in Natural Toxins 8: 1-5 (In Press 2000).

EVIDENCE OF SAXITOXINS DERIVATES AS CAUSATIVE AGENTS IN THE 1997 MASS-MORTALITY OF MEDITERRANEAN MONK SEALS IN THE CAPE BLANC PENINSULA

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ABSTRACT

Monk seals in Cape Blanc (Western Sahara) suffered a mass mortality during May-July 1997 which was attributed to a morbillivirus. High Performance Liquid Chromatography (HPLC) analysis on tissues of seals killed during the outbreak and on related fauna showed peaks with retention times coincident with those of some saxitoxin derivates but their identity was not proved. Here we present results of further HPLC analyses that unambiguously prove the identity of these toxins by Mass Spectrometry (MS), supporting the hypothesis that this mortality of monk seals was caused by biotoxins rather than by a morbillivirus.