



Comments on the nomenclatural status and validity of several family-series nomina in Actiniaria (Cnidaria, Anthozoa)

Karen SANAMYAN* & Nadya SANAMYAN**

Kamchatka Branch of Pacific Geographical Institute, Far-Eastern Branch of the Russian Academy of Sciences, Partizanskaya 6, Petropavlovsk-Kamchatsky, 683000, Russia,

✉ actiniaria@sanamyan.com; * <https://orcid.org/0000-0002-7460-3985>; ** <https://orcid.org/0000-0002-9987-0668>

Abstract

The nomenclatural status of several family-series nomina is discussed. In a recently published catalogue of sea anemones, a large family *SAGARTIIDAE* was treated as invalid and no solution was provided, all sagartiid genera being listed as *incertae sedis*. In the present work, a solution concerning this family is proposed, and in consequence the nomen *SAGARTIIDAE* is considered valid. The valid generic nomen for the species previously assigned to *Sagartia* is *Cylista*, and a type species is designated for this genus. The nomen *MINYADIDAE* is invalid. The nomina *ORACTIIDAE* and *HORMATHIIDAE* are valid. The latter is younger than *CHONDRACTINIIDAE* but is deemed to be its senior synonym. The nomen *ADAMSIDAE* is a senior synonym of *HORMATHIIDAE* but is rejected in the present work as a *nomen oblitum*. The nomen *HALCURIIDAE* is valid. It is younger than *ENDOCOELACTINIIDAE* but is deemed to be its senior synonym. The nomen *FLOSMARINIDAE* is senior synonym of *ISOPHELLIIDAE* and must be used as valid instead of the currently accepted *ISOPHELLIIDAE*.

Key words. *ADAMSIDAE*, *AMPHIANTHIDAE*, *CHONDRACTINIIDAE*, *ENDOCOELACTINIIDAE*, *FLOSMARINIDAE*, *HALCURIIDAE*, *HORMATHIIDAE*, *ISOPHELLIIDAE*, *MINYADIDAE*, *ORACTIIDAE*, *SAGARTIIDAE*, *Sagartia*, *Cylista*.

Introduction

Fautin (2016) published a catalog of families, genera and species of **ACTINIARIA** and **CORALLIMORPHARIA**, a fundamental work which probably will be used as a source of nomenclatural information by subsequent authors. This work, however, contains serious errors, often based on an incorrect interpretation of the *International Code of Zoological Nomenclature* (Anonymous 1999; referred to below as ‘the *Code*’), and some of them have significant impact on the nomenclature of **ACTINIARIA**. The most severe consequence is that the nomen *SAGARTIIDAE*, for a large family comprising many widely distributed and well-known genera and species, is invalid. In the present work we show that this conclusion is incorrect. Several other issues, concerning some other family-series nomina, are also discussed. The relevant Articles of the *Code* are referred below as ‘Article ...’.

SAGARTIIDAE Gosse, 1858(valid, type genus *Sagartia* Gosse, 1855)

The family *SAGARTIIDAE* (as *SAGARTIADÆ*) was suggested by Gosse (1858: 415), for three genera: *Actinoloba* Blainville, 1830, *Sagartia* Gosse, 1855 and *Aiptasia* Gosse, 1858. Originally, Gosse (1855: 274) included ten species (not 16 as stated by Fautin 2016) in *Sagartia*. He listed them, without mentioning the full combinations with the generic nomen, as follows: “*viduata* (= *anguicomma*, Price), *Troglodytes*, *Aurora*, *candida*, *rosea*, *nivea*, *venusta*, *parasitica*, *Bellis*, *Dianthus*”. In addition, he listed eight other species as probably referable to *Sagartia*. According to Article 67.2.5, these doubtfully included species are deemed not to have been originally included. A few years later, in his monograph on British sea anemones, Gosse (1860: 122) provided a more detailed description of *Sagartia*, added several other species to this genus and discussed its possible subdivision. He defined “the most typical group” of species, for which he suggested to retain the nomen *Sagartia*. They were listed as “*miniata*, *rosea*, *ornata*, *ichthystoma*, *coccinea*, *venusta*, *nivea*”.

