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3.2.3 BACTERIAL NECROSIS OF MACROBRACHIUM  
LARVAE

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COMMON NAME: Bacterial necrosis

SPECIES  
AFFECTED: Fresh-water shrimp, Macrobrachium  
rosenbergii.

GROSS SIGNS: Necrosis of appendages, especially the  
antennae and the abdominal appendages.

CAUSE: Unknown, but probably involves several  
different genera of bacteria.

METHOD OF  
DIAGNOSIS: Microscopic examination.

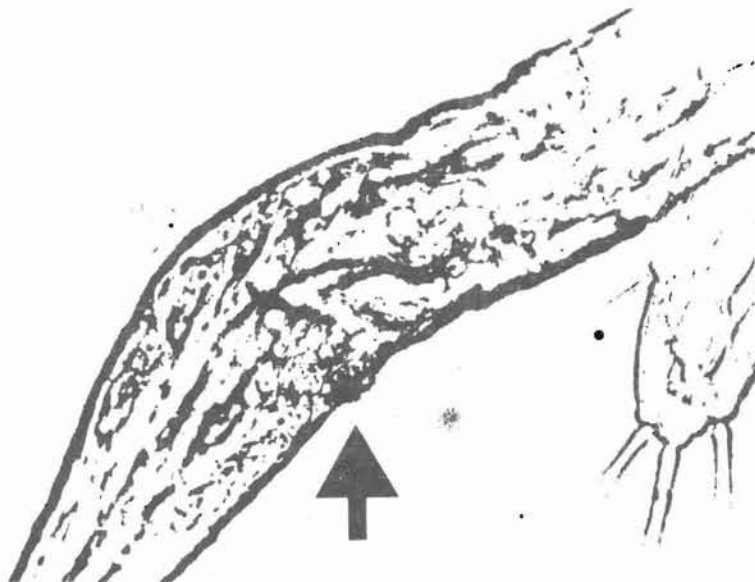


Fig.37 . Early stage of bacterial necrosis of  
Macrobrachium larvae.

BACTERIAL NECROSIS OF FRESH-  
WATER SHRIMP LARVAE

- LIFE HISTORY, BIOLOGY, EPIZOOTIOLOGY: Increase in total number of bacteria in the rearing tank is favored by crowding conditions (100 larvae/liter), and by fresh food distributed to the larvae.
- EFFECT ON HOST: The attack of the bacteria can be localized to one appendage or two and then, rapidly kill the larvae. Sudden changes in the temperature of the rearing water or manipulation of larvae will lower their resistance. If an antibiotic treatment is done, regeneration of the diseased appendage will signal recovery of the larvae.
- TREATMENT: Different antibiotics have given good results:  
Penicillin-streptomycin: 2 MUI, 2 g/m<sup>3</sup>  
Erythromycin : 0,65 ppm  
Furanace : 7 ppm
- PREVENTIVE MEASURES: Careful daily examination permits a preventive antibiotic treatment if it is necessary. Reduce thermal and physical stress to the larvae.
- KNOWN GEOGRAPHIC DISTRIBUTION: Thus far reported only from culture operations in French Polynesia.
- NOTE: This section was prepared by Dr. J. F. Le Bitoux, Centre Oceanologique du Pacifique, CNEXO, Vairao, Tahiti, utilizing still unpublished results of studies underway there.
- KEY REFERENCES:
- Aquacop. 1976. First observations on the diseases of crustacean culture in a tropical area. (In Preparation).