

Paralytic shellfish poison accumulation yields and feeding time activity in the Pacific oyster (



Pacific oysters and king scallops placed individually in a recirculating flume were fed for 2 weeks with a constant concentration (120 cell ml⁻¹) of a toxic strain of *Alexandrium minutum*. Fluorescence at the outlet of each experimental unit was measured continuously, and biodeposits were recovered twice daily to evaluate feeding time activity (FTA) and rates of organic filtration (OFR), ingestion (OIR) and organic absorption (OAR). Ion-pairing high performance liquid chromatography (IP-HPLC) was performed concurrently to quantify paralytic phycotoxins both (i) individually in shellfish at the end of the contamination period and (ii) in *A. minutum* cultures to estimate cellular toxin concentration. These data allowed comparison of the actual tissue toxin concentration (TOX) with the theoretical toxin accumulation rate (TAR) calculated from the linear relations between OAR, cell number, fluorescence and cell toxicity. The results show high FTA/TAR and FTA/TOX correlations ($R^2 = 0.78$) for both oysters and scallops. The TAR/TOX relation, though not yet clearly defined, suggests the minimum quantity of absorbed toxin at which the accumulation process is

induced.

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