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FOREWARD

The purpose of this directory is to provide a listing of CSU faculty having specialized training and research experience in fields directly related to environmental quality.

It consists of an alphabetized list of the faculty members, their departments and special fields of research or study, and some of their recent activities. No attempt has been made, however, to be complete in listing publications, research, or other information.

A keyword index has been provided in Section III to assist you in locating faculty having particular specialties. The numbers following keywords refer to the number assigned to each faculty member found along the right hand margin in Section I of the directory. An additional cross reference may be found in Section II in which the faculty are listed by college and department.

The assistance of deans and department heads who submitted the names of qualified faculty and reviewed the information in this directory is acknowledged with appreciation.

Because of the broadness of the field of environmental research and study, some errors of omission and commission undoubtedly have been made. Suggestions to improve subsequent directories will be welcome.

Norman A. Evans
Director
SECTION I
DIRECTORY OF FACULTY
ENVIRONMENTAL SPECIALTIES AND EXPERIENCE
ABEL, JOHN H. JR.  
Associate Professor  
Physiology and Biophysics


Experience: Scientific Specialist to work on Biosatellite II, NASA, Chief investigator, Effect of Environmental Pollutants on Salt Gland Function in Mallards, NSF.

ADAMS, ROBERT P.  
Assistant Professor  
Botany and Plant Pathology

Specialties: Biochemical and numerical plant systematics.


ALBERTSON, MAURICE L.  
Centennial Professor  
Civil Engineering

Specialties: Fluid mechanics; hydraulics; water resource systems; international development engineering.

Experience: 30 years experience in design and development of hydraulic structures, energy dissipation, alluvial hydraulics, boundary layer studies and diffusion. U.S. Coordinator, Asian Institute of Technology, Bangkok, Thailand, 1959-present. Developed CSU Hydromachinery Laboratory. Consultant: Johns-Manville Corp., Denver Water Board, University of Houston, AID, national and international engineering firms.

ALDEN, HOWARD R.  
Associate Professor  
Recreation Resources

Specialties: Recreation comprehensive planning; impact studies.

Experience: Special Assistant to Governor of Idaho on outdoor recreation. Consultant: Idaho Park Board and Department of Recreation; recreation development, Potlatch Forests, Inc.; outdoor recreation, Idaho Association of Soil Conservation Districts.
ALEXANDER, ARCHIBALD F.  
Professor and Dept. Head  
Pathology  

Specialty: Cardiovascular disease as related to high altitude adaptation in cattle.  
Experience: Heart research funded since 1956-present by NIH and Heart Institute. Veterinary teaching and research in Europe, Kenya, Chile, and Peru. Consultant: Faculty of Veterinary Medicine, Austral University, Valdivia, Chile.

ALTMAN, JACK  
Professor  
Botany and Plant Pathology  

Specialties: Plant pathology; effect of air pollution on plants.  
Experience: Research Plant Pathologist, Iranian Ministry of Power and Water. Research: diseases of turf grass, onions, sugar beets; pollution damage to Colorado plants; evaluation of fumigicides and nematocides.

AUKERMAN, ROBERT  
Assistant Professor  
Recreation Resources  

Specialty: Water based recreation.  

BAGBY, JOHN R., JR.  
Professor  
Microbiology  
Director, Institute of Rural Environmental Health  

Specialty: Epidemiology.  
BAKER, RALPH P.  
Professor  
Botany and Plant Pathology  
Specialty: Space biology.  
Experience: Chairman, American Institute of Biological Science Committee (AIBS) for planning Manned Orbital Research Laboratory experiments in space biology. Member, AIBS committee for study of role of Lunar Receiving Laboratory in the post-Apollo Biological and Biomedical activities. Visiting Professor and Senior Postdoctoral Fellow (NSF), University of Cambridge, England.

BALDWIN, LIONEL V.  
Professor  
Dean, College of Engineering  
Civil Engineering  
Specialties: Fluid mechanics; thermo sciences.  
Experience: Member, Colorado Air Pollution Variance Board. Originator of CSU Resources in Graduate Education (SURGE). Six years of research with NASA, Lewis Research Center, Cleveland, Ohio. Co-recipient of NASA award for development of particle beam power density probe.

BALDWIN, PAUL H.  
Professor  
Zoology  
Specialty: Avian ecology.  
Experience: Visiting Professor, University of Montana Biological Station. Consultant: Ecology Consultants, Inc.

BALL, JAMES W.  
Associate Professor  
Civil Engineering  
Specialties: Hydraulic engineering; hydrology.  
Experience: Forty years of research and consulting in hydraulic engineering. Director, Western Canada Hydraulic Laboratories, Ltd.
BALL, WILLIAM S.  
Assistant Professor  
Extension Agronomist  
Agronomy  

Specialty: Crop production.  

BARNES, ALBERT H.  
Associate Professor  
Civil Engineering  

Specialties: Photogrammetry; hydrology; hydraulics.  

BARNEY, CHARLES W.  
Professor  
Forest and Wood Sciences  

Specialties: Forest ecology; silviculture; tree shelterbelts; forest regeneration on harsh sites; effects of clear cutting forest stands.  

BARTLETT, E. THOMAS  
Assistant Professor  
Range Science  

Specialties: Management and economics of range ecosystems; decision analysis in range science.  
Experience: Instructor and Research Associate, University of Arizona. Consultant: DMJM, Redwood City, Calif.
BEHNKE, ROBERT J.  19
Associate Professor  Fishery & Wildlife Biology
Assistant Leader, Colorado Cooperative Fishery Unit

Specialties: Systematics; zoogeography; genetics of fishes, especially salmonids.
Experience: Consultant: Rare and Endangered Species Committee, American Fish Society; aquatic biology, Minus Gorge Foundation, Stamford, Conn. Research Zoologist, University of California, Berkeley. National Research Council Fellow at Leningrad. Senior Scientific Editor, Scripta Technica; translation editor (Russian to English) of Journal of Ichthyology, Journal of Hydrobiology.

BELL, JAMES M.  20
Associate Professor  Civil Engineering

Specialty: Soil mechanics.
Experience: Consultant: soils and foundation engineering.

BENTON, DOUGLAS A.  21
Associate Professor  Business

Specialties: Organization and human resources management.

BERG, WILLIAM A.  22
Assistant Professor  Agronomy

Specialties: Mine tailing reclamation; soils.
Experience: Reclamation of disturbed sites; revegetation of strip mine spoils; soil survey and classification. Basic training at PhD level in soil chemistry. Research Soil Scientist, USFS, Berea, Ky.
BILLENSTIEN, DOROTHY C.  
Associate Professor         Anatomy

Specialty:          Neuroendocrinology.
Experience:         Research and numerous publications on the neuroendocrine systems in fish.

BOES, DUANE C.  
Associate Professor         Statistics

Specialties: Statistical modelling; queueing theory; statistical inference; stochastic hydrology.
Experience:         Consultant: modelling, and probability and statistical problems in hydrology to CSU water resources engineers.

BOHMONT, BERT  
Agricultural Chemical Coordinator     Agricultural Sciences

Specialties: Weed control; pesticides; herbicide injury to croplands.
Experience:         Consultant: herbicide injury; conversion of educational material on agricultural chemicals from English to Spanish, R. J. Hernandes and Associates, EPA grant.

BOLE, JAMES B.  
Assistant Professor     Civil Engineering

Specialties: Hydraulics; air-sea interaction.
Experience:         Engineering studies on environmental criteria influencing the design of off-shore ocean tower structures, Chevron Oil Field Research Co.
BONHAM, CHARLES D.
Associate Professor  Range Science

Specialties:  Quantitative ecology; research methods.

Experience:  Consultant: World Resources Corp. in statistical ecology. Conducted research at Cornell Aero Space Laboratory on statistical and mathematical characterizations of forest community components; University of Arizona on statistical and mathematical modelling of insect life cycles as affected by environmental factors; statistical and mathematical analyses of plant species associations; autoecoecological parameters.

BOSE, RAJ CHANDRA
Professor  Mathematics and Statistics

Specialties:  Design of experiments; combinatorial problems of design; information theory and coding; graph theory; finite geometries.

Experience:  43 years teaching and research in mathematics and statistics, approximately 123 published technical papers and articles. Head, Statistics Department, Calcutta University (1945-49); Professor, University of N. Carolina (1949-71) (Kenan Professor, 1966-71); Fellow, International Statistical Institute; Fellow, Royal Statistical Society; President, Institute of Mathematical Statistics; Honored by International Symposium on Combinatorial Mathematics, 1971.

BOWDEN, DAVID C.
Assistant Professor  Statistics

Specialties:  Regression analysis; statistical applications in fish and game problems.

BOYD, WILLIAM
Professor
Microbiology

Specialty: Arctic microbiology.

BRENGLE, KENNETH G.
Associate Professor
Agronomy

Specialty: Soil conservation.
Experience: Special knowledge of dry land agriculture; soil conservation under low rainfall conditions; use of land without irrigation. Superintendent, San Juan Basin Branch Station.

BREWER, J. WAYNE
Assistant Professor
Zoology

Specialty: Entomology.
Experience: Member, Colorado Apiary Advisory Board; CSU Dutch Elm Disease Committee. Research: pinon pine insect control; honey bees; ornamental plant pests.

BRINK, KENNETH M.
Professor and Dept. Head
Horticulture

Specialties: General horticulture; vegetables.
Experience: Wide experience in horticultural programs related to land beautification; plants to enhance man's environment. Member, Denver Botanic Gardens Board of Trustees. Associate Professor of Horticulture, Purdue University. Outstanding Service Award, Indiana Vegetable Growers Assn.

BRINK, JAMES S.
Professor
Animal Science

Specialty: Cattle breeding.
Experience: Director, project examining influence of in-breeding on hybrid vigor in beef cattle.
BRUNER, HOWARD
Professor
Education

Specialties: Environmental education; school administration

Experience: Director, Title III Proposal for Regional Outdoor Science Center. Consultant: Title III Development of Curriculum Plan for Junior High School, Poudre R1, Colorado.

BURNS, LARY K.
Assistant Professor
Geology

Specialties: Igneous and metamorphic petrology and petrography; electron microprobe analysis; low temperature gas chemistry; geologic controls of groundwater pollution.

Experience: Consultant: American Smelting and Refining Co. Assistant Professor, San Fernando Valley State College.

BUTLER, JACKIE D.
Extension Associate Professor
Horticulture

Specialty: Turf management.

Experience: Associate Professor and Extension Turf Specialist, Department of Agriculture, University of Illinois. Recipient of 1969 Illinois Turf Foundation Award for outstanding contributions to turf grass industry. 1971 recipient of Service Award from midwest golf course superintendents' association.

CAMPBELL, JOHN A.
Associate Professor
Geology

Specialties: Stratigraphy; sedimentary petrology; paleoecology of the Lower Paleozoic Systems of west central Colorado; applications of statistics and computer science to geologic problems.

Experience: Research: the Devonian system of Colorado, northern New Mexico, and the Colorado Plateau; stratigraphy of the Chaffee Group (Upper Devonian) in west central Colorado; petrology of Upper Devonian shelf carbonate rocks of west central Colorado. Industrial and federal agency experience in subsurface geology and groundwater geology.
CARLSON, CLARENCE A.  
Associate Professor  
Fishery & Wildlife Biology

Specialties: Ecology of fishes; aquatic radioecology; water quality.

Experience: Assistant Professor of Biology, Augustana College, Ill.  
Assistant leader, Cooperative Fishery Unit, Cornell University. Consultant: environmental impact of large dams.

CARD, C. SEYMOUR  
Assistant Professor  
Clinical Sciences

Specialty: Cattle cardiorespiratory responses in high altitudes.

Experience: Developed mastitis control program for dairy cattle.

CAULFIELD, HENRY P.  
Professor  
Political Science

Specialties: Public administration; politics of natural resources.


CERMACK, JACK E.  
Professor  
Civil Engineering  
Professor-in-charge, Fluid Mechanics Program

Specialties: Fluid mechanics; environmental and structural aerodynamics; atmospheric simulation and diffusion.

