

Association Affairs

Programs Planned for the AAAS New York Meeting

Section and society programs in geology and geography and the biological sciences to be presented at the New York meeting are given here. Programs in mathematics, physics, chemistry, and astronomy have been previously announced [*Science* **132**, 1259 (28 Oct. 1960)].

Geology and Geography

Section E. Symposium, cosponsored by the Ecological Society of America and the Geological Society of America: "Palynology," arranged by Calvin J. Heusser, American Geographical Society, with Harold L. Cousminer, New York University, presiding; 27 Dec. Papers will be presented on pleistocene palynology in the United States (Margaret B. Davis, Yale University and the University of Michigan); palynology and prehistory—the Southwest as an example (Paul S. Martin, University of Arizona); palynology as an adjunct to taxonomy (A. Orville Dahl, University of Minnesota); stratigraphic palynology as a tool for commercial geology (L. R. Wilson, Oklahoma Geological Survey); palynology, paleofloras, and paleoenvironments (Harold L. Cousminer).

Section E vice-presidential address and smoker: joint session of Section E, the Geological Society of America, and the Association of American Geographers, with William C. Krumbein, Northwestern University, presiding. The address, "Mineral Raw Materials in the National Economy," will be given by Howard A. Meyerhoff, Scientific Manpower Commission; 27 Dec.

AAAS Interdisciplinary symposium, joint program of Sections E—Geology and Geography, K—Social and Economic Sciences, O—Agriculture, P—Industrial Science, and the Association of American Geographers: "The Urban Frontier: A Conquest of Inner Space," arranged by Firman E. Bear, Rutgers State University, Frank C. Whitmore, Jr., U.S. Geological Survey, and Charles C. Morrison, Jr., American Geographical Society, with James E. Lash, Action, Inc., presiding; 28 Dec. Papers will be presented on application of census statistics to problems of urban renewal

(Ross Eckler, Bureau of the Census); urban renewal and metropolitan affairs (Martin Millsbaugh, Charles Center); two basic issues in local renewal policy (Coleman Woodbury, University of Wisconsin); renewal for industry—the opportunity and the problem (Dorothy A. Muncy, consulting city planner, Arlington, Va.); Newark, New Jersey—a case study in urban renewal (Paul Busse, Newark Economic Development Committee); urban renewal in New York City (George M. Raymond, Pratt Institute).

Symposium, joint session of Section E and the Geological Society of America: "Frontiers in the Earth Sciences, Part I," arranged by A. John Haworth, American Overseas Petroleum Limited, who will preside with William C. Krumbein, Northwestern University; 29 Dec. After an introduction on unity of purpose in the earth sciences by A. John Haworth, papers will be presented on a reappraisal of Appalachian geology (Herbert P. Woodward, Newark College of Rutgers University); the changing panorama of petroleum exploration (Robert E. King, American Overseas Petroleum Limited); current practice and trends in mineral exploration (Thomas S. Lovering, U.S. Geological Survey, Denver, Colo.); the status of paleontology (Ellis Yochelson, U.S. Geological Survey, Washington, D.C.); geochronometry by radioactive decay (Harold W. Krueger, Geochron Laboratories, Inc.); natural chromatography and the geochemistry of petroleum accumulation (Bartholomew S. Nagy, Fordham University). "Frontiers in the Earth Sciences, Part II" has also been arranged by A. John Haworth, with Hollis D. Hedberg, Princeton University, and Herbert P. Woodward, Rutgers University, presiding; 29 Dec. Papers will be presented on trends in geographic research (Preston E. James, Syracuse University); airborne exploration methods (F. Woods Hinrichs, Fairchild Aerial Surveys Inc.); satellite observations in relation to the earth sciences (Robert Jastrow, National Aeronautics and Space Administration); recent trends in marine geophysical exploration (Charles L. Drake, Lamont Geological Observatory); international cooperation at sea (Columbus O'D Ise-

lin, Woods Hole Oceanographic Institution); convergence of evidence on climatic change and ice ages (Rhodes W. Fairbridge, Columbia University). The symposium will conclude with a panel discussion by all participants.

