

**LIFE CYCLE OF THE JAPANESE PYGMY SQUID *IDIOSEPIUS PARADOXUS*
(CEPHALOPODA: IDIOSEPIIDAE) IN THE *ZOSTERA* BEDS OF THE TEMPERATE
COAST OF CENTRAL HONSHU, JAPAN**

Takashi Kasugai¹ and Susumu Segawa²

¹*Port of Nagoya Public Aquarium, Nagoya, 455-0033, Japan*

²*Laboratory of the Invertebrate Zoology, Tokyo University of Fisheries, Minato-ku,
Tokyo 108-8477, Japan*

ABSTRACT: The life cycle of the Japanese pygmy squid, *Idiosepius paradoxus*, was studied in the *Zostera* beds of the temperate coast of central Honshu, Japan. *Idiosepius paradoxus* was collected monthly from January 1998 to December 1999. This species was sexually dimorphic with females considerably larger than males. The adult size of this species changed with seasons. The small sized generation appeared in the warm season from late spring to early autumn. In the warm season, mature males with spermatophores in the Needham's sac began to appear from late spring, and mature females with ripe eggs appeared from early summer. In the cool season from late autumn to early spring, the individuals appeared to grow slower and larger, with sexual maturity by spring. Although the individuals in the late autumn were larger than those of the warm season, they were not sexually mature. In the present study area, the larger sized generation passed winter matured and spawned at next spring, and moreover, the small sized generation in the warm season matured from late spring to early autumn. In conclusion, it was suggested that *Idiosepius paradoxus* have at least two generations within one year.