Experience: Director, CSU Fluid Dynamics and Diffusion Laboratory. Developed unique meteorological wind tunnel for simulation of atmosphere. Consultant: national and international government agencies and engineering consulting firms. 1969 recipient of Aeronautics and Astronautics Award for Distinguished Leadership in Aerospace Engineering, American Institute for Aeronautics and Astronautics. Founding member, Wind Engineering Research Council. Member, Committee on Natural Disasters, National Academy of Engineering; Joint Committee on Planning and Design of Tall Buildings, ASCE; International Association for Bridge and Structural Engineering. Past Chairman, Engineering Mechanics Division, American Society for Engineering Education.
CHAN, P. W.
Assistant Professor
Electrical Engineering
Specialties: Laser plasma diagnostics.

CHOLAS, GUS
Associate Professor
Microbiology
Specialties: Wildlife disease; epidemiology; community health; preventive medicine; World Hunger Programs.
Experience: Consultant: food hygiene to clinics.

CHURCHILL, RUSSELL J.
Professor and Dept. Head
Electrical Engineering
Specialties: Gaseous electronics; plasma diagnostics.

CLYMA, WAYNE
Associate Professor
Agricultural Engineering
Specialties: Evapotranspiration; irrigation management; groundwater resources.
Experience: Research as Agricultural Engineer with USDA-ARS-SWC, Bushland, Texas. Assistant Professor, Imperial Ethiopian College of Agriculture and Mechanical Arts, AID/Oklahoma State University.
COLE, STANLEY M. 48
Professor Education

Specialty: Public school lands.

Experience: Active on Colorado Education Association’s Committee on Public School Lands. Author of publications in his specialty.

COLEMAN, DAVID 49
Affiliate Professor Agronomy
Decomposer Integrator, Natural Resources Ecology Laboratory

Specialty: Soil ecology with emphasis on soil microfauna.

Experience: Research Associate and Assistant Professor of Zoology, Savannah River Ecology Laboratory of the University of Georgia, 1966-1971. Post doctoral Fellow, University of Wales, Great Britain.

COOK, C. WAYNE 50
Professor and Dept. Head Range Science

Specialty: Research, management, and administration of range ecosystems.

Experience: Consultant: CSIRO of Australia; NSF for Argentina and U.S. International Education Programs; Alaska Agricultural Experiment Station; State of Utah Range Management. Assistant Dean, College of Natural Resources, Utah State University.

COREY, ARTHUR T. 51
Professor Agricultural Engineering

Specialties: Subsurface drainage; evaporation from soils; similitude for two-phase flow in porous media and diffusion of gases in porous media; groundwater.

CORRIN, MYRON L.  
Professor  
Atmospheric Science  

Specialties: General physical chemistry; surface chemistry with emphasis on solids and gas absorption on solids; physics and chemistry of atmospheric aerosols in the field of atmospheric chemistry with regard to particulate pollutants.

Experience: Concerned with the mechanism of heterogeneous nucleation since 1958. Professor of Chemistry, University of Arizona. Member, advisory board of Journal of Colloid Science. Consultant: Air Research Corp.; Phillips Petroleum Co. Also studying possible inadvertent weather modification caused by airborne lead, NSF.

COX, STEPHEN K.  
Associate Professor  
Atmospheric Science  

Specialties: Radiation physics; general atmospheric circulation.


CRINGAN, ALEXANDER T.  
Professor  
Fishery and Wildlife Biology  

Specialties: Wildlife management; factors affecting productivity of populations of wildlife especially large mammals, including carnivores; techniques, including remote sensing and biotelemetry.

Experience: Associate Professor, Department of Zoology, University of Guelph, Canada. Director, Canadian Society of Wildlife and Fishery Biologists, Ottawa. Member, Advisory Committee on Migratory Birds, Wildlife Society, Washington, D.C. Founding Executive Director, Ontario Waterfowl Research Foundation.
CRISWELL, MARVIN A.  55
Assistant Professor  Civil Engineering

Specialty:  Structures.

Experience:  Structural Engineer, protective structures, U. S. Army Engineers Waterways Experiment Station, Vicksburg, Miss.

CULLEY, JACK F.  56
Professor  Management

Specialties:  Retirement programs; conservation of human resources; labor management and personnel.


DANIELSON, ROBERT E.  57
Professor  Agronomy

Specialties:  Soil physics; water use and irrigation practices.

Experience:  Water requirements of plants; irrigation practices; movement of nutrients through soils; influence of water on growth of plants. Research: soil and water projects, Colorado Agricultural Experiment Station; groundwater recharge and surface water management, OWRR. Consultant in Nigeria.

DAVIS, ROBERT W.  58
Centennial Professor  Anatomy

Specialties:  Gross and microanatomy.

DAVIS, THOMAS  
Instructor  
Recreation Resources  

Specialties: Environmental planning; environmental education program development for adult education.  

Experience: Land use recreational planning including regional and reservoir, Missouri Extension Service.

DECKER, EUGENE  
Assistant Professor  
Fishery and Wildlife Biology  

Specialties: Public relations in natural resources management and conservation education; law enforcement.  

Experience: Consultant: engineering firms on environmental impacts; to State of New Mexico on exotic big game introductions.

DILS, ROBERT E.  
Professor  
Watershed Sciences  
Dean, College of Forestry and Natural Resources  

Specialties: Watershed hydrology and management.  

Experience: Consultant: watershed management, FAO, Argentina; soil and water conservation, FAO, El Salvador, Central America; graduate education in forestry and natural resources, University of the Andes, Venezuela; watershed management, AID, Taiwan. Fulbright Research Scholar, Tussock Grasslands and Mountain Lands Institute, Lincoln College, New Zealand.

DIX, RALPH L.  
Professor  
Botany and Plant Pathology  

Specialty: Ecology of grasslands and forests.  

Experience: Editor of Ecology. Associate Professor, University of Saskatchewan. Research: ecological approaches to mine waste revegetation and classification of coniferous forests in the southern Rocky Mountains.
DOTSON, A. BRUCE
Assistant Professor
Sociology

Specialties: City and regional planning; planned social change and urbanization.

Experience: Partner, Systems Gaming Associates, gaming consultants to universities and industry. Consultant to environmental consultants.

DOTZENKO, ALEXANDER D.
Professor
Agronomy

Specialties: Crop ecology; weed control.


DOXTADER, KENNETH G.
Associate Professor
Agronomy

Specialties: Soil microbiology; biogeochemistry; pollution; degradation of pesticides in soils.

Experience: Studies of influence of soil microflora on metal immobilization and mineralization. Consultant: analysis of ecosystems, IBP. Member, Colorado Committee for Environmental Information.

DUPONT, JACQUELINE
Associate Professor
Foods and Nutrition

Specialties: Diet; lipid metabolism.

Experience: Assistant Professor biochemistry, Howard University. Principal Investigator, diet and lipid metabolism research for NIH, Colorado Experiment Station, Colorado Heart Association, NSF.
DYER, A. ALLEN  67
Assistant Professor  Forest and Wood Sciences
Specialties: Land-use planning; resource allocation on wildlands; improved timber harvesting; forest economic modelling.
Experience: Research in forest economics, Utah State University. Consultant: recreation site inventory systems.

DYER, MELVIN I.  68
Affiliate Professor  Fishery and Wildlife Biology
Rate Process Studies Director, Natural Resources Ecology Laboratory
Specialties: Avian physiology and ecology; population biology; vertebrate pest control.
Experience: Assistant Professor of Zoology and Director of Avian Population Research Station, University of Guelph, Ontario, Canada. Biologist-Supervisor, Field Research Station, Sandusky, Ohio for USDA Bureau of Sport Fisheries, and Wildlife, Patuxent Wildlife Research Center. Associate Professor of Zoology, Ohio State University, Columbus, Ohio.

ECHOLS, JAMES W.  69
Extension Assistant Professor  Agronomy
Specialty: Seed production and certification.
Experience: Primarily concerned with selection and maintenance of pure seed and assurance of reliable seed supplies. Seed advisor, Farm Land Industries, Kansas City, Mo. Chairman, Sorghum Committee. Member, Foundation Seed Committee and Grass Committee of the International Crop Improvement Assn.

EDWARDS, DAVID F.  70
Professor  Electrical Engineering, Physics
Specialties: Quantum electronics; solid state physics.
Experience: Fulbright Professor, Instituto de Fisica, Universidad do Rio Grande do Sul, Porto Alegre, Brazil. Co-chairman, Physics

EDWARDS, HARRY W.  71
Assistant Professor Mechanical Engineering

Specialty: Chemistry.

Experience: Principal investigator of study on the Impact on Man of Environmental Contamination Caused by Lead, NSF. Assistant Professor, Chemistry, University of Arizona.

ECKERT, JERRY  73
Assistant Professor Economics

Specialties: Agricultural development; food economics; agricultural policy; production economics.


ELLIS, JAMES  74
Affiliate Professor Sociology and Anthropology
Consumer Integrator, Natural Resources Ecology Laboratory

Specialties: Socio-ecological systems in ungulates and primates; systems ecology; environment-population interaction among vertebrates.

Experience: Postdoctoral research on animal socio-ecological systems, University of Bristol, England. Member, biological expeditions to Gulf of California and to Mexico. Conducted field studies on pronghorn antelope and wild turkeys. Developed systems models of pronghorn antelope and wild turkeys. Developed systems models of pronghorn populations.
ELLS, JAMES E.  
Extension Associate Professor  
Horticulture

Specialty:  Nonpolluting systems for plant production, processing, and marketing.

Experience:  CSU Extension Horticulturalist since 1961. Developed pilot facility for processing and evaluating processed vegetables.

EPLING, GLENWOOD  
Professor and Dept. Chairman  
Anatomy

Specialties:  Electronmicroscopy; histology; embryology (heart and lungs).


EVANS, NORMAN A.  
Professor  
Director, Environmental Resources Center  
Agricultural Engineering

Specialties:  Hydrology; irrigation engineering; drainage and salinity control; groundwater mechanics.

Experience:  Head, CSU Department of Agricultural Engineering, 1959-1969. Vice-chairman, Colorado Water Pollution Control Commission. Consultant: irrigation project planning and design, Thailand; drainage and salinity control, Turkey; numerous irrigation and drainage system design projects. Vice-president, American Society of Agricultural Engineers.
FEAD, JOHN N.  
Professor and Dept. Head  
Civil Engineering  
Specialties: Structures; soil mechanics.  
Experience: Twenty years of research and teaching at Canadian and U.S. universities. Structural and/or Foundation Design Engineer for a number of U.S. and Canadian engineering firms.

FECHNER, GILBERT H.  
Professor  
Forest and Wood Sciences  
Specialties: Forest genetics; morphology; ecological impact of cloud-seeding (phenology).  
Experience: Project Leader, genetic characteristics and their use in the improvement of Rocky Mountain forest trees, McIntire-Stennis Project, Colorado Agricultural Experiment Station.

FLICKINGER, STEPHEN A.  
Assistant Professor  
Fishery & Wildlife Biology  
Specialty: Culture of bait, food, and sport fishes.  
Experience: Teaching and research on culture of warm-water fishes.

FOSS, PHILLIP O.  
Professor  
Political Science  
Specialty: Environmental politics and administration.  
Experience: Consultant: National Academy of Sciences; Bureau of Land Management; USD1. Research: water agencies, OWRR; agricultural development in West Pakistan, AID.

FRANKLIN, WILLIAM T.  
Associate Professor  
Agronomy  
Specialty: Soil salinity.  
FRAYER, WARREN E.  
Associate Professor  
Forest and Wood Sciences

Specialties: Natural resources biometry; natural resource inventories; sampling techniques; data processing; environmental inventory for natural resource planning.

Experience: Director of workshops on use of data processing and natural resource biometry. Consultant: sampling designs and computer applications. Mathematical Statistician, Biometrics Unit, Northeastern Forest Experiment Station, USFS; inventories, USFS, Denver.

FREEMAN, DAVID M.  
Assistant Professor  
Sociology

Specialty: Sociology of development with focus on diffusion of innovation in the context of social conflict and planning.

