Taxonomy and Ecology of Metazoan Parasites of Alien Freshwater Fishes in Japan

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The phenomenon of biological invasion has been documented in recent years from many countries around the world. When introducing new species including fish will follow its parasites, thus forming a sort of biotic unit. Three species of tilapia was introduced to Japan since 1960 and it shown contamination of parasites. Based on 1,329 blue gill which were collected from Hokaido to Okinawa Prefecture (49 locations) were found five metazoan ectoparasites. These parasites compress to three monogeneans and two copepods.

The tilapia species was infected by monogeneans which different level and Onchocleidus dispar demonstrated the highest prevalence, following by O. ferox and Actinocleidus fergusson. In case in Budo Reservoir in Hiroshima University, O. ferox was found to be a dominant species, followed by O. disparate and A. fergusoni. In this reservoir, both of O. ferox and A. fergusoni showed clear seasonal patterns in their infection level, but no such patterns were found in O. disparate.

As a conclusion, the seasonal change in mean abundance and egg sac production of this parasites in this region differ from that reported in temperate Hiroshima Prefecture and is not synchronized with the seasonal change in surface water temperature measured at sampling site.