

**ANNOTATED CHECKLIST OF ANOMURAN DECAPOD CRUSTACEANS OF
THE WORLD (EXCLUSIVE OF THE KIWAOIDEA AND
FAMILIES CHIROSTYLIDAE AND GALATHEIDAE OF THE GALATHEOIDEA)
PART I – LITHODOIDEA, LOMISOIDEA AND PAGUROIDEA**

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INTRODUCTION

The preamble to the *Systema Brachyurorum* (Ng et al., 2008), the catalyst for this and similar annotated checklists, began with the readers' attentions directed to previous catalogues that had contributed substantially to the associations of scientific names with the brachyuran crabs they represented. Among the paguroid *Anomura* MacLeay 1838, two publications similarly have been indispensable. Alcock's (1905b) catalog provided not only information on the holdings in the Indian Museum, but a listing of all species known at the time; Gordan's (1956) bibliography of paguroids since Alcock's publication made available to the scientific community a thorough literary review of fifty years of research. A similar cornerstone for lithodids was Dawson's (1989) comprehensive bibliography that included both systematic and fishery orientated references. However, during the more than half a century since these monographic summations, the total number of species has increased several folds. Only in the *Lomisoidea* Bouvier, 1895 has the species number remained only one. In contrast to the 16 genera and 95 species documented by Dawson, recognized lithodoid species now total 129, in 15 genera (*Acantholithus* Stimpson, 1858 formally having been placed in synonymy

with *Paralomis* White, 1847). Most of these additional taxa have been assigned to the lithodid genera *Lithodes* Latreille, 1806 and *Paralomis*. Although a direct comparison with the number of species and subspecies (varieties) listed by Gordan (1956) is not realistic as hers was simply a compilation of names in the existing literature of the time, there is no doubt that increased genera and species recognition has been greatest in the *Paguroidae* Latreille, 1802: *Coenobitidae* Dana 1851, two genera and 17 species; *Diogenidae* Ortmann, 1892, 20 genera and 428 species; *Paguridae* Latreille 1802, 75 genera and 542 species; *Parapaguridae* Smith, 1882, 10 genera and 76 species; *Pylocheles* Bate, 1888, 10 genera and 52 species; *Pylojacquesidae* McLaughlin & Lemaitre, 2001, two genera and two species. However, these numbers, particularly in the species category, will undoubtedly change as taxonomic revisions in progress and those contemplated are completed and published. Perhaps it should be noted that while the estimated number of paguroid genera 120 provided by De Grave et al. (2009), agreed with the number of 120 documented in the present checklist, the number of species differed somewhat, 1,069 in the De Grave et al. (2009) checklist, and 1,106 in the present study, with 36 new species added following publication of De Grave et al. (2009).

HISTORY OF CLASSIFICATION

Two anomuran species, *Cancer bernhardus* Linnaeus, 1758 and *Cancer maja* Linnaeus, 1758 were among the first decapods officially recognized in Linnaeus' 1758 tenth edition of *Systema Naturae*. *Cancer bernhardus* subsequently was transferred to the genus *Pagurus* Fabricius, 1775, while *Cancer maja* was assigned still later to *Lithodes* Latreille, 1806 (as *L. arctica* Latreille, 1806). As late as Stimpson's (1858) classification, the Lithodidae Samouelle, 1819 and Paguridae were considered separate major taxa; *Lomis* H. Milne Edwards, 1837, when specifically mentioned, was aligned with the Lithodidae [see McLaughlin et al. (2007); Lemaitre & McLaughlin (2009) for specifics]. Although disagreement on the placements of the anomuran families and interpretations of their relationships continued, the derivations by Boas (1880b, 1924) and Bouvier (1894 b, 1895a, 1897a) of the Lithodidae from the Paguridae became firmly implanted in the scientific literature. But it was Bouvier's proposed transformation from pagurid to lithodid pleon that gained general acceptance. In the taxonomic section of his monumental treatise on the Decapoda, Balss' (1957) classification of the Paguridea included the families Pylochelidae, Paguridae, Coenobitidae, Lomisidae and Lithodidae. At that point in classificatory history, the Paguridae was composed of the subfamilies Pagurinae sensu Dana (= Diogeninae) and Eupagurinae sensu Brandt (= Pagurinae).

However, the interpretation of phylogenetic relationships within the Paguridea, quickly changed and with it the classification. Based on rather limited developmental data, MacDonald et al. (1957) divided the Paguridea into two superfamilies, the Coenobitoidea Dana, 1851, including the Pylochelidae, Coenobitidae and Diogenidae, and Paguroidea Latreille, 1802, including the Paguridae, Parapaguridae and Lithodidae and suggested early divergence of two lineages from an ancestral anomuran; the Lomisidae was not considered. Polyphyly in the Paguroidea was first challenged by McLaughlin (1983b), but it was not until Martin & Davis (2001) accepted McLaughlin's (1983b) argument, that the Paguroidea was reconciled as a single superfamily, retaining all six paguroid families. Martin & Davis' (2001) classification also supported removal of the Lomisidae to its own family and superfamily as had been proposed by McLaughlin (1983a). Despite very contentious disagreements between traditional morphologists and molecular phylogeneticists regarding the relationships among the Paguroidea s.l. that continue today, only two substantive changes have occurred to date in the formal classification of the superfamily. The first was the addition of the family Pylojacquesidae McLaughlin & Lemaitre, 2001, considered unique among anomurans in having a chitinous, strongly toothed mandible that could reflect an unusual neotenous or paedomorphic condition. The second was the recently proposed classification of McLaughlin et al. (2007) in which the family Lithodidae was formally transferred to its own superfamily with families Hapalogastridae Brandt, 1850 and Lithodidae. This superfamilial rank for the Lithodoidea Samouelle, 1819, although in use by some (e.g. De Grave et

al., 2009; Ahyong et al., 2009, Ahyong, 2010b, Ahyong et al., 2010), is not universally accepted. The positions of the Lomisoidea as a distinct superfamily and the Porcellanidae Haworth, 1825 as a family of the superfamily Galatheoidea Samouelle, 1819 were unchanged in McLaughlin et al.'s (2007) classification.

Although the formal classification within the Lithodoidea (or Lithodidae) has not been a source of major contention, the evolutionary relationship between pagurids and lithodids most certainly has. The historical account of this presumed relationship has been reviewed in detail by McLaughlin & Lemaitre (1997), McLaughlin et al., (2004), Ahyong & O'Meally (2004), McLaughlin et al. (2007) and need not be repeated. Suffice it to say that if a close phylogenetic relationship truly does exist, the unresolved question lies in the determination of the direction of transformation — from "hermit to king" (e.g., Cunningham et al., 1992; Richter & Scholtz, 1994; Morrison et al., 2002) or "king to hermit" (e.g., McLaughlin & Lemaitre, 1997; McLaughlin et al., 2004; McLaughlin et al., 2007).

Despite the Lomisoidea being represented by the monotypic genus, *Lomis*, it did not escape early uncertainty as to its taxonomic placement and phylogenetic relationship, or the lack of accuracy in its reported morphology. Because of its superficial resemblance to the Porcellanidae, Lamarck initially assigned his species to the genus *Porcellana* Lamarck, 1801. Henri Milne Edwards (1837) recognized several characters that set the taxon apart from the porcellanids and therefore established the genus, *Lomis*, for the species. Unfortunately, he was not careful in his morphological assessment and aligned *Lomis* with the Lithodidae, a presumed relationship that was perpetuated for more than a century. Both Bouvier (1894a, 1895a) and Boas (1926) speculated on the evolution of *Lomis*. Bouvier (1894a, 1895a) derived *Lomis* from an ancestor intermediate between the paguroid genera *Mixtopagurus* A. Milne-Edwards, 1880 and *Paguristes* Dana, 1851; whereas Boas was of the opinion that it probably had originated from the oldest symmetrical hermit crab of the Pylochelidae. Pilgrim (1965) thoroughly investigated the work of earlier carcinologists, correcting many of the existing errors and inadequacies. He found no justification for the inclusion of *Lomis* in the Porcellanidae or for Bouvier's (1894a, 1895a) derivation of the genus from an asymmetrical ancestor. Nor could Pilgrim find justification for inclusion of *Lomis* in the remaining Galatheoidea. He was left with only the alternative of including *Lomis* in the Paguridea s.l. In contrast, McLaughlin (1983a) found the inclusion *Lomis* in the Coenobitoidea untenable, and removed the genus and family to its own superfamily.

Classification of the Paguroidea is by far the most convoluted. When first established by Fabricius (1775), *Pagurus* included a number of Linnaeus' (1758) non crab-like species of *Cancer*. It was thirty-five years later that *Pagurus bernhardus* was designated by Latreille (1810) as the type species of the genus. In a monographic revision, H. Milne Edwards (1836) removed, as distinct genera, "Coenobites", *Cancellus* H. Milne Edwards, 1836, and *Birgus* Leach,

1816, and subdivided the genus *Pagurus* into three subgenera: *Pagures Ordinaires*, *Pagures Appendiculés*, and *Pagures Armés*. *Pagurus bernhardus* was listed first in his *Pagures Ordinaires*. Subsequently, he (H. Milne Edwards, 1848) subdivided *Pagures Ordinaires* still further. *Pagurus bernhardus* was included, with 13 additional species with enlarged right chelipeds, in his section *Dextres*. The two other sections, *Senestres* for species with enlarged left chelipeds, and *Æquimanus* for species with generally equal chelipeds, encompassed the majority of species recognized at the time, although the subgenera *Appendiculés*, for species with sexually modified pleopods, and *Armés* for species with spinose intercalary rostriform processes remained as originally defined.

Brandt (1851) proposed the replacement name *Eupagurus* for H. Milne Edwards' (1848) non-Latin *Dextres*, but did not address other aspects of H. Milne Edwards' classification except to mention in a footnote that a syntopic review of *Pagurus* would be forthcoming; it apparently was never published. About the same time, Dana (1851) published a revision of the Milne Edwards' (1848) classification. For *Pagures Ordinaires*, *Dextres*, Dana (1851) proposed the generic name *Bernhardus*, with *Pagurus bernhardus* as the type, but renamed by Dana, *Bernhardus typicus*. Dana disagreed with H. Milne Edwards' (1836, 1848) interpretation of the sections *Senestres* and *Æquimanus*, choosing to divide the taxa using the terminal structure of the left chela rather than chela symmetry. Dana (1851) proposed the genus *Calcinus* Dana, 1851 for species with calcareous-tipped chelae. For the remaining species with corneous-tipped chelae Dana believed they constituted the true genus *Pagurus*. Stimpson (1857) called attention to the fact that *Eupagurus* and *Bernhardus* were synonyms and Brandt's (1851) taxon had priority over Dana's (1851) by a few weeks; subsequently Stimpson (1858) designated *Cancer bernhardus* Linnaeus, 1758 the type of *Eupagurus* Brandt, 1851. Consequently, *Eupagurus* became the generic name for species characterized by enlarged right chelae, whereas species with corneous-tipped left chelae continued to be referred to *Pagurus* sensu Dana (1851).

Although Paul'son (1875) proposed the genus *Dardanus* for one of the species assigned to *Pagurus* (sensu Dana), Paul'son's genus was placed in synonymy with Dana's (1851) *Pagurus* by Kossmann (1880). It was not until considerably later that Benedict (1896) realized that Dana's (1851) *Pagurus* contained none of the species originally assigned to the genus by Fabricius (1775) and pointed out that Latreille's (1810) designation of *Pagurus bernhardus* as the type species of *Pagurus* (sensu Fabricius) had priority over its assignment as the type species of either *Bernhardus* or *Eupagurus*. Around the turn of the century, American authors such as Rathbun (1899) and Holmes (1900) began using *Pagurus* as it had been interpreted by Benedict (1896), and Benedict (1901b) suggested the replacement name *Pagurias* Benedict, 1901 for *Pagurus* (sensu Dana). However, before *Pagurias* could become established in the carcinological literature of the time, Rathbun (1903) recognized that Paul'son's (1875) *Dardanus* was available for Dana's (1851) taxon. Thus

American and Russian carcinologists replaced *Eupagurus* with *Pagurus* (sensu Fabricius, 1775) and *Pagurus* (sensu Dana, 1851) with *Dardanus* Paul'son, 1875. However, most Asian and European carcinologists continued to refer species to *Eupagurus* Brandt, 1851 and *Pagurus* (sensu Dana, 1851). The ensuing nomenclatorial chaos prevailed until the matter was brought before the International Commission (Forest & Holthuis, 1955). In its subsequent ruling, the Commission validated the generic names *Pagurus* (sensu Fabricius) with family *Paguridae* Latreille, 1802, and *Dardanus* Paul'son, 1875 with family *Diognidae* Ortmann, 1892 (ICZN Opinion 472), and placed the names *Eupagurus* Brandt and *Bernhardus* Dana on the Official Index of Rejected and Invalid Names in Zoology (Hemming, 1958).

INFRAORDER ANOMURA MACLEAY, 1838

Infraorder Anomura MacLeay, 1838

- = *Anomaux* Latreille, 1816
(not in Latin, invalid name)
- = *Anomalia* Latreille, 1817
- = *Anomala* Schinz, 1823
- = *Anomoures* H. Milne Edwards, 1832
(not in Latin, invalid name)
- = *Anomura* MacLeay, 1838

Extant families, subfamilies and tribes of the superfamilies Lithodoidea, Lomisoidea and Paguroidea. –

Superfamily Lithodoidea Samouelle, 1819

- | | |
|--|-----|
| Hapalogastridae Brandt, 1850 | {1} |
| = <i>Hapalogastrina</i> Brandt, 1850 | |
| Lithodidae Samouelle, 1819 | {1} |
| = <i>Lithodiidae</i> Samouelle, 1819
(invalid original spelling ICZN Opinion 511) | |
| = <i>Lithodinae</i> Samouelle, 1819 | |
| = <i>Lithodeacea</i> De Haan, 1833 | |
| = <i>Lithodea</i> Brandt, 1848 | |
| = <i>Elithodea</i> Brandt, 1848 | |
| = <i>Holaspidura</i> Brandt, 1848 | |
| = <i>Cryptolithodea</i> Brandt, 1848 | |
| = <i>Lithodina</i> Brandt, 1850 | |
| = <i>Ostracogastrica</i> Brandt 1850 | |
| = <i>Lithodideorum</i> Stimpson, 1858 | |
| = <i>Lithodinès</i> Bouvier, 1895
(not in Latin, invalid name) | |
| = <i>Lithodinés</i> Bouvier, 1896
(not in Latin, invalid name) | |

Superfamily Lomisoidea Bouvier, 1895

- = *Lomisinés* Bouvier, 1894
(not in Latin, invalid name)
- Lomisidae Bouvier, 1895
 - = *Lomoidea* Glassner, 1969 (incorrect stem)
 - = *Lomidae* Glassner, 1969 (incorrect stem)

Superfamily Paguroidea Latreille, 1802

- = *Paguridea* Latreille, 1802
- = *Coenobitoidea* Dana, 1851

- Coenobitidae Dana, 1851
 Diogenidae Ortmann, 1892
 = Diogeninae Ortmann, 1892
 = Dardaninae Schmitt, 1926
 Paguridae (correction by Samouelle, 1819, of Pagurii Latreille, 1802)
 = Pagurinae Latreille, 1802
 Parapaguridae Smith, 1882
 Pylochelidae Bate, 1888
 = Pomatochelidae Stebbing, 1914
 Pylochelinae Bate, 1888
 Pomatochelinae Stebbing, 1914
 Trizochelinae Forest, 1987
 Parapylochelini Forest, 1987
 Cancellochelini Forest, 1987
 Trizochelini Forest, 1987
 Mixtopagurini Bouvier, 1895
 Pylojacquesidae McLaughlin & Lemaitre, 2001

DESCRIPTIVE TERMS AND CURRENT STATUS

LITHODOIDEA

General morphology. – The body shape is crab-like with the carapace generally well calcified and covering the entire cephalothorax. Regions of the dorsal carapace are usually well defined and the integument provided with spines, tubercles or granules except in *Cryptolithodes* Brandt, 1848. The rostrum is variable in size and armature, but always present; external orbital spines (cf. Macpherson, 1988) are well developed or not. Ocular peduncles are generally short, with corneas pigmented; no ocular acicles are developed. Antennular peduncles often are as long as or longer than antennal peduncles. Antennal peduncles exhibit supernumerary segmentation and antennal acicles are well developed, reduced or absent. Third maxillipeds are pediform and widely separated basally; the ischium has a well-developed crista dentata and accessory tooth. Gills are phylobranchiate, 11 on each side: 5 pairs of arthrobranchs on arthroidal membranes of the third maxillipeds, chelipeds and pereopods 2–4; 1 pleurobranch is developed on the body wall above each fourth pereopod.

Chelipeds usually, but not always, are markedly unequal, the right largest. Pereopods 2–4 are developed as walking legs, each with terminal claw; pereopod 5 is reduced and most frequently carried dorsally under the carapace. The pleon is short, weakly to firmly bent under the cephalothorax; with the tergite of the second pleomere provided with paired marginal and lateral plates and single median plate, or nodules in place of actual calcified plates; tergites 3–5 are primarily membranous in the Hapalogastridae, incompletely to completely calcified in the Lithodidae. Internally, male and females reproductive organs and lobules of the midgut cecum (hepatopancreas), together with other principal organ systems, are located in the cephalothorax as they are in brachyurans.

Adult males are completely lacking pleopods; females each are provided with a pair of small pleopods developed on first pleonal segment, segments 2–5 each have an unpaired, left uniramous pleopod. Uropods are entirely absent in adults of both sexes. The telson is reduced to a small calcified plate.

Development. – Lithodoid larval development is similar to that of other anomurans in that the developing embryos hatch from the parental eggs as swimming larvae (zoeae) provided with carapace, rostrum and cephalothoracic appendages that include eyes, antennules, antennae, mandibles, maxillules, maxillae, and first and second maxillipeds. The elongate pleon is composed of five pleomeres and a telson. Although lithodoid zoeae often tend to hatch in a somewhat slightly advanced stage than typical first zoeae (eyes already at least partially stalked), they generally pass through two or more zoeal stages, during which the third maxilliped and buds of the thoracic appendages develop in the cephalothoracic region, while the pleon adds a sixth pleomere, pleopodal buds, and in some taxa uniramous uropods (McLaughlin & Lemaitre, 2001a; McLaughlin et al., 2004). The zoeal phase is followed by a molt to the megalopa, and it is at this stage that lithodoid and paguroid developmental differences begin to become apparent although these differences were initially observed only from adult morphology and regrettably misunderstood. Specifically, the adult condition suggested that the membranous pleon of the ancestral paguroid was progressively invaded by calcified nodules that ultimately fused to form calcified plates in lithodoids. Initial fusion occurred primarily in the first and second tergites with the third through fifth tergites invaded first with granules and successively with increasingly larger and more numerous nodules. Marginal and lateral plates of the adult tergites were formed by these latter invasions. Ultimately the median nodules also fused resulting in solid plates (Bouvier, 1894b, 1895a, 1897a).

However, in a series of developmental studies, Crain & McLaughlin (2000a, b), McLaughlin & Lemaitre (2001a), McLaughlin & Paul (2002) and McLaughlin et al. (2004) were able to demonstrate conclusively that it was not the calcification and fusion of pleonal tergites in paguroid evolution that gave rise to lithodoid pleonal armament, but rather decalcification and sundering. The chitinous or weakly calcified, but entire, individual tergal plates seen in the lithodoid megalopae underwent calcium loss and other changes in first or second juvenile crab stages in certain genera, coupled with accessory marginal plate development that resulted in the patterns of plates and/or nodules recognized in the adults (see McLaughlin et al., 2004, for detailed account).

In addition to the evidence provided by tergal plate decalcification, there are other aspects of lithodoid development that set this superfamily apart from its “crab-like cousins” and from paguroids. The most significant is seen in the uropods. Uropods typically first develop in the third zoeal stage, and remain biramous appendages, albeit with modifications, through adult life. However this is not the case in lithodoids. From the data available, if uropods develop,

they appear in the third zoeal stage as would be expected. However in genera such as *Acantholithodes* Holmes, 1900, and *Cryptolithodes*, both of which have four zoeal stages, uropods never develop. When zoeal uropods occur in lithodoids, they are uniramous structures that are lost entirely with the molt to first crab, except in *Placerton* Schalfeew, 1892. When total loss occurs in that genus presently is not known, but uropods are lacking in adults.

Current status. – The hypothesized evolutionary relationship between hermit crabs and king crabs, as has been previously noted, is fraught with inconsistencies and disagreements. The sources of these disparities are multifold, but include archaic and inaccurate morphological data, conflicting spermatological information, ignored developmental documentation, a paucity of comprehensive molecular data, and the dangerous assumption that one molecular “shoe fits all.” As emphasized by Boero (2010) not all species are molecularly the same. Brief perusal of major phylogenetic assessments published over the last decade (e.g. Schram, 2001; Morrison et al., 2002; Dixon et al., 2003; Ahyong & O’Meally 2004; Porter et al., 2005; McLaughlin et al., 2007; Tsang et al., 2008, in press; Ahyong et al., 2009; Bracken et al., 2009) demonstrates the remarkable discrepancies provided, particularly by the molecular data. Nonetheless, these data confirmed the “nesting” of the Lithodoidea with the Paguroidea in the four most recent analyses, all of which employed refined molecular methodologies (Tsang et al., 2008, in press; Ahyong et al., 2009; Bracken et al., 2009). It has been argued, and possibly justifiably, that this apparent relationship between lithodoids and paguroids is artificial because of the very poor species representations for each. Tsang et al.’s (2008) dataset included seven paguroids and one lithodid; Bracken et al.’s (2009) included three paguroids and one lithodid; Ahyong et al.’s (2009) included 13 paguroids and two lithodoids. However, in their presentation at the Anomura III Symposium in Tokyo, 2009, Tsang et al. (in press) increased their species representation to four lithodids, eight pagurids, eight diogenids + coenobitids, six parapagurids and four pylochelids. That none of these investigations were able to recover a monophyletic Paguroidea should not come as surprising. The monophyly the authors refer to is that presented by McLaughlin (1983b) as a challenge to the polyphyly proposed by MacDonald et al. (1957) based on their limited larval data. Both claims are archaic and should be relegated to their places in the history of anomuran historical “side-steps.” Knowledge and understand of morphological and developmental processes have been advanced considerably in the ensuing quarter century. And more recently our “toolbox” has been enhanced by molecular methodologies. Unfortunately, the advancements on both fronts have not been incorporated into the analytical processes employed by either molecular or morphological practitioners. For example, Ahyong, et al. (2009) found their resulting polyphyly of asymmetrical paguroids “difficult to reconcile with somatic morphology. ‘A priori’, the suite of associated modifications required for gastropod shell habitation, present in all asymmetrical hermit crabs is compelling evidence for monophyly.” Perhaps recognition that not all paguroids are asymmetrical, gastropod shell-inhabitants and that the

pagurid taxon apparently most closely aligned with their two lithodid exemplars is a polychaete tube-dweller could provide a slightly broader interpretation of their results.

It would be akin to burying one’s head in the sand to completely disregard aspects of the molecular hypothesis regarding the relationship between lithodoids and paguroids. It would be equally irresponsible to accept the molecularly implied relationships without current knowledge of the morphological and developmental incongruities that exist between the two superfamilies. In place of the “ancient history” both morphologists and molecular biologists have been relying on for explanations of complex issues, isn’t it about time that the two schools share and work together to find the most realistic and parsimonious explanations to the puzzles of this very multifaceted relationship?

LOMISOIDEA

General morphology. – The body shape is crab-like with the carapace generally flattened. Regions of the dorsal carapace are not well defined but the integument is provided with tufts of short setae. The rostrum is triangular. The ocular peduncles are mesially flattened, slightly compressed dorso-ventrally and well calcified; the corneas are reduced; ocular orbits and ocular acicles are absent. The antennal peduncles exhibit supernumerary segmentation; the antennal flagella are thick and provided by paired, long setae. An epistomial spine is present. The third maxillipeds are pediform, widely separated basally; the ischium has a crista dentata but no accessory tooth. Gills are phyllobranchiate, 14 on each side: 5 pairs of arthrobranchs on the arthroidal membranes of the third maxillipeds, chelipeds and pereopods 2–4; 4 pleurobranchs, one on the body wall above the first through fourth pereopods.

The chelipeds are equal, broad, depressed. Pereopods 2–4 are developed as walking legs each with terminal claw; pereopod 5 is reduced and carried dorsally under the carapace. The pleon is symmetrical, with well calcified tergites, weakly bent under the cephalothorax; the second tergite clearly visible in dorsal view.

Adult males have paired first and second pleopods modified as gonopods, pleopods 3–5 and uropods are vestigial or entirely lacking; females have a pair of pleopods developed on each of pleonal segments 2–5; the terminal pleomere has a pair of sexually dimorphically uropods. The telson is reduced to a small calcified plate in both sexes. One apomorphy unique to *Lomis hirta* (Lamarck, 1818) is this dimorphic development of uropods — well developed and elongate in females, vestigial in males (McLaughlin et al., 2007).

Development. – Cormie (1993) and McLaughlin et al. (2004) provided limited information about development in the Lomisoidea. *Lomis hirta* larvae hatch in an advanced state, with the eyes at least partially stalked and buds of pereopods 1–4 or 1–5 already present. There is some additional disagreement between Cormie’s (1993) account

and that of McLaughlin et al. (2004) with the former author finding only a four-segmented pleon and poorly developed pleopod buds. McLaughlin et al. found the pleon to consist of five pleomeres with fused telson but with the upcoming separation already indicated in some specimens; pleopods were moderately well developed and weakly biramous. McLaughlin et al. were of the opinion that even if errors in observation occurred between the two reports, interstage morphological variation was likely to occur in *L. hirta* as in other anomurans.

Current status. – The phylogenetic relationship of the Lomisoidea with other major anomuran taxa is still unresolved.

PAGUROIDEA

General morphology. – The dorsal surface of the cephalothorax is covered by a chitinized to moderately well calcified carapace; the anterior portion of this carapace, the shield, is partially to completely delineated laterally and posterolaterally by the cervical groove and posteriorly by the linea transversalis; near the anterolateral margin the linea anomurica is usually apparent. The dorsal surfaces of the shield and posterior carapace may be pitted, weakly grooved, spinulose or tuberculate, but not divided into regions corresponding to the internal organs of the cephalothorax. A rostrum may or may not be developed, but rarely is it prominently produced; an intercalary rostral process is occasionally developed; the anterior margin of the shield may or may not show development of lateral projections. The ocular peduncles are three-segmented, with the basal segments fused in the midline and occasionally produced into spinose projections; no ocular orbits are developed; corneas are well developed, reduced or rarely absent; ocular acicles are present. The antennular peduncles are innermost and three-segmented; the antennal peduncles each are provided with a supernumerary segment. Gills are bi- or quadriserial phyllobanchiae, varying in number from 14 to eight pairs; epipods occasionally are present.

Chelipeds are equal, subequal or grossly unequal. Pereopods 2 and 3 are developed as ambulatory legs; pereopod 4 is reduced in size and modified, usually with a propodal rasp. Pereopod 5 is also reduced, usually provided with a terminal rasp, and often carried within the carcinocium. The paguroid pleons may be elongate, straight or flexed, bulbous, or reduced; entirely membranous, provided with calcified tergites on all six pleomeres, or with calcification reduced but not entirely absent. Internally, space in the paguroid pleon is occupied by the male or female reproductive organs and the cecal lobes of the midgut gland (hepatopancreas).

Adult males may be provided with a pair of gonopores on the coxae of the fifth pereopods or only a single gonopore may be present; rarely, males also may exhibit, presumably nonfunctional, female gonopores on the coxae of the third pereopods. In addition to the male gonopores, a sexual tube of variable length and complexity may be extruded

from either the right or the left gonopore or from both, or one or the other gonopore may be masked by a tuft of stiff setae. Adult females most commonly are provided with a pair of gonopores on the coxae of the third pereopods, but occasionally only a single left gonopore is present. Females rarely, if ever, are also provided with male gonopores. Males of certain genera develop paired first and second pleopods modified as gonopods, or occasionally only second pleopods so modified. Males also may be provided with unpaired pleopods on pleomeres 2–5 or reduced combinations thereof, usually occurring on the left side of the pleon, but occasionally on either side; in certain genera, male pleopods are totally lacking. Females not infrequently are provided paired and modified first pleopods, occasionally asymmetrically paired second pleopods. Unpaired female pleopods usually occur only on the left side of the pleon on pleomere 2–5, but in certain genera may develop on either side. Unpaired pleopods are never entirely lost, but their number may decrease to 2 or 3.

The pleon terminates in paired symmetrical or asymmetrical, biramous uropods, almost always modified by propodal rasps. The sixth pleonal somite and its uropodal appendages are most frequently contiguous with the telson; however, in a few species of two pagurid genera, the telson is separated from the sixth somite by a lobe of tissue. The reason for this peculiarity has not yet been determined.

Development. – Larval development in the majority of paguroids is similar to that of other anomurans in that the developing embryos hatch from the parental eggs as swimming larvae (zoeae) provided with carapace, rostrum and cephalothoracic appendages that include eyes, antennules, antennae, mandibles, maxillules, maxillae, and first and second maxillipeds. The elongate pleon typically is composed of five pleomeres and a telson to which a sixth is added in a subsequent zoeal stage as is the third maxilliped, pereopodal and pleopodal buds and uropods. Although four zoeal stages are common before the molt to megalopa, this number may be reduced to one or two or extended to several. Rarely has direct development been documented.

Developmental “clocks” are variable and phase predictability is challenging. Unlike brachyuran larvae where setal variability is rare, paguroid setal variability is the norm. Despite the general developmental patterns paguroids share, familial and/or generic specializations make zoeal, megalopal, and early juvenile stages potentially informative from evolutionary standpoints but caution is required. Development in one species is not necessarily going to be the same for potentially allied species. For example, the significant differences observed in the first zoeal stages of four pylochelid species (two species of *Trizochelus* Forest, 1987, one each of *Pylocheles* A. Milne-Edwards, 1880, and *Pomatocheles* Miers 1879) substantially strengthened Lemaitre et al.’s (2009) proposition of three distinct evolutionary pathways within the Pylochelidae. Clear differences also exist between diogenid and pagurid larval developmental patterns and even among species of the polyphyletic genus *Pagurus*. Unfortunately, interest in the information available from

larval studies has waned, thus another phylogenetic resource is being underutilized.

Current status. – Most evolutionary hypotheses regarding the Paguroidea have focused on the presumed derivation of lithodids from a *Pagurus*-like ancestor, or the more broadly explored the role of carcinization in paguroid evolution. Only relatively recently have molecular techniques been applied and, as previously alluded to, with mixed results. Relationships suggested by molecules often have been in direct conflict with those supported by morphological or developmental data, or have surprised phylogenetists with information known from morphology for decades. However, one recent exception is striking. Albeit limited in scope, developmental and morphological data for four species of the paguroid family Pylochelidae are in accord with molecular analyses of three of the four same species. All three sources confirm a broad separation of the subfamilies Pylochelinae and Trizochelinae.

A different application of molecular methodology has provided the first thorough and in-depth review of speciation in a genus of the Paguroidea. Malay & Paulay (2010) constructed mitochondrial and nuclear gene phylogenies of the majority of species of *Calcinus* using replicates from multiple locations spanning the known ranges of the species. Their study demonstrated the practical usefulness of sequence data in examining speciation, diversification and even the evolution of coloration. It can only be hoped that their technique will be applied to other elements of the paguroid puzzle.

CHECKLIST

SUPERFAMILY LITHODOIDEA SAMOUELLE, 1819 {1, 2}

Family Hapalogastridae Brandt, 1850 {1}

Acantholithodes Holmes, 1895 {2}

= *Acantholithodes* Holmes, 1895
(type species *Dermaturus hispidus* Stimpson, 1860,
by original designation; gender masculine)

Acantholithodes hispidus (Stimpson, 1860)
[*Dermaturus*]

Dermaturus Brandt, 1850 {3}

= *Dermaturus* Brandt, 1850 (type species *Dermaturus mandtii* Brandt, 1850, by monotypy; gender masculine)

Dermaturus mandtii Brandt, 1850

Hapalogaster Brandt, 1850

= *Hapalogaster* Brandt, 1850
(type species *Hapalogaster mertensii* Brandt, 1850,
by monotype; gender masculine)

Hapalogaster cavicauda Stimpson, 1859

Hapalogaster dentata (De Haan, 1849) [Lomis]

Hapalogaster grebnitzkii Schalfeew, 1892

Hapalogaster mertensii Brandt, 1850

Oedignathus Benedict, 1895

= *Oedignathus* Benedict, 1895
(type species *Oedignathus gilli* Benedict, 1895,
by monotypy; gender masculine) {4}

Oedignathus inermis (Stimpson, 1860) [*Hapalogaster*]

= *Hapalogaster brandtii* Schalfeew, 1892
= *Oedignathus gilli* Benedict, 1895

Placetron Schalfeew, 1892

= *Placetron* Schalfeew, 1892 (type species *Placetron wosnessenskii* Schalfeew, 1892, by monotypy;
gender masculine)
= *Lepeopus* Benedict 1895 (type species *Lepeopus forcipatus* Benedict, 1895, by monotypy; gender
masculine) {5}

Placetron wosnessenskii Schalfeew, 1892

= *Lepeopus forcipatus* Benedict, 1895

NOTES

{1} McLaughlin et al. (2007) removed the family Lithodidae from the superfamily Paguroidea and elevated the family to the rank of superfamily with families Hapalogastridae and Lithodidae.

{2} The status of *Acantholithodes* is controversial. In his original description of *Dermaturus hispidus*, Stimpson (1860) commented that it might be necessary to separate it [the species] generically from *Dermaturus*, but he had not seen the typical species of Brandt's (1850) genus. Holmes (1895) established the genus *Acantholithodes* for Stimpson's (1860) *D. hispidus*, differentiating it from *Dermaturus* by presence of spines on the body and legs and by the large, spiny prolongation of the outer side of the second segment of the antenna, characters entirely lacking in *Dermaturus*. Although *A. hispidus* rarely is encountered, the genus has been recognized as a valid Northeastern Pacific taxon since its original description (e.g., Rathbun, 1904; Schmitt, 1921; Hart, 1982; Williams et al., 1989; McLaughlin et al., 2005).

{3} Dawson & Yaldwyn (1985) and Dawson (1989) considered *Acantholithodes* a synonym of *Dermaturus* and apparently that opinion was shared by Macpherson (1988) who listed only *Dermaturus* among the four genera of the subfamily Hapalogastrinae. Additionally, the date of publication given by De Grave et al. (2009) of 1894 is incorrect. Holmes' paper was published in 1895.

{4} Makarov (1938) and Dawson (1989) both specifically cited *Oedignathus inermis* as the type species. However, in his original description of the genus, Benedict (1895) included only his own new species *O. gilli*. Thus *O. gilli* is the type species of the genus *Oedignathus* by monotypy, despite it being a junior synonym of *O. inermis*.

