomatidae Cocco 1838
Suborder Stomioidei
Family Phosichthyidae Weitzman 1974
Family Sternoptychidae Duméril 1805
Family Stomiidae Bleeker 1859

Order Osmeriformes
Incertae sedis:
Family †Spaniodontidae Jordan 1905
†Spaniodontidae Jordan 1905: 43 (family) †*Spaniodon* Pictet 1850

Suborder Osmeroidei
Family Osmeridae Regan 1913
Family Plecoglossidae Bleeker 1859
Family Salangidae Bleeker 1859
Suborder Retropinnoidei
Family Retropinnidae Gill 1862

Infracohort NEOTELEOSTEI
Incertae sedis:
†Protostomiatidae Arambourg 1955: 91 (family) †*Protostomias* Arambourg 1943 [family name sometimes seen as †Protostomiidae or †Protostomatidae]
†Thaumaturidae Voigt 1934: 42 (family) †*Thaumaturus* Reuss 1844
†Tomognathidae Jordan 1923: 126 (family) †*Tomognathus* Agassiz 1850

Order Ateleopodiformes
Family Ateleopodidae Bonaparte 1850

Supersection EURYPTERYGIA
Incertae sedis:
Family †Cheirothricidae Woodward 1901
†Chirothricidae Woodward 1901: 279 (family) †*Cheirothrix* Pictet & Humbert 1866 [type genus as †*Chirothrix*, name must be corrected Art. 32.5.3; corrected to †Cheirothricidae by Jordan 1923: 153; family name sometimes seen as †Chirothrichidae]

Section Cyclosquamata
Order Aulopiformes
Incertae sedis:
Family †Nardorexidae Taverne 2004
†Nardorexidae Taverne 2004a: 29 (family) †*Nardorex* Taverne 2004 [family name sometimes seen as †Nardorecidae]

Suborder †Ichthyotringoidei
Family †Ichthyotringidae Harry 1953
†Rhinellidae Jordan 1905: 134 (family) †*Rhinellus* Agassiz 1844 [type genus preoccupied by *Rhinellus* Bonaparte 1831 in Amphibia; invalid, Art. 39]
†Ichthyotringidae Harry 1953: 243 (family) †*Ichthyotringa* Cope 1878
†Apateopholidae Goody 1969b: 30 (family) †*Apateopholis* Woodward 1891 [family name sometimes seen as †Apateopholididae]
Family †Dercetidae von der Marck 1863
†Dercetiformes von der Marck 1863: 58 (family) †*Dercetis* Agassiz 1834 [family name sometimes seen as †Dercetididae]
†Hoplopleurides Pictet & Humbert 1866: 90 (family) ? †*Dercetis* Agassiz 1834 [published not in latinized form before 1900, not available, Art. 11.7.2; also no stem of type genus]
†Stratodontidae Cope 1872: 348 (family) †*Stratodus* Cope 1872
†Hoplopleuridae Günther 1880: 665 (family) ? †*Dercetis* Agassiz 1834 [no stem of the type genus, not available, Art. 11.7.1.1]

Family †Prionolepididae Goody 1969
†Prionolepididae Goody 1969b: 178 (family) †*Prionolepis* Egerton 1850
Suborder †Halecoidei
Family †Halecidae Agassiz 1844
†Halécoides Agassiz 1844 Tome V pt. 1: 13 (family) †*Halec* Agassiz 1844 [latinized to †Halecoides by Giebel 1846: 160, 298; latinized to †Halecoidei by Giebel 1847: 120; latinized to †Halecidae by Goody 1969b: 126; considered valid with this authorship by Owen 1840: 5 and by Pander 1856: 12 Art. 11.7.2]
†Serrilepidae Chalifa 1989: 11 (family) †*Serrilepis* Chalifa 1989 [family name sometimes seen as †Serrilepididae]
Suborder Aulopoidei
Family Synodontidae Gill 1861
Family Aulopidae Bonaparte 1831
Family Pseudotrichonotidae Yoshino & Araga 1975
Suborder Paraulopoidei
Family Paraulopidae Sato & Nakabo 2002
Suborder Alepisauroidei
Incertae sedis:
†Polymerichthyidae Uyeno 1967: 384 (family) †*Polymerichthys* Uyeno 1967

Family Ipnopidae Gill 1884
Family Bathysauropsidae Sato & Nakabo 2002
Family Giganturidae Brauer 1906
Family Bathysauroididae Sato & Nakabo 2002
Family Bathysauridae Fowler 1944
Family Chlorophthalmidae Garman 1899
Family Notosudidae Parr 1928
Family Scopelarchidae Alcock 1896
Family Evermannellidae Fowler 1901
Family Sudidae Regan 1911
Family Paralepididae Bonaparte 1835
†Holosteinae Prokofiev 2005: 293 (subfamily) †*Holosteus* Agassiz 1835
Family †Enchodontidae Lydekker 1889, name in prevailing recent practice
†Saurorhamphoidei Bleeker 1859: XIV (family) †*Saurorhamphus* Heckel 1850
†Enchodontidae Lydekker in Nicholson & Lydekker 1889: 997 (family) †*Enchodus* Agassiz 1835 [family name sometimes seen as †Enchodidae]
†Cimolichthyidae Goody 1969b: 36 (family) †*Cimolichthys* Leidy 1857 [family name sometimes seen as †Cymolichthyidae]
†Eurypholidae Goody 1969b: 99 (family) †*Eurypholis* Pictet 1850 [family name sometimes seen as †Eurypholididae]
†Rharbichthinae Fielitz 2004: 631 (subfamily) †*Rharbichthys* Arambourg 1955 [correct stem would be Rharbichthy-]
†Palaeolycinae Fielitz 2004: 632 (subfamily) †*Palaeolycus* von der Marck 1863
Family Alepisauridae Swainson 1839
Family Lestidiidae Harry 1953

Section Ctenosquamata
Subsection Myctophata
Order Myctophiformes
Family Neoscopelidae Jordan 1901
†Sardinioididae Goody 1969b: 153 (family) †*Sardinioides* von der Marck 1858

†Neocassandridae Prokofiev 2002: 64 (family) †*Neocassandra* Daniltshenko 1968
Family Myctophidae Gill 1893
†Eomyctophinae Prokofiev 2006: S57 (subfamily) †*Eomyctophum* Daniltshenko 1947

Subsection Acanthomorphata
Incertae sedis:
Family †Asineopidae Cope 1877
†Asineopidae Cope 1877c: 570 (family) †*Asineops* Cope 1870
Family †Bajaichthyidae Bannikov & Sorbini 2014
†Bajaichthyidae Bannikov & Sorbini in Bannikov 2014b: 625 (family) †*Bajaichthys* Sorbini 1983
Family †Pateropercidae Gaudant 1978
†Pateropercidae Gaudant 1978a: 189 (family) †*Pateroperca* Woodward 1942
Family †Pattersonichthyidae Gaudant 1976
†Pattersonichthyidae Gaudant 1976: 1629 (family) †*Pattersonichthys* Goody 1969 [described in more detail by Gaudant 1978c: 83]

Order †Ctenothrissiformes
Family †Ctenothrissidae Woodward 1901
†Ctenothrissidae Woodward 1901: 119 (family) †*Ctenothrissa* Woodward 1899
†Aulolepidae Patterson 1964: 247 (family) †*Aulolepis* Agassiz 1844 [family name sometimes seen as †Aulolepididae]

Division Lampripterygii
Family †Pycnosteroididae Patterson 1964
†Pycnosteroididae Patterson 1964: 389 (family) †*Pycnosteroides* Woodward 1942
Family †Pharmacichthyidae Patterson 1964
†Pharmacichthyidae Patterson 1964: 362, 398 (family) †*Pharmacichthys* Woodward 1942
Family †Aipichthyidae Patterson 1964
†Aipichthyidae Patterson 1964: 303 (family) †*Aipichthys* Steindachner 1860
Family †Aipichthyoididae Gayet 1980
†Aipichthyoididae Gayet 1980a: 108 (family) †*Aipichthyoides* Gayet 1980

Order Lampriformes
Family †Turkmenidae Daniltshenko 1968
†Turkmenidae Daniltshenko 1968: 127 (family) †*Turkmene* Daniltshenko 1968
Family Veliferidae Bleeker 1859
Metaveliferinae Bannikov 1991c: 162 (subfamily) *Metavelifer* Walters 1960 [Recent, omitted in Van der Laan *et al.* 2014; subfamily name sometimes seen as Metavelifrinae]
Family †Palaeocentrotidae Bonde 1966
†Palaeocentrotidae Bonde 1966: 200 (family) †*Palaeocentrotus* Kühne 1941
Family Lophotidae Bonaparte 1845
Family Lampridae Gill 1862
Family Radiicephalidae Osório 1917
Family Trachipteridae Swainson 1839
Family Regalecidae Gill 1884

