SYNOPSIS OF THE SUPERFAMILY LYSIANASSOIDEA (AMPHIPODA: GAMMARIDEA) IN CHILE

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ABSTRACT

An updated checklist of the 39 species of the superfamily Lysianassoidea recorded from Chile is presented, with dichotomous keys to identify the 11 families, genera and species known to date in the country. A synopsis of all described species and new geographic records of some taxa are included. A new genus is described for *Uristes serratus* Schellenberg, 1931 and *U. yamana* Chiesa and Alonso de Pina, 2007, and the first record of the family Endevouridae in Chilean waters is presented.

Key words: Families, Keys, New records, *Exuristes* n. gen., Chile.

RESUMEN

Sinopsis de la superfamilia Lysianassoidea (Amphipoda: Gammaridea) en Chile. Se presenta una lista actualizada de las 39 especies de la superfamilia Lysianassoidea, registradas en Chile, junto con claves dicotómicas para identificar las 11 familias, géneros y especies conocidas hasta la fecha en el país. Se incluye una sinopsis de todas las especies descritas y nuevos registros geográficos de algunos taxa. Se describe un nuevo género para *Uristes serratus* Schellenberg, 1931 y *U. yamana* Chiesa and Alonso de Pina, 2007 y se presenta el primer registro de la familia Endevouridae en aguas chilenas.

Palabras clave: Familias, Claves, Nuevos registros, *Exuristes* n. gen., Chile.

INTRODUCTION

The gammaridean superfamily Lysianassoidea constitutes a group of highly diverse marine amphipods with cosmopolitan distribution, which occupy nearly every habitat available, especially in cold temperate oceans of the southern hemisphere (Bousfield 1982; De Broyer *et al.* 2007). Originally, Lysianassoidea were conceived as a family unit, characterized mainly by the structure of the antenna 1, with short and thick peduncular articles, and gnathopod 2 with unusually elongated carpus (Dana 1849; Stebbing 1906; Barnard 1969; Barnard and Karaman 1991). However, recognition of different subgroups demanded his elevation to superfamily rank (Bousfield 1978) and subsequent description of a number of families (Hurley 1963; Lowry and De Broyer 2008; Lowry and Stoddart 1990, 1997, 2002a, 2010a, 2010b, 2010c, 2010d, 2011a, 2012a; Stoddart and Lowry 2004, 2010a).

González (1991) recorded 24 species of Lysianassoidea in Chile, all grouped in the family Lysianassidae (*sensu lato*). Subsequently, González *et al.* (2008) continued to recognize almost the same 24 species, except for some new species that replace excluded dubious records. Accordingly, diversity at family level has not been recognized for Lysianassoidea in the country, with the exception of Häussermann and Försterra (2009), who cited 25 species from the fjord region (from Puerto Montt to the south) and considering for the first time the families Uristidae and Pachynidae.

This paper updates the knowledge on Chilean species of Lysianassoidea, using a taxonomic-pragmatic approach in order to enable identification of specimens based only on morphology and emphasizing easily observable characters. A synopsis of the species and dichotomous keys to the reported taxa are given, along with the description of *Exuristes* n. gen. for *Uristes serratus* Schellenberg, 1931 and *Uristes yamana* Chiesa and Alonso de Pina, 2007, the first record of the family Endevouridae in Chile and the first record of *Lepidepecreoides chincui* Lowry and Stoddart, 2002 after its original description.

MATERIAL AND METHODS

The information presented here derived from a review of literature on Lysianassoidean amphipods registered in Chile, complemented with specimens of some of the taxa, deposited in the collection of the Museo Nacional de Historia Natural, Chile (MNHNCL) and Museo de Zoología of the Universidad de Concepción, Chile (MZUC, see material studied section). All taxonomic studies including species cited in continental Chile (from 18° to 56° Lat. South) and Pacific Ocean off the country (to 100° Long. West), have been analysed. In addition, some species described from very close neighboring areas of Argentina (*e.g.*, Beagle Channel) are included, because their presence in Chilean waters is highly probable.

Classification system proposed by Lowry *et al.* (see references) is followed; the formula for setal-teeth of inner plate of maxilla 1 follows to Lowry and Stoddart (1995a) and the formula of dorsal setae of uropod 1 and 2 for *Ensayara* follows Gable and Lazo-Wasem (1990: 726). Labels of specimens examined are cited textually and diagnoses are restricted only to essential characters for differentiation from nearly related species. Dichotomous keys are based on literature and the drawings are modified from the corresponding authors.

RESULTS

A list of Lysianassoidean amphipod taxa documented for Chile is shown in Table 1. 11 families, 26 genera and 39 species are recognized. The most specious family is Lysianassidae, which is represented by three different subfamilies and 12 species; Uristidae with eight species, Amaryllididae, Cyphocarididae, Pachynidae and Trischizostomidae with three species each, and Aristidae and Eurytheneidae with two species respectively. The families Cyclocaridae, Endevouridae and Hirondelleidae, include one species each (Table 1). Three species (*Erikus lovrichi* Alonso, 2012; *Lysianopsis ona* Alonso, 2012 and *Exuristes yamana* (Chiesa and Alonso 2012) have been reported in neighboring areas of Argentina, in the Beagle Channel; however have been included because their presence in Chilean waters is highly probable. Finally, the species *Stephensenia haematopus* Schellenberg, 1928; *Tryphosoides falcata* Schellenberg, 1931 and *Stenia magellanica* Dana, 1852 were removed from the list of species present in Chile, because the two first have been founded only in Paramo, Tierra del Fuego, and the last in Buen Suceso Bay, both Argentinean localities, erroneously considered as Chilean localities by González (1991). Similarly, *Socarnoides unidentatus* was originally described from Puerto Madryn, Argentina by Schellenberg (1931) and cited in the Magellan Strait by González (1991), without identifying the source of this record; however, in this case the species is maintained as present in Chile, due to the great distance between the two involved locations, which suggests that there is no error derived from the "criteria of the midpoint" used by González.

The knowledge on the geographic distribution of Chilean lysianassoidean is relatively scarce. More than 38% of the species are known only from one locality (see Table 2). The percentage rise to 56.4% if species known from two localities are included and to 66.7% if species known from up to from 8 localities are considered. The species with more localities reported are *Parawaldeckia kidderi*, *Erikus dahli*, *Amaryllis macrophthalma*, *Tryphosites chevreuxi* and *Cyphocaris challengeri*, which reach between 13 and 25 localities (see Table 2).

Most of the knowledge on Chilean lysianassoideans is derived from few publications. If the number of paper that report new specimens collected in chilean localities is analysed, is remarkable that from a total of 44 reports, only Schellenberg (1931) cited 14 species (31.8%), and none other of the 19 papers exceed over 4 species recorded (Table 3). Other important papers are Vinogradov (1990), with 4 records (9.8%) and Costanzo and Crescenti (1997), Lowry and Stoddart (2012a) and Alonso (2012), with 3 species each. The 25.0% of the papers report only one species (see Table 3).

Several new geographic records are reported among the material examined, all of them extending the northern limit in hundreds (*e.g.*, *Erikus dahli*, *Parawaldeckia kidderi*, *Ultimachelium schellenbergi*, *Uristes serratus*, *Uristes subchelatus* and *Uristes paramoi*) to more than a thousand kilometers (*e.g.*, *Drummondia luce*). Maps showing the known localities for species of Lysianassoidea are presented in the figures 12 to 15.

TABLE 1. Families and species of Lysianassoidea recorded from Chile. * Registered from bordering areas. + Dubious record.

Family	**Species**
Amaryllididae	*Amaryllis macrophthalma* Haswell, 1880+
	Erikus dahli Lowry and Stoddart, 1987
	Erikus lovrichi Alonso, 2012*
Aristiidae	*Aristias antarcticus* Walker, 1906
	Aristias linnaei Pérez-Schultheiss, 2015
Cyclocaridae	*Cyclocaris tahitensis* Stebbing, 1888
Cyphocarididae	*Cyphocaris anonyx* Boeck, 1871
	Cyphocaris faurei K.H. Barnard, 1916
	Cyphocaris chaIlengeri Stebbing, 1888
Endevouridae	*Ensayara gappai* Alonso, 2012
Eurytheneidae	*Eurythenes* sp.
	Eurythenes magellanicus (Milne Edwards, 1848)
Hirondelleidae	*Hirondellea thurstoni* Kilgallen, 2014
Lysiannasidae (Conicostomatinae)	*Acontiostoma marionis* Stebbing, 1888
	Stomacontion pepinii (Stebbing, 1888)
Lysiannasidae (Lysianassinae)	*Lysianopsis ona* Alonso, 2012*
	Lysianopsis subantarctica (Schellenberg, 1931)
	Parawaldeckia kidderi (Smith, 1876)
	Socarnoides unidentatus (Schellenberg, 1931)
Lysiannasidae (Tryphosinae)	*Lepidepecreoides chincui* Lowry and Stoddart, 2002
	Orchomene montana Vinogradov and Vinogradov, 1991
	Orchomenella (O.) chilensis (Heller, 1865)
	Paralysianopsis odhneri Schellenberg, 1931
	Tryphosella castellata (K.H. Barnard, 1932)
	Tryphosites chevreuxi Stebbing, 1914
Pachynidae	*Drummondia luce* Lowry and Stoddart, 2012a
	Ultimachelium schellenbergi (Lowry, 1984)
	Ultimachelium tac Lowry and Stoddart, 2012a
Trischizostomidae	*Trischizostoma barnardi* Vinogradov, 1990
	Trischizostoma cristochelatum Vinogradov, 1990
	Trischizostoma nascaensis Vinogradov, 1990
Uristidae	*Abyssorchomene plebs* (Hurley, 1965)
	Exuristes serratus (Schellenberg, 1931)
	Exuristes yamana (Chiesa and Alonso, 2012)*
	Koroga megalops Holmes, 1908
	Uristes schellenbergi (Schellenberg, 1931)
	Uristes serratus (Schellenberg, 1931)
	Uristes subchelatus (Schellenberg, 1931)
	Uristes paramoi (Schellenberg, 1931)

TABLE 2. Number of Chilean localities reported by species of lyssianassoid amphipod.

Number of cited localities	Number of species	%
1	15	38,5
2	7	17,9
3	3	7,7
4	2	5,1
5	1	2,6
6	2	5,1
7	0	0,0
8	4	10,3
13	1	2,6
16	1	2,6
18	1	2,6
22	1	2,6
25	1	2,6
Total	39	100

TABLE 3. Number of species of lysianassoidean amphipod included in papers that report new localities for Chile.

Reference	N	%
Milne Edwards 1848	1	2,3
Stebbing 1888	2	4,5
Schellenberg 1931	14	31,8
KH Barnard 1932	2	4,5
Birstein and Vinogradov 1962	1	2,3
Andres 1975	1	2,3
Lowry 1984	1	2,3
Lowry and Stoddart 1987	1	2,3
Vinogradov 1990	4	9,1
Vinogradov and Vinogradov 1991	2	4,5
Costanzo and Crescenti 1997	3	6,8
Lowry and Stoddart 2002c	1	2,3
Chiesa and Alonso de Pina 2007	1	2,3
Pérez-Schultheiss *et al.* 2010	1	2,3
Lowry and Stoddart 2012a	3	6,8
Alonso 2012	3	6,8
Kilgallen 2014	1	2,3
Pérez-Schultheiss 2015	1	2,3
Eustace *et al.* 2016	1	2,3
Total	44	100,0

SYSTEMATICS
Order Amphipoda Latreille, 1816
Suborder Gammaridea Latreille, 1802
Superfamily Lysianassoidea Dana, 1849

Diagnosis: callynophorate (*sensu* Lowry and Myers 2013: 17) gammaridean amphipods with ischium of gnathopod 2 longer than merus, propodus mitten-shaped, and peduncle of antenna 1 short and stout, with articles 2-3 much shorter than 1 and partly telescoped basally.

Amaryllididae Lowry and Stoddart, 2002a
***Erikus dahli* Lowry and Stoddart, 1987**
(Figure 1A-D, 12A)

Erikus dahli Lowry and Stoddart, 1987: 1304-1309, figs. 1-4; González, 1991: 58; ? Vinogradov G.M., 2004: 50-51; De Broyer and Jażdżewski, 1993: 67; De Broyer and Rauschert, 1999: 285, table 1; Chiesa *et al.*, 2005: 170; De Broyer *et al.*, 2007: 117; González *et al.*, 2008: 166; Thiel and Hinojosa, 2009: 705-706.

Diagnostic characters
Erikus from 21.4 to 14.5 mm lenght, antenna 1 as long as antenna 2 in females, primary flagellum of male composed of at least 36 articles, with calceoli present on articles 3-29; brush of setae present on male peduncular articles 4-5. The medial margin of inner plate of maxilliped without plumose setae, only cuspate setae. The outer ramus of the first uropod as long as inner.

Type specimens deposition
Female holotype and paratypes in Swedish Museum of Natural History and paratypes in the Australian Museum (Lowry and Stoddart 1987).

Material examined
Three specimens (MNHNCL AMP-15208): Canal Inocentes, Región de Magallanes (50°45.6'S, 74°33.3'W), 11-XI-2009; Col. CIMAR 15 Fiordos. One specimen (MNHNCL AMP-15209): Isla Lagartija, Calbuco, Región de Los Lagos (41°49'20''S, 73°16'50''W), Mayo de 2015, Leg. S. Silva, Asociado a *Macrocystis pyrifera*. Four specimens (MNHNCL AMP-15210): Chauman, Ancud, Chiloé, Región de Los Lagos (41°47'4.6''S, 73°59'19.59''W), 3-IX-2015, Leg. S. Silva, Asociado a *Macrocystis pyrifera*. 11 specimens (MNHNCL AMP-15211): Isla Cheniao, Quemchi, Chiloé, Región de Los Lagos (42°17'17''S, 73°14'26''W), 11-IV-2015, Leg. S. Silva, Asociado a *Macrocystis pyrifera.* One specimen (MNHNCL AMP-15212): Isla Salas, Región de Aysén, 21-III-2013, Leg. C. Vásquez, Sedimentos 43 m prof. 18 specimens (MNHNCL AMP-15213): Isla Cheniao, Quemchi, Chiloé, Región de Los Lagos (42°17'17''S, 73°14'26''W), 16-IX-2015, Leg. S. Silva, Asociado a *Macrocystis pyrifera.* One specimen (MNHNCL AMP-15214): Pucatrihue, Osorno, Región de Los Lagos, 30-IV-2005, Col. J. Pérez-Schultheiss, Asociado a tollo en red de pesca artesanal. One specimen (MNHNCL AMP-15215): Bahía Ilque, Puerto Montt, Región de Los Lagos (41°37'32''S,73°4'24''W), Agosto de 2012, Leg. C. Valdivieso. One specimen (MNHNCL AMP-15216): Carelmapu, Llanquihue, Región de Los Lagos (41°44'48.55''S, 73°42'20.0''W), 18-XII-2004, Col. J. Pérez-Schultheiss, Asociado a *Pyura chilensis*, 1 m prof. Three specimens (MNHNCL AMP-15217): Bajos de Lami, Calbuco, Región de Los Lagos (41°49'31.2''S, 73°13'47.9''W), 9-XII-2011, Leg. R. Núñez (CIEN-Austral), sedimentos centro de cultivo de trucha, 40-60 m prof.

Distribution and bathymetry
Seno de Reloncavi, Canal de Chacao, Punta Abtao, Punta Tenaum, Los Lagos Region (González 1991; González *et al.* 2008); from 40° to 55° S, between 5-70 m depth (Thiel and Hinojosa 2009). One record in Saya de Malha Bank, Western Indian Ocean (Vinogradov 2004), need confirmation.

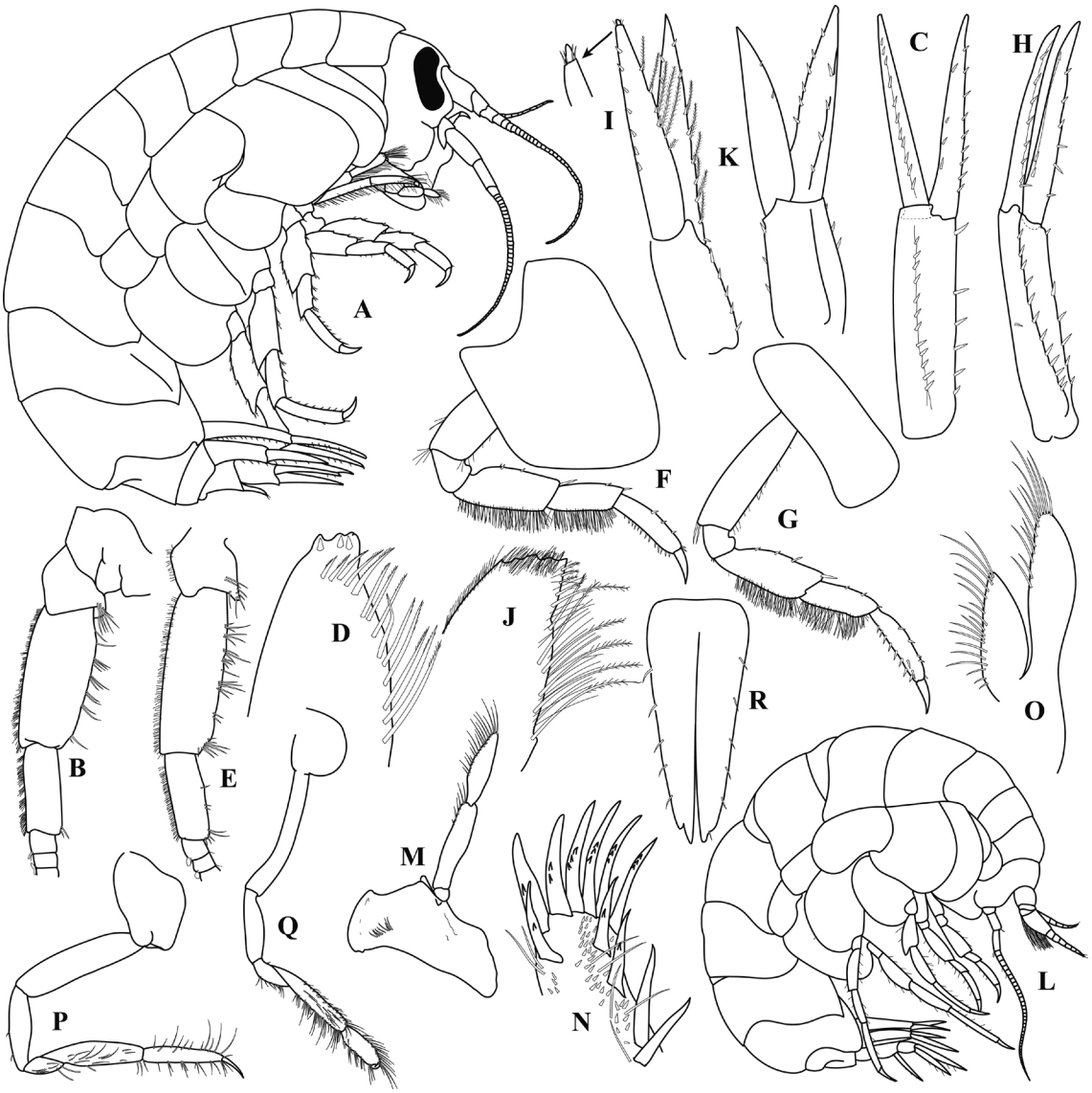

FIGURE 1. Family Amaryllididae. *Erikus dahli* Lowry and Stoddart, 1987: A, female habitus; B, peduncle of male antenna 2; C, uropod 1; D, inner plate of maxilliped. *Erikus lovrichi* Alonso, 2012: E, peduncle of male antenna 2; F and G, male pereopod 4 and 3; H, uropod 3; I, uropod 3; J, inner plate of maxilliped. *Amaryllis macrophthalma* Haswell, 1880: K, uropod 3. *Cyclocaris tahitensis* Stebbing, 1888: L, habitus; M, mandible; N, maxilla 1 distal setal-teeth in 7/4 crown arrangement; O, maxilla 2; P, gnathopod 1; Q, gnathopod 2; R, telson.

Remarks

The genus *Erikus* Lowry and Stoddart, 1987 is endemic of southern South America and includes two species characterized principally by the presence of plumose setae on the rami of uropod 3 (male and female), brush of setae on male antenna 2 and setose merus and carpus of pereopods 3 and 4 (Lowry and Stoddart 1987).

Erikus dahli was described in base to specimens obtained by the Lund University Chile Expedition (LUCE), 1948-49 (Lowry and Stoddart 1987).

Erikus lovrichi Alonso, 2012
(Figures 1E-J, 12A)

Erikus lovrichi Alonso, 2012: 1843-1853, figs. 17-22.

Diagnostic characters
Erikus of 6 to 16 mm, with antenna 1 longer than antenna 2 in females, the primary flagellum of male composed of at least 50 articles, with calceoli present every two articles, beginning at article 5; brush of setae present on antenna 2 male peduncular articles 3-5. The medial margin of inner plate of maxilliped with plumose setae present. The outer ramus of the first uropod shorter than inner.

Type specimens deposition
Female holotype and paratypes in the Museo Argentino de Ciencias Naturales (Alonso 2012).

Distribution and bathymetry
Beagle Channel, northern Isla Despard, Argentina. 8-12 m depth.

Amaryllis macrophthalma Haswell, 1880
(Figures 1K, 12A)

Amaryllis macrophthalma Schellenberg, 1931: 10-11; Andres, 1975: 93 (table), 96; González, 1991: 58; González *et al.*, 2008: 166 (in table). See Lowry and Stoddart (2002b) for detailed synonymy for *A. macrophthalma sensu stricto*. Detailed southern ocean records in De Broyer *et al.* (2007).

