

The Biologist's Corner

Alien Invasion!

One theory has it that they came in 1982 in the bilge of a Cuban ship trading with its then partner, the USSR. Since then, these aliens have multiplied rapidly, and have now taken over the territory!

"They" are the West Atlantic ctenophores, a jellyfish-like creature that reproduces rapidly and eats everything in sight: huge quantities of zooplankton, small crustaceans, and the eggs and larva of fish. Hence, they kill fish both directly and by depriving them of food. The "territory" they have taken over is the Black and Azov Seas.

In the absence of their natural enemies in the new location the number of jellyfish has mushroomed. In the Black Sea, they at times make up 95 percent of the wet biomass: there are virtually no fish left. In the shallow Azov Sea, which the *Encyclopedia Britannica* describes as having an extraordinarily high level of biological productivity, the fish catch dropped by 200,000 tons due largely to ctenophore predation. The fisheries have simply shut down.

Given the drainage pattern of the Black Sea, it is no surprise that the ctenophore has now appeared in the Mediterranean, from where it is only a small hop to the Red Sea, one of the richest salt water environments on earth. Does a similar fate await these bodies of water?

It is not hard to envision how the collapse of an important food source might effect human migration pressures. What will be hard to accept in many quarters is that this biological debacle is the result of the very type of economic activity — constantly expanding trade — that is now being widely touted as a *solution* to many of mankind's migration problems.

One of today's big mysteries: Where are the biologists when it comes to discussing and projecting the future under NAFTA, the Maastricht Treaty and the GATT talks? We hope they soon come out of hiding ... before the economists, cooped up in their theoretical world, collapse even more of the real world in which the rest of us must live. ■