

## Redescription of *Jassa slatteryi* (Crustacea: Amphipoda: Ischyroceridae)

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**Abstract** – *Jassa slatteryi* was redescribed as a new record to Korean fauna, accompanied by the morphological account in comparison with *Jassa falcata* Montagu, 1808. This work was based on the specimens which were collected from the screw of the international trade ship, named Hanjin, anchored in Samcheon-po bay of the south coast of Korea in 2004.

**Key words** : Amphipoda, cosmopolitan, *Jassa slatteryi*, *Jassa falcata*, Korea

### INTRODUCTION

The genus *Jassa* Leach, 1814 was comprised of 5 species until Conlan (1990) described 14 the new species. Among the species of the *Jassa* which is one of the most cosmopolitan amphipod genera, only *J. falcata* was recorded as a habitant in Korean sea by Hong (1983). However, the specimen examined by Hong was not identified with the characters of *J. falcata*. Seven years later, it was proved to be a new amphipod species, which was finally described as *J. slatteryi* by Conlan (1990). In this paper, therefore, we renew the systematic information for the reasonable taxonomic and ecological surveys in Korean sea. Accordingly, the description of the mouthparts is added, which were not involved in the description by Hong (1983), and morphological comparison of the two species is provided.

### MATERIALS AND METHODS

The materials in this study were collected on 10 June 2004 from the screw of the Hanjin ship anchored in

Samcheon-po bay of the south coast of Korea by SCUBA diving. Specimens were fixed with 4% formaldehyde-seawater solution and preserved with 70% ethanol. The left appendages of a specimen were dissected in glycerol on a cavity slide glass under a stereoscope Leica MZ 16 and drawn using a microscope Olympus BX 51.

### REDESCRIPTION

**Order Amphipoda Latreille, 1816**

**Suborder Gammaridea Latreille, 1802**

**Family Ischyroceridae Stebbing, 1899**

**Genus *Jassa* Leach, 1814**

***Jassa slatteryi* Conlan, 1990 (Figs. 1-3)**

*Jassa falcata* Montagu, 1808: Hong 1983, p. 135.

Material examined. – 4 specimens, Samcheonpo

Body length about 6.3 mm. Lateral lobes of head small and round; eyes of small size and round. Antenna 1 (drawing C, Fig. 1) with 3 peduncular and 6 flagellar articles. First peduncular article thicker and shorter than second one, with simple setae; second and third peduncular articles with long and short simple setae along the ventral

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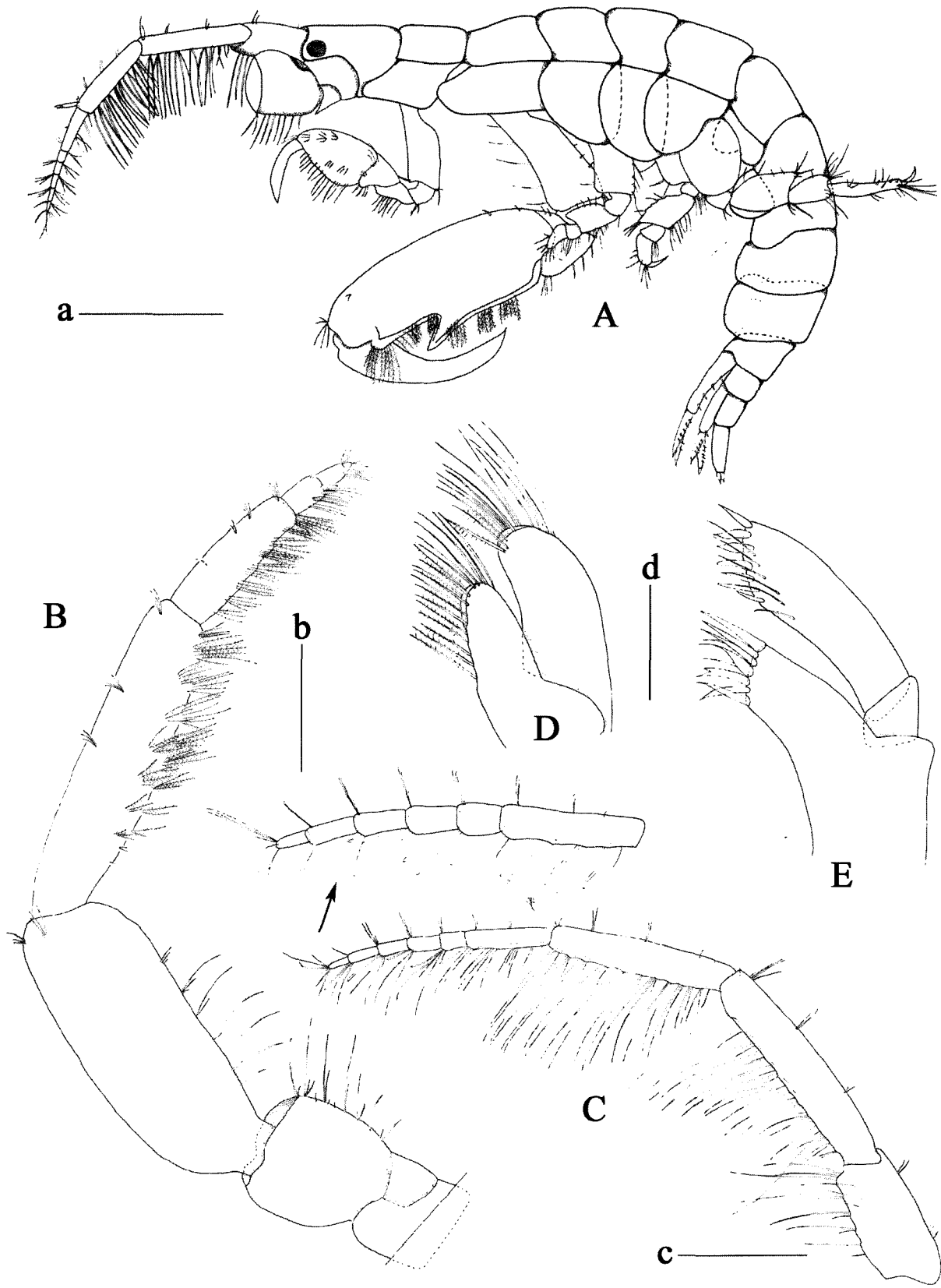