Experience: Project Director, sociological aspects of water management in West Pakistan, AID. Operations Officer, Peace Corps, Ceylon and Nepal.

FRENCH, NORMAN R.  
Professor  
Director of Field Studies, Natural Resources Ecology Laboratory  
Fishery and Wildlife Biology

Specialties: Ecosystem analysis; computer simulation; population dynamics; zoogeography; radiation effects on populations.

Experience: Research Ecologist (currently consultant) at UCLA Laboratory of Nuclear Medicine and Radiation Biology. Fellow, American Association for Advancement of Science.

FREY, ANTHONY L.  
Associate Professor  
Agricultural Engineering

Specialties: Food and biochemical engineering; effect of food processing on vitamin content; menu analysis and planning by computer.

Experience: Systems Development Engineer, The Dow Chemical Co. Assistant Professor of Chemical Engineering and
Professor-in-charge, Chemical Industries Technology, Iowa State University. Fulbright Lecturer and Royal Norwegian Society for Scientific and Industrial Research Postdoctoral Fellow, Technical University of Norway, Trondheim.

**FRONK, W. DON**
Professor

Specialty: Insect ecology and controls.


**FULTS, JESS L.**
Professor

Specialties: Turf grasses; weed science.

Experience: Principal Investigator, crabgrass herbicides, Velsicol Corp., Chicago; environmental pollution by herbicides, CSU Experiment Station.

**GAVIN, JAMES F.**
Assistant Professor

Specialty: Social psychology.


**GALER, BETTINA B.**
Assistant Professor

Specialty: Fish disease.

Experience: Research: “whirling disease” in trout.
GESSLER, JOHANNES
Associate Professor
Civil Engineering
Specialties: Fluid mechanics; hydraulics.
Experience: Research Engineer, Laboratory for Hydraulic Research, Swiss Federal Institute of Technology. Engineer, Hydropower Plants, Swiss consulting firm.

GIBSON, JAMES H.
Associate Professor
Chemistry
Director of Administration and Services,
Natural Resources Ecology Laboratory
Specialties: Analytical methods involving atomic emission and atomic absorption spectroscopy; gas chromatography; solution of specific analytical problems.

GIFFORD, CURTIS
Assistant Professor
Library Science
Specialties: Forestry; agricultural sciences; ecology.
Experience: Dane Biomedical Library, Dartmouth College. Author, Agriculture and Forestry, Reference Sources.

GILBERT, DOUGLAS L.
Professor
Fishery and Wildlife Biology
Assistant Dean, College of Forestry
and Natural Resources
Specialties: Ecology, wildlife biology and management; wildlife-range management, behavior; public relations in natural resources management.
Experience: Professor, Wildlife Science; Extension Leader, Department of Natural Resources, Cornell University. Director, short courses in wildlife research and natural resources, Cornell University and CSU. Recipient, 1972 American Motors Conservation Award.
GOLDSBERRY, KENNETH L.  96
Associate Professor                  Horticulture
Specialties: Greenhouse management; house and garden plants; landscape and environmental design.

GOODMAN, JAMES R.  97
Professor                        Civil Engineering
Specialty: Structural mechanics and materials.
Experience: Co-investigator, Orthotropic Elastic and Strength Behavior of Wood, NSF. Consultant on bridge designs to highway departments.

GORMAN, HARRY A.  98
Professor                        Clinical Sciences
Specialties: Surgery—orthopedic and implant; bioelectronics.
Experience: Manager, Department of Life Sciences, Martin-Marietta Corp., 1961-1964. CSU research involving biotelemetry, NASA, NIH, and Morris Animal Foundation.

GRANT, LEWIS O.  100
Professor                        Atmospheric Science
Specialties: Cloud and precipitation physics; weather modification; synoptic and mountain meteorology.
Experience: Research: weather modification with emphasis in cloud studies to increase mountain snowpack, NSF and USBR; mountain-induced precipitation in the Rockies and western plains; possible inadvertent weather modification caused by airborne lead, NSF. Advisor, Colorado legislature on weather modification and Denver Olympic Committee. Consultant: USBR; NSF; National Academy of Sciences; universities, federal and state agencies; and private industries.
GRAY, S. LEE
Assistant Professor
Economics
Specialties: Water; natural resources economics.

GRAY, WILLIAM M.
Associate Professor
Atmospheric Science
Specialties: Tropical meteorology; turbulence; weather forecasting; atmospheric vortices; cumulus convection; severe storms.
Experience: Exchange Scientist in Japan under U. S. Japan Cooperative Scientific Research contract, NSF. Research sponsors: NOAA, NSF, NAVY, NASA. Member, Committee on Hurricanes and Meteorology, AMS. CSU member, UCAR-GARP Council.

GRIGG, NEIL S.
Associate Professor
Civil Engineering
Specialties: Urban water resources management; water resources systems analysis.

GROSS, JACK
Assistant Professor
Fishery and Wildlife Biology
Specialties: Wildlife population dynamics; simulation modelling; systems analysis.
Experience: Acting Leader, Colorado Cooperative Wildlife Research Unit. Assistant Professor of Wildlife Management, North Dakota State University.
HAGAN, HAROLD K. 106
Associate Professor Fishery & Wildlife Biology

Specialties: Fishery biology and management; trout culture.


HALL, PETER 107
Associate Professor Physiology and Biophysics

Specialty: Use of altered atmospheric pressure, particularly hyperbaric oxygen, as an experimental and therapeutic tool.


HANAN, JOE J. 108
Professor Horticulture

Specialties: Water use, efficiency and automation; air pollution effects on plants; physical factors affecting plant growth; use of polluted water for flower production.

Experience: Advisor and consultant to Colorado Flower Growers Assn.

HANSEN, RALPH W. 109
Extension Associate Professor Agricultural Engineering

Specialties: Feedlot waste disposal and water pollution control; agricultural structures and environment.

Experience: CSU Department of Agricultural Engineering, 1956-present. Fullbright Lecturer, Helsinki, Finland. New Idea Division of Avco Corp., design of farm machinery.
HANSEN, RICHARD M. 110
Professor
Range Science

Specialty: Range biology.
Experience: Range Biologist, Colorado Agricultural Experiment Station. Consultant: private, state, federal, and foreign organizations on scientific and technical principles in zoology, wildlife, range and ecology.

HANTSBARGER, WILLIAM M. 111
Extension Associate Professor
Zoology

Specialty: Entomology.
Experience: Advisor to pesticide committees, industrial, and university groups.

HARPER, JUDSON M. 112
Professor and Dept. Head
Agricultural Engineering

Specialties: Extrusion processing; novel thermal processes; computer assisted menu planning; nutrient analysis.

HARRILL, INEZ 113
Professor
Food Science and Nutrition

Specialties: Nutrition; protein metabolism.
Experience: 17 years teaching and research at CSU. Research: nutrient content of food served in nursing homes; influence of vitamins in body.

HART, WILLIAM E. 114
Associate Professor
Agricultural Engineering

Specialties: Irrigation water distribution; land preparation for irrigation; land disposal of sewage sludge.
Experience: Lecturer and Associate Specialist, University of California (Davis). Project Engineer, Hawaiian Sugar Planters' Assn.
HARTMAN, LOYAL M.  
Professor  
Economics  

Specialties: Water resources; agricultural economics; economic development.  

Experience: Consultant: USBR, USDA, state water agencies.  

HAYMAN, ROBERT W.  
Associate Professor  
Civil Engineering  

Specialties: Highways, soil mechanics; photogrammetry.  

Experience: Director, computer-managed Learning Systems Laboratory, a Control Data Corporation project at CSU. Consultant: engineering firms, highway departments, and industry in photogrammetry and project simulation.  

HEENEY, MARVIN W.  
Extension Associate Professor  
Animal Science  

Specialty: Animal reproduction.  


HEIKES, P. EUGENE  
Extension Professor  
Botany and Plant Pathology  

Specialty: Weed control.  


HEIL, ROBERT D.  
Assistant Professor  
Agronomy  

Specialties: Soil survey; land use planning.  

HEIN, DALE
Associate Professor
Fishery and Wildlife Biology

Specialties: Small game management; ecology; population dynamics; biometrics.

Experience: Research Biologist, Highlands Biological Station, North Carolina. Assistant Professor of Biology, Wake Forest University.

HELD, R. BURNELL
Professor
Recreation Resources

Specialties: Recreation economics; regional planning.

Experience: Chief, Division of Research and Education, Bureau of Outdoor Recreation, USDI. Assistant Study Director, Scenic Roads and Parkway Study, Office of Under Secretary for Transportation, USDC. Study director to determine the value of water in various uses for each of six regions in the United States, National Water Commission. Consultant: public use of private land, Resources Program Staff, USDI; economic impact of recreation, USDI; carrying capacity study, National Park Service.

HENDRICKS, DAVID W.
Associate Professor
Civil Engineering

Specialties: Water chemistry, sanitary engineering; water resources.

Experience: Consultant: Eimco Corp., Salt Lake City; Cornell, Howland, Hayes, and Merryfield; waste disposal, WSWRC Western Regional Commission.

HERVEY, DONALD
Professor
Range Science

Specialties: Range seeding, brushland management; grazing management, range ecology.

HIBLER, CHARLES P. 124
Professor Pathology

Specialty: Wildlife diseases, specifically parasitic diseases.

Experience: Director, CSU Wild Animal Disease Center. Research: blindness in elk; Colorado trout; Big Horn sheep lamb mortality; fawn mortality; filarial disease in general; blood sucking orthopods as vectors.

HILL, DUANE W. 125
Professor Political Science

Specialties: Water resources; environmental engineering.


HILLEMAN, DANIEL 126
Instructor Technical Journalism
Specialist, Community Communication Services and Continuing Education

Specialty: Communication aspects and theory of citizen feedback on environmental issues.

HOLLEY, WINFRED D.  
Professor  
Horticulture  

Specialties: Floriculture; flower production; landscape and environmental design.  


HORTON, DALLAS  
Assistant Professor  
Clinical Sciences  

Specialties: Applied nutrition; clinical medicine; preventative medicine in large animals.  

Experience: Consultant: food-animal health with main objectives prevention and control of diseases rather than diagnosis and treatment. Work involves close liaison with other disciplines on campus to provide total service to livestock producers.  

HUŠZAR, PAUL C.  
Assistant Professor  
Economics  

Specialties: Urban economics.  

Experience: Joint research with University of Colorado on natural hazards study. Investigator, OWRR research.  

INNIS, GEORGE S., JR.  
Associate Professor  
Mathematics and Statistics  
Director of Systems Analysis, Natural Resources  
Ecology Laboratory  

Specialties: Mathematical applications of quantitative techniques to biological problems; complex variables; time series analysis; numerical analysis.

JAENKE, ROGER
Assistant Professor Pathology

Specialties: Cellular pathology; electron microscopy; physiology (functional and cellular); biochemistry; bioengineering.

Experience: NIH Graduate Training Program in Pathology. Chief, Research and Development Laboratory, Madigan General Hospital, Tacoma, Wash.

JAMESON, DONALD A.
Professor Range Science

Specialties: Grassland and brushland ecology; soil-plant relationship; modelling and evaluation of ecological problems; quantitative management of natural resource-economic-community complexes.

Experience: Range scientist, Rocky Mountain Forest and Range Experiment Station, USFS. Intensive Site Director, IBP-Grassland Biome Project. Research: Optimization of Land Management Practices, CSU Experiment Station.

JANSEN, G. RICHARD
Associate Professor and Dept. Head Food Science and Nutrition

Specialty: Amino acid fortification.

Experience: Research Fellow, regulation of food intake, amino acid fortification, Merck Institute for Therapeutic Research. Chairman, state and regional conferences on food, nutrition, and health. Project Director, western regional project on food acceptance as related to selected environmental factors.
JENKINS, LEONARD E.  134
Assistant Professor  Zoology

Specialty: Entomology.

Experience: Research on root maggot control in sugarbeets.

JOHNSON, RICHARD E.  135
Associate Professor  Zoology

Specialties: Chemistry; pesticide residue in plants, animals and the environment.