Symposium, joint session of Section E, the Geological Society of America, and the American Geophysical Union: "The Mohole," arranged by Harry S. Ladd, U.S. Geological Survey, Washington, D.C., who will preside with James R. Balsley, U.S. Geological Survey, Washington; 30 Dec. After introductory remarks by Harry S. Ladd, papers will be presented on project Mohole (Gordon G. Lill, Office of Naval Research); scientific objectives of the Mohole and a predicted section (Harry H. Hess, Princeton University); possibilities of wire-line logging methods in the Mohole (H. G. Doll, Schlumberger Well Surveying Corporation); drilling from floating vessels in the open sea (R. F. Bauer and A. J. Field, Global Marine Exploration Company); experimental drilling in deep water (Willard Bascom, National Research Council).

The Section E Committee will hold a luncheon meeting on 30 Dec.

Symposium, program of Section E and the Geological Society of America, cosponsored by Section D—Astronomy: "Selenology," arranged by Arnold C. Mason, U.S. Geological Survey, Washington, D.C., and L. W. L. Leroy, Colorado School of Mines, who will both preside; 30 Dec. Papers will be presented on the geologist's role in selenology (L. W. L. Leroy); making of a model moon (William R. Benton, Baltimore, Md.); the moon-mapping program at Army Map Service (Marian Hardy, Army Map Service); lunar terrain analysis (Jack R. Van Lopik, Waterways Experiment Station); physical divisions and photogeologic map of the moon (Arnold C. Mason and Robert J. Hackman, U.S. Geological Survey, Washington, D.C.); stratigraphic basis for a lunar time scale (Eugene M. Shoemaker, U.S. Geological Survey, Menlo Park, Calif., and Robert J. Hackman); a theory of the distribution of tektites (John A. O'Keefe and Barbara Shute, National Aeronautics and Space Administration); tektites and the cyrrillid shower (John A. O'Keefe); nondestructive x-ray spectrographic analysis of extraterrestrial substances (Isadore Adler, U.S. Geological Survey); origin of the Ries Basin, Bavaria, Germany (Eugene M. Shoemaker, U.S. Geological Survey, Menlo Park, Calif., and E. C. T. Chao, U.S. Geological Survey, Washington, D.C.); Vredefort ring-structure—an astrobleme (meteorite impact structure) (Robert S. Dietz, Navy Electronics Laboratory); the application of geology to man's survival on the moon (Jack Green, North American Avia-

tion, Inc.); geological exploration of the moon (Paul J. Shlichta, California Institute of Technology).

The chairman for the entire program of Section E is A. John Haworth, American Overseas Petroleum Limited.

Association of American Geographers. Session for submitted papers, cosponsored by Section E: "Contributed Papers in Geography, I," arranged by Charles C. Morrison, Jr., American Geographical Society, with William O. Field, American Geographical Society, presiding; 27 Dec. "Contributed Papers in Geography, II" has also been arranged by Charles C. Morrison, who will preside; 30 Dec.

Panel discussion, cosponsored by Section E: "Programming the Use of Natural Resources," arranged by Leonard Zobler, Barnard College, who will preside; 30 Dec. Topics will be: the meaning and need for resource programming (Leonard Zobler); water resources programming (Garald Parker, U.S. Geological Survey); foreign trade policies affecting mineral fuels in the U.S. and Western Europe (Sam H. Schurr, Resources for the Future, Inc.); program planning for forests—needs and techniques (George F. Burks, U.S. Forest Service); resources of the sea (Louis S. Kornicker, Department of the Navy); conservation in the tri-state New York metropolitan region (William A. Niering, Connecticut College); conservation and resource programming (S. V. Ciriacy-Wantrup, University of California, Berkeley).

Symposium, cosponsored by Section E: "Late Pleistocene Events in Southern South America," arranged by Charles C. Morrison, Jr., American Geographical Society, with Junius B. Bird, American Museum of Natural History, presiding; 27 Dec. Papers will be presented on postglacial environmental changes in the Laguna San Rafael area, Southern Chile (Ernest H. Muller, Syracuse University); recent glacier variations in the Southern Andes (Donald B. Lawrence and Elizabeth G. Lawrence, University of Minnesota); glacier fluctuations on the eastern side of the South Patagonian Andes (John H. Mercer, Institute for Polar Studies, Ohio State University); sediments from the Argentine Continental Shelf—a preliminary report (M. Ewing, C. Fray, E. Dahlberg, Lamont Geological Observatory); the Chilean earthquake of 1960 (Pierre St. Amand, Institute of Inter-American Affairs).

