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The *Ampelisca aequicornis* group of species (Amphipoda: Ampeliscidae) with a key, and a description of *Ampelisca eclimensis* sp. nov. from Ireland

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The *Ampelisca aequicornis* group of species in the north-east Atlantic is discussed and *A. aequicornis* is redescribed from material identified in the collection of G.O. Sars. From Irish material a new species, *Ampelisca eclimensis* sp. nov., is described and an extended description of *Ampelisca sorbei* given. A key is presented to the *A. aequicornis* group of species.

INTRODUCTION

The existence of *Ampelisca aequicornis* Bruzelius, 1859 in British and Irish waters has long been in doubt. Lincoln (1979) first commented on the uncertainty of its status as a British Isles species, when he discussed the existence of either *A. aequicornis*, or of an *Ampelisca* in the '*aequicornis* complex' from western Ireland. Reid (1951) had earlier referred to an '*aequicornis* complex' in collections from West Africa describing two varieties, *A. aequicornis* var. *cessia* and *A. aequicornis* var. *verga*. These two varieties were said to differ from each other and from *A. aequicornis* by pereopod morphology, epimeron 3 posterodistal corner shape and antennal flagellar articles.

The unifying feature of what Reid called the '*aequicornis* complex' appears to be the presence of a long antenna 1 flagellum, so that antenna 1 becomes subequal in length with antenna 2. An examination of the described species of *Ampelisca* from the north-east Atlantic and Mediterranean reveals a number of species with such an antenna 1: *A. aequicornis* Bruzelius; *A. amblyops* Sars, 1895; *A. anomala* Sars, 1883; *A. anophthalma* Bellan-Santini & Kaim-Malka, 1977; *A. antennata* Bellan-Santini & Kaim-Malka, 1977; *A. calypsonis* Bellan-Santini & Kaim-Malka, 1977; *A. dalmatina* Karaman, 1975; *A. planierensis* Bellan-Santini & Kaim-Malka, 1977; *A. pusilla* Sars, 1895 and *A. sorbei* Dauvin & Bellan-Santini. In characters other than antennae, these species are quite diverse and do not form a monophyletic *aequicornis* group. Three known species, however, share several characters with *A. aequicornis*, these being *A. calypsonis*, *A. dalmatina* and *A. sorbei*. In addition to having subequal antennae, these three species possess a small anterior lobe on the merus of pereopod 7, an epimeron 3 with posterodistal corner squared or with a very small spine, and a low wedge shaped or weakly sinuous urosomal carina. A fourth similar species, *A. eclimensis* from the north-west of Ireland, is described and figured here. These five species (including *A. aequicornis*) are herein referred to as the *A. aequicornis* group of species from the north-east Atlantic.

It is possible that previous records of *A. aequicornis* in British and Irish waters (Metzger, 1875; Norman, 1900; Lincoln, 1979; Costello et al., 1989) may have included one or more of the five species of the *A. aequicornis* group, as these species have contiguous or overlapping distributions. *Ampelisca aequicornis* is the most northerly species of the group with an Arctic-boreal distribution. It is known with certainty only from Norway and surrounding areas but may extend into waters around the north of Britain and Ireland. *Ampelisca sorbei*, *A. dalmatina* and *A. calypsonis* have been recently found in Irish waters (authors' observations). *Ampelisca sorbei* was previously known only from the Bay of Biscay (Dauvin & Bellan-Santini, 1996); *A. dalmatina* was known from the Mediterranean (Bellan-Santini, 1982) and from western Ireland (Myers & McGrath, 1994); *A. calypsonis* was known from the Mediterranean and the East Atlantic Portuguese coast (Bellan-Santini, 1982). *Ampelisca eclimensis* is currently known from deeper waters off Co. Mayo, north-west Ireland.

We have been unable to locate the type material of *A. aequicornis*. However, Sars (1895) fully described and illustrated specimens from areas close to the type locality and we have accepted Sars' description (1895) as applying to *A. aequicornis sensu stricto*. We have also been able to examine specimens of *A. aequicornis* from Norway, loaned from Zoologisk Museum, Copenhagen (ZMC), from Sars' collection.

Lincoln (1979) illustrated a Norwegian specimen of *A. aequicornis* in his review of British amphipods noting that, of the British and Irish material available to him, only the Irish material could be attributed to the *A. aequicornis* complex (Myers & McGrath, 1994). We have examined the Irish material and believe that there are two different species present (*A. sorbei* and *A. eclimensis* sp. nov.).

Dauvin & Bellan-Santini (1996) described *A. sorbei* from a single 6 mm female specimen collected in the Bay of Biscay. With further specimens collected from Irish waters, we have taken this opportunity to draw a whole animal and supplement their description of the species.

MATERIALS AND METHODS

During this investigation, specimens were examined from the collections of several institutions (abbreviations given are for the catalogued material examined): Muséum Nationale d'Histoire Naturelle, Paris (MNHN); National Musem of Ireland, Dublin (NMI); National Museums of Scotland, Edinburgh (NMSZ); Zoologisk Museum, Copenhagen (ZMC).

Females were dissected, mounted in a temporary medium, and drawn using a camera lucida attachment. Males of the species examined here are, at present, unknown.

The holotype and paratypes of *Ampelisca eclimensis* have been deposited in the collections of the National Museum of Ireland, Dublin.

SYSTEMATICS

Order AMPHIPODA Latrielle, 1816
Suborder GAMMARIDEA Latrielle, 1803
Family AMPELISCIDAE Costa, 1957
Genus *Ampelisca* Krøyer, 1842
Ampelisca aequicornis Bruzelius, 1859
(Figures 1 & 2)

Ampelisca aequicornis Bruzelius, 1859, p. 82; Sars, 1895, p. 177, pl. 62; Stebbing, 1906, p. 106; Lincoln, 1979, p. 114, pl. 48e–g.