Experience: Supervisor, CSU Toxic Residue Laboratory. Research: ultrasonic extraction of pesticides; rate of volatilization of insecticides from plants.

JOHNSON, DONAL D.  136
Professor  Agronomy
Dean, College of Agricultural Sciences

Specialties: Land management; forest and range soils; land use.

Experience: Research and publications related to nitrogen transformations in soil systems, soil testing for nitrogen, soil classification, and soil microbial ecology. Consultant: USFS; Meheen Environmental Consultants; Panhandle Eastern Pipeline Co. on soils and land use. Coordinator of agricultural development programs in Eastern Nigeria, West Pakistan, and Brazil.

JOHNSON GESTUR  137
Professor  Chemistry

Specialties: Food chemistry; natural fungicides to control plant disease.

Experience: Thirty-one years as food chemist at CSU. Current research in the isolation of plant phytoalexins—disease resistant anti-fungal substances, produced upon infection in living cells of specific plants.
JOHNSON, JAMES E.  
Associate Professor  
Animal Science  

Specialty: Radiation biology.  

Experience: Measurement and influence of radioactive fallout in agriculture; use of whole body counter to evaluate body composition of man and animals. Director, CSU Whole-Body Counter Laboratory. Lecturer, radio chemistry, Oak Ridge Institute of Nuclear Studies.  

JOHNSON, ROBERT B.  
Professor and Dept. Chairman  
Geology  

Specialties: Geophysics, engineering and hydrogeologic application; engineering geology; statistical applications to geology; geology of aggregate materials.  


JONES, GARTH N.  
Professor  
Political Science  

Specialties: Water resources management; planned organizational change; modernization of financial management.  

Experience: Research on water projects in West Pakistan. Participant in AID program at CSU to improve expertise in water resource management.  

JONES, THOMAS B., JR.  
Assistant Professor  
Electrical Engineering  

Specialties: Electrohydrodynamics and environmental engineering.  

JORDAN, JOHN PATRICK
Professor
Acting Director, Experiment Station

Specialties: Effects of environmental conditions on metabolism; energy metabolism; intermediary metabolism with special emphasis on the enzymes and co-factors involved in lipid metabolism; biosystems analysis.

Experience: Affiliate Research Professor of Environmental Health, University of Oklahoma Medical Center. Consultant: recommendation of future uses for Lunar Receiving Laboratory, NASA American Institute of Biological Sciences; Huston Laboratories, Inc., Oklahoma City; Meheen Engineering Co., Denver. Member, AIBS Council 2, Manned Orbiting Research Laboratory Planning Committee. Director, NASA grants.

JORGENSEN, CARL J.
Professor

Specialty: Ornamentals.

Experience: Broad interest in plants to enhance man’s environment, landscape, and environmental design. Director of Agriculture, Universidad National, Bogata, Columbia. Senior Irisarian, American Iris Society. Fort Collins City Arborist.

KAINER, ROBERT A.
Professor

Specialties: Histology; exfoliative cytology.

Experience: Research: diagnosis of eye cancers in cattle, NIH/American Cancer Society; cardiopulmonary effects of immediate air pollutants; bovine emphysema, NIH.

KARAKI, SUSUMU
Professor

Specialties: Fluid mechanics; hydraulics; sedimentation.

Experience: Design and research in hydraulics and hydraulic structures. Consultant: design of water supply and hydroelectric power plant systems.
KEMPER, W. DORAL
Professor
Agricultural Engineering

Specialties: Saline soils; soil chemistry and soil physics; disposal and utilization of municipal wastes in soils.


KLEIN, DONALD A.
Assistant Professor
Microbiology

Specialties: Soil and environmental microbiology; microbial physiology.

Experience: Research, Soil Microbial Ramifications of Silver Iodide Used in Weather Modification, NCAR; Decomposer Activity in a Semi-Arid Grassland Soil, NSF.

KLEIN, WILLIAM M.
Associate Professor
Botany and Plant Pathology

Specialty: Biosystematic studies on plants.

Experience: Assistant Director, Missouri Botanical Gardens, St. Louis. Faculty advisor to student environmental groups. Investigator, basic plant life studies in relation to land use planning; Vegetational Resource Inventory of Colorado; effects of shock on plant species and plant communities, USGS.
KLUTE, ARNOLD
Professor Agronomy

Specialty: Soil physics.


KNOP, EDWARD C.
Assistant Professor Sociology

Specialty: Population; community.

Experience: Director/Co-director, Social Significance of Migration in the West (USDA); Community Cleavages in New Mexico (NIMH). Consultant: Community Action Programs; OWRR; AEC; HUD; WICHE. Research Sociologist, Jefferson County Health and Welfare Council, Louisville, Ky.

KOLOSEUS, HERMAN J.
Professor Civil Engineering

Specialties: Hydraulics; fluid mechanics.

Experience: Research related to free-surface flow.

KOWALSKI, BRUCE R.
Assistant Professor Chemistry

Specialties: Use of computers in analytical chemistry. Pattern recognition via computer studies to identify pollution sources.

Experience: Research Chemist and Geophysicist, Shell Development Co. Research Chemist, Lawrence Laboratory, University of California.
KRESS, GEORGE J.  
Associate Professor  
Marketing  

Specialties:  Marketing; location analysis.  

Experience:  Consultant: Colorado flower industry.  

KREUTZER, WILLIAM A.  
Professor  
Botany and Plant Pathology  

Specialty:  Plant pathology.  


LAWRENCE, ROBERT A.  
Associate Professor  
Political Science  

Specialties:  Energy; politics and administration of energy resources.  

Experience:  Consultant: Hudson Institute; Stanford Research Institute; RAND.  

LEHNER, PHILLIP N.  
Assistant Professor  
Zoology  

Specialty:  Wildlife behavior.  

Experience:  Geologist-ornithologist, Contagious Disease Center, USPHS, Atlanta, Ga. Research Assistant: Pacific Ocean Biological Survey Program, Smithsonian Institute; Department of Conservation, N.Y.; Cooperative Wildlife Research Unit, Cornell University. Consultant: sheep predator control, Thorne Ecological Institute.
LENTZ, WILLIAM E.  157
Assistant Professor  Hearing and Speech Science

Specialties:  Noise pollution; hearing conservation; audiology.

Experience:  Consultant: Maico Hearing Instruments. Director, CSU Hearing Clinic; Services in Speech Pathology and Audiology, Lovelace Clinic, Albuquerque. Research Associate: Audiology and Otoneurology, University of Utah College of Medicine; University of Colorado Medical Center, Denver. Noise consultant to industry, Denver area. Member, Committee on Community Noise Abatement, Albuquerque.

LEWIS, JAMES H.  158
Professor  Economics

Specialties:  Agricultural economics; marketing.


LEYENDECKER, LISTON E.  159
Associate Professor  History

Specialty:  The American West.

Experience:  Director, “Little Kingdom Council,” a program for restoration of Central City. Member, advisory board, Rocky Mountain Center for Environmental Control. Advisor, Denver Junior League’s Historic Building Survey group.

LIVINGSTON, CLARK H.  160
Associate Professor  Botany and Plant Pathology

Specialty:  Potato diseases.

Experience:  Co-director of CSU Potato Virus Laboratory.
LÖF, GEORGE O. G. 161
Professor Civil Engineering
Specialties: Fluid mechanics; hydraulics; sanitary engineering; environmental engineering; water desalting; solar energy conversion.

LONGENBAUGH, ROBERT A. 162
Assistant Professor Civil Engineering
Specialties: Groundwater; hydrology.
Experience: Artificial recharge studies, pumping plant efficiency studies, and development of mathematical models for hydraulically connected surface and groundwater systems.

LOOMIS, ROSS J. 163
Associate Professor Psychology
Specialty: Social psychology.
Experience: Principal Investigator, CSU interdisciplinary study on awareness of air pollution and its causes in a number of Colorado communities; Clean West: A Systematic Analysis of the Economic and Social Implications of Environmental Problems.

LUDWICK, ALBERT E. 164
Extension Assistant Professor Agronomy
Specialty: Soil management, fertility, and testing programs.
Experience: Developed soil fertility program at Federal University of Rio Grande del Sol, Brazil, AID/University of Wisconsin.
MAAG, DALE
Professor
Chemistry

Specialties: Metabolism; selenium toxicity; natural fungicides to control plant disease.


MACKSAM, WILLIAM G.
Associate Professor
Horticulture

Specialties: Landscape architecture; use of plains-hardy species.

Experience: CSU turfgrass investigations. Principal teacher of landscape and ornamental materials classes as well as landscape design.

MAHMOUD, KHALID
Assistant Professor
Civil Engineering

Specialties: Water resource development; sedimentation problems.

Experience: Executive Engineer, West Pakistan Irrigation Department. Supervisor, analytical and laboratory research on sediment conduction in irrigation turnouts; water resource planning in semi-arid lands.

MACIEL, GARY E.
Professor
Chemistry

Specialties: Experimental and theoretical aspects of Nuclear Magnetic Resonance; development of NMR methods of analysis of heavy metals.

Experience: Internationally recognized authority on NMR. Professor of Chemistry, University of California (Davis).
MARLATT, WILLIAM E.
Professor and Dept. Head
Watershed Sciences

Specialties: Remote sensing of atmosphere and earth surfaces; environmental quality; interaction of climate and surface environment.

Experience: Professor, Department of Atmospheric Science, CSU. Senior Scientist, Environmental Resources Associates, Inc. Consultant: National Bureau of Standards, Boulder, Colorado; Martin Marietta Co., Denver; NASA, Manned Space Flight Center. Member: AIAA Committee on Sensor Systems; National Research Council, NAS; Biometeorology Panel for IBP; Committee on Radiation for BOMEX.

MARQUARDT, WILLIAM C.
Professor
Zoology

Specialties: Environmental health and parasitology with primary interest in the broad area of epidemiology and transmission of protozoan and metazoan parasites of vertebrates; invertebrate ecosystems.


MARSHALL, JOHN
Affiliate Professor
Botany and Plant Pathology
Producer Integrator, Natural Resources
Ecology Laboratory

Specialties: Plant autecology; environmental heterogeneity; techniques and methodology in experimental ecology.

MARTIN, ROBERT D.  
Professor  
Biochemistry  

Specialties: Steroid biochemistry in large domestic animals; steroid analysis in human plasma and urine.  

Experience: Research Associate, Department of Biological Chemistry, Harvard Medical School and Massachusetts General Hospital. CSU advisor to premedical students.  

MARTIN, STEPHEN G.  
Assistant Professor  
Zoology  

Specialties: Terrestrial ecosystems; vegetational analysis; strip mine reclamation.  

Experience: Chief, Terrestrial Environment Section for the Western Slope Resources Study, Stearns-Roger Corp., Denver.  

MATSUSHIMA, JOHN  
Professor  
Animal Science  

Specialties: Animal nutrition; beef feeding.  


MAXWELL, EUGENE L.  
Instructor  
Watershed Sciences  

Specialties: Applications of remote sensing to natural resource management; detection and mapping of subsurface mineral deposits and groundwater deposits; development of environmental modelling techniques; measurement of the electrical properties of materials; use of remote sensing to monitor environmental conditions.  

Experience: Developed graduate course and text, "Active Remote Sensing of Natural Resources." Section Manager, Westinghouse Georesearch Laboratory; developed a computer model for predicting world-wide atmospheric noise statistics from thunderstorms and lightning statistics; managed a
project to develop communications/location system for coal mine disaster use; managed projects leading to new equipment and techniques for mineral exploration; managed projects to measure electrical properties of earth materials (rocks, soil, water, permafrost, snow and ice) from the surface to the Mohorovicic discontinuity; measured atmospheric noise conditions at several world-wide locations.

McCALLUM, MALCOLM E. 176
Professor Geology

Specialties: Igneous and metamorphic petrology and petrography; structural geology; x-ray analysis; low temperature geochemistry; mineral resources.

Experience: WAE geologist, geologic research with USGS Northern Rocky Mountain, Rocky Mountain Mineral Resources, and Environmental Geology Branches 1956-present. Guest lecturer for Geologic Society of American Penrose Conferences.