Haddon (1889: 302) discussed in details the text of Gosse (1860) and concluded that it is “perfectly evident that Mr. Gosse regarded *S. miniata* as the type species of his genus *Sagartia*. For the future these two names must remain inseparable”. Stephenson (1920: 430) also stated that *S. miniata* is the type species: “both Gosse himself [...] and Haddon later on [...] have made it perfectly clear that the species regarded by the former, the founder of the genus, as genotype, was *S. miniata*”. According to him, *Sagartia* is “typified by *S. miniata* and its immediate relatives”. However, *Sagartia miniata* (Gosse, 1853) (original binomen: *Actinia miniata* Gosse, 1853) was not among the originally included species and cannot be fixed as type species of *Sagartia*.

Carlgren (1949) indicated *Sagartia elegans* (Dalyell, 1848) as type species of *Sagartia*. He never had an intention to fix another type species to replace that accepted at that time, *S. miniata*, but he treated *S. elegans* as a senior subjective synonym of *S. miniata* and preferred to use the former as valid, in his opinion, for the nomen of the type species. *Sagartia elegans* (original binomen: *Actinia elegans* Dalyell, 1848) also was not among the originally included species and cannot be fixed as the type species of *Sagartia*. Nevertheless, this species was accepted by subsequent authors as type of *Sagartia*. In particular *A. elegans* is listed as type species of this genus in the catalogue of genera of sea anemones published by Fautin *et al.* (2007).

Fautin (2016) correctly stated that neither *Sagartia miniata* nor *Sagartia elegans* can be the type species of *Sagartia*. She discovered an overlooked previous type species fixation and stated that *Actinia parasitica* Couch, 1842 was designated as a type species of *Sagartia* by Thompson (1858). *Actinia parasitica* is currently assigned to *Calliactis* Verrill, 1869, a member of the family *HORMATHIIDAE* Carlgren, 1932 (1889), the type species of which is *Actinia decorata* Couthouy in Dana, 1846 by original designation—the current valid nomen of this taxon is *Calliactis polypus* (Forskål, 1775). Basing on these facts, she proposed a strange conclusion: “the type species of *Sagartia* Gosse, 1855, *Actinia parasitica* Couch, 1842, has been moved to *Calliactis*, making *Sagartia* a junior subjective synonym. Because *Sagartia* is not considered valid, neither is *Sagartiidae*”. This conclusion is not correct. First, *Sagartia* Gosse, 1855 has priority over *Calliactis* Verrill, 1869. Second, even if *Sagartia* is considered to be a junior synonym, the validity of *SAGARTIIDAE* is not affected (Article 40.1). Nevertheless, the consequences are very important in any case: if *Actinia parasitica* is considered as the type species of *Sagartia*, then *Calliactis* becomes a junior subjective synonym of *Sagartia* because it is universally accepted that *Actinia parasitica* is congeneric with the type species of *Calliactis* and, since *Calliactis* is currently assigned to the *HORMATHIIDAE*, *SAGARTIIDAE* Gosse, 1858 becomes a senior synonym of *HORMATHIIDAE* Carlgren, 1932 (1889). In other words, all numerous species and genera currently assigned to the *HORMATHIIDAE* will have to be referred to the *SAGARTIIDAE*, and a

new family nomen will be required for the taxa formerly assigned to the *SAGARTIIDAE*. Actually Fautin (2016) violated Articles 65.2 and 65.2.2, which say that “if stability or universality is threatened by the discovery of an overlooked fixation of type species for the type genus [...] the case is to be referred to the Commission for a ruling”. Up to now, no such proposal has been submitted to the Commission. Instead, she listed the familial assignment of all numerous common and well-known sagartiid genera as *incertae sedis*, thus taking no stand on the taxonomic validity of a family including these genera.

