Earth and Environment Notes

GEOLOGY

Seek Pieces of Gondwana Land

A detailed geological survey of the ocean bottom off southern and western Australia will be made late this summer to try to fix the exact limits of the Australian continent.

Seismic reflection profiles of the sub-bottom structure will also be made for comparison with similar data from India and Antarctica by scientists of the Environmental Science Services Administration's Institute for Oceanography, and Australian universities.

The purpose, according to Dr. Robert Dietz of ESSA, the survey director, is to ". . . try to match the continents at a point half way between the surface and the deep sea."

If a match can be obtained, it will be considered further evidence for the existence of the ancient supercontinent, Gondwana Land, from which the present land masses near Australia were formed.

CONSERVATION

Aid for Atlantic Salmon

An attempt to restore the Penobscot River, now one of the foulest in the Northeast, as a breeding ground for the nearly extinct Atlantic salmon (SN: 6/10) will be undertaken by the State of Maine and the U.S. Bureau of Sport Fisheries and Wildlife.

The major feature of the effort will be construction of improved fishways around the six hydroelectric dams that now keep the fish from their spawning grounds.

Tied to that will be enforcement of pollution abatement recommendations stemming from an April 20 conference in Belfast, Me. The conference was called originally to end pollution damage to clam beds.

When the fishways are completed, hopefully by 1970, young salmon will be released upstream. Later, if all goes well, they will return to spawn in the Penobscot, perhaps restoring the Atlantic salmon population.

PALEONTOLOGY

British Anthracosaur Find

The second specimen of a 350 million-year-old amphibian has been found in a colliery in County Durham, England.

The skull has been identified as similar to Anthracosaurus russelli Huxley 1863 by A. L. Panchen and Eileen H. Tilley of the University of Newcastle upon Tyne and C. A. B. Steel of the Central Library, Museum and Art Gallery, Sunderland, County Durham.

In the June 3 NATURE they write, "The dentition allows preliminary identification of the new skull as the second known specimen of the species."

The find, they note, ". . . is most unusual . . . ," and was uncrushed. It was first detected by a miner at the colliery.

OCEANOGRAPHY

Volcano Under the Red Sea?

Pools of hot, highly saline water recently found at the bottom of the central Red Sea may be due to the presence there of a submerged volcano, according to a report in the June 3 NATURE.

One of the pools, the Discovery Deep, is apparently caused by overflow from the Atlantis II Deep which is two and a half miles away, writes D. T. Pugh of the Geodesy and Geophysics Department of the University of Cambridge.

"Recent measurements of fine temperature structure in the bottom brines of both deeps indicate that the latter mechanism (catastrophic heating rather than heat flow through the bottom) is more probable," he observes.

He bases his observation on the fact that a layer of cool water was found beneath the hot water in the Discovery Deep, but not in the Atlantis II Deep.

AIR POLLUTION

Air Quality Indicator

Carbon dioxide gas in the atmosphere can be used as a reliable indicator of the quality of the air in a city, according to a report prepared for the Air Resources Engineering Research Council of the American Society of Civil Engineers.

Before coming to that conclusion, researchers at the University of California, Los Angeles, compared the carbon dioxide concentration in the Los Angeles area atmosphere with concentrations of carbon monoxide and nitric oxide.

During the three year study, they also found significant amounts of carbon dioxide, as far as 800 miles out to sea, traceable to the Los Angeles metropolitan area.

The investigators were Profs. Albert F. Bush and H. B. Nottage of the University's engineering department.

GLACIOLOGY

Northwest Glaciers Move Rapidly

Unusually rapid movement of many glaciers in northwestern North America, at speeds of up to two feet an hour, has been observed by scientists of the U. S. Geological Survey's Tacoma, Wash., office.

Normal flow rate for most of the glaciers is about one or two feet a day, according to Dr. Mark F. Meier, a research geologist. The cause of the sudden recent surges is not completely understood, he admits.

The rapid advances were observed first in aerial photos of the glaciers made by Dr. Austin Post, a hydrologist in the Tacoma office.

There is no evidence to indicate any connection between the surges and a worsening of the climate or earthquake activity, he feels. His observations were reported in the May MINERAL INFORMATION SERVICE magazine of the California Division of Mines and Geology.