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Mitosis in *Archaeomysis kokuboi* (Mysidae, Crustacea)

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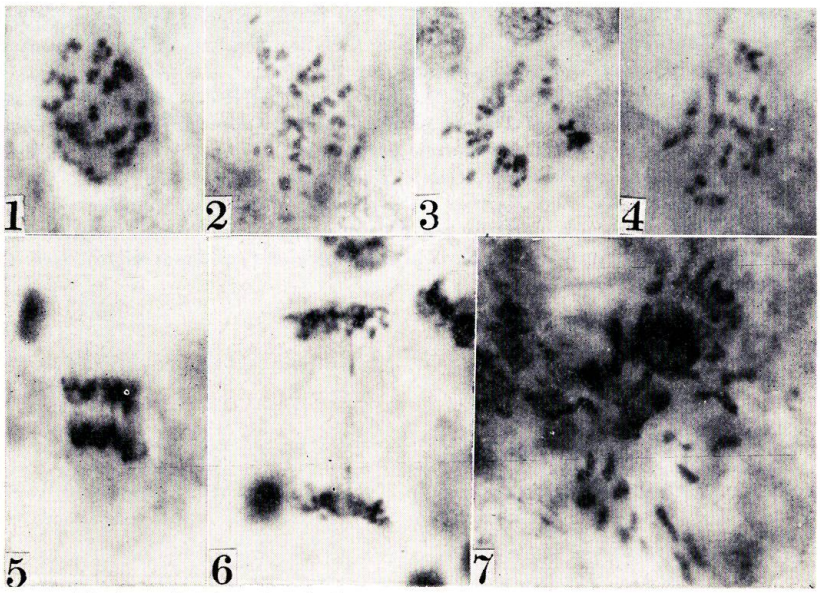
Ecology of a mysid, *Archaeomysis kokuboi*[1] occurring on the shore around Hakodate, Hokkaido, have been studied by the junior author[2]. In our recent cytological study on this species, we succeeded to count approximate number of chromosomes.

The materials were collected on the intertidal zone at the open sandy shore of Nesaki, Hakodate in January, 1981. They were fixed immediately with acetic alcohol (1:3) after catch by a core sampler (basal area 30 cm^2, with 10 cm height) and separated from the sand through mesh of 0.5 mm square opening. The staining was done with the simple squash method recommended by Wittmann[3]. The individuals studied were 11–15 mm in total length in both sexes, and most of them were immature.



Figs. 1–7. Nuclear divisions in *Archaeomysis kokuboi* Ii
1–3. Metaphase in male somatic cells 4. Metaphase in female somatic cell
5. Early anaphse in male somatic cell 6. Mid-anaphase in male somatic cell
7. Metaphase in spermatogonium
Magnification: 1–4, × 1,450; 5, × 1,800; 6, × 1,350; 7, × 1,200.

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The dividing nuclei were found in thoracic appendages and various internal organs. The chromosomes in both sexes showed to have 2n=ca 40 (Figs. 1–3 & 7) including one or two slightly longer chromosomes with occasionally formed chromosome bridge or trail at anaphase (Figs. 5 & 6). All metaphase chromosomes in somatic cells were metacentric, assuming small dummbell- or V-shape. At the polar view of metaphase, the chromosome alignment forms a ring (Fig. 3). The diploid chromosomes in spermatogonia are much larger than in somatic cells and are discernible to differ in size (Fig. 7). No centrosome was detected in any metaphase or anaphase.

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