Material examined

West Norway (det. Sars, 4/1892), ZMC (6 females). Norway (Bjarkøy), 69°00′ N 16°35′ E, 90–100 m, ZMC (1 female). West of Iceland, 65°38′N 26°27′W, 260 m, 'Ingolf' Expedition (Station 98), ZMC (2 females). South-west of Iceland, 63°21′N 25°21′W, 320 m, 'Ingolf' Expedition (Station 85), ZMC (2 females). Between Iceland and the Faroe Islands, 63°43′N 14°34′W, 170 m, 'Ingolf' Expedition (Station 6), ZMC (1 juvenile). Faroe Islands (Vágar), approximately 62°N 7°15′W, 'Dann' Expedition (Station 2994), 43 m, ZMC (1 female). 'Thor' Expedition (Station 78), 66°07′N 09°30′W, 835 m, ZMC (2 females, 1 juvenile).

Description of female

Length 11.6 mm. Head with two pairs of corneal lenses, lower margin rounded or weakly oblique. Antennae 1 and 2 subequal in length. Antenna 1 article 2 about 1.5 times length of article 1; flagellum longer than peduncle and reaching to end of body. Antenna 2 peduncular articles 4 and 5 subequal in length; flagellum longer than peduncle and reaching to end of body.

Gnathopod 1 coxa distally widened, with one row of setae on the anterodistal margin and one row on the inner face, with notch on anteroventral corner; basis anterior and posterior margins each with a row of long plumose setae; carpus longer than propodus; dactylus posterior margin with three plumose setae. Gnathopod 2 slender; coxa not distally widened, with row of setae on anterodistal margin and distal row of setae on inner face, with notch on anteroventral corner; basis anterior margin with some short robust setae and a row of long plumose setae, posterior margin with long plumose setae; carpus greater than two times the length of merus; propodus and carpus subequal in length; dactylus half length of propodus, posterior margin with 3–4 plumose setae. Pereopod 3 coxa not distally widened, with row of setae on distal margin and one distal row of setae on inner face, with notch on anteroventral corner; basis anterior margin with row of short robust setae, posterior margin with few or no long plumose setae; merus almost as long as basis; dactylus shorter than combined lengths of carpus and propodus. Pereopod 4 coxa with anterodistal row of setae; basis anterior and posterior margins each with a row of long plumose setae; merus almost as long as basis; dactylus shorter than combined lengths of carpus and propodus. Pereopod 5 basis anterior margin with short robust setae and some long setae; carpus slightly longer than propodus, posterior margin with two robust setae, posterodistal margin with five robust setae of varied lengths; propodus with three distal robust setae: the larger as long as the propodus. Pereopod 6 basis anterior margin with short robust setae; carpus posterior margin with three robust setae, anterior margin with some short robust setae, with three anterodistal robust setae of varied lengths, with six posterodistal robust setae of varied lengths; propodus anterior margin with robust setae, with

