AAAS Symposia

Annual Meeting: Washington, D.C.

Environmental Sciences

Forests

On 27 December the first in a sequence of symposia on temperate forests will be offered: "Advances in Integrated Research—Experimentation and Modeling in the Eastern Deciduous Forest Biome, IBP," arranged by R. L. Burgess of the Oak Ridge National Laboratory.

The papers to be presented will explore the interdependence of organization and conceptual integration in this very ambitious undertaking of the International Biological Program.

On 28 December the AAAS Committee on Environmental Alterations will offer a symposium, "Temperate Climate Forestry and the Forest Ecosystem: An Environmental Issue?," arranged by Michael Corr of Washington University. The principle of sustained yield harvesting now applies to public and private forests, and tighter management controls are being employed to cut harvesting and regeneration costs and to increase yields of marketable species. The practice most characteristic of timber production oriented "modern forest management" is clearcutting, although it is not the only available strategy. Opponents of clearcutting instigated a number of public hearings where it has become apparent that many aspects of the ecology of disturbed forest ecosystems are not well understood. Clearcutting may sacrifice long-range bioproductivity to short-term gains, impair water quality, and affront esthetic interests to an unacceptable degree. The symposium will present the views of representatives of the U.S. Forest Service, academic, and commercial forestry on a host of open scientific questions related to the ecological and economic issues that the public must understand as the foundations of national policy for forest management.

Aquatic Habitats

On 29 December the American Fisheries Society will present a symposium, "Survival in Aquatic Habitats," arranged by Willis King of the U.S. Fish and Wildlife Service. Fish and other aquatic organisms are of vital importance as indicators of the reversibility and impact of the countless changes wrought on aquatic ecosystems, both continental and marine, in this century. Stream habitats will be appraised by Edward C. Kinney of the U.S. Fish and Wildlife Service and William M. Clay of the University of Louisville. Dennis Holcomb of the Florida Game and Fresh Water Fish Commission will describe the lakes of central Florida, while Stanford H. Smith of the University of Michigan will summarize the limnology of the Great Lakes. Edwin Pister of the California Department of Fish and Game will describe desert lakes and their biota.

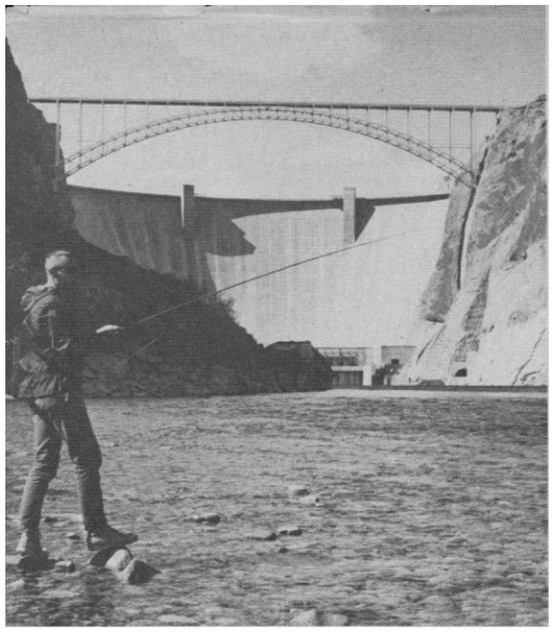
The status of marine ecosystems will be appraised in the concluding portion of the symposium. James T. McBroom of the U.S. Fish and Wildlife Service will discuss the coastal zones. Kent S. Price of the University of Delaware will trace the effect on marine fisheries of the degradation of the environment in the Delaware estuary. Robert Edwards, Director of the North Atlantic Fisheries Research Center, will discuss ocean environments, and his colleague, Marvin D. Grosslein, will describe attendant changes in fish populations. G. Carleton Ray of Johns Hopkins University will report on the status of marine mammals and threats to their survival.

Coastal Zones

Continuing in sequence, on 29 and 30 December, a symposium arranged by Bruce W. Nelson of the University of South Carolina will afford a sustained discussion of the Atlantic coastal zone of North America. It will concentrate on coastal processes whose natural balance is being disturbed by human intervention. Environmental problems will be related to forces operating on a regional scale. The climate, hydrology, and geology of the Atlantic coast produce a characteristic ensemble of influences upon local environmental processes. Patterns of human occupation vary from region to region. By examining how the whole coastal zone behaves as a system, future research may be able to give a greatly improved account of these interactions—and one that is relevant to local and regional needs for environmental management information. The participants will seek especially to combine earth science considerations with biological insights (thus continuing a discussion of commonalties of significance to geologists and biologists begun the day before, on 28 December; see below).

Hydrology is the fundamental basis for environmental understanding in the coastal zone, so underground water, surface water, sea level, estuaries, and the surf zone of the ocean will be treated exhaustively. The effects of the atmosphere coupled to these different phases of the system will be discussed. The influence of changing patterns of vegetation and human habitation on the stability of shorelines will be assessed. Human intervention will be illustrated by detailed case studies: water resources of Long Island and Florida, sediment in New York Harbor, changes in estuaries

Slash and other logging wastes left by timber corporations have destroyed the capacity of this creek bed, once an active salmon spawning ground, to serve the salmon fisheries of the Quinault River. [Quinault Tribal Development Corporation]



Glen Canyon Dam on the Colorado River—water quality below the dam improved for excellent trout habitat. [Bureau of Reclamation, Department of the Interior]

and marshes, and shoreline changes on Cape Cod and Cape Hatteras. The symposium should yield a composite view of its subject, drawn from botany, climatology, ecology, engineering, historical geology, hydrology, and oceanography.

