

***Apocyclops ramkhamhaengi* sp. nov. (Copepoda: Cyclopoida) in a Culture Originating from Brackish Waters of Chang Island, Trat Province, Thailand**

Supawadee Chullasorn^{1,*}, Pawana Kangtia¹, Khwanruan Pinkaew², and Frank D. Ferrari³

¹Department of Biology, Faculty of Science, Ramkhamhaeng University, Bangkapi, Bangkok 10240, Thailand

²Institute of Marine Science, Burapha University, Bangsaen, Chonburi Province 20131, Thailand

³IZ/MSC; MRC-534, National Museum of Natural History, Smithsonian Institution, 4210 Silver Hill Rd., Suitland, MD 20746, USA

(Accepted October 31, 2007)

Supawadee Chullasorn, Pawana Kangtia, Khwanruan Pinkaew, and Frank D. Ferrari (2008) *Apocyclops ramkhamhaengi* sp. nov. (Copepoda: Cyclopoida) in a culture originating from brackish waters of Chang Island, Trat Province, Thailand. *Zoological Studies* 47(3): 326-337. A new brackish-water planktonic copepod belonging to the family Cyclopidae of the Copepoda, *Apocyclops ramkhamhaengi* sp. nov., is described from a culture originating off Chang I., Trat Province, Thailand. The new species is the first record of this genus from Thailand and the 4th species of the genus from Asia. Antenna 2 with an endopod of 2 segments separates *A. ramkhamhaengi* sp. nov. from *A. dengizicus* (Lepeshkin). A posterolateral, rounded projection of pediger 4, and a simple line of spinules ventrally on pediger 5 separates *A. ramkhamhaengi* sp. nov. from *A. royi* (Lindberg). A slight posterolateral projection on pediger 3 and a series of ridges dorsally on the basis of maxilla 2 are unique for *A. ramkhamhaengi* sp. nov., and separate it from *A. borneonensis* Lindberg.
<http://zoolstud.sinica.edu.tw/Journals/47.3/326.pdf>

Key words: *Apocyclops ramkhamhaengi*, New species, Thailand.

The cyclopoid copepod family Cyclopidae is a successful and diverse family of over 830 species (Dussart and Defaye 2006) in 62 genera. Within the Cyclopidae, the genus *Apocyclops* belongs to a lineage diagnosed by swimming leg rami whose development is truncated so that both the exopod and endopod have fewer than 3 articulating segments (Ferrari 1998). The endopod of the maxilliped is also truncated during development of species of this genus as well as related genera (Ferrari 1998, Ferrari and Ivanenko 2001). Lindberg (1942) established the subgenus *Cyclops* (*Apocyclops*), and later raised its rank (Lindberg 1955b). There are now 11 nominal species and 3 nominal subspecies, although recent unpublished theses (Arnofsky 1996, Botelho 1999) have noted several synonyms. The genus *Apocyclops* includes species found in continental brackish and

hypersaline waters throughout the world (Arnofsky 1996).

Presently, 3 species of *Apocyclops* are recognized from Asia (Botelho 1999): *A. dengizicus* (Lepeshkin), *A. royi* (Lindberg), and *A. borneonensis* Lindberg. Lepeshkin (1900) described *A. dengizicus* (as *Cyclops dengizicus*) from hypersaline waters of continental central Asia. *Apocyclops royi* was described as *Cyclops* (*Metacyclops*) *royi* from Salsette, an island in the Arabian Sea off the west coast of India (Lindberg 1940). Later, Lindberg (1955a) described *A. borneonensis* from Tarakan, a marshy island situated in the eastern Celebes Sea off the northeastern coast of Borneo. Itô (1957) described *A. japonensis* Itô from eel ponds on Ise Bay in Mie Prefecture, Japan; in the same publication, he introduced the synonym *A. japonicus* Itô. Botelho

*To whom correspondence and reprint requests should be addressed. E-mail: csupawadee@yahoo.com