Family Lithodidae Samouelle, 1819	{1, 2}	= <i>Lithodes Maia</i> Samouelle, 1819 (misspelling of <i>maja</i>)
<i>Cryptolithodes</i> Brandt, 1848		= <i>Lithodes maia</i> Smith, 1879 (misspelling of <i>maja</i>)
= <i>Cryptolithodes</i> Brandt, 1848 (type species <i>Cryptolithodes typicus</i> Brandt, 1848, by monotypy; gender masculine)		= <i>Maia vulgaris</i> Bosc, 1802 (suppressed generic name ICZN Opinion 511)
<i>Cryptolithodes expansus</i> Miers, 1879		<i>Lithodes mamillifer</i> Macpherson, 1988
<i>Cryptolithodes sitchensis</i> Brandt, 1853		<i>Lithodes manningi</i> Macpherson, 1988
= <i>Cryptolithodes alta-fissura</i> Bate, 1864		<i>Lithodes megacantha</i> Macpherson, 1991
<i>Cryptolithodes typicus</i> Brandt, 1848		<i>Lithodes murrayi</i> Henderson, 1888
= <i>Cryptolithodes brevifrons</i> Miers, 1879		<i>Lithodes nintokuiae</i> Sakai, 1978
<i>Glyptolithodes</i> Faxon, 1895		<i>Lithodes panamensis</i> Faxon, 1893
= <i>Glyptolithodes</i> Faxon, 1895		<i>Lithodes paulayi</i> Macpherson & Chan, 2008
(type species <i>Rhinolithodes cristatipes</i> Faxon, 1893, by monotypy; gender masculine)		<i>Lithodes rachelae</i> Ahyong, 2010
<i>Glyptolithodes cristatipes</i> (Faxon, 1893) [<i>Rhinolithodes</i>]		<i>Lithodes richeri</i> Macpherson, 1990
<i>Lithodes</i> Latreille, 1806		<i>Lithodes robertsoni</i> Ahyong, 2010
= <i>Lithodes</i> Latreille, 1806, (type species <i>Cancer maja</i> Linnaeus, 1758, by monotypy; gender masculine)		<i>Lithodes santolla</i> (Molina, 1782) [<i>Cancer</i>] {6}
= <i>Pseudolithodes</i> Birstein & Vinogradov, 1972 (type species <i>Pseudolithodes zenkevitschi</i> Birstein & Vinogradov, 1972, by original designation; gender masculine)		= <i>Lithodes antarctica</i> Hombron & Jacquinot, 1842 {6}
<i>Lithodes aequispinus</i> Benedict, 1895 {2, 3}		= <i>Pseudolithodes zenkevitschi</i> Birstein & Vinogradov, 1972
= <i>Paralithodes longirostris</i> Navozov-Lavrov, 1929		<i>Lithodes turkayi</i> Macpherson, 1988
<i>Lithodes aotearoa</i> Ahyong, 2010		<i>Lithodes turritus</i> Ortmann, 1892
<i>Lithodes australiensis</i> Ahyong, 2010		<i>Lithodes unicornis</i> Macpherson, 1984 {7}
<i>Lithodes ceramensis</i> Takeda & Nagai, 2004		<i>Lithodes wiracocha</i> Haig, 1974
<i>Lithodes chaddertoni</i> Ahyong, 2010		<i>Lopholithodes</i> Brandt, 1848
<i>Lithodes confundens</i> Macpherson, 1988		= <i>Lopholithodes</i> Brandt, 1848 (type species <i>Lopholithodes mandtii</i> Brandt, 1848 by monotypy; gender masculine)
<i>Lithodes couesi</i> Benedict, 1895 {2}		= <i>Ctenorhinus</i> Gibbons, 1855 (type species <i>Ctenorhinus setimanus</i> Gibbons, 1855, by monotypy; gender masculine)
<i>Lithodes ferox</i> Filhol, 1885 {4}		= <i>Echinocerus</i> White, 1848 (type species <i>Echinocerus</i> <i>cibarius</i> White, 1848, by monotypy; gender masculine)
= <i>Lithodes tropicalis</i> A. Milne-Edwards, 1883 (nomen nudum)		<i>Lopholithodes foraminatus</i> (Stimpson, 1859) [<i>Echinocerus</i>]
= <i>Lithodes tropicalis</i> Bouvier, 1895		<i>Lopholithodes mandtii</i> Brandt, 1848
= <i>Pseudolithodes pyriformis</i> Birstein & Vinogradov, 1972		= <i>Echinocerus cibarius</i> White, 1848
<i>Lithodes formosae</i> Ahyong & Chan, 2010		= <i>Ctenorhinus setimanus</i> Gibbons, 1855
<i>Lithodes galapagensis</i> Hall & Thatje, 2009		<i>Neolithodes</i> A. Milne-Edwards & Bouvier, 1894 {8}
<i>Lithodes jessica</i> Ahyong, 2010		= <i>Neolithodes</i> A. Milne-Edwards & Bouvier, 1894 (type species <i>Lithodes Grimaldii</i> A. Milne- Edwards & Bouvier 1894, by original designation; gender masculine)
<i>Lithodes longispina</i> Sakai, 1971		<i>Neolithodes agassizii</i> (Smith, 1882) [<i>Lithodes</i>]
<i>Lithodes macquariae</i> Ahyong, 2010		<i>Neolithodes asperrimus</i> Barnard, 1947
<i>Lithodes maja</i> (Linnaeus, 1758) [<i>Cancer</i>]		<i>Neolithodes brodiei</i> Dawson & Yaldwyn, 1970
= <i>Cancer horridus</i> Pennant, 1777		<i>Neolithodes bronwynae</i> Ahyong, 2010
= <i>Cancer spinosus</i> Ascanius, 1776		<i>Neolithodes capensis</i> Stebbing, 1905
= <i>Cancer spinosus</i> Amboinensis Seba, 1759		<i>Neolithodes diomedaeae</i> (Benedict, 1895) [<i>Lithodes</i>] {2}
= <i>Cancer spinosus maximus, orientalis</i> Seba, 1759 (non binominal, not valid name)		= <i>Neolithodes martii</i> Birstein & Vinogradov, 1972
= <i>Parthenope Maja</i> Fabricius, 1798		<i>Neolithodes duhameli</i> Macpherson, 2004
= <i>Inachus Maja</i> Fabricius, 1798		<i>Neolithodes flindersi</i> Ahyong, 2010
= <i>Maja eriocheles</i> Lamarck, 1801 (invalid name ICZN 511)		<i>Neolithodes grimaldii</i> (A. Milne-Edwards & Bouvier, 1894) [<i>Lithodes</i>]
= <i>Lithodes arctica</i> Latreille, 1806 (invalid name ICZN 511)		= <i>Lithodes goodei</i> Benedict, 1895 {2}
= ? <i>Lithode douteuse</i> H. Milne Edwards, 1837 (not Latin, not valid name) {5}		<i>Neolithodes nipponensis</i> Sakai, 1971
= ? <i>Lithodes dubius</i> Brandt, 1848 {5}		<i>Neolithodes vinogradovi</i> Macpherson, 1988

- Neolithodes yaldwyni* Ahyong & Dawson, 2006
- Paralithodes* Brandt, 1848
- = *Paralithodes* Brandt, 1848 (type species *Lithodes brevipes* H. Milne Edwards & Lucas 1841, by monotypy; gender masculine)
 - Paralithodes brevipes* (H. Milne Edwards & Lucas, 1841) [Lithodes]
 - Paralithodes californiensis* (Benedict, 1895) [Lithodes] {2, 9}
 - Paralithodes camtschaticus* (Tilesius, 1815) [Maja]
 - = *Lithodes spinosissimus* Brandt, 1848
 - = *Lithodes Japonicus* De Haan 1849
 - = *Paralithodes rostrofalcatus* MacKay, 1932 - Paralithodes platypus* (Brandt, 1850) [Lithodes]
 - Paralithodes rathbuni* (Benedict, 1895) [Lithodes] {2, 9}
 - Paralomis* White, 1856
 - = *Paralomis* White, 1856 (type species *Lithodes granulosa* (Hombron & Jacquinot, 1846, by original designation; gender feminine) {10})
 - = *Acantholithus* Stimpson, 1858 (type species *Lithodes hystrix* De Haan, 1849, by original designation; gender masculine)
 - = *Leptolithodes* Benedict, 1895 [type species *Paralomis aculeata* Henderson, 1888 by subsequent designation by Ahyong et al. (2010); gender masculine] {2, 11}
 - = *Pristopus* Benedict, 1895 [type species *Pristopus verrilli* Benedict, 1895, by subsequent designation by Ahyong et al. (2010) designation; gender masculine] {2, 12} - Paralomis aculeata* Henderson, 1888
 - Paralomis africana* Macpherson, 1982
 - Paralomis alcockiana* Hall & Thatje, 2009
 - Paralomis anamerae* Macpherson, 1988
 - Paralomis arae* Macpherson, 2001
 - Paralomis arethusa* Macpherson, 1994
 - Paralomis aspera* Faxon, 1893
 - Paralomis birsteini* Macpherson, 1988
 - Paralomis bouvieri* Hansen, 1908
 - Paralomis ceres* Macpherson, 1989
 - Paralomis chilensis* Andrade, 1980
 - Paralomis cristata* Takeda & Ohta, 1979
 - Paralomis cristulata* Macpherson, 1988
 - Paralomis cubensis* Chace, 1939
 - Paralomis danida* Takeda & Bussarawit, 2007
 - Paralomis dawsoni* Macpherson, 2001
 - Paralomis diomedae* (Faxon, 1893) [Echinocerus]
 - Paralomis dofleini* Balss, 1911
 - Paralomis echidna* Ahyong, 2010
 - Paralomis elongata* Spiridonov, Türkay, Arntz & Thatje, 2006
 - Paralomis erinacea* Macpherson, 1988
 - Paralomis formosa* Henderson, 1888
 - Paralomis gowletttholmes* Ahyong, 2010 {13}
 - Paralomis granulosa* (Hombron & Jacquinot, 1846) [Lithodes] {10}
 - = *Lithodes granulata* Jacquinot & Lucas, 1854 {10}
- = *Lithodes verrucosa* Dana, 1852
 - Paralomis grossmani* Macpherson, 1988
 - Paralomis haigae* Eldredge, 1976
 - Paralomis hirtella* de Saint Laurent & Macpherson, 1997
 - Paralomis histrix* (De Haan, 1849) [Lithodes]
 - Paralomis hystricoides* Sakai, 1980
 - Paralomis inca* Haig, 1974
 - Paralomis indica* Alcock & Anderson, 1899
 - Paralomis investigatoris* Alcock & Anderson, 1899
 - Paralomis jamsteci* Takeda & Hashimoto, 1990
 - Paralomis japonicus* Balss, 1911
 - Paralomis kyushupalauensis* Takeda, 1985
 - Paralomis longidactylus* Birstein & Vinogradov, 1972 {14}
 - Paralomis longipes* Faxon, 1893
 - Paralomis makarovii* Hall & Thatje, 2009
 - Paralomis manningi* Williams, Smith & Baco, 2000
 - Paralomis medipacifica* Takeda, 1974
 - Paralomis mendagnai* Macpherson, 2003
 - Paralomis microps* Filhol, 1884
 - = *Rhinolithodes biscayensis* Bouvier, 1895 {15} - Paralomis multisepia* (Benedict, 1895) [Leptolithodes] {2}
 - Paralomis nivosa* Hall & Thatje, 2009
 - Paralomis ochthodes* Macpherson, 1988
 - Paralomis odawarai* (Sakai, 1980) [Lopholithodes]
 - Paralomis otsuae* Wilson, 1990
 - Paralomis pacifica* Sakai, 1978
 - Paralomis papillata* (Benedict, 1895) [Leptolithodes] {2}
 - Paralomis pectinata* Macpherson, 1988
 - Paralomis phrixia* Macpherson, 1992
 - Paralomis poorei* Ahyong, 2010
 - Paralomis roeleveldae* Kensley, 1981
 - Paralomis seagranti* Eldredge, 1976
 - Paralomis serrata* Macpherson, 1988
 - Paralomis spectabilis* Hansen, 1908
 - Paralomis spinosissima* Birstein & Vinogradov, 1972
 - Paralomis staplesi* Ahyong, 2010
 - Paralomis stella* Macpherson, 1988
 - Paralomis stevensi* Ahyong & Dawson 2006
 - Paralomis taylorae* Ahyong, 2010
 - Paralomis truncatispinosa* Takeda & Miyake, 1980
 - = *Paralomis heterotuberculata* Tung, Yang & Li, 1984 - Paralomis tuberipes* Macpherson, 1988
 - Paralomis verrilli* (Benedict, 1895) [Pristopus] {2}
 - Paralomis webberi* Ahyong, 2010
 - Paralomis zealandica* Dawson & Yaldwyn, 1971
 - = *Paralomis shinkaimaruae* Takeda & Hatanaka, 1984 - Phyllolithodes* Brandt, 1848
 - = *Phyllolithodes* Brandt, 1848 (type species *Phyllolithodes papillosus* Brandt, 1848 by monotypy; gender masculine)
 - = *Petaloceras* White, 1856 (type species *Petaloceras bellianus* White, 1856, by monotypy; gender masculine)

- Phyllolithodes papillosum* Brandt, 1848
 = *Petaloceras bellianus* White, 1856
 = *Phyllolithodes bicornis* Bate, 1866
- Rhinolithodes* Brandt, 1848
 = *Rhinolithodes* Brandt, 1848 (type species)
Rhinolithodes wosnessenskii Brandt, 1848, by monotypy; gender masculine)
- Rhinolithodes wosnessenskii* Brandt, 1848
- Sculptolithodes* Makarov, 1934
 = *Sculptolithodes* Makarov, 1934 (type species)
Sculptolithodes derjugini Makarov, 1934, by monotypy; gender masculine)
- Sculptolithodes derjugini* Makarov, 1934

NOTES

- {1} In his table of gill elements in lithodids, Macpherson (1988b: 18) indicated that pleurobranchs were entirely absent. This is incorrect. Only in a few genera of the Paguridae are pleurobranchs lost completely; lithodoids all have a pleurobranch on the thoracic wall above each fourth pereopod (McLaughlin et al., 1997).
- {2} Although correctly cited by Dawson (1989), as noted by Shirley (2002), the date of publication of Benedict's report on the lithodids collected by the U.S. Fish Commission steamer *Albatross* has been incorrectly cited by numerous authors including Hart (1982), Macpherson (1988b) and Williams et al. (1989). Benedict's paper was issued as a "separate" (1016) for volume 17 of the Proceedings of the U.S. National Museum. The separate's cover carried the date 1894; however, according to the table of contents for the volume, Benedict's paper was actually published on 29 January 1895.
- {3} Also correctly cited by Dawson (1989), and noted by Shirley (2002), the spelling of the specific name of this taxon has been incorrectly cited by numerous authors including Macpherson (1988b) and Williams et al. (1989). Benedict (1895) described the species as *Lithodes aequispinus*, incorrectly assigning a masculine ending to the feminine noun *spina*. It does not appear that this is an inadvertent error on the author's part; endings of Latin nouns are not changed to agree in gender with generic name. Nonetheless, Bouvier (1896) corrected the spelling to the original form of the noun, and for many years this species was reported under the name *Lithodes aequispina*. The current International Code of Zoological Nomenclature (ICZN1999: Art. 32.2) is unambiguous in stating that the original spelling is the correct spelling unless it is shown to be an inadvertent error; thus *L. aequispinus* as the original spelling is correct.
- {4} Macpherson (1988b) corrected the error in authorship of *L. ferox* made by both Dawson & Yaldwyn (1985) and Dawson (1989). Those authors attributed the

species to A. Milne-Edwards (1883), although in his "References" Macpherson incorrectly cited the publication date as 1884. Authorship of *L. ferox* correctly belongs to Filhol (1885). As pointed out by Macpherson (1988b), A. Milne-Edwards (1883) mentioned only that a distinct species from off West Africa was designated *Lithodes tropicalis*. As Milne-Edwards' remark was not accompanied by either a description or an illustration, the name was a nomen nudum. The species was first formally described by Bouvier (1895). However, in the interim, Filhol (1885) described *Lithodes ferox* from the same area. Although Filhol's specimens proved to be juveniles of *L. tropicalis*, Filhol's name had priority and *L. tropicalis* became a junior synonym.

- {5} Among the plates of Seba's (1734–1765; 1828–1831) *Locupletissimi Rerum Naturalium Thesauri & Planches de Seba* (Holthuis 1969), was a figure of a lithodid considered by H. Milne Edwards (1837: 186) to depict the same species as an unidentified specimen in the collections of the Muséum national d'Histoire naturelle. Because the specimen was in poor condition, and he was unsure of its conspecificity with the unidentified museum specimens H. Milne Edwards gave it the name "*Lithode douteuse*" using a question mark to indicate his doubt. Brandt (1848) reported the species in its Latinized form as *Lithodes dubius* M. Edw. but although he repeated H. Milne Edwards' (1837) diagnosis, noted that he had not seen the species. Subsequently, Brandt (1851: 93, footnote) suggested that "*Lithode douteuse*" was probably a specimen of *Lithodes arcticus*, but because of his uncertainty, retained H. Milne Edwards' question mark.
- {6} Despite being first described by Molina (1782) as *Cancer santolla*, this species was reported under the name "*Lithodes antarctica* Jacquinot" for many years. As discussed by Macpherson (1988), the date of publication of Jacquinot's species was uncertain, as the expedition results were published in several parts and the illustrations published separately. Based on the mention by H. Milne Edwards & Lucas (1842–1844: vol. 6(1): 32, pl. 7) of *Lithodes antarctica*, the correct date was taken to be 1844. However, Clark & Crosnier (2000) painstakingly traced the accurate dates of publication of the 28 livraisons that comprised the Atlas of the "Voyage au pôle..." and determined that the correct date of publication was 1842. Authorship was corrected by Holthuis (2002) from Jacquinot in Hombron & Jacquinot to Hombron & Jacquinot, October, 1842.
- {7} Dawson & Yaldwyn (1985) and Dawson (1989) considered *L. unicornis* to be junior synonym of *L. murrayi*. While acknowledging the morphological similarities between the two species, Macpherson (1988) believed that certain characters appeared to confirm their distinctness and we accept his judgment.

- {8} Davie (2002) cited monotypy as the type designation for *Neolithodes*, and the source as A. Milne-Edwards & Bouvier (1894). Actually, the type was fixed by A. Milne-Edwards & Bouvier (1894a) by original designation. These authors included two species, *N. grimaldii* and *N. agassizi* (Smith, 1882) in their remarks accompanying the original description, both species initially having been included in the genus *Lithodes*. A. Milne-Edwards & Bouvier (1894a) described *L. grimaldii* on page 62 with accompanying plate 3. However, in an appendix to that report (A. Milne-Edwards & Bouvier, 1894a: 91) the authors introduced the description of their new genus, *Neolithodes* with the following statement. “En comparant *Lithodes Grimaldii* (voir ci-dessus, p. 62) avec les autres représentants de la sous-famille des Lithodinés nous avons pu nous convaincre qu'il diffère de ceux-ci par la structure de son abdomen et par la forme de son rostre; comme ces différences sont d'ordre essentiellement générique dans la sous-famille, il y a lieu de ranger l'espèce de l'Hirondelle dans un nouveau genre pour lequel nous proposons le nom de *Neolithodes*.” The description following was identical to the one published by A. Milne-Edwards & Bouvier (1894b), but the latter included two different illustrations. Despite being titled “*Neolithodes* genre nouveau de la sous-famille des Lithodinés” the second description was published on 10 July 1894, whereas the first appeared in print on 1 June 1894.
- {9} The original descriptions of *Paralithodes californiensis* and *P. rathbuni* were based on two female specimens of the former and one male of the latter, respectively. Benedict (1895) emphasized the appreciable similarities between the two taxa, but indicated that he was hesitant to consider them a single species. Although three additional females were subsequently reported from off San Diego, California (Schmitt, 1921), Dr. Schmitt, curator of Crustacea the National Museum of Natural History for many years, expressed serious doubts about their distinctiveness and suggested that perhaps they simply represented males and females of a single taxon (personal communication to PMcL). Both species are still reported as part of the eastern Pacific fauna (e.g., Anderson & Cailliet, 1974; Wicksten, 1987; Zaklan, 2002); however, their true status is unclear.
- {10} Both authorship and publication date for this species have been sources of disagreement. Macpherson (1988b) reemphasized Haig's (1955) contention that authorship was established in Hombron & Jacquinot, 1847, page 4, Section Crustacea, volume 3, where the species was attributed to Jacquinot. Although the text was not published until 1854, publication of the figures preceded it, and while no actual date of publication was specified, White's (1847) inclusion of the species in his list of Crustacea in the British Museum was accepted as an indication of the correct date. However, in their detailed account of the published zoological results of the expedition of the “Astrolabe” and “Zélée”, Clark & Crosnier (2000) determined that *Paralomis granulosa* (as *Lithodes*) was first published in July of 1846 as part of Atlas plate 8. The text of volume 3 Crustacés was published by Jacquinot and Lucas in 1854 where the species was cited as *Lithodes granulata*. Holthuis (2002) subsequently confirmed the correct authorship as *Lithodes granulosa* Hombron & Jacquinot, 1846.
- {11} Benedict (1895) established the genus *Leptolithodes* for certain species previously assigned to *Paralomis* that he believed differed from the designated type species, *Lithodes granulosus*. Although he included three previously described taxa and added two new species of his own, Benedict did not designate a type species. In a review of the lithodids of Taiwan, Ahyong et al. (2010) designated *Paralomis aculeatus* as the type species of *Leptolithodes*.
- {12} Benedict (1895) established the genus *Pristopus*, which he considered similar to *Leptolithodes*. To *Pristopus*, Benedict assigned Henderson's *Paralomis formosa* and his own new species *Pristopus verrilli*. Again, Benedict did not designate a type species. Ahyong et al. (2010) designated *Paralomis verrilli* as the type species of *Pristopus*.
- {13} The specific epithet, *gowlettholmes*, is treated as a noun in apposition by the author, and is correct as written (Ahyong, per. comm.).
- {14} Birstein & Vinogradov (1972) described their new species as *Paralomis longidactylus*, the “us” ending being correct for a masculine noun. However, Takeda et al. (1984) changed the specific ending to “a”, presumably because the generic name *Paralomis* is feminine. The original spelling has been retained (ICZN Art. 32.2); dactylus is a noun and as such, need not agree in gender with its generic name (ICZN Art. 31.2.1).
- {15} Authorship of *Rhinolithodes biscayensis*, a synonym of *Paralomis microps*, was credited to A. Milne-Edwards & Bouvier (1894a) by Bouvier (1896), an error repeated by Dawson (1989), and to A. Milne-Edwards & Bouvier (1900) by Dawson & Yaldwyn (1985). As pointed out by Macpherson (1988b) the original description of the species by the two authors was never published. The first published description and illustrations were presented by Bouvier (1895); no mention was made of co-authorship, thus the species is correctly attributed to Bouvier.

SUPERFAMILY LOMISOIDAE BOUVIER, 1895

Family Lomisidae Bouvier, 1895

= Lomisinés Bouvier 1894 (not Latin, not valid name) {1}

- = Lomisidae Bouvier 1895
- = Lomidae Glassner, 1969 (incorrect stem)

Lomis H. Milne Edwards, 1837

- = *Porcellana hirta* (type species *Porcellana hirta* Lamarck, 1818, by monotypy; gender feminine)

Lomis hirta (Lamarck, 1818) [*Porcellana*]

NOTES

- {1} Lemaitre & McLaughlin (2009) erred when they corrected the date for the Lomisoidea from 1895 to 1894. They were citing the date that Bouvier published the family group name in the French vernacular, but that was not a valid name. Only when the name was Latinized by Bouvier in 1895 did it become an acceptable family-group name.

SUPERFAMILY PAGUROIDEA LATREILLE, 1802

Family Coenobitidae Dana, 1851

Birgus Leach, 1816

- = *Birgus* Leach (type species *Cancer latro* Linnaeus, 1767, by monotypy; gender masculine)

Birgus latro (Linnaeus, 1767) [*Cancer*]

- = *Cancer crumenatus* Rumphius, 1705 (pre-linnean name; not valid)
- = *Cancer crumenatus orientalis* Seba, 1759 {2}
- = *Cancer (Astacus) latro* Linnaeus, 1767
- = *Birgus laticauda* Latreille, 1829

Coenobita Latreille, 1829

- = *Coenobita* Latreille, 1829 (type species *Pagurus clypeatus* Fabricius, 1787, by monotypy, gender masculine) {4}
- = *Eremita* Osbeck, 1765 (type species *Eremita javanica* Osbeck, 1765, by monotypy) {4}
- = *Carcinion* Jarocki, 1825 (type species *Pagurus clypeatus* Olivier = *Coenobita olivieri* Owen, 1839, by monotypy) {4}
- = Coénbite Latreille, 1825 (not Latin, unavailable name)
- = *Cenobites* Berthold 1827 (type species *Pagurus clypeatus* Fabricius, 1787, by monotypy) {4}
- = *Coenobita* H. Milne Edwards 1837 (incorrect spelling of *Coenobita*)

Coenobita brevimanus Dana, 1852

- = *Coenobita clypeata* var. *brevimanus* Dana, 1852 (incorrect spelling of *Coenobita*)
- = *Coenobita hilgendorfi* Terao 1913 (unnecessary replacement name) {5}
- = *Coenobita clypeata* var. *puerto-galerae* Yap-Chiongco, 1938

Coenobita carnescens Dana, 1851

- = *Coenobita carnescens* Dana, 1851 (incorrect spelling of *Coenobita*)

Coenobita cavipes Stimpson, 1858

- = *Cenobita cavipes* Stimpson, 1858 (incorrect spelling of *Coenobita*)

= *Coenobita baltzeri* Neumann, 1878

Coenobita clypeatus (Fabricius, 1787) [*Pagurus*]

{6}{8}

- = *Cancellus Terrestris Bahamensis* Catesby, 1743 (pre-Linnean name, not valid) {7}

Coenobita compressus H. Milne Edwards, 1836

- = *Cenobita compressa* H. Milne Edwards, 1836 (incorrect spelling of *Coenobita*)
- = *Cenobita intermedia* Streets, 1871 (incorrect spelling of *Coenobita*)
- = *Cenobita panamensis* Streets, 1871 (incorrect spelling of *Coenobita*)

Coenobita compta White, 1847 (nomen nudum) {9}

Coenobita laeviuscula White, 1847 (nomen nudum) {9}

Coenobita longitarsis De Man, 1902

Coenobita olivieri Owen, 1839

- = *Caenobita olivieri* Owen, 1839 (incorrect spelling of *Coenobita*)

Coenobita perlatus H. Milne Edwards, 1837

- = *Cenobita perlata* H. Milne Edwards, 1837 (incorrect spelling of *Coenobita*)
- = *Coenobita perlatus* var. *affinis* Miers, 1880

Coenobita purpureus Stimpson, 1858

- = *Cenobita purpurea* Stimpson, 1858 (incorrect spelling of *Coenobita*)

Coenobita pseudorugosus Nakasone, 1988

Coenobita rubescens Greeff, 1884

Coenobita rugosus H. Milne Edwards, 1837

- = *Cenobita rugosa* H. Milne Edwards, 1837 (incorrect spelling of *Coenobita*)

= *Coenobita subrugosa* Neumann, 1878

= *Coenobita rugosa* var. *wagneri* Doflein, 1900

Coenobita scaevola (Forskål, 1775) [*Cancer*]

- = *Coenobita rugosa* var. *Jousseaumi* Bouvier, 1890
- = *Coenobita rugosa* var. *granulata* Bouvier, 1890

Coenobita spinosus H. Milne Edwards, 1837

- = *Cenobita spinosa* H. Milne Edwards, 1837 (incorrect spelling of *Coenobita*)

- = *Cenobita brunnea* Dana, 1851 (incorrect spelling of *Coenobita*)

= *Birgus hirsutus* Hess, 1865

Coenobita variabilis Mc Culloch, 1909

Coenobita violascens Heller, 1862

- = *Coenobita violascens* Heller, 1862 (incorrect spelling of *Coenobita*)

NOTES

- {1} The date of publication usually given for *Birgus* is 1815. But as pointed out by Davie (2002) while the volume of the Transactions of the Linnean Society, London is dated 1815, the actual publication date is 24 January 1816.

- {2} The publication date for volume 3 of Seba' *Locupletissimi rerum naturalium thesauri ...* routinely was given as 1761 by carcinologists and 1758 by ichthyologists. However, Holthuis (1969) demonstrated conclusively that the correct date for the original publication was 1759. A title reprint edition was published in 1761.
- {3} Morgan & Holthuis (1989) pointed out that while some authors routinely considered *Coenobita* masculine, a similar number thought it to be feminine. Thus the literature is "sprinkled" with reports of the same specific names ending in "us" or "a" depending upon the author(s). As explained by Morgan & Holthuis, *Coenobita* is later ecclesiastical Latin, meaning "a monk", and while the majority of Latin names ending in "a" are feminine in gender, *Coenobita* is masculine. Consequently, the correct ending for species-group names in *Coenobita* is the masculine suffix "us."
- {4} Morgan & Holthuis (1988), concerned that generic name *Coenobita* might be replaced by one of three existing senior, but obscure, synonyms, applied to the International Commission for conservation of the name *Coenobita*. They argued: 1) Although Jarocki's (1825) *Carcinion* was a senior objective synonym, it was an entirely forgotten name whose reintroduction would cause considerable undesirable confusion; 2) Berthold's (1827) *Cenobites* was simply a translation of Latreille's (1825) vernacular Cénobite and its reintroduction into carcinological literature would result in great confusion. Osbeck's (1765) *Eremita* posed a somewhat different problem. Despite the generalities of Osbeck's description, which could justify *Eremita*'s possible status as a nomen dubium, the name is the oldest name ever applied to a hermit crab thus posing a serious threat to paguroid nomenclature. In Opinion 1575, March 1990, the Commission placed *Coenobita* and its type species, *C. clypeatus*, on the Official List of Valid Names in Zoology, and the names *Carcinion*, *Cenobites* and *Eremita* with its type species *E. javanick* Osbeck, 1765, on the Official Index of Rejected and Invalid Names in Zoology.
- {5} Terao (1913) proposed the replacement name, *C. hilgendorfi* for *Coenobita clypeatus* sensu Latreille (1826), stating: "on Hilgendorf's authority we learn that *Cancer clypeatus* Herbst (1791) is not identical with Latreille's *Coenobita clypeata* (1826) but is the same as *Coenobita diogenes* M.-Edwards (1837). ... Since, now, this *C. clypeatus* (Herbst) is clearly a species distinct from *C. clypeata* Latr., the latter must receive a new specific name." However, Terao's (1913) interpretation of *C. clypeatus* was based on a misidentification of *C. clypeatus* (= *C. brevimanus*).
- {6} Until recently, considerable confusion has existed regarding the correct authorship of *Coenobita clypeatus*. For example, Latreille (1826) and H. Milne Edwards (1837) credited Herbst (1791), whereas Hilgendorf (1869) believed the author to be H. Milne Edwards (1837) and Rathbun (1919) attributed the species to Latreille, but incorrectly cited with date and reference to Olivier (1811). The correct author is Fabricius (1787).
- {7} Catesby's initial publication is usually cited with the date 1754, which is the date of the second edition. Catesby's (1743, pl. 33, figs. 1, 2) illustrations were reproduced by Latreille (1818) as *Pagurus diogenes* Linnaeus.
- {8} Not only has authorship of *Coenobita clypeatus* been a problem, the actual identity of the species has been as well, although the problem went unrecognized for two hundred years. Fabricius (1787) based his description of the species on Herbst's (1791), at the time unpublished, illustrations of two specimens reported to be from the East Indies. Subsequent carcinologists incorrectly assumed that both figures represented the same specimen, one simply an enlargement. In a review Herbst's collection in the Naturhistorisches Forschungsinstitut Museum für Naturkunde zu Berlin, Hilgendorf (1869) was convinced that the two specimens of *Coenobita* present in the collection did not represent *C. clypeatus*. As a result of his inaccurate interpretation of the taxon, Hilgendorf concluded that Herbst (1791) had erred in citing the type locality. He "corrected" the type locality to West Indies. Although the West Indian *Coenobita* had been known for many years as *Coenobita diogenes* (Linnaeus), Rathbun (1919) pointed out that Linnaeus' (1758) *Pagurus diogenes* represented a species of the marine genus *Petrochirus*, and she adopted '*Coenobita clypeatus* Herbst' for the terrestrial species. It was not until Herbst's (1791) specimens were critically reexamined (McLaughlin & Holthuis, 2002) was it realized that Herbst had confounded two species, *C. rugosus* H. Milne Edwards, 1837, and *C. violascens* Heller, 1862, both Indo-Pacific taxa, under the specific name *clypeatus*. An application was then submitted to the ICZN to replace the two existing East Indies syntypes with a West Indies neotype. By so doing, *Coenobita clypeatus*, as commonly used for many years would be retained, as would the two common East Indies species. In Opinion 2052 (2003), the ICZN set aside all previous type fixations for the nominal species *Pagurus clypeatus* Fabricius, 1767, and designated the Caribbean specimen USNM 126773 as the neotype. Additionally, *Pagurus clypeatus* Fabricius, 1787, was added to the Official List of Specific Names in Zoology, with an endorsement recording that the species is defined by its designated neotype. *Cenobita rugosus* H. Milne Edwards, 1837, and *Cenobita violascens* were similarly added to the Official List.
- {9} In his list of Crustacea in the British Museum, Adam White (1847: 59–62) listed as new species, *Coenobita compta* from the collection of Mr. Broderip, and

Coenobita laeviuscula from Port Essington. Neither taxon was described nor illustrated and mention of neither could be found in any of White's other publications.

