

## GENERAL SCIENCE

# Public Seashores Going

National Park Service survey shows that only a small fraction of the Atlantic and Gulf coasts are left undeveloped for potential public use. Report recommends immediate action.

► THE EASTERN SEASHORE is being taken from the public for commercial and private development, according to a report made by the National Park Service after a survey of the Atlantic and Gulf coasts from Calais, Me., to Brownsville, Tex.

In releasing the findings, National Park Service director Conrad L. Wirth called the situation "alarming."

"Only a fraction of our long seacoast is left undeveloped for potential public use, and much of this small portion is rapidly disappearing before our eyes," Mr. Wirth said.

The report shows that:

1. Of 3,700 miles of Atlantic and Gulf coastline, only 240 miles are under Federal and state ownership for public recreation. About half of this is in the Acadia and Everglades National Parks and the Cape Hatteras National Seashore.

2. The major remaining opportunities for conservation of seashore land are largely confined to 640 miles of beachfront in 54 undeveloped areas.

3. Private purchasers are clamoring for the remaining areas. The supply is dwindling fast.

## "Prompt Action" Urged

The report recommends "prompt action" by Federal, state and local agencies to acquire at least half the 640 miles of seacoast.

Almost every attractive seashore area on the Atlantic and Gulf coasts has been preempted for commercial or private development, the report states. This contrasts sharply with the seashore of a generation or two ago, when vast stretches of unspoiled and undeveloped beach lined our coasts.

"The seashore has become big business," the report states. "Extensive and costly developments now line mile after mile of shore which before World War II was uninhabited." The report says present plans "call for large-scale centers to occupy remote beaches as yet undisturbed by the blade of a bulldozer."

## Private Donor Financed

The survey was financed by a private donor and conducted by the National Park Service with the help of the U. S. Coast Guard, the Fish and Wildlife Service, state parks, museums, libraries and historical societies.

A similar study in 1935 recommended preservation of 12 major strips with 437 miles of beach. Only one of the 12—Cape Hatteras, N. C.—was acquired as a national

seashore. Of the remainder, all but one have long ago gone into private and commercial developments.

Following is a state-by-state list of coastline mileage and the areas recommended for Federal acquisition:

Maine: 228 miles of general shoreline. Outstanding areas include Rogue Island, Castine, Popham-St. John, Pemaquid, Prouts Neck-Scarboro, Crescent and Crescent Surf.

New Hampshire: 13 miles of general shoreline, all major portions of which are developed.

Massachusetts: 192 miles of general shoreline, including offshore islands of Nantucket and Martha's Vineyard. Selected areas: Plum Island, Duxbury Beach, Great Beach (Cape Cod), Sandy Neck, Monomoy Island, Nantucket Island, Martha's Vineyard, Washburn Island, Naushon Island, Horseneck.

Rhode Island: 40 miles of general shoreline. Selected: Charlestown Beach area.

Connecticut: No area recommended although the report points out there are two small areas between New London and the Rhode Island State Line which possess some of the features necessary for public seashore.

New York: 127 miles of general shoreline. Selected areas: Gardiners Island, Shinnecock Inlet area, Fire Island.

New Jersey: 130 miles of general shoreline, most of which is intensively developed. An area north of Atlantic City is well suited for wildlife refuge purposes and about two and one-half miles of undeveloped beach south of Ocean City is adaptable to public recreation.

Delaware: 28 miles of general shoreline, about one-half of which is state-owned. An area now occupied by Fort Miles adjacent to state property and a second area in the south-central portion were selected for consideration.

Maryland: 31 miles of general shoreline contained in portions of two islands, Fenwick and Assateague. The former is fully developed and it appears that most of the Maryland part of Assateague soon will be.

Virginia: 112 miles of general shoreline. No areas were selected on the mainland but portions of the offshore islands of Assateague, Farramore and Hog Island were recommended for consideration.

North Carolina: 301 miles of general shoreline. Six offshore areas were selected for consideration: Core Banks, Shackleford Banks, Bogue Banks, Onslow Beach, Federal Point, Smith Island.

South Carolina: 187 miles of shoreline. Selected areas: Waiter Island, Debidue Island, Kiawah Island.

Georgia: 100 miles of general shoreline. Four offshore islands selected for consideration: Ossabaw Island, St. Catherines Island, Sapelo Island, Cumberland Island.

Florida: 1,197 miles of general shoreline. Selected were two areas along the Atlantic Coast between Daytona Beach and West Palm Beach and two areas along the Gulf Coast south of Fort Myers and south of Panama City. Four keys between Key Largo and Key West were believed to be of national wildlife significance.

Mississippi: 44 miles of general shoreline. No major undeveloped areas with public recreational potentialities were located along the Gulf Coast. Two offshore islands, Horn Island and Ship Island, were selected for consideration.

Louisiana: 397 miles of general shoreline. Grand Terre Island, selected because of its historical interest, was the only area singled out in the report.

Texas: 367 miles of general shoreline. Six areas with approximately 206 miles of shoreline were selected. They are: East Coast, Galveston Island, Stephen Austin Island, Matagorda Peninsula, Padre Island, and Brazos Island.

(NOTE: "general shoreline," as used in the survey report, means the general outline of the seacoast including bays and sounds to a point where they narrow to a width of 30 minutes of latitude.)

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## BIOCHEMISTRY

## Find Clues to Artery Hardening

► STUDIES of chick embryos have provided clues to factors that cause humans to be susceptible to hardening of the arteries and high blood pressure.

Dr. Ole A. Schjeide and Nancy Ragan of the Atomic Energy Project, University of California at Los Angeles, have investigated the roles of certain fat-bearing proteins in chicks before and after hatching.

These fatty proteins, known as lipoproteins, are thought to be associated with arterial fat deposits that cause hardening of the arteries, arteriosclerosis, in humans.

The U.C.L.A. scientists found that levels of these lipoproteins in chicks at the time of hatching exceed those in human patients suffering from arteriosclerosis. These chicks can be readily induced to form fatty deposits in their arteries by feeding them a high cholesterol diet.

The high lipoprotein levels in chicks are due to the high fat content of the yolk, which is the chick's food source prior to hatching, Dr. Schjeide pointed out. This fact and the readiness with which fatty deposits can be induced in chick arteries by a high fat diet suggest an important relationship between diet and hardening of the arteries even in very young individuals.

The mechanism by which the fats are deposited in the arteries is not yet understood. Continuing studies of the chick embryo may provide the answer, it is hoped.

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