

News and Notes

New England Intercollegiate Field Geology Trip

Lloyd W. Fisher

Department of Geology, Bates College, Lewiston, Maine

The 42nd annual New England Intercollegiate field geology trip was held on October 14 and 15 in the Bucksport-Orland and Mount Desert Island, Maine, area. Joseph Trefethen, of the University of Maine, and Erwin Raisz, of the Institute of Geographic Exploration, Harvard University, were trip leaders. In attendance were 118 geologists, representing 19 colleges and universities, the U. S. Geological Survey, and the Canadian Geological Survey.

Dr. Trefethen conducted the "hard" rock trip to various localities within the Bucksport and Orland quadrangles, to illustrate exposures of early Paleozoic rocks of metamorphic and sedimentary types and later granites of two groups with associated igneous types. Trefethen has established the following stratigraphic sequence in his mapping of the area: The Penobscot formation (Bastin), consisting of metamorphosed equivalents of fine-grained sandstones, siltstones, and shales; the Bucksport formation of lime-silicate gneiss and hornfels; the Copeland formation, which includes thin-bedded muscovite schist and quartzite, and grades downward through a migmatitic facies; the Knox gneiss, which includes igneous and metamorphic gneisses and schists. On the basis of the date established by Bastin for the Penobscot formation, Trefethen believes that the sediments are of Devonian or earlier Paleozoic age.

Outcroppings of the various formations were studied in a systematic manner in order to show that the central structure of the region is anticlinal, with the Knox gneiss at the core of the anticline. Steepening of the fold axes at margins of the Mount Waldo batholith indicates that the batholith may have lifted its lid during intrusion.

Intrusive rocks studied were the medium-textured biotite gneissic granite—Winterport type—the Mount Waldo and Lucerne granites, and basic dikes. The Lucerne

granite underlies much of the Orland quadrangle and is similar to, but coarser than, the Mount Waldo granite.

Dr. Raisz conducted a group interested in geomorphology to Mount Desert Island. He pointed out the glacial features and the associated shore-line features of the granitic mountains of the area. These granitic mountains (Mount Cadillac and others) stood athwart the direction of movement of the southerly advancing continental ice as it moved across the rolling peneplane of southern Maine. Ice tongues originated as the ice grew higher and spilled through preglacial saddles in the granite masses and sawed its way downward, leaving nine evenly spaced, north-south trending glacial troughs or "dorrns." Raisz likened these dorrns to those of the Mount Holyoke range and of the Blue Hills, in Massachusetts. Some Sound, invaded by the postglacial sea, is one of the central dorrns formed by southward-moving ice, and represents a fiord or a submerged glacial trough.

Evidence noted in two delta deposits and on promontories washed clean of glacial gravel suggest that the upper marine limit of the postglacial sea was 230 feet. Postglacial wave attack has cliffed some of the older and more brittle rocks, the felsites, and cut some evenly spaced thunderholes in other rocks, but most of the natural seawalls seem to be the result of glacial plucking. Dr. Raisz indicated that there are many unsolved problems in the area—viz., the general southward downtilt of Maine in postglacial time; the sharp, glaciated notches at Seal Cove Pond; and the "tundras," bog-filled marsh deposits.

The usual business meeting was conducted at the University of Maine on Saturday evening, and refreshments were served by the host-leader and Mrs. Trefethen. No "spot" has been selected for the 1951 meeting, which will mark the 50th anniversary of the organization.

Scientists in the News

Recent visitors at the National Bureau of Standards from abroad were: **Morris Bailey**, Australian Research Association on Leather, Sydney; **E. S. Hedges**, and **W. R. Lewis**, Tin Research Institute, London; **Albert Mathieu**, Parra Mantois Le Vesinet, Slo, France; **L. Van Ouwerkerk**, Roentgen Technical Services, Inc., Overachie, Holland; **A. Swagerman**, G. Dijkers & Co., Hengelo, Holland; and **Lee O. Stern** and **W. R. Marchant**, Sociedad Fraternal Hut-teriana, Primavera, Alto, Paraguay.