Meteorology and Environmental Monitoring

On 27 December a sequence of programs on environmental monitoring, technology, and meteorology will begin with a symposium, "EROS and ERTS: Spacecraft and Aircraft Remote Sensing of the Environment," arranged by W. A. Fischer of the U.S. Geological Survey. This will be a wide-ranging review of the development of the Earth Resources Technology Satellite (ERTS), its implications for future earth resources satellite systems, and present and future uses of remote sensing—with reference to applications in mapping, agriculture and forestry, geology, hydrology, oceanography, and environmental management.

On 28 December a symposium will be offered on the topic, "Changing the Weather," arranged by Earl G. Droessler of North Carolina State University. The public policy questions associated with managing weather change now loom larger than the technical problems. The crucial question of what weather management efforts are in the public interest cannot be settled by atmospheric scientists and engineers. The question involves economic, legal, political, and administrative considerations in addition to its technical components. Who has what degrees of freedom to use and manage the atmosphere? How can equitable decisions be reached in cases of conflicting interests? What safeguards are needed for the future of weather and climate?

On 29 December a half-day symposium will be offered (morning session) on "New Approaches to Global Weather: The Global Atmospheric Research Program (GARP)," arranged by Walter O. Roberts, President of the University Corporation for Atmospheric Research, and Philip E. Merilees, executive secretary of the UCAR–GARP Council. The program is a response to the existence of satellites which permit global observation to feed into data management systems of greatly increased capability, yielding sophisticated numerical models of the atmosphere which will realistically simulate and reliaby forecast its behavior. Two aspects that are to be singled out for detailed treatment are the technology of observing systems and the fundamental question of predictability of weather phenomena. This symposium will also address the fundamental question of policy—whether the weather should be modified by deliberate human intervention, even if only to undo the effects of unplanned modifications of climate.

Environment in Perspective

On 28 December a half-day symposium (afternoon session) will be arranged by Lawrence B. Slobodkin on behalf of the American Society of Naturalists to address "Commonalties of Significance to Both Geologists and Biologists." Papers to be presented include "Patterns in Extinction," by Peter W. Bretsky of the State University of New York at Stony Brook; "Ecological Parameters Common to Modern and Fossil Populations," by Martin A. Buzas of the Smithsonian Institution's National Museum of Natural History; "Is the Arctic Fragile?," by Max Dunbar of McGill University; and "Ice-Age Vertebrates in Canada and Their Paleoenvironmental Implications," by C. Richard Harington of the National Museum of Canada.

Continuing a sequence of programs at this general conceptual level, on 29 and 30 December the Association for the Study of Man-Environment Relations will present a 2-day symposium, "Man-Environment Relations and Health," arranged by Aristide H. Esser and Virginia R. Hannon of the Rockland State Hospital, Orangeburg, New York. The symposium will focus on the consequences of certain theories of man-environment relations for physical and mental health. The papers will be presented in four half-day sessions, each featuring a discussion panel:

I. Planning for the Future: How Can We Modify Health?

"Behavioral Modification as Therapy," Charles Ferster, American University; "Health, Rehabilitation, and the Wholeness of Man," Howard Rusk, New York University; panelist: Charlotte Muller.

II. Ecology of Behavior and Epidemiology.

"Ecological Psychology," Edwin Willems, University of Houston; "Disease and Disfunctional Environments," Bob Hoke, National Naval Medical Center; panelists: Demitri Shimkin, William Hausman, and Samuel Klausner.

III. Transactional Dynamics and Emotional Distress.

"Environmental Psychology," William Ittelson, City University of New York; "Emotions and Environmental Imagery," Sylvan Tomkins, Rutgers University; panelists: Paul Tibbetts, Mardi Horowitz, and Mathew Lee.

IV. Cultural Codes and Sociocultural Illness.

"The Environment as Code," Alton deLong, University of Texas; "Sociocultural Factors in Physical and Mental Breakdown," Dorothea Leighton, University of North Carolina; panelists: Aristide Esser, Viola Bernard, and Vera Rubin.

Participants and representatives of the American Psychiatric Association and ASMER will meet at 6 p.m. on 28 December in the Annapolis Room of the Sheraton Park Hotel; others especially interested in the symposium would be welcome.

Archeology

On 30 December a symposium, "Chronologies in New World Archaeology," will be arranged by C. W. Meighan of the University of California at Los Angeles and R. E. Taylor of the University of California at Riverside. This symposium will describe radiocarbon-dating techniques and the accumulation of field data which are of primary importance for understanding paleoenvironments and prehistory. James B. Griffin of the University of Michigan will appraise implications for chronology in North America and Irving Rouse of Yale University will assess implications in Mesoamerica and South America.