

## **C-banding in the oysters *Crassostrea gigas* and *Ostrea edulis***

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Chromosomes of Ostreidae show a common diploid number of  $2n=20$ . Interspecific differences consist essentially of the occurrence and different proportions of metacentric and submetacentric chromosome pairs. Oyster species might have become differentiated through pericentric inversion or centric shifts. However, despite the efforts of both morphologists and geneticists to resolve phylogenetic relationships among oysters, there remains considerable confusion over species recognition and taxonomic relationships among Ostreidae. In fact, comparison of karyotypes among species to reveal possible intra- and interspecific differences and/or homologies without application of chromosome banding methods is very difficult. Although banding techniques have become an essential part of cytogenetic analysis, few studies have been reported in the literature concerning banding and banding pattern in bivalve molluscs. In this study the C-banding technique for the heterochromatin was applied to chromosome preparations from gill tissues of two species of oysters: *Crassostrea gigas* (the Pacific oyster) and *Ostrea edulis* (the European flat oyster). Knowing that the difference in the amount and location of heterochromatin is one of the mechanisms of chromosome differentiation, the comparative analysis of the results obtained here

for the first time in both species offers a new approach to resolve problems in oyster taxonomy and genetics.