William J. Cromartie, of the University of Minnesota, and **Henry P. Treffers**, of Yale, have been appointed to the ONR Advisory Panel for Microbiology. Other members include Walter J. Nungester, University of Michigan; H. O. Halvorson, University of Illinois; Charles A. Evans, University of Washington; and J. Roger Porter, University of Iowa.

The newly elected chairman of the American Chemical Society's Division of Biological Chemistry is **John T. Edsall**, associate professor of biochemistry and chairman of the board

of tutors in biochemical sciences at Harvard Medical school. He succeeds **Max A. Lauffer** of the University of Pittsburgh. **R. H. Barnes**, director of biochemical research of Sharp & Dohme, Inc., was named vice chairman, and **P. W. Preisler**, Washington University of School of Medicine, secretary-treasurer.

Heinz Fraenkel-Conrat, senior chemist of the USDA Western Regional Research Laboratory, has resigned to spend a year abroad at the National Institute of Medical Research, Mill Hill, London, and the Carlsberg Laboratories in Copen-

hagen before joining the staff of the Virus Laboratory of the University of California.

The developer of one of the first successful radar homing devices, **Charles D. Perrine, Jr.**, has joined the electronics and guidance section of Consolidated Vultee, San Diego. Perrine went to Convair from his position as manager of the electronics department of Fairchild Engine and Airplane Corporation's guided missiles division, Farmingdale, N. Y. Prior to this he was associated with the Hughes Aircraft Company, Los Angeles, where he designed and built the radio equipment for the plane in which Howard Hughes made his around-the-world flight in 1938, at that time a record-breaking 91-hour trip.

T. M. Sugden has been named H. O. Jones Lecturer in Physical Chemistry at Cambridge University. Dr. Sugden succeeds **F. S. Dainton**, who is now professor of inorganic and physical chemistry at the University of Leeds.

The origin and development of island life in the Pacific was the subject of a series of 13 lectures recently given by **Elwood C. Zimmerman**, at Stockholm, Uppsala, Lund, and Copenhagen. He has since returned to his research at the British Museum of Natural History, where he has been preparing further volumes of his series on "Insects of Hawaii" since June 1949. Dr. Zimmerman plans to return to his post at the Experiment Station, Hawaiian Sugar Planters' Association, Honolulu, next summer.

Awards

The **Progress Medal** of the Society of Motion Picture and Television Engineers has been presented to Vladimir K. Zworykin, vice president of RCA Laboratories Division. This is the highest distinction conferred by the society on an individual for significant contributions in a new field. Other major awards were the **Samuel L. Warner Award Medal**, to Charles R. Fordyce, superintendent of the Department of Manufacturing Experiments, Eastman Kodak Company, for research

and development leading to wide commercial adoption of safety film, and the **Journal Award**, to Frederick J. Kolb, Jr., of Eastman Kodak Company, for his technical paper, "Air Cooling of Motion Picture Film for Higher Screen Illumination," judged the best published in the society's journal during 1949.

At the annual meeting of the Mineralogical Society of America, the **Roebbling Medal** was awarded to Norman L. Bowen, of the Geophysical Laboratory, Washington, D. C. This medal is the highest award offered by American mineralogists for significant contributions in their field.

Fellowships

Two fellowships in basic sciences in medicine are being offered by the College of Medicine of the State University of Iowa for 1951-52 to graduates who plan academic careers in medicine. The fellowships are on the basis of half-time teaching and half-time research in anatomy, bacteriology, biochemistry, pathology, pharmacology, physiology, and hygiene and public health, including parasitology, and are open to graduates of any approved medical school. The stipend is \$3,600 a year for single fellows and \$4,000 for those who are married. Application forms may be obtained from the Office of the Dean, College of Medicine, State University of Iowa, Iowa City, and must be returned by *April 1*.