Division Paracanthopterygii
Incertae sedis:
†Protosyngnathidae Boulenger 1902a: 151 (family) †*Protosyngnathus* von der Marck 1878
†Trebicianiidae Sorbini & Bannikov 1996: 47 (family) †*Trebiciania* Sorbini & Bannikov 1996

Order †Sphenocephaliformes
Family †Sphenocephalidae Patterson 1964
†Sphenocephalidae Patterson 1964: 383 (family) †*Sphenocephalus* Agassiz 1838

Order Percopsiformes
Family Percopsidae Agassiz 1850
†Erismatopteridae Jordan 1905: 242 (family) †*Erismatopterus* Cope 1870
†Libotoniidae Grande 1988: 122, 128 (family) †*Libotonius* Wilson 1977
Family †Mcconichthyidae Grande 1988
†Mcconichthyidae Grande 1988: 119 (family) †*Mcconichthys* Grande 1988
Family Aphredoderidae Bonaparte 1845
Family Amblyopsidae Bonaparte 1845

Order Zeiformes
Suborder Cyttoidei
Family †Cretazeidae Tyler, Bronzi & Ghiandoni 2000
†Cretazeidae Tyler, Bronzi & Ghiandoni 2000: 12 (family) †*Cretazeus* Tyler, Bronzi & Ghiandoni 2000
Family †Archaeozeidae Tyler & Santini 2005
†Archaeozeidae Tyler & Santini 2005: 166 (family) †*Archaeozeus* Bonde & Tyler 2000
Family †Protozeidae Tyler & Santini 2005
†Protozeidae Tyler & Santini 2005: 166 (family) †*Protozeus* Bonde & Tyler 2000
Family Cyttidae Günther 1860
Suborder Zeoidei
Family Oreosomatidae Bleeker 1859
Family Zeniontidae Myers 1960
Family Parazenidae McAllister 1968
†Isozenidae Schwarzhans 1996: 427 (family) †*Isozen* Schwarzhans 2010 [no valid type genus, not available, Art. 11.7.1.1; also name only, published after 1960, not available, Art. 13.1.1]
Family Grammicolepididae Poey 1873
Family Zeidae Rafinesque 1815

Order Stylephoriformes
Family Stylephoridae Swainson 1839

Order Gadiformes
Suborder Melanonoidei
Family Melanonidae Goode & Bean 1896
Suborder Macrouroidei
Family Steindachneriidae Parr 1942
Family Bathygadidae Jordan & Evermann 1898
Family Macrouridae Bonaparte 1831
Family Trachyrincidae Goode & Bean 1896
Suborder Gadoidei
Family Muraenolepididae Regan 1903
Family Euclichthyidae Cohen 1984
Family Moridae Moreau 1881
Family Macruronidae Regan 1903
Family Merlucciidae Rafinesque 1815
Family Ranicipitidae Bonaparte 1835
Family Bregmacerotidae Gill 1872

Family Phycidae Swainson 1838
Family Gaidropsaridae Jordan & Evermann 1898
Family Lotidae Bonaparte 1835
Family Gadidae Rafinesque 1810

Division Polymixiipterygii
Order Polymixiiformes
Family †Dinopterygidae Jordan 1923
†Dinopterygidae Jordan 1923: 173 (family) †*Dinopteryx* Woodward 1901 [family name sometimes seen as †Dinopterygiidae]
Family †Digoriidae Bannikov & Daniltshenko 1985
†Digoriidae Bannikov & Daniltshenko 1985: 197 (family) †*Digoria* Daniltshenko 1980
Family †Boreiohydriidae Murray & Cumbaa 2013
†Boreiohydriidae Murray & Cumbaa 2013: 294 (family) †*Boreiohydrias* Murray & Cumbaa 2013
Family Polymixiidae Bleeker 1859
†Berycopsidae Regan 1911: 4 (family) †*Berycopsis* Dixon 1850
†Homonotichthyidae Whitley 1933: 146 (family) †*Homonotichthys* Whitley 1933
†Dalmatichthyidae Radovčić 1975: 35 (family) †*Dalmatichthys* Radovčić 1975
†Omosomopsidae Gaudant 1978b: 86 (family) †*Omosomopsis* Gaudant 1978

Division Acanthopterygii
Subdivision Berycimorphaceae
Order Beryciformes
Suborder Berycoidei
Family †Quaesitoberycidae Bannikov & Sorbini 2005
†Quaesitoberycidae Bannikov & Sorbini 2005: 29 (family) †*Quaesitoberyx* Bannikov & Sorbini 2005
Family Berycidae Lowe 1839
Family Melamphaidae Gill 1893
Suborder Stephanoberycoidei
Family Gibberichthyidae Par 1933
Family Hispidoberycidae Kotlyar 1981
Family Rondeletiidae Goode & Bean 1895
Family Stephanoberycidae Gill 1884
Family Barbourisiidae Parr 1945
Family Cetomimidae Goode & Bean 1895

Order Trachichthyiformes
Family Diretmidae Gill 1893
Family Anoplogastridae Gill 1893
Family Trachichthyidae Bleeker 1856
†Hoplopterygidae Cockerell 1919: 186 (family) †*Hoplopteryx* Agassiz 1838 [family name sometimes seen as †Hoplopterygiidae]
†Lissoberycinae Gayet 1980b: 99 (subfamily) †*Lissoberyx* Patterson 1967
Family Anomalopidae Gill 1889
Family †Pseudomonocentrididae González-Rodríguez, Schultze & Arratia 2013
†Pseudomonocentrididae González-Rodríguez, Schultze & Arratia 2013: 466 (family) †*Pseudomonocentris* González-Rodríguez, Schultze & Arratia 2013 [family name sometimes seen as †Pseudomonocentridae]
Family Monocentridae Gill 1859

Subdivision Holocentrimorphaceae
Order Holocentriformes
Family †Tenuicentridae Gayet 1982
†Tenuicentrinae Gayet 1982a: 28 (subfamily) †*Tenuicentrum* Sorbini 1975
Family †Caproberycidae Patterson 1967
†Caproberycinae Patterson 1967: 88 (subfamily) †*Caproberyx* Regan 1911
†Alloberycinae Gayet 1982a: 28 (subfamily) †*Alloberyx* Gaudant 1969
†Stichocentridae Gayet 1982a: 32 (family) †*Stichocentrus* Patterson 1967 [name only, published after 1960, not available, Art. 13.1.1]
†Stichocentridae Gayet 1982b: 99 (family) †*Stichocentrus* Patterson 1967
Family Holocentridae Bonaparte 1833

Subdivision Percomorphaceae
Series Ophidiaria
Order Ophidiiformes
Suborder Ophidioidei
Family Ophidiidae Rafinesque 1810
Hypopleuroninae Prokofiev 2004: 38 (subfamily) *Hypopleuron* Smith & Radcliffe 1913 [Recent, omitted in Van der Laan *et al.* 2014]

Suborder Bythitoidei
Family Dinematichthyidae Whitley 1928
Family Bythitidae Gill 1861

Series Batrachoidaria
Order Batrachoidiformes
Family Batrachoididae Jordan 1896 (1835)

Series Pelagiaria
Order Scombriformes
Family Amarsipidae Haedrich 1969
Family Ariommatidae Haedrich 1967
Family Arripidae Gill 1893
Family Bramidae Bonaparte 1831
Family †Carangodidae Blot 1969
†Carangodidae Blot 1969: 426 (family) †*Carangodes* Heckel 1856 [senior objective synonym of †Arambourgellidae Blot 1981]
†Arambourgellidae Blot 1981: 377 (family) †*Arambourgella* Blot 1981 [junior objective synonym of †Carangodidae Blot 1969, invalid, Art. 61.3.2]
Family Caristiidae Gill & Smith 1905
Family Centrolophidae Bonaparte 1846
Family Chiasmodontidae Jordan & Gilbert 1883
Family †Euzaphlegidae Daniltshenko 1960
†Zaphlegidae Jordan & Gilbert 1920: 23 (family) †*Zaphleges* Jordan 1920 [type genus preoccupied by *Zaphleges* Foerster 1868 in Hymenoptera; invalid, Art. 39]
†Euzaphlegidae Daniltshenko 1960: 135 (family) †*Euzaphleges* White & Moy-Thomas 1941 [family name sometimes seen as †Eusaphlegidae]
†Dipterichthyidae Arambourg 1967: 111 (family) †*Dipterichthys* Arambourg 1967
Family Gempylidae Gill 1862
Family Icosteidae Jordan & Gilbert 1880