Symposium (concurrent with the symposium on late Pleistocene events in South America) cosponsored by Section E: "Soviet Geography," arranged by Theodore Shabad, New York Times and *Soviet Geography*, with Charles B. Hitchcock, American Geographical Society, presiding; 27 Dec. Papers will be

presented on the contributions of Soviet geography to the system of physical-geographical regions (W. A. Douglas Jackson, University of Washington); methodological controversy in Soviet geography (Robert Taaffe, Indiana University); heat and water balance research and the role of Soviet geography therein (Jacek I. Romanowski, University of Washington); climatological studies in the Soviet Union (Paul E. Lydolph, University of Wisconsin); the preparation of a Soviet geographer (Jack Villmow, Ohio State University); geography and economic planning as illustrated by the Soviet electric power industry (Aloys A. Michel, Yale University).

Panel discussion, cosponsored by Section E: "The New York Metropolitan Region of the Future," arranged by the Regional Plan Association, Inc., with William N. Cassella, Jr., Columbia University, presiding; 29 Dec. Topics will be: view of the future (C. McKim Norton, Regional Plan Association); the role of the federal government (Robert H. Connery, Duke University); cooperation through the Metropolitan Regional Council (Karl E. Metzger, Board of Chosen Freeholders, Middlesex County, New Brunswick, N.J.); the responsibility of the states (John E. Bebout, National Municipal League).

Symposium, cosponsored by Section E: "Economic Development and Investment in Africa South of the Sahara," arranged by Leonard Tow, African Research and Development Company, Inc., who will preside; 29 Dec. Papers will be presented on recent economic developments in West Africa (William A. Hance, Columbia University); some conditions essential to the acceleration of the rate of economic developments in West Africa (Edward Marcus, Brooklyn College); the influence of political philosophies on trade and investment in West Africa (Thomas P. Melady, Consultants for Overseas Relations); some factors influencing large-scale investment in Africa (F. Taylor Ostrander, American Metal Climax, Inc.); circumstances governing the rate and direction of flow of American private investment in Africa (E. Kennedy Langstaff, Transoceanic American Overseas Finance Company).

There will be a geographer's dinner on 29 Dec., sponsored by the New York-New Jersey Section of the Association of American Geographers.

There will be an Open House at the American Geographical Society arranged by Charles C. Morrison, Jr., 28 Dec., with George B. Cressey, Syracuse University, presiding.

National Geographic Society. There will be a lecture and color film, *Finding the World's Earliest Man*, by Matthew W. Stirling, Smithsonian Institution and

Committee for Research and Exploration, National Geographic Society; 30 Dec.

National Speleological Society. The NSS is having two symposia, cosponsored by Section E. The first, "Physiological Adaptations of Cavernicolous Organisms," has been arranged by Brother G. Nicholas, F.S.C., University of Notre Dame, who will preside; 27 Dec. Papers will be presented on energy metabolism and activity of amblyopsids (Thomas L. Poulson, University of California, Los Angeles); some behavioral and physiological adaptations of cavernicolous bats (John W. Twente, University of Utah); a year-round study of a population of cave salamanders (Charles E. Mohr, Swiss Pines Park, Malvern, Pa.); observations on cavernicolous communities with special reference to mammoth cave (Orlando Park, Northwestern University, and Thomas C. Barr, Tennessee Polytechnic Institute); observations on cavernicolous behavior in Flint Ridge, Kentucky (Thomas L. Poulson); observations on the occurrence of fossil vertebrates in caves of Jamaica, British West Indies (Walter Auffenberg, AIBS Curriculum Study). The second symposium of the NSS, "Cave Mineralogy," is cosponsored by the Geological Society of America as well as by Section E. It has been arranged by William B. White, Pennsylvania State University, who will preside; 27 Dec. Papers will be presented on the aragonite-calcite problem (Rane L. Curl, Shell Development Company); the growth of stalactites (George W. Moore, U.S. Geological Survey); hexagonal stalactites from Rushmore Cave, South Dakota (William A. Bassett, Brookhaven National Laboratory, and Allen M. Bassett, Ohio Wesleyan University); secondary mineralization in Wind Cave, South Dakota (William B. White and George H. Deike III, Pennsylvania State University); monocrySTALLINE speleothems (James F. Quinlan, Jr., University of Texas).

