



## Recognition and partial solution of nomenclatural issues involving copepods of the family Monstrillidae (Crustacea: Copepoda: Monstrilloida)

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### Abstract

This work seeks to expose and clear up nomenclatural irregularities involving copepods of the order Monstrilloida, family Monstrillidae. The diagnostic text related to *Monstrilla minuta* Isaac, 1974 and four nominal species of *Thaumaleus* Krøyer, 1849 (now *Cymbasoma* Thompson, 1888) proposed by Isaac in 1974 is sufficient for all names to be available from their original description except for *Thaumaleus similirostratus*, which was proposed conditionally in 1974 and was first made available by Isaac in 1975; “*similirostris*” as used by Grygier in 1995 is an incorrect subsequent spelling. Four other specific names proposed in 1975 by Isaac, but disclaimed by him as *nomina nuda* (an action permitted retroactively by the Fourth Edition of the International Code of Zoological Nomenclature) have never been made available. By quoting the necessary information from Isaac’s doctoral dissertation, two of them are validated herein under the names *Thaumaleus frondipes* Isaac in Grygier & Suárez-Morales, **sp. nov.**, and *Strilloma scotti* Isaac in Grygier & Suárez-Morales, **sp. nov.**, and are immediately reassigned as new combinations to *Cymbasoma* and *Monstrilla* Dana, 1849, respectively. A fifth such name, *Thaumaleus tumorifrons*, has already been made available under the authorship of Suárez-Morales, 1999, but its females are excluded from the type series; the spelling of the specific name of the new species recently proposed for those females, *Cymbasoma mediterranea* Suárez-Morales, Goruppi, Olazabal & Tirelli, 2017, is emended to *mediterraneum* to match the gender of the genus. For *Cymbasoma bowmani* Suárez-Morales & Gasca, 1998, the “Form B” female mentioned in the original description is excluded from the type series. The authorship and date of availability of *Haemocera* (currently *Cymbasoma*) *morii* depends on which language version of Article 13.1.1 of the Code is followed; a ruling by the International Commission on Zoological Nomenclature under Article 87 of the Code is necessary to resolve the matter. The composition of the type series of *Cymbasoma bullatum* (Scott, 1909) in terms of both number and sex has become unclear; its type locality is restricted herein to the vicinity of Obi Island in the Moluccas. Despite a published statement to the contrary, the syntype series of *Cymbasoma germanicum* (Timm, 1893) included specimens from other localities than just Helgoland. The type series of *Cymbasoma guerrerense* Suárez-Morales & Morales-Ramírez, 2009 consists only of the holotype, which was mistakenly reported under the wrong registration number. The supposed invalidity of *Monstrilla capitellicola* Hartman, 1961 is discussed. *Monstrilla javensis* Isaac, 1974, *nomen nudum*, has remained unavailable owing to lack of adherence to Article 16.1 of the Code by later authors; the specific name is made available herein, under Suárez-Morales’ authorship, in the combination *Cymbasoma javense* **sp. nov.** The taxonomic (and eventual nomenclatural) question of the status of *M. mariaeugeniae* Suárez-Morales & Islas-Landeros, 1993 *vis à vis* *M. wandelii* Stephensen, 1913, i.e. as a separate species or a subspecies of the latter, remains unsettled. *Cymbasoma lenticula* Suárez-Morales & McKinnon, 2014 and *Monstrillopsis boonwurrungorum* Suárez-Morales & McKinnon, 2014 are fixed herein as the correct original spellings of those two specific names. Resolution of the problem posed by assignment of the specific name *reticulata* to supposedly non-conspecific males and females in the genus *Monstrillopsis* Sars, 1921 requires the designation of a neotype by the International Commission on Zoological Nomenclature.

**Key words:** Monstrilloid copepods, zoological nomenclature, scientific names, unavailable species, new species, type series/localities, authorship attribution, first reviser action, language incompatibility, ICZN

## Introduction

This is the seventh in a series of works seeking to clear up nomenclatural irregularities involving copepods of the order Monstrilloida, family Monstrillidae (see Grygier 1994a, b, 1995a, b; Suárez-Morales *et al.* 2006, 2017). It is a by-product of the ongoing compilation of a supplement to Grygier's (1995a) annotated chronological bibliography of the Monstrilloida. A number of nomenclatural matters have arisen since that time, some in the present second author's works, others as a result of the addition of a new provision to the International Code of Zoological Nomenclature [hereafter Code], Fourth Edition (International Commission on Zoological Nomenclature [hereafter ICZN] 1999). Here we try again to clarify the status of certain nominal species, and we also point out two problems that will require action by ICZN to resolve.

We begin by reviewing other formal measures taken in recent decades with regard to monstrilloid nomenclature. First was Isaac's (1975a) proposal to ICZN to suppress *Monstrilla intermedia* Kriczagin (*sic*; = Krichagin), 1877 and its junior homonym *M. intermedia* Aurivillius, 1898 in favor of their respective subjective synonyms *M. grandis* Giesbrecht, 1891 and *M. longicornis* Thompson, 1890. As a result, *M. intermedia* Kriczagin (*sic*) was suppressed for purposes of the Principle of Priority in ICZN Opinion 1175 (Melville 1981).

