

Detection of tetrodotoxin by HPLC in shellfishes and goby from south Taiwan.

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Abstract

High performance liquid chromatography (HPLC) using fluorescent detection following post-column alkaline degradation and a sample preparation procedure for the analysis were established to detect tetrodotoxins (TTXs) in seafood. In south Taiwan Prefectures, each specimen of shellfishes and gobies, collected from Chiayi, Tainan, and Pingtung from January 1997 to May 1998, was analyzed by HPLC to detect the presence and quantity of TTXs. Overall results showed that only 5 specimens out of 557 specimens contained TTXs; the toxic species were gastropod *Natica lineata* and *Nassarius livescens*. The highest TTX content is 10.0 microg/g in *N. livescens*. Gobies and other species of shellfishes were nontoxic. Although the rate of toxic specimens in all samples was low and showed no seasonal trends, the TTX contents of toxic specimens were higher than safety criteria value.