Diagnostic characters
Species of *Amaryllis* can be differentiated from South American genus *Erikus* by the mandibular palp article 3 without proximal A3-seta. Pereopods 3 and 4 in male without fringe of setae on posterior margin of merus and carpus. Uropod 3 without plumose setae in males and females, outer ramus 1-articulate.

Type specimens deposition
Neotype female in the Australian Museum (Lowry and Stoddart 2002b).

Distribution and bathymetry
The species has been cited in a number of Chilean locations, from Magallanes Region (Fitz Roy channel between Otway and Skyring, Fortescue Bay, Borja Bay, Puerto Hambre, Puerto Harris II, Puerto Cóndor, Río Seco, Punta Arenas, Cabo Valentina, Bahía Inutil, Porvenir ("provenir"), Bahía York, Puerto Eugenia, Lennox island, Nueva island, Navarino island; Schellenberg 1931), Cabo de Hornos (Hermit island; Barnard 1932), to Concepción (Punta Lavapié; Andres 1975). Bathymetry: 1.8-58 m depth (Schellenberg 1931; Andres 1975).

Remarks
The genus *Amaryllis* Haswell, 1879, is confined to Australia and possibly the New Zealand region (Lowry and Stoddart 2002b). The Chilean specimens cited as *A. macrophtalma* probably belong to *Erikus*, but an analyses of more samples from all the considered areas is needed.

Aristiidae Lowry and Stoddart, 1997
Aristias antarcticus Walker, 1906
(Figures 2C, 12B)

Aristias antarcticus Walker, 1906: 954; 1907: 11, pl. 3, fig. 5; Schellenberg, 1931: 23-24; González, 1991: 58; González *et al.*, 2008: 166; Kilgallen, 2010:50 (in table). See De Broyer *et al*. (2007) for detailed synonymy of *Aristias antarcticus Sensu lato*.

Diagnostic characters
Species of *Aristias* with total length reaching up to 15 mm. Eyes black in conserved specimens; lobes of telson subrectangular, with rounded apex, without dorsal and one distal strong setae; flagellum of antenna 1 with 7-10 articles.

Type specimens deposition
Types deposited in the Natural History Museum, London (De Broyer *et al.* 2007).

Distribution and bathymetry
Southern Oceans: Adélie Coast, Davis Sea, Falkland Islands, Iles Kerguelen, Ross Sea, South Georgia, South Shetland Islands and Weddell Sea (De Broyer *et al.* 2007). In Chile, have been recorded from Cabo Valentina and Canal Beagle, Magellan Region (Schellenberg 1931). Bathymetric distribution: 5-620 m depth.

Remarks
The genus *Aristias* Boeck, 1871 has a cosmopolitan distribution and includes 34 species of inquilinous lysianassoideans, characterized by the telson cleft and maxilliped palp 4-articulate (Stoddart and Lowry 2010b).

It is necessary redescribing the type specimens of *Aristias antarcticus*. The species has been cited from different locations in the southern oceans, but many of these records require confirmation considering morphological differences reported by several authors (see Kilgallen 2010 for details). The Chilean records were published by Schellenberg (1931), but its relation with the taxon described by Walker (1906) cannot be established with certainty without a study of type material.

***Aristias linnaei* Pérez-Schultheiss, 2015**
(Figures 2A-B, 12A)

Aristias linnaei Pérez-Schultheiss, 2015: 36-39, figs. 2-4.

Diagnostic characters
Species of *Aristias* with total length between 4.18-5.05 mm. Eyes reddish in conserved specimens; lobes of telson subtriangular, with two dorsal and one distal strong setae; flagellum of antenna 1 with 6 articles.

Type specimens deposition
Holotype in the Museo Nacional de Historia Natural and paratypes in the Museo de Zoología of the Universidad de Concepción, Chile.

Material examined
Holotype (MNHNCL AMP-15001), and paratypes (MZUC N° 43632 and MZUC Nº 43633).

Distribution and bathymetry
Known only from Errázuriz Channel, West of Traiguén Island (45°31'S; 73°45'W), Aysén Region; 48.4 m depth (Pérez-Schultheiss 2015).

Cyclocaridae Lowry and Stoddart, 2011a
***Cyclocaris tahitensis* Stebbing, 1888**
(Figures 1L-R, 13A)

Cyclocaris tahitensis Stebbing, 1888: 664-668, pl. 8; 1906: 30, fig. 7; Della Valle, 1893: 843, pl. 60, fig. 53; J.L. Barnard, 1958: 91; Gurjanova, 1962: 85–86, 88, fig. 17; Thurston and Allen, 1969: 358; Wilson *et al.*, 1985: 1248, 1251; Barnard and Karaman, 1991: 479; Vinogradov and Vinogradov, 1991: 33; Vinogradov, 1993: 43; Lowry and Stoddart, 1994: 153; Lowry and Stoddart, 2011a: 60, fig. 5; Horton and Thurston, 2014: 524.
Not *Cyclocaris tahitensis* Chevreux 1903: 89; 1935: 31, pl. 4, fig. 4.

Diagnostic characters
Cyclocaris with up to 15 mm in length. Head with lateral cephalic lobe shallow convex, not prominent; eyes not covering the whole head. Mandible incisor wide and short; outer plate of maxilla 1 with distal setal-teeth in a 7/4 crown arrangement; inner plate of maxilla 2 significantly shorter than outer plate. Coxae 1-2 reduced, vestigial, telson cleft.

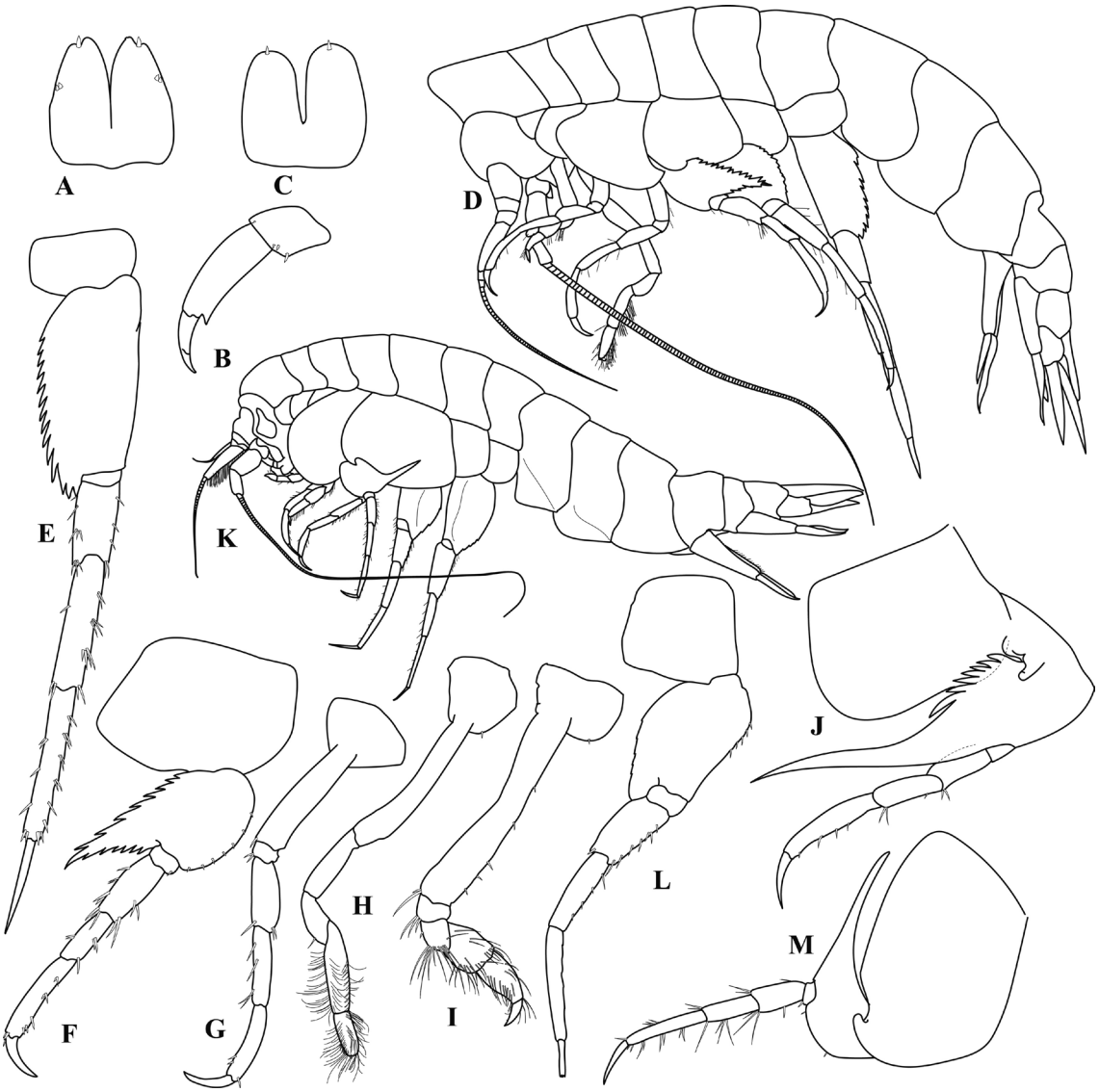

FIGURE 2. Family Aristiidae. *Aristias linnaei* Pérez-Schultheiss, 2015, A: telson; B, distal part of pereopod 4. *Aristias antarcticus* Walker, 1906: C, telson. Family Cyphocarididae. *Cyphocaris anonyx* Boeck, 1871: D, habitus; E, pereopod 7; F, pereopod 5; G, pereopod 3; H, gnathopod 2; I, gnathopod 1. *Cyphocaris challengeri* Stebbing, 1888: J, pereopod 5. *Cyphocaris faurei* K.H. Barnard, 1916: K, habitus; L, pereopod 7; M, pereopod 5.

Type specimens deposition

Holotype in the Natural History Museum, London (Horton and Thurston 2014).

Distribution and bathymetry

Pacific Ocean (Hamilton and Hess guyots, Tahiti, Îles Australes, East Pacific vent region west of Sala y Gómez). In Chile only one record in the Nazca Ridge (560 m depth). 560-2038 m depth (Horton and Thurston 2014; Vinogradov and Vinogradov 1991).

Remarks
Cyclocaris Stebbing, 1888 include four species of scavenger deep sea lysianassoideans, with coxae 1-2 reduced, head slightly deeper than long, covered mostly by eyes and maxilla 1 outer plate with 7/4 crown arrangement (Lowry and Stoddart 2011). *C. tahitensis* is recongnized by his shallow lateral cephalic lobe and eyes not covering the whole head (see identification key in Horton and Thurston 2014).

Cyphocarididae Lowry and Stoddart, 1997
***Cyphocaris anonyx* Boeck, 1871**
(Figures 2D-I, 13A)

Cyphocaris anonyx Boeck, 1871: 24; Birstein and Vinogradov, 1962: 34; Hughes and Lowry, 2015: 6-12, figs. 4-8.
Cyphocaris micronyx Stebbing, 1888: 656, pl. 16.
See De Broyer *et al.* (2007) and Hughes and Lowry (2015) for detailed synonymy.

Diagnostic characters
Cyphocaris with up to 14 mm in length. Eyes absent. Pereonite 1 produced into a sharp or swollen projection, surpassing the head. Basis of pereopod 5 produced into a spur, with both margins serrate; posterior margin of basis of pereopod 7 dentate.

Type specimens deposition
Probably in the Naturhistoriska Museet, Göteborg, Sweden (De Broyer *et al.* 2007).

Distribution and bathymetry
Panoceanic and mesopelagic species (De Broyer *et al.* 2007). Cited from one station in South Pacific Ocean, off southern Chile, 2743 m depth (Stebbing 1888, as *C. micronyx*).

Remarks
Cyphocaris Boeck, 1871 is a cosmopolitan genus of pelagic lysianassoideans that includes 16 species, characterized by the serrate posterior margin of basis of pereopod 7 and the small coxae 1–3, partly covered by coxa 4 (Hughes and Lowry 2015). Identification keys to world Cyphocarididae was provided by Tomikawa (2009) and Hughes and Lowry (2015).

***Cyphocaris challengeri* Stebbing, 1888**
(Figures 2J, 13A)

Cyphocaris challengeri Stebbing, 1888: 661, pl. 17; Vinogradov, 1990: 40-41.
See Hughes and Lowry (2015) for detailed synonymy.

Diagnostic characters
Cyphocaris with up to 13 mm in length. Eyes absent. Pereonite 1 slightly swollen frontally but not surpassing head. Basis of pereopod 5 produced into a spur, with both margins smooth, but proximally dentate; posterior margin of basis of pereopod 7 dentate.

Type specimens deposition
Holotype in the Natural History Museum, London (Hughes and Lowry 2015).

Distribution and bathymetry
Panoceanic species (Birstein and Vinogradov 1962) in Pacific, Atlantic and Indian oceans, and Great Australian Bight (Hughes and Lowry 2015). In Chile, the species has been reported from submarine ridges of Sala and Gómez, between 50 and 540 m meters depth (Vinogradov 1990).

Cyphocaris faurei K.H. Barnard, 1916
(Figures 2K-M, 13A)

Cyphocaris faurei Barnard K.H., 1916: 117, pl. 26: fig. 4; Barnard K.H., 1932: 36; Birstein and Vinogradov, 1962: 34; Lowry and Bullock, 1976: 88; Andres, 1983: 185; De Broyer and Jażdżewski, 1993: 67; Costanzo and Crescenti, 1997: 15-18, fig. 3.1.1-3; De Broyer *et al.*, 2007: 119-120; Hughes and Lowry, 2015: 16-19, figs. 13-17. For complete synonymy see De Broyer *et al.* (2007).

Diagnostic characters
Cyphocaris with up to 30 mm in length. Eyes present, pear-shaped. Pereonite 1 slightly swollen frontally but not surpassing head. Basis of pereopod 5 produced into a narrow spur, with both margins smooth, and proximally smooth; posterior margin of basis of pereopod 7 serrate.

Type specimens deposition
South African Museum, Cape Town, South Africa (De Broyer *et al.* 2007).

Distribution and bathymetry
Panoceanic species (eastern South Atlantic Ocean, Indian Ocean, Pacific Ocean) (De Broyer *et al.* 2007). In Chile, cited from several locations in the western and middle section of the Magellan Strait (Costanzo and Crescenti 1997). 0-2500 m depth (De Broyer *et al.* 2007).

Endevouridae Lowry and Stoddart, 1997
Ensayara gappai Alonso, 2012
(Figures 3A-F, 12C)

Ensayara gappai Alonso, 2012: 1853–1862, figs. 23–26; Lowry and Hughes, 2015: 22-23, 33 (in key).

Diagnostic characters
Ensayara with 3.5-4.8 mm of total length. Mandibular palp article 2 with 4 distal setae; pereopod 3 palm forms a right angle with the posterior margin of propodus; coxae 2-4 with ventro-distal setulae; peduncle of uropod 1 with 6 dorsolateral setae and rami of uropods 1-2 with dorsal setation formula 1-3-1-3.

Type specimens deposition
Female holotype and paratypes in the Museo Argentino de Ciencias Naturales (Alonso 2012).

Material examined
Two specimens (MNHNCL AMP-15197), six specimens (MNHNCL AMP-15198), 13 specimens (MNHNCL AMP-15199) and 18 specimens (MNHNCL AMP-15200), sex indetermined: Polocuhe, Chiloé, Los Lagos Region, 42°44’05,9’’S ; 73°29’56,7’’W, 11-XI-2011, R. Núñez Leg., sediments from trout farming center.

Distribution and bathymetry
Previously known only in north of Despard Island (54°52’S, 68°10’W), Argentine sector of Beagle Channel, Argentina, 8-12 m deep. Polocuhe (42°44’5,9’’S; 73°29’56,7’’W), east coast from Chiloe, Los Lagos Region, Chile, 35-50 m depth.

Remarks
This is the first record of the family Endevouridae in Chile. This family is a small group of species divided into only two genera: *Endevoura* and *Ensayara*, characterized by the presence of a subquela in the third pereopod (Lowry and Stoddart 1997). The most specious genus of the family is *Ensayara*, which up to now includes a total of 15 species, distributed in all oceans and depths (Barnard and Thomas 1990; Horton 2008; Kilgallen 2009; Alonso 2012; Winfield and Ortiz 2012; Lowry and Hughes 2015).

Ensayara gappai, recently described by Alonso (2012), is the first Endevourid documented from the southern end of South America. This species is characterized by the structure of pereopod 3 palm, which forms a right angle with the posterior margin of propodus (Alonso 2012), while in all other species

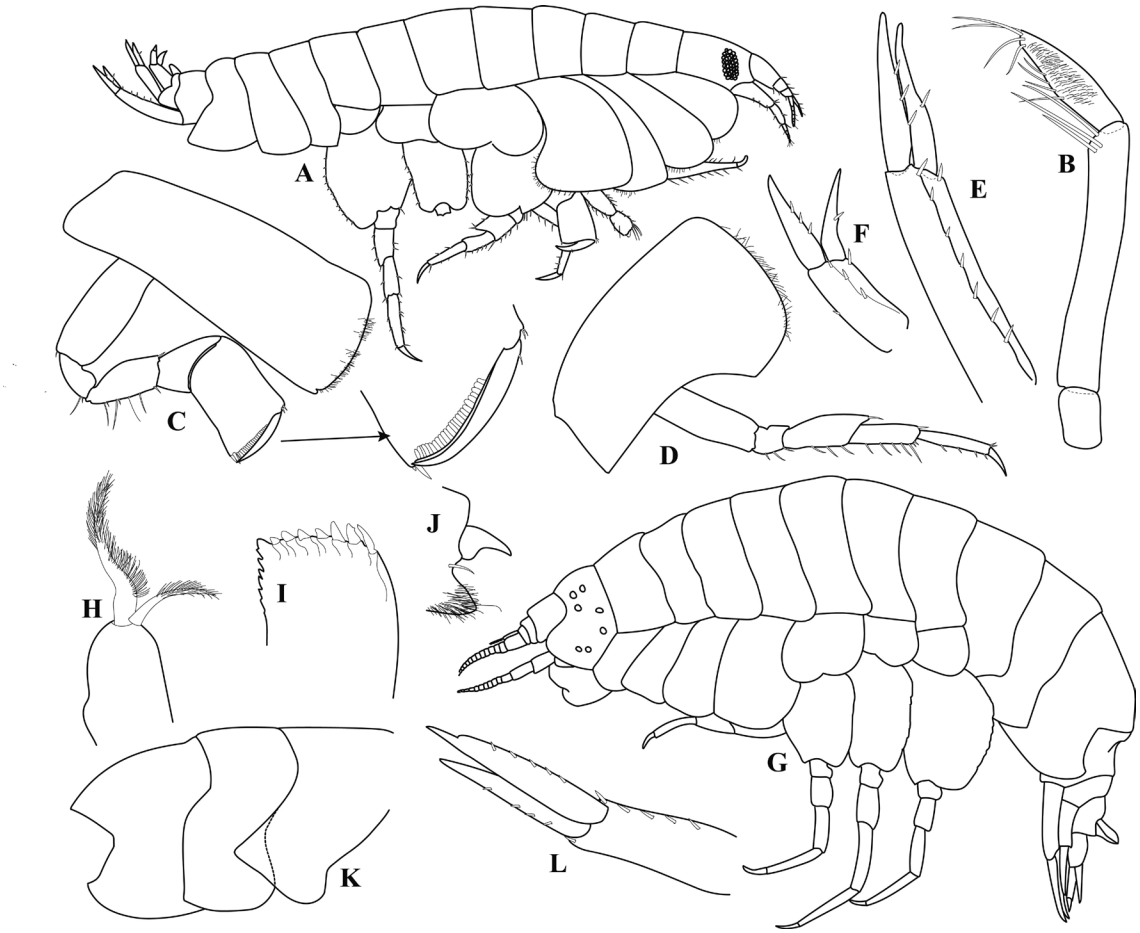

FIGURE 3. Family Endevouridae. *Ensayara gappai* Alonso, 2012: A, Habitus; B, mandibular palp; C, pereopod 3; D, pereopod 4; E, uropod 1; F, uropod 3. Family Hirondelleidae. *Hirondellea thurstoni* Kilgallen, 2014: G, habitus; H, inner plate of maxilla 1; I, palp of maxilla 1; J, propodus and dactylus of gnathopod 2; K, pleonites 1 to 3; L, uropod 2.

of the genus, this angle tends to be clearly sharp. Also presents ventro-distal setulae in the coxae 2-4, pattern shared only with *E. lozanoi* Winfield and Ortiz, 2012 and *E. microphthalma* Ledoyer, 1986. Should be mentioned that *E. gappai* tends to have a higher number of setae in some of its appendices. This species differs from most of its congeners by the presence of 4 distal setae in mandibular palp article 2 (character shared only with *E. dentaria* Hirayama, 1985), while other species have from 1 and 3 setae. Also uropod 1 peduncle shown abundant dorsolateral setation (6 setae) and uropods 1-2 show a dorsal setation formula 1-3-1-3, while most species show a formula 1-0-1-0 or 1-2-1-2. However, on this last character, slight variations in one of the dissected specimens were observed, which presented only 4 lateral setae on the peduncle of uropod 1, and a rami setal formula 1-2-1-3 was observed.

The original material of this species was found in association with holdfasts of *Macrocystis pyrifera* (Alonso 2012). The specimens reported here were obtained from sediment samples associated with salmonid farms where this kelp species is not found. It is not possible to suggest other observations about the biology of this species. This record confirms the presence of this species in Chile and extends its distribution to the inner Sea of Los Lagos Region.

Eurytheneidae Stoddart and Lowry, 2004
Eurythenes sp.
(Figures 4B-D, 12C)

Eurythenes gryllus Thurston *et al.*, 2002: 205-210 (ecological paper).
Eurythenes sp. "hadal form" Eustace *et al.*, 2016: 93, figs. 1 (hadal), 2a, 2d.