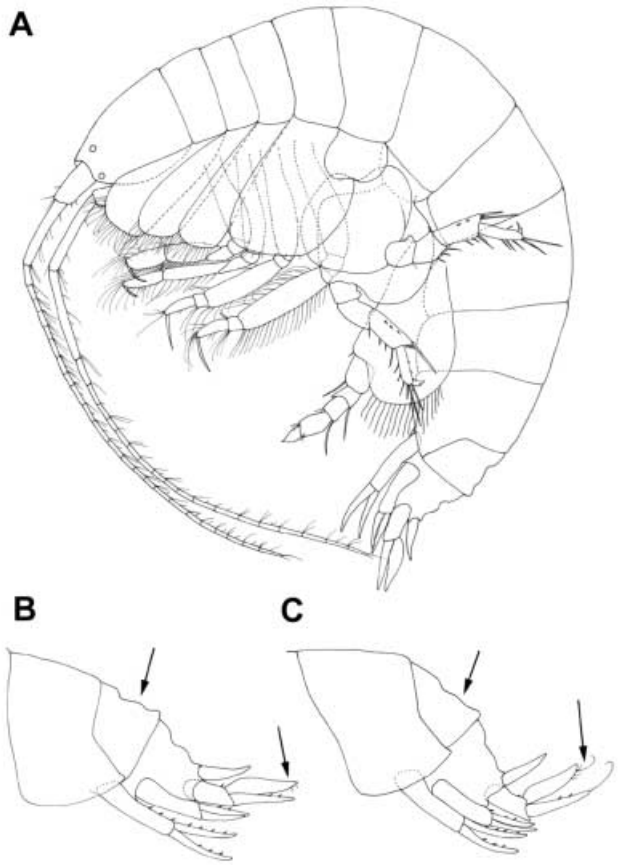
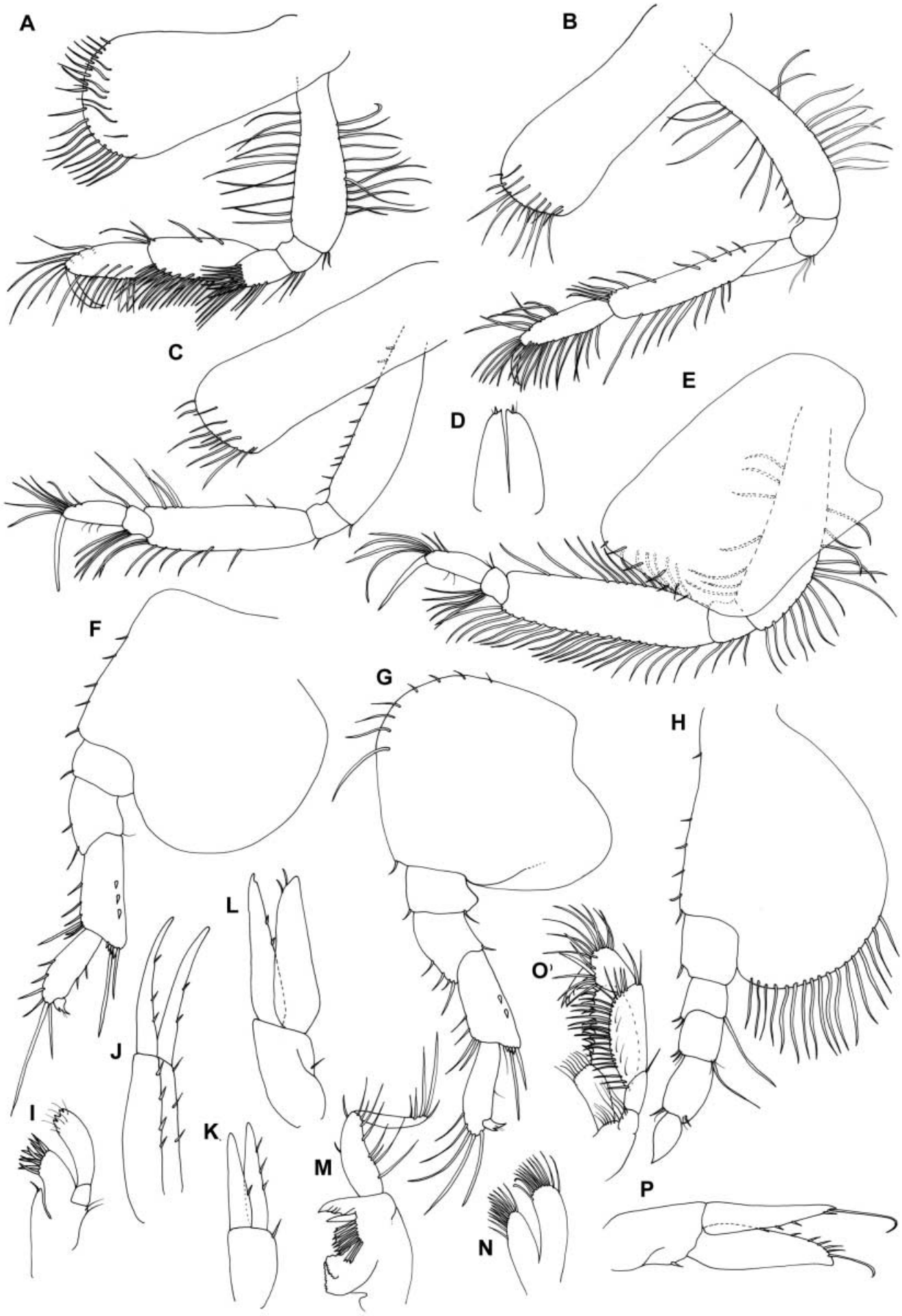


Figure 1. *Ampelisca aequicornis* Bruzelius. Female (Norway), 11.6 mm: (A) whole body, lateral view; (B) carina variant 1; (C) carina variant 2.

Figure 2. (*opposite*) *Ampelisca aequicornis* Bruzelius. Female (Norway), 11.6 mm: (A) gnathopod 1; (B) gnathopod 2; (C) pereopod 3; (D) telson; (E) pereopod 4; (F) pereopod 5; (G) pereopod 6; (H) pereopod 7; (I) maxilla 1; (J) uropod 1; (K) uropod 2; (L) uropod 3; (M) mandible; (N) maxilla 2; (O) maxilliped. (P) uropod 3 variant with long setae.



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2–3 distal robust setae of varied lengths: the larger as long as the propodus. Pereopod 7 robust; basis widest at mid length, distally rounded, distal margin not reaching past length of ischium, with many setae reaching past distal edge of merus; merus shorter than ischium, with anterior lobe extending 33% length of carpus; propodus shorter than combined lengths of merus and carpus; dactylus shorter than propodus.

Epimeron 3 posterodistal margin with very small blunt spine. Urosome 1 with sinuous dorsal carina which can vary from highly sinuous to slightly sinuous. Urosomal segments 2 and 3 dorsally sinuous, with lateral keels. Uropod 1 peduncle with two rows of robust setae; rami subequal in length with each other and with peduncle; inner ramus with row of robust setae; outer ramus with row of robust setae. Uropod 2 peduncle outer margin with robust setae; outer ramus slightly shorter than inner ramus, both rami slightly shorter than peduncle; inner ramus with row of setae. Uropod 3 rami lanceolate, inner ramus with distal setae and with some robust lateral setae, edges minutely serrate; outer ramus widest and with distal and lateral setae (setation can vary and in some specimens there are long terminal setae on both rami (see Figure 2L&P)). Telson deeply cleft, apically acute, with two distal robust setae, associated fine setae and a pair of fine dorsal setae.

Male. Unknown.

Distribution

North Atlantic: Norway, Iceland, Greenland. North-west Atlantic: Nova Scotia, north-eastern United States.

The northern Atlantic is, as yet, the only confirmed locality for this species; viz Norway (Sars, 1895), Iceland and Greenland (Stephensen, 1925). It has also been recorded as far south as the Gulf of Guinea (Dauvin & Bellan-Santini, 1988). In view of the present work, this record requires confirmation. Mills (1965) noted its presence off Nova Scotia (Shoemaker, 1931) and described a specimen from the continental slope east of New Jersey (United States). His illustration agrees with our definition of *A. aequicornis*.