McCLELLAN, J. FORBES 177
Associate Professor Zoology

Specialty: Physiology of protozoa.

Experience: Director, NSF/CSU Summer Institute for College Biology Teachers.

McCONNELL, WILLIAM J. 178
Unit Leader, Colorado Cooperative Fishery Unit Fishery & Wildlife Biology

Specialties: Primary and secondary productivity in fisheries; watershed effect on fisheries.

Experience: Professor of Fishery Science and Unit Leader, Arizona Cooperative Fishery Unit.

McWHORTER, DAVID B. 179
Assistant Professor Agricultural Engineering

Specialties: Groundwater recharge; diffusion of gas in porous media; movement of fresh water in saline aquifers; infiltration.

Experience: Exploitation Engineer, Shell Oil Co.
MEEK, ROY L.  
Assistant Professor  
Political Science

Specialties:  Water management and law; environmental problems.

Experience:  Principal investigator, water projects involving agency planning and management and their economic, political, and legal aspects.

MEIMAN, JAMES R.  
Associate Professor  
Watershed Sciences

Specialties:  Soil and water conservation; snow hydrology.

Experience:  Consultant: environmental impact of oil shale development, Thorne Ecological Institute, Boulder; review of USFS management plans for Magruder Corridor, USDA. Research Project Leader, overall coordination of integrated resource studies on Little South Poudre Watershed, CSU; watershed management practices on irrigation projects, USBR; snow evaporation, OWRR. Director, snow hydrology research, Swiss Forest Research Institute. Applied watershed management training, University of the Andes, Venezuela.

MERCER, ALBERT G.  
Associate Professor  
Civil Engineering

Specialties:  Hydraulics; structures; hydromachinery.

Experience:  Indus Basin projects in Pakistan for Tipton & Kalmbach, Inc. Head, Hydraulics and Hydrology Section, Hydroelectric Division, International Power and Engineering Consultants, Vancouver, B.C.

MERONEY, ROBERT N.  
Associate Professor  
Civil Engineering

Specialties:  Fluid dynamics; heat transfer.

Experience:  Engineer, Naval Ordinance Laboratory, Silver Springs, Md. Design consultant: concrete block drying and curing kiln. Principal investigator, numerous wind tunnel model studies related to atmospheric and environmental conditions for federal agencies and private industries.
MEYERS, ALBERT I.
Professor
Chemistry
Specialties: Organic chemistry; synthesis of insect pheromones.
Experience: Professor of Chemistry, Wayne University. Research: synthesis of a variety of naturally occurring substances (insect attractants, anti-cancer, and cardiovascular drugs); photochemistry of heterocyclic compounds; and use of heterocyclic compounds as useful new reagents for organic synthesis. National Academy of Sciences Exchange Lecturer in Poland. Consulting Professor, Louisiana State University system.

MIELKE, PAUL W.
Associate Professor
Statistics
Specialties: Nonparametric statistics; Statistical applications in speech and hearing; Statistical applications in atmospheric science.

MILES, DONALD L.
Extension Assistant Professor
Agricultural Engineering
Specialties: Infiltration in sprinkler and gravity irrigation; irrigation systems design.

MILLER, BYRON E.
Associate Professor
Avian Science
Specialties: Poultry products; avian physiology; poultry management.
Experience: Research: biological conversion of animal wastes to nutrients, NIH; conversion of poultry manure to edible protein via growth of flies; animal waste disposal; development of new poultry products.
MILLER, LARRY L.  
Professor  
Chemistry  
Specialties: Organic electrochemistry; photochemistry of DDT.  
Experience: Recipient of the 1972 Alfred F. Sloan Foundation Fellowship for Research Chemist, American Cyanamid Co. Visiting Professor, University of Southampton, England. Member, advisory committee to NSF Chemistry Section.

MILLER, LEE D.  
Associate Professor  
Watershed Sciences  
Specialty: Remote sensing.  

MILLER, W. DWAIN  
Instructor  
Recreation Resources  
Specialty: Recreation area planning.  

MOGREN, EDWIN W.  
Professor  
Forest and Wood Sciences  
Specialties: Forest ecology; site classification; ecological impact of cloud seeding (biomass production); water yields in relation to forest cover.  
Experience: Director, Pingree Park Campus. CSU representative on Executive Committee for Coniferous Biome, IBP.
MOORE, FRANK D. 192
Associate Professor Horticulture
Specialties: Plant production at high elevations; basic problems related to plant growth.
Experience: Senior Research Horticulturist, 3M Company, St. Paul, Minn.

MOREL-SEYTOUX, HUBERT J. 193
Associate Professor Civil Engineering
Specialties: Hydrology; mechanics; statistics in decision theory and multivariate analysis.
Experience: Research Engineer, Reservoir Analysis and Applied Mathematics Section, Chevron Oil Field Research Co.

MORRISON, SUMNER M. 194
Professor Microbiology
Specialties: Environmental health; water quality.
Experience: Consultant to EPA, NIH-HEW, industry and municipalities. Member, Colorado Board of Examiners in the Basic Sciences, 1960-present.

NAGY, JULIUS 195
Associate Professor Fishery and Wildlife Biology
Specialties: Wildlife nutrition; physiology; bacteriology; applied chemistry (of plants as related to wildlife).
Experience: Study of wildlife nutrition in Hungary and Germany.

NASH, DONALD J. 196
Professor Zoology
Specialties: Birth defects; radiation biology and genetics of the mouse.
NOBE, KENNETH C.  
Professor and Dept. Chairman  
Economics  

Specialties: Natural resources economics; economic development; agricultural economics; regional economics.  


OAKLEAF, S. KENNETH  
Extension Associate Professor  
Assistant Director, Community Resources Development  
Economics  

Specialties: Community and rural development; agricultural policy.  

Experience: Extension community relations specialist. Leadership: in 22 community-wide program planning workshops involving 10 western states; state, regional, and national CRD workshops; National 4-H Leaders Forums on youth in CD; National Public Policy Education Committee; national and state advisory councils on vocational education.  

O’DONNELL, C. MICHAEL  
Assistant Professor  
Chemistry  

Specialties: Photochemistry; analysis of pesticides and atmospheric pollutants using phosphorimetry.  

Experience: Current research in laboratory studies indicating the usefulness of phosphorimetry in the particular problem of distinguishing between DDT and chlorinated biphenyls.  

OETTING, EUGENE R.  
Professor  
Director, CSU Counseling Center  
Psychology  

Specialty: Applied social psychology.  

Experience: Research Director, Mental Health and Manpower Dept., U.S. Department of Labor.
ODGEN, DANIEL M.  201
Professor  Political Science
Dean, College of Humanities and Social Sciences

Specialties: Natural resources policy and politics (outdoor recreation policy; electric power policy; water and land resources); political parties; pressure groups; legislative process.

Experience: Staff Assistant, Resources Program; Assistant Director, Bureau of Outdoor Recreation; Director of Budget, USDl, 1961-1968. Special consultant to the Chairman, Democratic National Committee, 1960-1961.

OLSON, HILDING G.  202
Associate Professor  Mechanical Engineering
Head, CSU Radiation Institute

Specialties: Radon progeny; nuclear power reactors; cavitation.


OSHIMA, NAGAYOSHI  203
Associate Professor  Botany and Plant Pathology

Specialties: Forest and plant pathology.

Experience: Consultant to physicians on allergy problems due to air-borne fungi. Research: diseases of canning crops, foliage disease of conifers, and Dutch Elm disease.

OSTERYOUNG, JANET  204
Assistant Professor  Civil Engineering

Specialties: Fundamental electrochemistry; electroanalytical development methods; trace metal analysis and metal toxicity; chemistry of natural waters.

Experience: Assistant Professor of Chemistry, University of Montana. Consultant: CSU fisheries program. Holds joint appointment with CSU Department of Microbiology. Co-investigator, Pulse Polarographic Analysis, NSF: Chemical Oxidation of Sewage.
OSTERYOUNG, ROBERT A.
Professor and Chairman
Chemistry
Specialties: Electrochemistry, including fused salts; electronanalytical methods.

OXLEY, JAMES W.
Professor and Dept. Head
Animal Science
Specialty: Animal production; sheep and wool production.

PACKARD, GARY C.
Assistant Professor
Zoology
Specialty: Thermal regulation and metabolic compensation in amphibians and reptiles.
Experience: Research Associate in Zoophysiology, Department of Zoology, Washington State University. Visiting Scientist, Laboratory of Environmental Patho-Physiology, Desert Research Institute, University of Nevada.

PARANKA, STEPHEN
Professor
Marketing
Associate Dean, College of Business
Specialties: Marketing; management.
PARKE, ROBERT V.  209
Professor Botany and Plant Pathology
Specialties: Plant anatomy; infrared photography of plant tissue.
Experience: Fulbright Lecturer, University of Rhodesia and Nyasaland, Salisbury, Southern Rhodesia. Co-investigator, Effect of Weightlessness on Biological Systems, NASA.

PETERKA, JON A.  210
Assistant Professor Civil Engineering
Specialties: Simulation of atmospheric flows; turbulence.

PETIT, MICHAEL G.  211
Assistant Professor Microbiology
Specialty: Metallic pollutants.
Experience: Research Chemist, Beckman Instruments, Fullerton, Calif. Research: Baseline Study of Mercury in the Environment, Rockefeller Foundation; feedlot odors; effects of silver iodide on rumen microorganisms.

PETTUS, DAVID  212
Professor Zoology
Specialties: Environmental relations of cold-blooded animals; oil shale impact; poikilothermal ecology.
Experience: Chairman, Genetics Institute, CSU. Consultant: Thorne Ecological Institute; Ecology Consultants, Inc.

PHEMISTER, ROBERT D.  213
Associate Professor Pathology
Deputy Director, Collaborative Radiological Health Laboratory
Specialties: Diseases of pre- and postnatal development in dogs; teratology; nephropathy; canine embryology.
Experience: Diplomate, American College of Veterinary Pathologists.
POST, GEORGE
Associate Professor
Fishery & Wildlife Biology

Specialties: Fish nutrition and pathology; immunology; comparative physiology; histology and biochemistry; drug therapy; toxicology; cold water fish culture.

Experience: Assistant Cooperative Fishery Unit Leader, Colorado State University; Fish Pathologist and Nutritionist Supervisor, Utah Department of Fish and Game Experimental Fish Cultural Station. Consultant on fish pathology for several groups.

QUARLES, CAREY L.
Associate Professor
Avian Science

Specialty: Poultry.


RADOSEVICH, GEORGE E.
Assistant Professor
Economics

Specialties: Environmental and water law; international water development.

Experience: Consultant: water law, Pakistan, AID, FAO. Attorney (Vidahovich, Barney, and Radosevich).

RAGOUZIS, PERRY M.
Professor and Dept. Chairman
Art

Specialty: Development of programs, with community leaders and public planners, involving the aesthetic design and planning of architecture, town and city planning, housing and housing developments, parks, public lands, and historical buildings and sites.

Experience: Consultant: building and site for Illinois Community College; Fine Arts Center at Macalester College, St. Paul, Minn. Fine Arts Center, Chicago, Perkins and Will, Archi-
tects. Chairman, planning committee for Illinois State University Student Union building; CSU Creative and Performing Arts Center.

RASMUSSEN, JAMES L. 219
Associate Professor Atmospheric Science

Specialties: Atmospheric water resources; management; hydrometeorology and synoptic meteorology; climatology.


REED, EDWARD B. 220
Professor Zoology

Specialties: Aquatic ecosystems; alpine limnology; strip mine reclamation.


REHNBERG, REX 221
Professor Economics

Specialties: Agricultural policy and development.

Experience: Research consultant to University of Puerto Rico. Consultant: University of Nebraska in Columbia, South America.

REID, CHARLES P. P. 222
Assistant Professor Forest and Wood Sciences

Specialties: Tree physiology; nutrient cycling following clearcutting; effects of herbicides; mycorrhizae; ecological impact of cloud seeding (moisture stress).