Fig. 1. *Jassa slatteryi* Conlan, 1989, male: A, habitus in lateral view; B, antenna 2; C, antenna 1; D, maxilla 2; E, maxilla 1. Scale bars: a=1 mm, d=0.1 mm; b, c=0.5 mm.

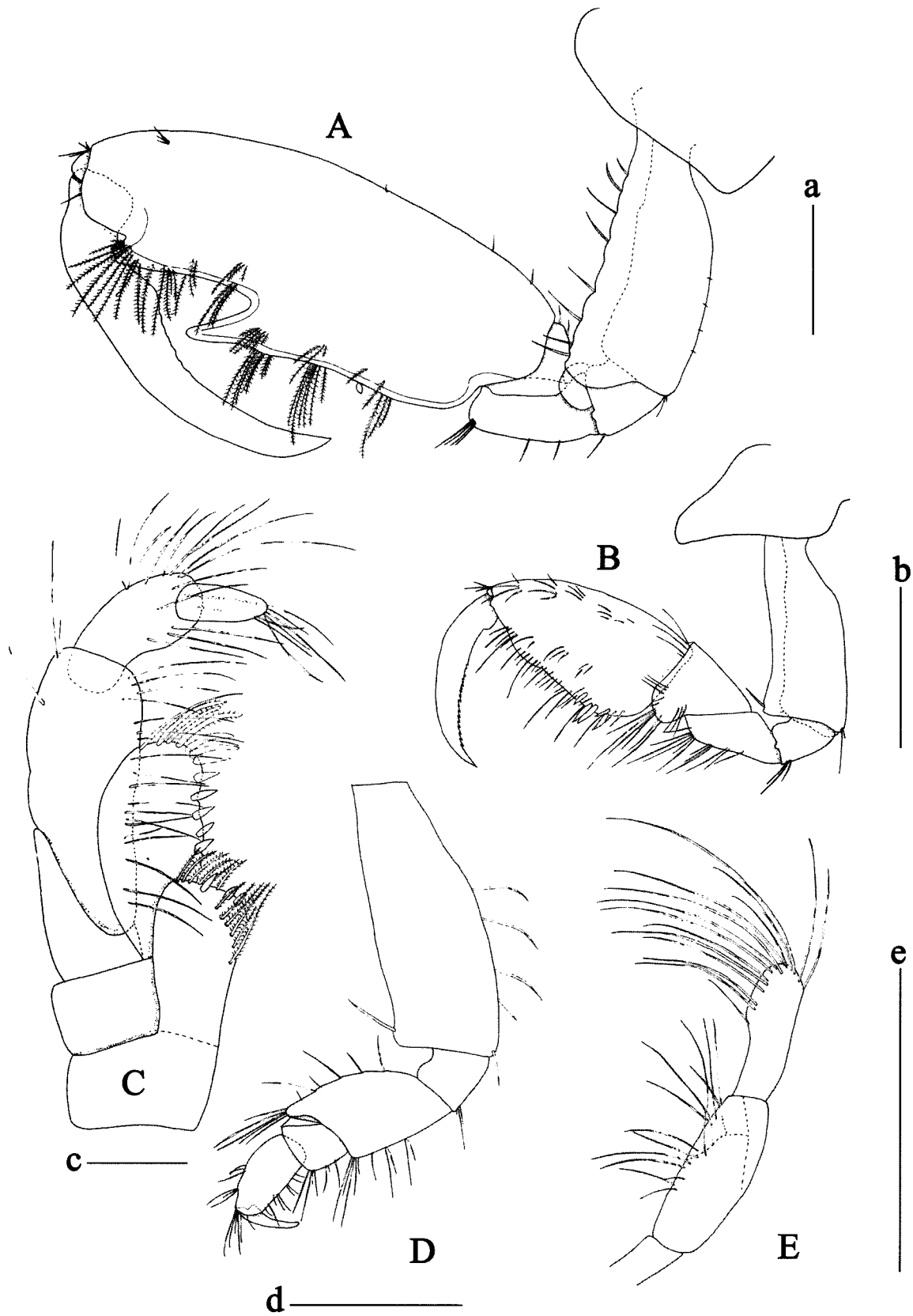


Fig. 2. *Jassa slatteryi* Conlan, 1989, male: A, gnathopod 2; B, gnathopod 1; C, maxilliped; D, pereopod 3; E, mandible. Scale bars: a, b, d, e=0.5 mm; c=0.1 mm.

