



**A variety of interactions
in the marine environment**

**ABSTRACTS VOLUME
FROM 49TH EUROPEAN
MARINE BIOLOGY SYMPOSIUM**

September 8–12, 2014
St. Petersburg, Russia

Zoological Institute Russian Academy of Sciences

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WELCOME

Dear Participants,

Zoological Institute RAS is pleased to welcome all of you in St. Petersburg, Russia at 49th EMBS. More than 200 scientists from 30 countries will participate at the Symposium presenting more than 70 oral talks and about 100 posters.

We hope you enjoy the meeting and it will stimulate new ideas and investigations in the field of marine biology. We hope also that you will keep a splendid memory from the wonderful city of St. Petersburg.

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evidence for a spill-over effect of the parasitic copepod *Mytilicola orientalis* from oyster to mussels, however evidence for spill-back and dilution effects on shell-boring polychaetes and trematodes were less apparent. In addition, we found the infection levels of parasites in both mussel and oyster hosts to be more similar within beds than among beds, indicating that the effect of the invader on native-parasite host systems mainly acts on local spatial scales. The implications of the observed spill-over to native hosts are further illustrated with pre-liminary results of studies on the impact of infections on native hosts

ON THE FOOD OF THE ANTARCTIC SEA ANEMONE *URTICINOPSIS ANTARCTICA* CARLGREN, 1927 (ACTINIIDAE, ACTINIARIA, AN- THOZOA)

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During the study of variability of the taxonomically important anatomical features of *Urticinopsis antarctica*, remains of some invertebrate animals and fishes were found in gastral cavity. Some of them were quite digested, others were, to the contrary, quite intact.

The species belongs to the most common and plentiful sea anemones of the Antarctic coast, therefore it is good represented in the collection of Zoological Institute. Our research and data published before show that the species is widespread in Antarctic and Sub Antarctic waters. It was recorded from McMurdo Bay (Verrill, 1922; Carlgren, 1927), South Shetland Islands, Prudz Bay (Sodruzhestva Sea), Cosmonauts Sea, Haswell Archipelago (Davis Sea) (Grebelnyi, 1975). But only few specimens of *Urticinopsis antarctica* contained eaten animals. Three anemones had in gastric cavity the remains of invertebrate animals and one had the remains of a fish, rather damaged by digestion. To all appearance they could be considered as food items for our sea anemone. To this group we should refer two mollusks *Laevilacunaria pumilia* Smith, 1879 и *Eatoniella caliginosa* Smith, 1875 (Gastropoda; 56 RAE, King George Isl., 4 m), a single specimen of crinoids (Crinoidea; "Polarstern" 39-th cruise, Weddell Sea, 504–529 m), spines of the sea-urchin *Sterechinus neumayeri* Meissner, 1900 (Echinoidea, 56 RAE, King George Isl., 4 m), a small ophiuroid *Ophiurolepis ?brevirima* Mortensen, 1936, a piece of arm of larger brittle star *?Ophiuroglypha carinifera* (Koehler, 1901) (Ophiuroidea; "Polarstern" 39-th cruise, Weddell Sea, 504–529 m), and fish bones (probably *Trematomus* sp., Nototheniidae; 54 RAE, Prudz Bay, 4–5 m).

In contrast to all foregoing animals, three specimens of side-swimmers or scuds *?Conicostoma* sp. (Amphipoda; "Polarstern" 39-th cruise, Weddell Sea, 504–529 m) were not in the least spoiled by digestion. It is possible that they are not object of feed, but may be they are symbionts or commensals, or even parasites, that live in gastric cavity of the anemones. It is the specialists on amphipods who emphasize the attention on the unusual structure of their mouth organs and expressed assumption about symbiotic nature of these amphipods (Lowry and Stoddart, 1983).

The predatory feeding habits of *Urticinopsis antarctica* was confirmed by observations of research-drivers, participants of Soviet Antarctic expeditions. Reportedly B. I. Sirenko, series of sea-urchin shells frequently surround large specimens of *Urticinopsis antarctica*. Moreover, direct experiments of A. F. Pushkin confirm, that anemones can digest big sea-urchins in few days. Study of the stinging capsules set of *U. antarctica* showed, that sometimes the capsules typical for scyphozoan medusas, which are for sea anemones kleptocnids (stolen nematocysts), occur in endodermal epithelium of the pharynx (Grebelnyi, personal communication). According to data of the British researchers 21% of *Urticinopsis antarctica* diet constitute medusas (Dayton, Robilliard and Paine in Holdgate, 1970). These authors also ascertained that the sea stars *Perknaster fuscus antarcticus*, *Odontaster validus*, *Diplasterias brucei* often fall a prey to this sea anemone.

All data available show that the most common and abundant in Antarctic shallow waters sea anemone *Urticinopsis antarctica* doesn't show any manifest preferences in feed, and eats any benthic animals and jellyfishes. Moreover, according to British researchers, cannibalism is also usual for this species (Dayton, Robilliard and Paine in Holdgate, 1970, fig. 4).

The following taxonomists of Zoological Institute RAN, St. Petersburg, have readily helped us identify animals: E. N. Egorova, Mollusca; A. V. Smirnov, Crinoidea and Echinoidea; I. S. Smirnov, Ophiuroidea; S. A. Malyavin, Amphipoda; and A. V. Neelov, Pisces.

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