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## Paralytic shellfish toxin profile in strains of the dinoflagellate *Gymnodium cataenatum* and the scallop *Argopecten ventricosus* G.B. Sowerby II from Bahía Concepción, Gulf of California, Mexico

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*Gymnodinium catenatum* Graham is a paralytic shellfish poison (PSP) producer that was described for the first time from the Gulf of California in 1943. During the last decade, its distribution along the Mexican Pacific coastline has increased. In Bahía Concepción, a coastal lagoon on the western side of the Gulf of California, *G. catenatum* has been linked to significant PSP concentrations found in mollusks. In this study, we describe the saxitoxin profile of 16 strains of *G. catenatum*, and catarina scallops (*Argopecten ventricosus*) from Bahía Concepción. Toxins were analyzed by HPLC with post-column oxidation and fluorescence detection. The average toxicity of the *G. catenatum* strains was  $26.0 \pm 6.0$  pg and  $28.0 \pm 18.0$  pg STX eq/cell after 17 and 22 days of growth, respectively. Ten toxins were recorded, but only dcSTX, dcGTX2, dcGTX3, C1, and C2 were always present in all strains at both growth stages. Since toxin profiles in scallops were similar to the cultures, biotransformations are not significant in catarina scallop. NeoSTX, GTX2, GTX3, and B2 were present in some *G. catenatum* strains and their presence varied with the age of the culture. In scallop samples, dcSTX, dcGTX2, and dcGTX3 were the most abundant toxins, and from the C-toxin group, only C2 was found. This unique toxin profile can be used as a biomarker for this population, when compared with strains of *G. catenatum* from other geographic regions.

Palabras clave: Specialist, *Argopecten ventricosus*, Bahía de Acapulco, dinoflagellate, Paralytic shellfish poisoning, Scallop

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