This year, for the first time, women from the campuses of each of the big three universities recruited activist women to run for their boards of regents (the three constitutionally recognized universities are the only 4-year institutions whose boards are elected statewide). Despite strenuous campaign efforts, all three went down on McGovern's coattails.

Michigan university women have managed to avoid divisiveness within their ranks by focusing their energies on bread-and-butter issues. The kind of exhibitionistic emotionalism associated with "bra-burning" doesn't interest them—probably, in part, because in the conservative Michigan political climate it is radical enough for a woman just to stand up for her legal rights. As one observed: "On the East

and West coasts it appears that the movement is chopped up with feud and furies—here, such matters as whether you're a Lesbian are not divisive."

King and others believe that a united front and a low profile are essential for success. "The quieter you are, the more effective you are. If a woman gets too visible you can focus on her and destroy her effectiveness." The real work, says King, is going on quietly, behind the scenes. "We work together over the telephone in a really beautiful way. It's a silent sisterhood."

The federal government has supplied the sisters with the legal tools necessary to make their case. They are now learning how to parlay their rights into power—which means, among other things, that they will have to move beyond universities and into the antechambers of state and federal appropriations committees. "Women have never lobbied for themselves," says King.

Progress so far can only be measured in terms of intent rather than statistics. There have been some salary adjustments and promotions, and a few new women deans have cropped up here and there, but there have been no dramatic shifts of women into positions of responsibility or redistribution of women into fields from which they have traditionally been discouraged.

But politically sophisticated women are not interested in quotas or beneficient gestures. They believe that once decision-making, too often left to arbitrary hands, has been systematized, the numbers will take care of themselves.—Constance Holden

## Icelandic Fishing: Science Awash in Great Codfish War

Reykjavik, Iceland. The quarrels over Iceland's coastal fishing limits are probably best known in this country for their more glamorous aspects—the fabled British gunboat which the Queen's navy sent to Icelandic waters to protect her fishing trawlers in the early 1960's, and more recently as splashy punctuation for the Fischer-Spassky chess tournament in Reykjavik this fall.

But when Iceland unilaterally declared an extension to her current 12mile coastal fishing limits to 50 miles offshore, effective 1 September, just as the chess tournament closed, she in fact launched into a serious battle. The British are the principal foreign fishers of Icelandic cod; the Icelanders' move could mean the loss of an estimated £34.2 million worth of cod each year. But the British also fear that if Iceland gets away with it, Norway and Canada may follow suit, thus effectively killing the British North Atlantic fishing industry, and, they add, any hope of conserving cod stocks. Britain and West Germany, which also fishes off Iceland, took the controversy to the International Court of Justice at The Hague; but the Icelanders have decided to disregard

the court ruling, which was somewhat unfavorable to Iceland. The issue remains an open dispute.

The great codfish war is not the sole province of politicians and fish-industry lobbyists. In fact, some of the day-to-day fighting is being carried out by marine scientists who fire off technical arguments from their respective laboratory arsenals. In declaring the extended limit, Iceland raised, among others, the argument that it was needed for the conservation of the cod stock. It is the scientific basis of this claim which British scientists question.

The total catch of Icelandic cod has been declining since 1954, when it reached a peak of 770,000 metric tons of live fish. Totals have fluctuated widely from year to year since then, but the overall downward trend is unmistakable. In dispute between each country's scientists is the significance of this decline.

The Icelanders maintain that there is evidence of an imminent threat to the cod supply and that the cod are in danger of becoming overfished by foreigners over whom they have no control. The British reply that the stocks appear healthy. And, they add,

Icelandic fishing patterns and practices seem to be as responsible as anyone else's for the changing trends in the cod population.

Jón Jónsson, director of Iceland's Marine Research Institute, explains that the extended limit is "not only a scientific necessity but an economic one." An annual 400,000 metric tons of live cod are taken from Iceland's waters, half by Iceland, half by foreign nations. Since the failure of Iceland's herring stock due to overfishing, she now mainly depends on cod, and the Icelanders' goal is to have the whole catch for themselves. "Iceland is completely dependent on her fisheries," Jónsson says, and adds, "They say Iceland is just a rock surrounded by fish. If you take away the fish, what have you got?"

More seriously, he explained that three trends could signal an imminent decline. One is that fishermen seem to be taking too heavy a catch of immature fish. Second, the number of spawnings per fish has declined to one half the rate immediately following World War II. Third, Jónsson says, cod mortality is rising, meaning that there are fewer and fewer fish from 10 to 15 years of age. All three effects could be caused by overfishing. By extending her limits to 50 miles. and thus over her continental shelf area, Iceland, he says, will regain control of her fish stocks and their conservation.