Family Nomeidae Günther 1860
Family Pomatomidae Gill 1863
Family †Propercarinidae Bannikov 1995
†Propercarinidae Bannikov 1995: 179 (family) †*Propercarina* Paucă 1929
Family Scombridae Rafinesque 1815
†Eocoelopomini Monsch & Bannikov 2012: 277 (tribe) †*Eocoelopoma* Woodward 1901
Family Scombrolabracidae Fowler 1925
Family Scombropidae Gill 1862
Family Stromateidae Rafinesque 1810
Family Tetragonuridae Risso 1827
Family Trichiuridae Rafinesque 1810
†Anenchelini Bonaparte 1850b (subfamily) †*Anenchelum* de Blainville 1818 [type genus inferred from the stem, Art. 11.7.1.1]

Series Syngnatharia
Order Syngnathiformes
Incertae sedis:
Family †Aulorhamphidae Tyler 2004
†Aulorhamphidae Tyler 2004: 37 (family) †*Aulorhamphus* de Zigno 1887
Family †Gerpegezhidae Bannikov & Carnevale 2012
†Gerpegezhidae Bannikov & Carnevale 2012: 381 (family) †*Gerpegezhus* Bannikov & Carnevale 2012
Family †Paraeoliscidae Blot 1981
†Paraeoliscidae Blot 1981: 361 (family) †*Paraeoliscus* Blot 1981
Family †Rhamphosidae Gill 1884
†Rhamphosidae Gill 1884: 165 (family) †*Rhamphosus* Agassiz 1844 [family name sometimes seen as †Ramphosidae]
Family †Urosphenidae Gill 1884
†Urosphenidae Gill 1884: 165 (family) †*Urosphen* Agassiz 1844

Suborder Dactylopteroidei
Family †Pterygocephalidae Clark Hubbs 1952
†Pterygocephalidae Clark Hubbs 1952: 50 (family) †*Pterygocephalus* Agassiz 1839 [also as a new family in Blot 1981: 367]
Family Dactylopteridae Gill 1861
Family Pegasidae Bonaparte 1831
Suborder Callionymoidei
Family Callionymidae Bonaparte 1831
Family Draconettidae Jordan & Fowler 1903
Suborder Mulloidei
Family Mullidae Rafinesque 1815
Suborder Syngnathoidei
Family †Eekaulostomidae Cantalice & Alvarado-Ortega 2016
†Eekaulostomidae Cantalice & Alvarado-Ortega 2016: 4 (family) †*Eekaulostomus* Cantalice & Alvarado-Ortega 2016
Family Fistulariidae Stark 1828
†Parasynarcualidae Blot 1981: 363 (family) †*Parasynarcualis* Blot 1981
†Fistularioididae Blot 1981: 363 (family) †*Fistularioides* Blot 1981
Family Aulostomidae Rafinesque 1815
Family Centriscidae Bonaparte 1831

Family Solenostomidae Nardo 1843
†Solenorhynchinae Bannikov & Carnevale 2017: 320 (subfamily) †*Solenorhynchus* Heckel 1854
Family Syngnathidae Bonaparte 1831
†Eogastrophinae Jerzmańska 1969: 436 (subfamily) †*Hipposyngnathus* Daniltshenko 1960 [no stem of the type genus, not available, Art. 11.7.1.1]
†Hipposyngnathinae Fritzsche 1980: 216 (subfamily) †*Hipposyngnathus* Daniltshenko 1960
†Pshekhagnathinae Bannikov, Carnevale & Popov 2017: 80 (subfamily) †*Pshekhagnathus* Bannikov, Carnevale & Popov 2017

Series Gobiaria
Order Kurtiformes
Suborder Kurtoidei
Family Kurtidae Bleeker 1859
Suborder Apogonoidei
Family Apogonidae Günther 1859
†Eoapogonini Bannikov 2005: 120 (tribe) †*Eoapogon* Bannikov 2005

Order Gobiiformes
Suborder Trichonotoidei
Family Trichonotidae Günther 1861
Suborder Gobioidei
Family Rhyacichthyidae Jordan 1905
Family Odontobutidae Hoese & Gill 1993
Family Milyeringidae Whitley 1945
Family Eleotridae Bonaparte 1835
†Pirskeniidae Obrhelová 1961: 107 (family) †*Pirskenius* Obrhelová 1961
Family Butidae Bleeker 1874
Family Thalasseleotrididae Gill & Mooi 2012
Family Oxudercidae Günther 1861
Family Gobiidae Cuvier 1816

Series Anabantaria
Order Synbranchiformes
Suborder Mastacembeloidei
Family Mastacembelidae Swainson 1839
Family Chaudhuriidae Annandale 1918
Suborder Indostomoidei
Family Indostomidae Prashad & Mukerji 1929
Suborder Synbranchoidei
Family Synbranchidae Bonaparte 1835

Order Anabantiformes
Incertae sedis:
Family †Nardoichthyidae Sorbini & Bannikov 1991
†Nardoichthyidae Sorbini & Bannikov 1991: 240 (family) †*Nardoichthys* Sorbini & Bannikov 1991

Suborder Anabantoidei
Family Anabantidae Bonaparte 1831
Family Helostomatidae Gill 1872
Family Osphronemidae van der Hoeven 1832

Suborder Channoidei
Family Channidae Fowler 1934 (1831)
Suborder Nandoidei
Family Pristolepididae Regan 1913
Family Nandidae Bleeker 1852
Family Badidae Barlow, Liem & Wickler 1968

Series Carangaria
Incertae sedis:
†Pygaeidae Jordan 1905: 405 (family) †*Pygaeus* Agassiz 1838

Family Centropomidae Poey 1867
Family Lactariidae Boulenger 1904
Family Leptobramidae Ogilby 1913
Family Menidae Fitzinger 1873
Family Polynemidae Rafinesque 1815
Family Sphyraenidae Rafinesque 1815
Family Toxotidae Bleeker 1859

Order Istiophoriformes
Family †Palaeorhynchidae Günther 1880
- †Palaeorhynchidae Günther 1880: 437 (family) †*Palaeorhynchus* de Blainville 1818
- †Aglyptorhynchinae Fierstine & Weems 2009: 84 (subfamily) †*Aglyptorhynchus* Casier 1966

Family †Hemingwayidae Sytchevskaya & Prokofiev 2002
- †Hemingwayidae Sytchevskaya & Prokofiev 2002: 227 (family) †*Hemingwaya* Sytchevskaya & Prokofiev 2002

Family Istiophoridae Rafinesque 1815
Family Xiphiidae Rafinesque 1815
- †Xiphiorhynchidae Regan 1909: 75 (family) †*Xiphiorhynchus* van Beneden 1871

Family †Blochiidae Bleeker 1859
- †Rostrati Giebel 1847: 156 (family) †*Blochius* Volta 1796 [no stem of the type genus, not available, Art. 11.7.1.1]
- †Blochioides Pictet 1854: 124 (family) †*Blochius* Volta 1796 [published not in latinized form before 1900, not available, Art. 11.7.2]
- †Blochioidei Bleeker 1859: XVI (family) †*Blochius* Volta 1796

Order Carangiformes
Family Nematistiidae Gill 1862
Family Carangidae Rafinesque 1815
- †Vomeropsinae Bannikov 1984: 319 (subfamily) †*Vomeropsis* Heckel 1854
- †Archaeinae Bannikov 1990: 14 (subfamily) †*Archaeus* Agassiz 1844 [family-group name preoccupied by Archaeidae Koch & Berendt 1854 in Arachnida spiders, not to be used, Art. 55.3]
- †Paratrachinotini Springer & Smith-Vaniz 2008: 1 (tribe) †*Paratrachinotus* Blot 1969

Family †Ductoridae Blot 1969
- †Ductoridae Blot 1969: 95 (family) †*Ductor* Agassiz 1844

Family Rachycentridae Gill 1896
Family Coryphaenidae Rafinesque 1815
Family †Opisthomyzonidae Jordan 1923
- †Opisthomyzonidae Jordan 1923: 227 (family) †*Opisthomyzon* Cope 1889 [family name sometimes seen as †Opisthomyzontidae or †Opisthomyzidae]

