TS 12

A GREGARINE FROM THE LARVA OF PROTOHERMES GRANDIS THUNBERG

Only three species of gregarines have been reported from Neuroptera insects until now. But no gregarines reported from Japanese Neuroptera. During the study on the infection of gregarines to the aquatic insects, we found that Protohermes grandis larva is infected with gregarine. The gamont and gametocytes were found in the mid intestine of the host. The gamont is solitary and two indivudals come together just before the gametocyte formation. They attach to gather head-to-head. The shape of the gamont is cylindrical, the widest at just behind the septum and gradually tapered to the posterior end. The nucleus is spherical and 21 μm in diameter. It has three nucleoli and is at the middle of the deutomerite. The gametocyst is spherical and 150 μm in diameter. The oocyst is barrel-shaped and discharged by simple rupture. The average size and the ratio of gamont showed the flowing TL: 162.2, L/26.5, LD:135.7, WP:46.1, WD:46.7. The distribution of the body size of gamonts are rich in variety in all seasons. The lifecycle of this gregarine is comparatively short and repeat itself in a yearly. The fine structure of the gamont is studied by TEM. A strange reticulum-like structure is found near the septum but the function of it is unknown.

TS 13

A NEW TYPE OF THE HOST-PARASITE RELATIONSHIP IN THE ORTHONECTID MESOZOANS.

Morphological features of the second species of the genus Rhopalura from the Pacific are discussed. The host of the species is an unknown turbellarian of the genus Nematoophas (Proseriata, Nematoophasidae) which collected in September 1988 from Jackon Beach of San Juan Island, Washington, USA. The female is somewhat cylindrical, tapering anteriorly and posteriorly, and 72 in 92 μm long by 23 μm wide. The somatoderm consists of about 30 annuli; a cilia-free smaller annulus alternates with a ciliated larger one which includes dark and fine granules. Within the body about 20 oocytes are arranged in a column. The male, uncertain in shape, is found to be embedded in the parenchyma of the host, measuring 8 μm in diameter. The general features of the species remind of those in Rhopalura leptoplane and Rh. linei. The species in question, however, is distinguishable from any other Rhopalura-species not only in the arrangement of the granulous annuli of the somatoderm. It is also characterized as the smallest species in the family Rhopaluridae. Comparison with the other host species of the orthoncetids reveals that the Turbellarians have a broader tolerance for the orthoncetids than the hosts of the other phyla.

TS 14

REVISION OF ALPHEUS BREVIROSTRIS (OLIVIER, 1811)
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A. brevirostris has been known only by the holotype (MNHN) from Australia. In the present study, 7 specimens referable to this species are found: Male (55mm long), WM242-65, northwestern Australia. Male (56.5mm), RMNH, Irian Jaya. Holotype (fragments), ANSP CA246, Manila and 2 others (43, 43.4mm) from Philippines, USNM 240215, 240216 of A. dispar Randall, 1984. Types, male (50.3 mm) and female (63.2mm), ZMA, of Alpheus brevirostris angustodigitus De Man, 1911. East coast of Kalimantan. Although DM & All Banner (1982) suspected Alpheus brevirostris as an aberrant form of Alpheus distingueus De Man, 1909=A. digitalis De Haan, 1844, this study and my long examination of A. digeris from Java make me doubt the realitly of their suspicion. A. brevirostris seems to be a good species. It can be distinguished by having a transverse groove on the head near large chela; the spoon-shaped small chela of the male with the medial face of palm convex and sloping to the dactylus articulation; the sharp rostral carina reaching at most the anterior third of carapace; and the scaphocerite generally very slender and curved laterally.

TS 15

VALIDITY OF SAKAINA YOKOYAI (GLASSELL) (CRUSTacea: PINNOHERIDAE) FROM NORTHERN JAPAN.

The genus Sakaina Serène, 1964 is represented by the following four Japanese and one Korean species: S. yokoyai (Glassell, 1933) from off Shunobune, Mutsu Bay, S. asiatica (Sakai, 1933) from Izu Shimoda and Kii Nagashima, S. japonica Serène, 1964, the type species, ranging from the Japan Sea coast of Hokkaido to the west coast of Kyushu along the Pacific side of Honshu, S. incisa Sakai, 1969 from Manazuru and Kii Minabe, and S. koreenis Kim et Sakai, 1972 from Impo Dolsan-do Island, Korea. Among them, S. yokoyai has been known only by a female specimen which was described and figured by Yokoga (1928) under the name of Parapinnixa affinis Holmes and later renamed by Glassell (1933). During the recent field survey along the Okhotsk coast of Hokkaido we collected many specimens of both sexes referable to this species. The general shape of the carapace, chelipeds and ambulatory legs is very close to that of S. japonica, but the carapace is proportionally narrower in both sexes (CW/CL=1.45 in male, 1.60 in female), and the terminal segment of male abdomen is strongly widened distally, with weakly concave distal margin, differing from that of S. japonica which is oblong, with truncated distal margin.

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