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Sub-Recent Ostracoda from Bosten Lake, NW China

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In spite of early work by Daday (1903) and by Sars (1903a, b), the Recent and sub-Recent non-marine ostracod faunas of NW China remain poorly known. There is only little information included in later works, which have tended to focus on fossil Tertiary and Quaternary ostracods (e.g. Sun *et al.*, 1999), rather than on Recent or sub-Recent taxa, although Yu & Martens (1997) have presented a very preliminary checklist for China as a whole.

In an attempt to improve this situation, this note reports on ostracods collected from the largest 'freshwater' lake of NW China. Bosten Hu (Lake) (*c.* lat. 42°N, long. 87°E) covers an area of about 1020 km^2 at an altitude of 1048 m above sea-level in an intermontane basin of the Chinese Tianshan Mountains. The lake has an outlet to the Tarim Basin in the south and had a salinity of about 1.0 g l^{-1} in 1950 which increased to 1.5 g l^{-1} in 1978 due to withdrawal of water from the main tributary (Kaidu He) for irrigation purposes. The lake is rather shallow with a maximum depth of 15.7 m, its volume being about 9.9 km^3 (Berkner, 1993).

Sampling of surface mud from the uppermost centimetres of the lake bottom and of plankton samples was carried out along several transects in nearly all parts of the lake. Altogether, 33 samples were collected by a mud grabber or a handnet, and by a diver. Surprisingly, no living specimens were found, although ostracod valves were very abundant in the samples and comprised the following taxa:

Darwinula stevensoni (Brady & Norman, 1870)
Limnocythere inopinata (Baird, 1843)
Cyprideis torosa (Jones, 1850)
Candona candida (O. F. Müller, 1776)
Candona neglecta Sars, 1887
Candona weltneri Hartwig, 1899
Fabaeformiscandona hyalina (Brady & Robertson, 1870)
Pseudocandona cf. *hartwigi* (G. W. Müller, 1900)
Ilyocypris cf. *bradyi* Sars, 1890
Ilyocypris salebrosa Stepanaitys, 1960
Herpetocypris chevreuxi (Sars, 1896)
Heterocypris salina (Brady, 1868)
Cypridopsis vidua (O. F. Müller, 1776)
Sarscypridopsis aculeata (Costa, 1847)

The absence of living ostracods is possibly related to a rapid rise in the lake level and severe eutrophication, the latter the result of inundation of surrounding fields. This is currently under investigation by our group.

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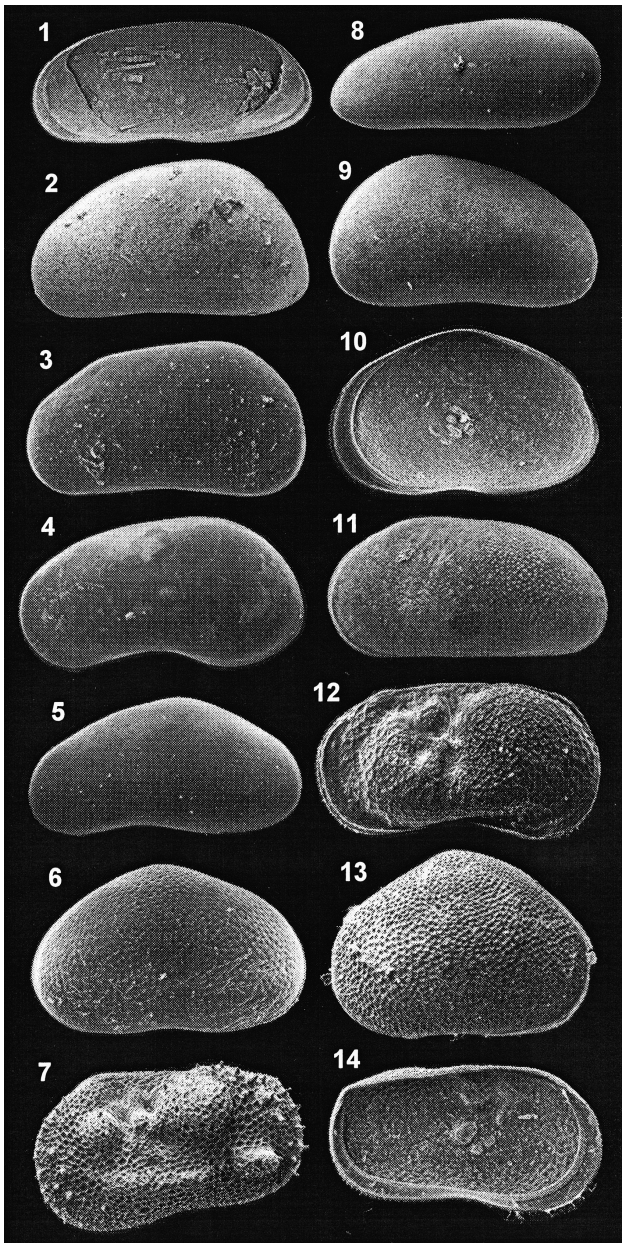

Explanation of Plate 1

Fig. 1. *Herpetocypris chevreuxi,* RV int., length 1960 µm (SM318). **Fig. 2.** *Candona candida,* LV ext., length 1090 µm (SM302). **Fig. 3.** *Pseudocandona* cf. *hartwigi*, LV ext., length 883 µm (SM305). **Fig. 4.** *Candona neglecta*, ♂LV ext., length 1260 µm (SM294). **Fig. 5.** *Fabaeformiscandona hyalina*, ♂LV ext., length 1480 µm (SM208). **Fig. 6.** *Cypridopsis vidua,* LV ext., length 705 µm (SM217). **Fig. 7.** *Ilyocypris salebrosa.* LV ext., length 879 µm (SM224). **Fig. 8.** *Darwinula stevensoni,* LV ext., length 690 µm (SM241). **Fig. 9.** *Candona weltneri,* RV ext., length 1070 µm (SM215). **Fig. 10.** *Heterocypris salina,* RV int., length 1250 µm (SM212). **Fig. 11.** *Cyprideis torosa*, ♂LV ext., length 1000 µm (SM290). **Fig. 12.** *Limnocythere inopinata,* LV ext., length 567 µm (SM244). **Fig. 13.** *Sarscypridopsis aculeata,* LV ext., length 582 µm (SM245). **Fig. 14.** *Ilyocypris* cf. *bradyi,* LV int., length 746 µm (SM236). All specimens housed in the Institute of Palaeontology, Free University of Berlin.