Next, Grygier (1994a) found that the holotype of the first described monstrilloid, *Thaumatoessa* (later *Thaumaleus*) *typica* Krøyer, [1845], was actually the last larval instar (copepodid V) of *Monstrilla longicornis* and/or its potential synonym *M. clavata* Sars, 1921. This meant that both *Thaumatoessa* Krøyer, [1845] and its much more widely used objective junior synonym *Thaumaleus* Krøyer, 1849 were senior subjective synonyms of *Monstrilla* Dana, 1849. The latter is the type genus and has long been the most widely cited and most species-rich genus of the family, and to conserve it in its accustomed use Grygier (1995b) proposed that ICZN suppress *Thaumatoessa* and give *Monstrilla* conditional precedence over *Thaumaleus*. This proposal was approved in ICZN Opinion 1869 (Anonymous 1997). As a result, all other nominal species classified until then in *Thaumaleus* were assigned instead to *Cymbasoma* Thompson, 1888. *Thaumaleus* and *Cymbasoma* had largely, if erroneously, been regarded as synonyms, so no great taxonomic disruption ensued.

In the process of redescribing *Haemocera morii* Tokioka, 1949, Grygier (1994b) reattributed the authorship of the specific name (in combination with the generic name *Cymbasoma*) to Sekiguchi (1982). The reason was a strict interpretation of Article 13(a)(i) of the International Code of Zoological Nomenclature, 3rd Edition (ICZN 1985), which was then in force. The corresponding article in the present Fourth Edition of the Code (ICZN 1999) is Article 13.1.1. This reattribution has not been challenged, although the different wordings of Article 13.1.1 in different language editions of the Fourth Edition provide possible grounds for doing so (see below).

Grygier's (1995a) annotated chronological bibliography of the Monstrilloida included nomenclatural clarifications. Nine names of nominal species were judged to be *nomina nuda* from their original publication, although two of them were found to be made available later under their original or a different spelling. Grygier (1995a) also declared that five new species introduced by Isaac (1975b) were available from that work, despite Isaac's disclaimer that they should be regarded as *nomina nuda* therein. As will be explained below, the addition of a new provision to the Fourth Edition of the Code has forced a reversal of Grygier's (1995a) judgement.

Suárez-Morales *et al.* (2006), acting as putative First Revisers, chose "*reticulata*" over "*recticulata*" as the correct original spelling of a nominal species of *Monstrilla* described by Davis (1949). Actually, this was unnecessary since in his own later work Davis (1950) used only the spelling "*reticulata*" and is therefore deemed to be the First Reviser under Article 24.2.4 of the Code (ICZN 1999). As will be shown below, this species is still the subject of other nomenclatural difficulties.

Holthuis & Vervoort (2006) reviewed bibliographic data concerning the date of publication (1892 or 1893) of Wilhelm Giesbrecht's "Pelagische Copepoden" in the series "Fauna und Flora des Golfes von Neapel". Their findings tended to confirm Scott's (1909) statement that this monograph was published on 26 January 1893, not in 1892 as stated in the work itself and as cited by Grygier (1995a), and they suggested accepting that date henceforth for the new species described therein by Giesbrecht (1893), including *Monstrilla gracilicauda*, *M. longiremis*, *Thaumaleus claparedii*, *T. reticulatus*, and *T. thompsonii*. Neither Scott (1909) nor Holthuis & Vervoort (2006) explicitly addressed the date of Giesbrecht's accompanying "Atlas" of 54 plates, which was cited by Grygier (1995a) as 1892, the cover date. We have no new evidence to offer on this point, but Giesbrecht's new species are all potentially available by indication from the "Atlas" in 1892, if it actually was issued then.

## Revisited nomenclatural concerns

### *Monstrilla minuta* and other species proposed by Isaac (1974a)

Suárez-Morales *et al.* (2013) and Suárez-Morales & McKinnon (2014) attributed *Monstrilla minuta* to “Isaac, 1975” without comment, but as Grygier (1995a) has noted, this name was made available by Isaac (1974a). To be precise, the following diagnostic statement from Isaac (1974a: 129), which also serves to explain the choice of the specific name, just barely fulfills Article 13.1.1 of the International Code of Zoological Nomenclature (ICZN 1999): “No monstrillid so small has previously been described.”

With respect to all of the new species introduced by Isaac (1974a), Grygier (1995a: 43) wrote, “The new species in this paper were diagnosed very poorly, but one feature, at least, can be taken as characteristic of each one, so all are available.” Actually, the description of *Monstrillopsis sarsi* Isaac, 1974a included clear statements of differences in the natatory legs and copulatory appendage (*sic*; = the male genitalia) from those of *M. dubia* (Scott, 1904), so the availability of *M. sarsi* from this work is not problematic. Isaac’s (1974a) diagnostic statements for the remaining four nominal species are quoted below, but for the fourth, *Thaumaleus similirostratus*, further analysis shows that it was in fact not available from Isaac (1974a), but instead was made available in one of his later works.

***Thaumaleus pallidus* [now *Cymbasoma pallidum* (Isaac, 1974a)]:** “... the muscles of the body are the same characteristically pale grey, much lighter than those in any other monstrillid seen by the author.” (Isaac 1974a: 132).

***Thaumaleus tenuis* [now *Cymbasoma tenue* (Isaac, 1974a)]:** “The abdomen, especially when viewed from the side, appears to be drawn out, hence the name proposed.” (Isaac 1974a: 134). It is perhaps debatable whether this feature was intended to be understood as a distinguishing characteristic, but the statement itself is similar in quality to that accepted for both *Thaumaleus pallidus* and *Monstrilla minuta* above. If availability from Isaac (1974a) were rejected, Isaac (1975b: 7) treated the elongate body as a distinguishing feature of *T. tenuis* in a key while also providing two other features distinguishing this species from *T. quadridens* (Davis, 1947), so availability would shift to this later work.

