OREGON ACADEMY OF SCIENCE
(Incorporated 1946)

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MEMBERSHIP INFORMATION
The Academy offers two categories of membership: Regular and Institutional - Corporate. All members receive the quarterly newsletter, the Proceedings, and have the privilege of attending the Annual Meeting. Dues and contributions are tax deductible. Regular members pay an annual dues of $4.00. Institutional and Corporate members have the additional opportunity to present a public informational or advertising display at the Annual Meeting and pay $25 annual dues. Membership inquiries should be addressed to the Treasurer of the Academy:

Dr. Jay F. Evett
Department of Natural Sciences
Oregon College of Education
Monmouth, Oregon 97361

OREGON ACADEMY OF SCIENCE
Thirty-First Annual Meeting
February 24, 1973
Oregon State University
Corvallis, Oregon
GENERAL PROGRAM
Weniger Hall+
February 24, 1973

Morning
8:30-12:00 Registration
9:00-10:30 Section Meetings
10:30-11:00 Coffee Break
11:00-12:00 Community College Program,
"Environmental Problems of Oregon"

Afternoon
12:00-1:00 Lunch
1:00-2:15 Section Meetings
151 Weniger Hall
3:15-4:00 Academy Business Meeting: Election of Officers, Citations, and Reports
151 Weniger Hall

COMMUNITY COLLEGE PROGRAM
Environmental Problems of Oregon
151 Weniger Hall

William G. Loy, University of Oregon, Presiding
11:00 Welcoming Remarks
Robert W. Krauss
Dean, School of Engineering
Oregon State University

11:05 "Environmental Problems of Central Oregon"
Bruce Nolf and Wayne Eshelman, Central Oregon Community College, Bend

11:15 "Environmental Problems of Malheur County"
Carlton Fletcher, Treasure Valley Community College, Ontario

11:25 "Clear Cutting as a Forestry Practice"
Roger Dejmal, Umpqua Community College, Roseburg

11:35 "Some Environmental Problems of the Wild River River Section of the Rogue"
Eric Larsen, Rogue Community College, Grants Pass

11:45 "On Mercury Poisoning"
John Nadakavukaren, Lane Community College, Eugene

+Free Parking on OSU Campus in Lots on Monroe Avenue Adjacent to Weniger Hall.

INVITED SPEAKER
2:30 P.M., 151 Weniger Hall
"The Case for Nuclear Energy"
Bernard J. Spinrad
Professor of Nuclear Engineering
Oregon State University

MEETINGS OF SECTIONS
ANTHROPOLOGY SECTION
201 Weniger Hall
Marc Feldesman, Chairman, Presiding

Morning
9:00 "Geography and Word Endings"
Franklin E. Gossette, University of Oregon

9:30 "A Note on the Nature of Phoenician Merchantmen"
Michael F. Doran and John Damron, University of Oregon

10:00 "Influence of Cultural Behavior on the Genetics of a Human Isolate"
Susan I. Wolf, Portland State University

10:30 Coffee Break
Paula Lutz, Chairman, Presiding

Afternoon
1:00 "Slum Ghetto Pattern in Canada's Far North"
Jacob Fried, Portland State University

1:35 "George Gibbs IV: Ethnologist on the Pacific Frontier"
Stephen D. Beckham, Linfield College

2:00 "Play and Sport in Culture"
Sandra Suttie, Oregon State University

2:15 Business Meeting and Election of Officers

BIOLOGY SECTION
149 Weniger Hall
Robert O. Novak, Chairman, Presiding

Morning
9:00 "Adrenocortical and Reproductive Activity in the Montane Meadow Vole, Microtus montanus"
Larry G. Forslund, Oregon State University

9:15 "A Population Study of the Cats of Corvallis"
Siri M. Jackman, Oregon State University

9:30 "Habitat, Environmental, and Biotic Factors..."
Affecting the Growth of an alga, Cystoseira osmundacea, at Cape Arago, Oregon
Carolyn Cross, University of Oregon

9:45 "Effects of p,p'-DDE and p,p'-DDT on the Performance of Coturnix Quail Fed on Adequate and Deficient Calcium Diet"
W. A. Robson, G. H. Arscott, and I. J. Tinsley, Oregon State University

10:00 "Effects of Dieldrin and Calcium on the Performance of Coturnix coturnix japonica"
C. M. Reading, W. A. Robson, G. A. Arscott, and I. J. Tinsley, Oregon State University

10:15 "Archibald Menzies, Pioneer Naturalist on the Pacific Coast"
Kenneth L. Holmes, Oregon College of Education