Family Diogenidae Ortmann, 1892

Allodardanus Haig & Provenzano, 1965

= *Allodardanus* Haig & Provenzano, 1965
(type species *Allodardanus rugosus* Haig & Provenzano, 1965, by original designation; gender masculine)

Allodardanus bredini Haig & Provenzano, 1965

Allodardanus midas McLaughlin & Gore, 1985

Allodardanus rugosus Haig & Provenzano, 1965

Aniculus Dana, 1852

= *Aniculus* Dana, 1852 (type species *Pagurus aniculus* Fabricius, 1787, by original designation; gender masculine)

Aniculus aniculus (Fabricius, 1787)

= *Aniculus typicus* Dana, 1852

Aniculus elegans Stimpson, 1858

= *Aniculus longitarsis* Streets, 1871

Aniculus erythraeus Forest, 1984

Aniculus hopperae McLaughlin & Hoover, 1996

Aniculus maximus Edmondson, 1952

Aniculus miyakei Forest, 1984

Aniculus retipes Lewinsohn, 1982

Aniculus sibogae Forest, 1984

Aniculus ursus (Olivier, 1812) [Pagurus] {1}

Aeropaguristes Rahayu & McLaughlin, 2010

= *Aeropaguristes* Rahayu & McLaughlin, 2010 (type species *Pagurus setosus* Filhol, 1885 by original designation; gender masculine) (replacement name) {2}

= *Stratiotes* Thomson, 1899 (junior homonym of *Stratiotes* Putzeys, 1846, Coleoptera)

Areopaguristes abbreviatus (Dechancé, 1963)

[*Paguristes*]

Areopaguristes breviantennatus (Rahayu, 2005)
[*Stratiotes*]

Areopaguristes cyanops (Forest, 1978) [Paguristes]

Areopaguristes difficilis (Forest, 1952) [Paguristes]

Areopaguristes engyops (Barnard, 1947) [Paguristes]

Areopaguristes hewatti (Wass, 1963) [Paguristes]

Areopaguristes hispidus (A. Milne-Edwards & Bouvier, 1892) [Paguristes]

Areopaguristes hummi (Wass, 1955) [Paguristes]

Areopaguristes iris (Forest & de Saint Laurent, 1968)
[*Paguristes*]

Areopaguristes japonicus (Miyake, 1961) [Paguristes]

Areopaguristes mclaughlinae (Ayón Parente & Hendrickx, 2006) [*Stratiotes*]

Areopaguristes micheleae (Rahayu, 2005) [*Stratiotes*]

Areopaguristes ngochoae (Rahayu, 2005) [*Stratiotes*]

Areopaguristes nigroapiculus (Komai, 2009)
[*Stratiotes*]

Areopaguristes orbis (Komai, 2009) [*Stratiotes*]

Areopaguristes perspicax (Nobili, 1906) [Paguristes]
= *Paguristes jousseumii* var. *perspicax* Nobili,
1906

Areopaguristes pilosus (H. Milne Edwards, 1836)
[*Pagurus*]

Areopaguristes rubrodiscus (Forest, 1952) [Paguristes]

Areopaguristes setosus (H. Milne Edwards, 1848)
[*Pagurus*]

= *Pagurus setosus* Filhol, 1885

Areopaguristes taenia (Komai, 1999) [Paguristes]

Areopaguristes tuberculatus (Whitelegge, 1900)
[*Paguristes*]

Areopaguristes virilis (Forest, 1952) [Paguristes]

Bathynarius Forest, 1989

= *Bathynarius* Forest, 1989 (type species *Clibanarius anomalus* A. Milne-Edwards & Bouvier, 1893, by original designation; gender masculine)

Bathynarius albicinctus (Alcock, 1905) [Clibanarius]

Bathynarius anomalus (A. Milne-Edwards & Bouvier, 1893) [Clibanarius]

Bathynarius izuensis Komai & Takeda, 2004

Bathynarius pacificus Forest, 1993

Bathynarius wolffi Forest, 1993

Calcinus Dana, 1851

= *Calcinus* Dana, 1851 (type species *Cancer tibicen* Herbst, 1791, by original designation; gender masculine)

Calcinus albengai Poupin & Lemaitre, 2003

Calcinus anani Poupin & McLaughlin, 1998

Calcinus argus Wooster, 1984

Calcinus californiensis Bouvier, 1898

Calcinus chilensis (H. Milne Edwards, 1836)
[*Pagurus*] {4}

Calcinus dapsiles Morgan, 1989

Calcinus elegans (H. Milne Edwards, 1836) [Pagurus]

= ? *Pagurus fasciatus* Bell, 1853 {5}

Calcinus explorator Boone, 1930

Calcinus gaimardii (H. Milne Edwards, 1848)
[*Pagurus*]

Calcinus gouti Poupin, 1997

Calcinus guamensis Wooster, 1984

Calcinus haigae Wooster, 1984

Calcinus hakahau Poupin & McLaughlin, 1998

Calcinus hazletti Haig & McLaughlin, 1984

Calcinus imperialis Whitelegge, 1901

Calcinus inconspicuus Morgan, 1991

Calcinus isabellae Poupin, 1997

Calcinus kurozumii Asakura & Tachikawa, 2000

Calcinus laevimanus (Randall, 1840) [Pagurus]

= *Pagurus tibicen* H. Milne Edwards, 1836
(preoccupied name)

= *Pagurus lividus* H. Milne Edwards, 1848

= *Calcinus herbstii* De Man, 1887

Calcinus latens (Randall, 1840) [Pagurus]

= *Pagurus cristimanus* H. Milne Edwards, 1848

= *Calcinus intermedius* De Man, 1881

= *Calcinus terrae-reginae* Haswell, 1882

= *Calcinus abrolhensis* Morgan, 1988 {6}

Calcinus laurentae Haig & McLaughlin, 1984

Calcinus lineapropodus Morgan & Forest, 1991

- Calcinus mclaughlinae* Poupin & Bouchard, 2006
Calcinus minutus Buitendijk, 1937
Calcinus morgani Rahayu & Forest, 1999
= *Calcinus areolatus* Rahayu & Forest, 1999
Calcinus nitidus Heller, 1865
Calcinus obscurus Stimpson, 1859 {7}
Calcinus orchidae Poupin, 1997
Calcinus paradoxus Bouvier, 1922 {8}
Calcinus pascuensis Haig, 1974
Calcinus pulcher Forest, 1958
Calcinus revi Poupin & McLaughlin, 1998
Calcinus rosaceus Heller, 1861
Calcinus seurati Forest, 1951
Calcinus sirius Morgan, 1991
Calcinus spicatus Forest, 1951
Calcinus talismani A. Milne-Edwards & Bouvier, 1892
Calcinus tibicen (Herbst, 1791) [Cancer]
= *Calcinus sulcatus* H. Milne Edwards, 1836 {9}
Calcinus tropidomanus Lewinsohn, 1981
Calcinus tubularis (Linnaeus, 1767) [Cancer]
= *Pagurus ornatus* Roux, 1830
= *Clibanarius rouxi* Heller, 1863
Calcinus urabaensis Campos & Lemaitre, 1994
Calcinus vachoni Forest, 1958
Calcinus vannini Gherardi & McLaughlin, 1994
Calcinus verrillii (Rathbun, 1901) [Clibanarius]
Cancellus H. Milne Edwards, 1836
= *Cancellus* H. Milne Edwards, 1836 (type species
Cancellus typus H. Milne Edwards, 1836, by
original designation; gender masculine)
Cancellus canaliculatus (Herbst, 1804) [Cancer]
Cancellus frontalis Forest & McLaughlin, 2000
Cancellus investigatoris Alcock, 1905
Cancellus laticoxa Forest & McLaughlin, 2000
Cancellus macrothrix Stebbing, 1924
Cancellus mayoae Forest & McLaughlin, 1998
Cancellus ornatus Benedict, 1901
Cancellus panglaoensis McLaughlin, 2008
Cancellus parfaiti A. Milne-Edwards & Bouvier, 1891
Cancellus quadraticoxa Morgan & Forest, 1991
Cancellus rhynchogonus Forest & McLaughlin, 2000
Cancellus sphaerogonus Forest & McLaughlin, 2000
Cancellus spongicola Benedict, 1901
Cancellus tanneri Faxon, 1893
Cancellus typus H. Milne Edwards, 1836
Cancellus viridis Mayo, 1973
Ciliopagurus Forest, 1995
= *Ciliopagurus* Forest, 1995 (type species *Cancer strigatus* Herbst, 1804, by original designation; gender masculine)
Ciliopagurus albatrossi Forest, 1995
Ciliopagurus alcocki Forest, 1995
Ciliopagurus babai Forest, 1995
Ciliopagurus caparti (Forest, 1952) [Trizopagurus]
Ciliopagurus galzini Poupin & Malay, 2009
Ciliopagurus haigae Forest, 1995
Ciliopagurus hawaiiensis (McLaughlin & Bailey-Brock, 1975) [Trizopagurus]
Ciliopagurus krempfi (Forest, 1952) [Trizopagurus]
- Ciliopagurus liui* Forest, 1995
Ciliopagurus macrolepis Forest, 1995
Ciliopagurus major Forest, 1995
Ciliopagurus pacificus Forest, 1995
Ciliopagurus plessisi Forest, 1955
Ciliopagurus shebae (Lewinsohn, 1969) [Trizopagurus]
Ciliopagurus strigatus (Herbst, 1804) [Cancer]
= *Pagurus annulipes* H. Milne Edwards, 1848 {10}
Ciliopagurus tenebrarum (Alcock, 1905) [Aniculus]
Ciliopagurus tricolor Forest, 1995
Ciliopagurus vakovako Poupin, 2001
Clibanarius Dana, 1852
= *Clibanarius* Dana, 1852 (type species *Cancer clibanarius* Herbst, 1791, by original designation; gender masculine)
Clibanarius aequabilis (Dana, 1851) [Pagurus]
Clibanarius africanus Aurivillus, 1898
Clibanarius albidiatus Nobili, 1901
Clibanarius ambonensis Rahayu & Forest, 1993
Clibanarius antennatus Rahayu & Forest, 1993
Clibanarius antillensis Stimpson, 1859 {11}
= *Clibanarius brasiliensis* Dana, 1852
Clibanarius arethusa De Man, 1888
Clibanarius astathes Stebbing, 1924 [Calcinus]
Clibanarius bimaculatus (De Haan, 1849) [Pagurus]
Clibanarius bistriatus Rahayu & Forest, 1993
Clibanarius boschmai Buitendijk, 1937
Clibanarius carnifex Heller, 1861
Clibanarius chapini Schmitt, 1926 {12}
Clibanarius clibanarius (Herbst, 1791) [Cancer]
= *Clibanarius vulgaris* Dana, 1852
Clibanarius cooki Rathbun, 1900
Clibanarius corallinus (H. Milne Edwards, 1848) [Pagurus]
= *Pagurus globosi-manus* Dana, 1851
= *Clibanarius corallinus* var. *spinatus* Yap-Chiongeo, 1938
Clibanarius cruentatus (H. Milne Edwards, 1848) [Pagurus]
Clibanarius danai Rahayu & Forest, 1993
Clibanarius demani Buitendijk, 1937
Clibanarius digueti Bouvier, 1898
Clibanarius englaucus Ball & Haig, 1972
Clibanarius elongatus (H. Milne Edwards, 1848) [Pagurus] {13}
Clibanarius erythropus (Latrelle, 1818) [Pagurus]
= *Pagurus misanthropus* Risso, 1827
Clibanarius eurysternus (Hilgendorf, 1879) [Pagurus]
Clibanarius fonticola McLaughlin & Murray, 1990
Clibanarius foresti Holthuis, 1959
Clibanarius harisi Rahayu, 2003
Clibanarius hirsutimanus Kobjakova, 1971 {14}
Clibanarius humilis (Dana, 1851) [Pagurus]
Clibanarius inaequalis (De Haan, 1849) [Pagurus]
Clibanarius infraspinatus (Hilgendorf, 1869) [Pagurus]
Clibanarius janethaigae Hendrickx & Esparza-Haro, 1997

- Clibanarius laevimanus* Buitendijk, 1937
Clibanarius lineatus (H. Milne Edwards, 1848)
[*Pagurus*] {15}
= *Clibanarius panamensis* (Stimpson, 1859)
= *Clibanarius lordi* Miers, 1877
Clibanarius longitarsus (De Haan, 1849) [*Pagurus*]
= ? *Pagurus asper* H. Milne Edwards, 1848
Clibanarius merguiensis De Man, 1888 {16}
= *Clibanarius aequabilis* var. *merguiensis* De Man, 1888
= *Clibanarius misanthropus* var. *merguiensis* De Man, 1888
Clibanarius nathi Chopra & Das, 1940
Clibanarius olivaceus Henderson, 1915
Clibanarius pacificus Stimpson, 1858 {17}
Clibanarius padavensis De Man, 1888
Clibanarius ransoni Forest, 1953
Clibanarius rhabdodactylus Forest, 1953
= *Clibanarius zebra* var. *rhabdodactylus* Forest, 1953
Clibanarius rosewateri Manning & Chace, 1990 {18}
Clibanarius rubroviria Rahayu, 1999
Clibanarius rutilus Rahayu, 1999
Clibanarius sachalinicus Kobjakova, 1955 {19}
Clibanarius sclopetaarius (Herbst, 1796) [*Cancer*]
= *Pagurus tuberculosus* H. Milne Edwards, 1836
= *Pagurus cubensis* de Saussure, 1858
= *Clibanarius carnescens* Miers, 1877
= *Clibanarius formosus* Ives, 1892
Clibanarius senegalensis Chevreux & Bouvier, 1892
Clibanarius serenei Rahayu & Forest, 1993
Clibanarius signatus Heller, 1861
= *Clibanarius semistriatus* Heller, 1862
Clibanarius similis Rahayu & Forest, 1993
Clibanarius snelliisi Buitendijk, 1937
Clibanarius striolatus Dana, 1852
Clibanarius taeniatus (H. Milne Edwards, 1848)
[*Pagurus*]
Clibanarius tricolor (Gibbes, 1850) [*Pagurus*]
= *Clibanarius hebes* Verrill, 1908
= *Clibanarius brachyops* Bouvier, 1918
Clibanarius virescens (Krauss, 1843) [*Pagurus*]
= *Clibanarius philippensis* Yap-Chiongco, in Estampador, 1937
Clibanarius vittatus (Bosc, 1802) [*Pagurus*]
= *Pagurus symmetricus* Randall, 1840
= *Clibanarius cayennensis* Miers, 1877
= *Clibanarius speciosus* Miers, 1877
Clibanarius willeyi Southwell, 1910 {20}
Clibanarius zebra Dana, 1852 [*Pagurus*]
Dardanus Paul'son, 1875 {21}
= *Dardanus* Paul'son, 1875 (type species *Pagurus depressus* Heller, 1861, by original designation)
= *Pagurias* Benedict, 1901 (unnecessary replacement name)
Dardanus arrosor (Herbst, 1796) [*Cancer*]
= *Aniculus chiltoni* Thompson, 1930
Dardanus aspersus (Berthold, 1846) [*Pagurus*]
= *Pagurus diogenes* De Haan, 1849
Dardanus australis Forest & Morgan, 1991
Dardanus brachyops Forest, 1962
Dardanus calidus (Risso, 1827) [*Pagurus*]
= ? *Cancer hungarus* Herbst, 1791{22}
Dardanus callichela Cook, 1989
Dardanus corrugatus Cook, 1989
Dardanus crassimanus (H. Milne Edwards, 1836)
[*Pagurus*]
= *Pagurus sculptipes* Stimpson, 1858
= *Pagurus pavementatus* Hilgendorf, 1879
Dardanus dearmatus (Henderson, 1888) [*Pagurus*]
Dardanus deformis (H. Milne Edwards, 1836)
[*Pagurus*]
= *Pagurus cavipes* White, 1847 (nomen nudum)
= *Pagurus cavipes* White 1847
= *Pagurus cultratus* White, 1847 (nomen nudum)
= ? *Glaucothoe carinata* Henderson, 1888 {23}
Dardanus fucus Biffar & Provenzano, 1972
Dardanus gemmatus (H. Milne Edwards, 1848)
[*Pagurus*]
Dardanus guttatus (Olivier, 1812) [*Pagurus*] {1}
= ? *Pagurus catephractus* Boone, 1935 {24}
Dardanus hessii (Miers, 1884) [*Pagurus*]
Dardanus imbricatus (H. Milne Edwards, 1848)
[*Pagurus*]
Dardanus imperator (Miers, 1881) [*Pagurus*]
Dardanus impressus (De Haan, 1849) [*Pagurus*]
Dardanus insignis (de Saussure, 1858) [*Pagurus*]
= *Aniculus arrosor* var. *petersi* A. Milne-Edwards, 1880
Dardanus jacquesi Asakura & Hirayama, 2002
Dardanus janethaigae Ayón Parente & Hendrickx, 2009
Dardanus lagopodes (Forskål, 1775) [*Cancer*]
= *Pagurus sanguinolentus* Quoy & Gaimard, 1824
= *Pagurus affinis* H. Milne Edwards, 1836
= *Pagurus euopsis* Dana, 1852
= *Pagurus depressus* Heller, 1861
= *Dardanus helleri* Paul'son, 1875
Dardanus longior Asakura, 2006
Dardanus magdalenensis Ayón Parente & Hendrickx, 2009
Dardanus megistos (Herbst, 1804) [*Cancer*]
= *Pagurus punctulatus* Miers, 1879
= *Dardanus jordani* Schmitt, 1921{25}
Dardanus nudus Ayón Parente & Hendrickx, 2009
Dardanus pectinatus (Ortmann, 1892) [*Pagurus*]
= *Pagurus arrosor* var. *pectinata* Ortmann, 1892
Dardanus pedunculatus (Herbst, 1804) [*Cancer*]
= *Pagurus asper* De Haan, 1849
= *Dardanus haani* Rathbun, 1903
= *Neopagurus horai* Kamalaveni, 1950
Dardanus pilosus Ayón Parente & Hendrickx, 2009
Dardanus robustus Asakura, 2006
Dardanus rufus Buitendijk, 1937
Dardanus sanguinocarpus Degener, 1925
Dardanus scutellatus (H. Milne Edwards, 1848)
[*Pagurus*]
= *Pagurus fabimanus* Dana, 1852
= *Pagurus watasei* Terao, 1913

- Dardanus setifer* (H. Milne Edwards, 1836) [*Pagurus*]
Dardanus sinistripes (Stimpson, 1859) [*Pagurus*]
= *Pagurus peruvensis* Balss, 1921
Dardanus squarrosus Cook, 1989
Dardanus stimpsoni Ayón Parente & Hendrickx, 2009
Dardanus sulcatus Edmondson, 1925
Dardanus tinctor (Forskål, 1775) [*Cancer*]
= *Pagurus varipes* Heller, 1861
Dardanus umbella Asakura, 2006
Dardanus undulatus (Balss, 1921) [*Pagurus*]
Dardanus venosus (H. Milne Edwards, 1848) [*Pagurus*]
= *Pagurus arrosor* var. *divergens* Moreira, 1905
{26}
Dardanus vulnerans (Thallwitz, 1892) [*Pagurus*]
Dardanus woodmasoni (Alcock, 1905) [*Pagurus*]
- Diogenes* Dana, 1851
= *Diogenes* Dana, 1851 [type species *Pagurus miles* Fabricius, 1787, by subsequent designation by Dana (1852); gender masculine] {27}
Diogenes alias McLaughlin & Holthuis, 2001 {28}
Diogenes avarus Heller, 1865
Diogenes bicristimanus Alcock, 1905
Diogenes biramus Morgan, 1987
Diogenes brevirostris Stimpson, 1858
Diogenes capricorneus Grant & McCulloch, 1907
Diogenes costatus Henderson, 1893
Diogenes crosnieri Dechancé, 1964
Diogenes custos (Fabricius, 1798) [*Pagurus*]
= *Diogenes affinis* Henderson, 1893
Diogenes deflectomanus Wang & Tung, 1980
Diogenes denticulatus Chevreux & Bouvier, 1892
= *Diogenes pugilator* var. *cristata* Balss, 1921
= ? *Diogenes pugilator* var. *subcristata* Balss, 1921
Diogenes dorothaea Morgan & Forest, 1991
Diogenes dubius (Herbst, 1804) [*Cancer*]
Diogenes edwardsii (De Haan, 1849) [*Pagurus*]
Diogenes extricatus Stebbing, 1910
Diogenes fasciatus Rahayu & Forest, 1995
Diogenes foresti Rahayu & Horte, 2002
Diogenes goniochirus Forest, 1956
Diogenes granulatus Miers, 1880
Diogenes guttatus Henderson, 1888
Diogenes inglei McLaughlin & Clark, 1997
Diogenes investigatoris Alcock, 1905
Diogenes izananiae Asakura, 2006
Diogenes jousseauaei (Bouvier, 1897) [*Troglopagurus*]
= *Diogenes setocristatus* Morgan & Forest, 1991
= *Diogenes stenops* Morgan & Forest, 1991
Diogenes jubatus (Nobili, 1903) [*Troglopagurus*]
= *Diogenes platyops* Rahayu & Forest, 1995
Diogenes karwarensis Nayak & Neelakantan, 1989
Diogenes klaasi Rahayu & Forest, 1995
Diogenes laevicarpus Rahayu, 1996
Diogenes lanaris Yap-Chiongco, in Estampador, 1937
Diogenes leptocerus Forest, 1956
Diogenes lophochir Morgan, 1989
Diogenes maclaughlinae Nayak & Neelakantan, 1985
- Diogenes manaarensis* (Henderson, 1893)
[*Troglopagurus*]
Diogenes merguiensis De Man, 1888
Diogenes mercatoris Forest, 1952
Diogenes miles (Fabricius, 1787) [*Pagurus*]
= *Pagurus diaphanus* Fabricius, 1798
Diogenes mixtus Lanchester, 1902
= *Diogenes intermedius* De Man, 1892 (preoccupied name)
= *Diogenes hainanica* Wang & Dong, 1977
= *Diogenes plavoeti* McLaughlin & Clark, 1997
Diogenes moosai Rahayu & Forest, 1995
Diogenes nitidimanus Terao, 1913
Diogenes ovatus Miers, 1881
= *Diogenes pugilator* var. *ovata* Miers, 1881
Diogenes pallescens Whitelegge, 1897
= *Diogenes gardineri* Alcock, 1905
= *Diogenes serenei* Forest, 1956
Diogenes paracristimanus Wang & Dong, 1977
Diogenes patae Asakura & Godwin, 2006
Diogenes penicillatus Stimpson, 1858
Diogenes persicus (Nobili, 1905) [*Troglopagurus*]
Diogenes planimanus Henderson, 1893
= *Diogenes custos* var. *planimanus* Henderson, 1893
Diogenes pugilator Roux, 1828
= *Pagurus algarbiensis* Brito Capello, 1875
= *Pagurus arenarius* Lucas, 1846
= *Pagurus Bocagii* Brito Capello, 1875
= *Pagurus curvimanus* Clément, 1874
= *Pagurus dillwynii* Bate, 1851
= *Diogenes pugilator* var. *gracillima* Balss 1921 (misspelling of *gracillimanus*)
= *Diogenes varians* var. *gracillimanus* Miers, 1881
= *Diogenes intermedius* Bouvier, 1891
= *Pagurus Lafonti* Fischer, 1872
= *Pagurus ponticus* Kessler, 1860
= *Diogenes pugilator orientalis* Codreanu & Balcesco, 1968
Diogenes rectimanus Miers, 1884
Diogenes senex Heller, 1865
Diogenes serripes (Costa, 1838) {29}
Diogenes spinicarpus Rahayu & Forest, 1995
Diogenes spinifrons (De Haan, 1849)
Diogenes spinulimanus Miers, 1880
Diogenes tomentosus Wang & Tung, 1980
Diogenes tirmiziae Siddiqui & McLaughlin, 2003
Diogenes tumidus Rahayu & Forest, 1995
Diogenes viridis Haig & Ball, 1988
Diogenes violaceus Henderson, 1893
Diogenes waltairensis Kamalaveni, 1950
= *Diogenes custos* var. *waltairensis* Kamalaveni, 1950
Isocheles Stimpson, 1858
= *Isocheles* Stimpson, 1858 (type species *Bernhardus aequimanus* Dana, 1852, by original designation; gender masculine)

- = *Holopagurus* Holmes, 1900 (type species
Holopagurus pilosus Holmes, 1900, by original
 designation; gender masculine)
- Isocheles aequimanus* (Dana, 1852) [*Bernhardus*]
Isocheles pacificus Bouvier, 1907
 = *Isocheles Wurdemanni* var. *pacificus* Bouvier,
 1907
- Isocheles pilosus* (Holmes, 1900) [*Holopagurus*]
Isocheles sawayai Forest & de Saint Laurent, 1968
Isocheles wurdemanni Stimpson, 1859
- Loxopagurus* Forest, 1964
 = *Loxopagurus* Forest, 1964 (type species *Pagurus*
loxocheilis Moreira, 1901, by original designation;
 gender masculine)
- Loxopagurus loxocheilis* (Moreira, 1901) [*Pagurus*]
- Paguristes* Dana, 1851
 = *Paguristes* Dana, 1851 (type species *Paguristes*
hirtus Dana, 1851, by subsequent designation by
 Stimpson, 1858; gender masculine)
 = *Pagurites* Lörenthey & Beurlen, 1929 (misspelling
 of *Paguristes*)
- Paguristes acanthomerus* Ortmann, 1892
Paguristes aciculus Grant, 1905
Paguristes agulhasensis Forest, 1954
Paguristes albimaculatus Komai, 2001
Paguristes alegrias Morgan, 1987
Paguristes alcocki McLaughlin & Rahayu, 2005
Paguristes anahuacus Glassell, 1938
Paguristes anomalus Bouvier, 1918
 = *Paguristes anaryballus* Provenzano, 1965
Paguristes angustithecus McLaughlin & Provenzano,
 1974
Paguristes antennarius Rahayu, 2006
Paguristes arostratus Rahayu, 2006
Paguristes aulacis Rahayu & Forest 2009
Paguristes aztlanensis Glassell, 1937
Paguristes bakeri Holmes, 1900
 = ? *Paguristes holmesi* Glassell, 1937 {30}
Paguristes balanophilus Alcock, 1905
Paguristes barbatus (Heller, 1862) [*Clibanarius*]
Paguristes barnardi Forest, 1954
Paguristes brachyrostris Rahayu, 2006
Paguristes brevicornis (Guérin, 1830) [*Pagurus*]
Paguristes brevirostris Baker, 1905
 = *Paguristes brevirostrus* Mower & Shepard, 1988
 (misspelling of *brevirostris*)
Paguristes cadenati Forest, 1954
Paguristes calvus Alcock, 1905
Paguristes ciliatus Heller, 1862
Paguristes crinitimanus McLaughlin, 2008
Paguristes dampierensis McLaughlin, 2008
Paguristes depressus Stimpson, 1859
 = *Paguristes depressus* Stimpson, 1858 (nomen
 nudum)
Paguristes digitalis Stimpson, 1858
 = *Paguristes kagoshimensis* Ortmann, 1892
Paguristes digueti Bouvier, 1893
Paguristes doederleini Komai, 2001
- Paguristes eremita* (Linnaeus, 1767) [*Cancer*]
 = *Pagurus oculatus* Fabricius, 1775
 = *Pagurus maculatus* Risso, 1827
- Paguristes erythrops* Holthuis, 1959
- Paguristes fagei* Forest, 1952
- Paguristes fecundus* Faxon, 1893
- Paguristes foresti* Scelzo, 1971
- Paguristes frontalis* (H. Milne Edwards, 1836)
 [*Pagurus*]
- Paguristes gamianus* (H. Milne Edwards, 1836)
 [*Pagurus*]
- Paguristes geminatus* McLaughlin, 2008
- Paguristes gonagrus* (H. Milne Edwards, 1836)
 [*Pagurus*]
- Paguristes grayi* Benedict, 1901
- Paguristes hernancortezi* McLaughlin & Provenzano,
 1974
- Paguristes holguinensis* Manjón-Cabeza, García Raso &
 Martínez Iglesias, 2002
- Paguristes incomitatus* Alcock, 1905
- Paguristes inconstans* McLaughlin & Provenzano,
 1975
- Paguristes insularis* Forest, 1966
- Paguristes jalur* Morgan, 1992
- Paguristes jousseaumei* Bouvier, 1892
 = *Paguristes jousseaumei* var. *glabra* Nobili, 1906
 = *Paguristes jousseaumei* var. *intermedia* Nobili,
 1906
- Paguristes kimberleyensis* Morgan & Forest, 1991
- Paguristes lapillatus* McLaughlin & Provenzano, 1975
- Paguristes laticlavis* McLaughlin & Provenzano, 1975
- Paguristes lauriei* McLaughlin & Hogarth, 1998
- Paguristes lewinsohni* McLaughlin & Rahayu, 2005
- Paguristes limonensis* McLaughlin & Provenzano,
 1975
- Paguristes longirostris* Dana, 1851
- Paguristes longisetosus* Morgan, 1987
- Paguristes lymani* A. Milne-Edwards & Bouvier, 1893
- Paguristes maclaughlinae* Martinez-Iglesias & Gómez,
 1989
- Paguristes macrops* Rahayu & Forest, 2009
- Paguristes macrotrichus* Forest, 1954
- Paguristes markhami* Sandberg, 1996
- Paguristes marocanus* A. Milne-Edwards & Bouvier,
 1892
- Paguristes mauritanicus* Bouvier, 1906
- Paguristes meloi* Nucci & Hebling, 2004
- Paguristes microphthalmus* Forest, 1952
- Paguristes miyakei* Forest & McLaughlin, 1998
- Paguristes moorei* Benedict, 1901
- Paguristes mundus* Alcock, 1905
- Paguristes ocellus* Komai, 2010
- Paguristes oculiviolaceus* Glassell, 1937
- Paguristes ortmanni* Miyake, 1978
- Paguristes oxyacanthus* Forest, 1952
- Paguristes oxyophthalmus* Holthuis, 1959
- Paguristes palythophilus* Ortmann, 1892
- Paguristes paraguanensis* McLaughlin & Provenzano,
 1975
- Paguristes parvus* Holmes, 1900

- Paguristes pauciparus* Forest & de Saint Laurent, 1968
Paguristes petalodactylus Rahayu, 2007
Paguristes perplexus McLaughlin & Provenzano, 1974
Paguristes perrieri Bouvier, 1895
Paguristes planatus A. Milne-Edwards & Bouvier, 1893
Paguristes praedator Glassell, 1937
Paguristes pugil McCulloch, 1913
Paguristes puncticeps Benedict, 1901
Paguristes puniceus Henderson, 1896
 = *Paguristes puniceus* var. *unispinosa* Balss, 1912
Paguristes purpureantennatus Morgan, 1987
Paguristes pusillus Henderson, 1896
Paguristes robustus Forest & de Saint Laurent, 1968
Paguristes rostralis Forest & de Saint Laurent, 1968
Paguristes rubropictus A. Milne-Edwards & Bouvier, 1892
 = *Paguristes maculatus* var. *rubro-picta* A. Milne-Edwards & Bouvier, 1892
 = *Paguristes oculatus* var. *brunneo-pictus* A. Milne-Edwards & Bouvier, 1900
Paguristes runyanae Haig & Ball, 1988
Paguristes sanguinimanus Glassell, 1938
Paguristes sayi A. Milne-Edwards & Bouvier, 1893
Paguristes seminudus Stimpson, 1858
Paguristes sericeus A. Milne Edwards, 1880
 = *Paguristes rectifrons* Benedict, 1901
 = *Paguristes tenuirostris* Benedict, 1901
Paguristes simplex Rahayu & McLaughlin, 2006
Paguristes sinensis Tung & Wang, 1966 {31}
Paguristes skoogi Odhner, 1923
Paguristes spectabilis McLaughlin & Provenzano, 1975
Paguristes spinipes A. Milne-Edwards, 1880
 = *Paguristes armatus* Hay, 1917
 = *Paguristes visor* Henderson, 1888
Paguristes squamosus McCulloch, 1913
Paguristes starcki Provenzano, 1965
Paguristes streaensis Pastore, 1984
Paguristes subpilosus Henderson, 1888
Paguristes sulcatus Baker, 1905
Paguristes syrtensis de Saint Laurent, 1971
Paguristes tomentosus (H. Milne Edwards, 1848)
[*Pagurus*]
Paguristes tortugae Schmitt, 1933
Paguristes tosaensis Komai, 2010
Paguristes triangulatus A. Milne-Edwards & Bouvier, 1893
Paguristes triangulopsis Forest & de Saint Laurent, 1968
Paguristes triton McLaughlin, 2008
Paguristes turgidus (Stimpson, 1857) [*Clibanarius*]
 = *Paguristes turgides* Gordan, 1956 (misspelling of *turgidus*)
Paguristes ulreyi Schmitt, 1921
 = *Paguristes occator* Glassell, 1937
Paguristes versus Komai, 2001
Paguristes wassi Provenzano, 1961
- Paguristes weddellii* (H. Milne Edwards, 1848)
[*Pagurus*]
 = *Paguristes hirtus* Dana, 1851
Paguristes werdingi Campos & Sanchez, 1995
Paguristes zebra Campos & Sanchez, 1995
Paguristes zhejiangensis Wang & Tung, 1982
 = *Paguristes pusillus zhejiangensis* Wang & Tung, 1982
- Paguropsis* Henderson, 1888
= *Paguropsis* Henderson, 1888 (type species)
Paguropsis typicus Henderson, 1888, by monotypy; gender feminine)
= *Chlaenopagurus* Alcock, 1899 (type species)
Chlaenopagurus andersoni Alcock 1899, by monotypy; gender masculine)
- Paguropsis typica* Henderson, 1888 {32}
= *Paguropsis andersoni* (Alcock, 1899)
[*Chlaenopagurus*] {33}
- Petrochirus* Stimpson, 1858
= *Petrochirus* Stimpson, 1858 (type species *Pagurus granulatus* Olivier, 1812, by original designation; gender masculine)
- Petrochirus californiensis* Bouvier, 1895
Petrochirus diogenes (Linnaeus, 1758) [*Cancer*] {34}
= *Petrochirus bahamensis* (Herbst, 1791)
[*Cancer*]
= *Petrochirus granulatus* (Olivier, 1812)
[*Pagurus*] {1}
- Petrochirus pustulatus* (H. Milne Edwards, 1848)
[*Pagurus*]
= *Isocheles gracilis* Miers, 1881
= *Petrochirus cavitarius* Osorio, 1887
- Pseudopaguristes* McLaughlin, 2002
= *Pseudopaguristes* McLaughlin, 2002 (type species)
Pseudopaguristes janetkae McLaughlin, 2002, by original designation; gender masculine)
- Pseudopaguristes araeos* Rahayu, 2007
Pseudopaguristes asper Rahayu, 2005
Pseudopaguristes bicolor Asakura & Kosuge, 2004
Pseudopaguristes bollandi Asakura & McLaughlin, 2003
Pseudopaguristes calliopsis (Forest & de Saint Laurent, 1968) [*Paguristes*]
Pseudopaguristes hiangs (Henderson, 1888)
[*Paguristes*]
= *Diogenes desipiens* Lanchester, 1902
Pseudopaguristes invisisacculus (McLaughlin & Provenzano, 1974) [*Paguristes*]
Pseudopaguristes janetkae McLaughlin, 2002
Pseudopaguristes kuekenthali (De Man, 1902)
[*Paguristes*]
Pseudopaguristes laurentae (Morgan & Forest, 1991)
[*Paguristes*]
= *Paguristes brachytes* Komai, 1999
= *Pseudopaguristes gracilis* Rahayu, 2005
Pseudopaguristes monoporus (Morgan, 1987)
[*Paguristes*]
Pseudopaguristes shidarai Asakura, 2004

Pseudopagurus Forest, 1952

= *Pseudopagurus* Forest, 1952 (type species *Pagurus granulimanus* Miers, 1881, by original designation; masculine)

Pseudopagurus granulimanus (Miers, 1881)

Pseudopagurus biafrensis (Monod, 1927)

Strigopagurus Forest, 1995

= *Strigopagurus* Forest, 1995 (type species *Pagurus strigimanus* White, 1847, by original designation; gender masculine)

Strigopagurus bilineatus Forest, 1995

Strigopagurus boreonotus Forest, 1995

= *Clibanarius multipunctatus* Wang & Tung, 1986

Strigopagurus elongatus Forest, 1995

Strigopagurus pouponi Forest, 1995

Strigopagurus strigimanus (White, 1847) [*Pagurus*]

= *Pagurus strigimanus* White, 1847 (nomen nudum)

Tisea Forest & Morgan, 1991

= *Tisea* Forest & Morgan, 1991 (type species *Tisea grandis* Forest & Morgan, 1991, by original designation; gender feminine)

Tisea grandis Forest & Morgan, 1991

Trizopagurus Forest, 1952

= *Trizopagurus* Forest, 1952 (type species *Clibanarius melitai* Chevreux & Bouvier, 1892, by original designation; gender masculine)

Trizopagurus melitai (Chevreux & Bouvier 1892) [*Clibanarius*]

Trizopagurus magnificus (Bouvier, 1898) [*Clibanarius*]

= *Clibanarius chetyrkini* Boone, 1932

Trizopagurus rubrocinctus Forest & Garcia Raso, 1990

Incerta sedis

Pagurus lar Heller, 1862

NOTES

{1} Volume 8 of Olivier's (1811–1812) *Encyclopédie Méthodique* (*Dictionnaire Encyclopédique Méthodique*) was published in two parts. Although his paguroid descriptions most frequently have been cited with the 1811 date, as pointed out by Lewinsohn (1982a), Sherborn & Woodward (1906) showed that the second part (pages 361–722 and containing the "Pagures") was not published until 1812.

{2} Forest & McLaughlin (2000) described in detail the confusion that had existed regarding the New Zealand species *Paguristes pilosus* and *P. setosus* and the errors made by Filhol (1885b, d) and Thomson (1899) that led to the establishment, by Thomson, of the genus *Stratiotes* with *Pagurus setosus* Filhol, 1885, as its type. Although Alcock (1905b) questionably considered Thomson's (1899) *Stratiotes setosus* a synonym of H. Milne Edwards' *Paguristes setosus*, it

was Forest & McLaughlin (2000) that finally placed the two taxa in synonymy. However, when Rahayu (2005) found the gill number of *Paguristes* species in the collection of the Muséum national d'Histoire naturelle variable, she restricted *Paguristes* to species having 13 pairs of gills and reinstated *Stratiotes* for species with only 12 pairs. Unfortunately *Stratiotes* Thomson was found to be a junior homonym of *Stratiotes* Putzeys, 1846, and has been replaced by *Areopaguristes* Rahayu & McLaughlin, 2010.

{3} A newly published molecular analysis of the genus *Calcinus* (Malay & Paulay, 2010) has indicated that several previously unrecognized species are distinguishable, not only at the molecular level, but also by coloration.

{4} Poupin & Bouchard (2006) considered the status of *C. chilensis* uncertain.

{5} On the authority of L. B. Holthuis, Biffar & Provenzano (1972) reported *Pagurus fasciatus* Bell, 1853 (as *Dardanus*) to be a synonym of *Calcinus elegans*. The enlarged left cheliped, setose ventral margins of the propodi of the ambulatory legs, and the blue banding of these legs would support this opinion. However, its reported collection site of Falmouth, England may justify Ingle's (1993) opinion that it should be regarded incerta sedis. It is entered in this checklist as a questionable synonym.