Biological Sciences

Section F—Zoological Sciences. Symposium, jointly with Section G—Botanical Sciences, co-sponsored by the American Society of Zoologists: "Life Under Extreme Conditions, Part I: Cells," arranged by A. Cecil Taylor, Rockefeller Institute, who will preside; 27 Dec. Papers will be presented on the effects of extreme cold on vertebrate cells (Harold Meryman, Naval Medical Research Institute); effects of extreme temperatures and desiccation on bacteria (Halvor Halvorson, University of Illinois); high-pressure studies on living cells (Douglas Marsland, New York University).

"Life under Extreme Conditions, Part II: Plants and Animals," arranged

by Charles P. Lyman, Harvard Medical School, who will preside; 27 Dec. Papers will be presented on structural adaptations of woody plants to arid environments (Jane Philpott, Duke University); adaptations of arctic and alpine plants to environmental conditions (Lawrence Bliss, University of Illinois); seasonal acclimatization in mammals and birds (J. S. Hart, National Research Council); adaptations of reptiles, birds, and mammals to high environmental temperatures (George A. Bartholomew, University of California, Los Angeles).

"Life Under Extreme Conditions, Part III: Human Studies" featured as an AAAS interdisciplinary symposium in the biological sciences, arranged by J. P. Marbarger, University of Illinois, who will preside; 28 Dec. After an introduction to and resumé of the problem (Hubertus Strughold, Brooks Air Force Base), papers will be presented on the effect of extreme pressure changes on the human being (Fred A. Hitchcock, Ohio State University); the responses of man to extreme conditions of hyperthermia (James D. Hardy, Naval Air Development Center); the effect on the human being of extreme conditions of hypothermia (Steven M. Horvath, Lankenau Hospital).

Symposium, held jointly with Section G—Botanical Sciences, cosponsored by the American Society of Zoologists: "Unsolved Problems in Biology, 1960: Submicroscopic Cellular Structure and Function," arranged by Barry Commoner and Viktor Hamburger, Washington University, with Barry Commoner presiding; 29 Dec. Papers will be presented on the biochemical significance of the endoplasmic reticulum (Philip Siekevitz, Rockefeller Institute); chemical and enzymatic organization of mitochondria (Albert L. Lehninger, Johns Hopkins University); genetic activity and chromosome structure (Jack Schultz, Institute for Cancer Research); molecular organization in the neuron (Peter F. Davison, Massachusetts Institute of Technology). Presentation of the papers will be followed by a discussion.

There will be a business meeting of Section F on 29 Dec.

Zoologists' dinner and vice-presidential address of Section F (a joint session of Section F, the American Society of Zoologists, and the Society of Systematic Zoology): "An Embryologist Visits Japan," by Viktor Hamburger, vice president for Section F; 29 Dec.; Emil Witschi, American Society of Zoologists, presiding.

Four-session symposium (joint program of the American Society of Zoologists, cosponsored by Section F and the Society of General Physiologists): "Spermatozoan Motility," arranged by David W. Bishop, department of em-

bryology, Carnegie Institution of Washington, Baltimore; 29 and 30 Dec. Supported by a grant from the National Institutes of Health. Part I, with H. Burr Steinbach, University of Chicago, presiding; 29 Dec. Papers will be presented on sperm movement, problems, and observations (Lord Rothschild, University of Cambridge); a theory of the survival value of motility (F. D. Carlson, Johns Hopkins University).

Part II, with Keith R. Porter, Rockefeller Institute, presiding; 29 Dec. Papers will be presented on ultra-structure in relation to sperm motility (D. W. Fawcett, Harvard University); biophysical principles underlying sperm motility (F. G. E. Pautard, Leeds University, England); physicochemical aspects of sperm motility (L. Nelson, Emory University).

