

# Limited selection of sodium channel blocking toxin-producing bacteria from paralytic shellfish toxin-contaminated mussels (*Aulacomya ater*)

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Paralytic shellfish toxins (PSTs) are sodium channel blocking (SCB) toxins, produced by cyanobacteria, as well as by marine dinoflagellates and their associated bacteria, and cause serious health and economic concern worldwide. In a previous study, approximately 70% of the bacteria enriched from PST-contaminated shellfish tissue and isolated on marine agar medium were observed to produce SCB toxins. In the study reported here, the high percentage of cultivable toxigenic bacteria is demonstrated to be obtained through a marked selection on marine agar medium. The cultivable as well as the total bacterial diversity associated with PST-contaminated shellfish collected from the Magallanes region in the south of Chile has been analysed.

Approximately 80% of bacterial isolates, analysed by restriction analysis of PCR amplified ribosomal DNA (i.e., ARDRA fingerprinting), were limited to only two genotypic OTUs (operational taxonomic unit). Sequence determination and analysis of the 16S rDNA f