{6} Although Morgan's (1988) Australian *Calcinus abrolhensis* proved to be conspecific with *C. latens*, the Hawaiian population thought to represent this latter taxon apparently represents a distinct species.

{7} The date of publication for *Calcinus obscurus* has been given in the older literature as 1862 (e.g., Gordan, 1956). However, Stimpson's description appeared in a separate published in 1859, and that is the correct date of publication.

{8} *Calcinus paradoxus*, represented by a single specimen was thought to represent a *Calcinus* species by Ingle (1993) but its placement was questioned by both the Bouvier (1922) and by Joseph Poupin (personal communication).

{9} *Calcinus sulcatus* H. Milne Edwards, 1836, was put into synonymy with *Calcinus tibicen* by Hilgendorf (1869) because he thought that Herbst (1791) had erred in his type locality. It was shown by McLaughlin & Holthuis (2002) that it was Hilgendorf, not Herbst who was in error regarding Herbst's type locality for another presumed western Atlantic species, *Coenobita clypeatus* Herbst. Thus is possible that further examination of Herbst's material will show *Calcinus sulcatus* is a species distinct from *C. tibicen*.

- {10} *Eupagurus annulipes* Stimpson, 1860, became a secondary junior homonym of *Pagurus annulipes* H. Milne Edwards, 1836, when the ICZN (Opinion 472) placed *Eupagurus* on the Official Index of Rejected and Invalid Generic Names in Zoology. However, Milne Edwards' species had been transferred from *Pagurus* to *Aniculus*, then *Trizopagurus*, and finally to *Ciliopagurus* (Forest, 1995), and was never considered conspecific with Stimpson's (1860) taxon. Consequently, no replacement name was required.
- {11} Although *Clibanarius antillensis* Stimpson, 1859, was the acknowledged junior synonym of *C. brasiliensis* Dana, 1852a, Forest & de Saint Laurent (1968: 99) cited common usage as their reason for selecting Stimpson's name.
- {12} *Clibanarius chapini* was considered a subspecies of *C. tricolor* by Forest & de Saint Laurent (1968), a ranking dismissed by Manning & Chace (1990).
- {13} The status and validity of *Pagurus elongatus* H. Milne Edwards, 1848, are uncertain. H. Milne Edwards (1848) in his original description said that it was very close to *Pagurus tuberculatus* H. Milne Edwards, 1836 [= *Clibanarius sclopetaeus* (Herbst, 1791)]; the type locality was given as the Hogolu Islands, the former name of the Truk Islands of the western Pacific. However Fize & Serène (1955) list *C. tuberculatus* (H. Milne Edwards, 1848) among their Atlanto-Mediterranean species of *Clibanarius*. *Clibanarius sclopetaeus* is a western Atlantic species.
- {14} The status and validity of Kobjakova's (1971) *Clibanarius hirsutimanus* are uncertain.
- {15} Rahayu & Forest (1992) determined that *Clibanarius lineatus* was not the Indo-Pacific species that it had been thought to be, but rather H. Milne Edwards' (1848) *Pagurus lineatus* collected by Gaudichaud off the west coast of South America, and known regionally as *Clibanarius panamensis* (Stimpson, 1859).
- {16} Originally described as a subspecies of *Clibanarius aequabilis* Dana, 1851, De Man's *Clibanarius aequabilis merguiensis* was elevated to full specific rank by Forest (1953) when he determined that *C. aequabilis* was an Atlantic species.
- {17} *Clibanarius pacificus* is another enigmatic species. According to McLaughlin et al. (2007) the species has not been accurately reported from anywhere except the type localities of Tanegashima and Anami-Oshima, Japan. All recent investigations by one of the authors (TK) failed to locate any specimens fitting Stimpson's (1858) description.
- {18} In their discussion of *Clibanarius rosewateri* Manning and Chace (1990: 37) used the manuscript name *C. acensionis*; however, the etymology for this species clearly indicated that *C. acensionis* was a *laspus calami* on the parts of the authors.
- {19} As with *C. hirsutimanus*, the status and validity of Kobjakova's (1955) *Clibanarius sachalinicus* are uncertain.
- {20} *Clibanarius willeyi* Southwell, 1910 appears to have been overlooked. It was not mentioned by Fize and Serène (1955) in their monographic treatment of Indo-Pacific species or by Gordan (1956) in her bibliographic account of pagurids not covered by Alcock (1905b). Whether it will prove to be a forgotten senior synonym has yet to be determined.
- {21} As previously mentioned, although Paul'son (1875) proposed the genus *Dardanus* for one of the species assigned to *Pagurus* (sensu Dana), Paul'son's genus soon thereafter was placed in synonymy with Dana's *Pagurus*. It was not until considerably later that Benedict (1896) realized that Dana's *Pagurus* contained none of the species originally assigned to the genus by Fabricius (1775). As *Bernhardus* had been shown to be a synonym of *Eupagurus* and both species had the same type species originally designated for *Pagurus* sensu Fabricius, Benedict (1896) urged carcinologists to return to using the name *Pagurus* for species then assigned to *Eupagurus*. However, while Benedict's recommendation was accepted by most American and Russian researchers the same was not true for most European and Asian workers. This nomenclatorial confusion was resolved only after the question of the true interpretation of *Pagurus* was brought before the ICZN (Forest & Holthuis, 1955). In its subsequent ruling (Opinion 472), *Pagurus* sensu Fabricius and *Dardanus* Paul'son were placed on the Official Index of Valid Names in Zoology.
- {22} Sakai (1999) suggested that Herbst's (1791) *Cancer hungarus* might be conspecific with *Dardanus calidus*; however, the type apparently is no longer extant, and Herbst's brief description is inadequate for confirmation. It is questionably included as a synonym.
- {23} Initially described as a distinct species, *Glaucothoe carinata* subsequently was shown to be the megalopal stage of a *Dardanus* species. Its true specific identity is not known with certainty, thus it is included only questionably in the synonymy of *Dardanus deformis*.
- {24} McLaughlin et al. (2005: 303) pointed out that Boone's species had not been found since the original description and suggested that *D. cataphractus* most probably was actually a specimen of *D. guttatus*, a species that had been reported occasionally in the Hawaiian Islands.

- {25} In a study in progress, Manuel Ayon Parente has found evidence to indicate that Schmitt's (1921) *Dardanus jordani* is conspecific with *Dardanus megistos*.
- {26} Gordan (1956) gave the date for *Pagurus arrosor* var. *divergens* as 1905 and the pagination as 123–145. De Melo (1999) gave the date as 1905 and pagination as 1–25; Forest & de Saint Laurent (1968) and Biffar & Provenzano (1972) gave the same pagination, but a date of 1906. The correct date is 1905 and the pagination 123–145.
- {27} As pointed out by McLaughlin & Holthuis (2001), although Dana (1851) specified *Pagurus miles* as the type of the genus *Diogenes*, Dana's species was not *P. miles* of Fabricius (1787). The species had been misidentified by both H. Milne Edwards (1836) and Dana (1851, 1852a, c). Their *P. miles* was actually *Diogenes merguiensis* De Man, 1888. While the third edition of the ICZN Code required that such a misidentification be referred to the Commission, the fourth edition (1999) gave the revisers the option to fix the status of the type species. McLaughlin & Holthuis (2001) were of the opinion that the best interests of stability in nomenclature were served by retaining *Diogenes miles* (Fabricius, 1787) [not *Diogenes miles* sensu H. Milne Edwards, 1836; Dana, 1851, 1852a, c] as the type species of the genus *Diogenes*.
- {28} Holthuis (1959) determined that *C. diogenes* had been based on two distinct species, one the western Atlantic *Petrochirus* and the other an Indo-Pacific species of *Coenobita*. Holthuis designated the lectotype of Linnaeus' (1758) composite taxon the specimen figured by Catesby (1743) of his *Cancellus maximus Bahamensis*, an invalid name for the taxon known as *Petrochirus bahamensis* (Herbst, 1791). The species reported in the literature as *Pagurus diogenes* Fabricius, 1787, *Cancer diogenes* Herbst, 1791 and *Diogenes diogenes* of subsequent authors was based on misidentifications of Linnaeus' (1758) *Cancer diogenes* and was replaced by *Diogenes alias* McLaughlin & Holthuis, 2001.
- {29} This species was credited to Costa (1838) by Hope (1851) who provided a description. No description could be found in the portion of Costa's paper available. *Diogenes serripes* (Costa, 1838) is the name and description also given by Carus (1885). The type locality is reported as Naples. Although *D. serripes* has not been cited in any recent synonymy, it most probably is another name for *D. pugilator*.
- {30} Haig et al. (1970) considered *P. holmesi* a synonym of *P. bakeri*. However, Glassell's (1937) specimens can no longer be found, and Hendrickx & Harvey (1999) believe some question exists as to the accuracy of the synonymy. It is included only questionably in the synonymy of *P. bakeri*.
- {31} Studies in progress by one of the current authors (TK) indicate that *Paguristes sinensis* Tung & Wang, 1966, may be transferred to the genus *Areopaguristes*.
- {32} Henderson (1888) incorrectly used the masculine ending "us" in his original description of *Paguropsis typica*.
- {33} One of the authors (TK) has examined specimens from Kerara, India and found that *Paguropsis andersoni* (Alcock, 1905b) is not a synonym of *P. typica* and should be reinstated.
- {34} Holthuis (1959) demonstrated that while this species was best known as *Petrochirus granulatus* or *P. bahamensis*, the correct name was *P. diogenes*, described by Linnaeus (1758) as *Cancer diogenes*. Linnaeus' (1758) *Cancer diogenes* actually was a composite taxon, based on the mirror image reproductions of Rumphius' (1705) [1745] illustrations of an Indo-Pacific species of *Coenobita* and Catesby's (1743) description and figure of *Cancellus maximus Bahamensis*. Holthuis (1959) selected Catesby's figured specimen as the lectotype of *Cancer diogenes*. Herbst's (1791) *Cancer bahamensis* was based on Catesby's same figured specimen, thus the two species were objective synonyms. Holthuis (1959) noted that the specific name *diogenes* Linnaeus had not been in use for the past 40 years, so its reintroduction for the American *Petrochirus* species would not result in confusion. Herbst's (1791) species, *bahamensis*, although senior, at the time was better known by the specific name *granulatus*. Therefore Holthuis (1959) found no reason not to strictly follow in Rule of Priority.

Family Paguridae Latreille, 1802

- Acanthopagurus* de Saint Laurent, 1968
 = *Acanthopagurus* de Saint Laurent, 1968 (type species *Anapagurus? dubius* A. Milne-Edwards & Bouvier, 1900, by original designation; gender masculine) {1}
- Acanthopagurus dubius* (A. Milne-Edwards & Bouvier, 1900) [*Anapagurus*]
 = *Catapaguroides macrophthalmus* Bouvier, 1922
- Agaricochirus* McLaughlin, 1981
 = *Agaricochirus* McLaughlin, 1981 (type species *Pylopagurus boletifer* A. Milne-Edwards & Bouvier, 1893, by original designation; gender masculine)
- Agaricochirus acanthinus* McLaughlin, 1982
- Agaricochirus alexandri* (A. Milne-Edwards & Bouvier, 1893) [*Pylopagurus*]
- Agaricochirus boletifer* (A. Milne-Edwards & Bouvier, 1893) [*Pylopagurus*]
- Agaricochirus cavimanus* (Chace, 1939) [*Pylopagurus*]
- Agaricochirus echinatus* McLaughlin, 1982

- Agaricochirus erosus* (A. Milne-Edwards, 1880)
 [Eupagurus]
Agaricochirus gibbosimanus (A. Milne-Edwards, 1880)
 [Eupagurus]
Agaricochirus hispidus (Benedict, 1892) [Eupagurus]
Alainopaguroides McLaughlin, 1997
 = *Alainopaguroides* McLaughlin, 1997 (type species)
Alainopaguroides lemairei McLaughlin, 1997, by original designation; gender masculine)
Alainopaguroides andamanensis McLaughlin, 2002
Alainopaguroides lemairei McLaughlin, 1997
Alainopaguroides megalophthalmus McLaughlin, 2006
Alainopagurus Lemaitre & McLaughlin, 1995
 = *Alainopagurus* Lemaitre & McLaughlin, 1995 (type species *Alainopagurus crosnieri* Lemaitre & McLaughlin, 1995 by original designation; gender masculine)
Alainopagurus crosnieri Lemaitre & McLaughlin, 1995
Alloeopagurodes Komai, 1998
 = *Alloeopagurodes* Komai, 1998 (type species *Alloeopagurodes spiniacicula* Komai, 1998, by original designation; gender masculine)
Alloeopagurodes spiniacicula Komai, 1998
Anapagrides de Saint Laurent-Dechancé, 1966
 = *Anapagrides* de Saint Laurent-Dechancé, 1966 [type species *Eupagurus (Spiropagurus) facetus* Melin, 1939, by original designation; gender masculine]
 = *Nanopagurus* McLaughlin, 1986 (type species *Nanopagurus reesei* McLaughlin, 1986, by original designation; gender masculine)
Anapagrides aequalis Komai, 1999
Anapagrides facetus (Melin, 1939) [Eupagurus (Spiropagurus)]
Anapagrides reesei (McLaughlin, 1986) [*Nanopagurus*]
Anapagurus Henderson, 1886
 = *Anapagurus* Henderson, 1886 [type species *Pagurus laevis* Bell, 1846, by subsequent designation by Holthuis (1962); gender masculine]
Anapagurus adriaticus García-Gómez, 1994
Anapagurus alboranensis García-Gómez, 1994
Anapagurus atlantidii García-Gómez, 1994
Anapagurus bicorniger A. Milne-Edwards & Bouvier, 1892
Anapagurus bonnieri Nobili, 1905
Anapagurus breviaculeatus Fenizia, 1937
Anapagurus chiroacanthus (Lilljeborg, 1856) [*Pagurus*]
 = *Anapagurus brevicarpus* A. Milne-Edwards & Bouvier, 1892
 = *Pagurus ferrugineus* Norman, 1861
 = *Anapagurus chiroacanthus* var. *cristatus* Fenizia, 1937
 = *Anapagurus chiroacanthus* var. *gracilis* Fenizia, 1937
Anapagurus congolensis García-Gómez, 1994
Anapagurus curvidactylus Chevreux & Bouvier, 1892
Anapagurus hendersoni Barnard, 1947
Anapagurus hyndmanni (Bell, 1846) [Pagurus] {2}
 = *Pagurus Hyndmanni* Thompson, 1844 (nomen nudum)
Anapagurus japonicus Ortmann, 1892
 = *Anapagurus pusillus* var. *japonicus* Ortmann, 1892
Anapagurus laevis (Bell, 1846) [Pagurus] {2}
 = *Pagurus laevis* Thompson, 1844 (nomen nudum)
Anapagurus longispina A. Milne-Edwards & Bouvier, 1900
 = *Anapagurus laevis* var. *longispina* A. Milne-Edwards & Bouvier, 1900
Anapagurus petiti Dechancé & Forest, 1962
Anapagurus smythi Ingle, 1993
Anapagurus vossi García-Gómez, 1994
Anapagurus wolffi Forest, 1961
Anisopagurus McLaughlin, 1981
 = *Anisopagurus* McLaughlin, 1981 (type species *Eupagurus bartletti* A. Milne-Edwards, 1880, by original designation; gender masculine)
Anisopagurus actinophorus Lemaitre & McLaughlin, 1996
Anisopagurus bartletti (A. Milne-Edwards, 1880) [Eupagurus]
Anisopagurus hopkinsi Lemaitre & McLaughlin, 1996
Anisopagurus pygmaeus (Bouvier, 1918) [Eupagurus]
Anisopagurus vossi Lemaitre & McLaughlin, 1996
Bathypaguropsis McLaughlin, 1994
 = *Bathypaguropsis* McLaughlin, 1994 (type species *Bathypaguropsis yaldwyni* McLaughlin, 1994, by original designation; gender feminine)
Bathypaguropsis carinatus Komai & Takeda, 2004
Bathypaguropsis cruentus de Saint Laurent & McLaughlin, 2000
Bathypaguropsis foresti Komai & Lemaitre, 2002
Bathypaguropsis kuroshioensis (Miyake, 1978) [*Pagurus*]
 = *Bathypaguropsis rahayuae* McLaughlin, 1997
Bathypaguropsis marionensis McLaughlin, 1994
Bathypaguropsis microps (Balss, 1911) [Eupagurus]
Bathypaguropsis yaldwyni McLaughlin, 1994
Boninpagurus Asakura & Tachikawa, 2004
 = *Boninpagurus* Asakura & Tachikawa, 2004 (type species *Boninpagurus acanthocheles* Asakura & Tachikawa, 2004, by original designation; gender masculine)
Boninpagurus acanthocheles Asakura & Tachikawa, 2004 {3}
Bythiopagurus McLaughlin, 2003
 = *Bythiopagurus* McLaughlin, 2003 (type species *Bythiopagurus macrocolus* McLaughlin, 2003 by original designation; gender masculine)
Bythiopagurus macrocolus McLaughlin, 2003
Catapaguroides A. Milne-Edwards & Bouvier, 1892
 = *Catapaguroides* A. Milne-Edwards & Bouvier, 1892 [type species *Catapaguroides microps* A. Milne-Edwards & Bouvier, 1892, by subsequent selection by Holthuis (1962); gender masculine]

- Catapaguroides cristimanus* de Saint Laurent, 1968
Catapaguroides declivis McLaughlin, 1997
Catapaguroides foresti McLaughlin, 2002
Catapaguroides fragilis (Melin, 1939) [*Eupagurus* (*Catapagurus*)]
Catapaguroides hooveri McLaughlin & Pittman, 2002
Catapaguroides iejimensis Osawa & Takeda, 2004
Catapaguroides inermis de Saint Laurent, 1968
Catapaguroides iris Bouvier, 1922
Catapaguroides japonicus de Saint Laurent, 1968
Catapaguroides karubar McLaughlin, 1997
Catapaguroides kasei Osawa & Takeda, 2004 {4}
Catapaguroides megalops A. Milne-Edwards & Bouvier, 1892
Catapaguroides melini de Saint Laurent, 1968
Catapaguroides microps A. Milne-Edwards & Bouvier, 1892 {5}
Catapaguroides mortensenii de Saint Laurent, 1968
Catapaguroides olfaciens (Alcock, 1905) [*Cestopagurus*]
Catapaguroides pectinipes (Lewinsohn, 1969) [*Cestopagurus*]
Catapaguroides setosus Edmondson, 1951 {6}
Catapaguroides spinulimanus de Saint Laurent, 1968
Catapaguroides umbra Komai, 2009
Catapaguropsis Lemaitre & McLaughlin, 2006
= *Catapaguropsis* Lemaitre & McLaughlin, 2006
(type species *Catapaguropsis queenslandica* Lemaitre & McLaughlin, 2006, by original designation; gender feminine)
Catapaguropsis queenslandica Lemaitre & McLaughlin, 2006
Catapaguropsis brucei McLaughlin & Lemaitre, 2007
Catapagurus A. Milne-Edwards, 1880 {7}
= *Catapagurus* A. Milne-Edwards, 1880 (type species *Catapagurus sharreri* A. Milne-Edwards, 1880, by monotypy; gender masculine)
= *Hemipagurus* Smith 1881 [type species *Hemipagurus gracilis* Smith, 1881, by subsequent designation by Asakura (2001); gender masculine] {8}
Catapagurus albatrossae (Asakura, 2001) [*Hemipagurus*]
Catapagurus alcocki McLaughlin, in Hogarth et al., 1998 {9}
Catapagurus danida McLaughlin, 2002
Catapagurus ensifer Henderson, 1893
Catapagurus franklinae McLaughlin, 2004
Catapagurus gracilis (Smith, 1881) [*Hemipagurus*]
Catapagurus gracilis var. *intermedius* A. Milne-Edwards & Bouvier, 1893 {10}
Catapagurus granulatus Edmondson, 1951
Catapagurus haigae (Asakura, 2001) [*Hemipagurus*]
Catapagurus hirayamai (Asakura, 2001) [*Hemipagurus*]
Catapagurus holthuisi McLaughlin, 1997
Catapagurus imperialis (Asakura, 2001) [*Hemipagurus*] {11}
Catapagurus insolitus Komai & Osawa, 2009
Catapagurus kosugei (Asakura, 2001) [*Hemipagurus*]
Catapagurus lewinsohni (Asakura, 2001)
[*Hemipagurus*]
Catapagurus maclaughlinae (Asakura, 2001)
[*Hemipagurus*] {9}
Catapagurus misakiensis Terao, 1914
= *Catapagurus japonicus* Yokoya, 1933
Catapagurus oculocrassus McLaughlin, 1997 {11}
Catapagurus sharreri A. Milne-Edwards, 1880 {12}
= *Hemipagurus socialis* Smith, 1881
= *Catapagurus socialis* (Smith, 1882)
= *Catapagurus Sparreri* Verrill, 1883 (misspelling of *sharreri*)
= *Catapagurus sharrei* Abele & Kim, 1986 (misspelling of *sharreri*)
Catapagurus spinicarpus de Saint Laurent & McLaughlin, 2000
Catapagurus tanimbarensis McLaughlin, 1997
Catapagurus toyoshioae (Asakura, 2001)
[*Hemipagurus*]
Catapagurus tuberculosus (Asakura, 1999)
[*Icelopagurus*]
Catapagurus sp. 1 {7}
Catapagurus sp. 2 {7}
Catapagurus sp. 3 {7}
Catapagurus sp. 4 {7}
Catapagurus sp. 5 {7}
Ceratopagurus Yokoya, 1933 {13}
= *Ceratopagurus* Yokoya, 1933 (type species *Ceratopagurus pilosimanus* Yokoya, 1933, by monotypy; gender masculine)
Ceratopagurus pilosimanus Yokoya, 1933
Cestopagurus Bouvier, 1897
= *Cestopagurus* Bouvier, 1897 (type species *Cestopagurus coutieri* Bouvier, 1897, by monotypy; gender masculine)
Cestopagurus coutieri Bouvier, 1897
Cestopagurus puniceus Komai & Takeda, 2005
Cestopagurus timidus (Roux, 1830) [*Pagurus*]
= *Catapaguroides acanthodes* Fenizia, 1935
= *Catapaguroides acutifrons* A. Milne-Edwards & Bouvier, 1892
= *Catapaguroides crassipes* Fenizia, 1935
= *Catapaguroides crassipes* var. *tuberculatus* Fenizia, 1937
= *Catapaguroides macrochirus* Fenizia, 1937
= *Catapaguroides macrochirus* var. *platichelus* Fenizia, 1937
= *Catapaguroides timidus* var. *neapolitanus* Fenizia, 1937
Chanopagurus Lemaitre, 2003
= *Chanopagurus* Lemaitre, 2003 (type species *Chanopagurus atopos* Lemaitre, 2003, by original designation; gender masculine)
Chanopagurus atopos Lemaitre, 2003
Cycetopagurus McLaughlin, 2004
= *Cycetopagurus* McLaughlin, 2004 (type species *Cycetopagurus morgani* McLaughlin, 2004, by original designation; gender masculine)
Cycetopagurus morgani McLaughlin, 2004

- Decaphyllus* de Saint Laurent, 1968
 = *Decaphyllus* de Saint Laurent, 1968 (type species)
 Decaphyllus spinicornis de Saint Laurent, 1968,
 by original designation; gender feminine)
- Decaphyllus barunajaya* McLaughlin, 1997
- Decaphyllus junquai* de Saint Laurent, 1968
- Decaphyllus maci* McLaughlin, 1997
- Decaphyllus similis* de Saint Laurent, 1968
- Decaphyllus spinicornis* de Saint Laurent, 1968
- Dentalopagurus* McLaughlin, 2007
 = *Dentalopagurus* McLaughlin, 2007 (type species)
 Dentalopagurus levii McLaughlin, 2007, by
 original designation; gender masculine)
- Dentalopagurus levii* McLaughlin, 2007
- Dentalopagurus rutilocinctus* Osawa & Chan, 2008
- Diacanthurus* McLaughlin & Forest, 1997
 = *Diacanthurus* McLaughlin & Forest, 1997 (type species)
 Eupagurus spinulimanus Miers, 1876, by
 original designation; gender masculine)
- Diacanthurus ephyma* McLaughlin & Forest, 1997
- Diacanthurus ophthalmicus* (Ortmann, 1892)
 [Eupagurus]
- Diacanthurus richeri* McLaughlin & Forest, 1997
- Diacanthurus rubricatus* (Henderson, 1888)
 [Eupagurus]
- Diacanthurus spinulimanus* (Miers, 1876) [Eupagurus]
 = *Eupagurus edwardsii* Filhol, 1883
 = *Eupagurus intermedius* Lenz, 1901
 = *Eupagurus norae* Chilton, 1911
 = *Eupagurus chiltoni* E. F. Thompson, 1930
- Discorsopagurus* McLaughlin, 1974
 = *Discorsopagurus* McLaughlin, 1974 (type species)
 Pylopagurus schmitti Stevens, 1925, by original
 designation; gender masculine)
- Discorsopagurus cavicola* Komai & Takeda, 1996
- Discorsopagurus maclaughlinae* Komai, 1995
- Discorsopagurus schmitti* (Stevens, 1925)
 [*Pylopagurus*]
 = *Phylopagurus schmitti* Hart 1930 (misspelling of
 Pylopagurus)
- Discorsopagurus tubicola* Komai, 2003
- Elassochirus* Benedict, 1892
 = *Eupagurus* (*Elassochirus*) Benedict, 1892 (type
 species) *Bernhardus tenuimanus* Dana, 1851, by
 original designation; gender masculine)
- Elassochirus cavimanus* (Miers, 1879) [Eupagurus]
 = *Eupagurus gotoi* Terao, 1913
 = *Eupagurus* (*Elassochirus*) *munitus* Benedict,
 1892
- Elassochirus gilli* (Benedict, 1892) [Eupagurus]
 = *Eupagurus porcellanus* Molander, 1914
- Elassochirus tenuimanus* (Dana, 1851) [*Bernhardus*]
- Enallopaguropsis* McLaughlin, 1981
 = *Enallopaguropsis* McLaughlin, 1981 (type species)
 Pylopagurus guatemoci Glassell, 1937, by original
 designation; gender feminine)
- Enallopaguropsis guatemoci* (Glassell, 1937)
 [*Pylopagurus*]
 = *Pylopagurus hancocki* Walton, 1954
- Enallopaguropsis janetae* McLaughlin, 1982
- Enallopaguropsis williamsi* Lemaitre & McLaughlin,
 2003
- Enallopagurus* McLaughlin, 1981
 = *Enallopagurus* McLaughlin, 1981 (type species)
 Pylopagurus spinicarpus Glassell, 1938, by
 original designation; gender masculine)
- Enallopagurus affinis* (Faxon, 1893) [*Pylopagurus*]
- Enallopagurus coronatus* (Benedict, 1892)
 [Eupagurus]
- Enallopagurus provenzanoi* Lemaitre & McLaughlin,
 2003
- Enallopagurus spinicarpus* (Glassell, 1938)
 [*Pylopagurus*]
- Enneobranchus* García-Gómez, 1988
 = *Enneobranchus* García-Gómez, 1988 (type species)
 Enneobranchus flavioculatus García-Gómez, 1988,
 by original designation; gender masculine)
- Enneobranchus bermudensis* García-Gómez, 1988
- Enneobranchus flavioculatus* García-Gómez, 1988
- Enneobranchus markhami* García-Gómez, 1988
- Enneopagurus* McLaughlin, 1997
 = *Enneopagurus* McLaughlin, 1997 (type species)
 Enneopagurus garciagomezi McLaughlin, 1997,
 by original designation; gender masculine)
- Enneopagurus garciagomezi* McLaughlin, 1997
- Enneophyllus* McLaughlin, 1997
 = *Enneophyllus* McLaughlin, 1997 (type species)
 Enneophyllus spinirostris McLaughlin, 1997 by
 original designation; gender masculine)
- Enneophyllus spinirostris* McLaughlin, 1997
- Forestopagurus* García-Gómez, 1995
 = *Forestopagurus* García-Gómez, 1995 (type species)
 Anapagurus drachi Forest, 1966, by original
 designation; gender masculine)
- Forestopagurus drachi* (Forest, 1966) [*Anapagurus*]
- Goreopagurus* McLaughlin, 1988
 = *Goreopagurus* McLaughlin, 1988 (type species)
 Pagurus piercei Wass, 1963 by original designation;
 gender masculine)
- Goreopagurus garthi* McLaughlin & Haig, 1995
- Goreopagurus piercei* (Wass, 1963) [*Pagurus*]
- Goreopagurus poorei* Lemaitre & McLaughlin, 2003
- Goreopagurus lemairei* Nucci & de Melo, 2007
- Hachijopagurus* Osawa & Okuno, 2003
 = *Hachijopagurus* Osawa & Okuno, 2003 (type
 species) *Hachijopagurus rubrimaculatus* Osawa
 & Okuno, 2003, by original designation; gender
 masculine)
- Hachijopagurus rubrimaculatus* Osawa & Okuno,
 2003
- Haigiopagurus* McLaughlin, 2005
 = *Haigia* McLaughlin, 1981 (type species) *Pylopagurus*
 diegensis Scanland & Hopkins, 1969 by original
 designation; gender masculine) (name preoccupied
 by *Haigia* Steyskal, 1961, Insecta)
- = *Haigiopagurus* McLaughlin, 2005 (replacement
 name)
- Haigiopagurus diegensis* (Scanland & Hopkins, 1969)
 [*Pylopagurus*]

- Icelopagurus* McLaughlin, 1997
 = *Icelopagurus* McLaughlin, 1997 (type species)
 Icelopagurus crosnieri McLaughlin, 1997, by original designation; gender masculine)
- Icelopagurus crosnieri* McLaughlin, 1997
- Icelopagurus undulatus* McLaughlin, 2006
- Iridopagurus* de Saint Laurent-Dechancé, 1966
 = *Iridopagurus* de Saint Laurent-Dechancé, 1966 (type species *Spiropagurus iris* A. Milne-Edwards, 1880, by original designation; gender masculine)
- Iridopagurus caribbensis* (A. Milne-Edwards & Bouvier, 1893) [*Spiropagurus*]
- Iridopagurus dispar* (Stimpson, 1859) [*Spiropagurus*]
 = *Spiropagurus dispar* Stimpson, 1858 (nomen nudum)
- Iridopagurus globulus* de Saint Laurent-Dechancé, 1966
- Iridopagurus haigae* García-Gómez, 1983
- Iridopagurus iris* (A. Milne-Edwards, 1880) [*Spiropagurus*]
- Iridopagurus margaritensis* García-Gómez, 1983
- Iridopagurus occidentalis* (Faxon, 1893) [*Spiropagurus*]
- Iridopagurus reticulatus* García-Gómez, 1983
- Iridopagurus violaceus* de Saint Laurent-Dechancé, 1966
- Labidochirus* Benedict, 1892
 = *Eupagurus Labidochirus* Benedict, 1892 (type species *Pagurus splendescens* Owen, 1839, by original designation; gender masculine)
 = *Libidochirus* Benedict, 1892 (misspelling of *Labidochirus*)
- Labidochirus anomalus* (Balss, 1913) [*Eupagurus*]
- Labidochirus splendescens* (Owen, 1839) [*Pagurus*]
- Lithopagurus* Provenzano, 1968
 = *Lithopagurus* Provenzano, 1968 (type species *Lithopagurus yucatanicus* Provenzano, 1968, by original designation; gender masculine)
- Lithopagurus boucheti* McLaughlin & Lemaitre, 2004
- Lithopagurus tribulomanus* McLaughlin & Lemaitre, 2004
- Lithopagurus yucatanicus* Provenzano, 1968
- Lophopagurus (Australeremus)* McLaughlin, 1981
 = *Australeremus* McLaughlin, 1981 (type species *Eupagurus cookii* Filhol, 1883, by original designation; gender masculine)
- Lophopagurus (Australeremus) cookii* (Filhol, 1883) [*Eupagurus*]
- Lophopagurus (Australeremus) cristatus* (H. Milne Edwards, 1836) [*Pagurus*]
- Lophopagurus (Australeremus) eltaninae* (McLaughlin & Gunn, 1992) [*Australeremus*]
- Lophopagurus (Australeremus) indonesiensis* (McLaughlin, 1997) [*Australeremus*] {14}
- Lophopagurus (Australeremus) kirkii* (Filhol, 1883) [*Eupagurus*]
- Lophopagurus (Australeremus) laurentae* (McLaughlin & Gunn, 1992) [*Australeremus*]
- Lophopagurus (Australeremus) stewarti* (Filhol, 1883) [*Eupagurus*]
- Lophopagurus (Australeremus) triserratus* (Ortmann, 1892) [*Eupagurus*]
 = *Pylopagurus serpulophilus* Miyake, 1978
- Lophopagurus (Lophopagurus)* McLaughlin, 1981
 = *Lophopagurus* McLaughlin, 1981 (type species *Eupagurus thompsoni* Filhol, 1885, by original designation; gender masculine)
- Lophopagurus (Lophopagurus) foresti* McLaughlin & Gunn, 1992
- Lophopagurus (Lophopagurus) lacertosus* (Henderson, 1888) [*Eupagurus*] {15}
 = *Eupagurus crenatus* Borradaile, 1916
- Lophopagurus (Lophopagurus) nanus* (Henderson, 1888) [*Eupagurus*]
- Lophopagurus (Lophopagurus) nodulosus* McLaughlin & Gunn, 1992
- Lophopagurus (Lophopagurus) pumilus* de Saint Laurent & McLaughlin, 2000
- Lophopagurus (Lophopagurus) thompsoni* (Filhol, 1885) [*Eupagurus*]
 = *Eupagurus thomsoni* Thomson, 1898 (misspelling of *thompsoni*)
- Manucomplanus* McLaughlin, 1981
 = *Manucomplanus* McLaughlin, 1981 (type species *Eupagurus unguilatus* Studer, 1883, by original designation; gender masculine)
- Manucomplanus cervicornis* (Benedict, 1892) [*Eupagurus*]
- Manucomplanus longimanus* (Faxon, 1893) [*Pylopagurus*]
- Manucomplanus spinulosus* (Holthuis, 1959) [*Pylopagurus*]
 = *Pagurus impressus zilchi* Türkay, 1968
- Manucomplanus unguilatus* (Studer, 1883) [*Eupagurus*]
 = *Eupagurus corallinus* Benedict, 1892
- Manucomplanus varians* (Benedict, 1892) [*Eupagurus*]
- Michelopagurus* McLaughlin, 1997
 = *Michelopagurus* McLaughlin, 1997 (type species *Pagurodes limatulus* Henderson, 1888, by original designation; gender masculine)
- Michelopagurus atlanticus* (Bouvier, 1922) [*Pagurodes*]
- Michelopagurus chacei* McLaughlin, 1997
- Michelopagurus limatulus* (Henderson, 1888) [*Pagurodes*]
- Michelopagurus richardi* (Bouvier, 1922) [*Pagurodes*]
- Micropagurus* McLaughlin, 1986
 = *Micropagurus* McLaughlin, 1986 (type species *Micropagurus devaneyi* McLaughlin, 1986, by original designation; gender masculine)
- Micropagurus* n. sp. Lemaitre, 2010 (in press)
- Micropagurus acantholepis* (Stimpson, 1858) [*Eupagurus*]
 = *Anapagurus australiensis* Henderson, 1888
- Micropagurus devaneyi* McLaughlin, 1986
- Micropagurus polynesiensis* (Nobili, 1906) [*Anapagurus*]
 = *Micropagurus vexatus* Haig & Ball, 1988

