

## A comparative field study of growth, survival and reproduction of



This paper reports a comparative study of two cupped oysters, *Crassostrea gigas* and *C. angulata*, and their hybrids reared in the Marennes-Oléron Sound (France) under usual farming conditions. The relative proficiency of these species was characterized in terms of growth, survival and reproduction, three major concerns for oyster farming. Four populations of each taxon were sampled (*C. gigas*: Japan and France; *C. angulata*: Taiwan and Spain) and used as progenitors to produce six different progenies under common hatchery and nursery conditions (transfer of 5 to 6 g of seed oysters at sea and rearing in bags for 2 years). Mortality profiles differed greatly among the progenies. The *C. angulata* progeny of Taiwanese origin gave the poorest results, with 100% mortality during the second year. For the entire rearing period, the highest yield (+22%) was obtained with the *C. gigas* progeny of French origin. The sexual maturation index, lipid cycles and dry weight loss after spawning showed that spawning of *C. angulata* was delayed by about two weeks compared to that of *C. gigas*. A clear maternal effect was observed for the growth and reproductive

characteristics of the hybrids. On the whole, *C. gigas* of French origin gave the best aquacultural results. However, severe episodes of *C. gigas* mortality have been observed in France in recent years, indicating that this species might not be entirely suitable for sustained oyster farming in this country.

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**Obtenir le document :** EDP Sciences

**Mots clés :** Oyster farming, Hybrids, Phenotypes, Atlantic coast

**Thème (issu du Text Mining) :** SCIENCES EXACTES SCIENCES HUMAINES, MILIEU NATUREL

**Date :** 2002-09-15

**Format :** text/xml

**Source :** [https://doi.org/10.1016/S0990-7440\(02\)01175-0](https://doi.org/10.1016/S0990-7440(02)01175-0)

**Langue :** Anglais

**Télécharger les documents :** [https://www.alr-journal.org/10.1016/S0990-7440\(02\)01175-0/pdf](https://www.alr-journal.org/10.1016/S0990-7440(02)01175-0/pdf)

**Permalien :** <https://www.documentation.eauetbiodiversite.fr/notice/a-comparative-field-study-of-growth-survival-and-reproduction-of0>

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