Diagnostic characters
Eurythenes with up to 76 mm of body length. Anterior lobe of head protruding; lower lobe of eye acute and pointing downwards; anterior border of maxilliped inner plate with variable number of protruding nodular spines. Additionally, pleonites and urosomites smooth, but with a dorsal depression in urosomite 1; coxa 2 subcuadrate, symmetric; gnathopod 1 subchelate, palm weakly formed, with a minute robust seta on posterior corner of palm; gnathopod 2 palm minutely chelate, with palm obtusely angled (Eustace *et al.* 2016).

Type specimens deposition
Species undescribed, type material not exist yet.

Material examined
42 specimens (MNHNCL AMP-11468): 23°15'S 71°21'W, Off Mejillones Peninsula, Antofagasta Region, 15-VII-2003, 10:00 hrs. Depth 7800 m, Atacama Trench International Expedition (ATIE), AGOR 60 "Vidal Gormaz".

Distribution and bathymetry
E. gryllus (*sensu stricto*) is a bipolar species, reported from Arctic and Antarctic Oceans (D'Udekem and Havermans 2015). The specimens here reported as *Eurythenes* sp. are known only from Off Mejillones Peninsula, Antofagasta Region, Chile, outside this latitudinal and bathymetrical range. 7050-7800 m depth.

Remarks
The family Eurytheneidae includes only one genus of benthopelagic scavenger lysianassoidean amphipods. The genus *Eurythenes* Smith, 1882 currently comprise 7 species, including to *E. gryllus* (Lichtenstein, 1822), that in the past was largely considered as a eurybathic cosmopolitan species. Recently, this species was divided in several new species using morphological and molecular evidence (D'Udekem and Havermans 2015), in a review process that is still in progress (*e.g.* Eustace *et al.* 2016; Havermans 2016). Under this new scenario, *E. gryllus s. str.* remains as a bathyal species restricted to the Arctic and Antarctic Oceans (D'Udekem and Havermans 2015).

The material here studied was treated as *Eurythenes gryllus* by Thurston *et al*. (2002). The specimens have eyes similar to *E. gryllus sensu stricto*, however, the anterolateral cephalic lobes are well developed, as in *E. magellanicus*, and there is a special pattern with 5-6 very prominent nodular spines in maxilliped. Based in morphological and molecular evidence Eustace *et al.* (2016) indicate that the hadal specimens of *Eurythenes* in the Atacama Trench correspond to an undescribed species. The studied specimens agree with the "hadal form" in all diagnostic characters determined by them.

Vinogradov (1990) cited a small specimen of *Eurythenes gryllus* from 900-920 m depth in Sala and Gómez submarine ridge. Considering the actual restricted distribution of this species (see D'Udekem and Havermans 2015), the specimens probably are not *E. gryllus s. str.*, and his true identity remain unknown.

Eurythenes magellanicus (Milne Edwards, 1848)
(Figures 4E-K, 12C)

Lysianassa magellanica H. Milne Edwards 1848: 398; Lucas, 1857: 13, pl. 1 fig. 3; Bate, 1862: 66, pl. 10 fig. 5.
Eurythenes magellanicus Stebbing, 1906: 73 (in part); K.H. Barnard, 1932: 59.
Eurythenes gryllus Stoddart and Lowry, 2004: 429, in part, figs. 4–7; ? Senna, 2009: 83, in part, figs. 1–2.
Eurythenes gryllus clades Eg4 and Eg5, Havermans *et al.*, 2013: 12–13.
Not *Eurytenes magellanicus* Lilljeborg 1865a: 11, pls. 1–3; 1865b: 6 (= *E. gryllus* Lichtenstein, 1822).

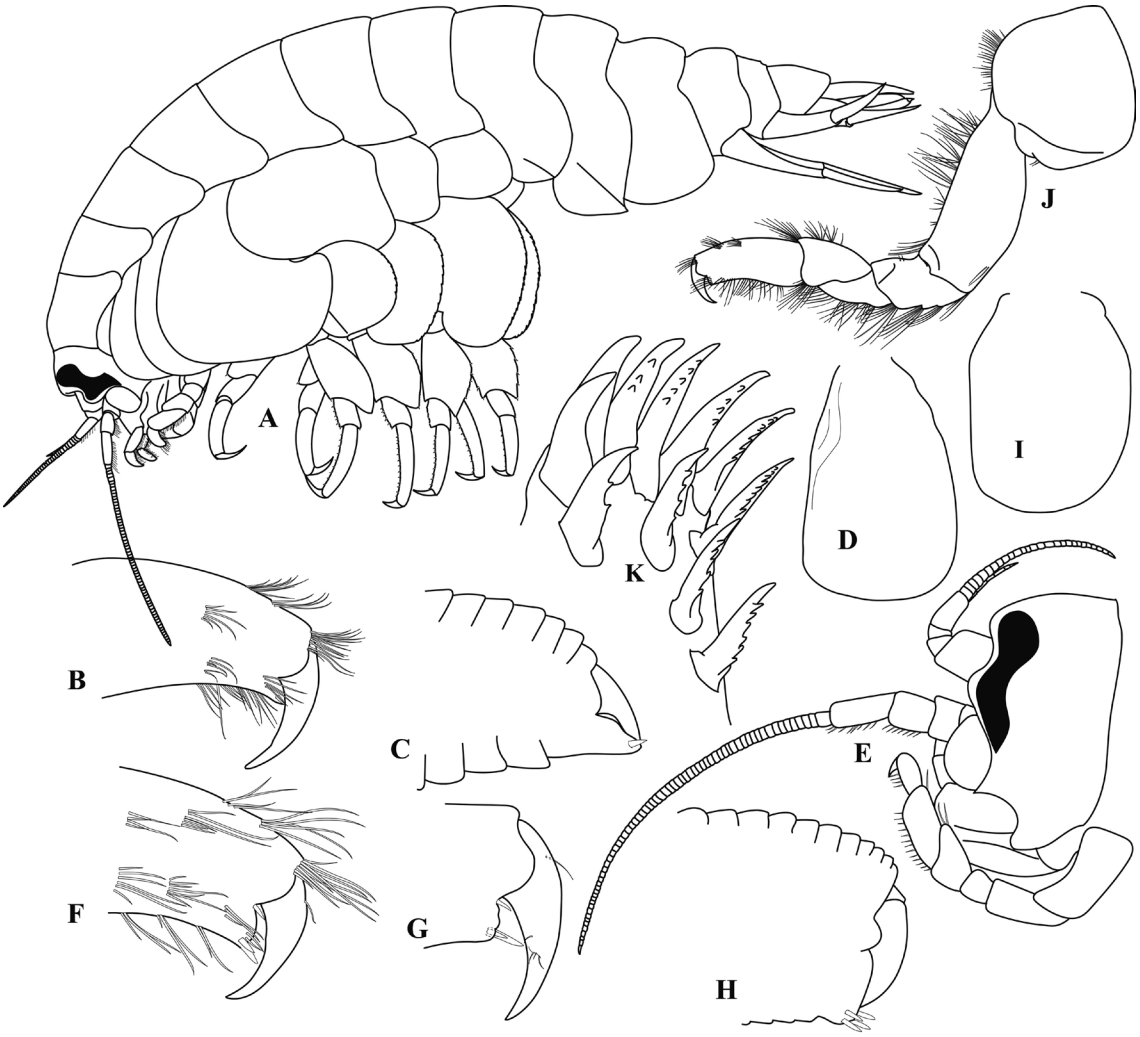

FIGURE 4. Family Eurytheneidae. *Eurythenes gryllus* (Lichtenstein, 1822): A, habitus. *Eurythenes* sp.: B, propodus and dactylus of gnathopod 1; C, propodus and dactylus of gnathopod 2 (slender setae omitted); D, coxa 2; *Eurythenes magellanicus* (H. Milne Edwards, 1848): E, head; F, propodus and dactylus of gnathopod 1 (based in Eustace *et al.*, 2016); G, propodus and dactylus of gnathopod 1 (based in d'Udekem and Havermans, 2015; slender setae omitted); H, propodus and dactylus of gnathopod 2 (slender setae omitted); I, coxa 2; J, gnathopod 1; K, maxilla 1 distal setal-teeth in 8/3 crown arrangement.

Diagnostic characters

Eurythenes with up to 85 mm of body length. Anterior lobe of head protruding; eye ventrally broad and pointing obliquely backwards; anterior border of maxilliped inner plate with 4 to 6 protruding nodular spines. Additionally, carinated from pereonite 3 through urosomite 1; coxa 2 anteriorly rounded, posteriorly straight; gnathopod 1 subchelate, palm transverse, well formed, with robust seta on posterior anterior corner of palm; gnathopod 2 palm minutely subchelate, with palm transverse and with minute posteriorly robust seta (Eustace *et al.* 2016).

Type specimens deposition

Holotype in Muséum national d'Histoire naturelle, Paris (Stoddart and Lowry 2004).

Distribution and bathymetry
Off Cape Horn, Drake Passage and Brazil Basin at 4480 m depth (D'Udekem and Havermans 2015); Atacama Trench, off Peru (Eustace *et al.* 2016).

Remarks
The specimens reported as *E. magellanicus* by Eustace *et al.* (2016) presents marked morphological differences with the description of D'Udekem and Havermans (2015), especially in the crested pleonites; although they match genetically, so more studies are necessary (Havermans 2016).

Hirondelleidae Lowry and Stoddart, 2010d
Hirondellea thurstoni Kilgallen, 2014
(Figures 3G-L, 12D)

Hirondellea sp. nov. Perrone *et al*. 2002: 419.
Hirondellea thurstoni Kilgallen, 2014: 6-12, figs. 4-6.

Diagnostic characters
Hirondellea with up to 16.2 mm of body length. Epistome weakly produced, broadly rounded; gnathopod 2 minutely chelate; epimeron 3 posteroventral corner produced into a large tooth; uropod 2 inner ramus incised.

Type specimens deposition
Holotype and paratypes in the National Institute of Water and Atmospheric Research (NIWA) Invertebrate Collection, Wellington, New Zealand and paratypes in the Australian Museum, Australia.

Distribution and bathymetry
Hadal species, known only from three points in the Peru-Chile Trench. The type locality is off Mejillones Peninsula (23°22.470′S, 71°19.973′W), Chile. Other two points off La Libertad (07°48.042′S, 81°17.011′W) and off Moquehua (17°25.471′S, 73°37.014′W), Perú. Bathymetric range from 8072 m (type) to 6173 m.

Remarks
The genus *Hirondellea* Chevreux, 1889 is the only representative of the family Hirondelleidae and comprises 20 species with wide geographic and bathymetric distribution, with mostly bathyal and abyssal species (Kilgallen 2014). The *Hirondellea* species can be recognized by characters of maxilla 1, whose inner plate have unequal distal setae and subterminal lateral notches on the inner margin of palp (Lowry and Stoddart 2010d).

An updated key to *Hirondellea* species of the world has been included in Kilgallen (2014).

Lysianassidae Dana, 1849
Conicostomatinae Lowry and Stoddart, 2012b
***Stomacontion pepinii* (Stebbing, 1888)**
(Figures 5D-F, 12D)

Acontiostoma pepinii Stebbing, 1888: 716-720, pl. 32; De Broyer, 1983: 226-227.
Acontiostoma kergueleni Stebbing, 1888: 720-723, pl. 33
Stomacontion pepinii Stebbing, 1899: 206; Stebbing, 1906: 16 (in part); Schellenberg, 1931: 5, fig. 1, Barnard J.L., 1958: 99; Bellan-Santini and Ledoyer, 1974: 690; Lowry and Bullock, 1976: 106; Lowry and Stoddart, 1983: 299-303, figs. 12-14; Bellan-Santini and Ledoyer, 1987: 410; Barnard and Karaman, 1991: 534, Fig. 95k; Branch *et al.*, 1991: 14, fig. on p.14; De Broyer and Jażdżewski, 1993: 75; De Broyer and Rauschert, 1999: 285, table 1. Non Barnard K.H., 1937: 140.
Stomacontion kergueleni Schellenberg, 1931: 6; Barnard J.L., 1958: 99; Thurston and Allen, 1969: 368; González, 1991: 59.
Stomacontion pepinei Stephensen, 1947: 33.

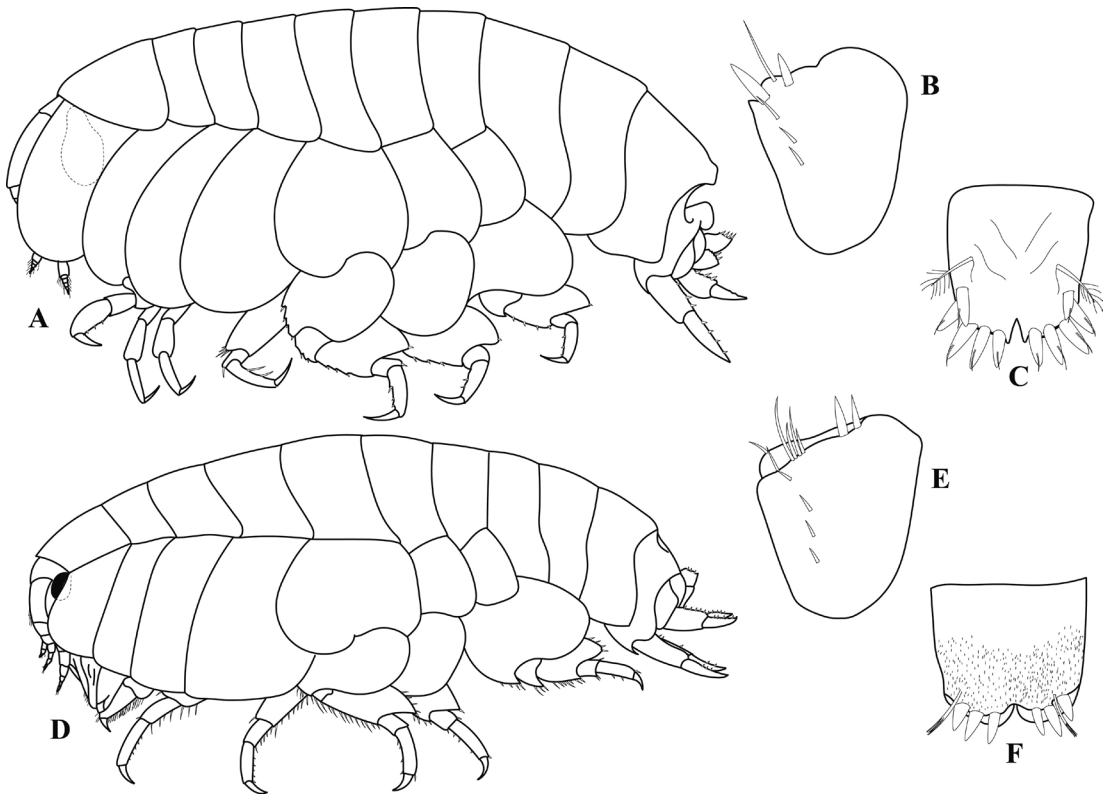

FIGURE 5. Family Lysianassidae, Subfamily Conicostomatinae. *Acontiostoma marionis* Stebbing, 1888: A, habitus; B, uropod 3; C, telson. *Stomacontion pepinii* (Stebbing, 1888): D, habitus; E, uropod 3; F, telson.

Diagnostic characters
Stomacontion with up to 5 mm of body length. Head partially covered by coxa 1; body covered with short hairs, at least in females. Urosomite 1 with apically rounded upturned dorsal boss. Uropod 3 uniramous.

Type specimens deposition
Natural History Museum, London.

Distribution and bathymetry
Bahia Borja, Puerto Condor and Magellan Sound (Schellenberg 1931). Also cited from Falkland Islands, Iles Kerguelen, Macquarie Island, Prince Edward Islands, from 0 to 232 m (De Broyer *et al.* 2007).

Remarks
Among the Lysianassidae, the Conicostomatinae are characterized by the conical buccal mass, epistome and upper lip fused and urosome compressed. Six genera and 19 species are known, most of which have been found in association with other marine invertebrates, as bryozoans, sponges and tunicates (Lowry and Stoddart 2012b).

Stomacontion pepinii differs from the other four species of the genus *Stomacontion* Stebbing, 1899 in the shape of dorsal boss in urosomite 1 (apically rounded and upturned) and the uniramous uropod 3 (Lowry and Stoddart 2012b).

Acontiostoma marionis Stebbing, 1888
(Figures 5A-C, 12D)

Acontiostoma marionis Stebbing, 1888: 709, pl. 30; Della Valle, 1893: 786; Stebbing, 1906: 15, fig. 4; Chilton, 1912: 462; Stebbing, 1914: 356; Schellenberg, 1931: 5; Barnard K.H., 1932: 32; Nicholls, 1938: 10, fig. 1; Barnard J.L., 1958: 88; Barnard K.H., 1965: 206; Barnard J.L., 1972: 138; Bellan-Santini and Ledoyer, 1974: 678; Lowry and Bullock, 1976: 82-83; Lowry and Stoddart, 1983: 287-291, figs. 1-4; De Broyer, 1983: 223-225, fig. 65; Bellan-Santini and Ledoyer, 1987: 406; Barnard and Karaman, 1991: 457; Branch *et al.*, 1991: 14, 40, 42, fig. on p.14; González, 1991: 58; De Broyer and Jażdżewski, 1993: 65; De Broyer *et al.*, 2007: 127; González *et al.*, 2008: 166.
Acontiostoma magellanicum Stebbing, 1888: 714, pl. 31; Stebbing, 1906: 15; Thurston and Allen, 1969: 353.

Diagnostic characters
Acontiostoma with up to 14 mm of body length. body smooth, without short hairs nor covered in calcareous tubercles; Uropod 3 rami absent or strongly reduced. Head wholly or partially covered by coxa 1; buccal mass subconical.

Type specimens deposition
Natural History Museum, London.

Distribution and bathymetry
Off Cabo Vírgenes (Argentina) and 'Lagotowia' (Chile; 55°24'S 68°17'W), Tierra del Fuego. Also in some subantarctic islands (Campbell Island; Falkland Islands; Iles Kerguelen; Macquarie Island; Prince Edward Islands) and South Atlantic Islands (Gough Island), 0-135 m depth (De Broyer *et al.* 2007).

Remarks
The genus *Acontiostoma* Stebbing, 1888 includes the species *A. marionis* and *A. tuberculata* Lowry and Stoddart, 1983, the last of them characterized by the body covered in calcareous tubercles (Lowry and Stoddart 2012b).

Lysianassinae Hurley, 1963
Lysianopsis ona Alonso, 2012
(Figures 6A-F, 14A)

Lysianopsis ona Alonso, 2012: 1862-1870, figs. 27-30.

Diagnostic characters
Lysianopsis with up to 7.6 mm of body length. Body bearing setae dorsally. Basis of pereopod 7 almost straight posterodistally. Inner ramus of uropod 3 overreaching article 1 of outer ramus.

Type specimens deposition
Holotype and paratypes in the Museo Argentino de Ciencias Naturales, Argentina (Alonso 2012).

Distribution and bathymetry
Known only from Beagle Channel, northern Isla Despard. 8-12 m depth (Alonso 2012).

Remarks
The genus *Lysianopsis* Holmes, 1903 belongs to the *Lysianassa* group, which is characteristic by the mouthpart bundle subquadrate, upper lip produced, lacinia mobilis present as a slender peg, uropod 2 inner ramus incised and telson entire. *Lysianopsis* includes eight species with gnathopod 1 simple, but occasionally sexually dimorphic, male pereopod 3-4 and uropod 3 without plumose setae, and peduncle of uropod 3 with lateral flange.

Lysianopsis subantarctica (Schellenberg, 1931)
(Figures 6G-I, 14A)

Aruga subantarctica Schellenberg, 1931: 9, fig. 3; Barnard J.L., 1958: 90; Hurley, 1963: 72, 74, 75 (in key).
Lysianassa subantarctica Barnard J.L., 1969: 295; Lowry and Bullock, 1976: 94; Rauschert, 1991: 37.
Lysianopsis subantarctica Lowry and Stoddart, 1984: 98-103, figs. 1-3; Barnard and Karaman, 1991: 499; González , 1991: 59; De Broyer and Jażdżewski, 1993: 70; De Broyer *et al.*, 2007: 128; González *et al*., 2008: 166.

Diagnostic characters
Lysianopsis with up to 7 mm of body length. Body bearing setae dorsally. Basis of pereopod 7 somewhat excavated posterodistally. Inner ramus of uropod 3 slightly shorter than article 1 of outer ramus.

Type specimens deposition
Female lectotype and 14 paralectotypes in the Swedish Museum of Natural History, Stockholm (Lowry and Stoddart 1984).

Distribution and bathymetry
Magellan region: Bahia Harris, Puerto Condor. Argentina: Bahia Ushuaia (Schellenberg 1931). Also cited in South Shetland Islands (Rauschert 1991). 11-90 m depth (De Broyer *et al.* 2007).

Remarks
Lysianopsis subantarctica has been described with 10 distal setal teeth in outer plate of maxilla 1 (Lowry and Stoddart 1984), unlike other species in the genus and *L. ona* (Lowry and Stoddart 1997; Alonso 2012). Male specimens are unknown.