- Micropagurus propinquus* Asakura, 2005
Micropagurus spinimanus Asakura, 2005
Munidopagurus A. Milne-Edwards & Bouvier, 1893
= *Munidopagurus* A. Milne Edwards & Bouvier, 1893 (type species *Eupagurus macrocheles* A. Milne-Edwards, 1880, by monotypy; genus masculine)
Munidopagurus macrocheles (A. Milne-Edwards, 1880) [*Eupagurus*]
Nematopaguroides Forest & de Saint Laurent, 1968
= *Nematopaguroides* Forest & de Saint Laurent, 1968 (type species *Nematopaguroides fagei* Forest & de Saint Laurent, 1968, by original designation; gender masculine)
Nematopaguroides fagei Forest & de Saint Laurent, 1968
Nematopaguroides pusillus Forest & de Saint Laurent, 1968
Nematopagurus A. Milne-Edwards & Bouvier, 1892
= *Nematopagurus* A. Milne-Edwards & Bouvier, 1892 (type species *Nematopagurus longicornis* A. Milne-Edwards & Bouvier, 1892, by monotypy; gender masculine)
Nematopagurus alcocki McLaughlin, 1997
Nematopagurus australis (Henderson, 1888) [*Catapagurus*]
Nematopagurus chanani McLaughlin, 2004
Nematopagurus chauseyensis McLaughlin, 1998
Nematopagurus crosnieri McLaughlin, 1998
Nematopagurus diadema Lewinsohn, 1969
Nematopagurus gardineri Alcock, 1905
= *Nematopagurus holthuisi* McLaughlin & Hogarth, 1998
= *Nematopagurus pilosus* Komai, 1999
Nematopagurus helleri (Balss, 1916) [*Cestopagurus*]
Nematopagurus indicus Alcock, 1905
Nematopagurus jacquesi McLaughlin, 2004
Nematopagurus kosiensis McLaughlin, 1998
= *Nematopagurus shinnyoae* Komai, 1999
Nematopagurus lepidochirus (Doflein, 1902) [*Eupagurus*]
Nematopagurus lewinsohni Türkay, 1986
Nematopagurus sp. McLaughlin & Okuno, 2010 (in press)
Nematopagurus longicornis A. Milne-Edwards & Bouvier, 1892
Nematopagurus meiringae McLaughlin, 1998
Nematopagurus muricatus (Henderson, 1896) [*Catapagurus*]
Nematopagurus ostlingochirus McLaughlin, 1997
Nematopagurus ricei McLaughlin, 2004
Nematopagurus richeri McLaughlin, 2004
Nematopagurus scutellichelis Alcock, 1905
Nematopagurus scutelliformis McLaughlin, 1997
Nematopagurus spinulosensoris McLaughlin & Brock, 1974
Nematopagurus spongioparticeps McLaughlin, 2004
Nematopagurus squamichelis Alcock, 1905
Nematopagurus tricarinatus (Stimpson, 1858) [*Eupagurus*]
Nematopagurus vallatus (Melin, 1939) [*Eupagurus* (*Catapagurus*)]
Orthopagurus Stevens, 1927
= *Orthopagurus* Stevens, 1927 [type species *Pagurus minimus* Holmes, 1900; by subsequent designation by Makarov (1938); gender masculine]
= *Orthopaguropsis* Serène, 1957 (type species *Orthopagurus harmsi* Gordon 1935, by original designation; gender feminine)
Orthopagurus minimus (Holmes, 1900) [*Pagurus*]
Ostraconotus A. Milne-Edwards, 1880
= *Ostraconotus* A. Milne-Edwards, 1880 (type species *Ostraconotus spatulipes* A. Milne-Edwards, 1880 by monotypy; gender masculine)
Ostraconotus spatulipes A. Milne-Edwards, 1880
Paguridium Forest, 1961
= *Paguridium* Forest, 1961 (type species *Eupagurus minimum* Chevreux & Bouvier, 1892, by original designation; gender neuter) {16}
Paguridium minimum (Chevreux & Bouvier, 1892) [*Eupagurus*]
Paguritta Melin, 1939
= *Paguritta* Melin, 1939 (type species *Eupagurus (Paguritta) gracilipes* Melin, 1939, by monotypy; gender feminine)
Paguritta corallicola Lewinsohn, 1978
Paguritta gracilipes (Melin, 1939) [*Eupagurus (Paguritta)*]
Paguritta harmsi (Gordon, 1935) [*Orthopagurus*]
Paguritta kroppi McLaughlin & Lemaitre, 1993
Paguritta morgani McLaughlin & Lemaitre, 1993
Paguritta scottae McLaughlin & Lemaitre, 1993
Paguritta vittata Komai & Nishi, 1996
Pagurixus Melin, 1939
= *Pagurixus* Melin, 1939 (type species *Eupagurus (Pagurixus) boninensis* Melin, 1939, by monotypy; gender masculine)
Pagurixus acanthocarpus Komai & Okuno, 2009
Pagurixus amsa Morgan, 1993
Pagurixus anceps (Forest, 1957) [*Eupagurus*]
Pagurixus aurantiaca Komai, 2010
Pagurixus boninensis (Melin, 1939) [*Eupagurus (Pagurixus)*]
Pagurixus brachydactylus Komai & Osawa, 2006
Pagurixus carinimanus Komai & Osawa, 2006
Pagurixus cavicularis Komai, 2010
Pagurixus concolor Komai & Osawa, 2006
Pagurixus crozieri Komai, 2010
Pagurixus dissimilis Osawa & Komai, 2007
Pagurixus fasciatus Komai & Myorin, 2005
Pagurixus festinus McLaughlin & Haig, 1984
Pagurixus formosus Komai, 2010
Pagurixus granulimanus Morgan, 1993
Pagurixus haigae Komai & Osawa, 2007
Pagurixus handrecki Gunn & Morgan, 1992
Pagurixus hectori (Filhol, 1883) [*Eupagurus*]
= *Eupagurus campbelli* Filhol, 1885
Pagurixus icelus Komai, 2010
Pagurixus jerviensis McLaughlin & Haig, 1984

- Pagurixus kermadecensis* de Saint Laurent & McLaughlin, 2000
- Pagurixus laevimanus* (Ortmann, 1892) [*Eupagurus*]
- Pagurixus longipes* Osawa, Fujita & Okuno, 2006
- Pagurixus maorus* (Nobili, 1906) [*Eupagurus*]
- Pagurixus nomurai* Komai & Asakura, 1995
- Pagurixus patiae* Komai, 2006
- Pagurixus paulayi* Komai & Osawa, 2006
- Pagurixus pilosus* Komai, 2010
- Pagurixus pseliophorus* Komai & Osawa, 2006
- Pagurixus pulcher* Osawa, Fujita & Okuno, 2006
- Pagurixus purpureus* Komai & Okuno, 2009
- Pagurixus ruber* Komai & Osawa, 2006
- Pagurixus rubrovittatus* Komai, 2010
- Pagurixus sculptus* Komai, 2010
- Pagurixus stenops* Morgan, 1993
- Pagurixus tweediei* (Forest, 1956) [*Eupagurus*]
- Pagurodes* Henderson, 1888
- = *Pagurodes* Henderson, 1888 [type species]
 - = *Pagurodes inarmatus* Henderson, 1888, by subsequent designation by de Saint Laurent (1969); gender masculine]
- Pagurodes inarmatus* Henderson, 1888
- Pagurodofleinia* Asakura 2005
- = *Dofleinia* McLaughlin & Asakura, 2004 (type species *Catapagurus doederleini* Doflein 1902, by original designation; gender feminine) (name preoccupied by *Dofleinia* Wassifieff, 1908, Cnidaria)
 - = *Pagurodofleinia* Asakura, 2005 (replacement name)
- Pagurodofleinia doederleini* (Doflein, 1902) [*Catapagurus*]
- Pagurojacquesia* de Saint Laurent & McLaughlin, 2000
- = *Jaquesia* de Saint Laurent & McLaughlin, 1999 (type species *Jacquesia polymorpha* de Saint Laurent & McLaughlin, 1999, by original designation; gender feminine) (name preoccupied by *Jacquesia* Mendes, 1944, Mollusca)
 - = *Pagurojacquesia* de Saint Laurent & McLaughlin, 2000 (replacement name)
- Pagurojacquesia polymorpha* (de Saint Laurent & McLaughlin, 1999) [*Jacquesia*]
- Pagurus* Fabricius, 1775 {17}
- = *Pagurus* Fabricius, 1775 [type species by subsequent selection by Latreille (1810) *Cancer bernhardus* Linnaeus, 1758 as defined by lectotype selection by Forest & Holthuis (1955): specimen figured by Swammerdam, 1737, ICZN Opinion 472]
 - = *Pagures* Ordinaires H. Milne Edwards, 1836 (not in Latin, invalid name)
 - = *Pagures* Ordinaires, Dextres H. Milne Edwards, 1848 (not in Latin, invalid name)
 - = *Eupagurus* Brandt, 1851 [type species by subsequent selection by Stimpson (1858) *Cancer bernhardus* Linnaeus, 1758]
 - = *Bernhardus* Dana, 1851 (type species *Bernhardus typicus* Dana, 1851 by original designation)
- Pagurus acadianus* Benedict, 1901
- Pagurus alaini* Komai, 1998
- Pagurus alatus* Fabricius, 1775 {18}
- = *Pagurus tricarinatus* Norman, 1869
 - = *Eupagurus variabilis* A. Milne-Edwards & Bouvier, 1892
- Pagurus albidianthus* de Saint Laurent & McLaughlin, 2000
- Pagurus albus* (Benedict, 1892) [*Eupagurus*]
- = *Pagurus fuscomaculatus* Bouvier, 1895
- Pagurus alcocki* (Balss, 1911) [*Eupagurus*]
- Pagurus aleuticus* (Benedict, 1892) [*Eupagurus*]
- Pagurus anachoretoides* Forest, 1966
- Pagurus anachoretus* Risso, 1827
- = *Pagurus pictus* H. Milne Edwards, 1836
 - = *Clibanarius mediterraneus* Kossmann, 1878
- Pagurus angustus* (Stimpson, 1858) [*Eupagurus*]
- Pagurus annexus* McLaughlin & Haig, 1993
- Pagurus annulipes* (Stimpson, 1860) [*Eupagurus*]
- Pagurus arcuatus* Squires, 1964
- = *Pagurus bankensis* Nesis, 1964
- Pagurus arenisaxatilis* Harvey & McLaughlin, 1991
- Pagurus armatus* (Dana, 1851) [*Bernhardus*]
- Pagurus benedicti* (Bouvier, 1898) [*Eupagurus*]
- = *Eupagurus minutus* Benedict, 1892 (preoccupied name)
 - = *Nympagurus galapagensis* Boone, 1932
- Pagurus beringanus* (Benedict, 1892) [*Eupagurus*]
- = *Eupagurus newcombei* Benedict, 1892
- Pagurus bernhardus* (Linnaeus, 1758) [*Cancer*]
- = *Bernhardus typicus* Dana, 1851
 - = *Pagurus ulidiae* Thompson, 1844 (nomen nudum)
 - = *Pagurus ulidanus* Bell, 1846 {19}
 - = *Pagurus eblaniensis* Kinahan, 1860
- Pagurus boriaustraliensis* Morgan, 1990
- Pagurus bouvieri* (Faxon, 1895) [*Eupagurus*]
- = *Eupagurus smithi* A. Milne-Edwards & Bouvier, 1893 (preoccupied name)
- Pagurus brachiomastus* (Thallwitz, 1892) [*Eupagurus*]
- Pagurus brandti* (Benedict, 1892) [*Eupagurus*]
- Pagurus brevidactylus* (Stimpson, 1859) [*Eupagurus*]
- = *Pagurus miamensis* Provenzano, 1959
 - = *Pagurus miamensis uncifer* Forest & de Saint Laurent, 1968
- Pagurus bullisi* Wass, 1963
- Pagurus capillatus* (Benedict, 1892) [*Eupagurus*]
- Pagurus capsularis* McLaughlin, 1997
- Pagurus carneus* (Pocock, 1889) [*Eupagurus*]
- Pagurus carolinensis* McLaughlin, 1975
- Pagurus carpoforaminatus* (Alcock, 1905) [*Eupagurus*]
- Pagurus caurinus* Hart, 1971
- Pagurus cavicularis* (Paul'son, 1875) [*Eupagurus*]
- = *Eupagurus carpoforaminatus* var. *nephromma* Alcock, 1905
- Pagurus chevreuxi* (Bouvier, 1896) [*Eupagurus*]
- Pagurus chinensis* White, 1847 (nomen nudum) {20}
- Pagurus compressipes* (Miers, 1884) [*Eupagurus*]
- Pagurus comptus* White, 1847 {21}
- = *Pagurus gayi* Nicolet, 1849

- Pagurus conformis* De Haan, 1849
 = *Eupagurus megalops* Stimpson, 1858
- Pagurus confragosus* (Benedict, 1892) [*Eupagurus*]
- Pagurus confusus* Komai & Yu, 1999
- Pagurus constans* (Stimpson, 1858) [*Eupagurus*]
 = *Pagurus sagamiensis* Miyake, 1978
- Pagurus cornutus* (Benedict, 1892) [*Eupagurus*]
- Pagurus criniticornis* (Dana, 1852) [*Bernhardus*]
- Pagurus cuanensis* Bell, 1846 {19}
 = *Pagurus Cuanensis* Thompson, 1844 (nomen nudum)
 = *Pagurus spinimanus* Lucas, 1846
 = *Pagurus lucasi* Heller, 1863
 = *Eupagurus chiereghini* Nardo, 1868
 = *Eupagurus placens* Stebbing, 1924
- Pagurus curacaoensis* (Benedict, 1892) [*Eupagurus*]
- Pagurus dalli* (Benedict, 1892) [*Eupagurus*]
- Pagurus dartevellei* (Forest, 1958) [*Pylopagurus*]
- Pagurus decimbranchiae* Komai & Osawa, 2001
- Pagurus defensus* (Benedict, 1892) [*Eupagurus*]
- Pagurus delsolari* Haig, 1974
- Pagurus dissimilis* (A. Milne-Edwards & Bouvier, 1893) [*Eupagurus*]
- Pagurus edwardsii* (Dana, 1852) [*Bernhardus*]
- Pagurus emmersoni* McLaughlin & Forest, 1999
- Pagurus erythrogrammus* Komai, 2003
- Pagurus excavatus* (Herbst, 1791) [*Cancer*] {18}
 = *Pagurus angulatus* Risso, 1816
 = *Eupagurus meticulosus* Roux, 1830
- Pagurus exiguis* (Melin, 1939) [*Eupagurus*]
(Pagurillus)
- Pagurus exilis* (Benedict, 1892) [*Eupagurus*]
- Pagurus filholi* (De Man, 1887) [*Eupagurus*]
 = *Pagurus geminus* McLaughlin, 1976
- Pagurus fimbriatus* Forest, 1966
- Pagurus forbesii* Bell, 1846 {19}
- Pagurus forceps* H. Milne Edwards, 1836 {21}
 = *Eupagurus comptus* var. *jugosa* Henderson, 1888
 = *Eupagurus comptus* var. *latimanus* Miers, 1875
- Pagurus fungiformis* Komai & Rahayu, 2004
- Pagurus fuscomaculatus* (Bouvier, 1895) [*Eupagurus*]
- Pagurus gladius* (Benedict, 1892) [*Eupagurus*]
- Pagurus gordoneae* (Forest, 1956) [*Eupagurus*]
- Pagurus gracilipes* (Stimpson, 1858) [*Eupagurus*]
- Pagurus granosimanus* (Stimpson, 1859) [*Eupagurus*]
- Pagurus gymnodactylus* Lemaitre, 1982
- Pagurus hartae* (McLaughlin & Jensen, 1996) [*Parapagurodes*]
- Pagurus heblingi* Nucci & de Melo, 2003
- Pagurus hedleyi* (Grant & McCulloch, 1906) [*Eupagurus*]
 (replacement name for *Eupagurus kirkii* Miers, 1884, preoccupied by *Eupagurus kirkii* Filhol 1883)
- Pagurus hemphilli* (Benedict, 1892) [*Eupagurus*]
- Pagurus hirsutiusculus* (Dana, 1851) [*Bernhardus*]
- Pagurus hirtimanus* (Miers, 1880) [*Eupagurus*]
 = *Pagurus hirtimanus* White, 1847 (nomen nudum)
 = *Eupagurus janitor* Alcock, 1905
- Pagurus holmi* Ng & McLaughlin, 2009
- Pagurus ikedai* Lemaitre & Watabe, 2005
- Pagurus imafukui* McLaughlin & Konishi, 1994
- Pagurus imaii* (Yokoya, 1939) [*Eupagurus*]
- Pagurus imarpe* Haig, 1974
- Pagurus impressus* (Benedict, 1892) [*Eupagurus*]
- Pagurus indicus* Sarojini & Nagabhushanam, 1972
- Pagurus inermis* (Chevreux & Bouvier, 1892) [*Eupagurus*]
- Pagurus insulae* Asakura, 1991
- Pagurus investigatoris* (Alcock, 1905) [*Eupagurus*]
- Pagurus iridocarpus* de Saint Laurent & McLaughlin, 2000
- Pagurus irregularis* (A. Milne-Edwards & Bouvier, 1892) [*Eupagurus*]
- Pagurus isochirus* White, 1847 (nomen nudum) {20}
- Pagurus japonicus* (Stimpson, 1858) [*Eupagurus*]
 = *Eupagurus barbatus* Ortmann, 1892
- Pagurus kaiensis* McLaughlin, 1997
- Pagurus kennerlyi* (Stimpson, 1864) [*Eupagurus*]
- Pagurus kulkarnii* Sankolli, 1962
- Pagurus lanuginosus* De Haan, 1849
- Pagurus laurentae* Forest, 1978
- Pagurus lepidus* (Bouvier, 1898) [*Eupagurus*]
- Pagurus leptonyx* Forest & de Saint Laurent, 1968
 = *Pagurus leptonix* Fausto-Filho, 1970 (misspelling of *leptonyx*)
- Pagurus limatulus* Fausto Filho, 1970
- Pagurus liochele* (Barnard, 1947) [*Pylopagurus*]
 = *Pagurus barnardi* Forest, 1966
- Pagurus longicarpus* Say, 1817
 = *Pagurus truncatulus* Rafinesque, 1817
- Pagurus longimanus* Wass, 1963
- Pagurus lophochela* Komai, 1999
- Pagurus luticola* Komai & Chan, 2006
- Pagurus macardlei* (Alcock, 1905) [*Eupagurus*]
- Pagurus maclaughlinae* García-Gómez, 1982
- Pagurus maculosus* Komai & Imafuku, 1996
- Pagurus marshi* Benedict, 1901
 = *Pagurus marschi* Forest & de Saint Laurent, 1968
 (misspelling of *marshi*)
- Pagurus mbizi* (Forest, 1955) [*Eupagurus*]
- Pagurus meloi* Lemaitre & Cruz Castaño, 2004
- Pagurus mertensi* Brandt, 1851
- Pagurus middendorffii* Brandt, 1851
- Pagurus minutus* Hess, 1865
 = *Eupagurus dubius* Ortmann, 1892
- Pagurus moluccensis* Haig & Ball, 1988
- Pagurus nanodes* Haig & Harvey, 1991
- Pagurus nesiotes* Haig & McLaughlin, 1991
- Pagurus nigrovittatus* Komai, 2003
- Pagurus nigrofascia* Komai, 1996
- Pagurus nipponensis* (Yokoya 1933) [*Eupagurus*]
- Pagurus nisari* Siddiqui & Komai, 2008
- Pagurus novizealandiae* (Dana, 1852) [*Bernhardus*]
- Pagurus ochotensis* Brandt, 1851
 = *Pagurus (Eupagurus) bernhardus* var. *B.*
 granulato-denticulata Brandt, 1851
 = *Eupagurus alaskensis* Benedict, 1892
 = *Eupagurus ortmanni* Balss, 1911
- Pagurus parvispina* Komai, 1997

- Pagurus parvus* (Benedict, 1892) [*Eupagurus*]
Pagurus pectinatus (Stimpson, 1858) [*Eupagurus*]
= *Eupagurus seriespinosus* Thallwitz, 1891
= *Clibanarius japonicus* Rathbun, 1903
Pagurus pergranulatus (Henderson, 1896) [*Eupagurus*]
Pagurus perlatus H. Milne Edwards, 1848
= *Bernhardus obesocarpus* Dana, 1852
Pagurus pilosimanus White, 1847 (nomen nudum)
{20}
Pagurus pilosipes (Stimpson, 1858) [*Eupagurus*]
Pagurus pilosiusculus White, 1847 (nomen nudum)
{20}
Pagurus pitagsaleei McLaughlin, 2002
Pagurus politus (Smith, 1882) [*Eupagurus*]
Pagurus pollexcavus Glassell, 1937 uncertain status
{22}
Pagurus pollicaris Say, 1817
= *Eupagurus floridanus* Benedict, 1892
Pagurus prideaux Leach, 1815
Pagurus protuberocarpus McLaughlin, 1982
Pagurus provenzanoi Forest & de Saint Laurent, 1968
Pagurus proximus Komai, 2000
Pagurus pubescens Kröyer, 1838
= *Pagurus thompsoni* Bell, 1853 {15}
= *Eupagurus kroyeri* Stimpson, 1859
Pagurus pubescentulus (A. Milne-Edwards & Bouvier 1892) [*Eupagurus*]
= *Eupagurus variabilis* var. *charcoti* Bouvier, 1914
Pagurus pulchellus (A. Milne-Edwards & Bouvier, 1892) [*Eupagurus*]
Pagurus quaylei Hart, 1971
Pagurus quinquelineatus Komai, 2003
Pagurus rathbuni (Benedict, 1892) [*Eupagurus*]
= *Eupagurus (Trigonocheirus) polaris* Sivertsen, 1932
Pagurus redondoensis Wicksten, 1982
Pagurus retrorsimanus Wicksten & McLaughlin, 1998
Pagurus rhabdotus Haig & Harvey, 1991
Pagurus rotundimanus Wass, 1963
Pagurus ruber (A. Milne-Edwards & Bouvier, 1892) [*Eupagurus*]
Pagurus rubrior Komai, 2003
Pagurus samoensis (Ortmann, 1892) [*Eupagurus*]
Pagurus samuelis (Stimpson, 1857) [*Eupagurus*]
Pagurus setosus (Benedict, 1892) [*Eupagurus*]
Pagurus similimanus (Balss, 1921) [*Eupagurus*] (?*Anapagurus*)
Pagurus similis (Ortmann, 1892) [*Eupagurus*]
Pagurus simulans Komai, 2000
Pagurus sinuatus (Stimpson, 1858) [*Eupagurus*]
Pagurus smithi (Benedict, 1892) [*Eupagurus*]
Pagurus souriei (Forest, 1952) [*Eupagurus*]
Pagurus spighti McLaughlin & Haig, 1993
Pagurus spilocarpus Haig, 1977
Pagurus spina Komai, 1994
Pagurus spinulentus (Henderson, 1888) [*Eupagurus*]
Pagurus stevensae Hart, 1971
Pagurus sticticus McLaughlin, 2008
Pagurus stimpsoni (A. Milne-Edwards & Bouvier, 1893) [*Eupagurus*]
= *Pagurus bonairensis* Schmitt, 1936
= *Pagurus hendersoni* Wass, 1963
Pagurus tanneri (Benedict, 1892) [*Eupagurus*]
Pagurus townsendi (Benedict, 1892) [*Eupagurus*]
Pagurus traversi (Filhol, 1885) [*Eupagurus*]
Pagurus triangularis (Chevreux & Bouvier, 1892) [*Eupagurus*]
Pagurus trichocerus Forest & de Saint Laurent, 1968
Pagurus trigonocheirus (Stimpson, 1858) [*Eupagurus*]
Pagurus tristanensis (Henderson, 1888) [*Eupagurus*]
Pagurus undosus (Benedict, 1892) [*Eupagurus*]
= *Eupagurus trigonocheirus* var. *paulensis* Balss, 1913
Pagurus venturensis Coffin, 1957
= *Pagurus hirsutusculus* venturensis Coffin 1957
Pagurus vetaultae Harvey & McLaughlin, 1991
Pagurus villosus Nicolet, 1849
Pagurus virgulatus Haig & Harvey, 1991
Parapagurodes McLaughlin & Haig, 1973
= *Parapagurodes* McLaughlin & Haig, 1973 (type species *Parapagurodes makarovi* McLaughlin & Haig, 1973, by original designation; gender masculine)
Parapagurodes laurentae McLaughlin & Haig, 1973
Parapagurodes makarovi McLaughlin & Haig, 1973
Phimochirus McLaughlin, 1981
= *Phimochirus* McLaughlin, 1981 (type species *Eupagurus operculatus* Stimpson, 1859, by original designation; gender masculine)
Phimochirus californiensis (Benedict, 1892) [*Eupagurus*]
= *Eupagurus mexicanus* Benedict, 1892
Phimochirus holthuisi (Provenzano, 1961) [*Pylopagurus*]
Phimochirus leurocarpus McLaughlin, 1981
Phimochirus occlusus (Henderson, 1888) [*Eupagurus*]
Phimochirus operculatus (Stimpson, 1859) [*Eupagurus*]
Pylopagurus samariensis Sanchez, 1978
Phimochirus randalli (Provenzano, 1961) [*Pylopagurus*]
Phimochirus roseus (Benedict, 1892) [*Eupagurus*]
Phimochirus venustus (Bouvier, 1898) [*Eupagurus*]
Porcellanopagurus Filhol, 1885
= *Porcellanopagurus* Filhol, 1885 (type species *Porcellanopagurus edwardsi* Filhol, 1885 by monotypy; gender masculine)
Porcellanopagurus adelocercus McLaughlin & Hogarth, 1998
Porcellanopagurus belauensis Suzuki & Takeda, 1987
Porcellanopagurus chiltoni de Saint Laurent & McLaughlin, 2000
Porcellanopagurus edwardsi Filhol, 1885
Porcellanopagurus filholi de Saint Laurent & McLaughlin, 2000
Porcellanopagurus foresti Zarenkov, 1990
Porcellanopagurus haptodactylus McLaughlin, 2000

- Porcellanopagurus jacquesi* McLaughlin, 1997
Porcellanopagurus japonicus Balss, 1913
Porcellanopagurus nihonkaiensis Takeda, 1985
Porcellanopagurus platei Lenz, 1902
Porcellanopagurus tridentatus Whitelegge, 1900
Porcellanopagurus truncatifrons Takeda, 1981
Propagurus McLaughlin & de Saint Laurent, 1998
 = *Propagurus* McLaughlin & de Saint Laurent, 1998
 (type species *Pagurus gaudichaudii* H. Milne Edwards, 1836, by original designation; gender masculine)
Propagurus de profundis (Stebbing, 1924) [*Eupagurus*]
Propagurus gaudichaudii (H. Milne Edwards, 1836) [*Pagurus*]
 = *Bernhardus barbiger* A. Milne-Edwards, 1891
Propagurus haigae (McLaughlin, 1997) [*Pagurus*]
Propagurus miyakei (Baba, 1986) [*Pagurus*]
Propagurus obtusifrons (Ortmann, 1892) [*Eupagurus*]
 = *Pagurus yokoyai* Makarov, 1938
Protoniopagurus Lemaitre & McLaughlin, 1996
 = *Protoniopagurus* Lemaitre & McLaughlin, 1996
 (type species *Protoniopagurus bioperculatus* Lemaitre & McLaughlin, 1996, by original designation; gender masculine)
Protoniopagurus bioperculatus Lemaitre & McLaughlin, 1996
Pseudopagurodes McLaughlin, 1997
 = *Pseudopagurodes* McLaughlin, 1997 (type species *Pagurodes piliferus* Henderson, 1888, by original designation; gender masculine)
Pseudopagurodes piliferus (Henderson, 1888) [*Pagurodes*]
Pseudopagurodes reconditus (Wang & McLaughlin, 2000) [*Nematopaguroides*]
Pteropagurus McLaughlin & Rahayu, 2006
 = *Pteropagurus* McLaughlin & Rahayu, 2006 (type species *Pteropagurus inermis* McLaughlin & Rahayu, 2006 by original designation; gender masculine)
Pteropagurus inermis McLaughlin & Rahayu, 2006
Pteropagurus spina McLaughlin & Rahayu, 2006
Pteropagurus spinulocarpus McLaughlin, 2007
Pumilopagurus McLaughlin & Rahayu, 2008
 = *Pumilopagurus* McLaughlin & Rahayu, 2008
 (type species *Pumilopagurus tuberculomanus* McLaughlin & Rahayu, 2008, by original designation; gender masculine)
Pumilopagurus tuberculomanus McLaughlin & Rahayu, 2008
Pygmaeopagurus McLaughlin, 1986
 = *Pygmaeopagurus* McLaughlin, 1986 (type species *Pygmaeopagurus hadrochirus* McLaughlin, 1986 by original designation; gender masculine)
Pygmaeopagurus hadrochirus McLaughlin, 1986
Pylopaguridium McLaughlin & Lemaitre, 2001
 = *Pylopaguridium* McLaughlin & Lemaitre, 2001 (type species *Pylopaguridium markhami* McLaughlin & Lemaitre, 2001 by original designation; gender neuter)
Pylopaguridium markhami McLaughlin & Lemaitre, 2001
Pylopaguropsis Alcock, 1905
 = *Pylopaguropsis* Alcock, 1905 (type species *Pylopagurus magnimanus* Henderson, 1896, by monotypy; gender feminine)
 = *Galapagurus* Boone, 1932 (type species *Galapagurus teevana* Boone, 1932, by monotypy; gender masculine)
Pylopaguropsis atlantica Wass, 1963
Pylopaguropsis bellula Osawa & Okuno, 2006
Pylopaguropsis fimbriata McLaughlin & Haig, 1989
Pylopaguropsis furusei Asakura, 2000
Pylopaguropsis garciai McLaughlin & Haig, 1989
Pylopaguropsis granulata Asakura, 2000
Pylopaguropsis keijii McLaughlin & Haig, 1989
Pylopaguropsis laevispinosa McLaughlin & Haig, 1989
Pylopaguropsis lemairei Asakura & Paulay, 2003
Pylopaguropsis lewinsohni McLaughlin & Haig, 1989
Pylopaguropsis magnimanus (Henderson, 1896) [*Pylopagurus*]
Pylopaguropsis pustulosa McLaughlin & Haig, 1989
Pylopaguropsis speciosa McLaughlin & Haig, 1989
Pylopaguropsis teevana (Boone, 1932) [*Galapagurus*]
Pylopaguropsis vicina Komai & Osawa, 2004
Pylopaguropsis zebra (Henderson, 1893) [*Eupagurus*]
Pylopagurus A. Milne-Edwards & Bouvier, 1893
 = *Pylopagurus* A. Milne-Edwards & Bouvier, 1893
 [type species *Eupagurus discoidalis* A. Milne-Edwards, 1880, by subsequent designation by Miyake (1978); gender masculine]
Pylopagurus discoidalis (A. Milne-Edwards, 1880) [*Eupagurus*]
Pylopagurus gorei McLaughlin & Lemaitre, 2001
Pylopagurus holmesi Schmitt, 1921
 = *Pylopagurus longicarpus* Walton, 1954
Pylopagurus macgeorgei McLaughlin & Lemaitre, 2001
Pylopagurus pattiae Lemaitre & Campos, 1993
Rhodochirus McLaughlin, 1981
 = *Rhodochirus* McLaughlin, 1981 (type species *Pylopagurus rosaceus* A. Milne-Edwards & Bouvier, 1893, by original designation; gender masculine)
Rhodochirus hirtimanus (Faxon, 1893) [*Pylopagurus*]
Rhodochirus rosaceus (A. Milne-Edwards & Bouvier, 1893) [*Pylopagurus*]
 = *Pylopagurus acutus* Forest & de Saint Laurent, 1968
Scopaeopagurus McLaughlin & Hogarth, 1998
 = *Scopaeopagurus* McLaughlin & Hogarth, 1998
 (type species *Scopaeopagurus megalochirus* McLaughlin & Hogarth, 1998, by original designation; gender masculine)
Scopaeopagurus megalochirus McLaughlin & Hogarth, 1998

- Solenopagurus* de Saint Laurent, 1968
 = *Solenopagurus* de Saint Laurent, 1968 (type species *Cestopagurus lineatus* Wass, 1963, by original designation; gender masculine)
- Solenopagurus diomedae* (Faxon, 1893) [*Catapagurus*]
Solenopagurus lineatus (Wass, 1963) [*Cestopagurus*]
- Solitariopagurus* Türkay, 1986
 = *Solitariopagurus* Türkay, 1986 (type species *Solitariopagurus profundus* Türkay, 1986 by original designation; gender masculine)
- Solitariopagurus profundus* Türkay, 1986
- Solitariopagurus triprobolus* Poupin & McLaughlin, 1996
- Solitariopagurus trullirostris* McLaughlin, 2000
- Solitariopagurus tuerkayi* McLaughlin, 1997
- Spiropagurus* Stimpson, 1858
 = *Spiropagurus* Stimpson, 1858 (type species *Pagurus spiriger* De Haan, 1849 by monotypy; gender masculine)
- Spiropagurus elegans* Miers, 1881
- Spiropagurus fimbriatus* Lewinsohn, 1982
- Spiropagurus lophomeris* Alcock, 1905 {23}
 = *Spiropagurus spiriger* var. *lophomeris* Alcock, 1905
- Spiropagurus profundorum* Alcock, 1905 {23}
 = *Spiropagurus spiriger* var. *profundorum* Alcock, 1905
- Spiropagurus spinosicarpis* Alcock, 1905 {23}
 = *Spiropagurus spiriger* var. *spinosicarpis* Alcock, 1905
- Spiropagurus spiriger* (De Haan, 1849) [*Pagurus*]
- Tarrasopagurus* McLaughlin, 1997
 = *Tarrasopagurus* McLaughlin, 1997 (type species *Tarrasopagurus rostrodenticulatus* McLaughlin, 1997, by original designation; gender masculine)
- Tarrasopagurus rostrodenticulatus* McLaughlin, 1997
- Tomopaguroides* Balss, 1912
 = *Tomopaguroides* Balss, 1912 (type species *Parapagurus valdiviae* Balss, 1911, by original designation; gender masculine)
- Tomopaguroides valdiviae* (Balss, 1911) [*Parapagurus*]
- Tomopaguropsis* Alcock, 1905
 = *Tomopaguropsis* Alcock, 1905 [type species *Tomopaguropsis lanata* Alcock, 1905, by subsequent selection by McLaughlin (1997); gender feminine]
- Tomopaguropsis lanata* Alcock, 1905
- Tomopaguropsis miyakei* McLaughlin, 1997
- Tomopaguropsis problematica* (A. Milne-Edwards & Bouvier, 1893) [*Eupagurus*]
- Tomopagurus* A. Milne-Edwards & Bouvier, 1893
 = *Tomopagurus* A. Milne-Edwards & Bouvier, 1893 (type species *Tomopagurus rubropunctatus* A. Milne-Edwards & Bouvier, 1893, by monotypy; gender masculine)
- = *Benthopagurus* Wass, 1963 (type species *Benthopagurus schmitti* Wass, 1963, by original designation; gender masculine)
- Tomopagurus chacei* (Wass, 1963) [*Pylopagurus*]
- Tomopagurus cokeri* (Hay, 1917) [*Pagurus*]
 = *Benthopagurus schmitti* Wass, 1963
- Tomopagurus cubensis* (Wass, 1963) [*Benthopagurus*]
- Tomopagurus maclaughlinae* Haig, 1976
- Tomopagurus merimaculosus* (Glassell, 1937) [*Pagurus*]
- Tomopagurus purpuratus* (Benedict, 1892) [*Eupagurus*]
 = *Pagurus bunomanus* Glassell, 1937 (nomen nudum)
- Tomopagurus rubropunctatus* A. Milne-Edwards & Bouvier, 1893
 = *Pagurus rubrolineatus* Wass, 1963
- Tomopagurus wassi* McLaughlin, 1981
- Trichopagurus* de Saint Laurent, 1968
 = *Trichopagurus* de Saint Laurent, 1968 (type species *Catapaguroides ? trichophthalmus* Forest, 1954, by original designation; gender masculine) {24}
- Trichopagurus trichophthalmus* (Forest, 1954) [*Catapaguroides ?*]
- Trichopagurus macrochela* Komai & Osawa, 2005
- Turleania* McLaughlin, 1997
 = *Laurentia* McLaughlin & Haig, 1996 (type species *Laurentia albatrossae* McLaughlin & Haig, 1996, by original designation) (name preoccupied by *Laurentia* Ragonot, 1888, Insecta)
 = *Turleania* McLaughlin, 1997 (replacement name)
- Turleania albatrossae* (McLaughlin & Haig, 1996) [*Laurentia*]
- Turleania boucheti* McLaughlin, 2007
- Turleania balli* (McLaughlin & Haig, 1996) [*Laurentia*]
- Turleania multisepia* McLaughlin, 1997
- Turleania saliens* Osawa & Fujita, 2008
- Turleania senticosa* (McLaughlin & Haig, 1996) [*Laurentia*]
 = *Turleania similis* Komai, 1999
- Turleania sibogae* (McLaughlin & Haig, 1996) [*Laurentia*]
- Turleania spinimanus* Komai, 1999
- Turleania tenebrosa* Osawa & Fujita, 2008
- Xylopagurus* A. Milne-Edwards, 1880
 = *Xylopagurus* A. Milne-Edwards, 1880 (type species *Xylopagurus rectus* A. Milne-Edwards, 1880, by monotypy; gender masculine)
- Xylopagurus anthonii* Lemaitre, 1995
- Xylopagurus caledonicus* Forest, 1997
- Xylopagurus cancellarius* Walton, 1950
- Xylopagurus philippensis* Forest, 1997
- Xylopagurus rectus* A. Milne-Edwards, 1880
- Xylopagurus tayrona* Lemaitre & Campos, 1993
- Xylopagurus tenuis* Lemaitre, 1995