Experience: Research Plant Physiologist (NAS-NRC Postdoctorate), Plant Sciences Laboratories, Fort Detrich, Maryland. Principal Investigator, Effects of Clearcutting on Nutrient Cycling, USFS.
REITER, ELMAR R.  
Professor and Dept. Head  
Atmospheric Science

Specialties: Clear air turbulence; jet-stream structure; satellite meteorology; numerical wind forecasting; radioactive debris transport; general circulation.


REUSS, JOHN O.  
Associate Professor  
Agronomy

Specialties: Soil chemistry and fertility; nitrogen transformation in nature.

Experience: Developed procedures for evaluating fertility program results by computer; programming and systems analysis by computer. Staff member, Grasslands Biome Program, IBP. Soil Fertility Specialist, Eastern Nigeria.

RHOADES, MARJORIE  
Associate Professor  
Library Science

Specialties: Engineering; water resource management.

Experience: Science and Technological Reference Librarian and Technical Reports Librarian, Georgia Institute of Technology. Head, Fernbank Science Center Library, Atlanta, Ga. Currently establishing a Water Management Research Library. Member, CUSUSWASH library committee to develop catalog.

RICHARDSON, EVERETT V.  
Professor  
Civil Engineering

Specialties: Fluid mechanics; open channel flow; fluvial hydraulics; stream morphology.
<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Specialties</th>
<th>Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>RIEHL, HERBERT</td>
<td>Professor</td>
<td>Tropical meteorology; hurricanes; jet streams.</td>
<td>Consultant: USGS; Kentucky Highway Department; National Park Service; Army Corps of Engineers; and private irrigation companies on alluvial channel and water measurement problems.</td>
</tr>
<tr>
<td>ROHDY, DONALD D.</td>
<td>Professor</td>
<td>Agricultural economics and marketing; water resources; management and commodity analysis.</td>
<td>One of world's foremost authorities in tropical meteorology, jet streams, and application of new developments in meteorology to practical weather forecasting. Recipient of Meisinger Award, AMS; Losey Award, AIAA; CSU Distinguished Service Award. Counselor and Fellow, AMS. Principal Investigator of Venezuelan International Meteorological and Hydrological Experiment. Head, CSU Department of Atmospheric Science, 1961-1968.</td>
</tr>
<tr>
<td>ROSELIUS, TED L.</td>
<td>Associate Professor</td>
<td>Small business; managerial economics; tourism.</td>
<td>Research Director on economics of water use in Colorado's economy; groundwater development in Colorado; water transfer in the west. Consultant: Hunt-Wesson Foods; American Can Co.; Prentice-Hall, Inc.</td>
</tr>
</tbody>
</table>
RYDER, RONALD A. 231
Professor Fishery and Wildlife Biology

Specialties: Waterfowl and small game management; ecology, behavior; marsh ecology; control of nuisance species; rare and endangered species; raptors; bird ecology.

Experience: Visiting Professor, Ecology, NSF Institute in Ecology, College of Guam, Agana; Animal Ecology, NSF Institute in Biology, Northern Colorado University, Greeley; NSF Institute in Alpine Biology, Colorado College.

SABEY, BURNS R. 232
Professor Agronomy

Specialties: Soil microbiology; solid waste disposal.

Experience: Nitrogen transformations in nature; loading studies of waste disposal in soil systems; influences of waste on subsequent plant growth. Co-investigator, Metropolitan Denver Municipal Sewage Sludge Project.

SADEH, WILLY Z. 233
Associate Professor Civil Engineering

Specialty: Fluid mechanics.


SANDBORN, VIRGIL A. 234
Professor Civil Engineering

Specialties: Fluid mechanics; turbulent boundary layers; aerodynamics; aerodynamic instrumentation.

SARDO, JOSEPH
Associate Professor
Sociology
Specialties: Demography; rural social organization; Latin American studies.
Experience: Consultant: Committee on Gerontology, CSU; Operations Crossroads in Africa, Office of International Programs; development of criteria for determining carrying capacity of National Park System, USDI.

SAVAGE, ELDON P.
Associate Professor
Microbiology
Specialties: Environmental and chemical epidemiology.
Experience: Chief, Chemical Epidemiology Section, Institute of Rural Environmental Health. Consultant: epidemiology, PHS, Food and Drug Administration; mosquito control.

SCHAGER, KEITH
Associate Professor
Radiology and Radiation Biology
Specialty: Environmental radiation.
Experience: Health Physicist with various technical, administrative, and educational responsibilities, Argonne National Laboratory. Senior Reactor Operator, Chief Reactor Supervisor, Radiation Control Officer, and Director of Radiation Health Specialists Training Program, CSU. Consultant: programs on radiological control, radiation protection and safety: environmental radiation sources, nuclear training of engineers, and bioenvironmental studies.

SCHMEHL, WILLARD R.
Professor
Agronomy
Specialties: Soil chemistry; salinity; land use; phosphorus reactions in soil production of sugar beets; influence of fertilizer elements on plant growth.
Experience: CSU special assignment on water management in West Pakistan, Associated Western Universities, Inc. Member, Commission on Oil Shale Resources.
SCHMIDT, FRED C., JR.
Assistant Professor
Library Science
Specialty: Government publications.

SCHROEDER, HERBERT A.
Associate Professor
Forest and Wood Sciences
Specialties: Wood chemistry; chemical processing of wood and wood residues.
Experience: CSU research sponsored by Federal Water Pollution Control Administration and USPHS. Research Chemist, Pulping Section, USFS, Forest Products Laboratory, Madison, Wisconsin. Consultant: feasibility of pipeline transportation of wood chips, Bechtel Corp.

SCHULZ, EDMUND F.
Associate Professor
Civil Engineering
Specialties: Hydrology; development of water resources.

SCHUMM, STANLEY A.
Professor
Geology
Specialties: Fluvial geomorphology; river morphology; geomorphology and hydrology of watersheds.
SECKLER, DAVID W. 243
Professor Economics

Specialty: Agricultural economics.


SHARP, EMMIT F. 244
Professor Sociology

Specialties: Population and demography; social stratification; community organization.

Experience: Consultant: Department of Agriculture and Conservation, Manitoba, Canada; Industrial Relations Center, University of Chicago.

SHEN, HSIEH W. 245
Professor Civil Engineering

Specialties: Hydraulics; fluid mechanics; erosion and sedimentation.


SIDDQUI, MOHAMMED M. 246
Professor Statistics

Specialties: Statistical distribution theory; applications of statistics in hydrology; demographic statistics.

SIMONS, DARYL B. 247
Professor Civil Engineering
Associate Dean for Engineering Research

Specialties: Hydraulics; fluid mechanics; water resource systems.

Experience: Hydraulic consultant: engineering projects for the United Nations, U.S. Corps of Engineers, and others dealing with river mechanics, flood control, and navigation problems. Member, national and international panels delegated to outline research needs in hydraulics, irrigation, and drainage.

SIMS, PHILLIP L. 248
Associate Professor Range Science

Specialties: Range animal nutrition; secondary productivity; plant-animal relationships; dynamics of primary productivity.

Experience: Research: plant succession, Oklahoma State University; vegetation of arid ecosystems and range animal nutrition, Utah State University; range animal nutrition, primary and secondary productivity, CSU. Consultant to private industry.

SIMPSON, ROBERT G. 249
Associate Professor Zoology

Specialties: Field crop entomology; pheromones.

Experience: Research: biological control of Canadian thistle; chemical and biological control of alfalfa insects.

SINCLAIR, PETER C. 250
Associate Professor Atmospheric Science

Specialties: Aircraft and theoretical investigations of severe storms; weather (hailstone) modification; aircraft cloud physics instrumentation.

Experience: In charge of CSU participation in national hail research experiment in northeastern Colorado, NSF. Research Assistant, Institute of Atmospheric Physics, University of Arizona, 1959-1965.
SKINNER, MORRIS M.  
Assistant Professor  
Civil Engineering

Specialties: Hydraulics; groundwater; remote sensing related to water resources; photogrammetry.

Experience: Participated in Colorado water resource investigations and is familiar with state and area-wide water resource conditions. Lecturer, remote sensing related to river systems, Venezuela Ministry of Public Works; Institute of Water Resources Engineering, University of Sarajevo, Yugoslavia.

SKOGERBOE, GAYLORD V.  
Associate Professor  
Agricultural Engineering

Specialties: Subcritical (submerged) flow analysis; development of hydraulic structures; salinity control from irrigated agriculture; water quality management in urban-rural areas.

Experience: Research: Grand Valley, Colo. on Colorado River Basin Salinity Control Program, EPA, USBR, seven western basin states. Vice-chairman, ASAE Irrigation Water Supply Conveyance Committee. Chairman, Water Conveyances and Distribution Committee of the Irrigation and Drainage Division, ASCE.

SKOGERBOE, RODNEY K.  
Associate Professor  
Chemistry

Specialties: Analytical chemistry with emphasis on trace analysis and identification of compound forms of environmental species.

Experience: Member, CSU interdisciplinary environmental research on contamination caused by lead from traffic exhaust. Member, advisory board of Handbook of Spectroscopy, Chemical Rubber Co. Research Manager, Trace Analysis Group, Materials Science Institute, Cornell University.

SMITH, DWIGHT R.  
Assistant Professor  
Fishery and Wildlife Biology

Specialties: Wildlife ecology; big game biology and management; wildlife range; bighorn sheep.

Experience: Research Biologist, Idaho Fish and Game Department; Range Scientist, Rocky Mountain Forest and Range Experiment Station; Wildlife Research Biologist, RMFRES.
SMITH, FREEMAN
Assistant Professor Watershed Science
Director for Synthesis and Integration
Abiotic Integrator, Natural Resources Ecology Laboratory
Specialties: Modelling strategy for developing hydrologic simulation models sensitive to ecosystem influence; systems ecology; spacial sampling designs and stochastic methods in hydrology.

SMITH, GEORGE L.
Associate Professor Civil Engineering
Specialties: Hydraulics; fluid mechanics.
Experience: Teaching and research engineer, water resources, Developed outdoor research laboratory for studies of discharge in storm sewer drains; storm characteristics of small watersheds; drainage basin evolutions and the influence of land forms on hydrologic variables.

SMITH, JAMES A.
Assistant Professor Watershed Sciences
Specialties: Application of remote sensing techniques to natural resources, particularly the application of pattern recognition methods to automatic image analysis; modelling of energy exchanges in the environment; study of micro- and macro-physical properties of systems, particularly as they relate to remote sensing applications.

SMITH, JAMES L.
Associate Professor Agricultural Engineering
Specialties: Farm machinery; solid waste disposal equipment.
Experience: Project Engineer, International Harvester Co. Instructor, Department of Mechanical Engineering, University of Utah.
SOLOMON, GORDON C.                                      259
Associate Professor                        Anatomy

Specialties:   Histology; pathology; histochemistry; wildlife anatomy and bone research.

Experience:   Consultant: radiation damage from nuclear explosion, Heath Engineering Laboratory, Fort Collins, Colo.

SOMERVELL, WILLIS, JR.                                        260
Associate Department Head            Atmospheric Science

Specialties:   Cloud seeding; weather modification and control.


SORENSEN, DONALD M.                                           261
Associate Professor                        Economics

Specialties:   Community development; economic growth and development.


SRIVASTAVA, JAGDISH N.                                        262
Professor                        Statistics

Specialties:   Combinatorial Mathematics, multivariate analysis; statistical design and analysis of experiments.

STEINHOF, HAROLD W.  
Centennial Professor  
Fishery and Wildlife Biology  

Specialties:  
Wildlife biology; population dynamics; zoogeography; biometrics, ecology; wildlife economics; big game range.

Experience:  
Principal Investigator, Mesa Verde Mule Deer Study, USBR; elk study, small mammal project, and forest ecosystems administration, CSU. Team Leader, forest ecosystems, USBR San Juan Ecology Project. Research Professor of Wildlife Management, University of Alaska, 1968-1969.

STEINHORST, R. KIRK  
Assistant Professor  
Statistics  
Statician, Natural Resources  
Ecology Laboratory  

Specialty:  
Statistics.