Parawaldeckia kidderi (Smith, 1876)
(Figures 6J-P, 14B)

Lysianassa kidderi Smith, 1876: 59; Miers, 1879: 207.
Nannonyx kidderi Stebbing, 1906: 36; Chilton, 1911: 563; ? Monod, 1926: 51, fig. 50 (questioned by Barnard and Hurley, 1975). Non Chilton, 1909: 615; 1921d: 41, fig. 3A, B. Non Thomson, 1913: 242.
Lysianassa anomala Nicholls, 1938: 17, fig. 5; Barnard J.L., 1958: 94.
Parambasia anomala Barnard J.L., 1969: 295 (provisional status); Lowry and Bullock, 1976: 103-104, 103 (in part).
Parawaldeckia kidderi Schellenberg, 1931: 6; Pirlot, 1936: 255; Stephensen, 1947: 33-34; Stephensen, 1949: 5 (in part); Barnard J.L., 1958: 98; Barnard K.H., 1965: 205; Barnard J.L., 1969: 357, fig. 124J; Bellan-Santini and Ledoyer, 1974: 686, pl. 29; Tattersall, 1922: 3, pl. 1, figs. 1-6; Barnard J.L. and Hurley, 1975: 69, figs. 1, 2; Lowry and Stoddart, 1983: 336-345, figs. 40-43; Bellan-Santini and Ledoyer, 1987: 409; Alonso, 1987b: 17, figs. 1-17; Barnard and Karaman, 1991: 515, fig. 88c; Branch *et al*., 1991: 14, 40, fig. on p.14; De Broyer and Jażdżewski, 1993: 73. Non Stephensen, 1927: 300, fig. 2.

Diagnostic characters
Parawaldeckia with up to 9.8 mm of body length. Antenna 1 short, stocky, peduncular article 1 as broad as long. Article 4 of pereopod 7 not expanded posteriorly, anterior and posterior margins nearly parallel. Epimeron 3 posteroventral corner rounded. Telson without distal strong setae.

Type specimens deposition
Young female lectotype and paralectotypes in the United States National Museum of Natural History, Smithsonian Institution, Washington, USA (Barnard and Hurley 1975). Types of *Lysianassa anomala* Nicholls, 1938 lost (Lowry 1982).

Material examined
100 specimens (MNHNCL AMP-15218): Pelluco, Puerto Montt, Región de Los Lagos, 41°29’10.92’’S,

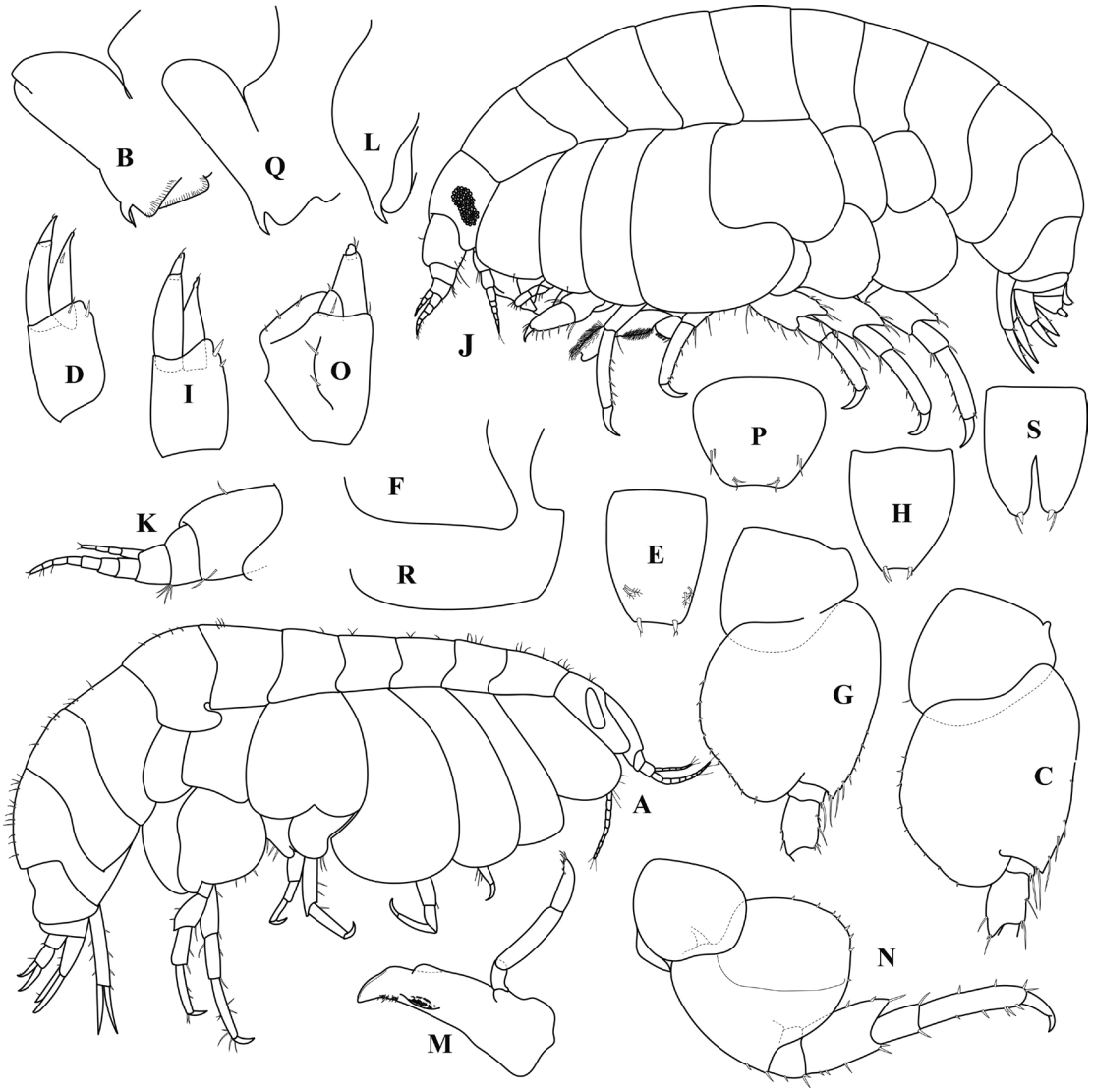

FIGURE 6. Family Lysianassidae, Subfamily Lysianassinae. *Lysianopsis ona* Alonso, 2012: A, habitus; B, upper lip and epistome; C, basis of pereopod 7; D, uropod 3; E, telson; F, epimeron 3. *Lysianopsis subantarctica* (Schellenberg, 1931): G, basis of pereopod 7; H, telson; I, uropod 3. *Parawaldeckia kidderi* (Smith, 1876): J, habitus, K, antenna 1; L, upper lip and epistome; M, mandible; N, pereopod 7; O, uropod 3; P, telson. *Socarnoides unidentatus* (Schellenberg, 1931): Q, upper lip and epistome; R, epimeron 3; S, telson.

72°54’21.59’’W; 14-X-2012; Col. J. Pérez-Schultheiss, Intermareal, entre algas pardas en alfombra o cojín, sobre rocas sedimentarias. 24 specimens (MNHNCL AMP-15219): Pelluco, Puerto Montt, Región de Los Lagos, 41°29’14’’S, 72°54’20.14’’W; 14-X-2012; Col. J. Pérez-Schultheiss, Asociado a algas rojas y pardas mucilaginosas, intermareal. Four specimens (MNHNCL AMP-15220): Caulín, Chiloe, Región de Los Lagos, 41°49’S, 73°38’W; 6-IV-2006; Col. J. Pérez-Schultheiss, Sedimentos intermareales fango-arenosos. One specimen (MNHNCL AMP-15221): Tomé, Región del Biobío, 36°37’15.89’’S, 72°57’56.5’’W; 1-VIII-2013; Col. C. Carreño, Arena, 7.8 m prof., OT 4214. Six specimens (MNHNCL AMP-15222): Mar

Brava, Ancud, Chiloé, Región de Los Lagos, 41°51'24.23''S, 74°1'53.27''W; 31-V-2015; Leg. S. Silva, Asociado a *Macrocystis pyrifera*. Two specimens (MNHNCL AMP-15223): Chauman, Ancud, Chiloé, Región de Los Lagos, 41°47'4.6''S, 73°59'19.59''W; 7-XI-2015; Leg. S. Silva, Asociado a *Macrocystis pyrifera*. 18 specimens (MNHNCL AMP-15224): Mar Brava, Ancud, Chiloé, Región de Los Lagos, 41°51'24.23''S, 74°1'53.27''W; 12-III-2015; Leg. S. Silva, Asociado a *Macrocystis pyrifera*. 14 specimens (MNHNCL AMP-15225): Aituy, Queilén, Chiloé, Región de Los Lagos, 42°27'14''S, 73°27'14''W; Mayo-2015; Leg. S. Silva, Asociado a *Macrocystis pyrifera*.

Distribution and bathymetry
In Chile, known records in Puerto Montt, Calbuco, Punta Arenas, "Katanushuaia", Bahia Harris, Punta Santa Ana (González 1991; Schellenberg 1931). Also in Argentina (Ushuaia; Bahia Almirante Brown) and subantarctic islands and other south Atlantic localities (Auckland Islands; Campbell Island; Iles Crozet; Falkland Islands; Gough Island; Iles Kerguelen; Golfe du Morbihan; Macquarie Island; Prince Edward Islands; The Snares; Tristan da Cunha); 0-138 m depth (De Broyer *et al.* 2007). New record here reported extends the distribution in Chile to Tomé, Biobío Region.

Remarks
The genus *Parawaldeckia* Stebbing, 1910 include 15 species distributed in New Zealand, Australia, Subantarctic Islands and Southern America. The genus is characterized by its large posterior lobe on coxa 4 and its shortened, stockier mouthparts (Lowry and Stoddart 1983).

Socarnoides unidentatus (Schellenberg, 1931)
(Figures 6Q-S)

Socarnes unidentatus Schellenberg, 1931: 24-25, fig. 10; Barnard, 1958: 99; González, 1991: 59; González *et al.*, 2008: 166.
Socarnoides unidentatus Barnard and Karaman, 1991: 532; De Broyer and Jażdżewski, 1993: 75; De Broyer *et al.*, 2007: 132.

Diagnostic characters
Socarnoides with up to 11 mm of body length. Upper lip and epistome prominent, separated, the first strongly projecting in a blunt lobe. Mouthparts in a conical bundle. Epimeron 3 with posterior tooth over a rounded posteroventral margin and posterior margin concave. Uropod 3 birramous, inner ramus not reduced. Telson cleft.

Type specimens deposition
Swedish Museum of Natural History, Stockholm.

Distribution and bathymetry
Originally described from Puerto Madryn, Argentina, was cited from Estrecho de Magallanes, Chile by González (1991), but without reference to new specimens or literature records. This author used criteria "assigned to a middle point" in doubtful localities (González 1991: see appendix), so the probable ocurrence of an error for the record of Estrecho de Magallanes cannot be excluded. However here is kept this species, because the great distance between the two points, that make more probable that González erred in not indicate Estrecho de Magallanes as a new record. 9 m depth.

Tryphosinae Lowry and Stoddart, 1997
Lepidepecreoides chincui Lowry and Stoddart, 2002c
(Figures 7A-D, 14A)

Lepidepecreoides chincui Lowry and Stoddart, 2002c: 340-343, Figs. 4-6; González *et al.*, 2008: 166

Diagnostic characters
Lepidepecreoides with total length 3.5-5.8 mm, characterized by the pleonite 3 produced dorsodistally and gnathopod 1 simple.

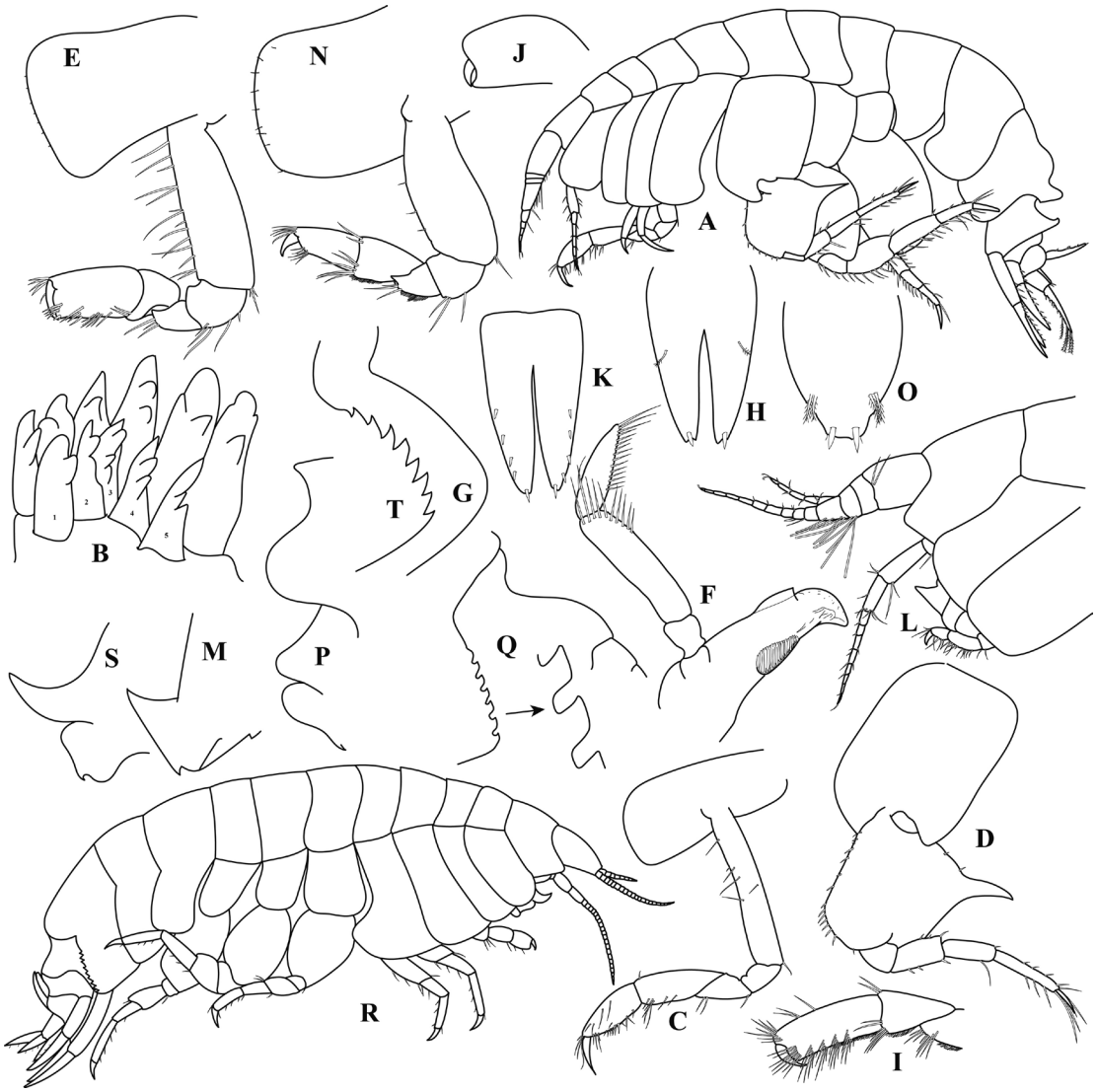

FIGURE 7. Family Lysianassidae, Subfamily Tryphosinae. *Lepidepecreoides chincui* Lowry and Stoddart, 2002: A, habitus; B, maxilla 1 distal setal-teeth arrangement 6/5; C, gnathopod 1; D, pereopod 5. *Orchomenella chilensis* (Heller, 1865): E, gnathopod 1; F, mandible; G, epimeron 3; H, telson. *Orchomene montana* Vinogradov and Vinogradov, 1991: I, carpus and propodus of gnathopod 1; J, propodus of gnathopod 2; K, telson. *Paralysianopsis odhneri* Schellenberg, 1931: L, head; M, upper lip and epistome; N, gnathopod 1; O, telson. *Tryphosella castellata* (K.H. Barnard, 1932): P, lateral cephalic lobe, upper lip and epistome; Q, epimeron 3 and urosomite profile. *Tryphosites chevreuxi* Stebbing, 1914: R, habitus; S, upper lip and epistome; T, epimeron 3.

Type specimens deposition

Holotype and one paratype in the Swedish Museum of Natural History, Stockholm, one additional paratype in the Australian Museum.

Material examined

One specimen (MNHNCL AMP-15201): Southwest of Ahulliñi island, Chaitén, Los Lagos Region, 42°45’15’’S 73°06’43’’W; 16-12-2007; G. Rantul Coll.; medium sand , 15 m, OT 2028.

Distribution and bathymetry
Originally described from Chincui Bay and Piedra Azul, Reloncaví Sound, Los Lagos Region (Lowry and Stoddart 2002c). Southwest of Ahulliñi Island (42°45'15"S; 73°06'43"W), Chaitén, Los Lagos Region (Figure 4). 15-80 m depth.

Remarks
The genus *Lepidepecreoides* K. H. Barnard, 1931 includes seis species, easily recognized by the concave posterior margin of coxa 4, not strongly excavated and by the presence of a remarkable spine on the posterior margin of basis of pereopod 5 (Lowry and Stoddart 2002c). *Lepidepecreoides chincui* is the only species recorded in the South-East Pacific, where it has been found between 15 (here recorded) and 80 meters deep. The species is characterized by the presence of one dorsodistal process in pleonite 3 and gnathopod 1 simple. This specimen is the first outside the Reloncaví Sound, where the only three known specimens were previously recorded (Lowry and Stoddart 2002c).

Orchomene montana Vinogradov and Vinogradov, 1991 (Figures 7I-K, 13B)

Orchomene montana Vinogradov and Vinogradov, 1991: 33-37, fig. 1.

Diagnostic characters
Orchomene with total length 7.5-17.2 mm, characterized by the mandibular molar form of a crest or comb bearing cusps, denticles and "setae" (actually pubescence); palp implanted strongly proximal to molar. Carpus of gnathopod 1 longer than half propodus, with posterior margin convex; propodus at least three times longer than wide; palm transverse. Gnathopod 2 subchelate. Epimeron 3 posteriorly smooth. Telson deeply cleft, with a row of four dorsolateral robust setae.

Type specimens deposition
Holotype in the collection of the Institute of Oceanology of the Russian Academy of Sciences (Vinogradov and Vinogradov 1991).

Distribution and bathymetry
Known only from Nazca submarine ridge (24°58'S, 88°24'W), South Eastern Pacific (Vinogradov and Vinogradov 1991).

Remarks
The genus *Orchomene* Boeck, 1871 contain 32 species, characterized by the mandibular molar in the form of a crest or comb, provided with pubescence (Barnard and Karaman 1991). Probably the allocation of this species to the genus *Orchomene* requires confirmation, as the figures published by Vinogradov and Vinogradov (1991) show a molar cylindrical, similar to *Orchomenella* (De Broyer 1984).

Orchomenella (Orchomenopsis) chilensis (Heller, 1868) (Figures 7E-H, 14B)

Anonyx chilensis Heller, 1868: 129, pl. 11, fig. 5.
Orchomenopsis abyssorum Stebbing, 1906: 84, fig. 14 (in part).
Orchomenopsis chilensis Barnard K.H., 1925: 330. Non *Orchomenopsis chilensis* Chilton, 1912: 473; non Schellenberg, 1925: 119-120, fig. 3.
Orchomenopsis chilensis f. chilensis Schellenberg, 1926: 293, fig. 29; Schellenberg, 1931: 48.
Orchomenella chilensis Ruffo, 1949: 8; Barnard J.L., 1958: 96; Hurley, 1965b: 183, figs. 1, 2.
Orchomene chilensis Barnard J.L., 1964: 85; Lowry and Bullock, 1976: 96; Barnard and Karaman, 1991: 508-509.
Orchomenella (Orchomenopsis) chilensis De Broyer, 1983:103-104; González, 1991: 59; De Broyer and Jażdżewski, 1993: 71; De Broyer and Rauschert, 1999: 285, table 1.

Diagnostic characters
Orchomenella with up to 6.5 mm of body length. Mandibular molar cylindrical truncate, triturative, with denticles and cusps, but without pubescence; palp implanted strongly proximal to molar. Carpus of gnathopod 1 shorter than half propodus, with posterior margin as a lobe; propodus at least two times longer than wide; palm transverse. Gnathopod 2 parachelate. Epimeron 3 posteriorly smooth. Telson deeply cleft, without dorsolateral robust setae, only a slender plumose seta.

Type specimens deposition
Unknown.

Material examined
44 specimens (MNHNCL AMP-15226): Pucatrihue, Osorno, Región de Los Lagos; 30-IV-2005; Col. J. Pérez-Schultheiss; Asociado a *Squalus* sp. en red de cerco, pesca artesanal.

Distribution and bathymetry
Valparaíso, Puerto Bueno; Canal Smith; Punta Arenas; Puerto Hope; Seno Almirantazgo; Puerto Pantalón (Schellenberg 1931); Estrecho de Magallanes (González 1991). Also in Argentina: Golfo San José; Isla Haberton; Falkland Islands and Ross Sea (De Broyer *et al.* 2007). 11-40 m depth.

Remarks
The genus *Orchomenella* Sars, 1890 is a complex taxon, including at least 29 species characterized by the mandibular molar cylindrical truncate, triturative and cuspate, but without pubescence. Two subgenera have been recognized: *Orchomenella*, with broad carpal lobe and propodus not excavate along posterior margin and *Orchomenopsis* Sars, 1891 with carpal lobe thinner and propodus with excavate posterior margin (Barnard and Karaman 1991). *Orchomenella chilensis* was redescribed by Hurley (1965b).

Paralysianopsis odhneri Schellenberg, 1931
(Figures 7I-L, 14C)

Paralysianopsis odhneri Schellenberg, 1931: 7, fig. 2; Barnard K.H., 1932: 38, fig. 6; Nicholls, 1938: 11; Barnard J.L., 1958: 97; Andres, 1975: 16, 108, 112; Lowry and Bullock, 1976: 102-103; De Broyer, 1983: 197-198, figs. 57-59; Lowry and Stoddart, 1984: 104-108, figs. 4-6; Barnard and Karaman, 1991: 513-514; González, 1991: 59; De Broyer and Jażdżewski, 1993: 73; Lowry and Kilgallen, 2014a: 23.
Austronisimus rhinoceros Barnard K.H., 1931: 425; Thurston and Allen, 1969: 356.