Remarks

The description and illustrations were based on a sample of *Ampelisca aequicornis* obtained from Copenhagen (ZMC) and identified by Sars in 1892 as we were unable to locate the type specimens described by Bruzelius or the specimen on which Sars based his 1895 description. This species can be distinguished from other *Ampelisca* species in the group most easily by the shape of the head, the sinuous urosomal carina and shape of the urosomal segments 2 and 3, the short pereopods 5 and 6, the short dactyls on pereopods 3 and 4 and the small blunt spine on the posterodistal corner of epimeron 3.

Discussion

Some morphological variation was noted within the ten vials of *Ampelisca aequicornis* that were examined from the collections of Copenhagen during this study. The presence of long curved apical setae on the rami of uropod 3 and the degree of dorsal sinuosity of urosomal segments 1–3 (including the urosomal carina) were variable characters (variants have been illustrated: Figure 1B,C). The variations did not co-occur in distinct types and so were not considered to be sufficient to be recognized as species-level characters.

Sars' illustration (1895) shows a dorsally straight, wedge-shaped urosomal carina while those of all specimens examined here (and those of Lincoln, 1979) are distinctly sinuous. We are, however, confident that Sars' *A. aequicornis* (1895) is the same species as those from his collection (illustrated here).

Attempts to find Reid's *A. aequicornis* variant specimens (*A. aequicornis* var. *verga* and *A. aequicornis* var. *cessia*) have been unsuccessful (only pereopod 5 of *A. aequicornis* var. *verga* exists in the Reid collection at the Royal Museum, Edinburgh). It is possible that Reid may not have separated the specimens from others as types or that they are lost. However, examination of Reid's illustrations (1951) for *A. aequicornis* var. *verga* shows a clearly defined spine on the posterodistal corner of epimeron 3, a head that is distally truncate and antennae with short, robust articles, therefore it is not considered synonmous with *A. aequicornis*. *Ampelisca aequicornis* var. *cessia* differs from *A. aequicornis* by possessing an obliquely shaped basis on pereopod 7 and elongate pereopods 5 and 6.

Ampelisca eclimensis sp. nov.
(Figures 3 & 4)

Material examined

Holotype: female, north-west Mayo, Station F6FC, 54°20′ 21.83″N 11°5′ 3.40″W (NMI 22 1998).

Paratypes: north-west Mayo, Station F6FC, 54°20′ 21.83″N 11°5′ 3.40″W, NMI 22 1998 (1 female). Station Z7FC, 54°20′04.02″N 11°03′26.03″W, 345 m, NMI 22 1998 (1 female). Station 38AFB 54°21′ 24.36″N 10°51′ 28.62″W, NMI 22 1998 (1 female).

Description of female

Length 5.3 mm. Head lower margin oblique; with two pairs of corneal lenses. Antennae 1 and 2 subequal in length. Antenna 1 peduncular articles thickened, article 2 about 1.5 times length of article 1; flagellum longer than peduncle and reaching to 75% body length. Antenna 2 peduncular article 5 longer than 4; flagellum longer than peduncle and reaching to 75% length.

Gnathopod 1 coxa distally widened, with row of short sensory setae on upper margin, row of setae on the anterodistal margin and row of setae on the inner face, with notch on anteroventral corner; basis anterior margin with row of short robust setae and row of long plumose setae, posterior margin with long plumose setae; carpus longer than propodus; dactylus posterior margin with 3–4 plumose setae. Gnathopod 2 slender; coxa not distally widened, with row of short sensory setae on upper margin, row of setae on the anterodistal margin and distal row of setae on inner face; basis anterior margin with row of short robust setae and row of long plumose setae, posterior margin with long plumose setae; merus half length of carpus; propodus 75% length of carpus, extremely setose; dactylus just over half length of propodus, posterior margin with 3–4 plumose setae. Pereopod 3 coxa not distally widened, with row of short sensory setae on upper margin, row of setae on distal

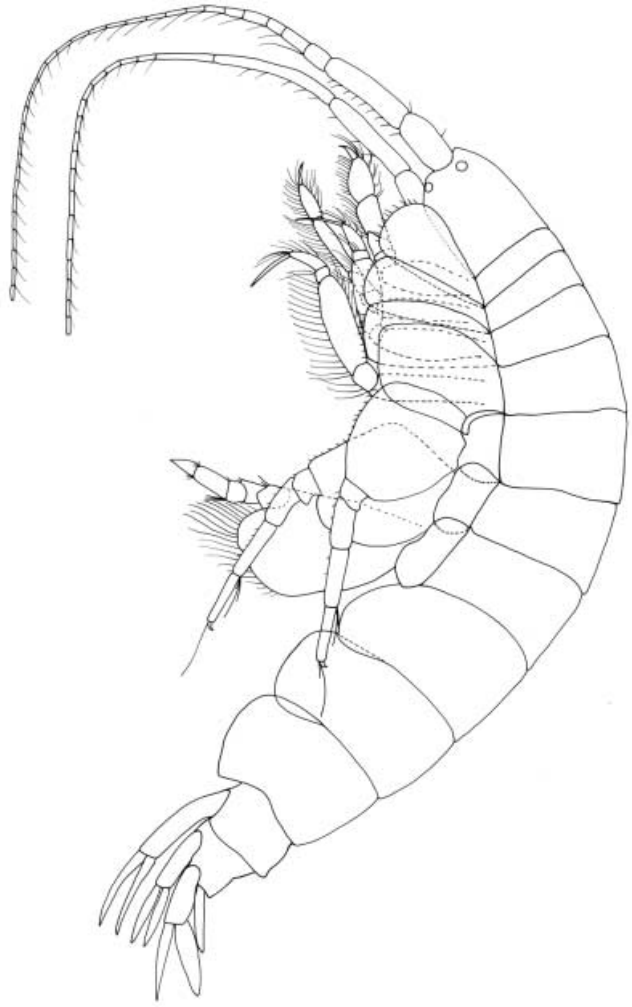

Figure 3. *Ampelisca eclimensis* sp. nov. Female (Ireland), 5.3 mm: whole body, lateral view.