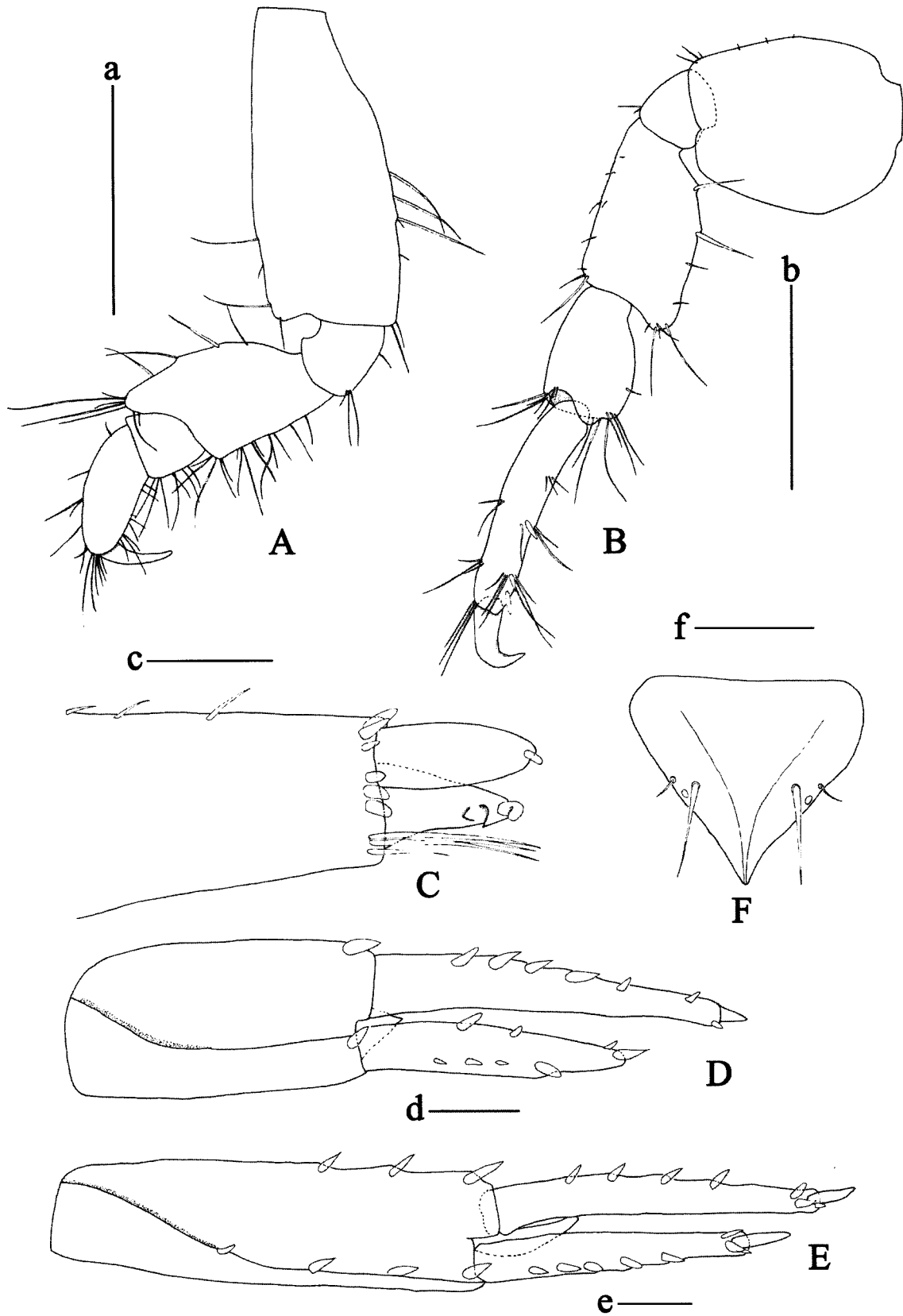


Fig. 3. *Jassa slatteryi* Conlan, 1989, male: A, pereopod 4; B, pereopod 5; C, Uropod 3; D, Uropod 2; E, Uropod 1; F, telson. Scale bars: a, b=0.5 mm; c, d, e, f=0.1 mm.

margin. First flagellar article 4 times as long as second one, with 6 aesthetascs and simple setae on the ventral margin; last flagellar article with 1 apical aesthetasc and 6 simple setae; aesthetasc formula 6 : 2 : 2 : 1 : 1 : 1. Accessory flagellum with 2 articles; first article elongated without setae; second article minute, with fine simple setae.

Antenna 2 (drawing B, Fig. 1) with 5 peduncular and 4 flagellar articles. First two peduncular articles short, without setae; third and fourth in similar width, sparsely with simple setae; fifth article and 4 flagellar articles, abundantly with fine plumose setae on ventral margin. First flagellar article 4 times longer than second one; second and third articles with 2 spines and short simple setae; last flagellar article, distally with a spine and simple setae.

Mandibular palp (drawing E, Fig. 2) with 3 articles; first article the shortest, without setae; second article thicker and longer than third one, with long simple setae on ventral margin and without setae on dorsal margin; last article clavate without setae on dorsal margin.

Maxillular palp (drawing E, Fig. 1) with 2 articles; second article 3 times longer than first one, with 7 robust apical spines and 6 simple setae.

Inner plate of maxilliped with 3 apical spines and 12 plumose setae (drawing C, Fig. 2); outer plate with 8 medioventral spines and 3 plumose setae. Palp of 4 articles, slender distally; first article without setae; second article the longest, with many long simple setae; third article somewhat clavate, with long simple setae; last article with 4 simple setae on distal margin.

