

Hatching Season and Growth of *Pleuragramma antacticum* Larvae near the Antarctic Peninsula as Indicated by Growth Increments in Otoliths

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ABSTRACT. Hatching season and larval growth of *Pleuragramma antacticum* in the water off Antarctic Peninsula were determined by the examination of growth increments in otoliths. The samples were collected by Bongo net or MOCNESS from December 1993 through January 1994. *P. antacticum* was predominated (54 inds. out of 77 fish larvae) in ichthyoplankton samples, and occurred mainly in the cold water of Weddell Sea. Body length of *P. antacticum* ranged from 12.0 to 67.3 mm showing a three size groups. Otolith radii (R) ranged from 150 to 260 μm , and linearly related to body size (L); $R = -43.6 + 5.99 L$ ($r^2=0.79$). The mean size of otolith cores was about 50 μm in diameter. The width of the growth increments was narrow near the core, but it became broader showing a peak at around 50th increments (ca. 1.3 μm). However, it decreased thereafter toward the edge maintaining the size of ca. 0.5 μm . Assuming that the growth increments were deposited daily after hatching *P. antacticum* hatched from June to July. With the samples we examined, we speculate that there exists two hatching periods for *P. antacticum*. The large larvae (40-50 mm) hatched in winter (June-July), while the small larvae were hatched in early summer (December).

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