

2. The effects of the parasite of *O. lutaria* are described and compared with what is known regarding bucephalid infections in other species of bivalve molluscs. Infected oysters can be divided into three categories depending on the macroscopic appearance of the visceral mass: in lightly infected specimens it is milky-white due to the presence of both hermaphrodite follicles and a few sporocysts; in moderately-heavily infected specimens it is milky-white (but occasionally gelatinous near the dorsal region) due entirely to sporocysts; and in heavily infected specimens it is yellowish, gelatinous, and reduced in size. The adductor muscle becomes less effective as the infection becomes heavier. Seasonality in the intensity of the infection and the results of mortality experiments show that death of a majority of infected oysters occurs although it is considered that death may only be indirectly caused by the effects of *B. longicornutus* in many instances. It is suggested that *B. longicornutus* may be responsible for the decline in catch/effort for the Foveaux Strait oyster beds.

3. A haplosporidian hyperparasite, *Urosporidium constantae* n.sp., is described from sporocysts of infected oysters obtained from north of Tasman Bay. It is found to cause total mortality of cercarial embryos. The possibilities of *U. constantae* as a biological control for the parasite in Foveaux Strait may present ecological difficulties and collection problems from the type locality.

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