Incertae sedis

Anapagurus acutus A. Milne-Edwards & Bouvier, 1893

{25}

Anapagurus marginatus A. Milne-Edwards & Bouvier,
1893 {25}

NOTES

- {1} To indicate their uncertainty regarding the generic assignment of the new species to *Anapagurus*, A. Milne-Edwards & Bouvier, 1900, separated the generic name from the specific name, *dubius*, with a question mark.
- {2} Thomas Bell's "A History of British Crustacea" was published in parts between 1844 and 1853. Part III, which contained the pagurid species *Anapagurus hyndmanni* and *A. laevis* was published in January 1846 (Gordon, 1959).
- {3} *Pagurus pilosipes* (Stimpson, 1858) will be transferred to *Boninpagurus* by Komai & Okuno (in preparation) as the senior synonym of *B. acanthocheles*.
- {4} *Catapaguroides kasei* Osawa & Takeda, 2004 appears to be synonymous with *C. foresti*, but confirmation is still needed.
- {5} De Saint Laurent (1968a) felt certain that the western Pacific species she identified as *Catapaguroides microps* was conspecific with the eastern Atlantic population; however recent collections suggest that the former may actually represent a distinct taxon.
- {6} *Catapaguroides setosus* Edmondson, 1951, was questionably synonymized with *C. fragilis* by de Saint Laurent (1968a) but reinstated by McLaughlin & Pittman (2002) after comparing representatives of the two species.
- {7} *Catapagurus* A. Milne-Edwards, 1880, had long been considered the senior synonym of *Hemipagurus* Smith, 1881 until Asakura (2001) proposed the resurrection of the latter. That reinstatement was rejected by McLaughlin (2004) who showed that the characters used by Asakura (2001) to distinguish *Catapagurus* from *Hemipagurus* reflected only intrageneric variability and growth related differences. McLaughlin returned *Hemipagurus* to synonymy. Five more species of *Catapagurus* are now being described by the first author.
- {8} In Smith's (1881a) initial description of *Hemipagurus*, no species were mentioned. Subsequently, Smith (1881b) repeated his description of the genus and described the two species he assigned to it, *H. socialis* Smith, 1881 and *H. gracilis* Smith, 1881; he did not designate either species as the type for the genus. The following year Smith (1882) determined that *Hemipagurus* was identical with A. Milne-Edwards' (1880) *Catapagurus*, placed *Hemipagurus* in synonymy and transferred its two species to *Catapagurus*; still no mention was made of a type species for *Hemipagurus*. After examining one of the syntypes of *Catapagurus sharreri* A. Milne-Edwards, 1880, Smith (1883) concluded that his own *C. socialis* was conspecific with *C. sharreri*. It was only when Asakura (2001) resurrected *Hemipagurus* was *H. gracilis* cited as the type species of Smith's (1881a) taxon. Although at the time of Asakura's (2001) reinstatement, *Hemipagurus* contained only *H. gracilis*, it is not the type species by monotypy (ICZN Art. 69.4) but rather by designation by Asakura.
- {9} *Catapagurus maclaughlinae* Asakura, 2001, was established on two females from the Seychelles and distinguished from other species of *Catapagurus* by weak development of carpal and meral spines on the ambulatory legs. Subsequent discovery of a male of *C. maclaughlinae* from a French Seychelles expedition and comparison with an expanded sample of *C. alcocki* has shown that the two taxa are conspecific. *Catapagurus maclaughlinae* will be put into synonymy with *C. alcocki* in an upcoming review of the genus where justification for the synonymy will be presented.
- {10} Although *C. gracilis* var. *intermedius* was described by A. Milne-Edwards & Bouvier (1893), this subspecies was overlooked by Asakura (2001) in his generic revision. In a reassessment currently in progress McLaughlin has compared the two syntypes of this subspecies with the nominal subspecies and found no justification for two distinct taxa. *Catapagurus gracilis intermedius* will be placed in synonymy in the upcoming reassessment.
- {11} In her ongoing study of species of *Catapagurus*, McLaughlin has found *C. imperalis* to be conspecific with *C. oculocrassus* and will be placed in synonymy with this species.
- {12} Asakura (2001) inappropriately designated a lectotype for *C. sharreri*; the same male had previously been so designated by A. Milne-Edwards & Bouvier (1893: 130).
- {13} It is possible that the type series of this genus was a mixture of more than one species of different sexes, because such a misidentification is not uncommon in Yokoya's (1933) material. Despite the collecting efforts of one of the present authors (TK), no specimens that agree with Yokoya's original description have been encountered in Japan.
- {14} The possibility exists that this taxon may be a junior synonym of *L. (A.) triserratus*.
- {15} *Eupagurus thompsoni* Filhol, 1885, became a secondary junior homonym of *Pagurus thompsoni* Bell, 1853 when the ICZN (Opinion 472) placed *Eupagurus* on the Official Index of Rejected and

Invalid Generic Names in Zoology. As discussed by McLaughlin & Gunn (1992), Forest (in Pike, 1961) suggested that Filhol's (1885b) *P. thompsoni* was synonymous with *P. lacertosus* (Henderson, 1888). Forest (unpublished) subsequently concluded that those two taxa were distinct, and both species were transferred to *Pylopagurus* by Forest & de Saint Laurent (1968) thus eliminating the need for a replacement name for Filhol's taxon (ICZN, 2000: Art 59.2). Both species were ultimately transferred to *Lophopagurus* McLaughlin, 1981, whereas Bell's *P. thompsoni* was found to be synonymous with *Pagurus pubescens* Kröyer, 1838.

- {16} Apparently uncertain about the generic placement of their solitary juvenile specimen, Chevreux & Bouvier (1892) described the taxon as *Eupagurus ? minimum*. Forest (1961), having obtained additional, and mature specimens, recognized the species as belonging to a genus distinct from other known pagurid genera, and established the genus *Paguridium* Forest, 1961 for it.
- {17} As previously noted, when first established by Fabricius (1775) *Pagurus* included a number of Linnaeus' (1758) non crab-like species of *Cancer*. It was 35 years later that *Pagurus bernhardus* (Linnaeus, 1758) was selected by Latreille (1810) as the type species of the genus and another quarter century before the first detailed classification of *Pagurus* was published (H. Milne Edwards 1836). As can be clearly seen in the brief accounts of subsequent carcinologists from Brandt (1851) to Rathbun (1903) and beyond, inaccurate interpretations and misidentifications resulted in nomenclatorial chaos that prevailed until the matter was brought before the International Commission (Forest & Holthuis, 1955). In its ruling, the Commission validated the generic names *Pagurus* (sensu Fabricius) and *Dardanus* Paul'son (Opinion 472).
- {18} Forest (1955) placed *Pagurus excavatus* (Herbst, 1791) in synonymy with *Pagurus alatus* Fabricius, 1775. However, Ingle (1985) presented evidence supporting Selbie's (1921) opinion that the two taxa were distinct, with *P. excavatus* restricted in its northern distribution to the Bay of Biscay. Ingle (1985) reinstated *P. excavatus* and placed the morphologically similar *P. variabilis* (A. Milne-Edwards & Bouvier, 1892) in synonymy with the northern *P. alatus*.
- {19} Thomas Bell's *A History of British Crustacea* was published in parts between 1844 and 1853. Part III, which included the pagurid species *Pagurus cuanensis*, *ulidianus* and *P. Forbesii*, was published in January 1846 (Gordon 1959).
- {20} In his list of the Crustacea in the British Museum, Adam White (1847: 59–62) listed four new species of *Pagurus*: *Pagurus chinensis* from China, *Pagurus*

isochirus and *Pagurus pilosimanus* without localities, and *Pagurus pilosiusculus* from Mr. Dring's collection, Swan River. None of these taxa were provided with even brief descriptions or illustrations, and no further mention of any of them could be found in White's subsequent publications.

- {21} The conspecificity of *Pagurus comptus* and *P. forceps* has been the subject of debate since Lagerberg (1905) first placed *P. comptus* in synonymy with *P. forceps*. However, a recent study by Mantelatto et al. (2009), using both morphological and genetic data, has demonstrated conclusively that the two taxa represent distinct species.
- {22} Glassell's (1937) *Pagurus pollexcavus* was not reported as occurring in the Gulf of California by Hendrickx & Harvey (1999), nor was it included the Lemaitre & Cruz Castaño's (2004) checklist of eastern Pacific species of *Pagurus*. But to the best of our knowledge, this species has not been put into synonymy with any other regional species or considered incertae sedis for any reason. Therefore we have listed its status simply as uncertain.
- {23} McLaughlin (2002) elevated all of Alcock's (1905) subspecies of *Spiropagurus spiriger* to full generic rank.
- {24} When Forest (1954) described *Catapaguroides ? trichophthalmus*, the genus *Catapaguroides* appeared to have considerable overlap with a similar genus, *Cestopagurus*. Not being certain of its generic placement, Forest questionably assigned *trichophthalmus* to *Catapaguroides*.
- {25} García-Gómez (1994) examined the two female specimens upon which *A. acutus* and *A. marginatus* were based and concluded that they were inaccurately assigned to *Anapagurus*. As they could not be assigned with confidence to any taxon, García-Gómez considered them incertae sedis.

Family Parapaguridae Smith, 1882

Bivalvopagurus Lemaitre 1993

= *Bivalvopagurus* Lemaitre 1993 (type species *Parapagurus sinensis* de Saint Laurent, 1972, by monotypy; gender masculine)

Bivalvopagurus sinensis (de Saint Laurent, 1972)
[*Parapagurus*]

Oncopagurus Lemaitre, 1996

= *Oncopagurus* Lemaitre, 1996 (type species *Eupagurus bicristatus* A. Milne-Edwards, 1880, by original designation; gender masculine)

Oncopagurus africanus (de Saint Laurent, 1972)
[*Parapagurus*]

Oncopagurus bicristatus (A. Milne-Edwards, 1880)
[*Eupagurus*] {1}

- Oncopagurus cidaris* Lemaitre, 1996
Oncopagurus conicus Lemaitre, 2006
Oncopagurus curvispina (de Saint Laurent, 1974)
[*Parapagurus*] {2}
Oncopagurus glebosus Lemaitre, 1997
Oncopagurus gracilis (Henderson, 1888)
[*Parapagurus*]
= *Parapagurus bicristatus gracilis* Henderson,
1888 {1}
= *Sympagurus arcuatus* A. Milne-Edwards &
Bouvier, 1893
= *Pylopagurus exquisitus* Boone, 1927
Oncopagurus haigae (de Saint Laurent, 1972)
[*Parapagurus*]
Oncopagurus indicus (Alcock, 1905) [*Sympagurus*]
= *Sympagurus bicristatus* var. *indicus* Alcock,
1905 {1}
Oncopagurus minutus (Henderson, 1896)
[*Parapagurus*]
Oncopagurus mironovi Zhadan, 1997
Oncopagurus monstrosus (Alcock, 1894)
[*Parapagurus*]
= *Sympagurus arcuatus* var. *monstrosus* Alcock,
1894
= ? *Eupagurus brevimanus* Yokoya, 1933 {3}
Oncopagurus oimos Lemaitre, 1998
Oncopagurus orientalis (de Saint Laurent, 1972)
[*Parapagurus*]
Oncopagurus stockmani Zhadan, 1997
Oncopagurus tuamotu Lemaitre, 1994
Oncopagurus sp. A Zhadan, 1997 {4}
Oncopagurus n. sp. 1 {5}
Oncopagurus n. sp. 2 {5}
Oncopagurus n. sp. 3 {5}
Oncopagurus n. sp. 4 {5}
- Paragiopagurus* Lemaitre, 1996
= *Paragiopagurus* Lemaitre, 1996 (type species
Sympagurus diogenes Whitelegge, 1900, by
original designation; gender: masculine)
Paragiopagurus acutus (de Saint Laurent, 1972)
[*Parapagurus*]
= *Parapagurus acutus acutus* de Saint Laurent,
1972 {6}
Paragiopagurus bicarinatus (de Saint Laurent, 1972)
[*Parapagurus*]
= *Parapagurus acutus bicarinatus* de Saint Laurent,
1972 {6}
Paragiopagurus boletifer (de Saint Laurent, 1972)
[*Parapagurus*]
= *Parapagurus sculptochela* Zarenkov, 1990
Paragiopagurus bougainvillei (Lemaitre, 1994)
[*Sympagurus*]
Paragiopagurus diogenes (Whitelegge, 1900)
[*Sympagurus*]
Paragiopagurus fasciatus Lemaitre & Poupin, 2003
Paragiopagurus hirsutus (de Saint Laurent, 1972)
[*Parapagurus*]
= *Parapagurus acutus hirsutus* de Saint Laurent,
1972 {6}
- Paragiopagurus hobbiti* (Macpherson, 1983)
[*Parapagurus*]
Paragiopagurus insolitus Lemaitre, 1997
Paragiopagurus macrocerus (Forest, 1955)
[*Parapagurus*]
Paragiopagurus pacificus (Edmondson, 1925)
[*Sympagurus*]
Paragiopagurus pilimanus (A. Milne-Edwards, 1880)
[*Eupagurus*]
Paragiopagurus rugosus (de Saint Laurent, 1972)
[*Parapagurus*]
Paragiopagurus ruticheles (A. Milne-Edwards, 1891)
[*Eupagurus*]
Paragiopagurus schnauzer Lemaitre, 2006
Paragiopagurus tuberculosus (de Saint Laurent, 1972)
[*Parapagurus*]
Paragiopagurus ventilatus Lemaitre, 2004
Paragiopagurus wallisi (Lemaitre, 1994) [*Sympagurus*]
Paragiopagurus n. sp. 1 {5}
Paragiopagurus n. sp. 2 {5}
Paragiopagurus n. sp. 3 {5}
Paragiopagurus n. sp. 4 {5}
- Parapagurus* Smith, 1879
= *Parapagurus* Smith, 1879 (type species
Parapagurus pilosimanus Smith, 1879, by
monotypy; gender masculine)
Parapagurus abyssorum (Filhol, 1885) [*Pagurus*] {7}
= *Parapagurus abyssorum* var. *scabra* Henderson,
1888
Parapagurus alaminos Lemaitre, 1986
Parapagurus andreui Macpherson, 1984
Parapagurus benedicti de Saint Laurent, 1972
= *Parapagurus pilosimanus benedicti* de Saint
Laurent, 1972
Parapagurus bouvieri Stebbing, 1910
Parapagurus foraminosus Lemaitre, 1999
Parapagurus furici Lemaitre, 1999
Parapagurus holthuisi Lemaitre, 1989 {8}
= *Parapagurus abyssorum* Henderson, 1888
Parapagurus janetae Lemaitre, 1999
Parapagurus latimanus Henderson, 1888
Parapagurus microps de Saint Laurent, 1972
Parapagurus nudus (A. Milne-Edwards, 1891)
[*Sympagurus*]
Parapagurus pilosimanus Smith, 1879 {9}
= *Eupagurus jacobii* A. Milne-Edwards, 1880
= *Sympagurus grimaldii* A. Milne-Edwards &
Bouvier, 1897
Parapagurus richeri Lemaitre, 1999
Parapagurus saintlaurentae Lemaitre, 1999
Parapagurus stenorhinus Lemaitre, 1999
Parapagurus wolffi Lemaitre, 1999
Probebei Boone, 1926
= *Probebei* Boone, 1926 (type species *Probebei*
mirabilis Boone, 1926, by monotypy; gender
masculine)
= *Planopagurus* Wolff, 1960 (type species
Planopagurus galathea Wolff, 1960, by monotypy;
gender masculine)

- Probeebi mirabilis* Boone, 1926
 = *Planopagurus galathea* Wolff, 1960
- Strobopagurus* Lemaitre, 1989
 = *Strobopagurus* Lemaitre, 1989 (type species)
Sympagurus gracilipes A. Milne-Edwards, 1891, by original designation; gender masculine)
- Strobopagurus breviacus* Lemaitre, 2004
- Strobopagurus gracilipes* (A. Milne-Edwards, 1891) [Sympagurus]
Strobopagurus sibogae (de Saint Laurent, 1972) [Parapagurus]
 = *Parapagurus kilburni* Kensley, 1973
- Sympagurus* Smith, 1883
 = *Sympagurus* Smith, 1883 (type species *Sympagurus pictus* Smith, 1883, by monotypy; gender masculine)
- Sympagurus acinops* Lemaitre, 1989
- Sympagurus affinis* (Henderson, 1888) [Parapagurus]
- Sympagurus andersoni* (Henderson, 1896) [Parapagurus]
 = *Parapagurus andersoni* var. *brevimanus* Alcock, 1901
- Sympagurus aurantium* Lemaitre, 2004
- Sympagurus brevipes* (de Saint Laurent, 1972) [Parapagurus]
- Sympagurus burkenroadi* Thompson, 1943
 = *Sympagurus papposus* Lemaitre, 1996
- Sympagurus chani* Lemaitre, 2004
- Sympagurus dimorphus* (Studer, 1883) [Eupagurus]
 = *Parapagurus brevimanus* Balss, 1911
 = ? *Eupagurus modicellus* Stebbing, 1914
 = *Sympagurus arcuatus* var. *johnstoni* Hale, 1941
 = *Sympagurus arcuatus* var. *mawsoni* Hale, 1941
- Sympagurus dofleini* (Balss, 1912) [Parapagurus]
 = *Parapagurus ijimai* Terao, 1913
 = *Parapagurus rectichelata* Zarenkov, 1990
- Sympagurus pictus* Smith, 1883
- Sympagurus planimanus* (de Saint Laurent, 1972) [Parapagurus]
- Sympagurus pouponi* Lemaitre, 1994
- Sympagurus soela* Lemaitre, 1996
- Sympagurus spinimanus* (Balss, 1911) [Parapagurus]
- Sympagurus symmetricus* Lemaitre, 2004
- Sympagurus trispinosus* (Balss, 1911) [Parapagurus]
 = *Parapagurus arcuatus* var. *trispinosa* Balss, 1911
- Sympagurus villosus* Lemaitre, 1996
- Tsunogaipagurus* Osawa, 1995
 = *Tsunogaipagurus* Osawa, 1995 (type species *Parapagurus chuni* Balss, 1911, by original designation; gender masculine)
- Tsunogaipagurus chuni* (Balss, 1911) [Parapagurus]
- Tylaspis* Henderson, 1885 {10}
 = *Tylaspis* Henderson, 1885 (type species *Tylaspis anomala* Henderson, 1885, by monotypy; gender feminine)
- Tylaspis anomala* Henderson, 1885
- Typhlopagurus* de Saint Laurent, 1972
 = *Typhlopagurus* de Saint Laurent, 1972 (type species *Typhlopagurus foresti* de Saint Laurent, 1972, by original designation; gender masculine)

Typhlopagurus foresti de Saint Laurent, 1972

NOTES

- {1} In her revision of *Parapagurus*, de Saint Laurent (1972) recognized three subspecies of A. Milne-Edwards's *bicristatus*, *Parapagurus bicristatus bicristatus* (A. Milne-Edwards, 1880), *P. b. gracilis* Henderson, 1888, and *P. b. indicus* (Alcock, 1905b). All were elevated to specific status by Lemaitre (1989).
- {2} This species was described by de Saint Laurent (1974) as *Parapagurus curvispina* and later placed in *Paragiopagurus* by Lemaitre (1996). Examination of type material, however, has revealed that it needs to be formally assigned to *Oncopagurus* as a new combination (Lemaitre, in prep.).
- {3} According to Lemaitre (1996), de Saint Laurent (1972) questionably synonymized *Eupagurus brevimanus* with Alcock's (1894) *Parapagurus monstrosus*. Lemaitre (1996) found insufficient information to confirm or deny the synonymy, and presumed that Yokoya's (1933) specimens, like most of his other material, were no longer extant.
- {4} Zhadan (1997: 67, fig. 9) did not provide a specific name, and only noted that his material was intermediate between *O. tuamotu* and *O. cidaris*
- {5} Formal descriptions are in preparation by one of the authors (RL).
- {6} De Saint Laurent's (1972) three subspecies, *Parapagurus acutus acutus* de Saint Laurent, 1972, *P. a. bicarinatus* de Saint Laurent, 1972, and *P. a. hirsutus* de Saint Laurent, 1972, were assigned to *Sympagurus* Smith, 1883 by Lemaitre (1989). Subsequently Lemaitre (1996) elevated these three subspecies to specific status and assigned them to *Paragiopagurus* Lemaitre, 1996.
- {7} This is a senior homonym of *Parapagurus abyssorum* Henderson, 1888.
- {8} Replacement name for *Parapagurus abyssorum* Henderson, 1888, a junior homonym of *Parapagurus abyssorum* (Filhol, 1885)
- {9} All the subspecies of *Parapagurus pilosimanus* Smith, 1879 proposed by de Saint Laurent (1972) were elevated to specific status by Lemaitre (1989).
- {10} De Grave et al. (2009) incorrectly attributed authorship of the genus *Tylaspis* to Tizard, Mosely, Buchanan & Murray (1885), presumably because they were the editors of the narrative of the 'Challenger' cruise. However, the report on the Anomura (pp. 897–901)

actually was written by Henderson, as Tizard et al. acknowledged. The illustration and brief diagnosis of “*Tylaspis* n. gen. et sp.” by Henderson (1885: 900–901, fig. 329) meet ICZN requirements for publication. The correct author of this genus is therefore Henderson (1885).

Family Pylochelidae Bate, 1888

Subfamily Pylochelinae Bate, 1888

Bathycheles Forest, 1987 {1}

- = *Pylocheles* (*Bathycheles*) Forest, 1987 (type species
Pylocheles (*Bathycheles*) *incisus* Forest 1987, by original designation; gender masculine)

Bathycheles crosnieri (Forest, 1987) [*Pylocheles* (*Bathycheles*)]

Bathycheles cubensis (Ortiz & Gómez, 1986) [*Pylocheles*]

- = *Pylocheles* (*Bathycheles*) *chacei* Forest, 1987

Bathycheles incisus (Forest, 1987) [*Pylocheles* (*Bathycheles*)]

Bathycheles integer (Forest, 1987) [*Pylocheles* (*Bathycheles*)]

- = *Pylocheles* (*Bathycheles*) *profundus* Forest, 1987

Bathycheles macgilchristi (Alcock, 1905) [*Chiroplatea*] (misspelling of *Cheiropatea*)

Bathycheles phenax McLaughlin & Lemaitre, 2009

Cheiropatea Bate, 1888

- = *Cheiropatea* Bate, 1888 (type species *Cheiropatea cenobita* Bate, 1888, by monotypy; gender masculine)
- = *Chiropatea* Ortmann, 1892 (misspelling of *Cheiropatea*)

Cheiropatea cenobita Bate, 1888

Cheiropatea laticauda Boas, 1926

Cheiropatea mitoi Miyake, 1978

Cheiropatea pumicicola Forest, 1987

Cheiropatea scutata Ortmann, 1892

- = *Chiropatea scutata* Ortmann, 1892 (misspelling of *Cheiropatea*)

Cheiropatea stenurus Forest, 1987

Pylocheles A. Milne-Edwards, 1880

- = *Pylocheles* A. Milne-Edwards, 1880 (type species
Pylocheles agassizi A. Milne-Edwards, 1880, by monotypy; gender masculine)

Pylocheles agassizi A. Milne-Edwards, 1880

- = *Pylocheles partitus* Benedict, 1901

Pylocheles mortensenii Boas, 1926

- = *Pylocheles rigidus* Yokoya 1933

Xylocheles Forest 1987 {2}

- = *Xylocheles* Forest, 1987 (type species *Pylocheles* (*Xylocheles*) *macrops* Forest, 1987, by original designation; gender masculine)

Xylocheles macrops (Forest, 1987) [*Pylocheles* (*Xylocheles*)]

Xylocheles miersi (Alcock & Anderson, 1899) [*Pylocheles*]

- = *Pylodietes miersi* McGinitie & McGinitie, 1949 (misspelling of *Pylocheles*)

Subfamily Pomatochelinae Stebbing, 1914

Pomatocheles Miers, 1879

- = *Pomatocheles* Miers, 1879 (type species
Pomatocheles jeffreysii Miers, 1879, by monotypy; gender masculine)

Pomatocheles gaillardi Forest, 1987

Pomatocheles jeffreysii Miers, 1879

Pomatocheles stridulans Forest, 1987

Subfamily Trizochelinae Forest 1987

Tribe Cancellochelini Forest, 1987

Cancellocheles Forest, 1987

- = *Cancellocheles* Forest, 1987 (type species
Pomatocheles sculptipes Miyake, 1978, by monotypy; gender masculine)

Cancellocheles sculptipes (Miyake, 1978)
[*Pomatocheles*]

Tribe Mixtopagurini Bouvier, 1895 {3}

Mixtopagurus A. Milne-Edwards, 1880

- = *Mixtopagurus* A. Milne-Edwards, 1880 (type species
Mixtopagurus paradoxus A. Milne-Edwards, 1880, by monotypy; gender masculine)

Mixtopagurus paradoxus A. Milne-Edwards, 1880

Tribe Parapylochelini

Parapylocheles Alcock, 1901

- = *Parapylocheles* Alcock, 1901 (type species
Pylocheles scorpio Alcock, 1894, by monotypy; gender masculine)

Parapylocheles scorpio (Alcock, 1894)

Tribe Trizochelini Forest, 1987

Forestocheles McLaughlin & Lemaitre, 2009

- = *Forestocheles* McLaughlin & Lemaitre, 2009 (type species *Trizochelus perplexus* Forest, 1987, by original designation; gender masculine)

Forestocheles perplexus (Forest, 1987) [*Trizochelus*]

Trizochelus Forest, 1987

- = *Trizochelus* Forest, 1987 (type species *Pylocheles spinosus* Henderson, 1888, by original designation; gender masculine)

Trizochelus albatrossi Forest, 1987

Trizochelus balsii (Stebbing, 1914) [*Pomatocheles*]

Trizochelus boasi Forest, 1987

- = *Trizochelus gracilis* Forest, 1987

Trizochelus brachyops Forest & de Saint Laurent, 1987

Trizochelus brevicaulis (Boas, 1926) [*Mixtopagurus*]

Trizochelus caledonicus Forest, 1987

Trizochelus hoensonae McLaughlin & Lemaitre, 2009

Trizochelus laurentae Forest, 1987

Trizochelus longicaulis (Boas, 1926) [*Mixtopagurus*]

Trizochelus loquax Forest, 1987

Trizochelus manningi Forest, 1987

Trizochelus mendanai McLaughlin & Lemaitre, 2009

- Trizocheles moosai* Forest, 1987
Trizocheles mutus Forest, 1987,
Trizocheles pilgrimi Forest & McLaughlin, 2000
Trizocheles pulcher Forest, 1987
Trizocheles sakaii Forest, 1987
Trizocheles spinosus (Henderson, 1888)
= *Trizocheless spinosus bathamae* Forest & de Saint Laurent, 1987

NOTES

- {1} Authorship of *Bathycheles* was incorrectly credited to McLaughlin & Lemaitre, 2009, by De Grave et al. (2009). *Bathycheles* was proposed by Forest (1987) as a subgenus of *Pylocheles*. In their reassessment of pylochelid classification, McLaughlin & Lemaitre (2009) elevated *Bathycheles* to full generic rank, but in accordance with ICZN Article 43.1 (1999) the author and date for the taxon remain as Forest (1987).
- {2} Authorship of *Xylocheles* was incorrectly credited to McLaughlin & Lemaitre, 2009 by De Grave et al. (2009). *Xylocheles* was proposed by Forest (1987) as a subgenus of *Pylocheles*. In their reassessment of pylochelid classification, McLaughlin & Lemaitre (2009) elevated *Xylocheles* to full generic rank, but in accordance with ICZN Article 43.1 (1999) the author and date for the taxon remain as Forest (1987).
- {3} Although the tribe name Mixtopaguriens was Latinized by A. Milne-Edwards & Bouvier (1899), Forest (1987) correctly assigned the authorship and date to Bouvier (1895a) in accordance with Article 11f (iii) of the ICZN Code (1985).

Family Pylojacquesidae McLaughlin & Lemaitre, 2001

- Pylojacquesia* McLaughlin & Lemaitre, 2001
= *Pylojacquesia* McLaughlin & Lemaitre, 2001 (type species *Pylojacquesia colemani* McLaughlin & Lemaitre, 2001, by original designation; gender feminine)
- Pylojacquesia colemani* McLaughlin & Lemaitre, 2001
- Lemaitreopsis* McLaughlin, 2007
= *Lemaitreopsis* McLaughlin, 2007 (type species *Lemaitreopsis holmi* McLaughlin, 2007, by original designation; gender feminine)
- Lemaitreopsis holmi* McLaughlin, 2007

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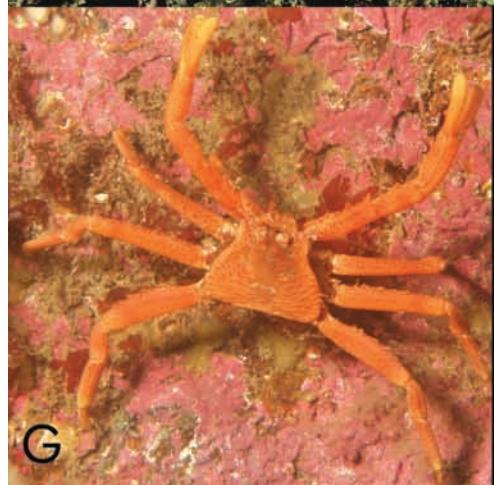
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Fig. 1. Lithodoidea. Representatives of Hapalogastridae Brandt, 1850 (A-G, in situ; H, preserved specimen): A, *Acantholithodes hispidus* (Stimpson, 1860), Hood Canal, Washington (G. Jensen); B, *Dermaturus mandtii* Brandt, 1850, Pribilof Islands, Alaska (G. Jensen); C, *Hapalogaster cavicauda* Stimpson, 1859, Cayucos, California (G. Jensen); D, *Hapalogaster grebnitzkii* Schalfeew, 1892, Prince William Sound, Alaska (G. Jensen); E, *Hapalogaster mertensi* Brandt, 1850, Whidbey Island, Washington (G. Jensen); F, *Oedignathus inermis* (Stimpson, 1860), Neah Bay, Washington (G. Jensen); G, H, *Placerton wosnessenskii* Schalfeew, 1892, Neah Bay, Washington (G) (G. Jensen); Alaska, USNM 276166 (H) (R. Lemaitre). USNM = National Museum of Natural History, Smithsonian Institution, Washington, D.C.



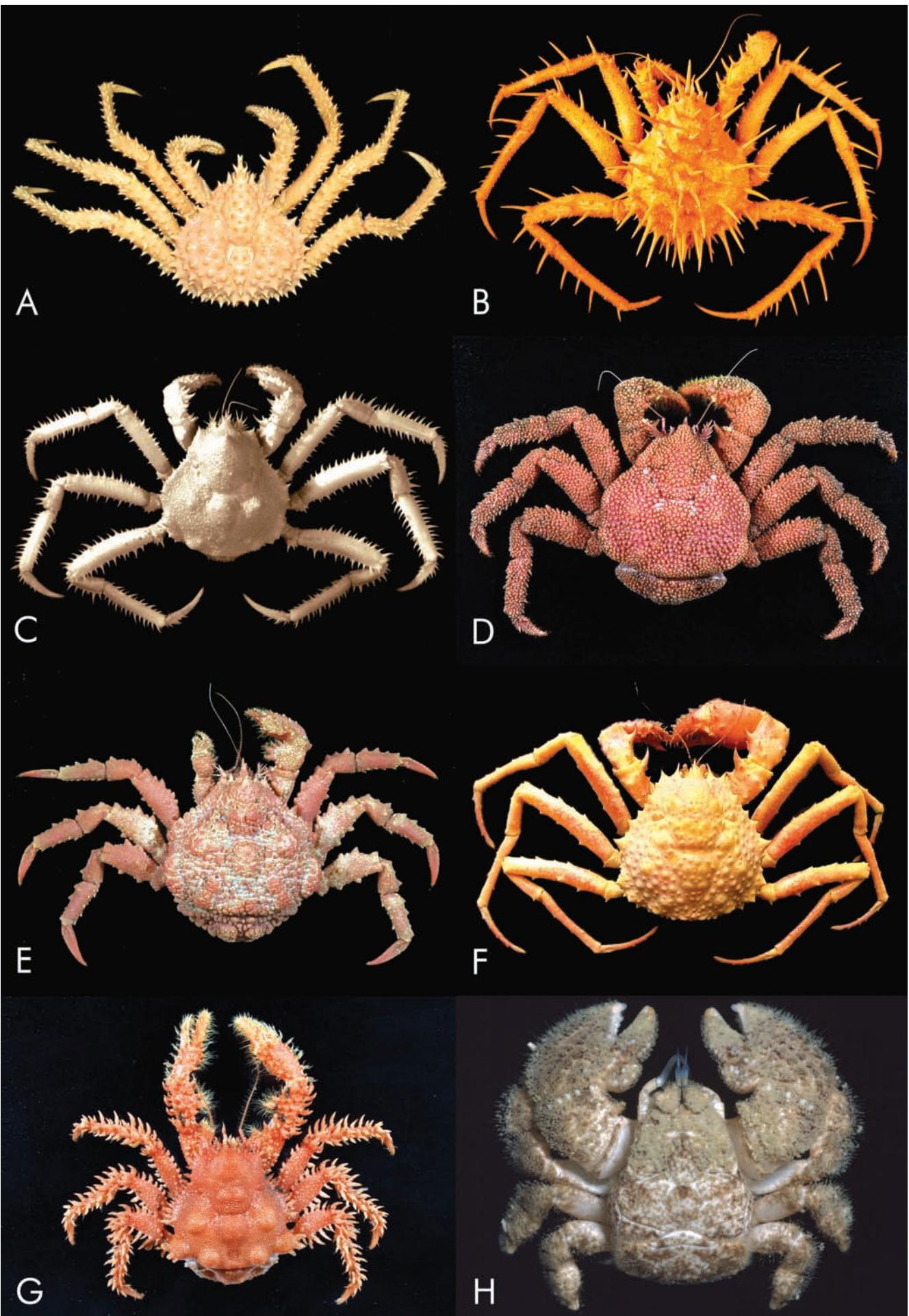


Fig. 3. Paguroidea. Representatives of Coenobitidae Dana, 1851 (in situ except A, C, D): A, B, *Birgus latro* (Linnaeus, 1767), Tuamotu, French Polynesia (A, J. Poupin; B, O. Gargominy); C, *Coenobita clypeatus* (Fabricius, 1787), Belize, ULLZ 11972 (D. L. Felder); D, *Coenobita cavipes* Stimpson, 1858, Mayotte Island (J. Poupin & R. Cléva); E, *Coenobita perlatus* H. Milne Edwards, 1837, Tuamotu, French Polynesia (J. Poupin); F, *Coenobita rugosus* H. Milne Edwards, 1837, Moorea, French Polynesia (P. Bacchet); G, *Coenobita spinosus* H. Milne Edwards, 1837, Wallis and Futuna (J. Poupin); H, *Coenobita violascens* Heller, 1862, Ryukyu Islands, Japan, specimen not collected (T. Komai). ULLZ = University of Louisiana at Lafayette Zoological Collections.



