

COULD *Mikrocytos roughleyi* BE A MIS-CLASSIFIED HAPLOSPORIDIAN?

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Bonamiosis refers to diseases of oysters caused by *Bonamia ostreae* in the Northern Hemisphere and *Bonamia* sp. in the Southern Hemisphere. Similarly, Mikrocytosis usually refers to diseases of oysters caused by *Mikrocytos mackini* on the west coast of Canada and *Mikrocytos roughleyi* on the east coast of Australia.

Mikrocells, the aetiological agents of these diseases, are small and because of their size, they cannot be identified using light microscopy. Lesions may vary according to species affected, although it remains a poor help in discriminating mikrocell organisms. The complexity of this group makes necessary the use ultrastructural and molecular characterisation in order to compare mikrocells and clarify their taxonomic relationships.

Ultrastructural analysis demonstrated that *Mikrocytos roughleyi* shares some of the characteristic features of the genus *Bonamia*. Moreover, the 951 bp sequence of the SSU rDNA gene cluster of *M. roughleyi* showed similarity with the phylum Haplosporidia. Alignment with *Bonamia ostreae* and *Bonamia* sp. sequences revealed respectively 95.21% and 98.44% of homology. Using specific *Bonamia* genus PCR primers, and restriction fragment length polymorphism (RFLP), it was possible to obtain a specific pattern for each of these three parasites. Further research on the ITS region is needed to design species specific DNA tools.