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Stomach contents of the southern rough shrimp *Trachysalambria curvirostris* (Stimpson) in the coastal area of Yeosu, Korea

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Introduction

The southern rough shrimp, *Trachysalambria curvirostris* (Stimpson 1860) (formerly known as *Trachypenaeus curvirostris*) occur in the East China Sea, Korea and Japan to China(Kubo, 1949; Paulinose, 1982), and is locally abundant species in the coastal areas of Korea(Kim, 1977).

The main investigations into diets of shrimps have been on the Penaeidae(Chong & Sasekumar, 1991; Wassenberg & Hill, 1993), Crangonidae(Pihl & Rosenberg, 1984; Allen, 1966; Boddeke et al., 1986).

The present study aimed to provide understanding of some of the such aspects in relation to the autecology of *Trachysalambria curvirostris* in a benthic habitat.

Materials and Methods

Trachysalambria curvirostris were collected in trawls in the vicinity Sorido, off Yeosu(Sourthern Korea), at depths between 10 and 30m.

Samples were taken from June 2000 to May 2001, and data were compiled for seasons of each year. Specimens of *Trachysalambria curvirostris* were fixed in 4% neutralised formalin and, after 24h, stored in 70% alcohol. Stomach contents of *Trachysalambria curvirostris* were identified in 393 individuals. Stomach contents were identified to lowest possible taxonomic level. The frequency of occurrence (F) and relative abundance (A) for each type of prey were estimated by means of the following equation:

$$\%F = (n_i/N)\times 100$$

$$\%A = (S_i/S_t)\times 100$$

where n_i is the number of shrimps with prey i in their stomach, N the total number

of shrimps with stomach contents, S_i the number of prey i and S_t the total number of prey items.

Results and Discussion

The diet of southern rough shrimp *Trachysalambria curvirostris* (Stimpson 1860) was studied in the coastal area of Yeosu(southern Korea) by analysis of stomach contents, with comparison by season and size class of diet composition and prey diversity.

Mysids and amphipods together constituted the dominant prey, accounting for >40% of the diet in both percent occurrence and percent abundance. Mysids were most important irrespective of season, size class, or sex.

In order to integrate the study of food preferences of *Trachysalambria curvirostris* with the structure of some organs involved in feeding, a morphological analysis was conducted using a scanning electron microscope (SEM). In *T. curvirostris* the mandibular structure has features typical of carnivorous species.

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