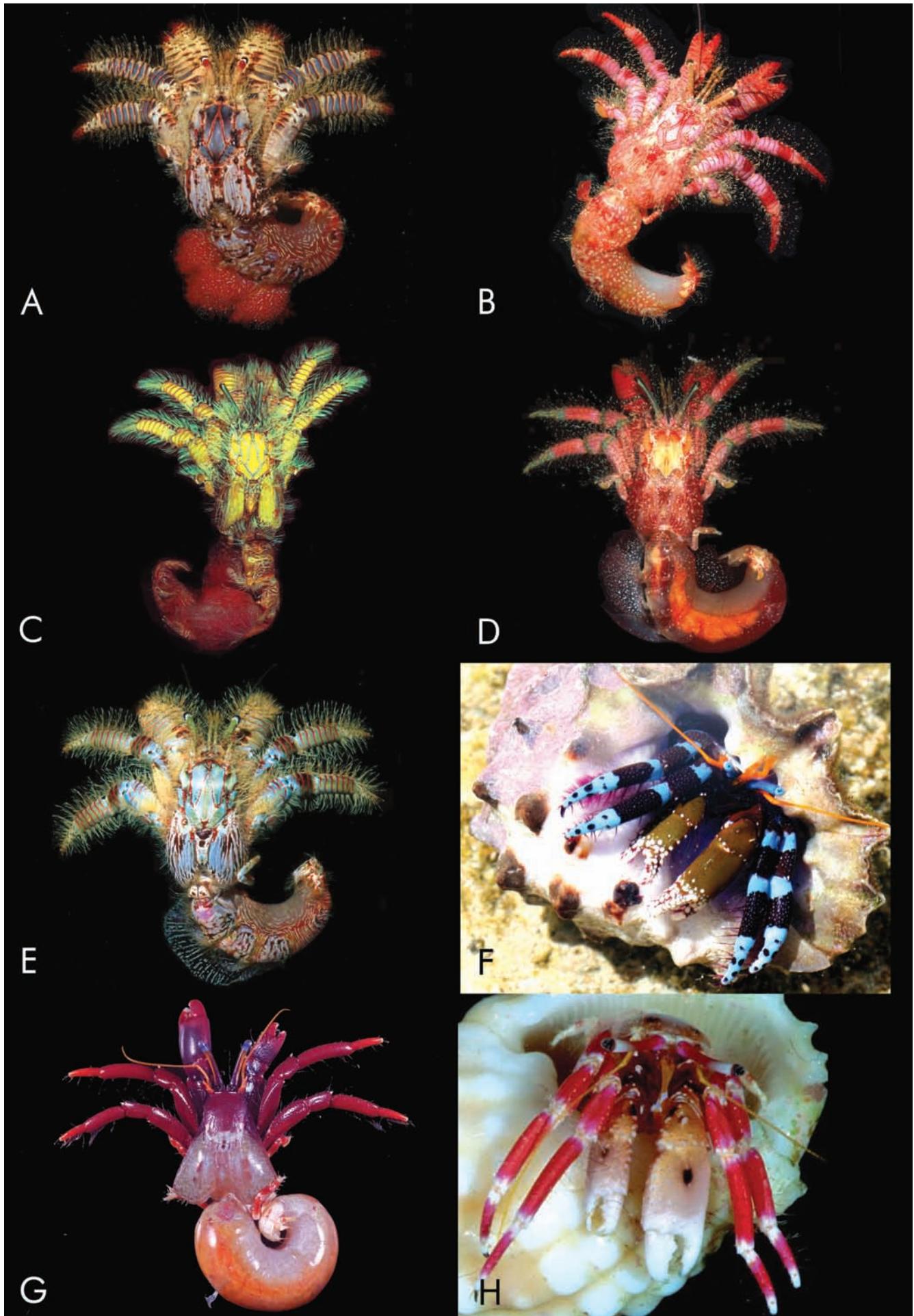


Fig. 5. Paguroidea. Representatives of Diogenidae Ortmann, 1892 (in situ except B, D, G, H): A, *Calcinus guamensis* Wooster, 1984, Moorea, French Polynesia (J. Poupin); B, *Calcinus laevimanus* (Randall, 1840), Philippines (T.-Y. Chan); C, *Calcinus latens* (Randall, 1840), Hawaii, CBM-ZC 10013 (E. Myorin); D, *Calcinus lineapropodus* Morgan & Forest, 1991, Philippines (T.-Y. Chan); E, *Calcinus mclaughlinae* Poupin & Bouchard, 2006, Clipperton Island (J. Poupin); F, *Calcinus nitidus* Heller, 1865, Moorea, French Polynesia (J. Poupin); G, *Calcinus pulcher* Forest, 1958, Philippines (T.-Y. Chan); H, *Calcinus seurati* Forest, 1951, Kikai Island, Amami Islands, Japan, CBM-ZC 9556 (T. Komai). CBM = Natural History Museum and Institute, Chiba.

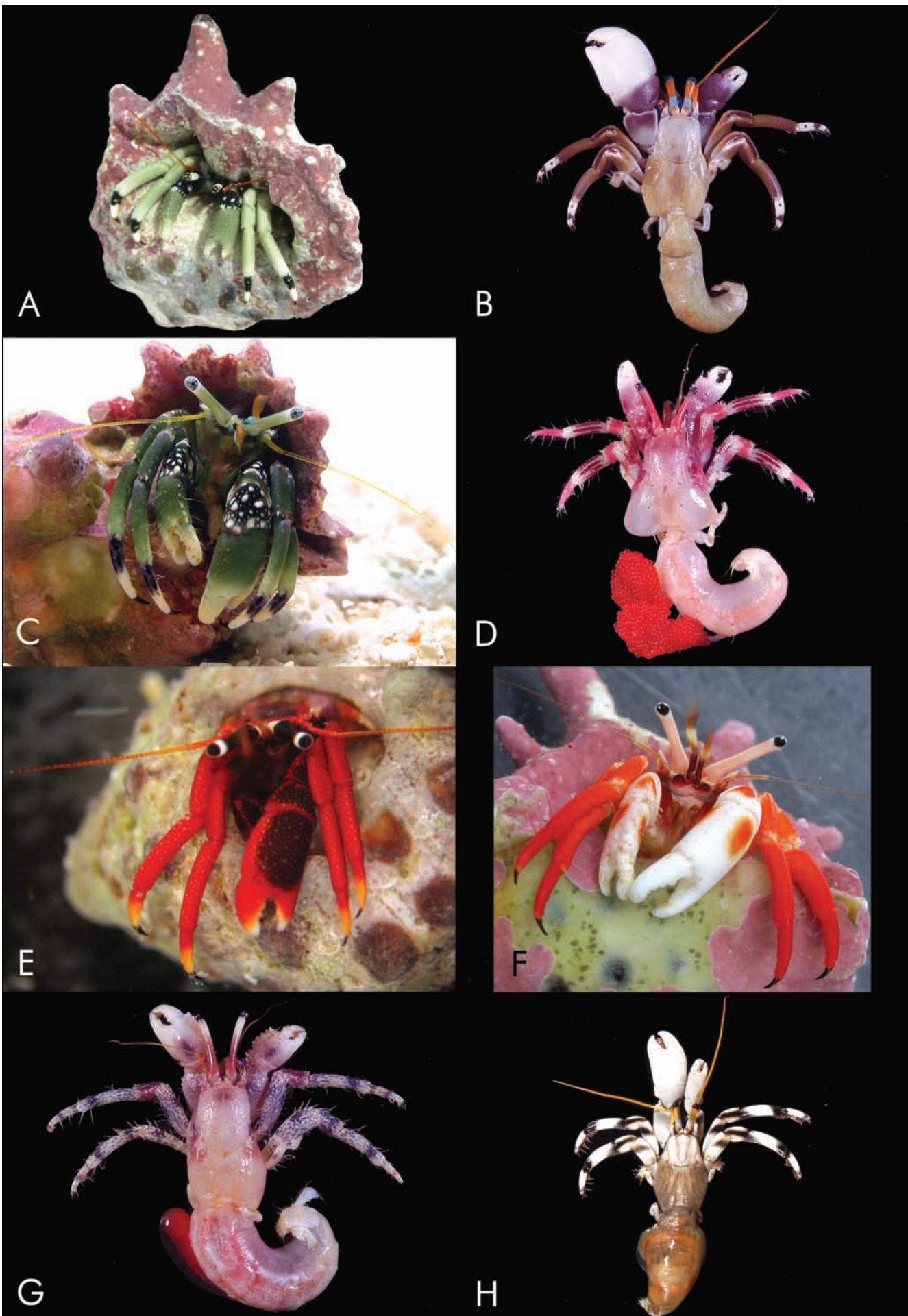


Fig. 6. Paguroidea. Representatives of Diogenidae Ortmann, 1892: A, *Cancellus panglaoensis* McLaughlin, 2008, Philippines (T.-Y. Chan); B, *Ciliopagurus krempfi* (Forest, 1952), Japan (T. Komai); C, *Ciliopagurus tricolor* Forest, 1995, Moorea, French Polynesia (A. Anker); D, *Clibanarius ambonensis* Rahayu & Forest, 1993, Ryukyu Islands, Japan, CBM-ZC (T. Komai); E, *Clibanarius corallinus* (H. Milne Edwards, 1848), Tuamotu, French Polynesia (G. Paulay); F, *Clibanarius demani* Buitendijk, 1937, Oura Bay, Ryukyu Islands, Japan (T. Komai); G, *Clibanarius englaucus* Ball & Haig, 1972, Ryukyu Islands, Japan, CBM-ZC (T. Komai); H, *Clibanarius rutilus* Rahayu, 1999, Bali, Indonesia, CBM-ZC 9990 (T. Komai). CBM = Natural History Museum and Institute, Chiba.

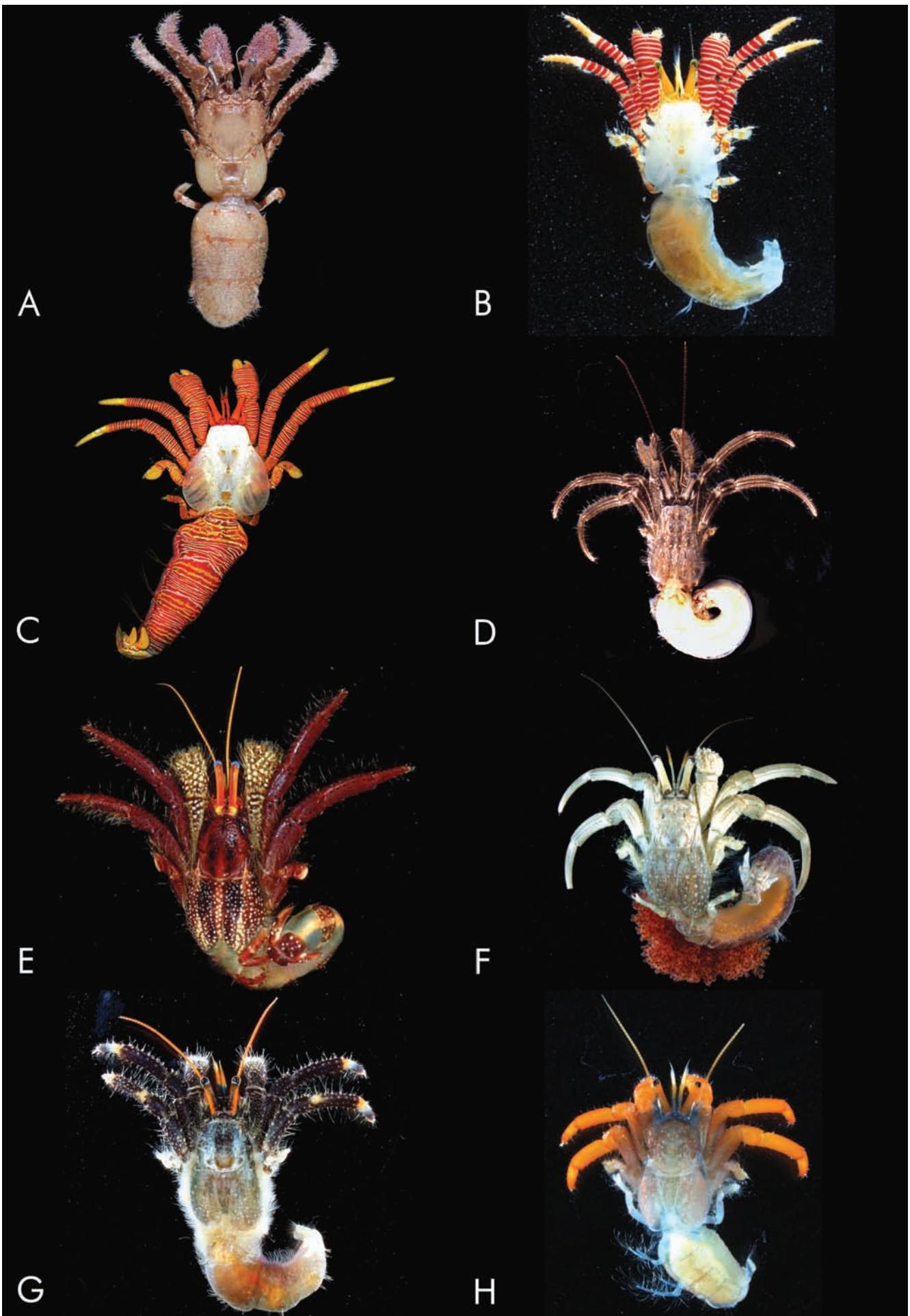


Fig. 7. Paguroidea. Representatives of Diogenidae Ortmann, 1892: A, *Clibanarius snelliisi* Buitendijk, 1937, Ryukyu Islands, Japan, CBM-ZC (T. Komai); B, *Clibanarius striolatus* Dana, 1852, Ryukyu Islands, Japan, CBM-ZC 9997 (T. Komai); C, *Clibanarius virescens* (Krauss, 1843), Ryukyu Islands, Japan (T. Komai); D, *Dardanus australis* Forest & Morgan, 1991, Austral Islands, French Polynesia (J. Poupin); E, *Dardanus brachyops* Forest, 1962, Ryukyu Islands, Japan, Okinawa Churaumi Aquarium (T. Komai); F, *Dardanus deformis* (H. Milne Edwards, 1836), Ryukyu Islands, Japan, CBM-ZC 8000 (T. Komai); G, *Dardanus gemmatus* (H. Milne Edwards, 1848), Tuamotu, French Polynesia (G. Paulay); H, *Dardanus guttatus* (Olivier, 1812), Ryukyu Islands, Japan, CBM-ZC 7999 (T. Komai). CBM = Natural History Museum and Institute, Chiba.

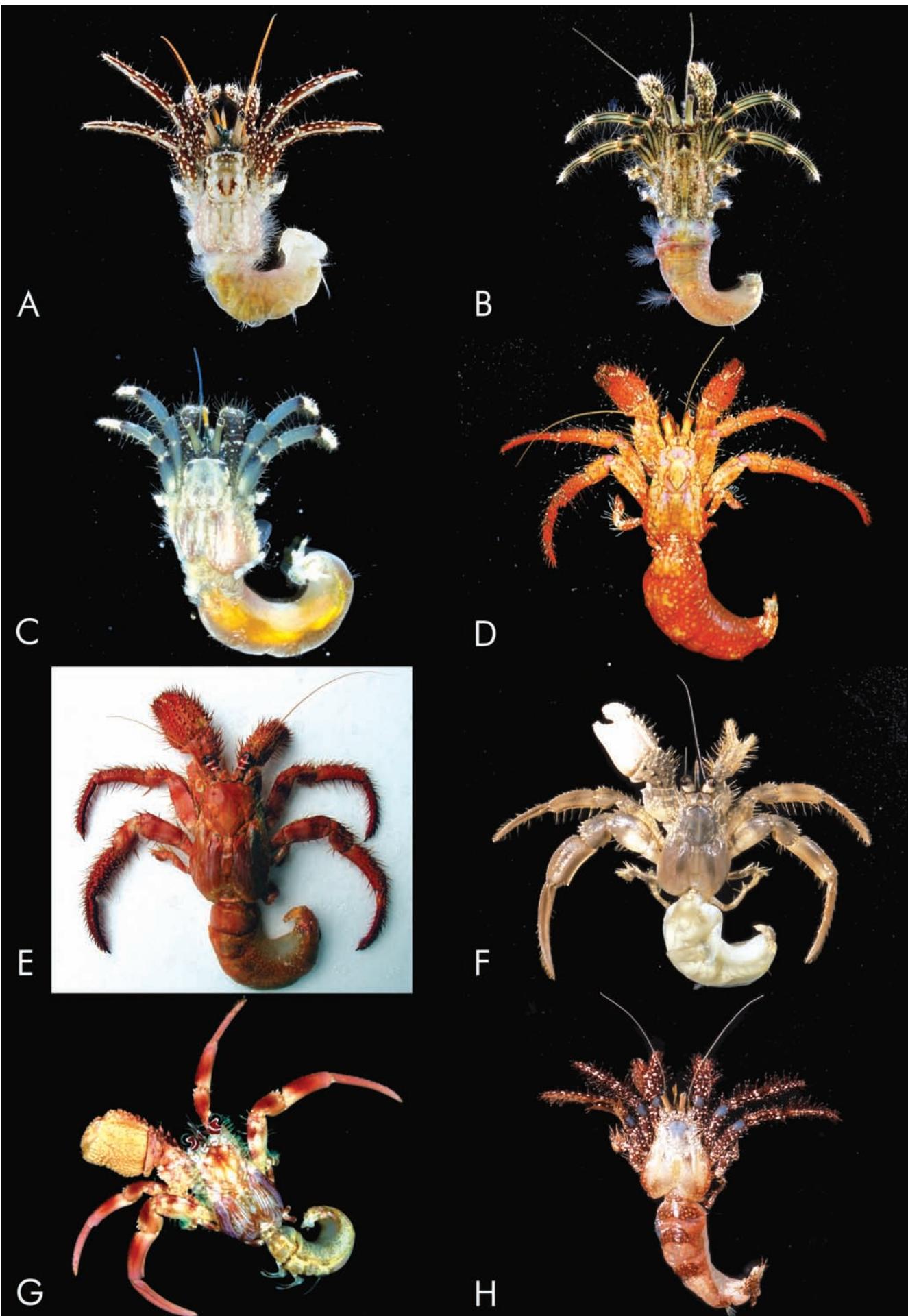


Fig. 8. Paguroidea. Representatives of Diogenidae Ortmann, 1892: A, *Dardanus lagopodes* (Forskål, 1775), Kagoshima Prefecture, Japan, CBM-ZC 8687 (T. Komai); B, *Dardanus robustus* Asakura, 2006, Ogasawara Islands, Japan (H. Tachikawa); C, *Dardanus scutellatus* (H. Milne Edwards, 1848), Ryukyu Islands, Japan, CBM-ZC 9995 (T. Komai); D, *Dardanus woodmasoni* (Alcock, 1905), Ryukyu Islands, Japan, CBM-ZC 9989 (T. Komai); E, *Diogenes alias* McLaughlin & Holthuis, 2001, Kerara, India, CBM-ZC 10007 (T. Komai); F, *Diogenes cf. avarus* Heller, 1865, Western Australia, CBM-ZC 9996 (T. Komai); G, *Diogenes cf. tirmiziae* Siddiqui & McLaughlin, 2003, Osumi Islands, Japan, CBM-ZC (T. Komai); H, *Diogenes cf. manaaensis* (Henderson, 1893), Kerara, India, CBM-ZC 10011 (T. Komai). CBM = Natural History Museum and Institute, Chiba.



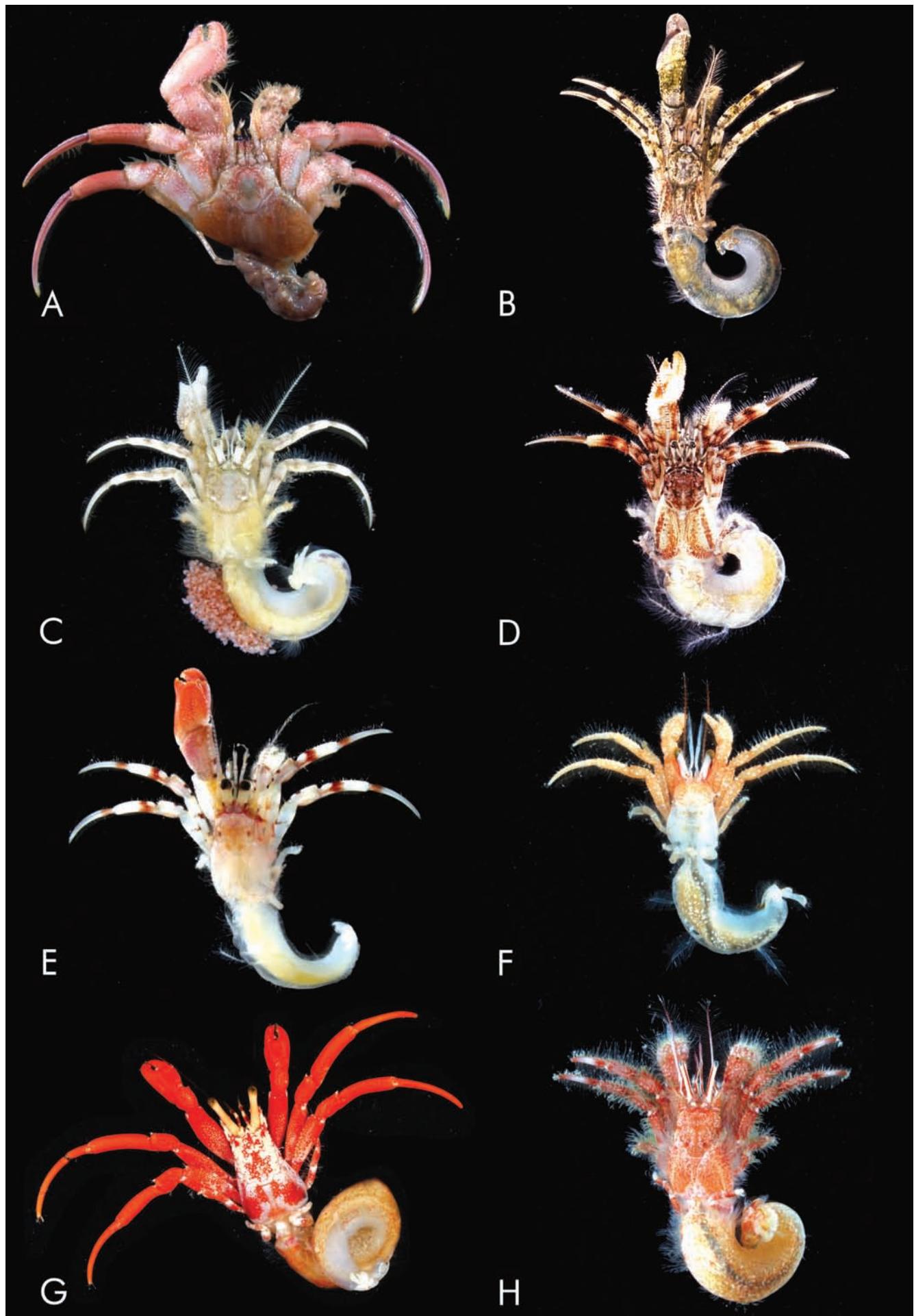


Fig. 10. Paguroidea. Representatives of Diogenidae Ortmann, 1892: A, *Paguristes gonagrus* (H. Milne Edwards, 1836), Taiwan (T.-Y. Chan); B, *Paguristes jalur* Morgan, 1992, Ryukyu Islands, Japan, CBM-ZC 9981 (T. Komai); C, *Paguristes miyakei* Forest & McLaughlin, 1998, Uraga Strait, Tokyo Bay, Japan (T. Komai); D, *Paguristes palythophilus* Ortmann, 1892, Uraga Strait, Tokyo Bay, Japan, CBM-ZC 4698 (T. Komai); E, *Paguristes cf. puniceus* Henderson, 1896, Uraga Strait, Japan, CBM-ZC (T. Komai); F, *Paguristes cf. pusillus* Henderson, 1896, Taiwan, NTOU (T.-Y. Chan); G, *Paguristes sericeus* A. Milne Edwards, 1880, Gulf of Mexico, ULLZ 7118 (D. L. Felder); H, *Paguristes versus* Komai, 2001, Izu Islands, Japan, CBM-ZC (T. Komai). CBM = Natural History Museum and Institute, Chiba; NTOU = National Taiwan Ocean University; ULLZ = University of Louisiana at Lafayette Zoological Collections.

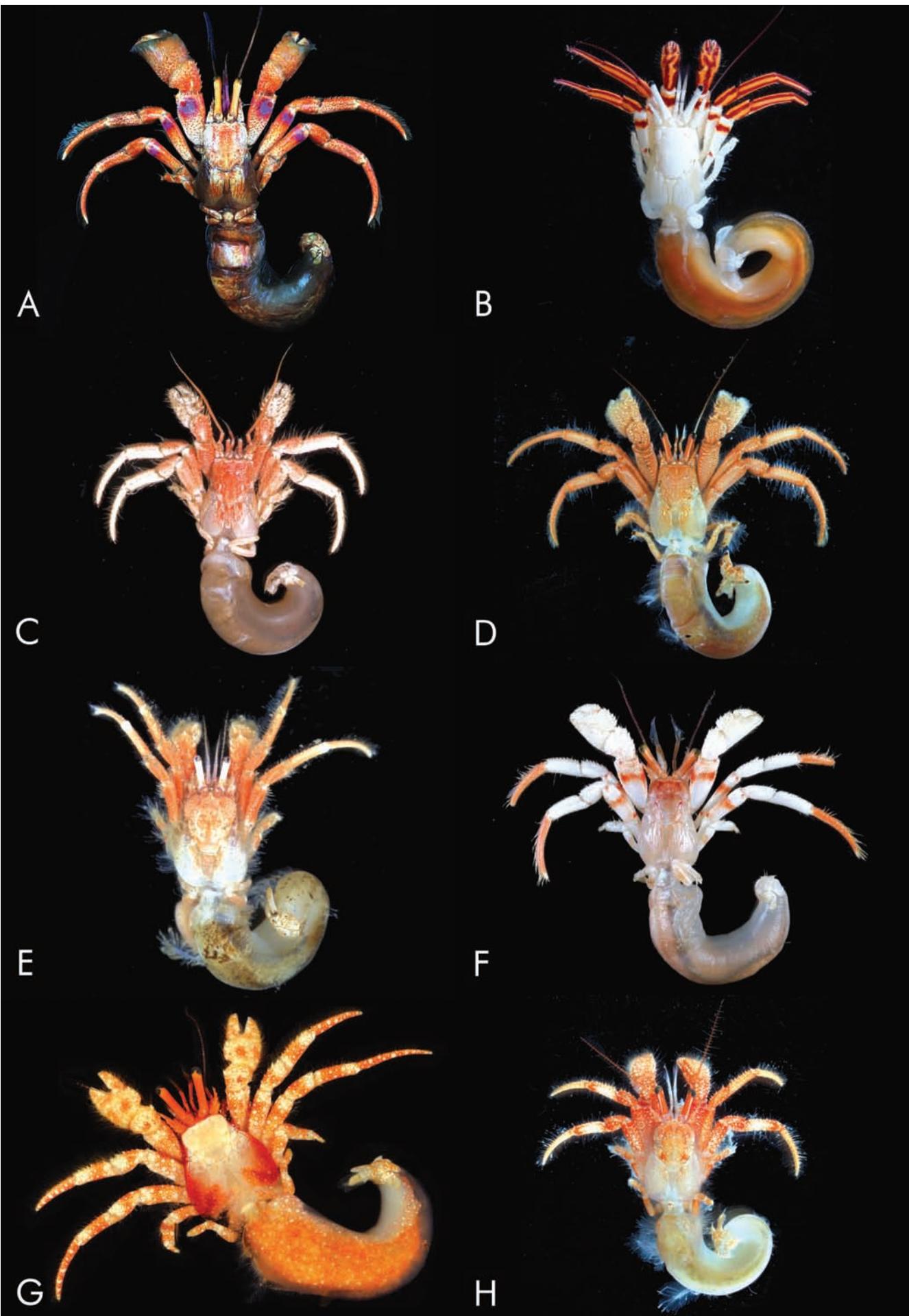
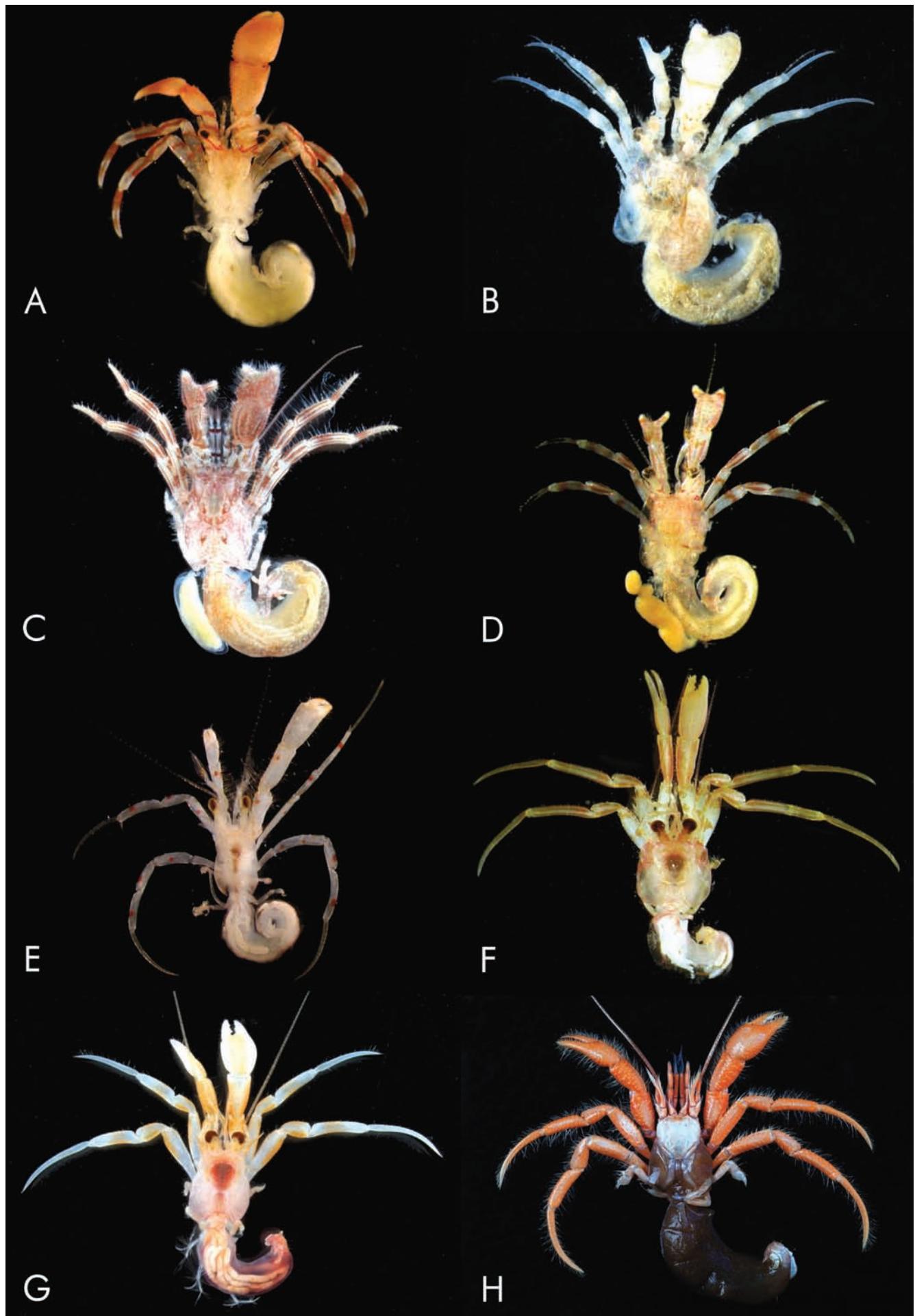




Fig. 12. Paguroidea. Representatives of Paguridae Latreille, 1802: A, *Anapagrides aequalis* Komai, 1999, Sagami Sea, Japan, NSMT-Cr S164 (T. Komai); B, *Anapagurus cf. bonnieri* Nobili, 1905, Ryukyu Islands, Japan (T. Komai); C, *Boninpagurus* sp., with rhizocephalan, Sagami Bay, Japan, CBM-ZC 10000 (T. Komai); D, *Catapaguroides japonicus* de Saint Laurent, 1968, with rhizocephalan, Sagami Bay, Japan, NSMT-Cr S165 (T. Komai); E, *Catapaguroides* sp., Ohsumi Islands, Japan (T. Komai); F, *Catapagurus misakiensis* Terao, 1914, Izu Islands, Japan, Sagami Sea, Japan, NSMT-Cr S168 (T. Komai); G, *Catapagurus* sp., Ryukyu Islands, Japan, CBM-ZC (T. Komai); H, *Chanopagurus atopus* Lemaitre, 2003, Taiwan (T.-Y. Chan). CBM = Natural History Museum and Institute, Chiba; NSMT = National Museum of Nature and Science, Tokyo.