Diagnostic characters
Paralysianopsis with 3 to 5 mm of total length. Upper lip coalesced with epistome and produced into a projecting upturned hook. Coxa 1 large, nearly as long as coxa 2, not tapering. Propodus of gnathopod 1 with acute palm, straight. Telson entire or emarginated.

Type specimens deposition
Lectotype immature and female paralectotype in the Swedish Museum of Natural History, Stockholm, Sweden.

Distribution and bathymetry
Chile: Golfo de Corcovado (Andres 1975; González 1991). Also Adélie Coast, Davis Sea, Falkland Islands, South Georgia, South Shetland Islands. 2-147 m depth (De Broyer *et al.* 2007).

Remarks
The genus *Paralysianopsis* Schellenberg, 1931 include 12 species, and differs from *Lysianopsis* in the mandibular palp inserted at molar level, articulating teeth on the palp of maxilla 1, and subchelate gnathopod 1 (Lowry and Stoddart 1984). *P. odhneri* is recognized by the upper lip produced as a point, inner ramus of uropod 2 weakly constricted and outer ramus of uropod 3 2-articulate (Lowry and Stoddart 1995b).

Tryphosella castellata (K.H. Barnard, 1932)
(Figures 7M-N, 14C)

Tryphosa castellata Barnard K.H., 1932: 53, fig. 18; Barnard J.L., 1958: 101; Barnard J.L., 1962: 30 (in key); Thurston and Allen, 1969: 370.
Tryphosella castellata Barnard J.L., 1969: 365 (by implication); Sanderson, 1973: 38; Lowry and Bullock, 1976: 107; Barnard and Karaman, 1991: 537; De Broyer and Jażdżewski, 1993: 76; De Broyer *et al.*, 2007: 151-152; Lowry and Stoddart, 2011b: 15 (excluding from *Tryphosella*).

Diagnostic characters
Species incompletely described; only some characters deducted from illustrations of K.H. Barnard (1932) are included: *Tryphosella* with 11.5-12 mm of total length. Lateral cephalic lobe rounded. Epistome visibly projected and as long as the upper lip. Epimeron 3 posteriorly serrate, with at least 6 subcuadrate serrations and urosomite 1 with a shallow dorsal depression.

Type specimens deposition
Natural History Museum, London (De Broyer *et al.* 2007).

Distribution and bathymetry
Chile: Caleta San Martín, Hermit Island, 30-35 m depth (K. H. Barnard 1932).

Remarks
This species was excluded from *Tryphosella* by Lowry and Stoddart (2011b) because the coxa 1 is "distally widened"; however, the condition of maxilla 1 is unknown, so here this generic assignment is maintained. A redescription of type specimens is urgently needed for confirm his generic assignment.

Tryphosites chevreuxi Stebbing, 1914
(Figures 7O-Q, 14D)

Tryphosites chevreuxi Stebbing, 1914: 355, pl. 3; Schellenberg, 1931: 36, fig. 17; Barnard K.H., 1932: 54, fig. 19; Schellenberg, 1935: 232; Barnard J.L., 1958: 102; Thurston and Allen, 1969: 372; Lowry and Bullock, 1976: 109; De Broyer, 1983: 208; Alonso, 1987a: 4-5, fig. d. 16-34; Barnard and Karaman, 1991: 538; González, 1991: 60; Alonso, 1993: 381, fig. 4; De Broyer and Jażdżewski, 1993: 77; De Broyer and Rauschert, 1999: 285, table 1; Chiesa *et al.*, 2005: 170; Thiel and Hinojosa, 2009: 709, unnumbered figures in p. 708; Lowry and Kilgallen, 2014a: 48.

Diagnostic characters
Tryphosites with up to 13 mm of body length. Upper lip not projecting and epistome produced as a sharp upturned projection. Carpus of gnathopod 1 longer than propodus. Epimeron 3 posteriorly serrate. Telson deeply cleft.

Type specimens deposition
Types deposited in the Natural History Museum, London (De Broyer *et al.* 2007).

Material examined
11 specimens (MNHNCL AMP-15227): Isla Chaullin, Quellón, Región de Los Lagos, 43°3'S 73°27'W; 3-IX-2011; Col. Litoral Austral Ltda., Arena fangosa, 40.1 m prof. OT 3500. Two specimens (MNHNCL AMP-15228): Oeste de Isla Tahuenahuec, Región de Aysén; 16-III-2008; Col. Litoral Austral Ltda.; Sedimentos INFA OT2028. Two specimens (MNHNCL AMP-15229) Pumalín, Región de Los Lagos, 49°41'S, 72°48'W; 21-X-2011; Col. A. Matamala; Arena fangosa ligeramente gravosa, 30 m prof., OT 3561. One specimen (MNHNCL AMP-15230): Punta Dirección, Quellón, Región de Los Lagos; 5-II-2008; Col. Litoral Austral Ltda.; Sedimentos INFA: arena, 25-48 m prof. OT 2199, N° Ingreso: 12. Two specimens (MNHNCL AMP-15231): Sur de Isla Delia, Canal Beagle, Región de Magallanes; 12-II-2010; Col. Litoral Austral Ltda. Sedimentos CPS OT 3341, N° Ingreso: 13. One juvenil (MNHNCL AMP-15232): Sur de Isla Tangbac, Región de Aysén, 45°2'39.58''S 73°41'7.79''W; 22-IV-2014; Col. S. Muñoz; grava arenosa, 28 m, OT 4562.

Distribution and bathymetry
Valparaiso, Bahia Borja, Bahia Fortescue, Cabo Valentina, Bahia Gente Grand e, Punta Arenas, Magellan Sound; Canal Smith, Isla Elizabeth, Puerto Hope; Seno Almirantazgo, Puerto del Hambre; Puerto Condor, Bahia Harris, Bahia Inutil, Puerto Eugenia, Isla Navarino, Isla Nueva, Caleta Lennox, Última Esperanza, Isla Hermite, Caleta San Martin. Also Argentina and Falkland Islands. 1-274 m depth (De Broyer *et al.* 2007).

Remarks
The genus *Tryphosites* Sars, 1891 include 5 species distributed in the Pacific Ocean and North Atlantic. Some characters of the genus are the mandibular incisor curved, with palp attached midway, carpus of gnathopod 1 longer than propodus and uropod 3 rami with plumose setae (Lowry and Kilgallen 2014a).

Pachynidae Lowry and Stoddart, 2012a
***Drummondia luce* Lowry and Stoddart, 2012a**
(Figures 8H-K, 15A)

Drummondia luce De Broyer *et al.*, 2007: 158 (*Nomen nudum*); Lowry and Stoddart, 2012a: 11-13, figs. 4-6.

Diagnostic characters
Drummondia with up to 11 mm of total length. Antenna 1 peduncular article 1 with large posterodistal spine. Mandible with molar. Maxilliped palp with 4 articles, inner plate present. Gnathopod 1 chelate, posterior margin of propodus well developed palm defined by complex robust seta; ischium posteroproximally normal. Pereonite 5 with 1 dorsal spine.

Type specimens deposition
Holotype and one paratype in the Swedish Museum of Natural History, Stockholm (Lowry and Stoddart 2012a).

Material examined
One adult specimen (MNHNCL AMP-15202): NW de Isla Acui, Queilén, Chiloé, Región de Los Lagos, 42°54'S 73°23'W, 18-IV-2011, Col. Litoral Austral Ltda., sedimento arena amarilla, 9 m. depth, OT 3398. One adult specimen (MNHNCL AMP-15203): Colaco, Calbuco, Región de Los Lagos, 41°47'S, 73°22'W, 1-4/VI/2011, Leg. C. Vásquez, Arena media NI 43712. One juvenile specimen (MNHNCL AMP-15204): Guapilacuy, Ancud, Chiloé, Región de Los Lagos, 24-IX-2002, Leg. L. Filún, Fondo arenoso, 10 m. One juvenile specimen (MNHNCL AMP-15205): Bahía Inglesa, Región de Atacama, 19-XI-2010, Col. Litoral Austral Ltda., Sedimentos INFA, OT 3258. One adult specimen (MNHNCL AMP-15207): Punta Gacitúa, Santa Barbara, Chaiten, Región de Los Lagos, 42°51'58''S, 72°48'18''W, 28-IV-2012, Col. D. Chávez, arena ligeramente gravosa, 38 m, OT 3783.

Distribution and bathymetry
Known from Bajo Vettor Pisani, Golfo Corcovado, Chile, 8-38 m depth (Lowry and Stoddart 2012a). Besides at NW Acui Island, Punta Gacitua, Colaco, Guapilacuy, in Los Lagos Región, and Bahía Inglesa, Atacama Region.

Remarks
The genus *Drummondia* Lowry, 1984 include 5 species distributed in eastern Australia and Chile. *D. luce* is the only species reported in South America, and can be differentiated from all the four Australian species by the presence of a molar in the mandibles (Lowry and Stoddart 2012a). The material examined includes some new localities in Los Lagos region and extends significantly the distribution of *D. luce* up to Atacama Region, in the north of Chile.

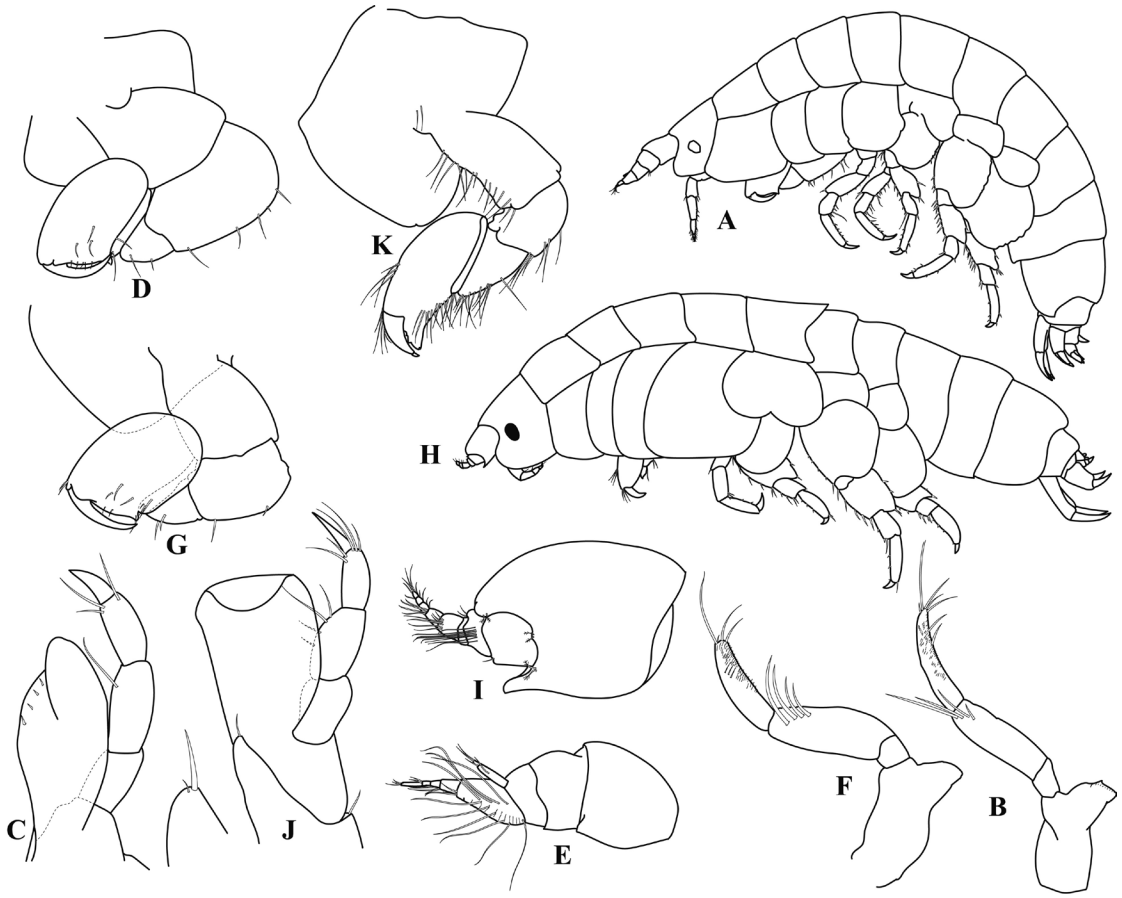

FIGURE 8. Family Pachynidae. *Ultimachelium schellenbergi* (Lowry, 1984): A, habitus; B, mandible; C, maxilliped; D, gnathopod 1. *Ultimachelium tac* Lowry and Stoddart, 2012: E, antenna 1; F, mandible; G, gnathopod 1. *Drummondia luce* Lowry and Stoddart, 2012: H, habitus; I, antenna 1; J, maxilliped; K, gnathopod 1.

Ultimachelium schellenbergi (Lowry, 1984)
(Figures 8A-D, 15A)

Pachychelium antarcticum Schellenberg, 1931: 19, fig. 8; Lowry and Bullock, 1976: 101 (in part).
? *Pachychelium davidis* K.H. Barnard, 1932: 75, fig. 32.
Pachychelium schellenbergi Lowry, 1984: 102, figs. 39–41; Barnard and Karaman, 1991:550; González, 1991: 59; De Broyer and Jazdzewski, 1993: 74.
Ultimachelium schellenbergi De Broyer *et al.*, 2007: 158 (*Nomen nudum*); Lowry and Stoddart, 2012a: 64-65, fig. 46.

Diagnostic characters
Ultimachelium with up to 9 mm of total length. Antenna 1 peduncular article 1 without posterodistal spine. Mandible without molar; palp article 2 as long as article 3. Maxilliped palp with 4 articles, inner plate absent. Gnathopod 1 subchelate, posterior margin of propodus greatly reduced or absent, well developed palm defined by a tooth; ischium swollen posteroproximally, larger than propodus. Pereonite 5 without dorsal spine.

Type specimens deposition
Holotype and one paratype in the Zoologisches Museum, East Berlin and two paratypes in the Swedish Museum of Natural History, Stockholm (Lowry 1984).

Material examined
One specimen (MNHNCL AMP-15206): Canal Tenglo, Región de Los Lagos, 41°30'S, 72°59'W, 30-V-2012, Col. R. Zapata, Arena ligeramente gravosa, 15 m prof., OT 3812.

Distribution and bathymetry
Known from Ultima Esperanza, Punta Arenas and Picton Banner Cove, 1 to 18 m depth. Also from the Falkland Islands, 1 to 16 m depth, and possibly from South Georgia in 179 to 235 m depth (Lowry 1984). Estero Huito, north of Punta Yahuecha, northern part of Golfo de Ancud, 35 m depth (Lowry and Stoddart 2012a).

Remarks
The genus *Ultimachelium* Lowry and Stoddart, 2012a includes one Antarctic and three South American species. Both species reported in Chile have a basis of pereopod 7 with rounded posterodistal corner (Lowry and Stoddart 2012a).

Ultimachelium tac Lowry and Stoddart, 2012a
(Figures 8E-G, 15A)

Ultimachelium tac De Broyer *et al.*, 2007: 158 (*Nomen nudum*); Lowry and Stoddart, 2012a: 65-67, figs. 47-48.

Diagnostic characters
Ultimachelium with up to 3.2 mm of total length. Antenna 1 peduncular article 1 without posterodistal spine. Mandible without molar; palp article 2 longer than article 3. Maxilliped palp with 4 articles, inner plate absent. Gnathopod 1 subchelate, posterior margin of propodus greatly reduced or absent, well developed palm defined by a tooth; ischium swollen posteroproximally, subequal than propodus. Pereonite 5 without dorsal spine.

Type specimens deposition
Holotype in the Swedish Museum of Natural History, Stockholm (Lowry and Stoddart 2012a).

Distribution and bathymetry
Known only from the type locality, east-south-east of Isla Tac, Golfo de Ancud, Chile, 250–300 m depth.

Trischizostomatidae Lilljeborg, 1865
Trischizostoma barnardi Vinogradov, 1990
(Figures 9A-E, 13B)

Trischizostoma barnardi Vinogradov, 1990: 37-39, fig. 5; 2004: 45

Diagnostic characters
Trischizostoma with up to 14 mm of total length. Palp of maxilliped longer than half outer plate. Gnathopod 1 spiniferous palmar margin with declivitous serrations. Basis of pereopod 5 with posterodistal margin skewed. Rami of uropod 3 as long as half peduncle.

Type specimens deposition
Holotype in the collection of the Institute of Oceanology of the Russian Academy of Sciences (Vinogradov 1990).

Distribution and bathymetry
The species was described from only two stations in Sala and Gómez submarine ridge, between 515 and 540 m depth. The type locality is located in 24°55'S 88°30'W (Vinogradov 1990). One specimen was reported at off north Madagascar (Vinogradov 2004).

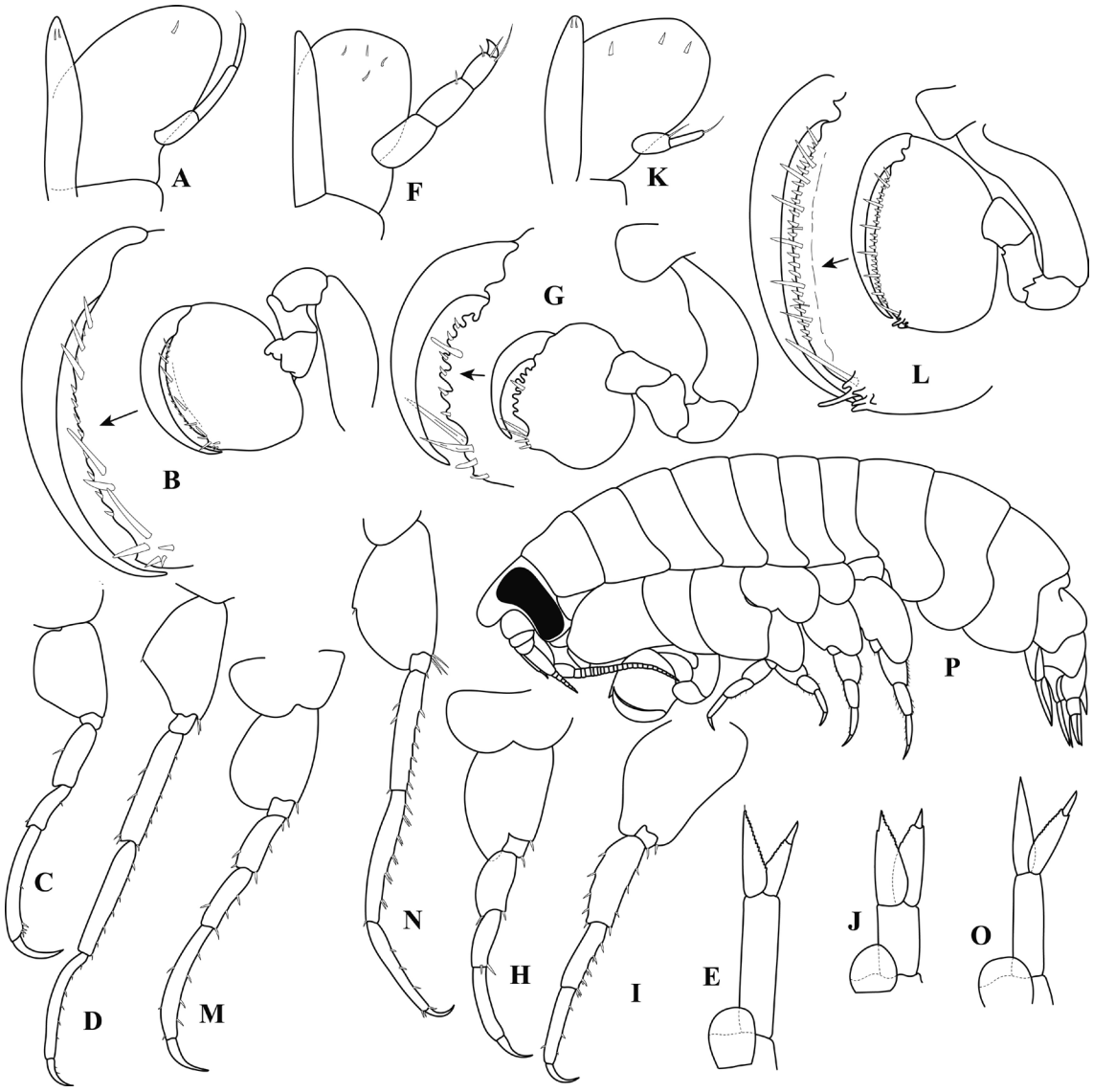

FIGURE 9. Family Trischizostomidae. *Trischizostoma barnardi* Vinogradov, 1990: A, maxilliped; B, gnathopod 1; C, pereopod 5; D, pereopod 7; E, uropod 1. *Trischizostoma cristochelatum* Vinogradov, 1990: F, maxilliped; G, gnathopod 1; H, pereopod 5; I, pereopod 7; J, uropod 1. *Trischizostoma nascaensis* Vinogradov, 1990: K, maxilliped; L, gnathopod 1; M, pereopod 5; N, pereopod 7; O, uropod 1. *Trischizostoma* sp.; P, habitus.

Remarks

The genus *Trischizostoma* Boeck, 1861 include 18 species of pelagic ectoparasites of fishes. Can be recognized by their styliform mouthparts and modified gnathopod 1, with reversed propodus in adults (Winfield *et al.* 2016). All species reported in Chilean waters have large rostrum and telson entire. A taxonomic key to species of *Trischizostoma* was published by Vinogradov (2004).

Trischizostoma cristochelatum Vinogradov, 1990
(Figures 9F-J, 13B)

Trischizostoma cristochelata Vinogradov, 1990: 29-32, fig. 2.