***Thaumaleus striatus* [now *Cymbasoma striatum* (Isaac, 1974a)]:** “It is characterized by having very fine striations (only visible under high magnification) on the surface of the anterior half of the cephalothorax, running around the circumference.” (Isaac 1974a: 135).

***Thaumaleus similirostratus* [now *Cymbasoma similirostratum* (Isaac, 1974a)]:** “It is immediately distinguishable from any other monstrillid, with the exception of *Thaumaleus rostratus* (Scott, 1904), by the prolongation of the cephalothorax forward between the antennae” (Isaac 1974a: 131). With regard to this latter species, only the fact that different sexes of each were available (male for *T. similirostratus*, female for *T. rostratus*) was mentioned. With regard to the two sexes, one might argue that *T. similirostratus* Isaac, 1974 is unavailable under Article 11 for reason of having been proposed as a synonym, but the actual wording of the relevant proposition by Isaac (1974a: 131) was not so definite: “Only the female of *T. rostratus* has been described, and *it is possible* [our emphasis] that the specimen from the Lundy area [i.e., the holotype of *T. similirostratus*] is the male of this species.” Even so, this statement, combined with a subsequent discussion of “possible resemblance” in the urosomal segmentation, and with Isaac’s statement that “The name *Thaumaleus similirostratus* is proposed, however, until a female *T. rostratus* is obtained for comparison.” (p. 131), suggests instead that the description might violate Article 11.5 (names not used as valid when proposed are not available) or 15.1 (names proposed conditionally after 1960 are not available). We consider that Isaac (1974a) did use the name as valid, but in consideration of the definition of “conditional” in the Glossary of the Code, *viz.*, “made with stated reservations”, we conclude that *T. similirostratus* was proposed conditionally, and not made available from Isaac (1974a). Isaac (1975b) included this species in a key (p. 7), thus unambiguously distinguishing it from its (male) congeners, and in the list of species (p. 9) he added the notation, “Female unknown; possibly this species is the male of *T. rostratus*.” Since this annotation implies no conditionality, Article 15.1 does not apply and, consequently, the authorship of *T. similirostratus* is here formally attributed to Isaac (1975b).

Grygier (1995a: 43, 45, 56, 76) misspelled this specific name as “*similirostris*”, spelling it correctly only on p. 45, several lines below one of the misspellings. This was not a deliberate emendation and “*similirostris*” is an incorrect subsequent spelling under Article 33 of the Code. As far as we know, nobody since has adopted the spelling “*similirostris*” for this nominal species.

### Five species introduced by Isaac (1975b)

In a key particularly covering but not limited to Atlantic monstilloid species, Isaac (1975b) introduced, but disclaimed as supposed *nomina nuda* that are invalid for zoological nomenclature, the five nominal species *Monstrilla obesa*, *Thaumaleus frondipes*, *T. tumorifrons*, *Monstrillopsis angustipes*, and *Strilloma scotti*. All these species had been described in Isaac's (1974b) doctoral dissertation. That, being an unpublished work under the Code, failed to make these names nomenclaturally available, and Isaac did not intend for his 1975 key to make them available either. Nonetheless, based on Article 8(b) of the International Code of Zoological Nomenclature, Third Edition (ICZN 1985), which was then in force, Grygier (1995a) claimed that Isaac's (1975b) disclaimer was invalid, reasoning that only works, not individual acts or names, could be so disclaimed. Grygier thus considered these names to be available from Isaac (1975b), and various works by Suárez-Morales and his co-authors (see below) have followed this interpretation. However, Article 8.3 of the Fourth Edition of the Code (ICZN 1999) introduced new explicit wording that retroactively allowed disclaimers of names or nomenclatural acts, with disclaimers of works still being permitted under Article 8.2. Isaac's (1975b) disclaimer thus became valid in 2000, when the Fourth Edition came into force. It has proven, possible, however, to make two of these specific names available herein under Isaac's authorship, and one has already unintentionally been made available; the remaining two remain unavailable. Under the definition provided in the Code's Glossary (ICZN 1999), it is improper to refer to these names as "*nomina nuda*", because their unavailability is based on Article 8.3, not a failure to conform to Article 13. Here, all five species are considered in order, starting with the newly available ones.

***Thaumaleus frondipes* Isaac, sp. nov.** The specific name has never been made available since its original proposal as a disclaimed "*nomen nudum*" by Isaac (1975b) in the form "*Thaumaleus frondipes* (T. Scott, 1904) sp. n." We do so herein by quoting, with authorization, from Isaac's (1974b: 69) unpublished description of the species. We thereby validly publish this text in the sense of the Code while also allowing Isaac to retain sole authorship of this name under Article 50.1.1 of the Code. He wrote as follows (with originally underlined scientific names here rendered in italics):

'Scott (1904) described a female monstilloid from Scarborough as *T. thompsoni* [*sic*]— the specimen was 4.8 mm in length, and the cephalic segment was very elongate, being twice the length of the rest of the body. The antennae were very wide and the fifth legs "moderately large and foliaceous". *T. thompsoni* [*sic*] Giesbrecht is 0.8–1.2 mm in length, the cephalic segment is 1.4 times the length of the rest of the body, and the fifth legs are a different shape (see fig. 24). Scott's specimen is therefore undoubtedly not *T. thompsoni* [*sic*], as stated by Sars (1921) and Rose (1933), and the name *T. frondipes* is hereby proposed.'