Part III, with R. J. Flipse, Pennsylvania State University, presiding; 30 Dec. Papers will be presented on metabolic reactions in spermatozoa (C. Terner, Boston University); respiration and oxidative phosphorylation in relation to sperm motility (P. H. Gonsse, Centre de Recherches de Lyons, Lyons, France); ionic and osmotic requirements (G. W. Salisbury, University of Illinois).

Part IV, with Teru Hayashi presiding; 30 Dec. Papers will be presented on adenosine triphosphatase and acetylcholinesterase in relation to sperm motility (J. Tibbs, University of St. Andrews, Fife, Scotland); reactivation of extracted sperm-cell models in relation to the mechanism of motility (David W. Bishop); studies on isolated flagella (C. J. Brokaw, University of Minnesota).

Section F is a cosponsor of the program of the New York Academy of Sciences: "Current Problems in Electrobiology"; 30 Dec.

American Society of Zoologists. Two-session symposium, program of the Division of Comparative Physiology: "Physiology of Molluscs"; arranged by R. Boolootian, University of California, Los Angeles, Karl M. Wilbur, Duke University, presiding; 29 and 30 Dec. Part I. Papers will be presented on acclimation in molluscs (Earl Segal, Rice University); comparative physiology of digestion in molluscs (P. B. van Weel, University of Hawaii); nitrogen metabolism in the Mollusca (Kenneth Allen, University of California, Los Angeles); comparative functional morphology of the boring mechanism in boring gastropods (Melbourne R. Carriker, University of North Carolina).

Part II. Papers will be presented on neurohormones in molluscs (John H. Welsh, Harvard University); physiology of reproduction in molluscs (Paul S. Galtsoff, U.S. Fish and Wildlife Service, Woods Hole, Mass.); chemoreception in gastropods (Alan J. Kohn, Florida State

University); variations in the heart rate of mussels from different habitats.

Symposium, program of the Division of Vertebrate Morphology: "Evolution and Dynamics of Vertebrate Feeding Mechanisms"; 28 Dec.; arranged by Perry W. Gilbert, Cornell University, and Bobb Schaeffer, American Museum of Natural History; Perry W. Gilbert, presiding. Papers will be presented on feeding mechanisms of Agnatha, Acanthodii, and Placodermi (Robert H. Denison, Chicago Natural History Museum); dynamics of the feeding mechanism in sharks (Stewart Springer, U.S. Fish and Wildlife Service); the origin of the holostean feeding mechanism (Bobb Schaeffer, American Museum of Natural History); the jaw of cyprinodontiform fishes, a pre-acanthopterygian experiment in protractility (Donn E. Rosen, Florida State Museum and University of Florida); feeding mechanisms: crossopterygians, amphibians, primitive reptiles (Everett C. Olson, University of Chicago); the feeding mechanism of snakes—its possible evolution (Carl Gans, University of Buffalo); feeding adaptations in Galápagos finches (Robert I. Bowman, San Francisco State College); the feeding mechanism in mammals (D. Dwight Davis, Chicago Natural History Museum); concluding comments by Alfred S. Romer, Harvard University.

Symposium, program of the Division of Endocrinology, cosponsored by AAAS Section F—Zoological Sciences, the Division of Developmental Biology, and the Genetics Society of America: "Evolution of Sex"; arranged by Emil Witschi, State University of Iowa, who will preside; 28 Dec. Papers will be presented on genetic exchange in bacteria and bacteriophages (Norton D. Zinder, Rockefeller Institute); genetics of mammalian sex chromosomes (Liane B. Russell, Oak Ridge National Laboratory); the sex chromatin—facts and interpretation (Susumu Ohno, City of Hope Medical Center, Duarte, Calif.); sex chromosomes and sex aberrations in man (Paul E. Polani, Guy's Hospital, London, England); epigenesis of sex determination (Joyce Bruner Lorand, Northwestern University); comments and perspectives (Emil Witschi).

There will be 19 sessions of contributed papers as follows:

Four sessions on "Animal Behavior and Sociobiology"; joint sessions of the Division of Animal Behavior and Sociobiology and the Section of Animal Behavior and Sociobiology of the Ecological Society of America; 28 and 29 Dec. Part I: "Early Experience"; Helen Blauvelt, N.Y. Upstate Medical Center, presiding. Part II: C. R. Carpenter, Pennsylvania State University, presiding. Part III: "Sexual Behavior"; Evelyn Shaw, American Museum of Natural



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History, presiding. Part IV: "Sexual Behavior and Communication"; J. L. Fuller, Jackson Memorial Laboratory, presiding.