Diagnostic characters
Trischizostoma with up to 15 mm of total length. Palp of maxilliped longer than half outer plate. Gnathopod 1 spiniferous palmar margin with a ridge of large outgrowths. Basis of pereopod 5 posterodistal margin rounded. Rami of uropod 3 slightly longer than peduncle.

Type specimens deposition
Holotype in the collection of the Institute of Oceanology of the Russian Academy of Sciences (Vinogradov 1990).

Distribution and bathymetry
The species was described from eight stations in Nazca and Sala and Gómez submarine ridge, between 50 and 537 m depth. The type locality is located in 25°40'S 86°35'W (Vinogradov 1990).

Trischizostoma nascaensis Vinogradov, 1990
(Figures 9K-O, 13B)

Trischizostoma nascaensis Vinogradov, 1990: 32-35, fig. 3.

Diagnostic characters
Trischizostoma with up to 12 mm of total length. Palp of maxilliped as long as half outer plate. Gnathopod 1 spiniferous palmar margin even. Pereopods 5 to 7 with posterior margin of basis rounded lobate. Rami of uropod 3 slightly shorter than peduncle.

Type specimens deposition
Holotype in the collection of the Institute of Oceanology of the Russian Academy of Sciences (Vinogradov 1990).

Distribution and bathymetry
The species was described in base to one specimen from Nazca submarine ridge, between 330 and 345 m depth. The type locality is located in 25°40'S 86°35'W (Vinogradov 1990).

Uristidae Hurley, 1963
Abyssorchomene plebs (Hurley, 1965)
(Figures 10J-N, 15B)

Orchomenella plebs Hurley, 1965a: 109, figs. 1, 2.
Orchomenopsis proxima Chevreux, 1906: 13.
Orchomenopsis rossi Walker, 1907: 14 (in part); Barnard K.H., 1932: 69, fig. 27 e (in part).
Orchomenopsis chilensis Chilton, 1912: 473 (in part).
Orchomenopsis chilensis f. proxima Schellenberg, 1926: 290.
Orchomenopsis chilensis f. rossi Barnard K.H., 1930: 327, 449.
Orchomenella chilensis f. proxima Shoemaker, 1945: 289.
Orchomenella proxima Ruffo, 1949: 10.
Orchomene plebs Bellan-Santini, 1972: 212; Thurston, 1974: 59 (Appendix A); Lowry and Bullock, 1976: 99; Andres, 1979: 96; Lincoln, 1979: 21, pl. 3d; Lincoln and Hurley, 1981: 108; Andres, 1983: 203-204; Nagata, 1986: 252-253, figs. 2e-h, 4; Barnard and Karaman, 1991: 508.
Abyssorchomene plebs De Broyer, 1983: 146-149, fig. 12a; Andres, 1990: 135, 137, fig. 267; De Broyer and Jażdżewski, 1993: 64; ? Costanzo and Crescenti, 1997: 19-22, fig. 3.2.1-3; De Broyer *et al.*, 2007: 161-162; Lowry and Kilgallen, 2014b: 6, 8 (in key).
Pseudorchomene plebs D'Udekem and Havermans, 2012: 36-40, figs. 23-26.

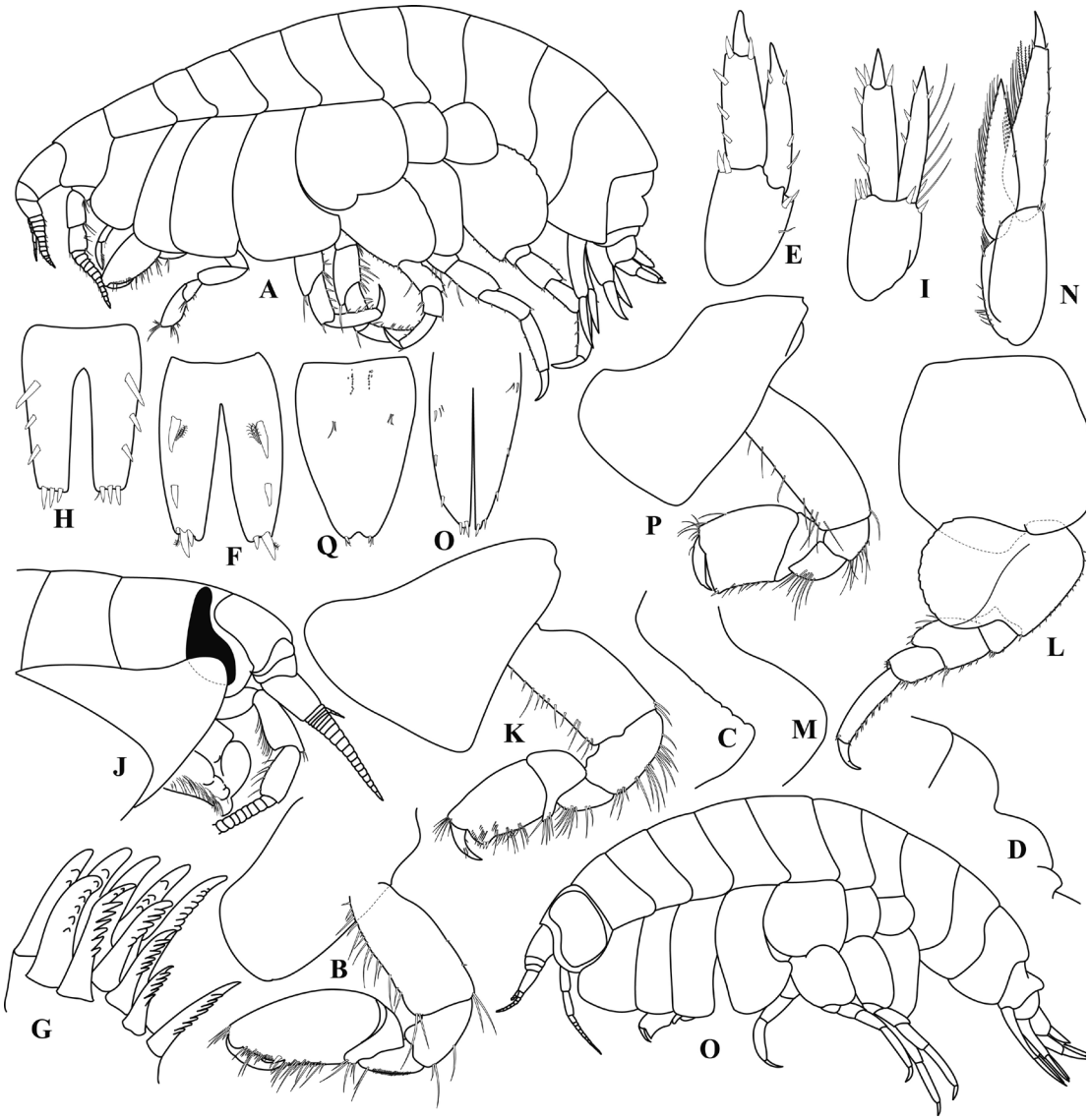

FIGURE 10. Family Uristidae. *Exuristes yamana* (Chiesa and Alonso, 2007): A, habitus; B, gnathopod 1; C, epimeron 3; D, urosomite profile; E, uropod 3; F, telson; G, maxilla 1 distal setal-teeth with 7/4 crown arrangement. *Exuristes serratus* (Schellenberg, 1931): H, telson; I, uropod 3. *Abyssorchomene plebs* (Hurley, 1965): J, head; K, gnathopod 1; L, pereopod 5; M, epimeron 3; N, uropod 3. *Koroga megalops* Holmes, 1908: O, habitus; P, gnathopod 1; Q, telson.

Diagnostic characters

Abyssorchomene with up to 25 mm of total length. Eye pyriform. Gnathopod 1 with coxa large, visible, triangular; basis anterior margin straight; ischium longer than merus; carpus nearly as long as wide, shorter than propodus. Posterior margin of merus of pereopod 5 with slender and strong setae. Inner ramus of uropod 3 shorter than article 1 of outer ramus; medial border of outer ramus with plumose setae.

Type specimens deposition

Holotype in the United States National Museum, USA; paratypes in the New Zealand Oceanographic Institute, Dominion Museum, and British Museum (D'Udekem and Havermans 2012).

Distribution and bathymetry
Magellan Strait, off Isla Carlos III and Isla Tamar (Costanzo and Crescenti 1997). Circum-Antarctic species, 0–2889 m (De Broyer *et al.* 2007; Havermans *et al.* 2011).

Remarks
This species was transferred from the uristid genus *Abyssorchomene* to the Tryphosinae *Pseudorchomene*, using molecular evidence (D'Udekem and Havermans 2012); however, from a pragmatic point of view, the classification based in morphology as proposed by Lowry and Kilgallen (2014b) is maintained.

***Exuristes* n. gen.**
urn:lsid:zoobank.org:act:388212B5-587A-480E-9D59-D5678768CC6C

Uristes Dana, 1849 (in part); Lowry and Kilgallen, 2014b (in part).

Type species: *Uristes yamana* Chiesa and Alonso de Pina, 2007.
Other species: *Uristes serratus* Schellenberg, 1931.

Diagnosis
Antenna 1 peduncle article 1 without anterodistal lobe; flagellum article 1 longer, twice as long as article 2; callynophore absent. Antenna 2 without brush setae. Mandible molar setose with ovoid distal triturating surface. Maxilla 1 outer plate a well developed 7/4 crown. Maxilla 2 inner plate slightly shorter than outer plate. Gnathopod 1 subchelate; coxa 1 large, about as long as coxa 2, subrectangular with distally convex anterior margin; ischium near 2 times as long as wide; carpus short, 2 times as wide as long; propodus inflated, palm oblique, shorter than posterior margin. Uropod 2 inner ramus not constricted. Telson deeply cleft.

Remarks
Barnard (1962) suggested that *Uristes serratus* Schellenberg, 1931 belongs to a distinct genus. Later, both species here assigned to *Exuristes* n. gen. were removed from *Uristes* and recognized as components of an undescribed genus by Lowry and Kilgallen (2014b). The new genus is characterized by the absence of callynophore in females and presumably in males (all known male specimens of *E. yamana* are immature), reduced carpus and inflated propodus of gnathopod 1.

***Exuristes serratus* (Schellenberg, 1931) n. comb.**
(Figures 10H-I, 15B)

Uristes serratus Schellenberg, 1931: 26, fig. 11; Barnard J.L., 1958: 102; Barnard J.L., 1962: 35, 36; Barnard J.L., 1963: 459, 460 (in key); Lowry and Bullock, 1976: 111-112; Barnard and Karaman, 1991: 539; González , 1991: 60; De Broyer and Jażdżewski, 1993: 78; Lowry and Kilgallen, 2014b: 80.

Diagnostic characters
Exuristes with up to 13 mm of total length. Propodus of gnathopod 1 expanded, notably longer than carpus; posterior margin of carpus reduced to a straight lobe. Epimeron 3 with postero-ventral angle acute, posterior margin crenellated or undulated. Dorsal transversal sinus on urosomite 1 not deep, as a rounded sinus in lateral view. inner ramus of uropod 3 with several long slender seta along the inner margin. Lobes of telson truncated and incised distally, with three distal robust setae and three dorsal robust setae in each lobe.

Type specimens deposition
Swedish Museum of Natural History, Stockholm (De Broyer *et al.* 2007).

Distribution and bathymetry
Puerto Esperanza, Estrecho de Magallanes (González 1991). Falkland Islands (Schellenberg 1931). 1 m.

Exuristes yamana (Chiesa and Alonso, 2007) n. comb.
(Figures 10A-G, 15B)

Uristes yamana Chieza and Alonso, 2007: 441-457, figs. 1-4; Alonso, 2012: 1874; Lowry and Kilgallen, 2014b: 80.
Uristes sp. De Broyer *et al.*, 2007: 168.

Diagnostic characters
Exuristes with up to 9.3 mm of total length. Propodus of gnathopod 1 expanded, notably longer than carpus; posterior margin of carpus reduced to a straight lobe. Epimeron 3 with postero-ventral angle acute, posterior margin crenellated or undulated. Dorsal transversal sinus on urosomite 1 not deep, as a rounded sinus in lateral view. Inner ramus of uropod 3 with only one long proximal seta. Lobes of telson slightly incised distally, with two distal robust setae and two dorsal robust setae in each lobe.

Type specimens deposition
Holotype and paratypes in the Museo Argentino de Ciencias Naturales, paratypes in Museo de la Plata, Argentina (Chiesa and Alonso 2007).

Distribution and bathymetry
The species is known only from some Argentinian localities in the Beagle Channel (Isla Lucas, Peninsula Ushuaia and North of Isla Despard) (Chiesa and Alonso 2007), between 5 and 17 meters depth (Alonso 2012).

Koroga megalops Holmes, 1908
(Figures 10O-Q, 15B)

Koroga megalops Holmes, 1908: 503, fig. 13; Birstein and Vinogradov, 1962: 39; Lowry and Kilgallen, 2014b: 33-38, figs. 19-22.

Diagnostic characters
Koroga with up to 10 mm of total length. Eye reniform, covering most of the head. Gnathopod 1 coxa subrectangular, with concave anterior margin; ischium as long as merus; carpus compressed; propodus large with margins subparallel. Telson notched.

Type specimens deposition
Holotype female in the National Museum of Natural History, Smithsonian Institution, Washington DC, USA (Lowry and Kilgallen 2014b).

Distribution and bathymetry
Originally described from vicinity of Funter Bay, Lynn Canal, Alaska, 640 m depth. Records in North Pacific, North Atlantic, Indian Ocean, Sea of Okhotsk and Bearing Sea. In South Pacific Ocean has been found in Kermadec Trench, off the east coast of New Zealand and east coast of Australia (Lowry and Kilgallen 2014b). Only one record in Chile, off Valparaiso, 2010 m depth (Birstein and Vinogradov 1962).

Remarks
The pelagic genus *Koroga* Holmes, 1908 is monotypic and very characteristic by his large eyes and by the characters of the coxa, carpus and propodus of gnathopod 1 (Lowry and Kilgallen 2014b).

Uristes schellenbergi (Schellenberg, 1931) n. comb.
(Figures 11A-F, 15C)

Tmetonyx serratus Schellenberg, 1931: 40, fig. 19; Schellenberg, 1935: 232; Ruffo, 1947: 327; Barnard J.L., 1958: 100. Barnard J.L., 1967: 42; Alonso, 1987a: 5-9, figs. 35-55; Alonso, 1993: 381, fig. 4.
Tryphosella schellenbergi Lowry and Bullock 1976: 7, 108 (nom. nov.); González, 1991: 60; De Broyer and Jażdżewski, 1993: 76; Costanzo and Crescenti, 1997: 23-26, fig. 3.3.1-3; De Broyer and Rauschert,

1999: 285, table 1; Chiesa *et al*., 2005: 170; Lowry and Stoddart, 2011b: 16.
Tryphosa serrata Barnard J.L., 1962: 29, 30 (in key) (junior homonym).
Tryphosella serrata Barnard J.L., 1969: 365 (junior homonym, by implication); Barnard and Karaman, 1991: 537.

Diagnostic characters
Uristes with up to 13 mm of body length. Epistome visibly projected and exceeding the upper lip. Palp of mandible implanted opposite to molar. Carpus of gnathopod 1 nearly as long as propodus; palm oblique. Epimeron 2 posteroventral angle with a tooth; epimeron 3 posteriorly serrate, with at least 7 serrations. Telson with 2 distal robust setae in each lobe.

Type specimens deposition
Swedish Museum of Natural History, Stockholm, Sweden and Zoologisches Museum, Hamburg Universität, Hamburg, Germany.

Material examined
One specimen (MNHNCL AMP-15242): Pucatrihue, Osorno, Región de Los Lagos, 30-IV-2005, Col. J. Pérez-Schultheiss, Asociado a *Squalus* sp. en red de cerco, pesca artesanal.

Distribution and bathymetry
Valparaíso, Estrecho de Magallanes (Segunda Angostura), Canal Smith; Bahia Gente Grande; Bahia Inútil. Also Argentina and Falkland Islands. 0-192 m depth (De Broyer *et al*. 2007).

Remarks
The genus *Uristes* Dana, 1849 was revised recently by Lowry and Kilgallen (2014b), reducing the number of species to only *U. gigas* Dana, 1849 and *U. subchelatus* (Schellenberg, 1931). All other species before assigned to the genus were removed or considered as *insertae sedis* because the absence of detailed information on key characters. The genus is characterized by the mandible molar ridge-like narrow, setose with narrow distal triturating surface and the first gnathopod subchelate.

Uristes schellenbergi has been excluded from *Tryphosella* because the coxa 1 is not shortened or tapered (Lowry and Stoddart 2011b). Here we assigned this species to genus *Uristes*, because we have confirmed that setal teeth in outer plate of maxilla 1 have a 7/4 crown pattern.

Uristes serratus (Schellenberg, 1931) n. comb. (Figures 11G-L, 15C)

Tryphosa serrata Schellenberg, 1931: 34-36, figs. 15-16; Barnard J.L., 1958: 101; Barnard J.L., 1962: 29, 30 (in key).
Tryphosella serrata Barnard J.L., 1969: 365 (senior homonym, by implication); Lowry and Bullock, 1976: 108-109; De Broyer, 1983: 206; González, 1991: 60; Barnard and Karaman, 1991: 537 (*quest. gen*.); De Broyer and Jażdżewski, 1993: 77; Lowry and Stoddart, 2011b: 15.
Not *Uristes serratus* Schellenberg, 1931: 26, fig. 11 (= *Exuristes serratus*).

Diagnostic characters
Uristes with up to 12 mm of body length. Epistome slightly projected and barely exceeding the upper lip. Palp of mandible implanted opposite to molar. Carpus of gnathopod 1 nearly as long as propodus; palm oblique. Epimeron 3 posteriorly serrate, with at least 12 serrations. Telson with 1 distal robust seta and 1 slender seta in each lobe.

Type specimens deposition
Swedish Museum of Natural History, Stockholm, Sweden.

Material examined
One specimen (MNHNCL AMP-15238): Isla Salas, Región de Aysén, 21-III-2013, Leg. C. Vásquez, Fango

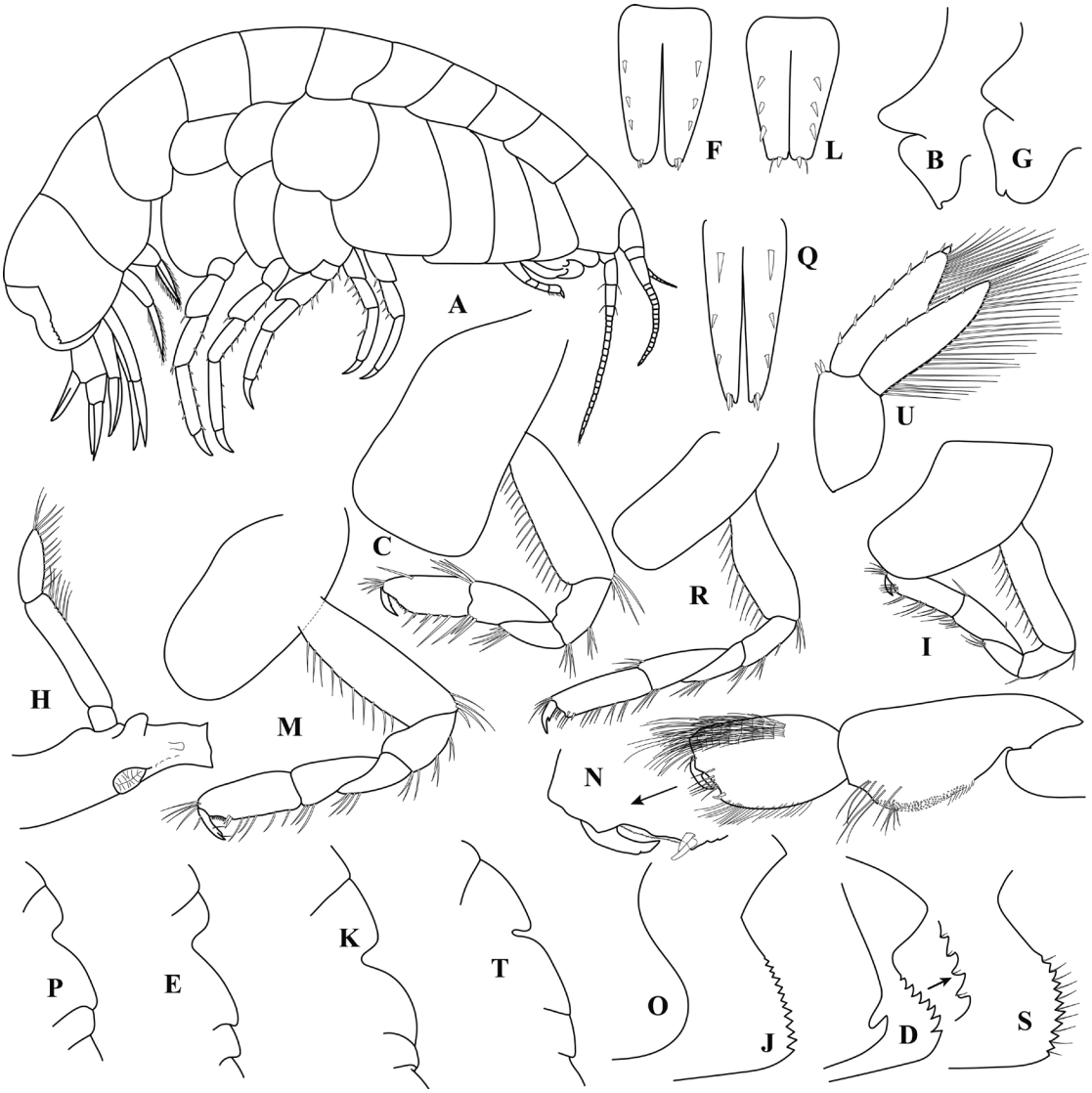

FIGURE 11. Family Uristidae. *Uristes schellenbergi* (Schellenberg, 1931): A, habitus; B, upper lip and epistome; C, gnathopod 1; D, epimeron 2 and 3; E, urosomite profile; F, telson. *Uristes serratus* (Schellenberg, 1931): G, upper lip and epistome; H, mandible; I, gnathopod 1; J, epimeron 3; K, urosomite profile; L, telson. *Uristes subchelatus* (Schellenberg, 1931): M, gnathopod 1; N, gnathopod 2; O, epimeron 3; P, urosomite profile; Q, telson. *Uristes paramoi* (Schellenberg, 1931): R, gnathopod 1; S, epimeron 3; T, urosomite profile; U, uropod 3.

