

natural sciences

A step on behalf of marine mammals

The Marine Mammal Protection Act, which restricts the taking of whales, porpoises and other sea mammals, allows parties to apply for exemptions that would let them capture the animals for research or public display, but only in case of alleged economic hardship. Some exemptions have been sought by corporations claiming economic hardship but who would have been only intermediaries, selling the animals to researchers or exhibitors elsewhere.

The National Marine Fisheries Service, which administers the act, has now ruled that no such "middle-man" exemptions will be granted. "It seems clear," the service says, "that exemptions from the provisions of the act should be related to the person ultimately responsible for the care or use of the mammal away from its natural habitat."

The ruling was made in conjunction with the denial of two economic hardship exemption requests, from Global Sea Lions, Inc. and Sea Lions International, which sought to capture 200 and 300 sea lions respectively for sale to U.S. and foreign zoos and seaquaria. As a result, however, the number of applications has climbed sharply—11 in a single recent week—as former customers of such suppliers file their own requests directly.

Unblaming the starfish

The crown of thorns starfish, *Acanthaster planci*, has been repeatedly cited since the middle 1960's as the villain in the destruction of large areas of coral reef, such as Australia's Great Barrier Reef and similar areas around Guam. A researcher in Panama now suggests that *Acanthaster* may not be such a culprit as has been thought.

Starfish deliberately placed on live coral around Uva Island, off Panama's Pacific coast, all moved away from the live coral within two days, reports Peter W. Glynn of the Smithsonian Tropical Research Institute in the Canal Zone. In fact, Glynn writes in the May 4 *SCIENCE*, when put on sea-bottom areas with continuous live coral cover, the starfish would rush non-stop to a coral-free spot.

They certainly do eat the living coral, Glynn acknowledges, but apparently most of the feeding is at the edges of the living reefs. Even if the observed feeding rate were multiplied by two and a half, to "low plague proportions," the reef's natural growth would keep ahead of it, the scientist believes. "Until more accurate data are available on the growth dynamics of coral reefs," says Glynn, "in my opinion it would be imprudent to continue supporting the extermination of *Acanthaster*, except in those areas where it can be demonstrated to constitute a real threat to the continued existence of reefs."

Glaciers help hungry plankton

Glaciers apparently help out the tiny phytoplankton living in Arctic waters by enriching the concentrations of the very nutrients that the creatures need most.

So says Spencer Apollonio of the Maine Department of Sea and Shore Fisheries, who compared nutrient levels between glaciated South Cape Fiord and unglaciated Grise Fiord, both in the Canadian Arctic. Phosphate concentrations were about the same, Apollonio reports in the May 4 *SCIENCE*, but silicates and nitrates seemed significantly higher in the glacier-fed water, with nitrates in particular showing an 18 percent edge. Glacial erosion and abrasion seem to be important factors, the researcher suggests, by causing minerals containing the nutrients to be released into the water.

behavioral sciences

From our reporter at the meeting of the Eastern Psychological Association in Washington

Crime and the bystander

Criminal activity, once confined to deserted streets and the hours of darkness, now frequently occurs in broad daylight, in full view of passersby. Thomas Moriarty of New York University believes that the unresponsiveness of bystanders may be responsible for rising crime rates because visibility is no longer a deterrent.

Moriarty went to Jones Beach on Long Island to study the responsiveness of persons who witness a crime. An experimenter at the beach placed a blanket within five feet of a person who was being secretly observed by another experimenter. On the blanket was a portable radio. After a few minutes the first experimenter got up and walked away, leaving the radio behind. A few minutes later a third experimenter walked off with the radio (which was playing loudly). This exercise was repeated in front of 20 persons, and only 4 of them intervened to stop the thief. Thus, 80 percent of the thefts were successful. In a variation, the experiment was repeated with the experimenter asking the subject to watch the radio during a short absence. This mild commitment seemed to do the trick. During the next 20 attempts, the thief was stopped 19 times.

Personality and the beautiful people

Studies have shown that, on first impression, physical attractiveness is associated with positive personality traits, while unattractiveness is associated with negative traits. Dennis Krebs and Allen Adinolfi of Harvard University examined the role of physical attractiveness in long-term real-life situations.

The subjects, 60 male and 60 female first-year university students, were rated by dormitory mates and divided into four categories according to social acceptability. Those who made the most positive social impressions were the accepted group. Subjects who received the most negative ratings became the rejected group. Those who were mentioned least were put in the isolated group. Yearbook portraits of these subjects were used by four male and four female judges to rate physical attractiveness. All subjects were also given a variety of personality tests. As expected, the accepted subjects were rated as more attractive than the isolated group. Surprisingly, however, the most physically attractive persons were among the rejected group. The personality structure that seemed most acceptable, the one defined by sociability, was associated with moderate physical attractiveness.

Teenage runaways

According to the FBI, as many as a million young people run away from home each year. Some psychologists see this behavior as indicative of psychopathology on the part of the adolescent. Researchers Margaret Beyer and Donald M. Quinlin of Yale University and Susan A. Holt and Thomas A. Reid of the Hamden Mental Health Service in Hamden, Conn., have found that the problem is not always with the child. Interviews with 30 families of runaways revealed that adolescents who run away often exhibit symptoms of depression and impulsiveness. This behavior, however, is often the result of family difficulties, not mental illness. Most runaways, they found, were from broken homes and were trying to escape an unhappy situation or trying to force a change within the family.