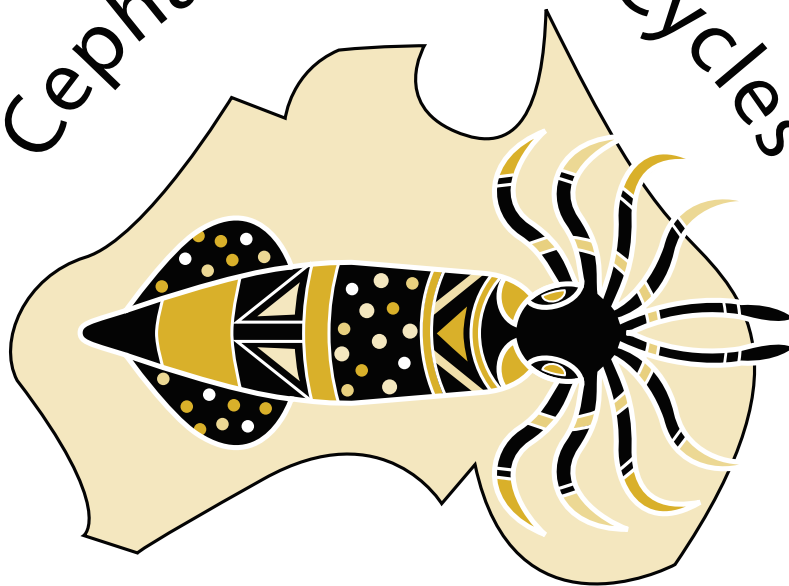


Cephalopod Life Cycles



CIAC '06, Hobart

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Program & Abstract Book

The life cycle of the Japanese pygmy squid, *Idiosepius paradoxus*.

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The life cycle of the Japanese pygmy squid, *Idiosepius paradoxus*, was investigated based on analyses of growth and age. Ten specimens of each sex collected monthly with a small drag net (mesh of 1.5 mm) in Ise Bay (central Honshu Island) were examined. The dorsal mantle length (ML) and wet body weight (BW) of each specimen were measured after preservation in 100% ethanol, and statolith increments were counted. The average ML and BW of males and females increased from November (ML: 5.3mm and 7.1mm, BW: 0.04g and 0.08g) to April (ML: 9.9mm and 13.3mm, BW: 0.10g and 0.23g). The average age also increased from about 60 days in November to about 170 days in April. The age composition each month was unimodal, and the maximum daily age was 183 days, which support previous reports that *I. paradoxus* has a 6-month life span.

Metals and metalloids in *Octopus vulgaris* tissues

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We quantified levels of 17 metals and metalloids (potassium, calcium, titanium, vanadium, chromium, manganese, iron, cobalt, nickel, copper, zinc, arsenic, selenium, rubidium, strontium, molybdenum and lead) in several tissues (digestive gland, branchial hearts, gills, mantle and arms) of common octopus (*Octopus vulgaris*) at three locations along the Portuguese coast, during the two seasons of the year (autumn and spring). The technique used in these determinations was Particle Induction X-ray Emission (PIXE). We carried out a multivariate analysis of patterns of variation in metal concentration and relationships between levels of different metals to studied the behaviour of elements between them and with explanatory variables such as weight, maturation state, sex, localities and seasons.