The **Social Science Research Council** is offering fellowships and grants of the following types for 1951: Research Training fellowships, open to men and women who have demonstrated exceptional aptitudes for research and who wish to obtain more advanced research training than is provided in the usual Ph.D. program. Normally, support will be given for one year, and the basic stipends are \$2,500 for predoctoral, and \$3,500 for postdoctoral, fellows; Grants-in-Aid of Research with a stipend not to exceed \$1,500; Area Research Training Fellowships offered for advanced training in preparation for research clearly related to understanding of the contemporary culture of a major world area outside

the U. S. Preference will be given for work in the social sciences, and stipends are \$2,500 per year for predoctoral, and \$3,500 for postdoctoral, fellows. Travel Grants for Area Research, not to exceed \$2,500, are offered only to mature scholars of established competence as specialists on the contemporary culture of a major world area outside the U. S.; Faculty Research Fellowships are open to members of social science faculties under 35 to enable them to devote time to self-directed research. Inquiries, which should indicate age, academic status, vocational aims, the nature of proposed training or research and type of assistance desired, should be addressed to the Washington office of the Social Science Research Council, 726 Jackson Pl., N. W., Washington 6, D. C. Applications must be filed by *January 15*.

Nominations for the **Elmer Peter Kohler Fellowship**, which provides for exchange of outstanding students between Harvard University and other schools, are now being accepted for 1951-52. The fellowship carries a stipend of \$1,000. A fellow appointed for study at Harvard will be recommended for a tuition fellowship and will receive a subsidy from the Harvard Foundation for Advanced Study and Research for about 80% of his research expenses. Nominations of candidates, with application for admission to the proposed institute of study, should be sent to W. S. Johnson, Department of Chemistry, Harvard University, Cambridge 38, by *February 1*.

Colleges and Universities

Western Reserve University will present two topics in the Frontiers in Chemistry Lecture Series for 1951: "Application of Instruments to Composition and Molecular Structure" and "Prevention of Deterioration of Organic Materials." Each topic will be covered in five lectures on successive Fridays, starting March 2. Lecturers and their subjects will be announced later.

Lincoln University (Pennsylvania) has established America's first Institute for the Study of African Affairs, similar in organization to the Russian institutes at Harvard

and Columbia. The staff will include experts on African history, economics, politics, art, religion, and languages. The three purposes set forth for the institute are: to provide African students in the U. S. opportunities for seeing problems of their continent in perspective and to aid them in planning for careers of service in their native land; to enlighten Americans who will "increasingly play important roles in African affairs;" and to help build a world united through mutual understanding.

Stevens Institute of Technology has acquired an analog computer, lent by the Office of Naval Research. The acquisition of this experimental model makes Stevens one of the first engineering schools to have such a device. Housed in the Navy Building on the campus, the machine will be used for research computations by the Experimental Towing Tank and other research operations, and for instruction in a graduate course in computing devices.

Meetings

The Radiological Society of North America will hold its annual meeting December 10-15, at the Palmer House, Chicago. A series of refresher courses will be presented; two on Sunday and seven courses daily thereafter. Nonmembers will be charged a fee for attendance. Scientific and commercial exhibits will be shown. The Carman Lecture will be given by Warren W. Furey, president of the society.

The Harvey Society has announced the speakers for its annual series of lectures, given at the New York Academy of Medicine. William T. Astbury, University of Leeds, England, Boris Ephrussi, Laboratoire de Génétique, University of Paris, and Andre Cournand, College of Physicians and Surgeons, Columbia University, gave the first three lectures of the series. The future schedule includes:

Dec. 21—"Some Chemical Aspects of the Cell Nucleus," Alfred E. Mirsky, The Rockefeller Institute for Medical Research;

Jan. 18—"The Problem of Fertilization as Elucidated by Experiments on Sea Urchins," John Run-

ström, director of the Wenner-Gren Institute for Experimental Biology, Stockholm;

Feb. 15—"Enzyme Studies in Biological Oxidations and Synthesis," Severo Ochoa, New York University College of Medicine;

Mar. 15—"Present Knowledge of Growth and Adrenocorticotrophic Hormones," Choh Hao Li, University of California at Berkeley;

April 19—"The Path of Carbon in Photosynthesis," Melvin Calvin, Radiation Laboratory, University of California at Berkeley; and

May 17—"Immunochemistry of the Blood Group Substances," Elvin A. Kabat, College of Physicians and Surgeons, Columbia University.