margin and two rows of setae on inner face: distally and parallel to the lower margin; basis anterior margin with row of short robust setae and some long plumose setae, posterior margin with few or no long plumose setae; merus around 75% length of basis; dactylus longer than combined lengths of carpus and propodus. Pereopod 4 coxa with anterodistal row of setae and distal row of setae on inner face; basis anterior margin with row of short robust setae and few long plumose setae, posterior margin with row of long plumose setae; merus around 75% length of basis; dactylus longer than combined lengths of carpus and propodus. Pereopod 5 basis anterior margin with short robust setae; carpus slightly longer than propodus, posterior margin with two robust setae, posterodistal margin with four robust setae of varied lengths; propodus with two distal robust setae: the larger as long as propodus. Peropod 6 basis anterior margin with short robust setae, inner margin with scattered setae; carpus posterior margin with two robust setae, anterior margin with many short robust setae, with five anterodistal robust setae of varied lengths, with four posterodistal robust setae of varied lengths; propodus anterior margin with robust setae, with four distal robust setae of varied lengths: the larger as long as the propodus. Pereopod 7 robust; basis widest at mid length, distally rounded, distal margin reaching past length of ischium, with many setae reaching to distal edge of propodus; merus shorter than ischium, with anterior lobe extending 33% length of carpus; propodus longer than combined lengths of merus and carpus; dactylus shorter than propodus.

Epimeron 3 posterodistal edge subquadrate. Urosome 1 with slightly sinuous dorsal carina. Urosomal segments 2 and 3 dorsally straight with lateral keels. Uropod 1 inner margin of peduncle with row of robust setae; rami subequal and subequal in length with peduncle; inner ramus with row of setae and lateral margins minutely serrated; outer ramus with no setae. Uropod 2 peduncle outer margin with robust setae; rami subequal and subequal in length with peduncle; inner ramus with row of setae, edges minutely serrate; outer ramus with no setae, edges minutely serrate. Uropod 3 rami lanceolate, inner ramus with distal setae and with some robust lateral setae, edges minutely serrate; outer ramus widest and with distal and lateral setae. Telson deeply cleft, apically acute, with four distal robust setae and associated fine setae.

Male. Unknown.

Etymology

'Eclimensis' is derived from Eachléim, the Irish name for the area on the Mullet Peninsula in north-west Mayo near where this species was collected.

Distribution

Curently known only from north-west Mayo, Ireland.

Remarks

Intact antennae 1 and 2 are 75% body length. The ends of the antennae of the illustrated type specimen are broken.

This species is characterized by the combination of thickened antenna 1 peduncular articles, of which the second article is short; pereopod 7 with rounded basis and stout articles, merus with anterior lobe; slightly sinuous urosomal carina; oblique head shape; and long dactyls on pereopods 3 and 4.

Discussion

Ampelisca eclimensis is often found with *A. sorbei* and *A. dalmatina* in Irish waters but can be immediately distinguished from *A. sorbei* by examination of pereopod 7 (specifically the rounded basis shape and lack of distal tuberculation). *Ampelisca eclimensis* is morphologically closest to *A. dalmatina* and *A. aequicornis*. It is distinguished from *A. dalmatina* by the thickened peduncular articles of antenna 1 (the second article of which is short), in having pereopod 7 basis more broadly rounded and the urosomal carina distinct and slightly sinuous. In *A. dalmatina*, only the first peduncular article of antenna 1 is thickened, the articles of pereopod 7 are slender and the urosomal carina small and straight. Examination of *A. dalmatina* has shown that juveniles can possess a short peduncular article 2 on antenna 1 and so look superficially like *A. eclimensis*, however, these specimens can be distinguished from *A. eclimensis* by their small flat carina and very small size. *Ampelisca eclimensis* differs from *A. aequicornis* in size (6 mm vs 15 mm), the presence of long dactyls on pereopods 3 and 4, elongate pereopods 5 and 6 and less sinuous urosomal carina.