This text as transcribed herein is sufficient to make the specific name *frondipes* available from the present work under Isaac's authorship in that it provides a differential diagnosis with respect to *T. thompsoni* [actually *T. thompsonii*], thus fulfilling Article 13.1.1 of the Code, and it accomplishes the automatic fixation of the sole specimen as holotype, thus fulfilling Article 16.4.1. Article 16.4.2 concerning deposition of the holotype in a collection only pertains to extant specimens, and while part of Scott's (1904) material is extant in London, having been accessioned in 1911 as part of the Norman Collection (Natural History Museum, 2014), the mentioned specimen of supposed *T. thompsonii* was not among those then accessioned. Its whereabouts are unknown, and we presume it lost. Hearsay (G.A. Boxshall, pers. comm.) suggests that Scott's collection at the University of Liverpool was discarded after his death. Isaac included this new species in the genus *Thaumaleus*, which is now *Cymbasoma* (see Introduction herein: third paragraph) and thus it should be known as *Cymbasoma frondipes* (Isaac in Grygier & Suárez-Morales), with the present authors being responsible for the change in generic assignment. Its type locality is Scarborough on the North Sea coast of Yorkshire, U.K.

***Strilloma scotti* Isaac, sp. nov.** The specific name has never been made available since its original proposal as a disclaimed "*nomen nudum*" by Isaac (1975b) in the form "*Strilloma scotti* (T. Scott, 1904) sp. n." Suárez-Morales & Gasca (2004) cited Isaac (1975b) and transferred this species to *Monstrilla* along with all other nominal species of *Strilloma*, as a "comb. nov.", but in attributing *scotti* to both Isaac, 1975 (abstract and p. 292) and to Scott, 1904 (p. 297) instead of explicitly proposing it as new, they failed to meet the conditions of Article 16.1 of the Code for availability of the name. We do so herein by quoting, with authorization, from Isaac's (1974b: 70–71) unpublished description of the species. We thereby validly publish this text in the sense of the Code while also allowing Isaac to retain sole authorship of this name under Article 50.1.1 of the Code. He wrote as follows (with originally underlined scientific names here rendered in italics):

'In his 1904 paper, Scott describes a pair of monstilloids as *Monstrilla grandis* Giesbrecht. Neither of the sexes

are Giesbrecht's species, so the name *Strilloma scotti* is here proposed instead. The female is 4 mm in length (*S. grandis* is 2.3–3.75 mm), and the fifth legs differ from those of *S. grandis*. There are three setae on the outer ramus, the innermost being much shorter than the other two. "The inner lobe appears to be furnished with only a single apical seta, but our dissection shows what appears to be the base of a seta on the inner margin of this lobe, the seta itself having probably been broken off". There is also no indication in Scott's drawing or description of the knob-like process which *S. grandis* bears on the outer ramus. Scott's specimens have six furcal setae, as do Giesbrecht's species, but in *S. scotti*, the sixth accessory seta on the dorsal surface is very much shorter than the other setae, whereas in Giesbrecht's species, this sixth seta is only slightly shorter, though it is rather narrower than the others.

'The male *S. scotti* has the same arrangement of furcal setae as the female, and differs from *S. grandis* in the shape of the cephalic segment. Its length is 2 mm, that of *S. grandis* being 1.7–1.9 mm.'

This text as transcribed herein is sufficient to make the specific name *scotti* available from the present work under Isaac's authorship in that it provides a differential diagnosis with respect to *Strilloma* (currently *Monstrilla*) *grandis*, thus fulfilling Article 13.1.1 of the Code, and it accomplishes the fixation of Scott's (1904) two specimens as syntypes, thus fulfilling Article 16.4.1 (the conditions for fixation of syntypes are more clearly explained in Articles 72.3 and 73.2.1.1). Article 16.4.2 concerning deposition of the syntypes in a collection only pertains to extant specimens, and while part of Scott's (1904) material is extant in London, as was noted above (Natural History Museum, 2014), the mentioned specimens of supposed *M. grandis* were not among those accessioned in 1911 as part of the Norman Collection. Their whereabouts are unknown, and we presume them lost. While Isaac has proposed to classify this new species in the genus *Strilloma*, in current thinking it actually belongs to *Monstrilla* (see Suárez-Morales & Gasca 2004) and should be cited as *Monstrilla scotti* (Isaac in Grygier & Suárez-Morales), with the present authors, not Suárez-Morales & Gasca, being responsible for the change in generic assignment. The type locality, i.e. the site of collection of the syntypes, was not specified in the text quoted above, but Scott (1904) noted that both specimens were from the head of Loch Fyne (Firth of Clyde), in western Scotland.