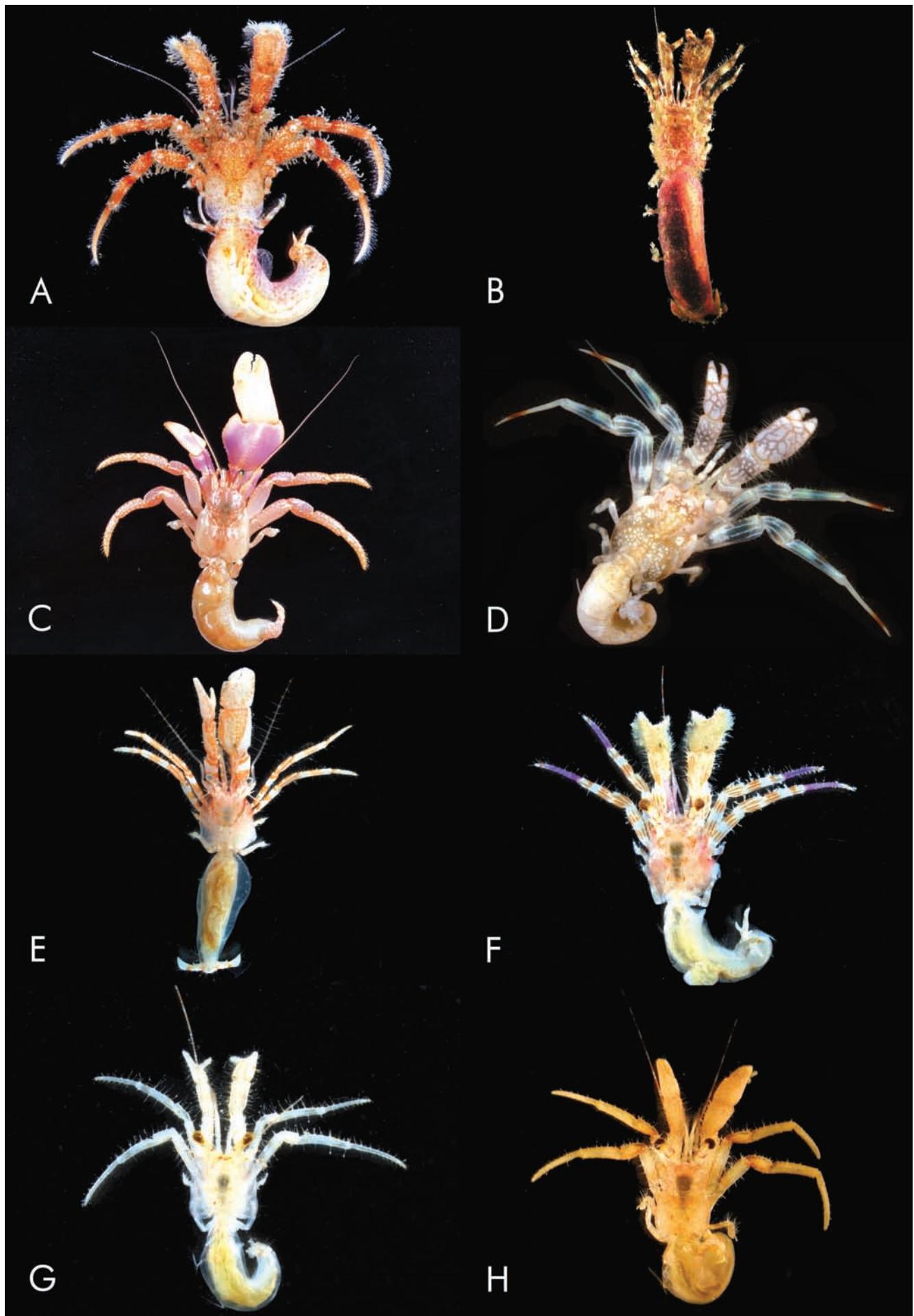


Fig. 14. Paguroidea. Representatives of Paguridae Latreille, 1802: A, *Nematopagurus tricarinatus* (Stimpson, 1858), Ogasawara Islands, Japan, CBM-ZC (T. Komai); B, *Pagurixus anceps* (Forest, 1957), Ryukyu Islands, Japan, CBM-ZC 9571 (T. Komai); C, *Pagurixus aurantiaca* Komai, 2010, Ogasawara Islands, Japan, holotype, CBM-ZC 9644 (T. Komai); D, *Pagurixus boninensis* (Melin, 1939), Ogasawara Islands, Japan, CBM-ZC (T. Komai); E, *Pagurixus dissimilis* Osawa & Komai, 2007, Kochi Prefecture, Japan, paratype, CBM-ZC 9071 (T. Komai); F, *Pagurixus haigae* Komai & Osawa, 2007, Ryukyu Islands, Japan, holotype, CBM-ZC 8406 (T. Komai); G, *Pagurixus nomurai* Komai & Asakura, 1995, Guam (G. Paulay); H, *Pagurixus pseliophorus* Komai & Osawa, 2006, Kochi Prefecture, Japan, paratype, CBM-ZC 8533 (T. Komai). CBM = Natural History Museum and Institute, Chiba.

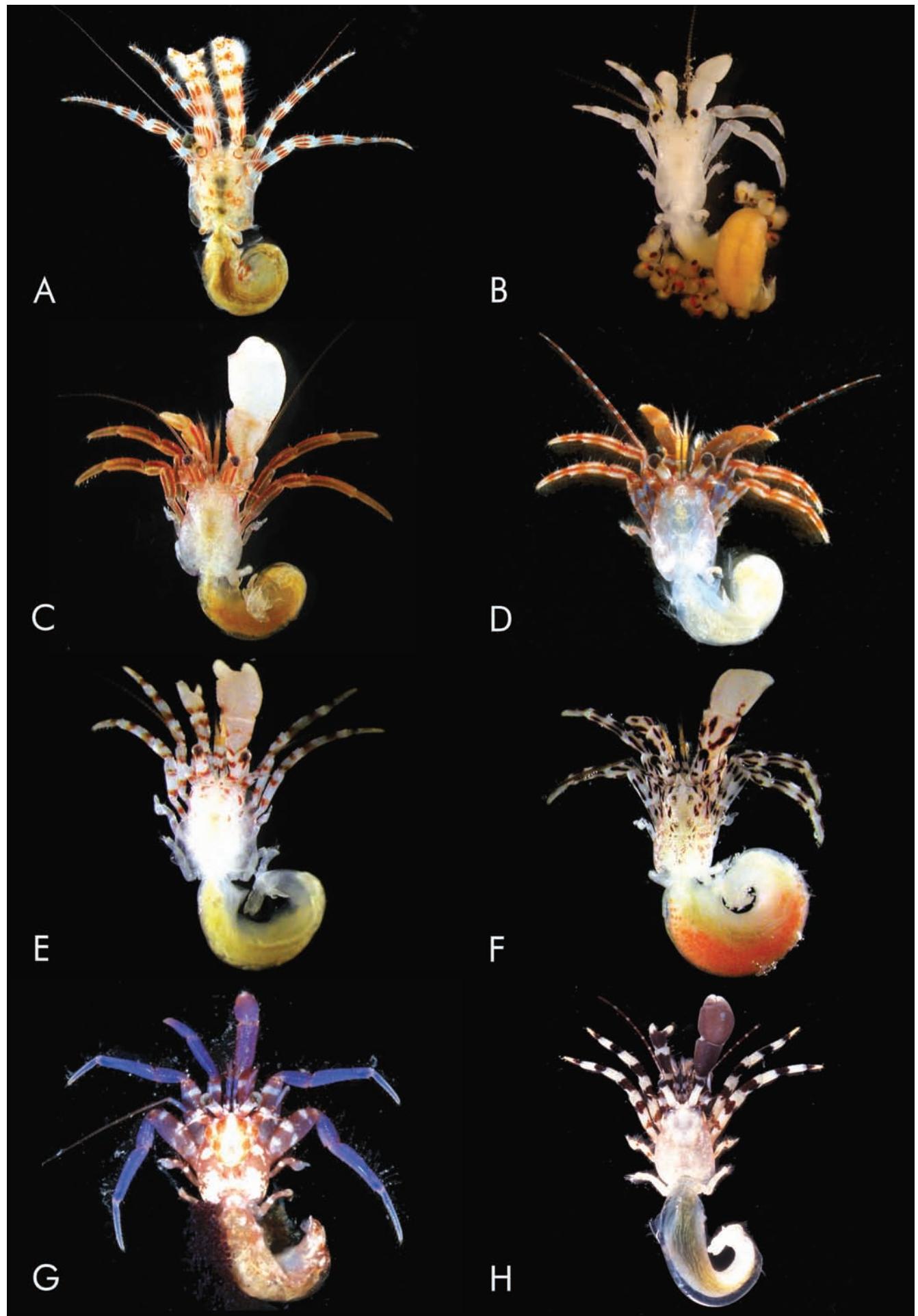


Fig. 15. Paguroidea. Representatives of Paguridae Latreille, 1802: A, *Pagurus alaini* Komai, 1998, Ohsumi Islands, Japan, CBM-ZC 9982 (T. Komai); B, *Pagurus angustus* (Stimpson, 1858), Ryukyu Islands, Japan, CBM-ZC (T. Komai); C, *Pagurus bernhardus* (Linnaeus, 1758), Belgium (C. d'Udekem d'Acoz); D, *Pagurus brevidactylus* (Stimpson, 1859), Gulf of Mexico, ULLZ 6753 (D. L. Felder); E, *Pagurus conformis* De Haan, 1849, Uraga Strait, Japan, CBM-ZC 9998 (T. Komai); F, *Pagurus erythrogrammus* Komai, 2003, Kochi Prefecture, Japan, CBM-ZC 9992 (T. Komai); G, *Pagurus hirtimanus* (Miers, 1880), Ryukyu Islands, CBM-ZC 8962 (T. Komai); H, *Pagurus imafukui* McLaughlin & Konishi, 1994, Sagami Bay, Japan, NSMT-Cr S185 (T. Komai). CBM = Natural History Museum and Institute, Chiba; NSMT = National Museum of Nature and Science, Tokyo; ULLZ = University of Louisiana at Lafayette Zoological Collections.

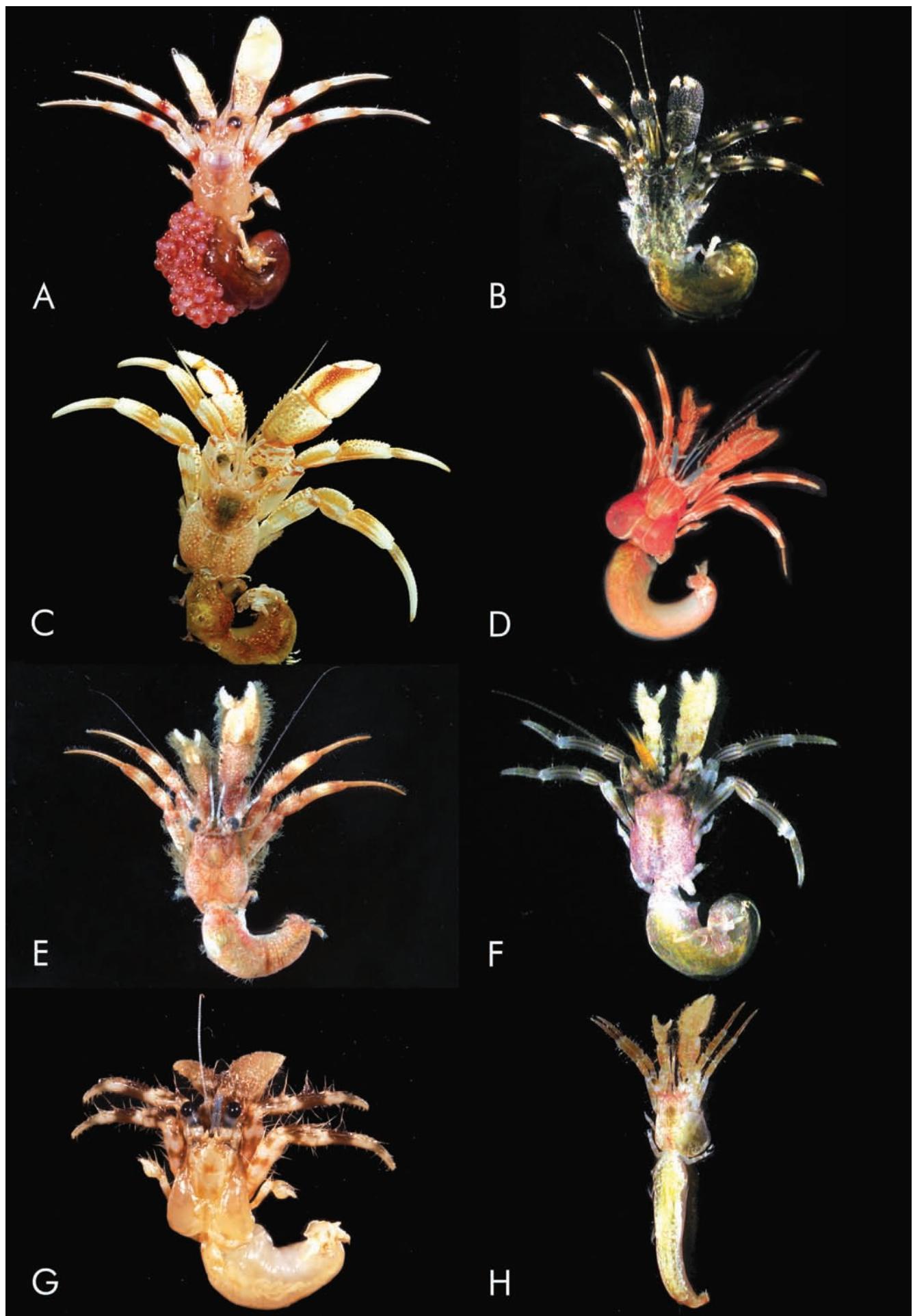
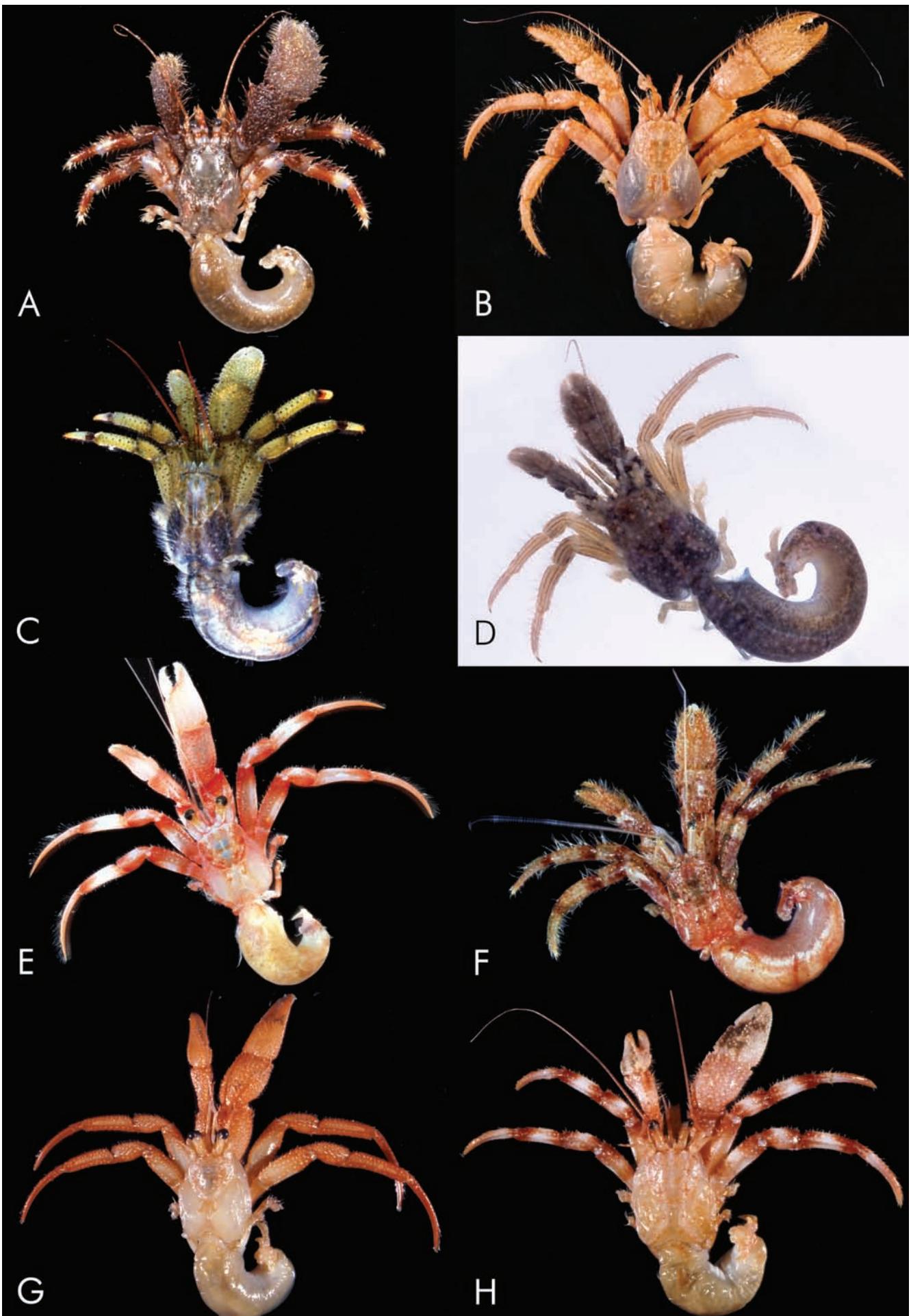


Fig. 16. Paguroidea. Representatives of Paguridae Latreille, 1802: A, *Pagurus japonicus* (Stimpson, 1858), Izu Peninsula, Japan, CBM-ZC 6795 (T. Komai); B, *Pagurus luticola* Komai & Chan, 2006, Taiwan, holotype, NTOU A00805 (T.-Y. Chan); C, *Pagurus nigrofascia* Komai, 1996, Chiba Port, Tokyo Bay, Japan, CBM-ZC 6772 (T. Komai); D, *Pagurus quinquelineatus* Komai, 2003, Boso Peninsula, Japan, paratype, CBM-ZC 6622 (T. Komai); E, *Pagurus rathbuni* (Benedict, 1892), Sea of Japan, off Hokkaido, CBM-ZC 10002 (T. Komai); F, *Pagurus simulans* Komai, 2000, Uraga Strait, Japan, paratype, CBM-ZC 5196 (T. Komai); G, *Pagurus townsendi* (Benedict, 1892), Hokkaido, Japan, HUMZ-C 1060 (T. Komai); H, *Pagurus trigonocheirus* (Stimpson, 1858), Hokkaido, Japan, HUMZ-C 1050 (T. Komai). CBM = Natural History Museum and Institute, Chiba; HUMZ, Faculty of Fisheries, Hokkaido University; NTOU = National Taiwan Ocean University.



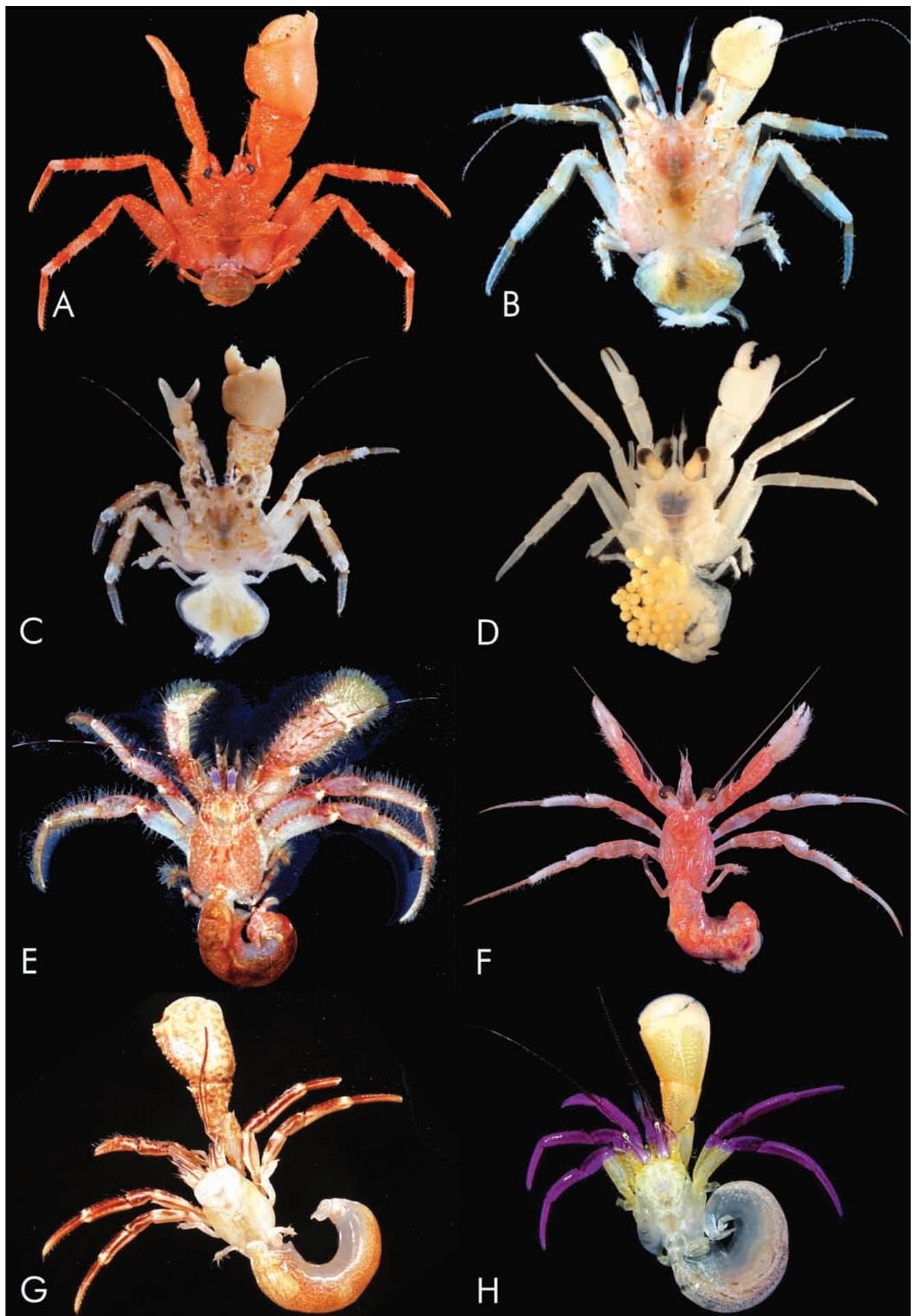


Fig. 18. Paguroidea. Representatives of Paguridae Latreille, 1802: A, *Pylopaguropsis vicina* Komai & Osawa, 2004, Ryukyu Islands, Japan (T. Komai); B, *Pylopaguropsis zebra* (Henderson, 1893), Osumi Islands, Japan, CBM-ZC 3137 (T. Komai); C, D, *Solitariopagurus tuerkayi* McLaughlin, 1997; C, Hawaiian Islands, LACM CR 2003-046.1 (R. B. Moffitt), D, infested with bopyrid, Ryukyu Islands, Japan, CBM-ZC 8598 (T. Komai); E, *Spiropagurus profundorum* Alcock, 1905, Ohsumi Islands, Japan, CBM-ZC 9984 (T. Komai); F, *Trichopagurus trichophthalmus* (Forest, 1954), Ryukyu Islands, Japan, CBM-ZC 9949 (T. Komai); G, *Turleania saliens* Osawa & Fujita, 2008, Kashiwa-jima, Ohtsuki, Kochi Prefecture, CBM-ZC 9991 (T. Komai); H, *Turleania senticosa* (McLaughlin & Haig, 1996), Ohsumi Islands, Japan, CBM-ZC 9985 (T. Komai); I, *Xylopagurus philippinensis* Forest, 1997, Philippines (T.-Y. Chan). CBM = Natural History Museum and Institute, Chiba; LACM = Natural History Museum of Los Angeles County.

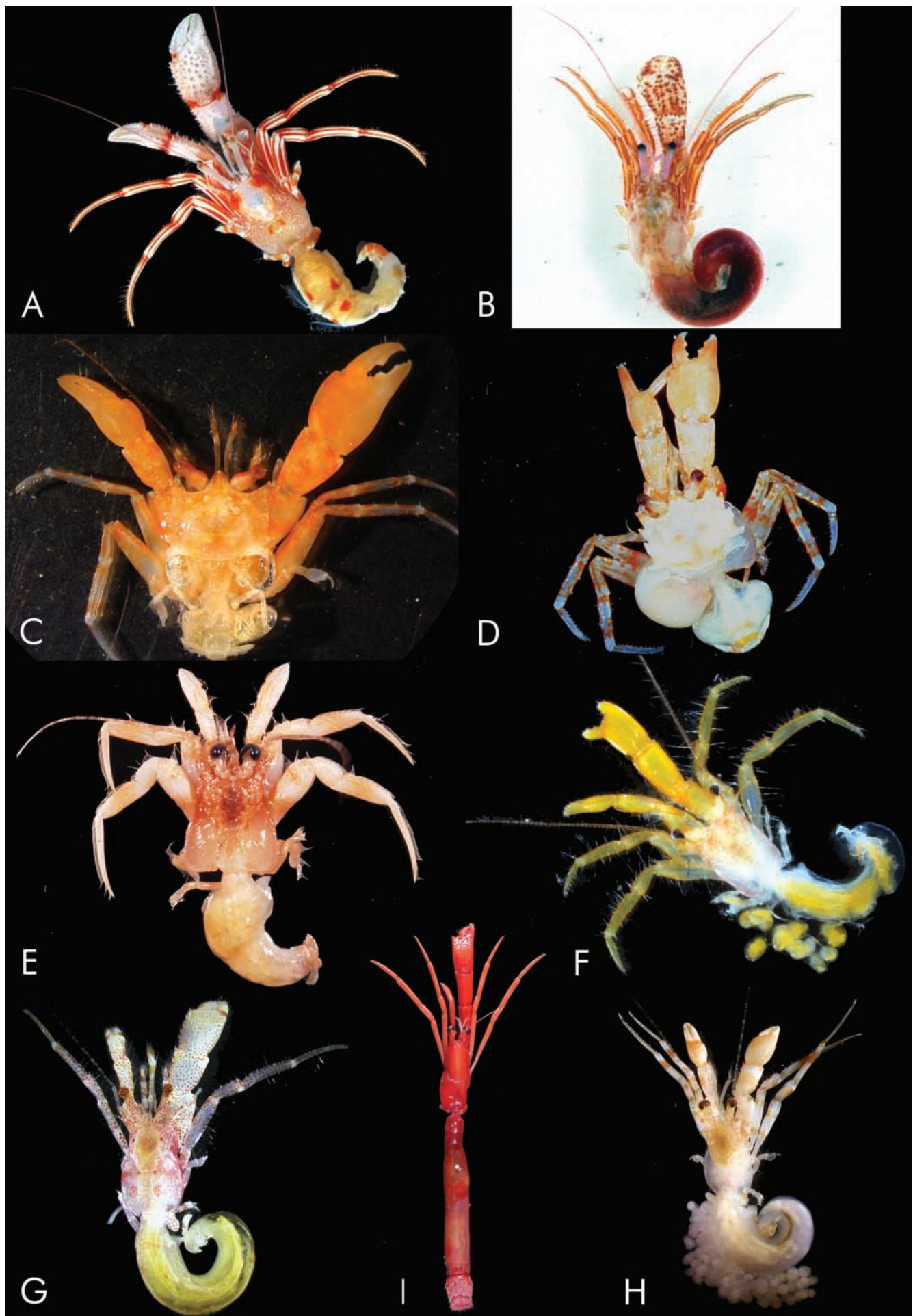


Fig. 19. Paguroidea. Representatives of Parapaguridae Smith, 1882: A, *Oncopagurus monstrosus* (Alcock, 1894), Taiwan (T.-Y. Chan); B, *Paragiopagurus acutus* (de Saint Laurent, 1972), Uraga Strait, Tokyo Bay, Japan, CBM-ZC 9898 (T. Komai); C, *Paragiopagurus bougainvillei* (Lemaitre, 1994), Tuamotu, French Polynesia (J. Poupin); D, *Paragiopagurus cf. diogenes* (Whitelegge, 1900), French Frigate Shoals, Hawaiian Islands (G. Paulay); E, *Paragiopagurus fasciatus* Lemaitre & Poupin, 2003, Austral Islands, French Polynesia (J. Poupin); F, *Paragiopagurus ventilatus* Lemaitre, 2004, Taiwan (T.-Y. Chan); G, *Paragiopagurus wallisi* (Lemaitre, 1994), Austral, Thiers Bank, French Polynesia (J. Poupin); H, I (in zoanthid carcinoecia), *Parapagurus furici* Lemaitre, 1999, Taiwan (T.-Y. Chan). CBM = Natural History Museum and Institute, Chiba

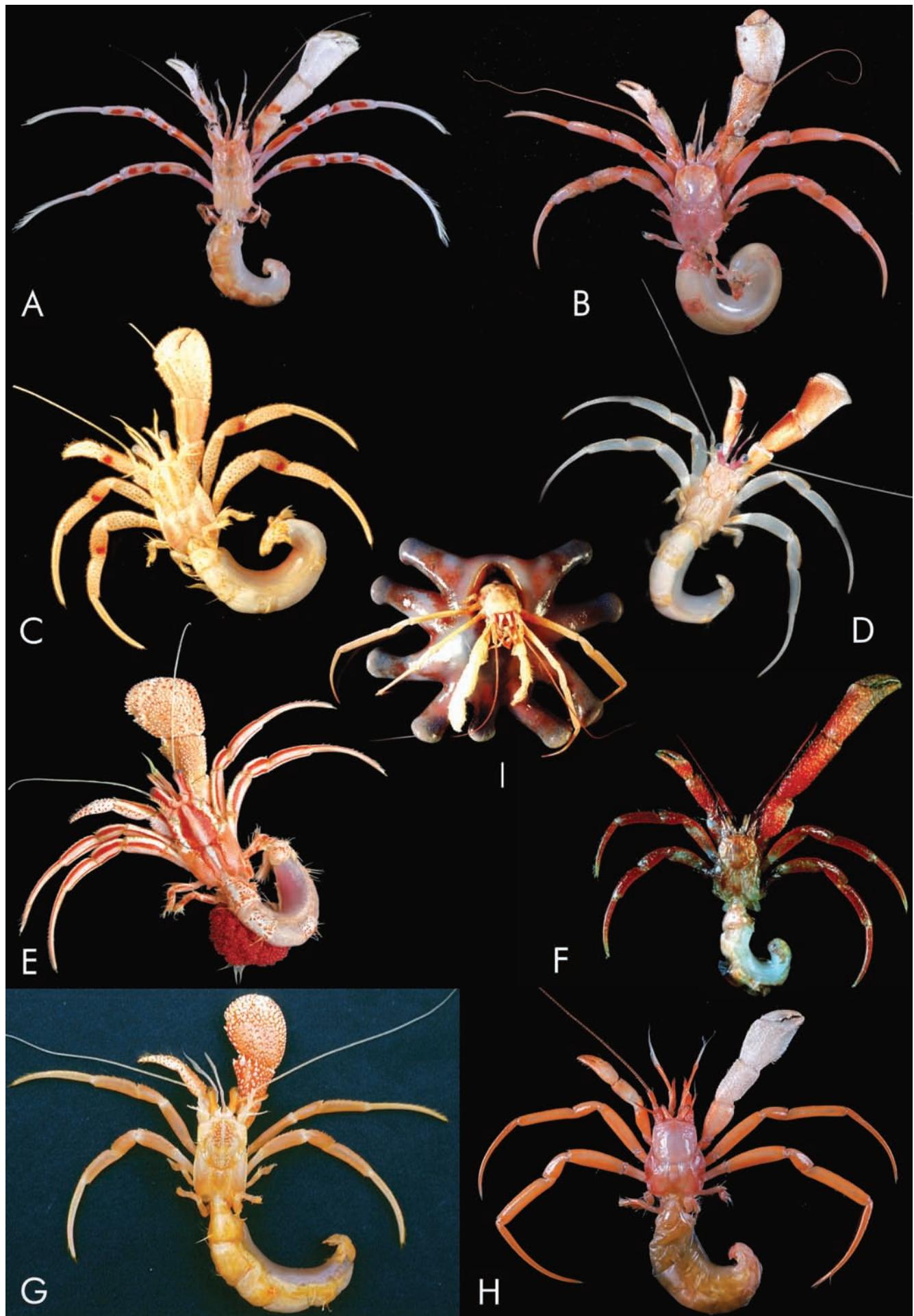


Fig. 20. Paguroidea. Representatives of Parapaguridae Smith, 1882: A, *Parapagurus latimanus* Henderson, 1888, off Boso Peninsula, Japan, CBM-ZC 2038 (T. Komai); B, *Parapagurus richeri* Lemaitre, 1999, Taiwan (T.-Y. Chan); C, *Proberebei mirabilis* Boone, 1926, cephalothorax, pleon and proximal portions of chelipeds and ambulatory legs, off Peru, South Pacific, USNM 267810 (preserved specimen, R. Lemaitre); D, *Strobopagurus gracilipes* (A. Milne-Edwards, 1891), Taiwan (T.-Y. Chan); E, *Sympagurus brevipes* (de Saint Laurent, 1972), Philippines (T.-Y. Chan); F, *Tsunogaipagurus chuni* (Balss, 1911), Izu Islands, Japan, CBM-ZC (T. Komai); G, *Tylaspis anomala* Henderson, 1885, Japan (S. Ohta). CBM = Natural History Museum and Institute, Chiba; USNM = National Museum of Natural History, Smithsonian Institution, Washington, D.C.

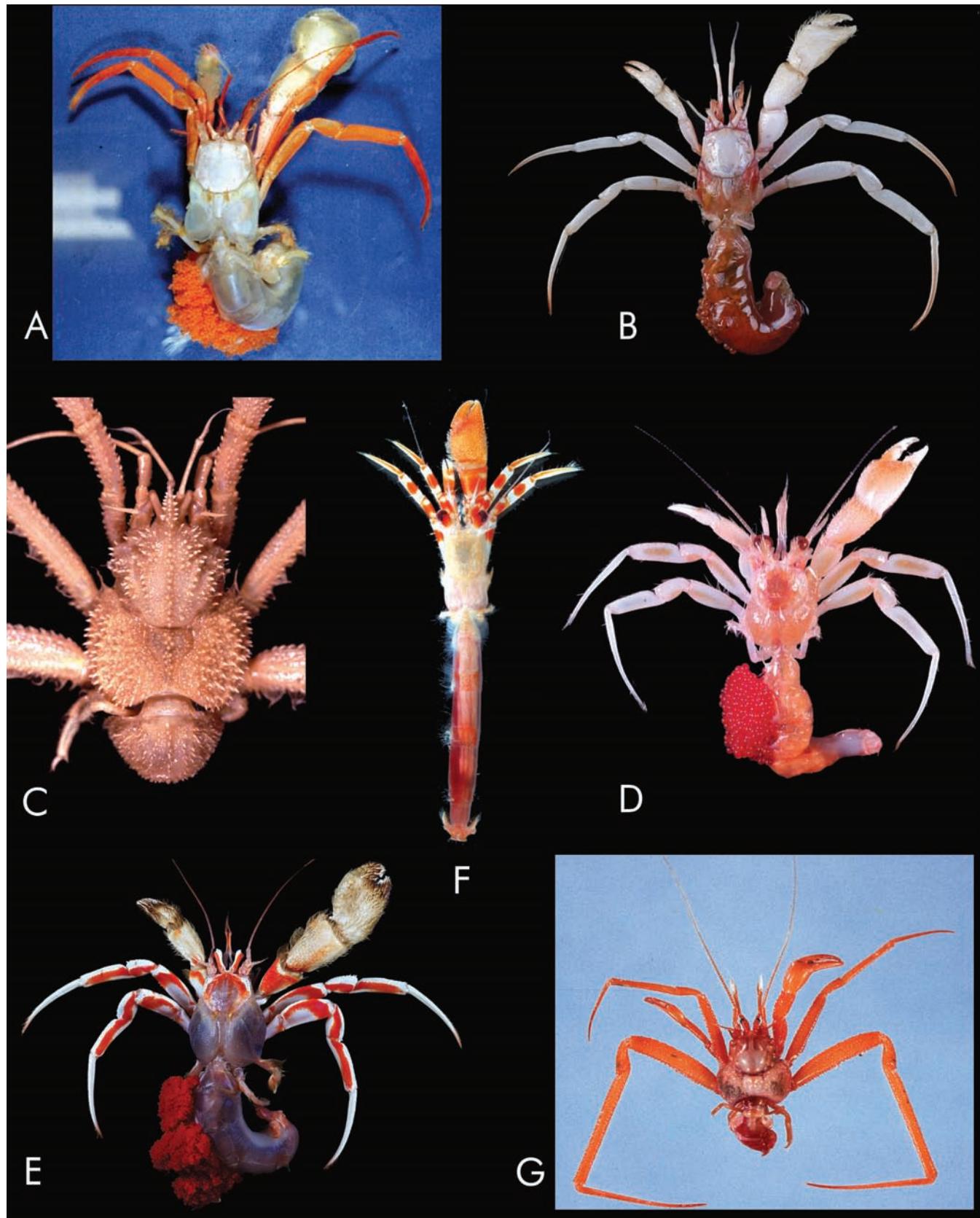


Fig. 21. Paguroidea. Representatives of Pylochelidae Bate, 1888: A, *Bathycheles incisus* (Forest, 1897), Philippines (T.-Y. Chan); B, *Bathycheles integer* (Forest, 1897), Philippines, MNHN Pg 7907 (T.-Y. Chan); C, *Xylocheles macrops* (Forest, 1897), Philippines (T.-Y. Chan); D, *Xylocheles miersi* (Alcock & Anderson, 1899), Philippines (T.-Y. Chan); E, *Parapylocheles scorpio* (Alcock, 1894), Philippines (T.-Y. Chan); F, *Trizocheles boasi* Forest, 1987, Philippines, in sponge habitat partially removed, NMCR (T.-Y. Chan). MNHN = Muséum national d'Histoire naturelle, Paris; NMCR = National Museum of the Philippines, Manila.