Experience:  
Statistician, Biometrics Unit of CSU Statistical Laboratory.  
Instructor, School of Business Administration, San Diego State College.

STERMITZ, FRANK R.  
Centennial Professor  
Chemistry  

Specialties:  
Organic chemistry; natural product chemistry; natural toxins in the food chain; chemical (nontoxic) control of predators.

Experience:  
Timber milkvetch poison study.

STEWART, WILLIAM G.  
Extension Associate Professor  
Agronomy  

Specialty:  
Crop production.

Experience:  
All aspects of soils, soil management, crops and crop production over entire state of Colorado. Recipient, Distinguished Service Award, 1969, Colorado Seed Growers Assn. Consultant; Colorado Wheat Administrative Committee; Rocky Mountain Plant Food Assn; Colorado Grain Dealers Assn, and other agri-business organizations.
STRAAYER, JOHN A. 267
Associate Professor and Dept. Chairman Political Science

Specialties: Water planning and management.
Experience: Research Associate, Water Research Center and Department of Government, University of Arizona. Specialist, CSU study on Fish and Wildlife Resources on Public Lands. Director, Institute of Intergovernmental Relations in Water Resources Planning at CSU. Director, Title VIII Project, Institute on Water Resource Management, HUD.

STRIFFLER, WILLIAM D. 268
Associate Professor Watershed Sciences

Specialties: Forest hydrology; grassland hydrology.
Experience: Research Forester and Project Leader, groundwater hydrology and streambank erosion project, Lake States Forest Experiment Station, USFS. Hydrologist, strip-mined areas restoration research project, Northeastern Forest Experiment Station, USFS. Research: Hydrology of Grasslands as part of IBP Grassland Biome Studies and study of water yield prediction from mountain watersheds using a watershed partitioning or hydrologic response unit model.

SUNADA, DANIEL K. 269
Associate Professor Civil Engineering

Specialty: Groundwater mechanics.
Experience: Principal Investigator, OWRR, NSF, and CSU Experiment Station groundwater projects.

SWAN, HENRY 270
Professor Clinical Sciences

Specialties: Surgery; shock; metabolism; cardiovascular physiology.
Experience: Professor and Head of Department of Surgery, University of Colorado Medical School, 1950-1961. Chief Investigator, heart transplants in miniature swine. Principal Investigator, interdisciplinary research on support of arterial vein autogenous grafts, HEW.
SWANSON, BERT T.  
Associate Professor  
Horticulture  

Specialties: Ornamental horticulture; plants to improve the environment; highway beautification; landscape and environmental design.  

Experience: Nursery manager.  

SWANSON, GUSTAV A.  
Professor and Dept. Chairman  
Fishery and Wildlife Biology  

Specialties: Wildlife policy, law, and administration; wildlife ecology and management.  

Experience: Head, Department of Conservation. Director, Biological Field Station, Cornell University. Executive Director, Laboratory of Ornithology. Consultant: New York Joint Legislative Committee on Natural Resources; conservation to Director of Budget, State of New York. Member, committees on plant pest control and on wildlife-land use relationships, National Research Council, National Academy of Science.  

TELLER, H. LEO  
Associate Professor  
Watershed Sciences  

Specialties: Weather modification ecology; water quality; foreign watershed management.  

Experience: Consultant: preliminary study of power line location in New Mexico, COLSPAN Environmental Services; environmental studies for hail suppression research, NCAR. Research Coordinator, San Juan Ecology Project, an interdisciplinary, inter-university study of weather modification ecology, USBR. Project leader, disposition of silver from cloud seeding projects, USBR and NCAR; decomposition of wood chips on forested slopes study, USFS. Hydrologist and watershed lecturer, visiting scientist, and advisor to European, Asian, So. American, and Australian universities and governments.
Tengerdy, Robert P.  274
Professor  Microbiology
Specialties: Immunochemistry and cell differentiation; mechanism of antigen-antibody reactions; the effect of environmental stress on the immune response and cell differentiation; hypobaric research.

Experience: Exchange Scientist, Hungary National Academy of Sciences. Visiting Scientist, Pasteur Institute, Paris, France; Max Planck Institute for Physical Chemistry, Göttingen, West Germany.

Terwilliger, Charles  275
Professor  Range Science
Specialties: Forest and range soils; range ecology; range measurements.

Experience: Instructor to Professor, CSU, 1950-present. Range Scientist, Colorado Agricultural Experiment Station, 1960-present. Consultant: Burlington Northern Railroad.

Thompson, Erik G.  276
Associate Professor  Civil Engineering
Specialty: Soil mechanics.


Thurlow, Sandra  276a
Assistant Professor  Consumer Sciences and Housing
Specialties: Household equipment with emphasis on laundry equipment and procedures.

TINNERMIEER, RONALD L.  
Associate Professor  
Economics

Specialties: Farm management; production economics; economic development.

Experience: Participated in agricultural development workshops on small farmers and small farmers' credit in less developed countries. Seven years in Latin America, AID. Leader, economic CSU/CUSUSWASH group in West Pakistan, AID.

TODOROVIC, PETAR N.  
Associate Professor  
Civil Engineering

Specialties: Hydrology; applied mathematics and its engineering applications.


TORNABENE, THOMAS G.  
Assistant Professor  
Microbiology

Specialties: Degradation of agricultural and industrial wastes; biogenesis and distribution of hydrocarbons; metabolic pathways and mechanisms of synthesis of biochemical compounds.

Experience: Postdoctoral Fellow, National Research Council, Ottawa, Canada. Research: environmental lead project, NSF; identification of Yersinia pestis strains, NIH.

TRLICA, MILTON J., JR.  
Assistant Professor  
Range Science

Specialties: Ecophysiology; primary productivity; photosynthesis in range plants; carbohydrate reserves in range plants; plant ecology.

Experience: Research: Carbon dioxide exchange of range plants as influenced by several ecological parameters; carbohydrate reserves in range plants as affected by development and defoliation; burning effects on native vegetation; nuclear power generating station effects on native vegetation of the surrounding area. Consultant: Thorne Ecological Institute; Public Service Co. of Colorado.
TROXELL, HARRY E.  
Professor  
Forest and Wood Sciences  
Specialties: Wood utilization; wood science and technology.  
Experience: Director, CSU Wood Science Laboratory. Consultant to private companies in wood science and technology. Member, CSU Wood Waste Task Force.

TULLIS, J. PAUL  
Associate Professor  
Civil Engineering  
Specialties: Hydraulics; fluid mechanics.  
Experience: Work on cavitation including numerous valve testing programs for municipalities and private firms. Consultant: consultant engineering firms, municipalities, and industry on cavitation, design of protective equipment to avoid transients in pump discharge line, analysis of vibrations and pressure surges in a nuclear pump test loop, design of pipe systems, and development of new pressure reducing equipment.

VANDERBILT, M. DANIEL  
Associate Professor  
Civil Engineering  
Specialties: Structures; mechanics.  
Experience: Investigator, elastic analysis of shear test plate and structure.

VAN DYNE, GEORGE M.  
Professor  
Director, Natural Resources Ecology Laboratory  
Fishery and Wildlife Biology  
Specialties: Nutrition of range plants and animals, forage evaluation; modelling, analysis and computer applications to biological problems; soil-plant-animal relationships; systems ecology.  
Experience: Committee on Terrestrial Productivity, National Academy of Sciences. Ecologist and Associate Professor of Biology, a joint appointment with Radiation Ecology Section, Oak Ridge National Laboratory and the Department of Botany, University of Tennessee. Consultant: Icelandic Research Institute; Union Carbide Corp. (modelling and analysis of ecological problems; United Nations Development Project, FAO, Kenya (range research and survey).
VAN Valey, Thomas L.  
Assistant Professor  Sociology

Vickers, Roger S.  
Associate Professor  Electrical Engineering
Specialties:  Electro-optical systems; remote sensing.

Vlachos, Evan  
Associate Professor  Sociology
Specialties:  Urban studies; demography and population analysis; methodology; southeastern Europe.

Vonder Haar, Thomas H.  
Associate Professor  Atmospheric Science
Specialties:  Satellite meteorology; atmospheric radiation.
WALSH, RICHARD G.  
Professor  
Economics  

Specialties:  
Natural resources economics; industrial organization.

Experience:  
Professor of Economics, University of Nebraska. Member, natural resources committees. Economic consultant: University of Maryland. Research consultant: Experiment Station, University of Puerto Rico.

WALTZ, JAMES  
Assistant Professor  
Geology  

Specialty:  
Hydrogeology.

Experience:  
Principal investigator for OWRR research projects concerning mountain water pollution and groundwater basins.

WALTERS, FOREST E.  
Associate Professor  
Economics  

Specialties:  
Agri-business and economic growth in rural areas.

Experience:  

WANGAARD, FREDERICK F.  
Professor and Dept. Head  
Forest and Wood Sciences  

Specialties:  
Wood science and technology; physical and mechanical properties of wood; tree growth-property interrelationships; wood fiber-paper property relationships; wood residue disposal and utilization.

Experience:  
Professor of Forest Products, Yale University. Chairman of CSU Wood Waste Task Force, responsible for analyses of Environmental Consequences of Wood-Waste Alternatives for the western states and the nation.
WAPLES, ELIOT O.  
Associate Professor  
Finance  
Specialty: Land development and use.  
Experience: Gathered preliminary data on raw land market between Fort Collins and Loveland. Research: Case Analyses of Kodak Employees Relocation from Rochester, N.Y. to Colorado, Eastman Kodak.

WARD, GERALD M.  
Professor  
Animal Sciences  
Specialties: Dairy nutrition; radiation biology.  

WARD, JOHN C.  
Professor  
Civil Engineering  
Professor-in-charge, Environmental Engineering Program  
Specialty: Sanitary engineering.  

WARD, RICHARD T.  
Professor and Dept. Chairman  
Botany and Plant Pathology  
Specialty: Plant ecology.  
Experience: Research: vegetation and environment of tundra in the Rocky Mountains, Aleutians, and southern Andes; ecological plant races in relation to the environment; deciduous beech forests.
WARD, ROBERT C.  296
Assistant Professor  Agricultural Engineering
Specialties: Water management in poultry processing; modelling tile drainage systems for optimum design.
Experience: Research Associate, North Carolina State University.

WARREN, C. GERALD  297
Professor  Chemistry
Specialty: Geochemical cycles for sulfur, selenium, uranium, and nitrogen.
Experience: Research: investigation of inorganic chemistry responsible for the formation of ore deposits; the isotope fractionation of various elements in ore deposits; natural organometallic compounds. Consultant: geochemistry of uranium deposits, USGS.

WASSER, CLINTON H.  298
Professor  Range Science
Specialties: Range management; range ecology.

WEITZ, JOSEPH L.  299
Professor  Geology
Specialties: Geologic mapping; environmental geology; geological education.
Experience: Chairman of Department of Geology, Hanover College. WAE geologist, USGS, 1966-present. Director, Earth Science Curriculum Project.
WENGERT, NORMAN I.  
Professor  
Political Science

Specialties: Water; natural resources.

Experience: Chairman, Department of Political Science, Wayne State University, 1960-1968. Consultant: Water Resources Institute, Office of the Chief, U.S. Army Corps of Engineers; ecological impact of oil shale development in western Colorado, Thorne Ecological Foundation, Boulder; water research project, University of Michigan, School of Natural Resources.

WESTON, FREDERICK C., JR.  
Assistant Professor  
Management Science

Specialty: Management.

Experience: Management Analyst, U.S. Naval Ammunition Depot, Crane, Indiana. Investigator, Planning for Denver Winter Olympics, HUD.

WETZLER, THEODORE F.  
Assistant Professor  
Microbiology

Specialty: Sanitation microbiology.

Experience: Consultant: National Sanitation Foundation for Environmental Microbiology; to institutions on hospital environmental problems.

WHALEY, ROSS S.  
Professor  
Forest and Wood Sciences

Associate Dean, College of Forestry and Natural Resources

Specialties: Economics of natural resources; land use planning; environmental inventory.