***T. tumorifrons sensu Isaac (1974b, 1975b)***. Based on the present work then "in preparation", Suárez-Morales *et al.* (2017) have already summarized the nomenclatural situation of this nominal species. The specific name must be attributed to Suárez-Morales, 1999 (*q.v.*), who inadvertently made it available in the combination *Cymbasoma tumorifrons* by providing a full redescription (Suárez-Morales 1999), despite his attribution of the name to Isaac (1975b) in accordance with Grygier's (1995a) judgement. The type series consists solely of the male holotype and two male paratypes. Suárez-Morales (1999: 69) mentioned females from the same plankton trawl that had been assigned to this species by Isaac (1974b), but because Suárez-Morales expressed doubt in that paper concerning the conspecificity of the three mentioned males and those females, the latter are excluded from the type series under Article 72.4.1 of the Code. Suárez-Morales & Álvarez-Silva (2001) provided a comparison of three of those females (from Greece) with a Mexican female, referring to the former as the allotype and two paratypes, but those specimens hold no such status. Suárez-Morales (2002) provided more information about the females from Greece, again mistakenly referring to them as allotype and paratypes. Suárez-Morales & Morales-Ramírez (2009) repeated the same error, while still attributing the name to Isaac (1975b). The only correct citation of the binomen is *Cymbasoma tumorifrons* Suárez-Morales, 1999. The three females from Greece, along with one female from Trieste, have now been assigned to *Cymbasoma mediterraneum* Suárez-Morales, Goruppi, Olazabal & Tirelli, 2017 (*q.v.*; *nomen correctum* herein *pro C. mediterranea*, an original misspelling with a feminine instead of neuter ending).

***Monstrilla obesa sensu Isaac (1974b, 1975b)***. The specific name has never been made available since its original proposal as a disclaimed "*nomen nudum*" by Isaac (1975b) in the form "*Monstrilla obesa* sp.n." We considered doing so here, in the same manner as *Thaumaleus frondipes* and *Strilloma scotti* above, by quoting from Isaac's (1974b) unpublished description of the species, but we encountered an obstacle. The species was to be based on 11 males and 2 females from Jersey, Channel Islands. However, because Isaac (1974b: 43–44) remarked that 1) the females "... are probably the same species. One cannot be absolutely certain that the two sexes are conspecific ..."; 2) the two sexes are "placed together provisionally"; and 3) the female "might be regarded as that of *M. anglica*, which also occurs at Jersey", we would be forced to restrict the type series to the males and only tentatively refer the females to this species. Any such change, if it is our doing, would necessitate attributing species authorship to Isaac, Grygier, and Suárez-Morales (not necessarily in that order). We latter two zoologists, having never examined specimens of this species ourselves, consider this an undesirable outcome and forebear from doing so. Furthermore, unlike *T. frondipes* and *S. scotti*, at least some of Isaac's specimens are extant, having

been deposited in the Natural History Museum, London, under the accession numbers 1974.401 (intended holotype) and 1974.402–404 (intended paratypes). They remain available there for reexamination and formal description, potentially in much more detail than Isaac's dissertation provides. Pending such action, we judge that taking steps now to make *Monstrilla obesa* sensu Isaac (1974b, 1975b) available would be premature.

***Monstrillopsis angustipes* sensu Isaac (1974b, 1975b).** The specific name has never been made available since its original proposal as a disclaimed “*nomen nudum*” by Isaac (1975b) in the form “*Monstrillopsis angustipes* sp.n.” Suárez-Morales & Ivanenko (2004) mentioned this species, but attributed it to Isaac (1975b), while under Article 16.1 of the Code, “Every new name published after 1999 ... must be explicitly indicated as intentionally new”. Furthermore, Suárez-Morales & Ivanenko (2004) mentioned no characters pertaining to this nominal species, only the name. In contrast, Suárez-Morales *et al.* (2006: 104) listed some purportedly distinctive characters of the species, but only those distinguishing it at the generic level from their concept of *Monstrillopsis* Sars, 1921. Their citation of Isaac (1975b), who included this species in a published key and thereby provided features distinguishing it from various other species of *Monstrillopsis* and *Monstrilla*, appears more clearly to fulfill Article 13.1.2 of the Code, but again, these authors attributed *angustipes* to Isaac (1975b) and did not explicitly claim it as new. In addition, their citation of Isaac (1974a), a paper concerning monstrilloids from SW Britain, in connection with this species was an error; it was not mentioned in that work.

We considered treating *Monstrillopsis angustipes* herein in the same manner as *Thaumaleus frondipes* and *Strilloma scotti* above, by quoting from Isaac's (1974b: 63–64) unpublished description of the species. However, Isaac did not specify the whereabouts of the putative holotype, a “single female from Emborios Bay, Aegean, caught 8.8./67”. Although we have learned that this specimen is deposited in the Natural History Museum, London, under the registration number NHMUK 1974.406, the quotable text from Isaac (1974b) does not contain all the information needed for availability, and species authorship would have to be attributed to Isaac, Grygier, and Suárez-Morales (not necessarily in that order). We latter two zoologists, having never examined specimens of this species ourselves, consider this an undesirable outcome and, therefore, forebear from taking any such action. Furthermore, unlike *T. frondipes* and *S. scotti*, the putative holotype of *M. angustipes* is extant in London and remains available for reexamination and formal description, potentially in much greater detail than Isaac's dissertation provides. Pending such action, we judge that taking steps now to make *Monstrillopsis angustipes* sensu Isaac (1974b, 1975b) would be premature.

#### ***Haemocera morii* Tokioka, 1949 or *Cymbasoma morii* Sekiguchi, 1982 (reprinted from Grygier 1994b)**

Tokioka (1949) described *Haemocera morii* based on the female holotype. The descriptive text and illustrations were more detailed than the common run of monstrilloid descriptions to that time, but no diagnosis was provided, nor any explicit or implicit comparison to any other species. From this publication alone it is impossible to know which characters were “purported to differentiate the taxon” (Art. 13.1.1 of the Code). The word “purport” is not defined in the Code's Glossary, but according to various dictionaries it carries the implication of an intentional or deliberate representation.

