

Accumulation of paralytic shellfish poisoning toxins in the bivalve *Aulacomya ater* and two carnivorous gastropods *concholepas concholepas* and *Argobuccinum ranelliformes* during an *Alexandrium catenella* bloom in Southern Chile

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In the early fall of 1996, a bloom of the toxic dinoflagellate *Alexandrium catenella* occurred in a fjord in the southern part of Chile that resulted in very high levels of paralytic shellfish poisoning (PSP) toxicity (up to 113,259 μ g of STX Eq/100 g) in shellfish in this area. The specific toxicity and PSP-toxin profiles within one series of filter-feeding bivalve mollusc (*Aulacomya ater*) and two carnivorous gastropods (*Concholepas concholepas* and *Argobuccinum ranelliformes*) were determined in whole shellfish or, in the case of the gastropods, separately in the digestive gland and foot muscle tissues by a postcolumn derivatization high-performance liquid chromatography method. The bivalve *A. ater* contained 11 of the 12 PSP-toxin derivatives analyzed. Gonyautoxin derivatives, mainly GTX2 and GTX1 and also GTX3, GTX4, and GTX5, were responsible for 86% of the total toxin content. Other derivatives, present in lesser amounts, included neoSTX, STX, C1, C2, and C4. The highest levels of to