The annual meetings of the **American Association of Economic Entomologists** and the **Entomological Society of America** will be held in Denver, December 18-21, at the Cosmopolitan and the Shirley-Savoy Hotels. The AAEE program includes a special session on the bioassay of insecticides and a joint session with the Entomological Society. The ESA program features a symposium on morphology and evolution, and the Invitational Public Address will be given by Cornelius B. Philip, Rocky Mountain Laboratory, USPHS, Hamilton, Mont.

The 34th annual meeting of the **Mathematical Association of America** will be held at the University of Florida, on December 30. Speakers will be A. W. Tucker, Princeton University; A. S. Householder, Oak Ridge National Laboratory; J. F. Daly, Bureau of the Census; E. J. McShane, University of Virginia; L. M. Kelly, Michigan State College; and Tomlinson Fort, University of Georgia.

The 11th annual **Congress of Industrial Health** will be held in Atlanta, Ga., at the Atlanta Biltmore Hotel, February 26-27. The congress will be sponsored by the Council on Industrial Health of the American Medical Association, the Medical Association of Georgia, the Fulton County Medical Society of Atlanta, and the DeKalb County Medical Society of Decatur. The importance of industrial health in civil defense in times of national disaster will be highlighted.

New Delhi, India, will be the scene of the second postwar sectional meeting of the **World Power Confer-**

ence January 10-15. The **fourth Congress on Large Dams** is to be held at the same place and time. Before and after the two conferences study tours will be conducted from the Malikpore hydraulic research station in the extreme north of India to Bangalore, Mysore, and the Mettur Dam in the south. Closing sessions will take place at Mysore on February 1. Concurrently an **Indian International Engineering Exhibition** will be held at New Delhi.

NRC News

National Research Fellowships in the Natural Sciences and **Merck Postdoctoral Fellowships** will be continued for the academic year 1951-52, and applications are now being accepted. The NR Fellowships, supported by the Rockefeller Foundation to promote fundamental research in the natural sciences, are available in mathematics, astronomy, physics, chemistry, geology, geophysics, paleontology, physical geography, botany, zoology, biochemistry, biophysics, agriculture, forestry, anthropology, and psychology. They are awarded to citizens of the U. S. or Canada, and generally only to persons under 35 years of age. The requirements for the doctorate must have been completed prior to assuming the fellowship, and the fellow must have demonstrated a high order of ability in research. Fellowships will be awarded by the Natural Sciences Fellowship Board at its meeting in March 1951. Applications to be considered at this meeting should be filed on or before *January 1, 1951*. Tenure of the fellowship may begin at any appropriate time after the Board meeting.

The Merck Postdoctoral Fellowships, supported by Merck & Company, Inc., are designed to give special training and experience to young men and women who have demonstrated marked ability in research in chemical or biological science, and who wish to broaden their fields of investigation. They are open to citizens of the U. S. with training in chemistry or biology equivalent to that represented by the Ph.D. degree. All fields of chemistry or biology, including the preclinical medical sciences, are open to these applicants,

and the fellowship board will give special consideration to applicants who wish to supplement their specialty with work in another field. Applications must be filed before *January 15, 1951*. Awards will be made as soon as possible after March 1, and, unless otherwise arranged, tenure will begin on July 1. Appointments will be made for one year; in exceptional cases applications for renewal will be considered.

Application blanks and further information may be obtained from the Fellowship Office, National Research Council, 2101 Constitution Ave., N.W., Washington 25, D. C.

The proceedings of a **Conference on Absolute Beta Counting** have been published as Preliminary Report No. 8 in the NRC "Nuclear Science Series;" the report is available from the Division of Mathematical and Physical Sciences upon request from active workers in the field. The conference was convened by the NRC Committee on Nuclear Science to discuss problems involved in the determination of disintegration rates by counting β -rays. The eleven papers presented at the meeting considered such problems as the standardization and use of radium isotopes as β -sources, the construction and mounting of β -counters, and back-scattering and absorption phenomena. Comments and discussion are included for each paper.