Family Echeneidae Rafinesque 1810

Order Pleuronectiformes
Family †Amphistiidae Boulenger 1902
†Amphistiidae Boulenger 1902b: 300 (family) †*Amphistium* Agassiz 1835
Suborder Psettodoidei
Family Psettodidae Regan 1910
Suborder Pleuronectoidei
Family †Joleaudichthyidae Chabanaud 1937
†Joleaudichthyidae Chabanaud 1937: 51 (family) †*Joleaudichthys* Chabanaud 1937
Family Citharidae de Buen 1935
Eucitharidae Romer 1966: 361 (family) *Eucitharus* Gill 1889 [name only, published after 1960, not available, Article 13.1.1; Recent, omitted in Van der Laan *et al.* 2014]
Family Paralichthyidae Regan 1910
Family Pleuronectidae Rafinesque 1815
Family Bothidae Smitt 1892
Family Paralichthodidae Regan 1920
Family Scophthalmidae Chabanaud 1933
Family Rhombosoleidae Regan 1910
Family Achiropsettidae Heemstra 1990
Family Achiridae Rafinesque 1815
Family Samaridae Jordan & Goss 1889
Family Poecilopsettidae Norman 1934
Family Cynoglossidae Jordan 1888
Family Soleidae Bonaparte 1833
†Eobuglossidae Chabanaud 1937: 73 (family) †*Eobuglossus* Chabanaud 1931

Series Ovalentaria
Incertae sedis:
Family Ambassidae Klunzinger 1870
Family Congrogadidae Günther 1862
Family Embiotocidae Agassiz 1853
Family Grammatidae Jordan 1887
Family Opistognathidae Bonaparte 1835
Family Plesiopidae Günther 1861
Family Polycentridae Gill 1858
Family Pomacentridae Bonaparte 1831
Family Pseudochromidae Müller & Troschel 1849

Superorder Cichlomorphae
Order Cichliformes
Incertae sedis:
Family †Priscacaridae Jordan 1923
†Priscacaridae Jordan 1923: 218 (family) †*Priscacara* Cope 1877

Family Cichlidae Bonaparte 1835
Family Pholidichthyidae Jordan 1896

Superorder Atherinomorphae
Incertae sedis:
Family †Mesogasteridae Bannikov 2008
†Mesogasteridae Bannikov 2008: 83 (family) †*Mesogaster* Agassiz 1844

Family †Rhamphognathidae Bannikov 2008
†Rhamphognathidae Bannikov 2008: 78 (family) †*Rhamphognathus* Agassiz 1844

Order Atheriniformes
Suborder Atherinopsoidei
Family Atherinopsidae Fitzinger 1873
Suborder Atherinoidei
Family Isonidae Rosen 1964
Family Bedotiidae Jordan & Hubbs 1919
Family Melanotaeniidae Gill 1894
Family Pseudomugilidae Kner 1867
Family Telmatherinidae Munro 1958
Family Atherionidae Schultz 1948
Family Dentatherinidae Patten & Ivantsoff 1983
Family Phallostethidae Regan 1916
Family Atherinidae Risso 1827

Order Beloniformes
Family †Cobitopsidae Jordan 1905
†Cobitopsidae Jordan 1905: 224 (family) †*Cobitopsis* Pomel 1853
Family †Forficidae Jordan & Gilbert 1919
†Forficidae Jordan & Gilbert 1919: 36 (family) †*Forfex* Jordan & Gilbert 1919 [family name sometimes seen as †Forfecidae or †Forficiidae]
Suborder Adrianichthyoidei
Family Adrianichthyidae Weber 1913
Suborder Belonoidei
Family Exocoetidae Risso 1827
†Rhamphexocoetinae Bannikov, Parin & Pinna 1985: 154 (subfamily) †*Rhamphexocoetus* Bannikov, Parin & Pinna 1985
Family Hemiramphidae Gill 1859
Family Zenarchopteridae Fowler 1934
Family Belonidae Bonaparte 1835

Order Cyprinodontiformes
Suborder Aplocheiloidei
Family Aplocheilidae Bleeker 1859
Family Nothobranchiidae Garman 1895
Family †Kenyaichthyidae Altner & Reichenbacher 2015
†Kenyaichthyidae Altner & Reichenbacher 2015: 6 (family) †*Kenyaichthys* Altner & Reichenbacher 2015
Family Rivulidae Myers 1925 [Case 3747 ICZN; also seen as Cynolebiidae]
Suborder Cyprinodontoidei
Family Pantanodontidae Myers 1955
Family Cyprinodontidae Wagner 1828
Family Fundulidae Günther 1866
Family Orestiidae Bleeker 1859
Family Profundulidae Hoedeman & Bronner 1951
Family Goodeidae Jordan & Gilbert 1883
Family Valenciidae Parenti 1981
Family Aphaniidae Hoedeman 1949

Family Procatopodidae Fowler 1916
Family Fluviphylacidae Roberts 1970
Family Poeciliidae Bonaparte 1831
Family Anablepidae Bonaparte 1831

Superorder Mugilomorphae
Order Mugiliformes
Family Mugilidae Jarocki 1822

Superorder Blenniomorphae
Order Gobiesociformes
Family Gobiesocidae Bleeker 1859

Order Blenniiformes
Family Tripterygiidae Whitley 1931
Family Clinidae Swainson 1839
Family Dactyloscopidae Gill 1859
Family Labrisomidae Clark Hubbs 1952
Family Chaenopsidae Gill 1865
Family Blenniidae Rafinesque 1810

Series Eupercaria
Incertae sedis:
†Asianthidae Sytchevskaya & Prokofiev 2003: 2 (family) †*Asianthus* Sytchevskaya & Prokofiev 2003
Family Callanthiidae Ogilby 1899
Family †Caucasichthyidae Bannikov, Carnevale & Parin 2011
    †Caucasichthyidae Bannikov, Carnevale & Parin 2011: 83 (family) †*Caucasichthys* Bannikov, Carnevale & Parin 2011
Family Centrogenyidae Fowler 1907
Family Dinolestidae Whitley 1948
Family Dinopercidae Heemstra & Hecht 1986
Family Emmelichthyidae Poey 1867
Family †Eotrigonodontidae White 1935
    †Eotrigonodontidae White 1935: 19, 56 (family) †*Eotrigonodon* Weiler 1929 [family name sometimes seen as †Eotrigonidae or †Eotrogonidae]
Family †Exelliidae Blot 1969
    †Semiophoridae Jordan 1905: 245 (family) †*Semiophorus* Agassiz 1838 [type genus preoccupied by *Semiophorus* Wagler 1830 in Agamidae Reptilia; invalid, Art. 39]
    †Exelliidae Blot 1969: 120 (family) †*Exellia* White & Moy-Thomas 1941 [family name sometimes seen as †Exellidae]
Family Malacanthidae Poey 1861
Family Monodactylidae Jordan & Evermann 1898
Family Moronidae Jordan & Evermann 1896
Family Parascorpididae Smith 1949
Family †Pietschellidae Carnevale & Bannikov 2015
    †Pietschellidae Carnevale & Bannikov 2015: 18 (family) †*Pietschellus* Bannikov & Carnevale 2011
Family Pomacanthidae Jordan & Evermann 1898
Family †Quasimullidae Bannikov 1999
    †Quasimullidae Bannikov 1999: 119 (family) †*Quasimullus* Bannikov 1999

Family †Repropcidae Bannikov 1991
†Repropcidae Bannikov 1991b: 90 (family) †*Repropca* Bannikov 1991
Family Scatophagidae Gill 1883
†Ruffoichthyinae Bannikov & Tyler 2002: 43 (subfamily) †*Ruffoichthys* Sorbini 1983
Family Siganidae Richardson 1837
Family Sillaginidae Richardson 1846

Order Gerreiformes
Family Gerreidae Bleeker 1859 [ICZN Opinion 962]

Order Uranoscopiformes
Family Uranoscopidae Bonaparte 1831
Family Ammodytidae Bonaparte 1835
Family Cheimarrichthyidae Regan 1913
Family Pinguipedidae Günther 1860

Order Labriformes
Family †Tortonesiidae Sorbini, Boscaini & Bannikov 1991
†Tortonesidae Sorbini, Boscaini & Bannikov 1991: 116 (family) †*Tortonesia* Sorbini 1983 [correct stem is Tortonesi-]
Family Labridae Cuvier 1816
†Pharyngodopilidae Cocchi 1864: 25 (family) †*Pharyngodopilus* Cocchi 1864
†Trigonodontidae Arambourg 1927: 221 (family) †*Trigonodon* Sismonda 1847

Order Ephippiformes
Family Drepaneidae Gill 1872 [ICZN Opinion 1046]
Family Ephippidae Bleeker 1859

Order Chaetodontiformes
Family Leiognathidae Gill 1893
†Eoleiognathinae Bannikov 2014a: 36 (subfamily) †*Eoleiognathus* Bannikov 2014
Family Chaetodontidae Rafinesque 1815

