A REVIEW OF THE COMMON JAPANESE CALLIANASSID SPECIES,
CALLIANASSA JAPONICA AND C. PETALURA
(DECAPODA, THALASSINIDEA)

BY

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ABSTRACT

Two common Japanese callianassid species, Callianassa japonica Ortmann, 1891 (= C. californiensis var. japonica Bouvier, 1901 and C. harmandi Bouvier, 1901) and C. petalura Stimpson, 1860, specifically under the generic name Callianassa, could be reconfirmed as good species after examining the syntypes of C. californiensis var. japonica Bouvier, 1901 and of C. harmandi Bouvier, 1901.

ZUSAMMENFASSUNG

Die Untersuchung der Syntypen von Callianassa californiensis var. japonica Bouvier, 1901 und C. harmandi Bouvier, 1901 hat ergeben, daß sich die beiden in Japan verbreiteten Arten C. japonica Ortmann, 1891 (= C. californiensis var. japonica Bouvier, 1901 und C. harmandi Bouvier, 1901) und C. petalura Stimpson, 1860, speziell unter dem Gattungsnamen Callianassa als gute Arten erwiesen haben.

INTRODUCTION

Since 1969 (cf. Sakai, 1969) Callianassa japonica Ortmann, 1891 and C. petalura Stimpson, 1860 have been recognized as common callianassid species of Japan. Recently, however, Manning & Tamaki (1998: 891) reviewed these species and pointed out that C. subterranea var. japonica Ortmann, 1891 [= C. (Trypaea) harmandi sensu De Man, 1928], C. harmandi Bouvier, 1901 [= C. (Trypaea) japonica sensu De Man, 1928], and C. petalura Stimpson 1860, are present in the Japanese callianassid fauna under a new generic name, Nihonotrypaea Manning & Tamaki, 1998. Though it was subsequently pointed out that

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Nihonotrypaea is a synonym of Callianassa (cf. Sakai, 1999: 129), the opinion of Manning & Tamaki (1998) still causes confusion with regard to the common Japanese species of Callianassa. This is because, Tamaki et al. (2000: 182) mentioned three Japanese species of callianassids, under the name Nihonotrypaea, based on the larval development pattern and on the ecospecies concept in larval stages, thus neglecting knowledge of sexual dimorphism in adult and larval stages as well as morphological variation in the cheliped.

METHODS

Two syntypes of these Japanese callianassids, i.e., of C. californiensis var. japonica Bouvier, 1901 and of C. harmandi Bouvier, 1901, lodged in the Muséum National d’Histoire Naturelle, Paris, were examined. However, the holotype of C. subterranea var. japonica Ortmann, 1891 in the Musée Zoologique de l’Université Louis Pasteur & de la Ville de Strasbourg, Strasbourg, turned out to be missing. For this reason, the description of C. subterranea var. japonica Ortmann, 1891 was used for careful comparison with the above-mentioned syntypes in Paris.

Abbreviations include: C, cornea width; EW, eye width; CL, carapace length; CW, carapace width; Z, zoeal stage; MNHN-Th, thalassinid collection of the Muséum National d’Histoire Naturelle, Paris; BLT, Biological Laboratory, Shikoku University, Tokushima; ZLF, Zoological Laboratory, University of Kyushu, Fukuoka.

MATERIAL EXAMINED

(1) MNHN-Th 70, one male (TL/CL 34.0/8.0) with the larger cheliped, which is defined as the male larger cheliped with “the Californiensis-type” (fig. 2C). Registered as C. californiensis var. japonica Bouvier, 1901, syntype, from the surroundings of Tokyo, Japan.

(2) MNHN-Th 80, three males (TL/CL 38.0/8.0; 34.0/7.1; 26.0/6.0), and two females (TL/CL 34.0/7.0; 28.0/5.8); three detached male larger chelipeds, which are defined as the male larger cheliped of “the Harmandi-type” (fig. 2A), and two detached female larger chelipeds (fig. 2B). Registered as C. Harmandi Bouvier, 1901, syntypes, from Tokyo Bay, Japan.

(3) MNHN-Th 437, one male (TL/CL 45.0/11.5) with the larger cheliped of the Harmandi-type (fig. 3E) from Yantai (Chefoo), Shantung Peninsula, East China Sea, China. Registered as C. californiensis var. japonica Bouvier, 1901.

(4) MNHN-Th 496, 21 detached male larger chelipeds of the Harmandi-type (fig. 3A, B, C), and one detached male larger cheliped of the Californiensis-type. Registered as C. japonica Ortmann, 1891, leg. Franck, 1895, from Japan.