

Wetlands: A vital fish nursery

The wetlands—bays, marshes, inlets and estuaries—are tremendously important both as a nursery and as a spawning area for many important species of food and game fish. So report Sidney S. Herman and his biology colleagues at Lehigh University after a four-year study of some 95 fish species that generally live in the open seas. The researchers have found that 85 of these species use the wetlands as a nursery, and 25 of the species use them for spawning.

"Most fishermen think of their catch as inhabiting only deeper waters," Herman declares. "However, it is likely that the fish they catch have spent at least part of their lives in shallow waters, in areas that must be protected and preserved if the commercial fishing industry is to thrive."

Pelicans on the rebound

Although brown pelicans are plentiful in Florida, they have been classified as an endangered species in some other areas of the United States. A major reason that the birds have declined in recent years, ornithologists believe, is that DDT and other persistent pesticides have built up in the pelicans' food chain and have brought about nesting failure.

But now brown pelicans are coming back in Texas and Louisiana, the National Audubon Society reports, apparently because bans on the persistent pesticides have allowed the pesticides to work their way out of the environment. For instance, 34 young brown pelicans, by far the largest number in recent years, were fledged this summer in two colonies along the Texas coast.

How pigeons choose mates

Insights into the way pigeons choose mates are reported in the August PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES by Nancy Burley, a zoologist at the University of Texas at Austin.

First of all, pigeons' choices of mates depend on a variety of inherited characteristics such as size, reproductive experience, nest defense ability, color and plumage pattern. For instance, both female and male pigeons prefer blue mates to red mates, and prefer mates with a checkered plumage pattern to a bar plumage pattern, and a bar pattern to no pattern at all.

Secondly, pigeons more desirable to the opposite sex are more likely to be selective in their choice of a mate than are birds considered less attractive by the opposite sex. Blue-checkered males, for example, are more selective than blue-barred males, yet the latter are more selective than ash red males with no feather patterns.

Pigeons' choices of mates also depend on whether they are the sex that invests more or less in offspring. Because female pigeons tend to invest more in their young than males do, females are, on the whole, more selective of mates than are male pigeons.

Tortoise reproduction

Giant tortoises live on the island of Aldabra, in the Indian Ocean north of Madagascar. Three island populations of the tortoises show different densities and also variations in reproduction. Ian R. Swingland, a zoologist at the University of Oxford, postulated that the tortoises' reproductive habits are strongly influenced by food availability and, as he reports in the Sept. 29 NATURE, his hypothesis appears to be correct. He has found, for instance, that high density area females are more sensitive to food availability than are low density area females. When the former have more food, their clutch size, egg weight and breeding increase. When the latter have more food, only their egg weight increases.

Robots and Canscreen: Giving witness

It is axiomatic that most cancers and heart disease are aggravated by the environment and by personal habits—and are to some degree preventable. Unfortunately, it is equally true that middle-aged and elderly persons most prone to these diseases often fail to get annual check-ups. While circumventing time inconveniences or doctors' scoldings, these persons may be acquiescing to a disease process that could have been avoided.

Recent innovations in preventive medicine may change all that. A robot that takes blood pressure and streamlined cancer screening now make it easier to check your health quickly and inexpensively, without having to face an often intimidating doctor or wait long hours in a medical anteroom.

The robot is actually a sphygmomanometer, or blood pressure machine, attached to a simple function computer. Introduced in approximately 1,300 public places (shopping malls, factories, hospital lobbies) by a Florida firm in 1976, the device will take your blood pressure for only 50 cents. You simply sit down, put your arm in a vinyl cuff and press a button. One health systems expert who has compared the robots' results with those obtained by conventional means concluded the machines "are more consistent than a well-trained blood-pressure technician."

The cancer screening program, Canscreen, is actually a conventional system streamlined to take only one hour and cost no more than \$35. The program, offered by the Preventive Medicine Institute/Strang Clinic in New York City, includes an evaluation of an individual's cancer risk factors, a number of laboratory tests—with results immediately available—and a physical examination by a registered nurse with special training in cancer detection.

Perhaps most important, the tests make it difficult to avoid the truth. A chart attached conspicuously to the front of the robot and a visit with a health counselor immediately after the cancer tests are designed to prod users to take better care of themselves, or knowingly confront two major killers.

VA vs. NAS: Institutional jousting

Last week, the Veterans Administration hospital system issued a thick report detailing the reasons it should stay in existence. In so doing, the embattled institution took the offensive in a fight for its life.

The VA report was issued in response to a congressionally mandated National Academy of Sciences study released in June. The NAS study, which took three years and \$6 million to complete, found the VA system to be outmoded and inefficient—an archaic hospital network instead of a total health care system, overbuilt and overbedded, and housing many veterans who should have been treated as outpatients. ("More than half the patients in VA psychiatric beds do not appear to require hospitalization," the report charged.) The NAS study contends that since 80 percent of the problems VA deals with are non-service related, and since National Health Insurance will soon be a reality, the system should be merged with state and regional health planning.

Not surprisingly, the VA is opposed to dismantling its present structure. VA administrator Max Cleland's published rebuttal defended the system as a specialized institution meeting very special needs. Most of the veterans served by the system are different from the population as a whole, he countered; most do not have insurance, tend to be older (half are World War II veterans), single, poorer and beset with problems requiring long-term care. While the NAS recommendations are hard hitting, Cleland also presents a strong argument. Of the 29 million veterans, most are between 35 and 54 years old; by the year 2000, however, more than 30 percent will be over 65, and the need for immediate and chronic care facilities, like those the VA now provides, will become severe.