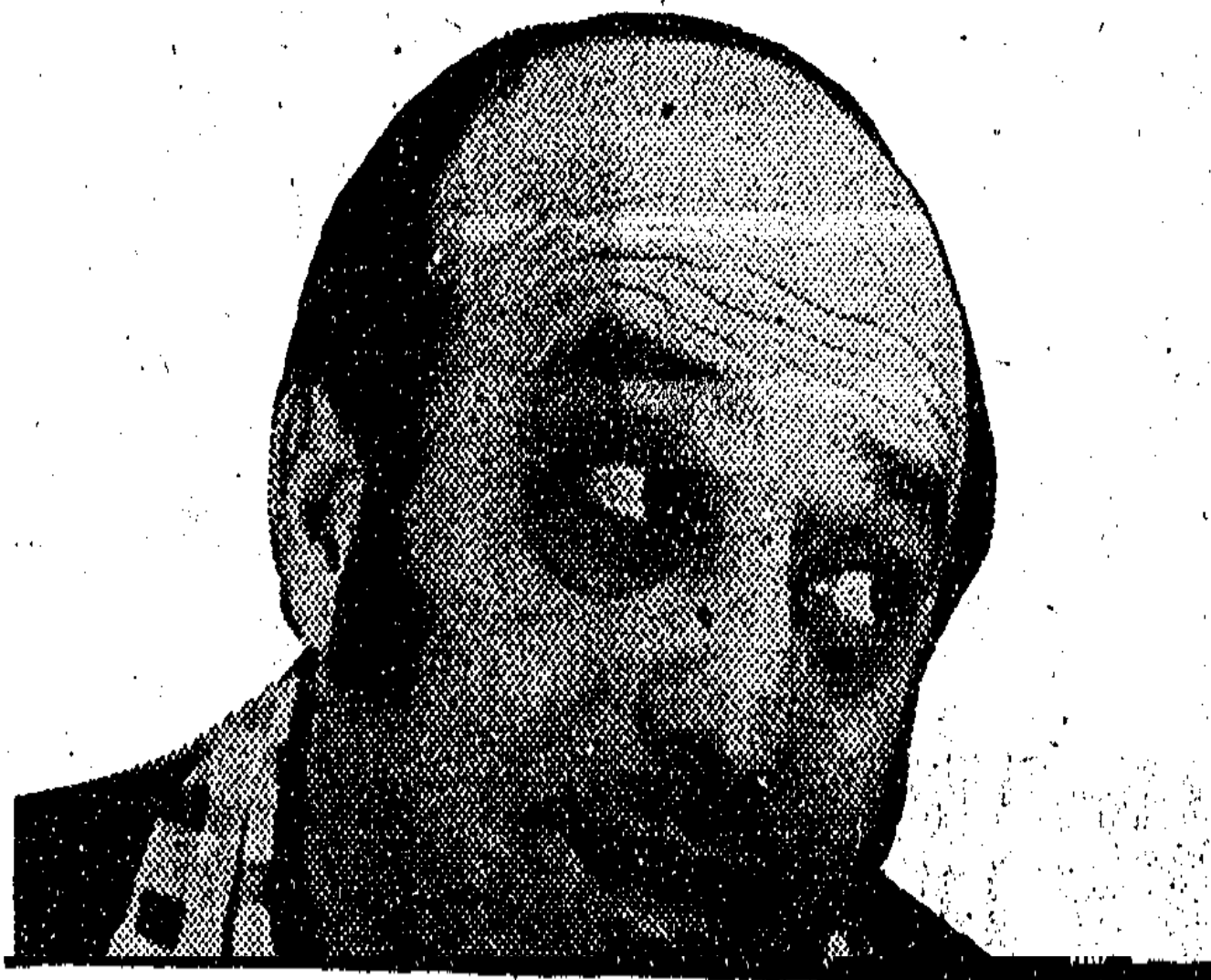


# Marine Biology Students

## Attempting to Cut Pollution



Howard Silverstein, marine biology teacher at John Dewey High School in Brooklyn, on field trip.

the Marine Biology Club go far beyond the usual collecting of samples and putting them in glass jars.

Right now, for example, many of the club's 150 student members are researching laws and helping to write briefs that could make a telling case against water polluters.

"Not only do we teach kids marine biology, we also help them see how things work in the real world," says Howard Silverstein who teaches the class and is faculty adviser to the club. About half of those in the classes have become so interested in the project that they have joined the club to find out more on their own time.

Marine biology is available as an elective course and, Mr. Silverstein says, about 10 per cent of the school's 3,000 students choose to take the course in either their sophomore or senior years.

### Spur to Action

The school, at 50 Avenue X in the Coney Island section, is not far from Jamaica Bay, one of the major remaining wetland areas in the metropolitan area, and other bodies of water.

The students in the club quickly found while poking around in the bays and coves that pollution was killing much of the marine life they were looking for. This realization led to major efforts—including testimony to official bodies—to do something about that pollution.

In the environmental field, governmental agencies have relied heavily on citizens finding polluters and backing up those findings with solid evidence that can be used to bring a legal stop to that pollution.

Members of the Marine Biology Club have found that to make their point they have to draw up a detailed brief setting out their case and marshaling scientific literature and first-hand observations to support that case.

Late last month, the club filed a nine-page brief with the Federal Environmental Protection Agency opposing

mits to discharge some waste oil.

The brief, which was heavy with footnotes citing scientific sources, set out the case against petroleum products after first stating that it was not just another attack against oil companies.

"At the outset of this presentation," the brief said, "we want it clearly understood that we are not attributing negative attitudes, hidden motivations or sinister plotting to the oil companies."

The brief then went on to make the scientific case against oil pollution. It pointed out that the scientific literature has shown that oil is "toxic to all marine organisms at very low levels" and that "petroleum hydrocarbons are persistent poisons" that can affect marine life



dation was laid, the club's brief went to the specific observations.

"Our observations of the accidental oil spill in 1972 off the Sea Gate and Coney Island area indicate that where oil can be detected in the sediments there has been a kill of animals," the brief said. "Bottom sediments contain many dead clams, crustaceans and snails. The affected areas have not been repopulated. Mussels that survived the spill, at this point in time, are almost incapable of developing eggs and sperms."

The club members then ex-

plained that the pollutants presently exceeds the levels prescribed by regulatory agencies."

The Marine Biology Club's brief became part of the record when the Federal Environmental Protection Administration held hearings last March 22 in Manhattan on a proposal to require 128 oil companies to abate oily rain water runoffs that now discharge into New York and New Jersey waterways.

Club members showed up at the day-long hearings to bolster their case for stricter regulation of the runoffs. Final regulations are now under consideration.



Members of the Marine Biology Club collecting specimens at Coney Island Creek. At left, a student checks a sample of the water for pollution.

tailed analyses as those of the Marine Biology Club and they are much more receptive to such presentations than to the emotional charges that are made by some environmentalists.

The officials say they take such reports seriously because they can be a two-edged sword.

The reports give a regulatory agency ammunition in fighting pollution and they can be used to show that an agency is not doing its job if it does not act when it is given specific and detailed information.

The brief against the oil companies is only part of the

company that wants to fill in part of Fresh Creek Basin in Jamaica Bay.

The club is asking the Army's Corps of Engineers for a public hearing on the case because if the filling were permitted there would be "adverse effects" on the Gateway National Recreation Area.

Because the club is becoming so proficient in making a case against polluters, it is being asked to branch out.

Mr. Silverstein said community members are so impressed with the club's activity they are asking it to do studies on noise pollution.