

Notice on plankton seminar

#06025

09:30-11:30, 15 Jan. (Mon.), 2007. at #N-407

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The effect of temperature on the development of the copepod

*Eucalanus bungii* reared in the laboratory

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*Eucalanus bungii* is a large grazing copepod predominating in the subarctic Pacific Ocean. Mature females of *E. bungii* were caught at Site H in the Oyashio region in March 2006, and brought back to the land laboratory to obtain egg and observations on the effect of temperature to its subsequent development. As food resources, a mixture of phytoplankton (*Prorocentrum* sp. *Phaeodactylum tricornutum*, *Chaetoceros gracilis* and *Isochrysis* sp.) was provided in a final concentration of  $1 \times 10^4$  cells ml<sup>-1</sup>. At 5 graded temperature between 2.5 and 10°C, egg hatching time decreased with increase of temperature from 2.2 to 4.3 days, and naupliar development time, from 23 to 53 days. Egg hatching success (57-77%) was not affected by the temperature. For copepodid stages, mortality increased suddenly beyond C4; among 57 C1 specimens 11 specimens reached C5 and only 2 specimens reached C6. The effect of temperature on the development time of each copepodid stage was expressed as Bélehraděk function, and results are compared with those of wild populations of this species in the Oyashio region.

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