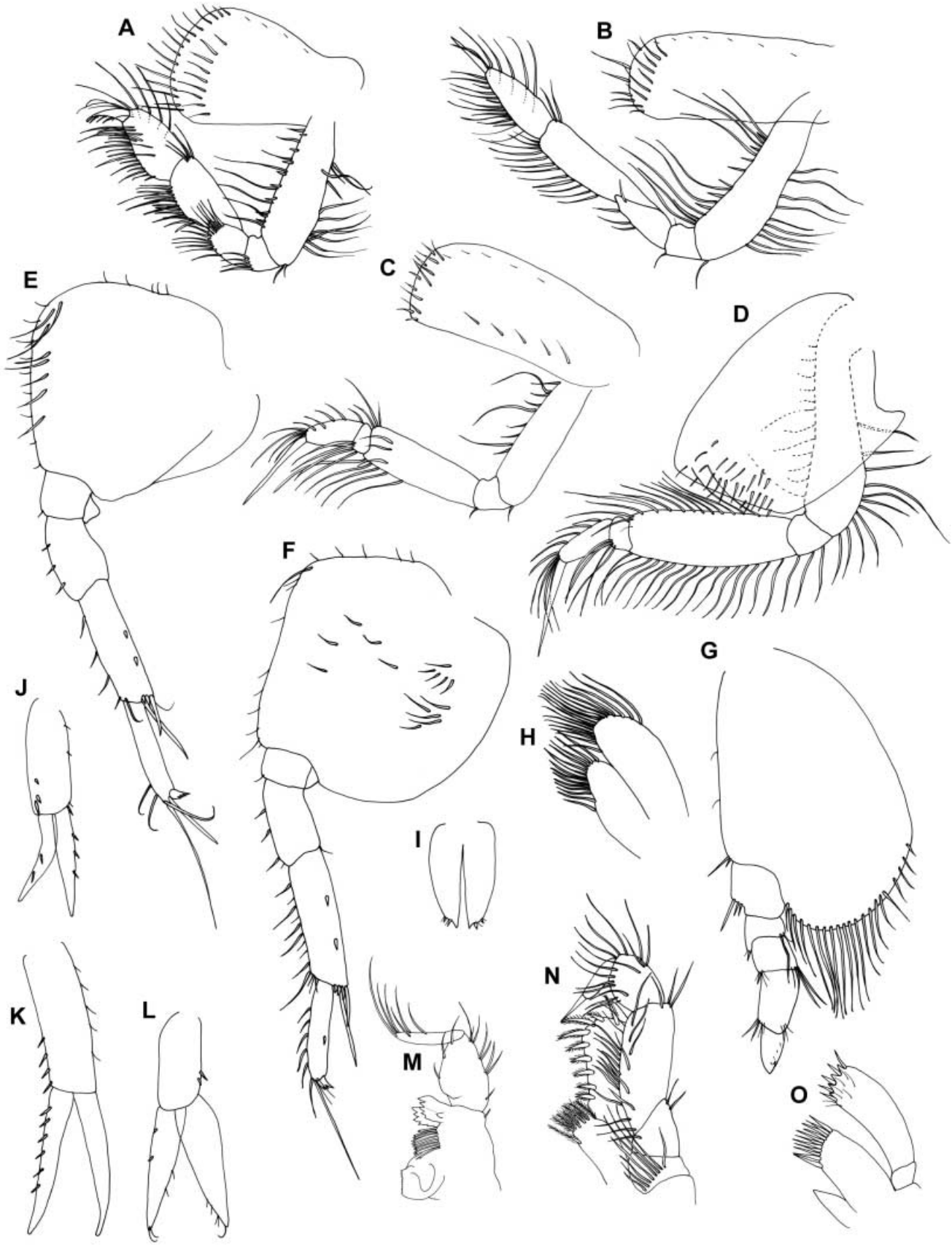

Figure 4. *Ampelisca eclimensis* sp. nov. Female (Ireland), 5.3 mm: (A) gnathopod 1; (B) gnathopod 2; (C) peropod 3; (D) pereopod 4; (E) pereopod 5; (F) pereopod 6; (G) pereopod 7; (H) maxilla 2; (I) telson; (J) uropod 2; (K) uropod 1; (L) uropod 3; (M) mandible; (N) maxilliped; (O) maxilla 1.

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Ampelisca sorbei Dauvin & Bellan-Santini, 1996
(Figures 5 & 6)

Ampelisca sorbei Dauvin & Bellan-Santini, 1996:154–157, figures 5–6.

Material examined

Holotype: Bay of Biscay, Station 619, 42°32.33′N 01°48.11′W, 120 m, 17 August 1978, (MNHN: Am 4839).

Ireland, north-west Mayo: Station F6FC, 54°20′21.83″N 11°5′3.40″W, NMI 22 1998 (1 female); Station F6FC, 54°20′21.83″N 11°5′3.40″W, NMI 22 1998 (7 females); Station Z7FC, 54°20′04.2″N 11°03′26.03″W, 345 m, NMI 22 1998 (1 female); Station 38AFA, 54°21′24.36″N 10°51′28.62″W, NMI 22 1998 (1 female); Station 38AFB, 54°21′24.36″N 10°51′28.62″W, NMI 22 1998 (2 females); Station F6FB, 54°20′21.83″N 11°5′3.40″W, NMI 22 1998 (5 females). Celtic Sea: Station D503, 50°09.0′N 10°52.5′W, 156 m, collected on NO 'Thalassa', clean siliceous fine sand, NMI 22 1998 (1 female); Station D423, 50°26.5′N 09°23.0′W, 134 m, 28 June 1977, collected on NO 'Thalassa', fine and medium sand—slightly silty, NMI 22 1998 (1 female). Scotland, west of Shetlands: Station 53849, site J5, 60°01′N 04°51′W, 336 m, 01 August 1996, Atlantic Frontier Environmental Network Reference Collection, NMSZ 1999217.1016.

Description of female

Length 5.7 mm. Head with two pairs of corneal lenses, lower margin weakly oblique. Antennae 1 and 2 subequal in length. Antenna 1 peduncular article 1 thicker than 2, with dorsal and lateral tufts of setae; article 2 length variable (between 1.3 and 2.2 times longer than article 1); flagellum longer than peduncle and reaching to end of body. Antenna 2 peduncular article 5 slightly longer than article 4; flagellum longer than peduncle and reaching to end of body.