Order Acanthuriformes
Family †Acanthonemidae Bannikov 1991
†Acanthonemidae Bannikov 1991a: 50 (family) †*Acanthonemus* Agassiz 1834
Family †Sorbinipercidae Tyler 1998
†Sorbinipercidae Tyler 1998: 523 (family) †*Sorbiniperca* Tyler 1998
Family †Zorzinichthyidae Tyler & Bannikov 2002
†Zorzinichthyidae Tyler & Bannikov 2002: 24 (family) †*Zorzinichthys* Tyler & Bannikov 2002
Family Luvaridae Gill 1885
†Beerichthyidae Casier 1966: 158 (family) †*Beerichthys* Casier 1966
Family †Kushlukiidae Daniltshenko 1968
†Kushlukiidae Daniltshenko 1968: 147 (family) †*Kushlukia* Daniltshenko 1968
Family †Caprovesposidae Bannikov & Fedotov 1984
†Caprovesposidae Bannikov & Fedotov 1984: 708 (family) †*Caprovesposus* Daniltshenko 1960
Family †Massalongiidae Tyler & Bannikov 2005
†Massalongiidae Tyler & Bannikov 2005: 75 (family) †*Massalongius* Tyler & Bannikov 2005
Family Zanclidae Bleeker 1876
Family Acanthuridae Bonaparte 1835

Order Lutjaniformes
Family Haemulidae Gill 1885
Family Lutjanidae Gill 1861
Family Sciaenidae Cuvier 1829
†Ioscionidae David 1943: 149 (family) †*Ioscion* Jordan 1921 [family name sometimes seen as †Iosciidae]
†Carnevalellinae Bannikov 2013: 192 (subfamily) †*Carnevalella* Bannikov 2013

Order Lobotiformes
Family Datnioididae Fowler 1931
Family Lobotidae Gill 1861
Family Hapalogenyidae

Order Spariformes
Family Nemipteridae Regan 1913
Family Lethrinidae Bonaparte 1831
Family Sparidae Rafinesque 1818

Order Priacanthiformes
Family Cepolidae Rafinesque 1815
Family Priacanthidae Günther 1859

Order Caproiformes
Family Caproidae Bonaparte 1835

Order Lophiiformes
Suborder Lophioidei
Family Lophiidae Rafinesque 1810
Suborder Antennarioidei
Family Antennariidae Jarocki 1822
Family Tetrabrachiidae Regan 1912
Family Lophichthyidae Boeseman 1964
Family Brachionichthyidae Gill 1863
Suborder Chaunacoidei
Family Chaunacidae Gill 1863
Suborder Ogcocephaloidei
Family Ogcocephalidae Gill 1893
Suborder Ceratioidei
Family Caulophrynidae Goode & Bean 1896
Family Neoceratiidae Regan 1926
Family Melanocetidae Gill 1878
Family Himantolophidae Gill 1861
Family Diceratiidae Regan & Trewavas 1932
Family Oneirodidae Gill 1878
Family Thaumatichthyidae Smith & Radcliffe 1912
Family Centrophrynidae Bertelsen 1951
Family Ceratiidae Gill 1861
Family Gigantactinidae Boulenger 1904
Family Linophrynidae Regan 1925

Order Tetraodontiformes
Suborder †Plectocretacicoidei
Family †Cretatriacanthidae Tyler & Sorbini 1996
†Cretatriacanthidae Tyler & Sorbini 1996: 4 (family) †*Cretatriacanthus* Tyler & Sorbini 1996
Family †Plectocretacicidae Tyler & Sorbini 1996
†Plectocretacicoidea Tyler & Sorbini 1996: 3 (superfamily) †*Plectocretacicus* Sorbini 1979
Family †Protriacanthidae Tyler & Sorbini 1996
†Protriacanthidae Tyler & Sorbini 1996: 27 (family) †*Protriacanthus* d'Erasmo 1946
Suborder Triacanthodoidei
Family Triacanthodidae Gill 1862
Suborder Triacanthoidei
Family Triacanthidae Bleeker 1859
†Protacanthodinae Tyler 1968: 238 (subfamily) †*Protacanthodes* Gill 1888
†Cryptobalistinae Tyler 1968: 243 (subfamily) †*Cryptobalistes* Tyler 1968
Suborder Balistoidei
Family †Moclaybalistidae Santini & Tyler 2003
†Moclaybalistidae Santini & Tyler 2003: 603 (family) †*Moclaybalistes* Tyler & Santini 2002
Family †Bolcabalistidae Tyler & Sorbini 1998
†Bolcabalistidae Tyler & Sorbini 1998: 43 (family) †*Bolcabalistes* Tyler & Sorbini 1998
Family †Eospinidae Santini & Tyler 2003
†Eospinidae Santini & Tyler 2003: 603 (family) †*Eospinus* Tyler & Bannikov 1992
Family Balistidae Rafinesque 1810
†Acanthodermidae Bonaparte 1850b (family) †*Acanthoderma* Agassiz 1844
Family Monacanthidae Nardo 1843
Suborder Ostracioidei
Family †Spinacanthidae Jordan 1905
†Spinacanthidae Jordan 1905: 415 (family) †*Spinacanthus* Agassiz 1835
Family †Protobalistidae Gill 1888
†Protobalistidae Gill 1888: 447 (family) †*Protobalistum* Zigno 1887
Family Aracanidae Hollard 1860
Family Ostraciidae Rafinesque 1810
Suborder Tetraodontoidei
Incertae sedis:
Family †Avitoplectidae Bemis, Tyler, Bemis, Kumar, Singh Rana & Smith 2018
†Avitoplectidae Bemis, Tyler, Bemis, Kumar, Singh Rana & Smith 2018: [3] (family) †*Avitoplectus* Bemis, Tyler, Bemis, Kumar, Singh Rana & Smith 2018

Family †Eoplectidae Tyler 1973
†Eoplectinae Tyler 1973: 146 (subfamily) †*Eoplectus* Tyler 1973
Family †Zignoichthyidae Winterbottom 1974
†Zignoichthyidae Winterbottom 1974: 99 (family) †*Zignoichthys* Tyler 1973
Family Triodontidae Bleeker 1859
Family Molidae Bonaparte 1835
Family †Balkariidae Bannikov, Tyler, Arcila & Carnevale 2016
†Balkariidae Bannikov, Tyler, Arcila & Carnevale 2016: [5] (family) †*Balkaria* Bannikov, Tyler, Arcila & Carnevale 2016
Family Tetraodontidae Bonaparte 1831
Family Diodontidae Billberg 1833 [correction of Van der Laan *et al.* 2014]
Diodontiides Billberg 1833: 52 (Natio ≈ family) *Diodon* Linnaeus 1758 [Recent, omitted in Van der Laan *et al.* 2014]

†Eodiodontidae Tavani 1955: 178 (family) †*Eodiodon* Casier 1952
†Progymnodontinae Tavani 1955: 178 (subfamily) †*Progymnodon* Dames 1883
†Pshekhadiodontinae Bannikov & Tyler in Tyler & Bannikov 2009: 703 (subfamily) †*Pshekhadiodon* Bannikov & Tyler 1997

Order Pempheriformes
Family Acropomatidae Gill 1893
Family Banjosidae Jordan & Thompson 1912
Family Bathyclupeidae Gill 1896
Family Champsodontidae Jordan & Snyder 1902
Family Creediidae Waite 1899
Family Epigonidae Poey 1861
Family Glaucosomatidae Jordan & Thompson 1911
Family Hemerocoetidae Kaup 1873
Family Howellidae Ogilby 1899
Family Lateolabracidae
Family Leptoscopidae Gill 1859
Family Ostracoberycidae Fowler 1934
Family Pempheridae Bleeker 1859
Family Pentacerotidae Bleeker 1859
Family Polyprionidae Bleeker 1874
Family Symphysanodontidae Katayama 1984

Order Centrarchiformes
Suborder Percolatoidei
Suborder Percichthyoidei
Family Percichthyidae Jordan & Eigenmann 1890
Suborder Terapontoidei
Family Girellidae Gill 1862
Family Dichistiidae Smith 1935
Family Kuhliidae Jordan & Evermann 1896
Family Oplegnathidae Bleeker 1853
Family Kyphosidae Jordan 1887
Family Microcanthidae Bleeker 1876
Family Scorpididae Günther 1860
Family Terapontidae Richardson 1842
Suborder Centrarchoidei
Family Centrarchidae Bleeker 1859
Family Elassomatidae Jordan 1877
Family Enoplosidae Gill 1893
Family Sinipercidae Jordan & Richardson 1910
Suborder Cirrhitioidei
Family Cirrhitidae Macleay 1841
Family Latridae Gill 1862
Family Cheilodactylidae Bonaparte 1850
Family Chironemidae Gill 1862
Family Aplodactylidae Günther 1859