43 m, 70711 (Plancton Andino Ltda.). One specimen (MNHNCL AMP-15239): Hualaihué, Región de Los Lagos, 42°1’35’’S, 72°38’50’’W, 18-I-2012, Col. A. Matamala, Arena fangosa ligeramente gravosa, 30 m, OT 3684. One specimen (MNHNCL AMP-15240): same data.

Distribution and bathymetry

Bahía Harris; Bahía Inútil; Puerto Eugenia; Isla Nueva; Isla Navarino; Estrecho de Magallanes. Also, South Georgia. 22-54 m depth (González 1991; Schellenberg 1931).

Remarks
Lowry and Stoddart (2011b) include this species in *Tryphosella* with doubts because the condition of the maxilla 1 was unknown. Here we confirm that coxa 1 is not reduced as in *Tryphosella* and the maxilla 1 have a 7/4 crown pattern in the teeth of outer plate, a character typical of Uristidae, so the species is transferred to the genus *Uristes*. The studied material extends the distribution of the species to the north, to Aysén and Los Lagos Region.

Uristes subchelatus (Schellenberg, 1931)
(Figures 11M-Q, 15D)

Uristoides subchelatus Schellenberg, 1931: 28, fig. 12; Barnard J.L., 1958: 102.
Uristes subchelatus Barnard J.L., 1962: 35 (mentioned as *Uristoides subchelatus* in table 19); Barnard J.L., 1963: 459, 460 (in key); Lowry and Bullock, 1976: 112; Barnard and Karaman, 1991: 539; González, 1991: 60; De Broyer and Jażdżewski, 1993: 78; De Broyer *et al.*, 2007: 168; González *et al.*, 2008: 166; Lowry and Kilgallen, 2014b: 80, fig. 50.

Diagnostic characters
Uristes with up to 17.5 mm of total length. Propodus of gnathopod 1 not expanded, parallel sided, similar in length to carpus; posterior margin of carpus well developed, not as a straight lobe. Epimeron 3 with postero-ventral angle rounded, posterior margin variously smooth. Dorsal transversal sinus on urosomite 1 not deep, as a rounded sinus with somewhat flat posterior half in lateral view. Rami of uropod 3 with strong and slender setae. Lobes of telson slightly incised distally, with two distal robust setae and three dorsal robust setae in each lobe.

Type specimens deposition
Swedish Museum of Natural History, Stockholm (De Broyer *et al.* 2007).

Material examined
One specimen (MNHNCL AMP-15236): Isla Chulín, Noreste de Punta Espinoza, 42°35'4''S, 73°3'29''W, 10-V-2013, Col. A. Zambrano, arena gravosa, 51.2 m, OT 4142. One female specimen (MNHNCL AMP-15237): Norweste de Punta Cabezon, Isla Chuit, Región de Los Lagos, 14-I-2008, Litoral Austral Ltda., sedimentos CPS, OT 2026.

Distribution and bathymetry
This species was known only from two neighboring localities in the Magellan Strait: Bahia Inutil and Bahia Harris, between 18 and 54 meters depth. The new record extends the distribution of this species to Isla Chuit, Chiloé, Los Lagos Region.

Uristes paramoi (Schellenberg, 1931)
(Figures 11R-U, 15D)

Tmetonyx paramoi Schellenberg, 1931: 41, figs. 20, 21; Barnard J.L., 1958: 100.
Tryphosa paramoi Barnard J.L., 1962: 30 (in key); Barnard J.L., 1969: 365 (by implication).
Tryphosella paramoi Lowry and Bullock, 1976: 108; Barnard and Karaman, 1991: 537 (quest. gen.); González, 1991: 59; De Broyer and Jażdżewski, 1993: 76; De Broyer *et al.*, 2007: 154; González *et al.*, 2008: 166; Pérez-Schultheiss *et al.*, 2010: 268; Lowry and Stoddart, 2011b: 15 (excluding from *Tryphosella*).
Uristes paramoi Lowry and Kilgallen, 2014b: 80 (as *insertae sedis*).

Diagnostic characters
Uristes with up to 18 mm of total length. Propodus of gnathopod 1 not expanded, parallel sided, similar in length to carpus; posterior margin of carpus well developed, not as a straight lobe. Epimeron 3 with postero-ventral angle subrounded, posterior margin serrate. Dorsal transversal sinus on urosomite 1 deep, as a slit in lateral view. Rami of uropod 3 with strong and slender setae; long slender setae in inner margin of both

rami arranged as a comb. Lobes of telson slightly incised distally, with two distal robust setae and three dorsal robust setae in each lobe.

Type specimens deposition
Swedish Museum of Natural History, Stockholm (De Broyer *et al.* 2007).

Material examined
One ovigerous dissected female (MNHNCL AMP-15233): Mar Brava, Carelmapu, Región de Los Lagos, 41°43'47.50''S, 73°43'21.47''W; 6-X-2007; Col. J. Pérez-Schultheiss; Intermareal arenoso. Nine specimens (MNHNCL AMP-15234): same data. Two specimens (MNHNCL AMP-15235): Isla Guamblín, Región de Aysén, 29-I-2008, Col. J. Pérez-Schultheiss, Intermareal arenoso, JP-74.

Distribution and bathymetry
Described originally from Paramo, Atlantic coast of Tierra del Fuego, Argentina, and cited erroneously from Magallanes strait by González (1991). The only confirmed reference from Chile is Isla Guamblin (Pérez-Schultheiss *et al.* 2010), and the new locality here reported. Intertidal species.

Remarks
This species was considered as *insertae sedis* in the genus *Uristes* by Lowry and Kilgallen (2014b), based in the maxilla 1 teeth pattern depicted by Schellenberg (1931: figure 21e). Here we confirmed the typical 7/4 crown pattern and transfer formally this species to *Uristes*.

Key to the Lysianassoidea from Chile

Notes: The identification of *Aristias antarcticus* is complicated by incomplete descriptions of many records in southern ocean (see Kilgallen 2010). Couple for this species is based in the original description of Walker (1906) and comments of Schellenberg (1931). *Tryphosella castellata* is excluded, because important characters remain unknown.

01. Propodus of pereopod 3 strongly prehensile, subchelate or parachelate (Figure 3C)...Endevouridae….....*Ensayara gappai*
– Propodus of pereopod 3 normal, cylindrical and without prehensile adaptation (*e.g.*, Figure 1G)…..2
02. Gnathopod 1 strongly subchelate and robust, propodus inverted in adults (*e.g.*, Figure 9B). Mouth parts forming a styliform bundle. Mandible without molar (*cf.* Figure 8F).....Trischizostomidae….....3
– Gnathopod 1 different from the above. Mouthparts forming a subquadrate or subconical bundle. Mandible generally with molar (*cf.* Figure 11H).....5
03. Palp of maxilliped as long as half outer plate (Figure 9K). Gnathopod 1 spiniferous palmar margin even (Figure 9L). Pereopods 5 to 7 with posterior margin of basis rounded lobate (Figure 9M-N)..... .....*Trischizostoma nascaensis*
– Palp of maxilliped longer than half outer plate (Figure 9A, 9F). Gnathopod 1 spiniferous palmar margin forming declivitous serrations or pronounced outgrowth (Figure 9B, 9G). At least pereopod 7 with posterior margins of basis concave or skewed distally (*e.g.*, Figure 9D)..... 04
04. Gnathopod 1 spiniferous palmar margin with declivitous serrations (Figure 9B). Basis of pereopod 5 with posterodistal margin skewed (Figure 9C). Rami of uropod 3 as long as half peduncle (Figure 9E) ... .*Trischizostoma barnardi*
– Gnathopod 1 spiniferous palmar margin with a ridge of large outgrowths (Figure 9G). Basis of pereopod 5 posterodistal margin rounded (Figure 10H). Rami of uropod 3 slightly longer than peduncle (Figure 9J)…….....……...*Trischizostoma cristochelatum*
05. Propodus of pereopods 3-7 with a distal spur (Figure 2B).....Aristiidae….....6
– Propodus of pereopods 3-7 simple, without distal spur (*e.g.* Figure 1F)……..……..... 7
06. Lobes of telson subtriangular, with two dorsal and one distal strong setae (Figure 2A); eyes reddish in conserved specimens; flagellum of antenna 1 with 6 articles; total length reaches up to 5 mm.…..... .....*Aristias linnaei*

– Lobes of telson subrectangular, with rounded apex, only with one distal strong setae (Figure 2C); eyes dark; flagellum of antenna 1 with 7-10 articles; total length reaches up to 15 mm ……..... .....……..*Aristias antarcticus*

07. Carpus of gnathopod 1 extremely compressed and almost completely hidden by the propodus (Figures 8D, 8G, 8K).....Pachynidae…..8
– Carpus of gnathopod 1 normal, not hidden by the propodus (*e.g.*, Figures 2I, 4J, 7C, 7E, 7N, 9B, 9G) ….....…..10

08. Gnathopod 1 propodus subchelate, posterior margin greatly reduced or absent (Figure 8D). Pereonite 5 without posterodorsal spine .....*Ultimachelium*….....9
– Gnathopod 1 propodus chelate, posterior margin well developed (Figure 8K). Pereonite 5 with posterodorsal spine (Figure 9H)…..... *Drummondia luce*

09. Mandibular palp article 2 as long as article 3 (Figure 8B). Gnathopod 1 ischium larger than propodus (Figure 8D) .....……*Ultimachelium schellenbergi*
– Mandibular palp article 2 longer than article 3 (Figure 8F). Gnathopod 1 ischium subequal to propodus (Figure 8G).…….....…*Ultimachelium tac*

10. Head significantly higher than longer and with a mid-anterior notch (Figure 1A); propodus of gnathopod 1 with posterior margin serrated; maxilla 1 without palp; coxa 1 extremely small .....Amarylli-didae….....11
– Without the above combination of characters…….....……..…..13

11. Mandibular palp article 3 with proximal A3-seta. Pereopods 3 and 4 in male with fringe of plumose setae on posterior margin of merus and carpus (Figure 1F-G). Uropod 3 outer ramus 2-articulate, with plumose setae in males and females (Figure 1I).....*Erikus*.....…12
– Mandibular palp article 3 without proximal A3-seta. Pereopods 3 and 4 in male without fringe of setae on posterior margin of merus and carpus. Uropod 3 outer ramus 1-articulate, without plumose setae in males and females (Figure 1K).....*Amaryllis macrophthalma*

12. Male primary flagellum of antenna 1 composed of at least 50 articles, with calceoli located every two articles, beginning at article 5; brush of setae present on male antenna 2 peduncular articles 3-5 (Figure 1E). Female antenna 2 shorter than antenna 1…….....*Erikus lovrichi*
– Male primary flagellum of antenna 1 composed of at least 36 articles, with calceoli present on articles 3-29; brush of setae present on male antenna 2 peduncular articles 4-5 (Figure 1B). Female antenna 2 longer than antenna 1.....*Erikus dahli*

13. Coxae 1 and 2 reduced, very small (Figure 1P-Q, 2H-I, see 1L, 2D, 2K).....14
– Coxae 1 and 2 normal (*e.g.*, Figure 3A) or only coxa 1 reduced (*e.g.*, Figure 4A, 4J)…….....17

14. Coxae 1-3 reduced (see Figure 2K); maxilla 1 with distal inner plate setal teeth 6/5 arrangement..... Cyphocarididae….....15
- Coxae 1-2 reduced (see Figure 1L); maxilla 1 with distal inner plate setal teeth 7/4 crown arrangement (Figure 1N)……Cyclocaridae….....*Cyclocaris tahitensis*

15. Both margins on spur of basis of pereopod 5 serrate (Figure 2F)…….....……....*Cyphocaris anonyx*
– Both margins on spur of basis of pereopod 5 smooth (Figure 2J, 2M)…….....……16

16. Proximal posterior margin of basis of pereopod 5 smooth (Figure 2M)……*Cyphocaris faurei*
– Proximal posterior margin of basis of pereopod 5 serrate (Figure 2J)……..*Cyphocaris challengeri*

17. Inner plate of maxilla 1 with one of the two setae enlarged (Figure 3H) and palp with subterminal lateral notches on the inner margin (Figure 3I).....Hirondelleidae….....*Hirondellea thurstoni*
– Setae of inner plate of maxilla 1 normal, both similar, and inner margin of palp without lateral notch ….....…18

18. Maxilla 1 setal-teeth with 8/3 crown shaped arrangement (Figure 4K); coxa 1 reduced, much smaller than coxa 2 (Figure 4J); gnathopod 1 subchelate (Figure 4B, 4F, 4G) to parachelate.....Eurytheneidae .....….....19

– Maxilla 1 setal-teeth without 8/3 arrangement; coxa 1 generally subequal to coxa 2, occasionally reduced; gnathopod 1 variable 20

19. Coxa 2 subrectangular, anterior margin straight (Figure 4D); gnathopod 1 minute subchelate, with only one robust seta on posterodistal angle (Figure 4B); gnathopod 2 minute chelate (Figure 4C)….....
.....*Eurythenes* sp
–Coxa 2 anteriorly rounded (Figure 4I); gnathopod 1 subchelate, with two robust seta on distal and posterodistal angle of palm (Figure 4F-G); gnathopod 2 minute subchelate (Figure 4H)….....
.....*Eurythenes magellanicus*
20. Maxilla 1 setal-teeth of inner plate with 7/4 crown shaped arrangement (Figure 10G); gnathopod 1 subchelate (Figure 10B, 10K)....Uristidae….....21
– Maxilla 1 setal-teeth of inner plate with 6/5 or 6/5 modified arrangement (*e.g.*, Figure 7B); gnathopod 1 subchelate (Figure 7N) or simple (Figure 7C).....Lysianassidae…….....…28
21. Coxa 1 large and distally expanded-widened (Figure 10J, 10K, 10P)…….....……...22
– Coxa 1 normal, subcuadrate or subrectangular, not notably widened distally (Figure 10B).....……. 23
22. Gnathopod 1 with coxa subtriangular slightly concave in anterior margin (Figure 10J, 10K); ischium longer than merus; propodus with posterior margin slightly concave (Figure 10K). Eyes pyriform, not covering most of the head (Figure 10J)…….....……..*Abyssorchomene plebs*
– Gnathopod 1 with coxa subrectangular, but notably expanded distally and excavated in anterior margin (Figure 10P); ischium as long as merus; propodus with both margins subparallel (Figure 10P). Eye reniform, covering most of the head (Figure 10O)…….....……*Koroga megalops*
23. Epimeron 3 with postero-ventral angle acute or rounded, posterior margin variously serrate (*e.g.*, Figure 10C, 11J)….....24
– Epimeron 3 with postero-ventral angle rounded, posterior margin variously smooth (Figure 11O); dactyl of gnathopod 2 noticeably reduced and curved, shorter than palm (Figure 11N)…….....
.....……..*Uristes subchelatus*
24. Carpus of gnathopod 1 similar in length to propodus, posterior margin well developed, not as a lobe (Figure 11C, 11I, 11M, 11R)…….....……..25
– Carpus of gnathopod 1 notably shorter than propodus, posterior margin reduced to a lobe (Figure 10B).....*Exuristes*…….....…….....……..27
25. Urosomite 1 with a shallow dorsal sinus in lateral view (Figure 11E, 11K)….....……...26
– Urosomite 1 with a deep dorsal slit in lateral view (Figure 11T)…….....…….*Uristes paramoi*
26. Teeth in posteroventral margin of epimeron 3 symmetrically triangular (at least 10 teeth) (Figure 11J). Epistome and upper lip similar, epistome slightly dominant (Figure 11G). Anterior margin of coxa 1 markedly concave (Figure 11I). One robust and one slender distal setae on each lobe of telson (Figure 11L) …….....……*Uristes serratus*
– Teeth in posteroventral margin of epimeron 3 asymmetrical triangular, slightly upturned (less than 10 teeth, most ventral the larger) (Figure 11D). Epistome most produced than upper lip (Figure 11B). Anterior margin of coxa 1 straight, or with a very slight concavity (Figure11C). Two robust distal setae on each lobe of telson (Figure 11F)….....…..*Uristes schellenbergi*
27. Lobes of telson shallowly excavated distally, with two distal robust setae and two dorsal robust setae in each lobe (Figure 10F); inner ramus of uropod 3 with only one long proximal seta (Figure 10E)…..…
.....*Exuristes yamana*
– Lobes of telson truncated and incised distally, with three distal robust setae and three dorsal robust setae in each lobe (Figure 10H); inner ramus of uropod 3 with several long slender seta along the inner margin (Figure 10I)..…….....…….. *Exuristes serratus*
28. Uropod 3 rami absent (Figure 5B) or strongly reduced (Figure 5E). Head wholly (Figure 5A) or partially covered by coxa 1 (Figure 5D); buccal mass subconical.....Conicostomatinae….....29
– Uropod 3 rami normal, well developed (*cf.* Figure 10E). Head not covered by the coxa 1 or pereonite 1 (*cf.* Figure 7L); buccal mass subquadrate or subconical……..……..…….30
29. Head completely covered by pereonite 1 and coxa 1; body smooth, without short hairs (Figure 5A)……
…….....……*Acontiostoma marionis*

– Head partially covered by coxa 1; body covered with short hairs (at least in females, Figure 5D)…..... .....*Stomacontion pepinii*

30. Molar triturative (Figure 7F); maxilliped outer plate distal margin with robust setae; gnathopod 1 subchelate (Figure 7E, 7I, 7N); telson cleft (Figure 7H, 7K) or entire (Figure 7O).....Tryphosinae….....31
– Molar not triturative, setose (Figure 6M); maxilliped outer plate distal margin without robust setae; gnathopod 1 simple; telson variable.....Lysianassinae.....…35

31. Basis of pereopod 5 with a mid-central spine (Figure 7D); gnathopod 1 simple (Figure 7C); pleonite 3 produced dorsodistally (Figure 7A) ……..…*Lepidepecreoides chincui*
– Pereopod 5 without a mid-central spine; gnathopod 1 subchelate (Figure 7E, 7N); pleonite 3 not produced dorsodistally (*cf.* Figure 7R, 7Q)….....….32

32. Telson entire or emarginated (Figure 7O); upper lip coalesced with epistome and produced into a projecting upturned hook (Figure 7M).…….....….....*Paralysianopsis odhneri*
– Telson deeply cleft (Figure 7H, 7K); upper lip not projecting as a hook nor coalesced with epistome (Figure 7P, 7S).....33

33. Epistome produced as a sharp upturned projection (Figure 7S). Epimeron 3 posterior margin serrate (Figure 7T). Carpus of gnathopod 1 longer than propodus; palm oblique (*cf.* Figure 11C)…..... .....……...*Tryphosites chevreuxi*
– Epistome not produced as a sharp upturned projection (Figure 7P). Epimeron 3 posteriorly smooth (Figure 7G). Carpus of gnathopod 1 shorter than propodus; palm transverse (Figure 7E, 7I)..…..….34

34. Gnathopod 1 carpus longer than half propodus, with posterior margin convex; propodus at least three times longer than wide (Figure 7I). Gnathopod 2 subchelate (Figure 7J). Telson with a row of 4 dorsolateral robust setae (Figure 7K)….....……*Orchomene montana*
– Gnathopod 1 carpus shorter than half propodus, with posterior margin as a lobe; propodus at least two times longer than wide (Figure 7E). Gnathopod 2 parachelate. Telson without dorsolateral robust setae, only a slender plumose seta (Figure 7H)….....…*Orchomenella chilensis*

35. Inner ramus of uropod 3 reduced, small (Figure 6O). Upper lip and epistome coalesced, epistomal part strongly dominant in size and projection, blunt (Figure 6L)….....*Parawaldeckia kidderi*
– Inner ramus of uropod 3 not reduced (*e.g.*, Figure 6D). Upper lip and epistome prominent, but the first strongly projecting in a blunt lobe (Figure 6B, 6Q)…….....…….36

36. Telson cleft (Figure 6S); epimeron 3 with posterior tooth over a rounded posteroventral margin and posterior margin concave (Figure 6R)…..…….....…..*Socarnoides unidentatus*
– Telson entire (*e.g.* Figure 6E); epimeron 3 with posteroventral lobe rounded (*e.g.*, Figure 6F).....37

37. Inner ramus of uropod 3 overreaching article 1 of outer ramus (Figure 6D); basis of pereopod 7 almost straight posterodistally (Figure 6C) …….....…….*Lysianopsis ona*
– Inner ramus of uropod 3 slightly shorter than article 1 of outer ramus (Figure 6I); basis of pereopod 7 somewhat excavated posterodistally (Figure 6G)…….....……..*Lysianopsis subantarctica*

Key to species of Lysianassinae, Tryphosinae and Uristidae reported from Chile

Note: This supplementary key is including Lysianassoid species hard to identify without observation of the maxilla 1. Only characters observed without dissection are included. Species excluded: *Tryphosella castellata*.