Gnathopod 1 coxa distally widened, with row of short sensory setae on upper margin, row of setae on the anterodistal margin and a distal row of setae on the inner face, with notch on anteroventral corner; basis anterior margin with a row of robust setae and a row of long plumose setae, posterior margin with a row of plumose setae; carpus longer than propodus; dactylus half length of propodus, posterior margin with five plumose setae. Gnathopod 2 slender; coxa not distally widened, with some short sensory setae on the upper margin, a row of setae on the anterodistal margin and scattered setae on the inner face; basis anterior margin with row of short robust setae and row of long plumose setae, posterior margin with plumose setae; carpus $2\frac{1}{2}$ times longer than merus; propodus 67% length of carpus, extremely setose; dactylus half length of propodus, posterior margin with five plumose setae. Pereopod 3 coxa not distally widened, with row of short sensory setae on upper margin, a row of setae on the anterodistal margin and scattered setae on the inner face; basis anterior margin with a row of short robust setae and few long plumose setae, posterior margin with few long plumose setae; merus around 67% length of basis; dactylus longer than combined lengths of carpus and propodus. Pereopod 4 coxa distal margin with row of setae and inner face with row of setae; basis anterior margin with short robust setae and long plumose setae, posterior margin with long plumose setae; merus 75% length of basis; dactylus longer than the combined lengths of the carpus and propodus. Pereopod 5 basis anterior margin with short robust setae and long setae; carpus subequal in length to propodus, anterior margin with row of robust setae, posterior margin with four robust setae, posterodistal margin with five robust setae of varied lengths, anterodistal margin with around two robust setae; propodus with two distal robust setae: the larger as long as the propodus; dactylus edge serrated into four spines. Pereopod 6 basis with short robust setae and some long plumose setae; carpus anterior margin with row of robust setae, posterior margin with four robust setae, with 2–3 anterodistal robust setae of varied lengths, with six posterodistal robust setae; propodus anterior margin with row of robust setae, with three distal robust setae of varied lengths: the larger as long as the propodus. Pereopod 7 robust; basis widest at proximal third, oblique shape, distal margin not reaching past ischium, with tuberculation along edge, posterior margin moderately setose with robust setae extending just past the carpus; merus shorter than ischium, with anterior lobe extending 33% length of carpus; propodus about as long as combined lengths of merus and carpus; dactylus shorter than propodus.

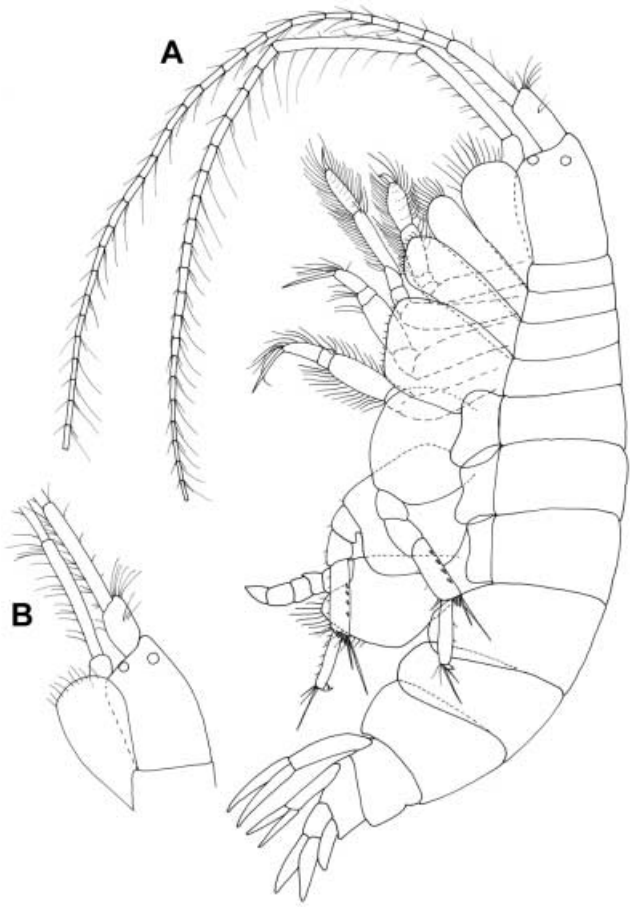

Figure 5. *Ampelisca sorbei* Dauvin & Bellan-Santini. Female (Ireland), 5.7 mm: (A) whole body, lateral view; (B) variant: antenna 1 with long peduncular article 2.

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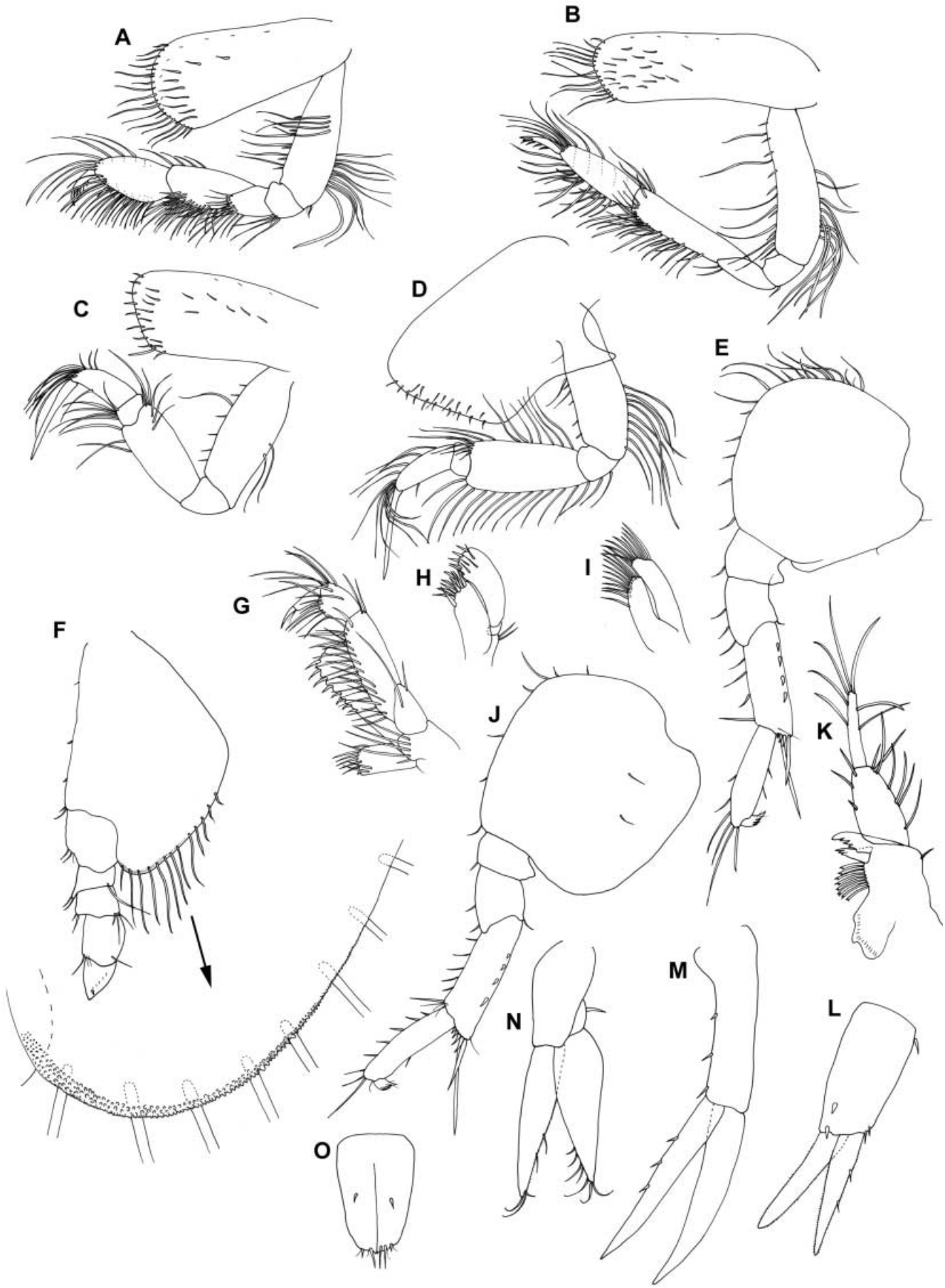

