

LONGIPEDIA THAILANDENSIS SP. NOV. (COPEPODA, HARPACTICOIDA)
FROM A BRACKISH WATER TREATMENT POND, SAMUT SAKHON,
THAILAND

BY

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ABSTRACT

A new species belonging to the Longipediidae G. O. Sars, 1903 (Copepoda, Harpacticoida) is described from a brackish water treatment pond in Samut Sakhon Province, Thailand. This is the first record of the family Longipediidae from Thailand.

The new species, *Longipedia thailandensis*, is similar to *L. kikuchii* Itô, 1980 and *L. nicholli* Wells, 1980 in carrying a median apical spine on the third segment of the endopod of P2 with a large tooth about midway, in the females. It differs from its congeners in having spinules ventrally, though in general less spinular ornamentation, on the abdomen. The shape and setal length of the female P5 exopod is similar to that of the female of *L. nicholli*, but the minute spinular ornamentation pattern on the anterior surface is different. The latter characters are presumed to be apomorphies of the new species.

RÉSUMÉ

Une nouvelle espèce appartenant à la famille des Longipediidae G. O. Sars, 1903 (Copepoda, Harpacticoida) est décrite d'un bassin de traitement d'eau saumâtre de la province de Sakhon, Thaïlande. C'est la première fois que l'on mentionne la présence de la famille des Longipediidae en Thaïlande.

La nouvelle espèce, *Longipedia thailandensis*, est analogue à *L. kikuchii* Itô, 1980 et *L. nicholli* Wells, 1980 par l'épine apicale médiane portée par le troisième segment de l'endopodite de P2, présentant une grande dent insérée environ en son milieu, chez les femelles. Elle diffère de ses congénères par la présence de spinules ventrales sur l'abdomen, bien que l'ornementation en spinules soit moindre en général. La forme et la longueur des soies de l'exopodite de la P5 femelle sont analogues à celles de *L. nicholli*, mais le patron d'ornementation en minuscules spinules à la surface antérieure est différent. Ces derniers caractères sont supposés être des apomorphies de la nouvelle espèce.

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INTRODUCTION

Species of the monogeneric Longipediidae G. O. Sars, 1903 are unique in having extremely long second legs. The only genus, *Longipedia* Claus, 1862 of this family comprises about 13 valid species (Boxshall & Halsey, 2004). These species have been reported from different regions of the world: *Longipedia americana* Wells, 1980 from the Atlantic coast of North America, Jamaica, and Mexico, *L. andamanica* Wells, 1980 from the Andaman Islands and Japan, *L. brevispinosa* Gurney, 1927 from the Suez Canal, *L. coronata* Claus, 1863 from Iceland, northwestern Europe, and the Mediterranean Sea, *L. corteziensis* Gomez, 2001 from a brackish coastal lagoon in northwestern Mexico, *L. helgolandica* Klie, 1949 from northwestern Europe and S.W. Africa, *L. kikuchii* Itô, 1980 from Japan, India, and Singapore, *L. minor* T. Scott & A. Scott, 1893 from northwestern Europe, the Mediterranean Sea, and the Black Sea, *L. nicholli* Wells, 1980 from Australia, *L. santacruzensis* Mielke, 1979 from the Galapagos Islands, *L. scotti* G. O. Sars, 1903 from northwestern Europe, the Mediterranean Sea, and Mozambique, Australia, and Samoa, *L. spinulosa* Itô, 1981 from Japan, and *L. weberi* A. Scott, 1909 from Japan, the Suez Canal, and the Addu Atoll.

Dahms (2004) hypothesized that there is no reasonable autapomorphy, either from the naupliar or the adult organization, which justifies a monophylum Harpacticoida (sensu Lang, 1948). This implies a paraphyletic condition for this taxon, comprising two independent monophyletic taxa, the Polyarthra and the Oligarthra. As a consequence, Dahms (2004) excluded the Polyarthra from the Harpacticoida, leaving Harpacticoida sensu stricto exclusively represented by the monophylum Oligarthra. Polyarthra were provisionally added as another order of the Copepoda, and the Longipediidae are included in the Polyarthra.

Wells (1980) and Boxshall & Halsey (2004) stated that *Longipedia* is widely distributed, particularly in shallow marine habitats with sandy and muddy sediments, on macroalgae, and in the marine plankton.

This paper describes a new species of Longipediidae from a brackish water treatment pond in the inner Gulf area of central Thailand.

MATERIAL AND METHODS

Sediment samples were collected using a 3.5 cm diameter \times 10 cm length hand corer. The samples were then sieved through a 500 μ m and a 63 μ m sieve. The meiofauna remaining on the latter sieve was fixed for 24 hours in a solution of 10% formalin and Rose Bengal. Copepods were separated, put in vials, and fixed in 6% buffered formalin, and subsequently preserved in ethanol after sorting in the laboratory.