

## Modèle de détection rapide des effets sublétaux des polluants. II. Un exemple in situ : anomalie métabolique de copépoïde hyponeustonique *Anomalocera patersoni* en coïncidence avec une marée noire



Model for Rapid Detection of Sublethal Effects of Pollutants. II. An in situ Example: Anomalous Metabolism of the Hyponeustonic Copepod *Anomalocera patersoni* Coinciding with an Oil Spill An unusual correlation has been observed between the amylase and trypsin content of a natural zooplankton population and of the hyponeustonic copepod *Anomalocera patersoni* and the oil spill of the "Amoco Cadiz" in 1978. This anomaly has also been observed in *Artemia* sp. cultures (San Francisco Bay strain) poisoned by copper. This phenomenon could originate from a general physiological perturbation. Such a non-specific perturbation could explain the anomalous correlation between parameters which are usually independent and specifically regulated. The determination of such anomalous regulation could lead to detection of the sublethal effect of pollutants in the field. The method requires no prior knowledge of the area and can be applied for detection of a new perturbation; in fact, if organisms adapt to the new conditions, the anomaly disappears. The method has enabled physiological perturbations of zooplankton to be recorded 1 yr after the "Amoco Cadiz" oil spill. The hyponeustonic copepod *Anomalocera patersoni* was particularly perturbed, even at residual hydrocarbon concentrations usually considered by chemists as approaching normal values. [NOT CONTROLLED OCR]

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