Basis of gnathopod 1 (drawing B, Fig. 2) with a single seta at anterodistal angle and 2 setae at posterodistal one; carpus with 3 long, 1 short fine simple setae proximally on anterior margin; propodus proximally bearing 5 spines and a row of setae on ventral margin; dactylus cusped, with inner margin serrate.

Coxal plate of gnathopod 2 (drawing A, Fig. 1; drawing A, Fig. 2) the longest ventral margin; basis with 8 simple setae (setae about 25% of segment width) on anterior margin and 2 setae at posterodistal angle; merus with 3 setae at posterodistal angle; dorsal lobe of carpus with 2 short setae; propodus with plumose setae on ventral margin and with a few small setae on dorsal margin; palm with some bunch of plumose setae at hinge tooth area; thumb acute, distally with about 15% of propodus width.

Basis of pereopod 3 and 4 (drawing D, Fig. 2; drawing A,

Fig. 3) with a single or two setae at anterodistal and posterodistal angle; dorsal margin of merus prolonged and almost overlapped with carpus.

Merus of pereopod 5 (drawing B, Fig. 3) with short simple setae on dorsal margin, 2 long, 2 short simple setae on ventral margin; carpus with long simple setae distally on dorsal and ventral margin; propodus with 3 apical spines on ventral margin.

Uropod 1 (drawing E, Fig. 3) with a process distally on peduncle (about 33% of inner ramus length); inner ramus about 1.2 times longer than outer one; inner and outer rami with 4 and 5 mid-dorsal spines, respectively, terminating in a fringe cusps ventral to apical spine group.

