

Identity of *Pagurus watasei* (Crustacea: Decapoda: Anomura: Paguroidea)

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The diogenid hermit crab taxon *Dardanus watasei* (Terao, 1913) has been suggested to be a possible junior synonym of *D. scutellatus* (H. Milne Edwards, 1848). Re-examination of the holotype and three additional specimens referred to the taxon *Pagurus watasei* by Terao himself, however, has shown that it is conspecific with *Dardanus aspersus* (Berthold, 1845), and consequently *Pagurus watasei* is placed in the synonymy of the latter species.

Key Words: Crustacea, Decapoda, Diogenidae, *Dardanus*, Japan, synonym.

Introduction

In his report on Japanese hermit crabs, Terao (1913) described a new species, *Pagurus watasei* Terao, 1913 based on six specimens, including the holotype and five additional non-type specimens. Four of the six specimens, including the holotype, were collected from Satsuma (=Kagoshima), Nagasaki, and Kii (=Wakayama) in western Japan, but the localities of the remaining two specimens were not known. Miyake (1978: p. 50 in the Japanese text, p. 183 in the English text) suggested that the Terao's (1913) taxon might be identical with *Dardanus scutellatus* (H. Milne Edwards, 1848), and in his list of Japanese anomurans, questionably placed it as a junior synonym of the latter species. Fortunately, the holotype and two of the five non-type specimens referred to *P. watasei* by Terao (1913) were located in the crustacean collection of the University Museum, The University of Tokyo. Re-examination of these specimens has revealed that *P. watasei* is actually identical to *Dardanus aspersus* (Berthold, 1845) instead of *D. scutellatus*. A short description of the holotype is hereby provided to convey the evidence for this identification.

Materials and Methods

The material examined is deposited in the zoological collection of the University Museum, the University of Tokyo (UMUTZ). General terminology follows McLaughlin *et al.* (2007), except for the numbering of thoracic sternites. Shield length (sl), measured from the tip of the rostrum to the midpoint of the posterior margin of the shield, indicates specimen size. A restricted synonymy of *Dardanus aspersus* is provided, including the original reference, primary synonyms, and major references accompanied with illustrations. Full synonymies can be found in Asakura (2006) and McLaughlin *et al.* (2007).

Family **Diogenidae** Ortmann, 1892
Genus ***Dardanus*** Paulson, 1875
Dardanus aspersus (Berthold, 1845)
(Figs 1, 2)

Pagurus aspersus Berthold, 1845: 45 (type locality: China); 1846: 21, pl. 2, fig. 1.
Pagurus diogenes.—De Haan 1849: 208; Terao 1932, pl. 57, fig. 2. [not *Cancer diogenes* Linnaeus, 1758 (= *Petrochirus diogenes* (Linnaeus, 1758))]
Pagurus watasei Terao, 1913: 380, text-fig. 3. [type locality: Komenotsu, Satsuma (now located in Izumi City, Kagoshima Prefecture, Kyushu, southern Japan)]
Dardanus diogenes.—Gee 1925: 159; Miyake 1965: 644, fig. 1080.
Dardanus aspersus.—Holthuis and Sakai 1970: 96; Miyake 1978: 64, text-fig. 23, pl. 1, fig. 2; 1982: 109, pl. 37, fig. 2; 1998: 109, pl. 37, fig. 2; Yamaguchi and Baba 1993: 275, fig. 74; Asakura 2006: 34, figs. 27, 28; McLaughlin *et al.* 2007: 96, 2 unnumbered figs.

Material examined. Komenotsu, Satsuma, 20 April 1896, collected by Mitsukuri and Hara, holotype of *Pagurus watasei*, female (cl 16.7 mm), UMUTZ-Crs-33. No locality and date records, collected by Tokyo Higher Normal School, 1 male (cl 14.0 mm), UMUTZ-Crs-c110. Nagasaki Prefecture, 1912, collected by Kaneko, 1 ovigerous female (cl 13.5 mm), UMUTZ-Crs-c112. Nagasaki Prefecture, 1 male (cl 13.6 mm), UMUTZ-Crs-c195.

Redescription of holotype of *Pagurus watasei*. Shield (Fig. 1A, B) approximately as long as broad; dorsal surface with tufts of stiff setae laterally and broad, U-shaped suture on posteromedian part; anterolateral margins terraced. Rostrum broadly triangular, nearly reaching tips of blunt lateral lobes.

Ocular peduncles (Fig. 1B) slightly depressed dorsoventrally, stout, 0.6 of shield length; corneas somewhat dilated, broader than bases of peduncles, 0.4 of peduncular length;