

1.16. Characterisation of *Crassostrea gigas* after restriction endonucleases treatments

A. Leitão^{1,2}, S. Santos¹, R. Chaves¹,
H. Guedes-Pinto¹, P. Boudry²

¹ *Center of Genetics and Biotechnology, ICETA-UTAD, University of Trás-os-Montes e Alto Douro, Vila Real, Portugal*

² *Laboratory of Genetics and Pathology, Station de l'Institut Français pour la Recherche et l'Exploitation de la Mer ^{IFREMER}, 17390 La Tremblade, France*

Genetic research in oysters is hampered by the lack of reliable techniques for chromosome banding. In this study, we have carried out the cytogenetical characterisation of the pacific oyster *Crassostrea gigas* ($2n=20$) using restriction endonucleases treatments. Chromosomes were treated with 3 different restriction enzymes, stained with Giemsa, and examined for banding patterns. The treatment of samples with *Apa*I, *Hae*III and *Pst*I restriction endonucleases produced specific banding patterns, which demonstrate the potential of endonucleases for chromosome banding in oysters. This is far more important since it has been recently shown in mammals that restriction enzyme banding is compatible with fluorescent *in situ* hybridisation (FISH). This study provides then a fundamental step in genome mapping of oysters, since the chromosome banding with restriction enzymes will facilitate physical mapping of genes in this important culture species.

Acknowledgement

This work was partially supported by a Portuguese grant from the Ministry of Science and Technology (FCT): SFRH/BPD/1582-2000 and in the context of a ICCTI-IFREMER collaboration.