In reality, the statement of Fautin (2016) that *Actinia parasitica* Couch, 1842 was designated as a type species of *Sagartia* by Thompson (1858) is also incorrect. Indeed, Thompson (1858: 149) provided a diagnosis of *Sagartia* and listed only one nomen under it, *Actinia parasitica*. However, this action could not be considered as a designation of type species because he did not explicitly designate it as type (Articles 69.1.1 and 69.4), as he did in the same work for the genus *Anthea* Johnston 1838 (for which he clearly stated “Type *Anthea cereus*”). A very similar case in the work of Fleming (1822) was discussed in details by Dubois & Bour (2010), who came to the same conclusion. However, earlier in the same paper, Thompson (1858: 146) clearly mentioned type species for several genera, including *Sagartia*, in the following way: “I had divided the family into eight genera [...], of which the types were *Actinia equina*, *A. gemmacea*, *A. clavata*, *A. bellis*, *A. viduata*, *A. dianthus*, *A. parasitica* and *A. coriacea*; and these I named respectively *Actinia*, *Bunodes*, *Gyrtactis*, *Heliactis*, *Sagartia*, *Actinoloba*, *Aster*, and *Cribrina*”. According to this text, it is clear that he designated *A. viduata* as type species of *Sagartia*, while *A. parasitica* was designated as the type species of *Aster* Thompson, 1858. *Actinia viduata* Müller, 1776 was the first species originally included by Gosse (1855) in *Sagartia*, so its selection by Thompson (1858) is quite logical and understandable. As stated above, Gosse (1855: 274) included it in the following form: “*viduata* (= *anguicoma*, Price)”. Sometimes this fact is interpreted as if the mention in Gosse (1855: 274) of *viduata* was an incorrect identification of *Actinia anguicoma* Price in Johnston, 1847. In particular, Stephenson (1935) included the mention in Gosse (1855: 274) of *Sagartia viduata* in the synonymic list of *Actinothoe anguicoma* (Price in Johnston, 1847), while Fautin (2016) included this mention in the synonymic lists of two species she treated as valid: *Sagartiogeton viduatus* (Müller, 1776) and *Sagartiogeton undatus* (Müller, 1778). Actually, the record “*viduata* (= *anguicoma*, Price)” has a more straightforward interpretation: Gosse (1855) explicitly included in *Sagartia* the nominal species *Actinia viduata* Müller, 1776 and noted that *Actinia anguicoma* Price in Johnston, 1847 was its (junior) synonym. Thompson (1858), when designating *Actinia viduata* as the type species of *Sagartia*, was obviously of the same opinion.

The consequences of the discovery of the fact that *Actinia viduata* Müller, 1776 is the type species of *Sagartia* are much less harmful than it would be the case if *A. parasitica* was the type. They do not require an application to International Commission on Zoological Nomenclature. This solution is in agreement with Articles 41 and 70.2 of the *Code*. The current valid nomen of *Actinia viduata* is *Sagartiogeton viduatus* (Müller, 1776). *Sagartiogeton* Carlgren, 1924 belongs to the *SAGARTIIDAE*, so the composition of this family is not affected. Moreover, *Sagartiogeton* includes two morphologically distinct groups of species. One group, which includes the type species of the genus, *Sagartiogeton robustus* Carlgren, 1924, comprises the deep-water species having a thick (‘robust’) column and distinct tenaculi. Another group comprises several mostly shallow-water species having a thin column: *S. laceratus* (Dalyell, 1848), *S. undatus* (Müller, 1778) and *S. viduatus* (Müller, 1776). If the genus was divided in two genera, the generic nomen *Sagartiogeton* would remain valid for *Sagartiogeton robustus* and the related thick-walled species, while the thin-walled species currently known as *Sagartiogeton laceratus*, *S. undatus* and *S. viduatus* would receive the generic nomen *Sagartia*.