Some nomenclaturally irrelevant appearances of *Haemocera morii* in faunal lists followed its description, but then Sekiguchi (1982) transferred the species to *Cymbasoma*. He cited the earlier work, presented a short, illustrated description of a second female, and concluded his remarks with the following discriminative observation (p. 32), “This species is closely related with *C. gracile* (GURNEY, 1927) and *C. reticulata* [*sic*] (GIESBRECHT, 1892), but distinguished from the latter by setation of the 5th legs.” Grygier (1994b) reattributed the authorship of *morii* to Sekiguchi, 1982, citing the English version of Art. 13(a)(1) of the Third Edition of the International Code of Zoological Nomenclature (ICZN 1985), then in force, and writing (p. 23) concerning Tokioka's (1949) paper that “no statement purported to distinguish this species from any other, so the new name was unavailable ....” Noting that Tokioka's (1949) and Sekiguchi's (1982) specimens are both syntypes if authorship of the species is attributed to Sekiguchi, Grygier (1994b) designated the extant Sekiguchi specimen as the lectotype.

Grygier (1995a) repeated this history in brief in his summaries of Tokioka's (1949) and Sekiguchi's (1982) papers and called *Haemocera morii* a *nomen nudum*. Razouls (1996) listed this nominal species both as *Haemocera morii* Tokioka, 1949 and as *Cymbasoma morii* Sekiguchi, 1982, with a cross-reference from the former listing to the latter. Suárez-Morales & Escamilla (1997), Suárez-Morales & Palomares-García (1999), and many subsequent single- or multiple-author works by Suárez-Morales have accepted the authorship attribution of *Cymbasoma morii* to Sekiguchi, 1982 without comment.

No specific means of expressing the purported differentiation of a new taxon was mandated by the above-cited Article 13a(1) of the Third Edition (ICZN 1985). Recommendation 13A suggested “giving a summary of characters that in the author’s opinion differentiate the taxon from other named taxa of the same rank as the new taxon”, but the Article allowed the information to be conveyed in any way whatsoever. Descriptions that fail to differentiate in some way are probably quite rare, and it is frequently possible to regard a bare description also as a diagnosis. It would be beyond the bounds of reason, however, to assume that Tokioka (1949) regarded all of the mentioned features in his description as diagnostic at the species level. We also do not think it reasonable to parse Article 13(a)(i) of the Third Edition such that “description” and “definition that states in words ...” are interpreted as two different alternatives. A straw poll conducted by MJG among current ICZN Commissioners found that most respondents agreed with the idea that the restrictive relative clause pertains to both “description” and “definition”.

Minor changes in the wording of Article 13.1.1, Recommendation 13A, and various Glossary entries in the Fourth Edition of the Code (ICZN 2009) did not affect the above reasoning. The Fourth Edition was issued initially in both English and French versions of equal standing and force. In the French text, the wordings of Article 13.1.1 and “diagnose” in the Glossary differ significantly in meaning from the respective English versions. The French version lacks an equivalent word for “purported” or “purports” in both places [also true of the official Japanese edition of the Code: International Commission on Zoological Nomenclature 2000], and thus apparently allows implicit differentiations as well as explicit ones; it may be sufficient to mention discriminative characters without pointing them out as such. In the case of Tokioka’s (1949) description of *Haemocera morii*, anyone familiar with the preceding monstrellid literature would immediately recognize, as did Sekiguchi (1982), that there were only two remotely similar species (although Tokioka never mentioned them), and which features in the description were the taxonomically significant ones. Under the French text, *Haemocera morii* Tokioka, 1949 appears to be an available name, while, as noted above, under the English reading it appears to be unavailable.

In August of 2002, Grygier submitted an application to ICZN (Case 3252) to request a ruling to settle the matter in favor of the French (and Japanese) wording of Art. 13.1.1 and the French wording of the definition of the term “diagnose” in the Glossary. Under such a ruling *Haemocera morii* Tokioka, 1949 would be recognized as an available name and Grygier’s (1994b) lectotype designation for *Cymbasoma morii* would be set aside because Tokioka’s (1949) original specimen would be the holotype. Receipt of the Case was acknowledged in print [see Bulletin of Zoological Nomenclature 59(4): 233], but this Case was never published and it was closed in October, 2003, without any published notification of closure.

Under Article 87 of the Code, all ICZN-authorized editions of the Code in various languages “are official and are equivalent in force”. As a matter of fact, Art. 13.1.1 in the German edition of the Fourth Code (Krauss 2000) is yet again different, being concerned with features that are “geeignet” (i.e., “suitable” or “useful”) for distinguishing the new taxon. Authors from some linguistic backgrounds might be inclined to reverse Grygier’s (1994b) judgement concerning the authorship of *Haemocera/Cymbasoma morii*, which was based on the English version of the Code, and return the authorship to Tokioka (1949). However, we cannot choose among Codes unilaterally; apparent differences in meaning between official texts of the Code are to be referred to the Commission (Article 87 of the Code). This was done in Case 3252, but since the Case was closed without any ruling on the linguistic questions it raised, the authorship and the date of availability of the present species remain ambiguous.

### **New nomenclatural considerations (in alphabetical order by genus and species)**

***Cymbasoma bowmani* Suárez-Morales & Gasca, 1998.** Suárez-Morales & Gasca (1998) provided illustrated descriptions of three female specimens of their new species, two of which including the holotype were “Form A”, the third being “Form B”. Inasmuch as Form B” is referred to in the paper as a distinct variant, distinguished by letter from the holotype’s “Form A”, the specimen involved (NMHUK 1997. 948) is excluded from the type series under Article 72.4.1 of the Code, despite its having been designated a paratype in the paper. This exclusion has no practical consequences, except that the Natural History Museum in London will have mistakenly registered the “Form B” specimen as a valid paratype.