Order Perciformes
Incertae sedis:
Family †Callipterygidae Jordan 1905
†Callipterygidae Jordan 1905: 501 (family) †*Callipteryx* Agassiz 1838
Family †Eocottidae Bannikov 2004
†Eocottidae Bannikov 2004: 18 (family) †*Eocottus* Woodward 1901 [also as new subfamily]
†Bassaniinae Bannikov 2004: 25 (subfamily) †*Bassania* Bannikov 2004 [type genus preoccupied by *Bassania* Walker 1860 in Lepidoptera; invalid, Art. 39]
†Bassanichthyinae Bannikov 2006: 340 (subfamily) †*Bassanichthys* Bannikov 2006
Family †Robertanniidae Bannikov 2011
†Robertanniidae Bannikov 2011: 8 (family) †*Robertannia* Bannikov 2011
Family †Trispinachidae Nazarkin 2002
†Trispinachidae Nazarkin 2002: 419 (family) †*Trispinax* Nazarkin 2002

Suborder Bembropoidei
Family Bembropidae Regan 1913
Suborder Normanichthyoidei
Family Normanichthyidae Clark 1937
Suborder Serranoidei
Family Serranidae Swainson 1839
Suborder Percoidei
Family Niphonidae Jordan 1923
Family Percidae Rafinesque 1815
Family Trachinidae Rafinesque 1815
Suborder Notothenioidei
Family Bovichtidae Gill 1862
Family Pseudaphritidae McCulloch 1929
Family Eleginopsidae Gill 1893
Family Nototheniidae Günther 1861
Family Harpagiferidae Gill 1861
Family Artedidraconidae Andriashev 1967
Family Bathydraconidae Regan 1913
Family Channichthyidae Gill 1861
Family Percophidae Swainson 1839
Suborder Congiopodoidei
Family Congiopodidae Gill 1889
Suborder Scorpaenoidei
Family Sebastidae Kaup 1873
Family Setarchidae Matsubara 1943
Family Neosebastidae Matsubara 1943
Family Plectrogeniidae Fowler 1938
Family Scorpaenidae Risso 1827
Family Apistidae Gill 1859
Family Synanceiidae Swainson 1839
Family Eschmeyeridae Mandrytsa 2001
Family Perryenidae Honma, Imamura & Kawai 2013
Family Aploactinidae Jordan & Starks 1904
Family Pataecidae Gill 1872
Family Gnathanacanthidae Gill 1892
Family Bembridae Kaup 1873

Family Triglidae Rafinesque 1815
Family Peristediidae Jordan & Gilbert 1883
Family Hoplichthyidae Kaup 1873
Family Platycephalidae Swainson 1839
Suborder Cottoidei
Infraorder Anoplopomatales
Family Anoplopomatidae Jordan & Gilbert 1883
Infraorder Zoarcales
Family Zoarcidae Swainson 1839
Family Anarhichadidae Bonaparte 1835
Family Neozoarcidae Jordan & Snyder 1902
Family Eulophiidae Smith 1902
Family Stichaeidae Gill 1864
Family Lumpenidae Jordan & Evermann 1898
Family Opisthocentridae Jordan & Evermann 1898
Family Pholidae Gill 1893
Family Ptilichthyidae Jordan & Gilbert 1883
Family Zaproridae Jordan 1896
Family Cryptacanthodidae Gill 1861
Family Cebidichthyidae Gill 1862
Family Scytalinidae Jordan & Starks 1895
Family Bathymasteridae Jordan & Gilbert 1883
Infraorder Gasterosteales
Family Aulorhynchidae Gill 1861
Family Hypoptychidae Steindachner 1880
Family Gasterosteidae Bonaparte 1831
Infraorder Zaniolepidales
Family Zaniolepididae Jordan & Gilbert 1883
Infraorder Hexagrammales
Family Hexagrammidae Jordan 1888
Infraorder Cottales
Family Trichodontidae Bleeker 1859
Family Cyclopteridae Bonaparte 1831
Family Liparidae Gill 1861 [ICZN Opinion 1673]
Family Jordaniidae Jordan & Evermann 1898
Family Rhamphocottidae Jordan & Gilbert 1883
Family Scorpaenichthyidae Jordan & Evermann 1898
Family Agonidae Swainson 1839
Family Cottidae Bonaparte 1831
Family Psychrolutidae Günther 1861

Subclass SARCOPTERYGII
Infraclass ACTINISTIA [Coelacanthida or Coelacanthimorpha]
Family †Miguashaiidae Forey 1998
†Miguashaiidae Schultze 1993: 660 (family) †*Miguashaia* Schultze 1973 [name only, published after 1960, not available, Art. 13.1.1]
†Miguashaiidae Cloutier & Ahlberg in Stiassny, Parenti & Johnson 1996: 451 (family) †*Miguashaia* Schultze 1973 [name only, published after 1960, not available, Art. 13.1.1]
†Miguashaiidae Forey 1998: 223 (family) †*Miguashaia* Schultze 1973 [family name sometimes seen as †Miguashaididae]

Family †Diplocercididae Berg 1940
†Diplocercidae Berg 1940: 391 (family) †*Diplocercides* Stensiö 1922 [corrected to †Diplocercididae by Camp, Welles & Green 1949: 271, confirmed by Fowler 1971b: 14; family name sometimes seen as †Diploceriidae]
†Euporosteidae Romer 1966: 362 (family) †*Euporosteus* Jaekel 1927 [name only, published after 1960, not available, Art. 13.1.1]
Family †Hadronectoridae Lund & Lund 1984
†Hadronectoridae Lund & Lund 1984: 237 (family) †*Hadronector* Lund & Lund 1984
Family †Rhabdodermatidae Berg 1955, spelling in prevailing recent practice
†Rhabdodermidae Berg 1955: 100 (family) †*Rhabdoderma* Reis 1888 [family name also seen as †Rhabdodermatidae]
Family †Sasseniidae Forey 1998
†Sasseniidae Forey 1998: 299 (family) †*Sassenia* Stensiö 1921
Family †Laugiidae Berg 1940
†Laugiidae Berg 1940: 392 (family) †*Laugia* Stensiö 1932
†Coccodermidae White 1956: 66 (family) †*Coccoderma* Zittel 1887

Order Coelacanthiformes
Suborder †Coelacanthoidei
Family †Whiteiidae Forey 1998
†Whiteiidae Maisey 1991: 312 (family) †*Whiteia* Moy-Thomas 1935 [name only, published after 1960, not available, Art. 13.1.1]
†Whiteiidae Schultze 1993: 660 (family) †*Whiteia* Moy-Thomas 1935 [name only, published after 1960, not available, Art. 13.1.1]
†Whiteiidae Cloutier & Ahlberg in Stiassny, Parenti & Johnson 1996: 450 (family) †*Whiteia* Moy-Thomas 1935 [name only, published after 1960, not available, Art. 13.1.1]
†Whiteiidae Forey 1998: 225 (family) †*Whiteia* Moy-Thomas 1935
Family †Rebellatricidae Wendruff & Wilson 2012
†Rebellatricidae Wendruff & Wilson 2012: 500 (family) †*Rebellatrix* Wendruff & Wilson 2012
Family †Coelacanthidae Agassiz 1844
†Célacanthes Agassiz 1844 Tome II pt. 2: 168 (family) †*Coelacanthus* Agassiz ?1839 [latinized to †Caelacanthidae by Bonaparte 1846: 4; latinized to †Coelacanthoides by Giebel 1846: 65, latinized to †Coelacanthi by M'Coy 1848: 2, latinized to †Coelacanthoidei by Bleeker 1859: XVII, latinized to †Coelacanthidae by Günther 1880: 365; considered valid with this authorship by Müller 1846: 151, by Bronn 1849: 654, by Quenstedt 1852: 228, by Morris 1856: 315, by Pander 1857: 42, by Andrews *et al.* 1967: 642, by Schultze *et al.* 1982: 46, by Maisey 1991: 303 and by Lambers 1996: 396 Art. 11.7.2]
Suborder Latimerioidei
Family †Mawsoniidae Forey 1998
†Diplurinae Maisey 1991: 312 (subfamily) †*Diplurus* Newberry 1878 [family-group name preoccupied by Dipluridae Simon 1892 in spiders Arachnida, not to be used]
†Mawsoniidae Schultze 1993: 660 (family) †*Mawsonia* Woodward 1907 [name only, published after 1960, not available, Art. 13.1.1]
†Mawsoniidae Cloutier & Ahlberg in Stiassny, Parenti & Johnson 1996: 450 (family) †*Mawsonia* Woodward 1907 [name only, published after 1960, not available, Art. 13.1.1]
†Mawsoniidae Forey 1998: 300 (family) †*Mawsonia* Woodward 1907
Family Latimeriidae Berg 1940, name in prevailing recent practice
†Macropomidae Owen 1860: 144 (family) †*Macropoma* Agassiz 1835
†Undinidae Whitley 1940: 242 (family) †*Undina* Münster 1834 [type genus inferred from the stem; name only, used as valid before 2000?; not available]