Experience: Professor of Natural Resource Economics; Head, Department of Forest Science, Utah State University. Research Economist, Michigan Department of Conservation. Research Forester, Southern Forest Experiment Station, USFS. Consultant: Public Land Law Review Commission, USFS.
WHICKER, F. WARD
Associate Professor Radiology and Radiation Biology

Specialty: Radioecology.
Experience: Visiting Associate Professor, Institute of Arctic Biology, University of Alaska; Department of Botany, University of North Carolina, Consultant: radioecology, Los Alamos Scientific Laboratory; wildlife, Nevada Test Site, Southwest Radiological Health Laboratory, USPHS; environmental plutonium, Dow Chemical, Rocky Flats Plant; environmental impact of uranium mining, Utah International, Inc.

WHITE, BETTY JO
Assistant Professor Consumer Sciences and Housing

Specialty: Family housing.
Experience: Community Development Representative, programs of water and sewer facilities grants, public facility loans, open space land, urban beautification and improvement, historic preservation, and studies of the satisfaction-dissatisfaction of condominium owners, HUD Manchester, N.H. office.

WHITNEY, ROBERT S.
Professor and Dept. Head Agronomy

Specialty: Soil chemistry and management.
Experience: Over 35 years professional experience in soil science and land use. Equally qualified in salinity and salinity reclamation. President, American Society of Agronomy.

WILBER, CHARLES G.
Professor and Dept. Chairman Zoology

Specialties: Environmental toxicology; aquatic ecosystems; heavy metal poisoning.
Experience: Director of Marine Laboratories, University of Delaware. Dean of Graduate School and Professor of Physiology and Pharmacology, Kent State University. Consultant: USPHS on air and water pollution; American Institute of Biological Sciences; NSF; Surgeon General U.S. Army; U.S. Air Force Research and Development Command; Thorne Ecological Institute; Ecology Consultants, Inc. Editor, American Lecture Series in Environmental Studies.
WILCOX, ARTHUR T. 308
Professor and Dept. Head Recreation Resources

Specialties: Recreation planning and administration.

Experience: Consultant: state, county, park, and recreation agencies; State of Hawaii. Member, Advisory Board, BLM, Colorado State Office; Park and Recreation Department, Navajo Tribe; ASCUFRO, Recreation Resource Supply Task Group.

WILKEN, GENE C. 309
Associate Professor Economics

Specialties: Geography; impact of man on natural resources.

Experience: Teaching Associate in Climatology, San Francisco State College. Subcontractor, National Academy of Science. Statistical Assistant, Pacific Southwest Forest and Range Experiment Station.

WILLEFORD, JACK 310
Professor Hearing and Speech Science
Director, Division of Audiology

Specialties: Noise pollution; hearing conservation; audiology.


WILLIAMS, LESLIE P., JR. 311
Associate Professor Microbiology

Specialties: Epidemiology; public health.

Experience: Research: Salmonella Cycles in Louisiana, NIH; Rabies Immunity in Native Dog Population, Colombia, South America, Tulane University; Resistant Transfer Factors in Cattle Feedlots and Poultry Production, FDA. Consultant: Poisonlab., Inc., Consulting Toxicologists, Denver, Colo.
WILSON, WILLIAM H. 312
Associate Professor Geology

Specialties: Mineral exploration; economic geology; volcanic geology; geophysics.


WOOLLEY, TYLER A. 313
Professor Zoology

Specialty: Inventory and classification of oribatid mites.

Experience: Numerous articles published on new genera and species of oribatid mites. Consultant to power industry on soil zoology of disturbed land.

WUNDER, BRUCE A. 314
Assistant Professor Zoology

Specialties: Physiological ecology; temperature regulation and activity energetics in vertebrates; vertebrate zoology.

Experience: Consultant: ecological impact of power developments on small mammals and game animals, Electric Power Industry. NIH Postdoctoral Fellow in Physiological Ecology, Institute of Arctic Biology, University of Alaska. Reviewer for Journal of Mammalogy and Institute of Arctic and Alpine Research, University of Colorado.

WYKSTRA, RONALD A. 315
Professor Economics

Specialties: Public finance and economic policy; manpower economics; economic theory.

YEJEVIC, VUJICA
Professor
Civil Engineering

Specialties: Hydrology; water resource systems; hydraulics; hydraulic engineering.

Experience: Many years of practice in the water resources field (planning, design, and construction supervision). Several years of research and teaching in water resources. Long experience as national and international consultant on fluid mechanics, hydraulic engineering, hydrology, and on advanced scientific technology for difficult water resources.

YOUNG, ROBERT A.
Associate Professor
Economics

Specialties: Agricultural and natural resources economics involving public policy impact; economics of ground water management; intermountain water transfers; eastern slope of Colorado alternative land use changes.


YOUNG, T.R.
Associate Professor
Sociology

Specialties: Social psychology; social organization; social stratification.

Experience: Research Associate, Colorado Psychopathic Hospital, Denver. Consultant: Western Interstate Commission for Higher Education; General Practitioner Evaluation project.

ZELLE, MAX R.
Professor and Dept. Chairman
Radiology and Radiation Biology

Specialties: Radiation biology; genetics; microbiology.

Experience: Professor of Genetics and Director, Center for Radiological Sciences, University of Washington, Seattle. Director, Division of Biological and Medical Research, Argonne National Laboratory.
ZIMDAHL, ROBERT L.  
Assistant Professor  
Botany and Plant Pathology

Specialty: Weed control.

Experience: Co-investigator, Environmental Contamination Caused by Lead from Automotive Exhausts, NSF. Research on weeds in sugarbeets, potatoes, herbicide persistence, and degradation.
SECTION II

LISTING BY COLLEGE AND DEPARTMENT
COLLEGE OF AGRICULTURAL SCIENCES

Agronomy: Ball, William; Berg, William; Brengle, Kenneth; Danielson, Robert; Dotzenko, Alexander; Doxtader, Kenneth; Echols, James; Franklin, William; Heil, Robert; Johnson, Donal; Klute, Arnold; Ludwig, Albert; Reuss, John; Sabey, Burns; Schneid, Willard; Stewart, William; Whitney, Robert

Animal Science: Brinks, James; Heeney, Marvin; Johnson, James; Matsumura, John; Oxley, James; Ward, Gerald

Avian Science: Miller, Byron; Quarles, Carey

Horticulture: Brink, Kenneth; Butler, Jackie; Ells, James; Goldsberry, Kenneth; Hanan, Joe; Holley, Winfred; Jorgensen, Carl; Mackam, William; Moore, Frank; Swanson, Bert

Agricultural Chemical Coordinator: Bohmont, Bert

COLLEGE OF BUSINESS

Business: Benton, Douglas

Finance: Waples, Eliot

Management: Culley, Jack; Roselius, Theodore

Management Science: Weston, Frederick

Marketing: Kress, George; Paranka, Stephen
COLLEGE OF ENGINEERING

Agricultural Engineering: Clyma, Wayne; Corey, Arthur; Frey, Anthony; Hansen, Ralph; Harper, Judson; Hart, William; Kemper, W. Doral; McWorter, David; Miles, Donald; Skogerboe, Gaylord; Smith, James; Ward, Robert

Atmospheric Science: Grant, Lewis; Gray, William; Corrin, Myron; Cox, Stephen; Rasmussen, James; Reiter, Elmar; Riehl, Herbert; Sinclair, Peter; Somervell, Willis; Vonder Haar, Thomas

Civil Engineering: Albertson, Maurice; Baldwin, Lionel; Barnes, Albert; Ball, James; Bell, James; Bole, James; Cermak, Jack; Criswell, Marvin; Fead, John; Gessler, Johannes; Goodman, James; Grigg, Neil; Hayman, Robert; Hendricks, David; Karaki, Susumu; Koloseus, Herman; Lof, George; Longenbaugh, Robert; Mahmoud, Khalid; Mercer, Albert; Meroney, Robert; Morel-Saytoux, Hubert; Osteryoung, Janet; Peterka, Jon; Richardson, Everett; Ruff, James; Sadeh, Willy; Sandborn, Virgil; Schulz, Edmund; Shen, Hsieh; Simons, Daryl; Skinner, Morris; Smith, George; Sunada, Daniel; Thompson, Erik; Todorovic, Petar; Tullis, J. Paul; Vanderbilt, M. Daniel; Ward, John; Yevjevich, Vujica

Electrical Engineering: Chan, P.; Churchill, Russell; Edwards, David; Jones, Thomas; Vickers, Roger

Mechanical Engineering: Edwards, Harry; Olson, Hilding

COLLEGE OF FORESTRY AND NATURAL RESOURCES

Fishery and Wildlife Biology: Cringan, Alexander; Decker, Eugene; Gilbert, Douglas; Gross, Jack; Hein, Dale; Nagy, Julius; Ryder, Ronald; Smith, Dwight; Steinhoff, Harold; Swanson, Gustav

Fishery: Behnke, Robert; Carlson, Clarence; Flickinger, Stephen; Hagen, Harold; McConnell, William; Post, George
Forest and Wood Sciences: Barney, Charles; Dyer, A. Allen; Fechner, Gilbert; Frayer, Warren; Mogren, Edwin; Reid, Charles; Schroeder, Herbert; Troxell, Harry; Wangaard, Frederick; Whaley, Ross

Range Science: Bartlett, E. Thomas; Bonham, Charles; Cook, C. Wayne; Hansen, Richard; Hervey, Donald; Jameson, Donald; Sims, Philip; Terwilliger, Charles; Trlica, Milton; Wasser, Clinton

Recreation Resources: Alden, Howard; Aukeman, Robert; Davis, Thomas; Held, R. Burnell; Miller, W. Dwain; Wilcox, Arthur

Watershed Science: Dils, Robert; Marlatt, William; Maxwell, Eugene; Meiman, James; Miller, Lee; Smith, James; Stiffler, William; Teller, H. Leo

COLLEGE OF HOME ECONOMICS

Consumer Sciences and Housing:
Thurlow, Sandra; White, Betty Jo

Food Science and Nutrition:
Dupont, Jacqueline; Harrill, Inez; Jansen, G. Richard

COLLEGE OF HUMANITIES AND SOCIAL SCIENCES

Art: Ragouzis, Perry

Economics: Eckert, Jerry; Gray, S. Lee, Hartman, Loyal M.; Huszar, Paul; Lewis, James; Oakleaf, S. Kenneth; Nobe, Kenneth; Radosevich, George; Rehnberg, Rex; Rohdy, Donald; Seckler, David; Sorensen, Donald; Tinnermier, Ronald; Walsh, Richard; Walters, Forest; Wilken, Gene; Wykstra, Ronald; Young, Robert

Education: Bruner, Howard; Cole, Stanley

History: Leyendecker, Liston
Political Science: Caulfield, Henry; Foss, Phillip; Hill, Duane; Jones, Garth; Lawrence, Robert; Meek, Roy; Ogden, Daniel; Straayer, John; Wengert, Norman

Sociology and Anthropology: Dotson, Bruce; Freeman, David; Knop, Edward; Sardo, Joseph; Sharp, Emmit; Van Valey, Thomas; Vlachos, Evan; Young, T.R.

Hearing and Speech Science: Lentz, William; Willeford, Jack

Technical Journalism: Hilleman, Daniel

COLLEGE OF NATURAL SCIENCES

Biochemistry: Jordan, John; Martin, Robert

Botany and Plant Pathology: Adams, Robert; Altman, Jack; Baker, Ralph; Dix, Ralph; Fults, Jess; Heikes, P. Eugene; Klein, William; Kreutzer, William; Livingston, Clark; Oshima, Nagayoshi; Parke, Robert; Ward, Richard; Zimdahl, Robert

Chemistry: Johnson, Gestur; Kowalski, Bruce; Maag, Dale; Maciel, Gary; Meyers, Albert; Miller, Larry; O’Donnell, C. Michael; Osteryoung, Robert; Skogerboe, Rodney; Stermitz, Frank; Warren, C. Gerald

Geology: Burns, Lary; Campbell, John; Johnson, Robert; McCallum, Malcolm; Schumm, Stanley; Waltz, James; Weitz, Joseph; Wilson, William

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