***Cymbasoma bullatum* (Scott, 1909).** The precise composition of the type series is not clear. Scott (1909) wrote that he based the species, originally described as *Thaumaleus bullatus* Scott, 1909, on 30 males. Suárez-Morales (2001b) provided an illustrated redescription based on a newly designated male lectotype and 21 female [*sic*]

paralectotypes (only two of the latter being unbroken) from Siboga Expedition Stn. 142. The caption to Suárez-Morales's fig. 24 referred to a male paralectotype, but no such specimen was listed in the "Material" section. On the other hand, Suárez-Morales (2007) listed 21 male (no female!) paralectotypes of *C. bullatum* in the "Material examined" section of this later paper. It can probably be assumed that "female" in Suárez-Morales (2001b) was a lapsus for "male", and that eight of the original specimens have been lost, or else broken and not countable with accuracy.

Even if this is so, the type locality also poses a problem. Scott (1909) stated that the collecting site for this species was Stn. 142 off Laiwui, Paternoster Islands. Suárez-Morales (2007) placed the Paternoster Islands off the southwestern coast of Mindanao, in the Moluccas. The coordinates suggested by him (0°24'37"S 127°36'32"E) are actually just inland from the NE coast of the island of Bacan in the Moluccas, about 600 km distant from Mindanao and to its south-southeast, not southwest. Suárez-Morales (2007) may have meant the southwestern coast of Halmahera, not Mindanao (the latter being a *lapsus calami*), because Laiwui is actually near the northern tip of the next large island south from Halmahera, Obi, at about 1.323152°S, 127.637504°E. The general account of the Siboga Expedition cruises (Tydeman 1902; Weber 1902) that is available online lacks the six promised maps of the survey route, but the List of Stations (Tydeman 1902) states that Stn. 142 was the "Anchorage off Laiwui, coast of Obi Major" (i.e. the site near Halmahera mentioned above), with no mention of the Paternoster Islands. Much of p. 23 of the main text (Weber 1902) concerns these latter islands, though, and it is clear they have nothing to do with Stn. 142. Their actual location is in the Flores Sea not far north of Sumbawa at about 7°30'S, 117°30'E and they belong to Sulawesi Selatan province, Indonesia, not to the Moluccas. Their current name may be Kepulauan Balabalagan (or Balabalangan or something else similar), and they are not to be confused with the island chain in the southern Macassar Strait called the Lesser Paternoster Islands. It seems likely that Scott (1909) became confused about localities when writing about *Thaumaleus bullatus*; this is the only place where he mentioned Stn. 142 and the Paternoster Islands in the same breath, a clear error unless the material truly came from both places. The *H.M. Siboga* did sample around the Paternoster Islands, e.g. at Stns. 37–42 and 315 (Tydeman 1902), and while Scott's (1909) mention of Stn. 142 might have been a mistake for 42, a tow net for plankton was used at Stn. 40, not Stn. 42.

***Cymbasoma germanicum* (Timm, 1893).** Although Suárez-Morales (2006: 175) asserted, "It is clear that the original syntypic series was collected at Helgoland between 1890 and 1893.", the type series actually includes "all the specimens on which the author established a nominal species-group taxon", or "all the specimens included by the author in the new nominal taxon", with certain exceptions (Articles 72.1.1 and 72.4.1 of the Code). Timm (1893: 419) explicitly included in *Thaumaleus germanicus* Timm, 1893 one female from Dogger Bank, three from Cuxhaven, and "mehrfach in wenigen Exemplaren" [i.e., small numbers on several occasions] from Helgoland. These all constitute the type series, not just the specimens from Helgoland. Since these syntypes originated from several localities, the type locality encompasses all of the places of origin (Article 73.2.3 of the Code). The specimen examined by Suárez-Morales (2006) may well be one of them. If this could be demonstrated more clearly, e.g. by comparison of label handwriting with known examples of Timm's handwriting, then it could be named the lectotype, and its place of origin would then become the type locality of *C. germanicum* (Article 76.2 of the Code).

***Cymbasoma guerrerense* Suárez-Morales & Morales-Ramírez, 2009.** The type series of this species described by Suárez-Morales & Morales-Ramírez (2009) consists only of the holotype despite the confusing listing under the heading "Holotype" of European specimens that are all retained in *C. tumorifrons* in the "Remarks"; however, it has been unclear whether just one Mexican specimen was assigned to *C. guerrerense*. Suárez-Morales & Álvarez-Silva (2001) based their earlier record of Mexican *C. tumorifrons* on a single specimen collected at the same place on the same day as the present holotype, but with a different registration number (ECO-CHZ.01126, versus ECO-CHZ01127 for the holotype). The "Remarks" of the paper in 2009 cite this work from 2001 and mention "specimens collected from the Pacific Coast of Mexico", implying more than one in total. However, inspection of the collection at ECOSUR shows that there was just one specimen, correctly cited by the registration number specified in 2001; the number given in 2009 was a mistake.

***Cymbasoma javense* Suárez-Morales, sp. nov. (pro *Monstrilla javensis* Isaac, 1974a, nomen nudum)** In his redescription of this nominal species, Suárez-Morales (2000) noted that Grygier (1995a) had considered *Monstrilla javensis* of Isaac (1974a) a *nomen nudum* and suggested that "This redescription will allow this name to become available" (p. 149). In fact, the name *javensis* remains unavailable, including under Suárez-Morales' authorship.