The species formerly assigned to *Sagartia* require a new generic nomen (Article 23.3.5). The oldest available generic nomen for them is *Cylista* Wright, 1859. Wright (1859) originally included three nominal species in this genus: *Actinia troglodytes*, *A. viduata* and *A. parasitica*. The former of these nominal species, *A. troglodytes*, is a well-known European species, the assignment to *Sagartia*

of which was universally accepted till now. The type species of *Cylista* was never fixed, neither originally nor subsequently (see Fautin 2016). In the present paper, we designate *Actinia troglodytes* Price in Johnston, 1847 as the type species of *Cylista* Wright, 1859. *Cylista* becomes a valid generic nomen for the nominal species *Actinia troglodytes*, formerly known as *Sagartia troglodytes*, and for the congeneric species, the most well-known of which are *Sagartia ornata* (Holdsworth, 1855) (original binomen: *Actinia ornata*) and *Sagartia elegans* (Dalyell, 1848) (original binomen: *Actinia elegans*).

HALCURIIDAE Carlgren, 1918 (1897) and ENDOCOELACTINIDAE Carlgren 1897

(*HALCURIIDAE*, valid, type genus *Halcurias* McMurrich, 1893; *ENDOCOELACTINIDAE*, available but invalid, deemed to be a junior synonym of *HALCURIIDAE*, type genus *Endocoelactis* Carlgren, 1897)

Fautin (2016: 46) stated that *ENDOCOELACTINIDAE* was unavailable, “because *Endocoelactis*, genus name assigned by Carlgren (1897) in combination with this family name, unavailable ([...] Article 11.7.1.1)”. The unavailability of *Endocoelactis* is explained in a following way: “Carlgren (1897) did not assign an available species name in combination with this genus name ([...] Article 12.2.5). Species discussed without a name by Carlgren (1897) named by McMurrich (1901) *Halcurias Carlgreni*”. This statement is incorrect, and both *Endocoelactis* and *ENDOCOELACTINIDAE* are available nomina. Article 12.1 states: “To be available, every new name published before 1931 [...] must be accompanied by a description or a definition of the taxon that it denotes, or by an indication”. Article 12.2.5, mentioned by Fautin (2016), just explains the meaning of the word ‘indication’ and is not relevant in the present case—Carlgren (1897) never made *Endocoelactis* available by an indication, he provided a detailed description of this taxon in agreement with Article 12.1. The fact that he never included any species in his genus does not make it unavailable: according to Article 67.2.2, “If a nominal genus or subgenus was established before 1931 [...] without included nominal species [Art. 12], the nominal species that were first subsequently and expressly included in it are deemed to be the only originally included nominal species”. Thus, *Endocoelactis* is available, and the first subsequently included nominal species is *Halcurias carlgreni* McMurrich, 1901, which is its type species by monotypy. *Halcurias* is senior, and *Endocoelactis* is its junior subjective synonym (see McMurrich 1901).

The family nomen *ENDOCOELACTINIDAE* Carlgren, 1897 is, therefore, based on an available generic nomen and is also available (Article 40.1). It is older than *HALCURIIDAE* Carlgren, 1918, but *HALCURIIDAE* must be saved under Article 40.2, which states that if “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”. There are known problems around the usage of the expression ‘prevailing usage’ in the *Code* (see e.g. Dubois 2013). Article 40.2 does not specify criteria of ‘prevailing usage’ (in contrast with Article 23.9.1.2, which requires the presence 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). Therefore, for this Article the criteria of ‘prevailing usage’ must be taken from the Glossary of the *Code*. The expression ‘prevailing usage’ is defined there as “that usage of the name which is adopted by at least a substantial majority of the most recent authors concerned with the relevant taxon, irrespective of how long ago their work was published”. Obviously, under this definition, *HALCURIIDAE* is in prevailing usage—it has been adopted by all recent authors who worked with this group, and although the number of works where it was used is very small, the usage of *HALCURIIDAE* must be maintained. According to Recommendation 40A, authorship and date of this family-series nomen should be cited as follows: *HALCURIIDAE* Carlgren, 1918 (1897), where ‘1918’ is the actual publication date, whereas the date in brackets ‘(1897)’ is the date of the replaced nomen, i.e., the ‘date of priority’ (see Dubois 2015: 32).

