

# Genetic composition of *Mytilus* species in mussel populations from southern Chile

## Composición genética de especies de *Mytilus* en poblaciones de mejillón del sur de Chile

Larraín, María Angélica

Díaz, Nelson F.

Lamas, Carmen

Vargas, Carlos

Araneda, Cristián

Mussels are one of the most cultivated and commercialized bivalves worldwide and in southern Chile its culture represent an important economic activity. The species identification within the *Mytilus* genera, by morphological features, is unreliable, so we used a polymorphism RFLP in the gene encoding the polyphenolic adhesive protein as a species-specific genetic marker to describe *Mytilus* species diversity in southern Chile, and evaluate possible applications in traceability, food quality and safety. Using Me 15-16 marker most mussels were *M. chilensis*, finding no other pure individuals; however, putative hybrids of *M. chilensis* × *M. trossulus* and *M. chilensis* × *M. galloprovincialis* were detected. There was no evidence of *M. edulis*. The presence of the *M. trossulus* allele, faraway from its distribution area, demands further analysis with different genetic markers to allow a better understanding of its origin. In addition, the correspondence between markers that distinguishes northern f