By attributing *javensis* to Isaac (1974a) instead of explicitly indicating it as new, Suárez-Morales (2000) failed to meet the conditions of Article 16.1 of the Code. Because the manuscript of Suárez-Morales' paper was received by the journal on 22 May 2000 and had presumably been submitted for publication shortly before that (certainly later than 31 December 1999), the author was too late to accord "*Cymbasoma javense* Suárez-Morales, 2000" availability under Article 86.1.2.

This problem can be easily remedied by proposing the name *javensis* again, this time explicitly as a new species, with an explicit type designation and a summary and citation of the differentiating remarks published by Suárez-Morales (2000). The following text, and thus the authorship of the specific name, are to be attributed to the present second author, Eduardo Suárez-Morales, alone:

### ***Cymbasoma javense* sp. nov.**

Holotype (data from Suárez-Morales 2000:144–145): undissected adult male in ethanol, Museum für Naturkunde, Berlin (Germany), sample no. 26279, Bangka Strait, western Java Sea, Indonesia, labelled as "Leg Prinz Adalbert, Dr. Sanders. Det. M.J. Isaac, 1973".

**Description:** See Suárez-Morales (2000: 145–146, figs. 11–26).

**Diagnostic remarks** [for a more detailed treatment, see Suárez-Morales (2000: 148–149)]: Uniquely among the Monstrillidae, a dorsal hump is present anteriorly on the cephalothorax; four pairs of rounded processes (the first pair bare, the members of the other three pairs each bearing a row of subrectangular scale-like processes) are lined up in two longitudinal rows between the bases of the antennules; and antennular setal elements 3 and IVv have peculiar projecting sockets that are ornamented respectively with many short spinules and many small, ovoid plates. Also unusual are the absence of setules on the natatory setae of legs 1–4 and on the inner margin of the terminal spiniform seta of exopodal segment 3 in these legs. The male genitalia differ from those of *Monstrilla wandelii* Stephensen, 1913 *sensu* Park (1967), with which Isaac (1974a) noted resemblances, in having lappets with simple, not bifid, distal ends and in the absence of fifth legs.

***Cymbasoma lenticula* Suárez-Morales & McKinnon, 2016.** The specific name is spelled two ways in its original description by Suárez-Morales & McKinnon (2016), mostly as *C. lenticula*, but also as *C. lentilum* on p. 95. We take this opportunity to act as First Revisers under Article 24.2.3 of the Code and fix *C. lenticula* as the correct original spelling.

***Monstrilla capitellicola* Hartman, 1961.** Suárez-Morales *et al.* (2010) did not recognize *M. capitellicola* as valid and regarded it as being of uncertain taxonomic status because Hartman (1961) based it on immature females still enclosed in a capsular sheath. Validity is a concept that is only relevant in the context of competing names. Rather than "invalid", it would be more accurate to regard *M. capitellicola* as a *nomen dubium*, or as a *nomen inquirendum* if the possibility exists of clarifying its identity through examination of type or newly collected material, including by rearing to adults.

***Monstrilla mariaeugeniae* Suárez-Morales & Islas-Landeros, 1993.** Suárez-Morales (1998) had two nomenclaturally valid ways to handle the supposed synonymy of male *Monstrilla wandelii tropica* Suárez-Morales, 1996 and female *M. mariaeugeniae* Suárez-Morales & Islas-Landeros, 1993 from the Mexican Caribbean. He chose to retain *M. mariaeugeniae* as a full species with *M. w. tropica* as its junior subjective synonym. His other option was to reduce the senior taxon to the subspecies *M. wandelii mariaeugeniae* (again with *M. w. tropica* as its junior subjective synonym) along with the nominotypical subspecies *M. w. wandelii* Stephensen, 1913, known from Greenland and the Canadian and Alaskan Pacific. The question of recognizing subspecies among the relevant females was not addressed, however, and this latter option was not mentioned. Suárez-Morales (2001a) later synonymized male *M. w. tropica* with female *M. elongata* Suárez-Morales, 1994 instead of *M. mariaeugeniae*, so the point is now mostly moot, but the taxonomic (and eventual nomenclatural) question of the status of *M. mariaeugeniae vis à vis M. wandelii*, i.e. as a separate species or a subspecies, remains.

***Monstrillopsis boonwurrungorum* Suárez-Morales & McKinnon, 2014.** The specific name is spelled two ways in its original description by Suárez-Morales & McKinnon (2014), mostly as *M. boonwurrungorum*, but also as *M. boonwurrungi* in the second to last line of the Remarks on p. 311. We take this opportunity to act as First Revisers under Article 24.2.3 of the Code and fix *M. boonwurrungorum* as the correct original spelling.

***Monstrillopsis reticulata* (Davis, 1949).** Grygier & Ohtsuka (2008) advised that resolution of the problem posed by assignment of the specific name *reticulata* to supposedly non-conspecific males and females [see Suárez-Morales *et al.* (2006) for details] requires designation of a lectotype (p. 501). In fact, the latter authors had already examined the syntypes of *M. reticulata* but could not make any use of them because the specimens were nearly invisible on the slides. A request to the International Commission on Zoological Nomenclature to replace the present syntypes by a neotype (of either sex, preferably a new specimen from the type locality, Biscayne Bay, Florida), to fix the applicability of the name to a single taxon, therefore seems to be required.

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