Figure 6. *Ampelisca sorbei* Dauvin & Bellan-Santini. Female (Ireland), 5.7 mm: (A) gnathopod 1; (B) gnathopod 2; (C) pereopod 3; (D) pereopod 4; (E) pereopod 6; (F) pereopod 7; (G) maxilliped; (H) maxilla 1; (I) maxilla 2; (J) pereopod 5; (K) mandible; (L) uropod 2; (M) uropod 1; (N) uropod 3; (O) telson.

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Epimeron 3 posterodistal corner with a slight, blunt spine. Urosome 1 with a dorsally straight dorsal carina (in younger animals this can be very slightly sinuous). Urosomal segments 2 and 3 dorsally straight with lateral keels. Uropod 1 inner margin of peduncle with row of robust setae; rami subequal and slightly longer than peduncle; inner ramus with row of robust setae; outer ramus with no setae. Uropod 2 peduncle outer margin with robust setae, rami subequal in length and subequal in length with the peduncle; inner ramus with row of setae, edges minutely serrate; outer ramus with no robust setae, edges minutely serrate. Uropod 3 rami lanceolate, inner ramus with distal setae and with two robust lateral setae, edges minutely serrate; outer ramus widest and with distal and lateral setae. Telson longer than wide, deeply cleft, distally subacute with 3–4 large robust setae and two shorter robust setae laterally, with pair of robust setae medially.

Male. Unknown.

Distribution

North-east Atlantic, France (Bay of Biscay), Ireland (north-west Mayo and Celtic Sea), Scotland (west Shetlands).

Remarks

The size range of mature individuals examined was 5.5–7.5 mm. This species is immediately identifiable from the morphology of pereopod 7, specifically the basis, which is distinctly oblique in shape and distally tuberculate. To date, the only other species with tuberculation on the distal edge of the basis is *Ampelisca serraticaudata* known from the Mediterranean and north-east Atlantic. *Ampelisca sorbei* differs from *A. serraticaudata* by the presence of an anterior lobe on the merus of pereopod 7, by the epimeron 3 shape and by the uropod morphology. The length of the second peduncular article of antenna 1 is variable among the Irish material examined.

Discussion

Dauvin & Bellan-Santini (1996) described *A. sorbei* from a single 6 mm female collected in the Bay of Biscay. The head shape was illustrated as distally narrow and extremely oblique but in all the specimens examined here the head was much broader distally. Also, the urosomal carina drawn by Dauvin & Bellan-Santini (1996) is slightly sinuous and not straight as in the present material. Dauvin & Bellan-Santini (1996) did not figure or describe the distal tuberculation on the basis of pereopod 7, however, examination of the type specimen shows that tuberculation is clearly present and we note its presence here as an important descriptive character for this species. It was impossible to examine the head and urosome of the holotype, which has been fully dissected and mounted on slides, due to deformations caused by the mounting process. We are, however, confident that the Irish specimens we have examined are *A. sorbei*.

Reid's *A. aequicornis* var. *cessia* may be conspecific with *A. sorbei* as it possesses the distinct obliquely shaped pereopod 7 basis of that species but since Reid's specimens were not available for study this cannot be fully determined.

Key for the Ampelisca aequicornis *group in the north-east Atlantic*

1. Basis of pereopod 7 posterior margin angular (widest at mid length or proximally) 2
— Basis of pereopod 7 posterior margin rounded (widest distally) 3

2. Antenna 1 peduncular article 2 greater than 2.5 times longer than article 1; pereopod 7 basis without tuberculation on distal edge . . . . . *A. calypsonis*
— Antenna 1 peduncular articles 1–2 subequal, pereopod 7 basis with tuberculation on distal edge . . . . *A. sorbei*

3. Pereopods 3–4 dactylus shorter than or subequal with propodus; pereopods 5 and 6 as long as pereopod 7 . . . . . *A. aequicornis*
— Pereopods 3–4 dactylus distinctly longer than propodus; pereopods 5 and 6 longer than pereopod 7 . . 4

4. Antenna 1 peduncular article 1 distinctly thickened; carina low and straight . . . . . *A. dalmatina*
— Antenna 1 peduncular articles 1 and 2 distinctly thickened; carina distinct and slightly sinuous . *A. eclimensis*

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