

Four American scientists have been with the expedition at various stages of its progress in the last year and a half. They are Dr. Grace Pickford of Yale University, Dr. Rolf Bolin of Stanford University, Dr. Claude ZoBell of the Scripps Institution of Oceanography, La Jolla, Calif., and Dr. Richard Morita, his assistant. The Danish scientific staff numbered eleven.

Sailing from Copenhagen in October 1950, the GALATHEA has come two-thirds of the way around the world, by a route that took her along both east and west coasts of Africa, through the Indian Ocean, in the South Pacific, and to Hawaii and continental United States. From this point, the ship expects to travel south through the Panama Canal with stops in the Caribbean and thence back to Denmark.

Science News Letter, April 26, 1952

PUBLIC SAFETY

New Stoplight Protects Motorists on Sharp Curve

► A NEW type of stoplight being used by Virginia on U. S. Highway 11 is designed to protect motorists against themselves, the American Publics Works Association reported in Chicago.

Deaths on a particular curve near Natural Bridge have reached a total of 12 during the last 10 years. Normally red, the time interval for the stoplight is designed to make motorists halt their cars if they are traveling too fast to go around the curve safely.

When a car approaches the curve, it passes over a detector in the highway which sends an impulse to the stoplight. If the motorist is driving 25 miles an hour or less, the light will turn green before the motorist has to stop. If he is traveling faster, he must stop until the light flashes the go-ahead signal.

Science News Letter, April 26, 1952

BIOCHEMISTRY

Nucleic Acid Isolated

► NUCLEIC ACID, one of the most important and mysterious substances in the body, has been isolated from the thymus glands of calves by Dr. Norman S. Simmons of the University of California at Los Angeles Medical School.

So far as is known, this is the first time that nucleic acid has been isolated in its whole, pure state.

Nucleic acid is the material that exists in the nucleus of every living cell. The genes that are found in the nucleus and thought to be responsible for the color of eyes, body size, sex, etc., are probably masses of nucleic acid combined with proteins.

Dr. Simmons and his associates in the U.C.L.A. Medical School's Atomic Energy Project revealed that basic studies on the acid have shown that the molecule is actually two to eight times larger than previously thought.

"Nucleic acid is a long, thin molecule," explained Dr. Simmons. "It is much like a string of several hundred pearls, coiled up and twisted into a solid mass, with protein molecules stuck to many of the beads."

"The task was to unravel this delicate mass without breaking the string. Such factors as high temperatures, enemy enzymes, alkalinity or acidity, or too much time spent in the process, will snap the string."

"The methods we used were refinements of old methods developed over the past 50 years. The pure acid is now being isolated under the most gentle conditions from thymus glands of calves in one day."

The scientists are now studying the material to determine correct molecular weight, size, shape and constituents with the ultimate goal of understanding its func-

tion in human growth and development and repair.

An important part of the work is its relation to cancerous body cells and body cells injured by ionizing radiation.

Science News Letter, April 26, 1952

Cheese consumption averaged 7.2 pounds per person during 1951.

SCIENCE NEWS LETTER

VOL. 61 APRIL 26, 1952 No. 17

The Weekly Summary of Current Science, published every Saturday by SCIENCE SERVICE, Inc. 1719 N St., N. W., Washington 6, D. C., North 2255. Edited by WATSON DAVIS.

Subscription rates: 1 yr., \$5.50; 2 yrs. \$10.00; 3 yrs., \$14.50; single copy, 15 cents, more than six months old, 25 cents. No charge for foreign postage.

Change of address: Three weeks notice is required. When ordering a change please state exactly how magazine is now addressed. Your new address should include postal zone number if you have one.

Copyright, 1952, by Science Service, Inc. Reproduction of any portion of SCIENCE NEWS LETTER is strictly prohibited. Newspapers, magazines and other publications are invited to avail themselves of the numerous syndicate services issued by Science Service. Science Service also publishes CHEMISTRY (monthly) and THINGS of Science (monthly).

Printed in U. S. A. Entered as second class matter at the post office at Washington, D. C. under the act of March 3, 1879. Acceptance for mailing at the special rate of postage provided for by Sec. 34.40, P. L. and R., 1948 Edition, paragraph (d) (act of February 28, 1925; 39 U. S. Code 283), authorized February 28, 1950. Established in mimeographed form March 18, 1922. Title registered as trademark, U. S. and Canadian Patent Offices. Indexed in Readers' Guide to periodical literature, Abridged Guide, and the Engineering Index.

Member Audit Bureau of Circulation. Advertising Representatives: Howland and Howland, Inc., 393 7th Ave., N.Y.C., Pennsylvania 6-5566 and 360 N. Michigan Ave., Chicago. STAtE 2-4822.

SCIENCE SERVICE

The Institution for the Popularization of Science organized 1921 as a non-profit corporation.

Board of Trustees—Nominated by the American Association for the Advancement of Science: Edwin G. Conklin, Princeton University; Karl Lark-Horowitz, Purdue University; Kirtley F. Mather, Harvard University. Nominated by the National Academy of Sciences: Harlow Shapley, Harvard College Observatory; R. A. Millikan, California Institute of Technology; L. A. Maynard, Cornell University. Nominated by the National Research Council: Ross G. Harrison, Yale University; Alexander Wetmore, Secretary, Smithsonian Institution; Rene J. Dubos, Rockefeller Institute for Medical Research. Nominated by the Journalistic Profession: A. H. Kirchofer, Buffalo Evening News; Neil H. Swanson, Baltimore Sun Papers; O. W. Riegel, Washington and Lee School of Journalism. Nominated by the E. W. Scripps Estate: Frank R. Ford, San Francisco News; John T. O'Rourke, Washington Daily News.

Officers—President: Harlow Shapley; Vice President and chairman of Executive Committee: Alexander Wetmore; Treasurer: O. W. Riegel; Secretary: Watson Davis.

Staff—Director: Watson Davis. Writers: Jane Stafford, A. C. Monahan, Marjorie Van de Water, Martha G. Morrow, Ann Ewing, Wadsworth Likely. Science Clubs of America: Joseph H. Kraus, Margaret E. Patterson. Photography: Fremont Davis. Sales and Advertising: Hallie Jenkins. Production: Priscilla Howe. In London: J. G. Feinberg.

Question Box

ANIMAL NUTRITION

How could the wool production of U. S. sheep be increased considerably? p. 262.

ASTRONOMY

When will Mars be closest to the earth? p. 266.

BIOCHEMISTRY

How was it shown that proteins are built stepwise? p. 265.

GENERAL SCIENCE

Why will science teachers now be able to star on TV? p. 264.

Photographs: Cover, Bell Aircraft Corporation; p. 259, Elmer Moss; p. 261, Fairchild Aircraft; p. 263, Lederle Laboratories; p. 269, American Locomotive Company.

MAMMALOLOGY

How has the vocabulary of Muriel, the monkey, been determined? p. 261.

MEDICINE

How can doctors now tell whether chest pains are caused by heart or emotions? p. 264.

PUBLIC SAFETY

Where do most home accidents occur? p. 265.

RADIO

How could the moon be used as a message relay? p. 268.