CHEMISTRY SECTION
267 Weniger Hall
Norman E. Pawlowski, Chairman, Presiding

Morning
9:00 "Synthesis of Toxic Mold Metabolites"
Norman E. Pawlowski and David J. Jones, Oregon State University

9:25 "Ionic Conductivity of KC1:O""
Daberath Kouts and A. B. Scott, Rogue Community College and Oregon State University

9:45 "Selectivity Mechanisms of Organoclays for Xylene Isomers"
Richard Vasofsky and W. H. Slabaugh, Oregon State University

10:05 "Notes on the Chemical Determination of Trace Amounts of Mercury"
Arthur F. Scott, Reed College

10:30 Coffee Break

Afternoon
1:00 "Arsenic Tissue Levels in Rats Supplemented with Dietary Arsenic"
S. C. Elliott, N. D. Pederson, P. H. Weswig, and P. D. Whanger, Oregon State University

1:20 "Absence of Skin Contamination by Airborne Fluor-ides in the Rat"
Frank W. Adams and Stanley C. Elliott, Oregon State University

1:35 "The Effects of Heat Treatment and Cd+2 Ion Exposure on the EPR Signal of Ferritin"
G. F. Baker, Oregon State University

GEOGRAPHY SECTION
149A Weniger Hall
Frederick A. Hirsch, Chairman, Presiding

Morning
9:00 "Root Wedging and Rock Disintegration."
James E. Stembridge, Jr., University of Oregon

9:15 "An Analysis of Adjustments to Flooding: The Application of Kates' General Systems Model of Human Adjustments to Natural Hazards to a Community Flooded as a Result of Hurricane Agnes."
Thomas P. Bresenhan, Oregon State University

9:30 "Local Response to the Requirements for Federal Flood Insurance."
Rod Emmer, Oregon State University

9:45 "Cartographic Evidence of Geographic and Economic Change in Scotland in the Eighteenth Century."
Ian H. Adams, Lewis and Clark College

10:00 "The Wilderness Use of Kings Canyon National Park"
Douglas B. Cooke, University of Oregon

10:15 "The Transition of Hydro-Thermal Electrical Generation in the Pacific Northwest."
Richard G. Beck, Oregon State University
GEOLOGY SECTION
151 Weniger Hall
Ernest H. Lund, Chairman, Presiding

Morning
9:00 "Plate Tectonic Interpretation of Major Structures, Northern Cascade Range, Washington"
Robert D. Lawrence, Oregon State University

9:25 "Geological Framework of Washington's Southern Cascade Range"
Paul E. Hammond, Portland State University

9:50 "Miocene Basalts from the Western Cascade Range and the Willamette Valley"
Johnathan S. Fruchter and Simon Nathan, University of Oregon

10:15 "Age Relations of some Igneous Rocks of Western Oregon"
A. R. McBirney, University of Oregon

10:40 Coffee Break
E. Julius Dasch, Chairman, Presiding

Afternoon
1:00 "A Quasi-Practical Interstellar Rocket Trip"
James D. Edmonds, Jr., Oregon State University

1:25 "An Experimental Check on the Fluid Dynamic Theory which is Used for Calculating the Collision Efficiencies of Cloud Droplets"
Carl G. Bachhuber, Portland State University

1:40 "State of the Nautical Almanac and Astronomical Ephemeris from 1811 to 1834"
Walter L. Bell, Linfield College

2:10 Business Meeting and Election of Officers

MATHEMATICS-PHYSICS SECTION
153 Weniger Hall
Raymond W. Sommerfeldt, Chairman, Presiding

Morning
9:00 "Search for Chemically-Bound Neutrons"
Donald H. White, Oregon College of Education, and Walter John, Jr., Stanislaus State College

9:20 "Dipole Layer Model of Lipid Membranes Displaying Negative Resistance"
Pavel K. Smejtek, Kwan Hsu, and Arnold D. Pickar, Portland State University

9:45 "On-Line Computer Graphics Systems for Class Use"
J. F. Doar, Oregon State University

10:15 "Population Oscillations"
Paul Cull, Oregon State University

10:30 "Some Recent Progress"
William M. Stone, Oregon State University

10:45 Coffee Break

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Walter L. Bell, Linfield College

2:10 Business Meeting and Election of Officers

JUNIOR ACADEMY OF SCIENCE
116 Weniger Hall
Lewis H. Schaad, Chairman, Presiding

Titles of Papers to be Announced at Meeting