Infraclass †ONYCHODONTIDA
Order †Onychodontiformes
Family †Onychodontidae Woodward 1891
†Onychodontidae Woodward 1891a: 391 (family) †*Onychodus* Newberry 1857 [family name sometimes seen as †Onychodidae]
†Pycnacanthidae Lebedev 1995: 362 (family) †*Pycnacanthus* Fischer von Waldheim 1852

Infraclass DIPNOMORPHA
Superorder †Porolepidimorpha
Order †Porolepidiformes
Family †Porolepididae Berg 1940, spelling in prevailing recent practice
†Porolepidae Berg 1940: 390 (family) †*Porolepis* Woodward 1891 [family name also seen as †Porolepididae]
Family †Holoptychiidae Giebel 1847
†Holoptychii Giebel 1847: 270 (family) †*Holoptychius* Agassiz 1839 [changed to †Holoptychidae by Owen 1860: 156, corrected to †Holoptychiidae by Günther 1880: 365; correct stem is Holoptychi-]
†Dendrodonten Pander 1860: 24 (family) †*Dendrodus* Owen 1841 [published not in latinized form before 1900, not available, Art. 11.7.2; also seen as †Dendrodontés Eichwald 1860: 1557; the genus †*Dendrodus* Owen 1841 is not recognized anymore because of uncertainty of typification; not †*Dendrodus* Whiteaves 1897 in †Protodontidae]
†Glyptolépides Eichwald 1860: 1566 (family) †*Glyptolepis* Agassiz 1844 [published not in latinized form before 1900, not available, Art. 11.7.2]
†Dendrodontidae Traquair 1889: 490 (family) †*Dendrodus* Owen 1841 [as the type genus *Dendrodus* Owen 1841 is not recognized anymore because of uncertainty of typification, the family-group name is not to be used; not †*Dendrodus* Whiteaves 1897 in †Protodontidae]

Superorder Dipnoi [Ceratodontae]
Family †Powichthyidae Jessen 1980
†Powichthyiidae [†Powichthyidae] Jessen 1980: 209 (family) †*Powichthys* Jessen 1975
Family †Youngolepididae Gardiner 1984
†Youngolepididae Gardiner 1984: 404 (family) †*Youngolepis* Chang & Yu 1981 [family name sometimes seen as †Youngolepidae]

Order †Diabolepidiformes
Family †Diabolepididae
†Diabolepididae Schultze 1993: 657 (family) †*Diabolepis* Zhang & Yu 1987 [name only, published after 1960, not available, Art. 13.1.1]
†Diabolepididae Cloutier & Ahlberg 1996: 451 (family) †*Diabolepis* Zhang & Yu 1987 [name only, published after 1960, not available, Art. 13.1.1]
†Diabolepididae Nelson, Grande & Wilson 2016: 107 (family) †*Diabolepis* Zhang & Yu 1987 [not published according to the rules, not available]

Order †Dipnorhynchiformes
Family †Uranolophidae Miles 1977
†Uranolophidae Miles 1977: 308 (family) †*Uranolophus* Denison 1968 [family name sometimes seen as †Melanognathidae]
Family †Dipnorhynchidae Berg 1940
†Dipnorhynchidae Berg 1940: 385 (family) †*Dipnorhynchus* Jaekel 1927
†Speonesydrionidae Campbell & Barwick 1990: 165 (family) †*Speonesydrion* Campbell & Barwick 1983 [family name sometimes seen as †Speonesydriidae]

Order †Dipteriformes

Family †Stomiahykidae Bernacsek 1977
- †Stomiahykidae Bernacsek 1977: 177 (family) †*Stomiahykus* Bernacsek 1977

Family †Dipteridae Agassiz 1844
- †Diptériens Agassiz 1844 Tome II pt. 1: 308 (family) †*Dipterus* Sedgwick & Murchison 1828 [latinized to †Dipteri by Eichwald 1846: 307; latinized to †Dipteridae by Owen 1846: 50, latinized to †Dipterida by Vogt 1851: 131, latinized to †Dipterini by Pander 1856: 79 and Pander 1858: 5; considered valid with this authorship by Müller 1846: 151, by Bronn 1849: 655, by Pander 1856: 79 and by Quenstedt 1885: 349 Art. 11.7.2]
- †Ctenododipteridae Günther 1880: 359 (family) ? †*Dipterus* Sedgwick & Murchison 1828 [no stem of the type genus, not available, Art. 11.7.1.1]
- †Rhinodipteridae Campbell & Barwick 1990: 165 (family) †*Rhinodipterus* Gross 1956
- †Orlovichthyinae Krupina 2004: 395 (subfamily) †*Orlovichthys* Krupina 1980

Family †Chirodipteridae Campbell & Barwick 1990
- †Chirodipteridae Campbell & Barwick 1990: 165 (family) †*Chirodipterus* Gross 1933
- †Pillararhynchinae Long 1992: 12 (subfamily) †*Pillararhynchus* Campbell & Barwick 1990
- †Conchodontinae Krupina 2004: 398 (subfamily) †*Conchodus* M'Coy 1848

Family †Rhynchodipteridae Moy-Thomas 1939
- †Rhynchodipteridae Moy-Thomas 1939: 100 (family) †*Rhynchodipterus* Säve-Söderbergh 1937

Family †Holodipteridae
- †Holodontidae Gorizdro-Kulczycka 1950: 54 (family) †*Holodus* Pander 1858 [type genus preoccupied by †*Holodus* Agassiz 1845 in fishes; invalid, Art. 39]
- †Holodipterida Moy-Thomas & Miles 1971: 141 (order) †*Holodipterus* White & Moy-Thomas 1940 [no family-group name; also name only]
- †holodipterids Moy-Thomas & Miles 1971: 149 (family?) †*Holodipterus* White & Moy-Thomas 1940 [published not in latinized form after 1899, not available]
- †holodipterids Miles 1977: 241, 307 (family?) †*Holodipterus* White & Moy-Thomas 1940 [published not in latinized form after 1899, not available]

Family †Phaneropleuridae Huxley 1861
- †Phaneropleurini Huxley 1861: 24 (family) †*Phaneropleuron* Huxley 1859
- †Scaumenaciidae Berg 1940: 385 (family) †*Scaumenacia* Traquair 1893 [family name sometimes seen as †Scaumenacidae]

Family †Fleurantiidae Moy-Thomas 1939
- †Fleurantidae Moy-Thomas 1939: 100 (family) †*Fleurantia* Graham-Smith & Westoll 1937 [stem corrected to Fleuranti- by Berg 1940: 385, confirmed by Fowler 1971a: 210]

Order †Ctenodontiformes

Family †Sagenodontidae Jaekel 1911
- †Sagenodontidae Jaekel 1911: 78 (family) †*Sagenodus* Owen 1867

Family †Ctenodontidae Traquair 1890
- †Ctenodipteri Pander 1856: 79 (family) †*Ctenodus* Agassiz 1838 [also seen as †Ctenodipterini Pander 1857: 1; no stem of the type genus, not available, Art. 11.7.1.1]
- †Cténodiptériens Eichwald 1860: 1534 (family) †*Ctenodus* Agassiz 1838 [published not in latinized form before 1900, not available, Art. 11.7.2]
- †Ctenododipteridae Günther 1880: 359 (family) ? †*Ctenodus* Agassiz 1838 [no stem of the type genus, not available, Art. 11.7.1.1]
- †Ctenodontidae Traquair 1890: 15 (family) †*Ctenodus* Agassiz 1838 [family name sometimes seen as †Ctenodidae; not †Ctenodontidae Wohrmann 1893 in Mollusca]

Family †Conchopomatidae Berg 1940, spelling in prevailing recent practice
- †Conchopomidae Berg 1940: 386 (family) †*Conchopoma* Kner 1868 [family name also seen as †Conchopomatidae]