***HORMATHIIDAE* Carlgren, 1932 (1889), *ADAMSIDAE* Andres, 1881, *AMPHIANTHIDAE* Hertwig, 1882 and *CHONDRACTINIIDAE* Haddon, 1889**

(*HORMATHIIDAE* Carlgren, 1932 (1889), valid, *nomen protectum*, type genus *Hormathia* Gosse, 1859; *ADAMSIDAE*, *nomen oblitum*, type genus *Adamsia* Forbes, 1840; *AMPHIANTHIDAE*, valid, type genus *Amphianthus* Hertwig, 1882; *CHONDRACTINIIDAE*, invalid, deemed to be a junior synonym of *HORMATHIIDAE*, type genus *Chondractinia* Lütken, 1861)

Fautin (2016) omitted the nomen *CHONDRACTINIIDAE* in her catalog. This family-series nomen was created by Haddon (1889: 305) as subfamily *CHONDRACTINIINAE* (originally spelled as *CHONDRACTININÆ*). Fautin (2016) stated that *Chondractinia* Lütken, 1861 and *Hormathia* Gosse, 1859 are objective synonyms because they have the same type species. This is not correct. The type species of *Chondractinia* is *Actinia digitata* Müller, 1776 by monotypy, whereas the type species of *Hormathia* is *Hormathia margaritae* Gosse, 1859 by monotypy. The fact that these two species were subsequently synonymized does not make *Chondractinia* and *Hormathia* objective synonyms—they are subjective synonyms because they have different nominal type species. Nominal and taxonomic species should not be confused.

Carlgren (1932: 262) stated that, since *Chondractinia* is a synonym of the senior *Hormathia*, the family must be named *HORMATHIIDAE*. Since that time, *HORMATHIIDAE* has been used as the valid family nomen by all subsequent authors. England (1987: 279) recognized the priority of *CHONDRACTINIIDAE* over *HORMATHIIDAE* but he mistakenly concluded that “*Chondractinia* is a nomen nudum [...] since no definition was given”. Actually *Chondractinia* is not a *nomen nudum* and is available as it was published in a combination with available specific epithets (Article 12.2.5). Nevertheless, since *HORMATHIIDAE* has been widely used after 1932 by all authors who worked with this group, it may be considered being in prevailing usage as defined in the Glossary of the *Code* (see above) and its usage should be maintained (Article 40.2). According to Article 40.2.1, *HORMATHIIDAE* retains its author, but takes priority over *CHONDRACTINIIDAE* Haddon, 1889 and is deemed to be its senior synonym.

The family nomen *ADAMSIDAE* Andres, 1881 is listed by Fautin (2016) as invalid (no explanation being provided for this statement). This family nomen was created by Andres (1881), and this original spelling should be maintained according to Article 29.3.3. Andres (1881: 319) provided a short diagnosis of this family and included five genera, two of which, including *Adamsia*, the type genus of the family, are classified in the *HORMATHIIDAE* now. *ADAMSIDAE*, therefore, is a senior subjective synonym of *HORMATHIIDAE*. We use here Article 23.9.1 to reject the senior synonym *ADAMSIDAE* in favour of its junior synonym *HORMATHIIDAE*. In accordance with Article 23.9.2, we state that, as far as we know, the nomen *ADAMSIDAE* was not used after 1899 (Article 23.9.1.1) whereas the nomen *HORMATHIIDAE* satisfies the conditions specified in Article 23.9.1.2 as it was used “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”. In Appendix 1, we provide a list of 25 works where the nomen *HORMATHIIDAE* was used as valid. *ADAMSIDAE* is considered a *nomen oblitum*, while the younger nomen *HORMATHIIDAE* is a *nomen protectum*. From the date of publication of this act, *HORMATHIIDAE* has precedence over *ADAMSIDAE*.