Uropod 2 (drawing D, Fig. 3) with a triangular process distally on peduncle (about 15% of inner ramus length); inner ramus about 1.3 times longer than outer one; inner and outer rami with 5 and 6 mid-dorsal spines respectively.

Peduncle of uropod 3 (drawing C, Fig. 3) with 6 spines on posteroventral margin; inner ramus stout with a single apical spine; outer ramus triangular with 2 sequential serrations in area of cusps and a curved spine at the apex.

Telson (drawing F, Fig. 3) triangular with two pairs of setae at each lateral cusp.

## REMARKS

Although *Jassa slatteryi* is very similar to *Jassa falcata*, these species can be distinguished by the following characters: flagellum of antenna 2 with 4 articles (*J. falcata* with 6 articles); second article of mandibular palp with setae on dorsal margin; carpus of gnathopod 1 with setae proximally on anterior margin; basis of gnathopod 2 with setae on anterior margin; inner ramus of uropod 3 without spine; telson without setae at the apex (Fig. 4).

Up to present, *Jassa falcata* has been redescribed by Hong (1983) and Kim and Kim (1987) in Korea. The redescription of *J. falcata* given by Hong (1983) matches well with the characters of *J. slatteryi*, except for length of thumb in second gnathopod. Generally, major forms (drawing B, Fig. 4) of *Jassa* have a long thumb relative to minor forms (drawing C, Fig. 4) (Conlan, 1990). The specimen dealt in the former redescription shows a major form of second gnathopod, the one in this study has a minor form. Second gnathopod of *Jassa* bears one of the most

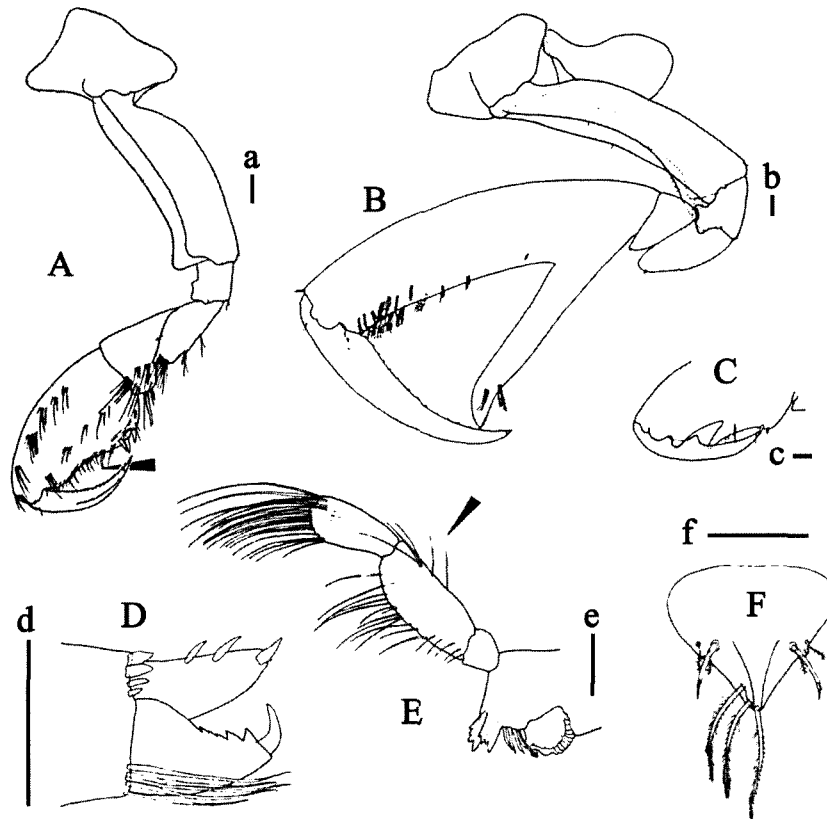


Fig. 4. *Jassa falcata* Montagu, 1808, male: A, gnathopod 1; B, gnathopod 2 (major form); C, gnathopod 2 (minor form); D, Uropod 3; E, Mandible; F, telson. Scale bars=0.1 mm (from Conlan 1990, Figs. 5, 8, 9 & 10).

distinctive character using as a key to the species (Lincoln, 1979). However, the shape of the second gnathopod is not so discernible character to identify the species of *Jassa*, because of enormous intraspecific variation. An incomplete illustration of *J. falcata* was also provided in the paper by Kim and Kim (1987), without a detailed species description. Since this specimen was not deposited anywhere, it is now impossible to examine if it is apparently *J. falcata* or not. Therefore, *J. falcata* also should be studied in detail, compared with other members of the genus *Jassa*.

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