A NEW SPECIES OF DARDANUS PAUL’SON FROM THE SOUTHWESTERN PACIFIC (DECAPODA, ANOMURA, DIOGENIDAE)

BY

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ABSTRACT

A new species of marine hermit crabs, Dardanus holthuisi sp. nov., is described from New Caledonia and Vanuatu. This is one of the few species of Dardanus that live at depths of more than 100 m. This new species resembles D. gemmatus (H. Milne Edwards, 1848) and D. impressus (De Haan, 1849), but is easily distinguished from those two species by larger spiniform tubercles on the chelipeds, longer and more slender dactyl of the second and third pereopods, shorter ocular peduncles, and red colour on the fixed finger and dactyl of the chelipeds, and the dactyl of the second and third pereopods which persist for several years in fixative.

RÉSUMÉ

Une nouvelle espèce de bernard l’ermite marin, Dardanus holthuisi sp. nov., est décrite à partir de spécimens de Nouvelle Calédonie et du Vanuatu. C’est l’une des rares espèces de Dardanus vivant à des profondeurs de plus de 100 m. La nouvelle espèce ressemble à D. gemmatus (H. Milne Edwards, 1848) et à D. impressus (De Haan, 1849), mais s’en distingue aisément par des tubercules spiniformes plus grands sur les chélicères, par un dactyle plus long et plus gracieux sur les seconds et troisièmes péréiopodes, par des pédoncules oculaires plus courts, et par la couleur rouge du doigt fixe et du dactyle des chélicères, et du dactyle des second et troisièmes péréiopodes. Cette couleur rouge persiste pendant plusieurs années dans le fixateur.

INTRODUCTION

Hermit crabs of the genus Dardanus Paul’son, 1875 are generally large and are recognizable by their relatively stout ocular peduncles with large corneas. Most of the species have unequal chelipeds, the left being much larger than

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the right. Currently the genus consists of 43 species (De Grave et al., 2009), mostly found in the tropical Indo Pacific. Species of this genus mostly occur in shallow-waters, although some species also live in reasonably deep waters.

A recent collection from Vanuatu contains a species of *Dardanus* that cannot be assigned to any known species, and is considered here as new, a search in the collection of the Museum National d’Histoire Naturelle, Paris revealed two other specimens of the same species. Although morphological characters of this species resembles those of *D. gemmatus* (H. Milne Edwards, 1848) and *D. impressus* (De Haan, 1849), the creamy white colour of the body and pereopods, and red colour on fingers of the chelipeds resemble those of *D. hesii* (Miers, 1884). However, several other characters such as the armament of the chelipeds and proportions of the cephalic appendages distinguishes it from other member of the genus *Dardanus*. This new species, *D. holthuisi* sp. nov., is described in the present paper.

The specimens used in this study came from New Caledonia in 1978, French Expeditions BATHUS 1 in 1993, and SANTO Expedition in Vanuatu in 2006 (Fontaine & Marmayou, 2009). Animal size is indicated by shield length in mm, measured from the tip of the rostrum or midpoint of the rostral lobe, to the midpoint of the posterior margin of the shield. Length of the ocular peduncles was measured along the left ultimate peduncular segment, including the cornea, along its lateral surface; corneal diameter represents the maximum width of the cornea measured on the dorsal surface. All material examined is deposited in the Muséum National d’Histoire Naturelle (MNHN), Paris, France.

**SYSTEMATICS**

*Dardanus holthuisi* sp. nov.

(figs. 1, 2)

Material examined. — Holotype: female, 10.54 mm, SANTO, Stn. 64, West of Malo Island, 15°39.6'S 167°01.9'E, 249-252 m, 4 Oct. 2006. Paratypes: female, 5.09 mm, same locality as holotype; 1 male, 14.90 mm, SANTO, Stn. EP 24, West of Urelapa Island, 15°36.5'S 167°00.7'E, 108-121 m, tangle net, 25 Sep. 2006; 1 female, 10 mm, New Caledonia, Bahade, 200 m, 4 Sep. 1978; 1 male, 14.72 mm, BATHUS 1, Stn. CP 712, 21°44.26'S 166°35.34'E, 210 m, 19 Mar. 1993.

Comparative material examined. — *Dardanus gemmatus* (H. Milne Edwards, 1848), 1 female, 10.5 mm, Penghu, Taiwan; 1 male 22.68 mm, Hualien County, Taiwan.

Description. — Shield (fig. 1A) as long as wide to very slightly longer than wide. Rostrum very broadly triangular, blunt or rounded distally, much shorter than lateral projection. Lateral projections strongly projecting, apex rounded.