Three sessions on "Comparative Endocrinology"; 28 and 29 Dec. Part I: Berta Scharrer, Albert Einstein College of Medicine, presiding. Part II: Howard A. Bern, University of California, Berkeley, presiding. Part III: Jerry J. Kollros, State University of Iowa, presiding.

Four sessions on "Comparative Physiology"; 28 and 29 Dec. Part I: K. Schmidt-Nielsen, Duke University, presiding. Part II: "Comparative Physiology of Muscle"; arranged by C. Ladd Prosser, University of Illinois, who will preside. Part III: "Physiology of Arthropods"; J. H. Welsh, Harvard University, presiding. Part IV: "Physiology of Arthropods"; Talbot H. Waterman, Yale University, presiding.

Three sessions on "Developmental Biology"; 28, 29, and 30 Dec. Part I: Howard L. Hamilton, Iowa State University, presiding. Part II: Mac V. Edds, Jr., Brown University, presiding. Part III: Melvin Spiegel, Dartmouth College, presiding.

Two sessions on "Vertebrate Morphology"; 29 Dec. Part I: Richard J. Baldauf, Texas A. and M. College, presiding. Part II: Harvey I. Fisher, University of Southern Illinois, presiding.

There will also be three single sessions on 30 Dec. I: "Invertebrate Zoology, Parasitology, and Protozoology"; II: "Genetics and Cytology"; III: "Experimental Biology".

Two-session symposium, a joint program of the Division of Animal Behavior and Sociobiology and the Section of Animal Behavior and Sociobiology of the Ecological Society of America, cosponsored by Section F—Zoological Sciences and the National Association of Biology Teachers: "Teaching Animal Behavior"; arranged by E. B. Hale, Pennsylvania State University; 30 Dec.

Part I: "Animal Behavior in Biology Teaching"; E. B. Hale, presiding. Papers will be presented on animal behavior as a biological discipline (J. P. Scott, Jackson Memorial Laboratory); animal behavior in college biology (Benson E. Ginsburg, University of Chicago); animal behavior in secondary school biology (Arthur J. Baker, Crystal Lake High School, Crystal Lake, Ill.).

Part II: "Techniques in Teaching Animal Behavior"; Arthur J. Baker, presiding. Papers will be presented on film instruction (C. R. Carpenter, Pennsylvania State University); vertebrate materials (William C. Dilger, Cornell University); invertebrate materials (Thomas Smyth, Jr., Pennsylvania State University); special projects (Walter Göhman, Iowa State Teachers College Laboratory School, Cedar Falls, Iowa).

Panel discussion, a program of the Education Committee, cosponsored by AAAS Section F—Zoological Sciences: "Research Opportunities for Undergraduates"; arranged by William Etkin, Albert Einstein College of Medicine, who will preside; 28 Dec. Panelists: John L. Fuller, Jackson Memorial Laboratory; Lyle W. Phillips, National Science Foundation; Evelyn Shaw, American Museum of Natural History; David Stone, Worcester Foundation for Experimental Biology.

Demonstrations will be held in the morning and afternoon of 29 and 30 Dec.

Business meeting of the Division of Comparative Physiology; 28 Dec. Business meeting of the Division of Developmental Biology; 28 Dec. Supper and business meeting of the Division of Comparative Endocrinology; 28 Dec. Lunch and organization meeting of the Division of Vertebrate Morphology; 29 Dec.

A business meeting of the Society will be held 29 Dec.

Society of Systematic Zoology. Symposium, cosponsored by the American Society of Zoologists and AAAS Section F—Zoological Sciences: "Famous Zoologists: A series of anecdotal talks and recollections about some famous, recently-deceased zoologists"; arranged by Carl L. Hubbs, Scripps Institution of Oceanography, and George W. Wharton, University of Maryland; Carl L. Hubbs, presiding; 27 Dec. Papers will be presented on Thomas Barbour (Alfred S. Romer, Museum of Comparative Zoology, Harvard University); Leonhart Stejneger (Waldo L. Schmitt, U.S. National Museum); Stephen A. Forbes (Harlow B. Mills, Illinois Natural History Survey, Urbana); Joseph Grinnell (Alden H. Miller, Museum of Vertebrate Zoology, University of California, Berkeley); A. S. Pearse (George W. Wharton and Carl L. Hubbs).