Family †Ganopristodidae Fowler 1958
†Uronemidae Traquair 1891: 387 (family) †*Uronemus* Agassiz 1844 (type genus preoccupied by *Uronemus* Rafinesque 1815 in Vermes; invalid, Art. 39]
†Ganopristodidae Fowler 1958: 3 (family) †*Ganopristodus* Traquair 1881

Order Ceratodontiformes
Family Lepidosirenidae Bonaparte 1841
Family Protopteridae Peters 1855
Family †Gnathorhizidae Olson 1951
†Gnathorhizidae Olson 1951: 180 (family) †*Gnathorhiza* Cope 1883 [name only, but used as valid by Miles 1977: 308 and by Smith 1979: 32 Art. 13.2.1]
Family Neoceratodontidae Schultz 1948
Family †Ceratodontidae Günther 1871
†Ceratodontina Günther 1871: 554 (subfamily) †*Ceratodus* Agassiz 1838 [family name sometimes seen as †Ceratodidae]
†Protoceratodontidae Miles 1977: 308 (family) †*Ceratodus sturii* [no valid type genus, not available, Art. 11.7.1.1]
†Arganodontidae Martin 1982a: 414 (family) †*Arganodus* [also in Martin 1982b]
†Asiatoceratodontidae Castro, Toledo, de Sousa & Medeiros 2004: 264 (family) †*Asiatoceratodus* Vorobyeva 1967 [not published according to the rules, not available; the name †Asiatoceratodontidae is, contrary to numerous citations, not mentioned in Vorobyeva 1967]
†Asiatoceratodontidae Agnolin 2010: 189 (family) †*Asiatoceratodus* Vorobyeva 1967 [not published according to the rules, not available]
†Asiatoceratodontidae Nelson, Grande & Wilson 2016: 109 (family) †*Asiatoceratodus* Vorobyeva 1967 [not published according to the rules, not available]
Family †Ptychoceratodontidae Martin 1982
†Ptychoceratodontidae Martin 1982a: 414 (family) †*Ptychoceratodus* Jaekel 1926 [also in Martin 1982b]

Infraclass †RHIZODONTIDA
Order †Rhizodontiformes
Family †Rhizodontidae Traquair 1881
†Rhizodontidae Traquair 1881a: 18 (family) †*Rhizodus* Owen 1840

Infraclass †OSTEOLEPIDIDA
Order †Osteolepidiformes
Incertae sedis:
†Diplopteroidei Bleeker 1859: XVII (family) †*Diplopterus* Agassiz 1835 [type genus preoccupied by *Diplopterus* Boie 1826 in Aves; invalid, Art. 39]
†Glyptolaemini Traquair 1888b: 515 (subfamily) †*Glyptolaemus* Huxley 1859 [type genus inferred from the stem, Art. 11.7.1.1]
†Lamprotolepididae Vorobyeva 1975: 54 (family) †*Lamprotolepis* Vorobyeva 1977 [no valid type genus, not available, Art. 11.7.1.1]
†Lamprotolepididae Young, Long & Ritchie 1992: 61 (family) †*Lamprotolepis* Vorobyeva 1977 [name only, published after 1960, not available, Art. 13.1.1]
†Megistolepidinae Vorobyeva 1975: 54 (subfamily) †*Megistolepis* Obruchev 1955 [name only, published after 1960, not available, Art. 13.1.1]
†Pleiopteri Fitzinger 1873: 52 (family) †*Pleiopterus* Agassiz 1835 [also as a new family, †Pleiopteridae, in Whitley 1951: 67]

†Rhizodopsidae Berg 1940: 389 (family) †*Rhizodopsis* Young 1866 [sometimes seen as †Rhizodopidae or †Rhizodopsididae]
†Rhombodipteridae Lütken 1871: 334 (family) ? [no stem of the type genus, not available, Art. 11.7.1.1]
†Saurodipteridae M'Coy 1855: 585 (family) ? †*Diploterax* M'Coy 1855 [no stem of the type genus, not available, Art. 11.7.1.1]
†Saurodipteridae Günther 1880: 365 (family) ? [no stem of the type genus, not available, Art. 11.7.1.1]
†Thysanolepidinae Vorobyeva 1975: 54 (subfamily) †*Thysanolepis* Vorobyeva 1977 [no valid type genus, not available, Art. 11.7.1.1]
†Thysanolepididae Young, Long & Ritchie 1992: 61 (family) †*Thysanolepis* Vorobyeva 1977 [name only, published after 1960, not available, Art. 13.1.1]
†Vilulichthyinae Vorobyeva 1977a: 165 (subfamily) †*Vilulichthys* Vorobyeva 1977

Suborder †Osteolepidoidei
Family †Thursiidae Borgen & Nakrem 2016
†Thursiidae Borgen & Nakrem 2016: 383 (family) †*Thursius* Traquair 1888
Family †Osteolepididae Cope 1887, spelling in prevailing recent practice
†Osteolepididae Cope 1887: 1018 (family) †*Osteolepis* Valenciennes 1829 [type genus inferred from the stem, Art. 11.7.1.1; family name also seen as †Osteolepidae]
†Glyptopomidae Goodrich 1909: 285 (family) †*Glyptopomus* Agassiz 1844
Family †Megalichthyidae Hay 1902
†Megalichthyidae Hay 1902: 359 (family) †*Megalichthys* Agassiz 1835
†Ectosteorhachidae Berg 1940: 389 (family) †*Ectosteorhachis* Cope 1880 [also as a new subfamily, †Ectosteorhachinae, in Borgen & Nakrem 2016: 412]
†Parabatrachidae Berg 1955: 92 (family) †*Parabatrachus* Owen 1853
†Askerichthyinae Borgen & Nakrem 2016: 419 (subfamily) †*Askerichthys* Borgen & Nakrem 2016

Suborder †Cyclolepidoidei
†Eopodoidea Borgen & Nakrem 2016: 420 (superfamily) ? [no stem of the type genus, not available, Art. 11.7.1.1]
†Parapodoidea Borgen & Nakrem 2016: 463 (superfamily) ? [no stem of the type genus, not available, Art. 11.7.1.1]

Family †Gyroptychiidae Berg 1955
†Gyroptychiidae Berg 1955: 90 (family) †*Gyroptychius* M'Coy 1848
Family †Panderichthyidae Vorobyeva 1968, name in prevailing recent practice
†Elpistostegidae Romer 1945: 590 (family) †*Elpistostege* Westoll 1938 [name only, but used as valid by Romer 1947: 311, by Romer 1966: 362 and by Cloutier & Ahlberg in Stiassny, Parenti & Johnson 1996: 460 Art. 13.2.1; also as a new subfamily, †Elpistosteginae, in Borgen & Nakrem 2016: 335]
†Panderichthyidae Vorobyeva in Vorobyeva & Lyarskaya 1968: 74 (family) †*Panderichthys* Gross 1941 [Borgen & Nakrem 2016: 3 use the name †Panderichthyidae for the family, because "the name is in common use and is more informative". Furthermore, the genus †*Elpistostege* could be a tetrapod.]
Family †Chrysolepididae Borgen & Nakrem 2016
†Chrysolepididae Borgen & Nakrem 2016: 438 (family) †*Chrysolepis* Lebedev 1983
Family †Tristichopteridae Cope 1887
†Tristichopteridae Cope 1887: 1018 (family) †*Tristichopterus* Egerton 1861 [type genus inferred from the stem, Art. 11.7.1.1]

†Eustenopteridae Berg 1955: 94 (family) †*Eustenopteron* Whiteaves 1881 [Borgen & Nakrem 2016: 4 prefer the family name †Eustenopteridae being 'more convenient' and by referring to the first (!) edition of the Code]

†Platycephalichthyinae Vorobyeva 1975: 54 (subfamily) †*Platycephalichthys* Vorobyeva 1959

†Notorhizodontidae Davis 1994: 70 (family) †*Notorhizodon* Young, Long & Ritchie 1992 [name only, published after 1960, not available, Art. 13.1.1]

†Mandageriinae Young 2008: 321 (subfamily) †*Mandageria* Johanson & Ahlberg 1997

Family †Medoeviidae Borgen & Nakrem 2016

†Medovididae [†Medoeviidae] Borgen & Nakrem 2016: 463 (family) †*Medoevia* Lebedev 1995 [although family-group names proposed after 1999 cannot be corrected (Arts 29.3.3 and 29.4), I think a simple typing error can explain the incorrectly spelled family-group name; the correct stem is deemed to be Medoevi-]

Family †Canowindridae Young, Long & Ritchie 1992

†Canowindridae Young, Long & Ritchie 1992: 9 (family) †*Canowindra* Thomson 1973

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