The little-known **fauna of South Africa's highlands** will be thoroughly studied during a 10-month period by Per Brinck and Gustav Rudebeck and their wives, all of the Institute of Zoology, Lund, Sweden. The latest ecological methods will be employed, and it is hoped that remnants of an antaretic animal world will be found. The investigations will be carried out in collaboration with South African scientists; later much of the material will be studied in Swedish museums.

The second annual **Radiation Instrument Catalog**, compiled and edited by the AEC Radiation Instruments Branch, is available at \$2.00 a copy from the Office of Technical Services, U. S. Department of Commerce, Washington 25, D. C.

According to the publication, 84 U. S. firms are engaged in the manufacture of 180 different types of radiation detection instruments and their components and accessories. The catalogue lists 543 specific items of equipment now commercially available.

The American Physical Society has organized a division of chemical physics to advance understanding in subjects of chemical interest the development of which depends on modern physical theories or techniques. Members of the society may send application for membership in the division, with an initiation fee of \$2.00, to R. S. Mulliken, Physics Department, University of Chicago. The inaugural meeting of the division will be held at the society's Pittsburgh meeting, March 8-10, 1951. It will comprise a symposium on molecular structure and valence theory and symposia illustrating the application of statistical and quantum mechanics.

As part of the continuing investigation of allergy, 38 U. S. and Canadian doctors have completed an **allergy map** of these countries, locating the areas of heavy mold spore concentrations. Leonard H. Harris, of Northwestern University, headed the committee of the American Academy of Allergy in its survey of airborne mold spores. The investigators found two molds, *Alternaria* and *Hormodendrum*, in greatest abundance in the Great Plains area of the U. S., less in the Eastern states, and least in the South and Southwest. It was found that these molds grow in great profusion on wheat, oats, hay, and corn. The survey will aid allergists in identifying and classifying mold colonies and their spores and will add information concerning the relationship between various species.

The Sarawak Museum, Kuching, Sarawak, is interested in arranging exchanges of specimens and publications. The museum has extensive ethnographical collections, including an outstanding one in Borneo material. It has considerable archaeological material, including neolithic implements, about 15,000 bird skins,

1,000 mammals, a rich collection of insects, a representative collection of mollusks, and collections of fish, reptiles, and other groups. An extensive plant collection has recently been rearranged by the director of the Botanic Gardens, Singapore. These collections come, for the most part, from Sarawak, but include material from North and East Borneo.

The recently revived *Sarawak Museum Journal* is published as opportunity permits, with at least one issue a year (two issues in 1950). The editors plan to devote a large proportion of space in the immediate future to anthropology, ethnology, and archaeology, but zoological, botanical, meteorological, and geological contributions will be published. The subscription price is approximately \$2.50.

"Hilholme," one of the estates of the late Percy S. Straus, has been sold by the U. S. Public Health Service for approximately \$140,000. The proceeds will be used in a five-year program of **research in multiple sclerosis**. The purchaser of the property is now operating it as a home for the custodial care of patients with multiple sclerosis and other chronic neurological diseases.

Publications Received

ACTH. The Armour Laboratories, 1425 W. 42nd St., Chicago 9, Ill.

Human Sterilization: Techniques of Permanent Conception Control. R. L. Dickinson and C. J. Gamble. Birthright, Inc., Sterilization for Human Betterment, 134 Nassau St., Princeton, N. J.

The British Journal for the Philosophy of Science, Vol. I, No. 1. Thomas Nelson and Sons, Ltd., Parkside Works, Edinburgh, Scotland. 7/6.

Proceedings of Symposium on Improved Quality Electronic Components. Trielectro Company, 1 Thomas Circle, Washington 5, D. C. \$3.50.

The Snellius Expedition in Eastern Part of East Indian Archipelago, 1929-30. Vol. II, Oceanographic Results; Part 6, Tables, Serial and Bottom Observations, Temperature, Salinity and Density. P. M. Van Riel *et al.* E. J. Brill, Oude Rijn 33a, Leiden, Holland.