Preview and panel discussion: "The New International Code of Zoological Nomenclature Adopted by the XVth International Congress of Zoology in London" (soon to be published); arranged by W. I. Follett, California Academy of Sciences, and Charles F. Lytle, Tulane University; W. I. Follett, presiding; 29 Dec. Panel members: Ernst Mayr, Museum of Comparative Zoology, Harvard University; Curtis W. Sabrosky, U.S. Department of Agriculture.

There will be one session for contributed papers, at which R. Tucker Abbott, Academy of Natural Sciences of Philadelphia, will preside; 27 Dec.

An informal visit to the American Museum of Natural History has been arranged by Horace W. Stunkard for 29 Dec.

The Society's annual breakfast and

business meeting will be held 28 Dec. *American Society of Naturalists*. Two-session symposium, cosponsored by the American Society of Zoologists, the Ecological Society of America, and the Society for the Study of Evolution: "Modern Aspects of Population Biology"; arranged by Reed C. Rollins, Gray Herbarium, Harvard University; 27 Dec.

Part I; Reed C. Rollins, presiding. Papers will be presented on big and little populations—an amateur's excursion [L. C. Dunn, Columbia University (presidential address, American Society of Naturalists)]; niche specificity and diversity, with special reference to plankton (G. Evelyn Hutchinson, Yale University); the relation between laboratory and field investigations in population ecology (L. B. Slobodkin, University of Michigan).

Part II; Earl L. Green, Jackson Memorial Laboratory, presiding. Papers will be presented on experimental sympatric populations of *Clarkia* (Harlan Lewis, University of California, Los Angeles); phenotypic response to compatibility shift in wild populations of *Leavenworthia* (Reed C. Rollins); some recent theoretical contributions from zoogeography (E. O. Wilson, Harvard University); population effects of natural selection (Robert H. MacArthur, University of Pennsylvania).

A business meeting will be held 27 Dec.

Beta Beta Beta Biological Society. There will be an interim meeting of the Policy Committee on 27 Dec.

Beta Beta Beta is a cosponsor of the symposium of Alpha Epsilon Delta premedical honor society, "Career Opportunities in Medicine and Dentistry"; 29 Dec.

Biomedical Information Processing Organization. There will be one session of invited papers, arranged by Robert S. Ledley, National Biomedical Research Foundation, Inc., who will preside; 30 Dec. Papers will be presented on analog-digital devices and problems involved in suggesting standards (Harold K. Scramstead, National Bureau of Standards); function and nature of biomedical computer installation (Merrill M. Flood, University of Michigan); problems involved in sharing digital computer codes and programs (Walter M. Carlson, E. I. du Pont de Nemours and Company).

Organizational meeting and election of officers; Norman Z. Shapiro, presiding; 30 Dec.

Ecological Society of America. Symposium, cosponsored by AAAS Section H—Anthropology: "Ecology and Anthropology"; arranged by Paul Baker, Pennsylvania State University, who will preside; 28 Dec. Papers will be presented on ecology and nutritional stress

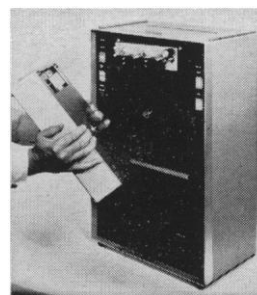


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in man (Marshall Newman, U.S. Naval Museum); cultural ecology of Teotihuacan Valley (William Sanders, Pennsylvania State University); application of ecology to physical anthropology (Frank Livingston, University of Michigan); cultural ecology and ethnography (Charles Frake, Stanford University); the application of ecological theory to recent anthropology (Paul Baker).

Human ecology luncheon, arranged by George B. Happ, Principia College; 29 Dec.