The family nomen *AMPHIANTHIDAE* Hertwig, 1882 is also listed by Fautin (2016) as invalid (no explanation given). This family was erected by Hertwig (1882) to comprise two genera, *Amphianthus* Hertwig, 1882 and *Stephanactis* Hertwig, 1882 (the latter is a junior homonym for which a new replacement nomen *Staphanauge* Verrill, 1899 was provided). Both genera were later treated as members of the *HORMATHIIDAE*. If the assignment of *Amphianthus* to *HORMATHIIDAE* is adopted, as did Fautin (2016) and many previous authors, then the nomen *AMPHIANTHIDAE* becomes a senior subjective

synonym of the nomen *HORMATHIIDAE* and must be used instead of the latter, currently accepted. Article 23.9 (reversal of precedence) cannot be applied in this case, because *AMPHIANTHIDAE* was used after 1899 as valid. However, recently *Amphianthus* was removed from the *HORMATHIIDAE* (see Rodríguez *et al.* 2014), so this nomen is not threatened anymore by the nomen *AMPHIANTHIDAE*.

***MINYADIDAE* Milne Edwards, 1857**

(invalid, type genus *Minyas* Cuvier, 1817)

Fautin (2016) treated this family nomen as valid and commented in a following way: “*Minyas* a junior objective synonym of *Actinecta*. ‘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’ ([...] Article 40.1)”. Her opinion is not correct. *Minyas* Cuvier, 1817 (**ACTINIARIA**) is a junior homonym of *Minyas* Savigny, 1816 (**LEPIDOPTERA**), whereas *Actinecta* Blainville, 1830 is its replacement nomen. Thus, the family nomen *MINYADIDAE* is permanently invalid: “The name of a family-group taxon is invalid if the name of its type genus is a junior homonym” (Article 39). No species referable to this family were studied by recent authors. According to Riemann-Zürneck (1998: 248) “*MINYADIDAE* are most probably juvenile, detached from some tropical stichodactyline anemones”. Thus, there is no reason to suggest a replacement nomen for it.

***ORACTIIDAE* Riemann-Zürneck, 2000**

(valid, type genus *Oractis* McMurrich, 1893, a junior subjective synonym of *Oceanactis* Moseley, 1877)

Fautin (2016) provided the following comment for this family: “Sanamyan (2003) moved *Oractis diomedeeae*, type species of genus, to *Oceanactis*, which is senior, but placed it in Oractiidae, contravening International Code of Zoological Nomenclature Articles 29 and 63”. It is hard to understand how Sanamyan (2003) contravened the *Code* and the Articles mentioned. Fautin’s (2016) statement is seemingly based on a lack of understanding of the Articles she cited. Article 29 describes the formation of family-series nomina. She mentioned it probably because Sanamyan (2003) never emended the original spelling of *ORACTIIDAE* to *ORACTINIDAE*. Article 29.4, however, states: “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 Articles 29.3.1 or 29.3.2, its original spelling must be maintained [...]”. Thus, *ORACTIIDAE* is the correct original spelling whereas *ORACTINIDAE*, first used by Rodríguez *et al.* (2014) and then by Fautin (2016), is an unjustified emendation available with its own author and date but permanently invalid, being a junior objective synonym of *ORACTIIDAE* Riemann-Zürneck, 2000. Another Article mentioned, Article 63, states: “the family-group name is based upon that of the type genus”. It was said to be “contravened” probably because Sanamyan (2003) never proposed a new family nomen based on the senior synonym *Oceanactis* but placed the latter in the *ORACTIIDAE*. However, despite the synonymization of *Oractis* and *Oceanactis*, the type genus of *ORACTIIDAE* is *Oractis* (in full agreement with Article 63). Moreover, according to Article 40.1 “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.”