01. Pleonite 3 and urosomite 1 with posterodorsal prolongation in lateral view (Figure 7A). Basis of pereopod 5 with a big spine in posterior margin (Figure 7D) ……..……*Lepidepecreoides chincui*
– Pleonite 3 and urosomite 1 generally smooth in lateral view; excavation or slit can be present in urosomite 1, but not a posterodistal prolongation (*e.g.*, Figure 7Q). Basis of pereopod 5 smooth or dentate, but without a big spine in posterior margin ……..……2

02. Gnathopod 1 simple, palm absent or extremely reduced…….....……...3
–Gnathopod 1 subchelate, with palm well defined (*e.g.*, Figure 11C, 11R)……...6

03. Upper lip produced in a large globose lobe, separated from epistome by a slit (Figure 6B, 6Q); coxa 4 normal, posteroventral lobe not strongly produced (*cf.* Figure 6A). Inner ramus of uropod 3 normal, not reduced (Figure 6D)…..4
– Epistome and upper lip fused, with convex outline (Figure 6L). Coxa 4 with wide posteroventral lobe, as wide as coxa itself (see Figure 6J). Inner ramus of uropod 3 reduced (Figure 6O)…….. *Parawaldeckia kidderi*

04. Telson entire o emarginated (Figure 6E, 6H). Inner ramus of uropod 2 smooth, without slit on midway. Rami of uropod 3 shorter than peduncle (Figure 6D, 6I) ……5
– Telson cleft at least to half of his length (Figure 6S). Inner ramus of uropod 2 with a small slit on midway (*e.g.*, Figure 3L). Rami of uropod 3 nearly as long as peduncle..……..….*Socarnoides unidentatus*

05. Inner ramus of uropod 3 overreaching article 1 of outer ramus (Figure 6D); basis of pereopod 7 almost straight posterodistally (Figure 6C)…….....…….……*Lysianopsis ona*
– Inner ramus of uropod 3 slightly shorter than article 1 of outer ramus (Figure 6I); basis of pereopod 7 somewhat excavated posterodistally (Figure 6G)…….....……..…..*Lysianopsis subantarctica*

06. Epistome-upper lip complex armed with a dentiform process (Figure 7M, 7S).....7
– Epistome-upper lip complex without a dentiform process; may have convex lobes (Figure 7P, 11B, 11G) 8

07. Dentiform process inserted in epistome (Figure 7S). Posteroventral margin of epimeron 3 serrate (Figure 7T)…….....…….*Tryphosites chevreuxi*
– Dentiform process inserted in upper lip (Figure 7M). Posteroventral margin of epimeron 3 smooth ....…*Paralysianopsis odhneri*

08. Palm of gnathopod 1 oblique (*e.g.*, Figure 11C, 11I). Mandibular palp inserted roughly in front the molar (Figure 11H)…….....…12
– Palm of gnathopod 1 transverse (Figure 7E, 10K). Mandibular palp inserted slightly or strongly proximal to molar (*cf.* Figure 6M, 7F)….....….9

09. Coxa 1 large and distally expanded-widened (Figure 10J, 10K, 10P)…….....…...11
– Coxa 1 generally subrectangular, anterodistal margin not produced; if distally widened, only sligthly (Figure 7E)…….....….10

10. Gnathopod 1 carpus longer than half propodus, with posterior margin convex; propodus at least three times longer than wide (Figure 7I). Gnathopod 2 subchelate (Figure 7J). Telson with a row of 4 dorsolateral robust setae (Figure 7K)…….....…...*Orchomene montana*
– Gnathopod 1 carpus shorter than half propodus, with posterior margin as a lobe; propodus at least two times longer than wide (Figure 7E). Gnathopod 2 parachelate. Telson without dorsolateral robust setae, only a slender plumose seta (Figure 7H)…….....……*Orchomenella chilensis*

11. Coxa 1 subtriangular slightly concave in anterior margin; ischium longer than merus; propodus with posterior margin slightly concave (Figure 10K). Eyes pyriform, not covering most of the head (Figure 10J)…….....……..*Abyssorchomene plebs*
– Coxa 1 subrectangular, but notably expanded distally and excavated in anterior margin; ischium as long as merus; propodus with both margins subparallel (Figure 10P). Eye reniform, covering most of the head (Figure 10O)…….....…….....……*Koroga megalops*

12. Carpus of gnathopod 1 short, compressed, with posterior lobe produced; propodus oval oblong (Figure 10B).....*Exuristes*…….....…16
– Carpus of gnathopod 1 normal, not compressed, subrectangular, posterior margin without lobe, nearly subparallel to anterior margin; propodus subrectangular, similar to carpus (Figure 11C, 11I, 11M, 11R) …….....13

13. Posteroventral margin of epimeron 3 rounded and smooth (Figure 11O)…....……*Uristes subquelatus*
– Posteroventral margin of epimeron 3 serrate (Figure 11D, 11J, 11S)……..…..14

14. Dorsal margin of urosomite 1 with a slit (Figure 11T)……..…*Uristes paramoi*
–Dorsal margin of urosomite 1 with a concave sinus (Figure 11E, 11K)……..…15

15. Teeth in posteroventral margin of epimeron 3 symmetrically triangular (at least 10 teeth) (Figure 11J); epimeron 2 without posterodistal hook. Epistome and upper lip similar, epistome slightly dominant (Figure 11G). Anterior margin of coxa 1 markedly concave (Figure 11I). One robust and one slender distal setae on each lobe of telson (Figure 11L)…….....…….…*Uristes serratus*
– Teeth in posteroventral margin of epimeron 3 asymmetrical triangular, slightly upturned (less than 10 teeth, most ventral the larger); epimeron 2 with a posterodistal hook (Figure 11D). Epistome most produced than upper lip (Figure 11B). Anterior margin of coxa 1 straight, or with a very slight concavity (Figure 11C). Two robust distal setae on each lobe of telson (Figure 11F)….....*Uristes schellenbergi*
16. Telson lobes shallowly excavated distally, with two distal robust setae and two dorsal robust setae in each lobe (Figure 10F); inner ramus of uropod 3 with only one long proximal seta (Figure 10E)…
.....….*Exuristes yamana*
– Telson lobes truncated and incised distally, with three distal robust setae and three dorsal robust setae in each lobe (Figure 10H); inner ramus of uropod 3 with several long slender seta along the inner margin (Figure 10I)…….....……*Exuristes serratus*

DISCUSSION AND CONCLUSIONS

Despite that has been partly challenged in recent years using molecular evidence (*e.g.* Havermans *et al.* 2010; Corrigan *et al.* 2014), and important taxonomic changes are expected, the system followed here is a good representation of the diversity inside the group, and it is taxonomically valuable for routine identification of specimens, using purely morphological approach.

From a biogeographic point of view, the Chilean lysianassoids are separated in two groups: continental species, including intertidal and subtidal taxa and oceanic species, with deep sea taxa reported from Southeastern Pacific, off Chilean coast. Continental lysianassoids include the families Amaryllididae, Aristiidae, Endevouridae, Lysianassidae, Pachynidae and Uristidae, whose bathymetric range encompass shallow waters, generally not exceeding 200 m depth. Some exceptional cases are *Ultimachelium tac*, recorded in deepest waters, between 250-300 m depth, in Chiloe archipelago, and *Abyssorchomene plebs*, that show a wide range, reported from 400-600 m depth in the Pacific area of Magellan Strait, but reaching to bathyal depths (*e.g.*, 2889 m depth) in others areas of his distribution (D'Udekem and Havermans 2012).

In Continental Chile, virtually all species recorded are founded in the magellanic province (*e.g.* from Puerto Montt to the south), and only a few species reach to northern areas, with isolated records in Tomé (*e.g. Parawaldeckia kidder*, Figure 14B), Valparaíso (*e.g. Orchomenella chilensis*, Figure 14C*; Tryphosites chevreuxi,* Figure 14D; *Uristes schellenbergi,* Figure 15C) and Bahía Inglesa (*e.g. Drummondia luce*, Figure 15A). The current scenario indicates that the lysianassoid fauna in central and northern Chile remain largely unknown.

Oceanic species are included principally in the families Cyclocaridae, Cyphocarididae, Eurytheneidae, Hirondelleidae, Trischizostomidae and Uristidae, reported in the deep sea from oceanic ridges of Nazca and Sala and Gómez, or Atacama trench, off Chilean coast, with some records associated to the continent (*e.g. Cyphocaris faurei*, Figure 13A; *Eurythenes magellanicus*, Figure 12C). The oceanic taxa reported up to now in Chile, include abyssal (*e.g.*, *Eurythenes magellanicus*), hadal (*Hirondellea thurstoni*, *Eurythenes* sp.) and panoceanic mesopelagic species (*e.g.*, *Cyphocaris anonyx, C. faurei*); however, is evident the scarcity of sampling off the Chilean coast, with very few studies and sampled stations including amphipod (*e.g.*, Birstein and Vinogradov 1962; Vinogradov 1990; Kilgallen 2014; Eustace *et al.* 2016).
The taxonomic knowledge on Chilean Lysianassoidea remains largely incomplete. Although some foreign authors have redescribed old Chilean species (*e.g.*, Barnard and Hurley 1975; Hurley 1965b; Lowry and Stoddart 1984), described new species (*e.g.*, Kilgallen 2014; Lowry and Stoddart 1987, 2002c; Pérez-Schultheiss 2015) or suggested taxonomic precisions in a global context (*e.g.*, Lowry and Stoddart 2011b; Lowry and Kilgallen 2014b), several species have not been never described in detail, and type specimens of most species are deposited in museums outside the country, making it difficult to study the group.

The analysis of new material of species previously attributed to the subfamily Tryphosinae, allow

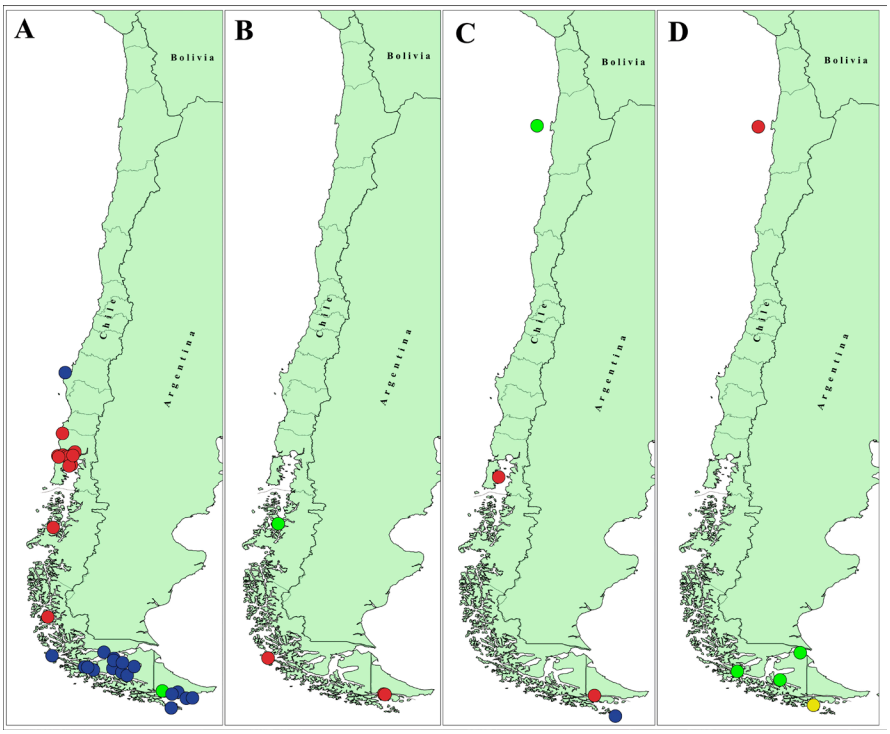

FIGURE 12. Records of Lysianassoidean Amphipods in Chile. A: *Erikus dahli* (red), *Erikus lovrichi* (green) and *Amaryllis macrophthalma* (blue). B: *Aristias antarcticus* (red), *Aristias linnaei* (green). C: *Ensayara gappai* (red), *Eurythenes* sp. (green) and *Eurythenes magellanicus* (blue). D*: Hirondellea thurstoni* (red), *Acontiostoma marionis* (yellow), *Stomacontion pepinii* (green).

us to confirm the virtual absence of the genus *Tryphosella* in Chilean waters. The generic assignment of the four species included in this genus was put in doubt by Lowry and Stoddart (2011b), who consider *T. serrata* as an unconfirmed species, suggest that *T. paramoi* and *T. schellenbergi* belongs to Uristidae and exclude *T. castellata* from the genus. Here we have confirmed these suppositions with the analysis of maxilla 1 for the three first species, which are assigned to the genus *Uristes*; but maintain *T. castellata* in the genus *Tryphosella* because important taxonomic characters remain unknown. Besides, two species previously included in *Uristes* (*U. serratus* and *U. yamana*), were reassigned to *Exuristes* n. gen., here described. With these changes, the family Uristidae in Chile increases his diversity from four to eight species.

In Eurytheneidae, the record of *Eurythenes gryllus* is put in doubt because the specimens attributed to this species collected in Atacama Trench, off Mejillones, are confirmed as a new undescribed species (see Eustace *et al.* 2016), and are cited here as *Eurythenes* sp.

Two species needs a re-evaluation based in Chilean specimens to confirm their taxonomic status in the country. *Aristias antarcticus* has been cited from a pair of magellanic localities, but his identity has been never confirmed; whereas *Amaryllis macrophthalma* probably needs to be excluded from the Chilean fauna, as possibly all references of this species belong to the genus *Erikus*.

The number of papers on Lysianassoidea from Chile remains relatively low. The data here analysed indicate that the sampling in the country has been limited, both in terms of intensity and in geographic coverage, except by Schellenberg (1931), and perhaps Vinogradov (1990), Lowry and Stoddart (2012a) and Alonso (2012). It is expected that an increase in the sampling effort throughout the coasts of the country,

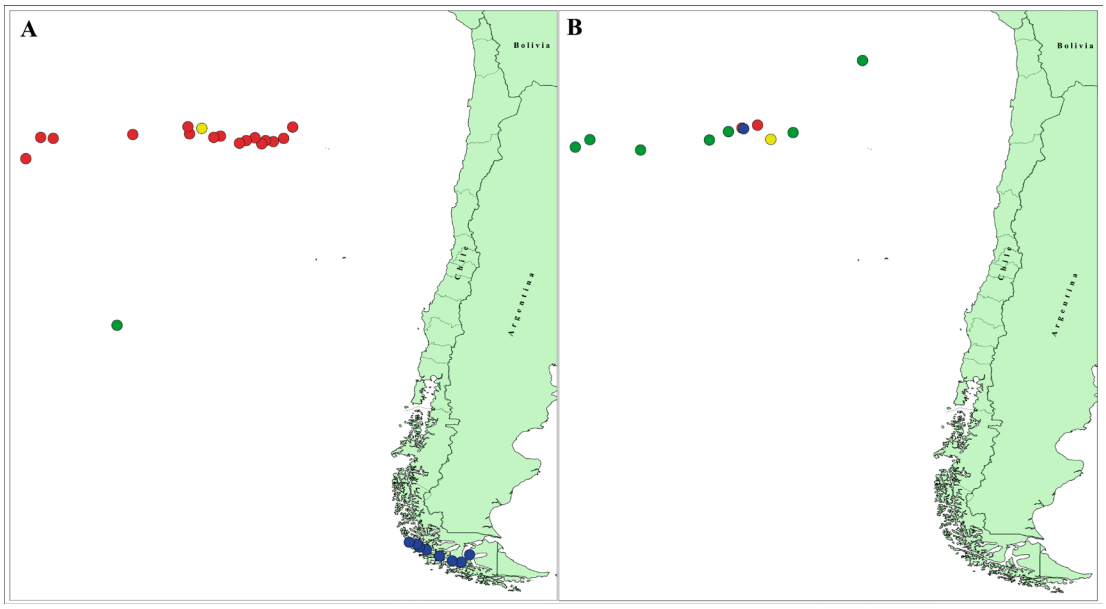

FIGURE 13. Records of Lysianassoidea Amphipods in Chile. A: *Cyphocaris anonyx* (green), *Cyphocaris challengeri* (red), *Cyphocaris faurei* (blue) and *Cyclocaris tahitensis* (yellow). B: *Trischizostoma barnardi* (red), *Trischizostoma cristochelatum* (green), *Trischizostoma nascaensis* (yellow) and *Orchomene montana* (blue).

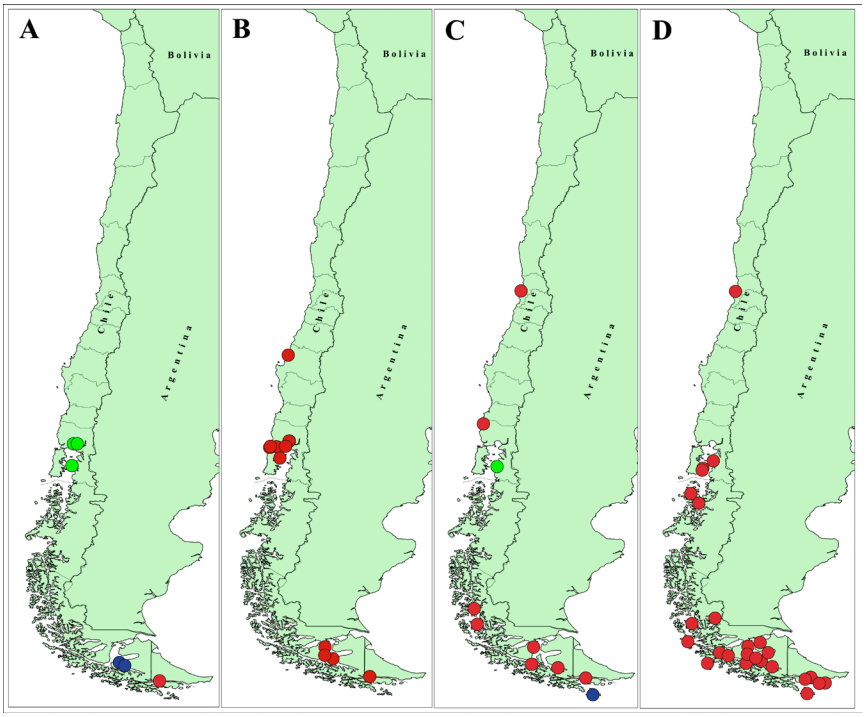

FIGURE 14. Records of Lysianassoidea Amphipods in Chile. A: *Lysianopsis ona* (red), *Lysianopsis subantarctica* (blue) and *Lepidepecreoides chincui* (green). B: *Parawaldeckia kidderi* (red). C: *Orchomenella chilensis* (red), *Paralysianopsis odhneri* (green), *Tryphosella castellata* (blue). D: *Tryphosites chevreuxi* (red).

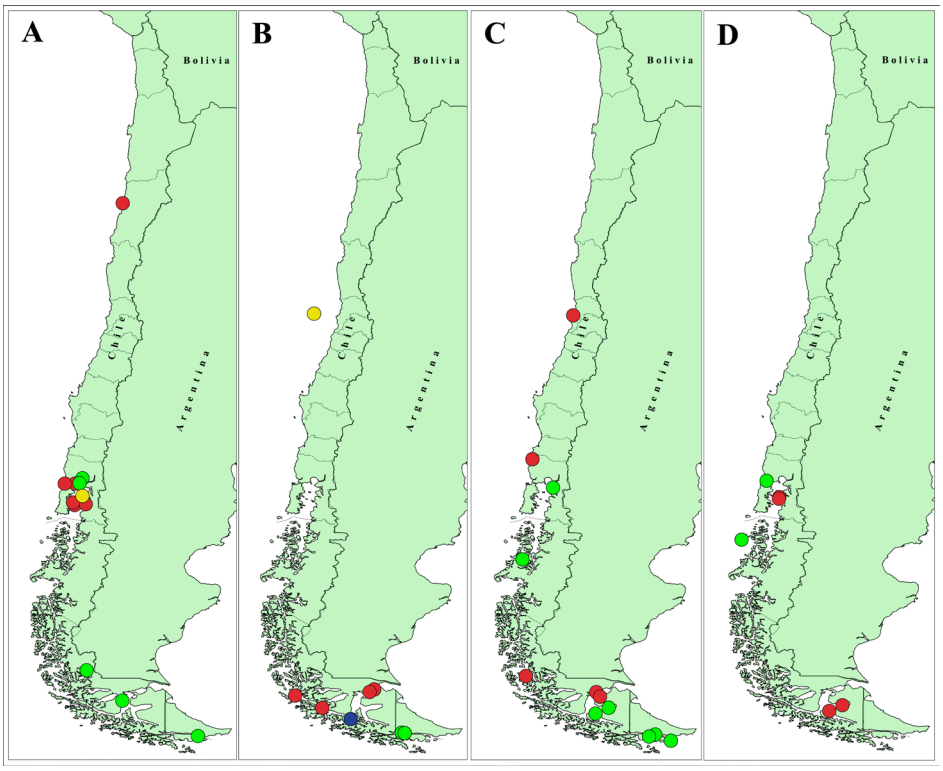

FIGURE 15. Records of Lysianassoidea Amphipods in Chile. A: *Drummondia luce* (red), *Ultimachelium schellenbergi* (green) and *Ultimachelium tac* (yellow). B: *Abyssorchomene plebs* (red), *Exuristes serratus* (blue), *Exuristes yamana* (green) and *Koroga megalops* (yellow). C: *Uristes schellenbergi* (red) and *Uristes serratus* (green). D: *Uristes subchelatus* (red) and *Uristes paramoi* (green).

along with an intensification of the studies in the group, allow increasing the number of species reported in Chile, especially in the north-central area. Besides, important taxonomic changes are expected in this group, at family, genus and species level, as the use of molecular methodologies is revealing high prevalence of cryptic speciation and complex systematics relationships, not expressed in the current taxonomic system (Havermans 2014, 2016).

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