There will be two sessions of contributed papers on "Plant Ecology"; 28 and 29 Dec. Part I; Murray F. Buell, Rutgers State University, presiding. Part II; R. H. Whittaker, presiding. There will also be two sessions of contributed papers on "Animal Ecology"; 28 and 29 Dec. Part I; R. S. Miller, University of Saskatchewan, presiding. Part II; C. H. Southwick, Hamilton College, presiding. There will be one session of contributed papers on "Aquatic Ecology"; 29 Dec.; Paul G. Pearson, Ford Foundation, presiding. There will also be a session of contributed papers on "Human Ecology"; 29 Dec.; George B. Happ presiding.

Three special tours have been arranged—to the New York Zoological Park, the American Museum of Natural History, and the New York Aquarium.

Nature Conservancy. Open meeting of the National Committee for Natural Areas for Schools; arranged by John W. Brainerd, Springfield College, who will preside; 27 Dec. An introductory paper, "Helping schools study natural areas: Outdoor research for indoor education," will be presented by Dr. Brainerd. This will be followed by a series of small-group deliberations led by Stanley A. Cain, University of Michigan; Leslie A. Clark, Society for the Protection of New Hampshire Forests; David E. Davis, Pennsylvania State University; Charles Mohr, Philadelphia Academy of Natural Sciences; and Jacob Shapiro, Wisconsin State College.

Society for the Study of Evolution. Business meeting and general session; Alfred E. Emerson, University of Chicago, presiding; 29 Dec. Presidential address: "Vestigia: Characters of Termites and the Processes of Regressive Evolution" (Alfred E. Emerson); invitational address: "Reproductive Substitution as a Method of Voluntary Human Evolution Preferable to Differential Birth or Death Rates" (Hermann J. Muller, Indiana University).

There will be four sessions of contributed papers. Session I: "Phylogenetic Aspects of Evolution"; 28 Dec. Session II: "Genetic Aspects of Evolution"; 28 Dec. Session III: "Speciation and Variation"; 29 Dec. Session IV: "Ecological Aspects and Methods"; 29 Dec.

Section G-Botanical Sciences. Symposium: "Machine Methods in Biology"; arranged by David Rogers, New York Botanical Garden; I. D. Welt, National Research Council, presiding; 30 Dec. Papers will be presented on computer simulation of taxonomic methods (David Rogers, New York Botanical Garden); computer applications—processing of nonnumerical data (T. P. Tanimoto, IBM Research Center, Yorktown Heights, N.Y.); the use of computers in systematic and other zoological research (Robert R. Sokal, University of Kansas); pattern recognition, morphology, and generation of hypotheses (Leonard Ornstein, Mount Sinai Hospital, New York).

Several other symposia are being held jointly with Section F—Zoological Sciences.

There will be two sessions for contributed papers at which Harriet B. Creighton, Wellesley College, will preside; 28 Dec. and 30 Dec.

Torrey Botanical Club. Two-session symposium, cosponsored by AAAS Section G—Botanical Sciences: "Fundamental Developments in Plant Growth"; arranged by Annette Hervey, New York Botanical Garden; 27 Dec.

Part I; Paul Burkholder, Brooklyn Botanic Garden, presiding. Papers will be presented on changing concepts of photosynthesis (Daniel Arnon, University of California); fundamental developments in the field of plant growth regulators (John Mitchell, Crops Research Division, U.S. Department of Agriculture, Beltsville, Md.); alteration of plant growth by chemicals (N. E. Tolbert, Michigan State University); "plant-animals" as experimental tools for growth studies (Seymour H. Hutner, Haskins Laboratories, New York).

Part II; George McNew, Boyce Thompson Institute, presiding. Papers will be presented on the photoperiodic control of flowering (Harry A. Borthwick, Crops Research Division, U.S. Department of Agriculture, Beltsville, Md.); test-tube studies on flowering (William S. Hillman, Yale University); relation of antimetabolites to plant growth (Thomas H. Jukes, American Cyanamid Company); recent progress and the goals of plant tissue culture (Walter Tulecke, Boyce Thompson Institute).

Botanists' luncheon and vice-presidential address of Section G, to be held jointly with AAAS Section G—Botanical Sciences and the Botanical Society of America; Father Charles A. Berger, presiding; 27 Dec. Speakers will be Father Berger; William C. Steere, New York Botanical Garden; and Barry Commoner, Washington University, who will give the vice-presidential address of Section G: "In Defense of Biology."