The British, for their part, maintain that Icelandic fishing stocks are cur-

rently healthy and likely to remain so, provided fishing levels do not increase. In general, the young cod grow up along the northern and eastern shores of the island; when they reach spawning age at 7 years they move around Iceland to a portion of the shelf off the southwestern corner; there, they spawn. British and other foreign vessels, says David J. Garrod of the Agriculture Fisheries Laboratory at Lowestoft, fish principally the immature cod off the northern and eastern coasts; the Icelanders fish principally the spawning populations off the south and west.

To Jónsson's statement that too many young fish are taken by foreigners, Garrod says that Icelanders take an almost equal number of young fish; last year Icelandic trawlers caught 80,000 metric tons of young fish off the northern and eastern coasts.

As for the decline in spawning rates, Garrod contends that at present the Icelanders are the principal fishers of the mature cod found at the southwestern corner of the island. However, he also points out that other factors, such as the gradual cooling of the Atlantic waters around the island, could be affecting the entire codfish population in yet unknown ways.

A public relations firm retained in London by the Icelandic government has stated in a recent pamphlet: "There is irrefutable evidence that cod mortality during the spawning season is now more than 70 percent and overfishing is responsible for four-fifths of this mortality." Garrod seeks to demonstrate, with data on the volumes and locations of Iceland's catch of spawning fish, that she could be responsible for perhaps 50 percent of the mortality rate.

There are other charges and countercharges. The British point to Iceland's ordering 31 new fishing vessels as evidence that Iceland plans to intensify her own fishing effort, despite her avowed commitment to the cause of conservation. Icelandic government literature, for its part, often alleges that more and more fishing vessels from other nations are about to descend upon her waters. There is also disagreement about the best method of regulating the cod catch; the British favor an international quota system; Jónsson argues that international controls have conspicuously failed in the past and points to Iceland's successful maintenance of her own whale stock as evidence that she can regulate her fishing industries.

However, the crucial issue of whether the cod population is in danger is in fact a scientific unknown, as Garrod admits. "There isn't a technical way of figuring out when a stock will reach the point of a serious decline. The question is how small the breeding stock can be," and no one, he says, really knows the answer.

Thus, the marine scientists cannot offer irrefutable proof or disproof of the scientific claims on which the Icelander's have based the extension of their fishing limits. As in other national and international issues, scientists, in lieu of giving the politicians definitive answers, are presenting arguments which favor their own sides.

—DEBORAH SHAPLEY

## Radiation Standards: The Last Word or at Least a Definitive One

Two and a half years ago, when the national furor over radiation standards was at its height, the old Federal Radiation Council (FRC) commissioned a panel of the National Academy of Sciences to reexamine the scientific basis for the standards then in force and to suggest any changes that might seem appropriate. In the intervening months, the issue has grown quiescent, the FRC has been abolished—its functions having been absorbed by the Environmental Protection Agency (EPA) -and the two scientists who started the debate, John Gofman and Arthur Tamplin, of the Atomic Energy Commission's (AEC) Lawrence Laboratory at Livermore, have largely faded from public view.

Nevertheless, the academy's Committee on the Biological Effects of Ionizing Radiation plugged quietly away at its task. It has now produced

a weighty report that, if not the last word on radiation standards, will probably be the definitive one for some time to come.

In an unusual departure from the reassuring tone common to official pronouncements on such matters, the 470-page report concedes the critics' central point—that the maximum exposure currently permitted for the general population is far higher than it needs to be, and, by implication, should be lowered. In addition, the panel asserts that exposure from medical procedures—by far the major source of radiation to the public, now and for the foreseeable future—could be reduced substantially at little cost and with no sacrifice of medical benefits.

Underlying these conclusions is the philosophy that any increase in radiation exposure to the populace at large will result in proportionate increases in the number of excess deaths and illnesses. The panel says that such effects can be estimated, and it strongly urges that the government use these estimates, uncertain as they are, to form numerical cost-benefit judgments in setting future radiation standards.

The mission of the academy committee did not include suggesting what these standards should be, however, and, accordingly, the panel was silent on this subject except to propose some general rules. For one, the panel said, no radiation exposure should be permitted without the expectation of a "commensurate" benefit. And it cautioned that efforts to protect the public from radiation should not result in substituting a worse hazard than the radiation avoided-a reference, perhaps, to the comparative risks and benefits of fossil-fueled and nuclear power plants.

The federal standard in question states that the general population should not receive more than 170 millirems of man-made radiation each year, exclusive of medical sources. (This compares to about 100 millirems received from natural background sources in the United States. All told, the average American is subjected to about 200