



IAEA

Atoms for Peace: The First Half Century

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Using oysters as 'marine sentinels' to guard against poisoned seafood, Cuba

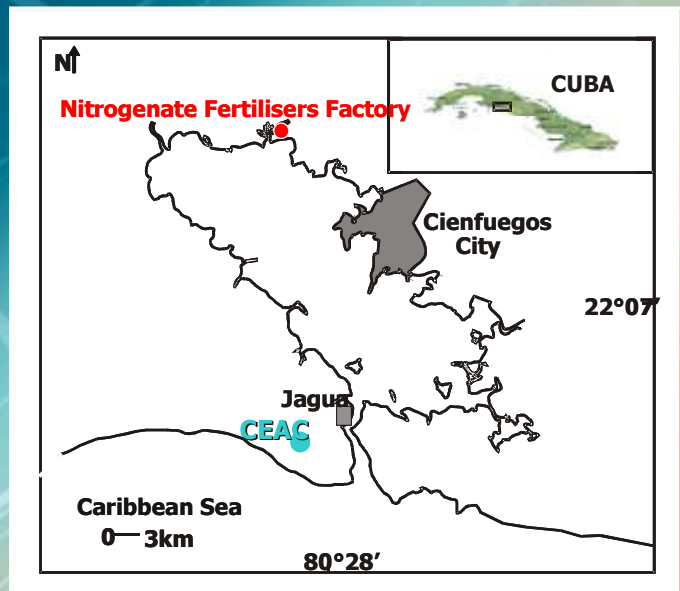
The challenge...

In late 2001, a major accidental spill of arsenic from an antiquated fertilizer factory contaminated the semi-enclosed bay of Cienfuegos. Arsenic levels in seafood and fish rose far above those recommended by the World Health Organization.

The project...

By applying radiotracer techniques, scientists identified a common edible oyster that could be used as a 'sentinel' organism to monitor arsenic levels in the sea in an easy and cost effective manner.

A marine monitoring programme based on the recurrent analysis of this oyster will provide decision makers with a unique tool to assess the safety status of the seafood resources that are consumed by the 150 000 inhabitants who live around Cienfuegos Bay.



Impact...

- Cuba has acquired new, well equipped laboratory facilities.
- National expertise in environmental quality assessment and pollution monitoring strategies has been strengthened.
- Reliable information for decision makers on matters of seafood safety is now available.
- The expertise gained in the monitoring of arsenic contamination can be used to monitor other pollutants.
- The Centre for Environment Studies of Cienfuegos (CEAC) is now recognized as a Centre of Excellence in the Caribbean region in the area of monitoring marine pollution.