

● RADIO

"Adventures in Science" with Watson Davis, director of Science Service, will not be heard on Saturday, September 21, 1957.

Beginning Saturday, September 28, the regular program of broadcasts will be resumed. The program will be carried on the Columbia Broadcasting System's network 15 minutes earlier than usual.

ICTHYOLOGY

Fish Follow Sun When Migrating

► FISH, not too unlike humans, follow the sun in their periodic migrations, a team of University of Wisconsin scientists told the American Institute of Biological Sciences meeting at Stanford University, Palo Alto, Calif.

Evidence that fish possess a sun-compass mechanism to help them navigate on long-distance migrations to spawn, nest or feed has been established by Dr. Arthur D. Hasler, Theodor Schreiner and Wolfgang Braemer.

Trained fish are able to seek cover in a shadowless laboratory tank in a given compass direction regardless of the time of day. The fish make mistakes on cloudy days and after the sun has set, but take flight in the correct direction by responding to an artificial sun as if it were the sun itself at that particular time of day.

Further studies with white bass on Wisconsin's Lake Mendota show that the fish's tendency to swim in a definite direction to reach home can be explained only by this sun-compass mechanism.

The Wisconsin scientists also pointed out that fish, such as salmon and eels, have still another mechanism to determine geographic location, not too unlike the sailor's sextant.

Science News Letter, September 14, 1957

SOCIOLOGY

Mental Illness in Aged From Social Obsolescence

► MENTAL ILLNESS among old people is probably not due, as is commonly thought, to the physical deterioration of advanced age.

Evidence that it is a consequence, instead, of the fact that the old person's role in life has become obsolete was presented to the American Sociological Society meeting in Washington by Dr. W. S. Williams of the department of neuropsychiatry of the University of Texas.

The aged person in our society, Dr. Williams said, is faced with a major adaptation to new conditions at a time in life when he is least capable of extensive change and reorientation.

The result may be a depressed, futile, hopeless and withdrawn state, or it may be an aggressive delusional attempt to deny to himself that the changes have occurred.

Science News Letter, September 14, 1957

Dramatic use reported for a female sex hormone is to eliminate painful fingertip ulcers and loosen hardened, tight-drawn skin in the disease called *scleroderma*.

OCEANOGRAPHY

Ocean Study Needed

Competition, standardization of tools and an increase in men and money are necessary if important problems in oceanography are to be answered.

► TO STUDY neglected features of the world's oceans, the oceanographers of various nations are forming a new group.

Fifteen of the world's most prominent oceanographers gathered at the Woods Hole, Mass., Oceanographic Institution to initiate a new, long-range planning group to continue the international cooperation engendered by the International Geophysical Year.

Earlier this year in Goteborg, Sweden, when IGY programs were discussed, it was proposed that a special committee on oceanography (SCOR) of the International Council of Scientific Unions should come into being, not only to carry on the momentum acquired by the IGY, but also to take care of the areas of modern oceanography which are not included in the IGY studies.

A number of important subjects, for example, the expected radioactive contamination of the sea, were in danger of remaining neglected.

Under the provisional chairmanship at first of Dr. Roger Revelle, director of the Scripps Institution of Oceanography, University of California, the scientists studied further the problem of coordination of scientific activity in all branches of oceanographic research, with a view to framing a scientific program of world-wide scope and significance.

Other scientists were encouraged to apply their skill and knowledge to the problems of the sea.

The possibility of an international meeting on marine sciences to be held in this country in 1959 under the auspices of the American Association for the Advancement of Science has been discussed.

Some years ago a similar large meeting was held on the problem of "the arid lands." Plans made will be submitted to the committee on marine sciences of UNESCO which will meet in Bangkok in the near future.

Scientists at Woods Hole included: Dr. Anton Bruun, Denmark; Cdr. R. A. Capurro, Argentina; Dr. Y. Miyake, Japan; Dr. Roger Revelle, U. S.; Prof. L. Zenkevitch, U.S.S.R.; Dr. M. N. Hill, England; Dr. G. E. R. Deacon, England; Dr. G. Böhnecke, West Germany; Prof. H. Mosby, Norway; Prof. Steemann Neilsen, Denmark; Dr. N. B. Marshall, England; Prof. Y. LeGrand, France; Dr. N. W. Rakestraw and Dr. C. O'D. Iselin, U. S.

Competition Needed

► GUIDED MISSILES, earth satellites and bigger and better radio telescopes have set nations throughout the world competing for "firsts." Such international competition has prompted the marine scientists to suggest

that is just what oceanography needs, a little competition.

In addition to racing for first place in launching the earth satellite, for example, nations might race to learn how the ocean influences climatic changes and how radioactive contamination affects marine life.

The marine scientists urged their colleagues to "sell" their viewpoints and problems in order to attract more investigators from the laboratory and earth sciences.

"The magnitude of oceanic problems makes it imperative that more support in manpower and in money become available," the international committee agreed.

The three long-range problems of "critical importance to man's future welfare" suggested for study were: the productivity of the ocean, and how much and which of the 200,000 species present in the ocean could be used for food; the ocean as a reservoir of man's radioactive and industrial wastes; and the role of the ocean in climatic changes. All three problems, the scientists pointed out, demand knowledge of the exchange of deep and surface water, which is a critical problem in oceanography.

Standardization of the tools used in oceanography, as well as some centralization in the use of research ships were suggested as ways of advancing marine research.

The scientists also proposed that the next two years should be used for exchanging data and standardizing techniques among oceanographers. In 1960 or 1961 a 16-ship survey of the Indian Ocean, the largest unexplored area in the world, should be made.

Dr. Roger Revelle was elected chairman of the special committee. Dr. G. E. R. Deacon, director of the British National Institute of Oceanography, was elected vice chairman and Dr. G. Böhnecke, director of the (West) German Hydrographic Institute, secretary.

Science News Letter, September 14, 1957

GEOPHYSICS

"Dawn Chorus" Occurs Any Time of Day

► THE "DAWN CHORUS," audible radio signals having many rising tones, actually occurs at any time of the day depending on the location of the listener.

So reports Joseph H. Pope of the Geophysical Institute, College, Alaska, in *Nature* (Aug. 31). Previous investigators of the audio-frequency radio waves had concluded the noises were most intense at dawn. Mr. Pope's investigations showed the time the "dawn chorus" is most easily heard depends upon the "geomagnetic latitude."

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