

北太平洋のアカイカ系群の生物学的指標としての寄生虫  
(要旨)

Parasites as Biological Tags of Stocks of Neon Flying Squid (*Ommastrephes bartami*) in the North Pacific Ocean (Abstract)

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The stock structure of neon flying squid (*Ommastrephes bartami*) in the North Pacific Ocean was examined by using parasites as biological indicators. A total of 1,516 neon flying squid was collected over an extensive area (24 °-47 ° N, 147 ° E-135 ° W) of the North Pacific Ocean from January to October during 1991-1995. These squid were examined for the occurrence of the following helminth parasites: ascarid third-stage larvae of *Lappetascaris* sp. Type A in the musculature of the mantle; tetraphyllidean metacestodes of *Phyllobothrium* sp. in the lumen of the caecum; *Tentacularia* sp. on the inner surface of the mantle. The area of capsules formed by ascarid third-stage larvae of *Lappetascaris* sp. Type B on the stomach wall was also recorded as an indication of intensity of infection. As the North Pacific

neon flying squid consists of two cohorts (i.e., winter-spring cohort and autumn cohort), levels of intensity of infection with each parasite in both cohorts were statistically compared between the western (west of 170 ° E), central (170 ° E-160 ° W), and eastern (east of 160 ° W) regions of the North Pacific Ocean (north of 35 ° N). Based on this analysis, the winter-spring cohort is separated into two stocks: the western North Pacific stock and the central-eastern North Pacific stock. The border of the distribution range of these stock is 170 ° E. It is impossible to separate the latter stock into small regional groups, due to the small sample size from the eastern region. The autumn cohort is divided into two stocks: the central North Pacific stock and the eastern North Pacific stock, which occur west and east of 160 ° W, respectively.