



## STRIPERS UNLIMITED

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New Bedford Harbor  
4.9

54619

January 14, 1997

David Dickerson, Project Manager  
JFK Federal Bldg. HBO  
Boston, MA 02203

Dear Mr. Dickerson:

Following are our comments on the New Bedford Harbor Project:

The 1971 Stripers Unlimited Guidebook was our first publication to suggest that PCBs were possibly harmful to human health. Since that time we have published many articles on this subject.

The enclosed PCB chart is taken from Tom Frank Rusek's Master's Thesis entitled Polychlorinated Biphenyls in Striped Bass of Buzzards Bay and the Acushnet River, 1989. (This thesis is not available from the New Bedford Archives so a copy is enclosed.)

It is said that one picture is worth a thousand words so the accompanying macrophotography of eggs from two different populations of striped bass (one from the Roanoke River in No. Carolina, the other from the Chesapeake Bay eastern shore.)

When Dr. Arlene Longwell and her colleague scientists studied these photographs, they informed us that they had

observed the same anomalies in eggs from plankton tows from the near-shore along the north Atlantic coast and Long Island Sound. (Her research paper is enclosed for your study and archives.)

Our own research observations from 1971-1995 is also included for the record.

We were the first to note that the chemicals in striped bass adversely affected the female's ability to pass the cytoplasmic inheritance into the eggs of the next generation.

It seems that the immune system, sensing the presence of foreign chemicals in the blood stream, targets them for destruction. Some are stored in the fatty tissues, some are still circulated in the bloodstream. The immune system, to protect the parent and offspring, tries to prevent the female from passing the chemicals to the cytoplasm during oogenesis.

Newspaper articles are now appearing that bring the problem of such chemical contaminants into the mainstream of human concerns.

Our comments on the proposed dredging of New Bedford Harbor include the following: There is no doubt that this harbor and environs are and have been a major source of striped bass contamination. (Two spawning female striped bass tagged in the eastern shore rivers of the Chesapeake Bay were caught in Pleasant Bay on Cape Cod.) (One striped bass tagged in Chesapeake Bay's Nanticoke River was caught in Cape Cod Bay.)

It wasn't until I attended the PCB Conference in Chicago in 1974 that I learned about the contamination in New Bedford Harbor and in the nearby dumpsite. My remarks at that Conference are

included in the research presentation.

The problem with the clean-up of the harbor is only going to be solved by defining exactly how micro-organisms convert the non-soluble dense, electron-negative PCBs into a water soluble hormone-like chemical that triggers the immune response in fish, wildlife and humans.

No problem can be solved until it is precisely defined. Step one is simple: bring in microbiologists. I would suggest Dr. Lynn Margulis of the University of Massachusetts, Amherst. She is a foremost scientist and has, with others, defined the Gaia effect. Study her book "Symbiosis in Cell Evolution." If anyone could offer help, she could.

Step two involves the dredging and storing of contaminated soil. No chemical reaction can take place in the absence of water. Thus all toxic waste must be stored in lined, forever water-tight non-permeable areas.

Your proposal mentions de-watering. Perhaps the dredging will disturb the microbes to such an extent that they will be unable to work synergistically within the time span during which dewatering takes place.

Since some of the bacteria are anaerobic, exposing the dredge material to air and sunlight by passing the spoil over a carefully constructed waterfall might help.

Chances are that that all the PCBs now in the harbor sediment have not yet been transformed into water soluble compounds or they would not still be present in the soil. Since dewatering will take time, samples of the mud should be studied for the presence of PCBs and bacteria as well as other micro-

organisms.

What is learned can very well be invaluable in dealing with the more than 250,000 tons of PCBs in dump sites around the nation.

Over the years we have continued to observe striped bass from Chesapeake Bay and the Hudson River. Most of the fish from the Rhode Island shore are from the Hudson River

Dr. Jennifer Specker published a paper on her observations of striped bass eggs brought to her for study by the R.I. Dept. of Fish and Wildlife. She could find no eggs in the ovaries of similar size and she concluded that striped bass females spawned annually.

Dr. Robert Stevens formerly of Moncks Corner Hatchery in South Carolina, in his publication on striped bass spawning, noted that striped bass spawned all the eggs in the ovary at one time since the blood supply to the ovary was shut off. All the eggs required fertilization within one hour or they would die of anoxia.

After Specker's study was published, we began to observe striped bass caught by sports fishermen in New England. Most of the fish were starving, egg cases were soft and pointed indicating the fish were resorbing their eggs. No fat was being stored in the body so necessary for preparation for vitogenesis.

In Maryland, where we could look at smaller striped bass, all of the males in late fall had no stored fat and were long and lean.

We weighed and measured the fish in order to develop a

condition factor chart. Dr. Bruce Rogers for his master's thesis at U.R.I. had compiled a chart on length, weight and GSI of striped bass before PCBs became abundant. Thus we had research from So. Carolina, & Chesapeake Bay as well before the contaminants became as prevalent as found in the 1970s.

The charts are enclosed along with Specker's figures and those we compiled.

Striped bass are not healthy, their aggressiveness is poor. Being a manufacturer of fishing lures for striped bass for over 50 years, I am very concerned. The majority of striped bass are now being caught on the bottom. It is rare to find them on the surface any more. We find very little food in their stomachs. The predominant food, if any, would be crabs, lobster, manos, shrimp..occasionally a bottom dwelling fish is noted.

This past year more fungus covered fish were reported by fishermen. Some were so covered they refused to touch them.

We may have waited too long to stop using cancer as a risk assessment tool. It is much too crude to detect the dangerous trend toward decreased reproductive success and reproductive abnormalities in fish, wildlife and humans.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Robert B. Pond". The signature is fluid and cursive, with a large initial "R" and "B".

Robert B. Pond  
Executive Director