

Earth and Environment Notes

FLUID DYNAMICS

Buoy for Small-scale Study

Meteorologists and oceanographers from at least five institutions are cooperating on a sea-air interface study at Sow and Pigs Reef in Rhode Island Sound. They have anchored a 90-foot spar buoy, equipped with instruments so sensitive that air currents generated by a sailboat a quarter mile upwind could upset the readings.

The buoy project, under the direction of Dr. Erik Mollo-Christensen, professor of meteorology at the Massachusetts Institute of Technology, is part of a two-year study of air-sea interactions being sponsored by the Office of Naval Research.

Measurements will be taken of wind velocity at six heights, air temperatures at various heights, water wave profile and temperature.

AIR POLLUTION

Coal-Gas System Cuts Sulphur

Air pollution from electric power plants may be cut down by a new antipollution method that takes a coal-gas-turbine approach to the problem.

With the new method, under study by scientists at Westinghouse Electric Corp., Pittsburgh, coal is converted to gas, sulfur is removed, and the gas is then burned in special cycle turbines.

In addition to reducing sulfur pollutants in the air, the new system rejects one-third less heat, thereby lessening thermal pollution of streams, scientists report.

ICHTHYOLOGY

Atlantic Salmon Doomed

The Atlantic salmon, once abundant in the rivers of the East Coast, appears on the verge of extinction—at least below the Canadian border.

Efforts of the state of Maine to rebuild its salmon runs have produced only a negligible harvest, Anthony Netboy reports in *NATURAL HISTORY*. "There is no hope of restoring any salmon rivers in the other New England States," he reports.

Dams that block the spawning migration, as well as intense pollution of the waters by industry and logging, have done the damage.

TSUNAMIS

Warning System Grows

Seven tide stations in Chile have been added to the Tsunami Warning System. They are expected to give an additional two or more hours of warning time to Hawaii, Alaska, Oregon and Washington when a tidal wave is generated off the Chilean coast.

Mark G. Spaeth of the U.S. Coast and Geodetic Survey reported the additions after a trip to South America.

A 1960 tsunami off the Chilean coast caused deaths

and destruction in Chile, Hawaii, the Philippines, Japan and Okinawa. In spite of six hours warning, 61 persons were killed in the Hawaiian city of Hilo.

The warning system, headquartered in Honolulu, links 17 seismic observatories and 30 tide stations around the Pacific Basin. In addition to the U.S. and Chile, the system provides warnings to Tahiti, Japan, Taiwan, Fiji, Hong Kong, New Zealand, Western Samoa, Canada and the Philippines.

HYDROLOGY

Water-Stealing Plants Plague West

In the western United States water-stealing plants cover some 15 million acres and waste more than 25 million acre feet of scarce water every year, the Geological Survey reports.

"In the Colorado River basin alone," hydrologist T. W. Robinson told the Water for Peace Conference in Washington "phreatophytes (water wasting plants) grow on about 170,000 acres along a 450-mile reach of the river, and use about 570,000 acre-feet of water a year." An acre-foot of water totals 325,821 gallons.

The best way of getting rid of the thirsty plants, he said, is by uprooting or use of herbicides.

POLLUTION

Sales of Air Cleaners Rise

Industrial air pollution control equipment sales totalled \$69.5 million last year in the United States, up \$16 million from 1965.

These figures, released by the Industrial Gas Cleaning Institute, Inc., include only the sales of the four basic types of equipment available: electrostatic precipitators, mechanical collectors, fabric collectors and wet scrubbers. They do not include the costs of auxiliary equipment such as foundations, ductwork, fans or motors. If such expenditures are added, the total for 1966 would approach \$235 million.

MINERALOGY

Gold Prospectors Aided

Even though geochemical, magnetic and radiometric methods have invaded mineral prospecting, the old-fashioned gold pan is still a useful sampling tool.

So says the Department of the Interior in one of four booklets it is issuing, free, to prospective gold miners. They may be obtained from the Information Office, U.S. Geological Survey, Washington, D.C. 20242.

Although most U.S. gold strikes have been made in the West and Alaska, some lucrative deposits have been found in the East, including Pennsylvania, Virginia and the Carolinas.

The pamphlets do not pretend to be a guide to certain riches. They point out that less than one person per thousand who prospects for gold ever makes a strike.