The brief history of the genera and families involved is as follows. Moseley (1877) established the genus *Oceanactis* Moseley, 1877 for a single species, *O. rhodactylus* Moseley, 1877, which he

tentatively included in the *MINYADIDAE* because he mistakenly believed that this species was pelagic, as *Minyas*. McMurrich (1893) established the genus *Oractis* McMurrich, 1893 for a single species, *Oractis diomedae* McMurrich, 1893. Riemann-Zürneck (2000) described a second species of *Oractis*, *O. bursifera* Riemann-Zürneck, 2000, and erected a new family *ORACTIIDAE* for this genus. Sanamyan (2003) stated that the three above mentioned species are congeneric and, accordingly, treated *Oceanactis* Moseley, 1877 as a senior subjective synonym of *Oractis* McMurrich, 1893. According to Article 40.1, the family nomen *ORACTIIDAE* was not affected. *ORACTIIDAE* has no senior synonyms. It is obvious that *Oceanactis* cannot be assigned to the *MINYADIDAE*—as did Fautin (2016) without explanation, probably just because it was originally provisionally placed in this family—for two main reasons: first, the family nomen *MINYADIDAE* is invalid (see above), and second, the morphology of *Oceanactis* differs cardinally from that of *Minyas*, so that they cannot be placed in the same family. Thus, the correct spelling of the nomen is *ORACTIIDAE* and this family includes one genus *Oceanactis* Moseley, 1877, a senior subjective synonym of *Oractis* McMurrich, 1893.

***FLOSMARINIDAE* Stephenson, 1920 and *ISOPHELLIIDAE* Stephenson, 1935**

(*FLOSMARINIDAE*, valid, type genus *Flosmaris* Stephenson, 1920; *ISOPHELLIIDAE*, invalid, junior synonym of *FLOSMARINIDAE*, type genus *Isophellia* Carlgren, 1900)

Fautin (2016) listed the nomen *FLOSMARINIDAE* as invalid (no explanation given), whereas the nomen *ISOPHELLIIDAE*, for a family which currently includes *Flosmaris*, the type genus of the older *FLOSMARINIDAE*, was listed as valid. In reality, *FLOSMARINIDAE* is a valid nomen whereas *ISOPHELLIIDAE* is its junior subjective synonym, and, therefore, invalid. The taxonomic history of these families is as follows. Stephenson (1920: 486) suggested the family *FLOSMARINIDAE* for his genus *Flosmaris* as follows: “*Flosmaris*, therefore, is the type-genus of another new family, the Flosmarinidæ” and then added: “I do not wish to insist too much on this family Flosmarinidæ, but I simply establish it tentatively pending further knowledge”. Despite the fact that he used the word “tentatively”, *FLOSMARINIDAE* can hardly be considered proposed conditionally, and even if so, having been proposed before 1961, it is anyway an available nomen (Article 11.5.1). A nomen *ISOPHELLIIDAE* first appeared in a scheme of classification of acontiarian *ACTINIARIA* proposed by Stephenson (1935: 183). He gave a short diagnosis of the family and included two genera as follows: “Genera: *Isophellia* and perhaps *Flosmaris*”. Carlgren (1949) probably overlooked the nomen *FLOSMARINIDAE* and used a nomen *ISOPHELLIIDAE* for a group of genera which includes *Isophellia* and *Flosmaris*. This nomen was used by all subsequent authors. The valid family nomen for this taxon is *FLOSMARINIDAE*, not *ISOPHELLIIDAE* as currently accepted.

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APPENDIX 1. A list of 25 references published during the preceding 50 years where the family nomen *HORMATHIIDAE* was used as valid

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