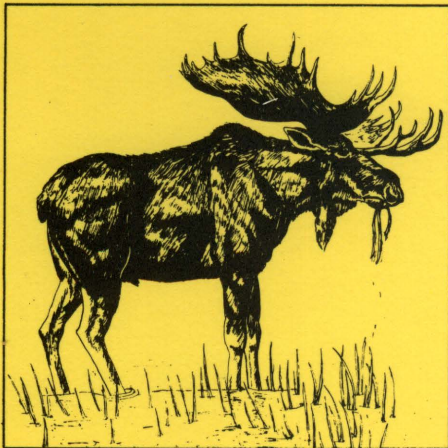


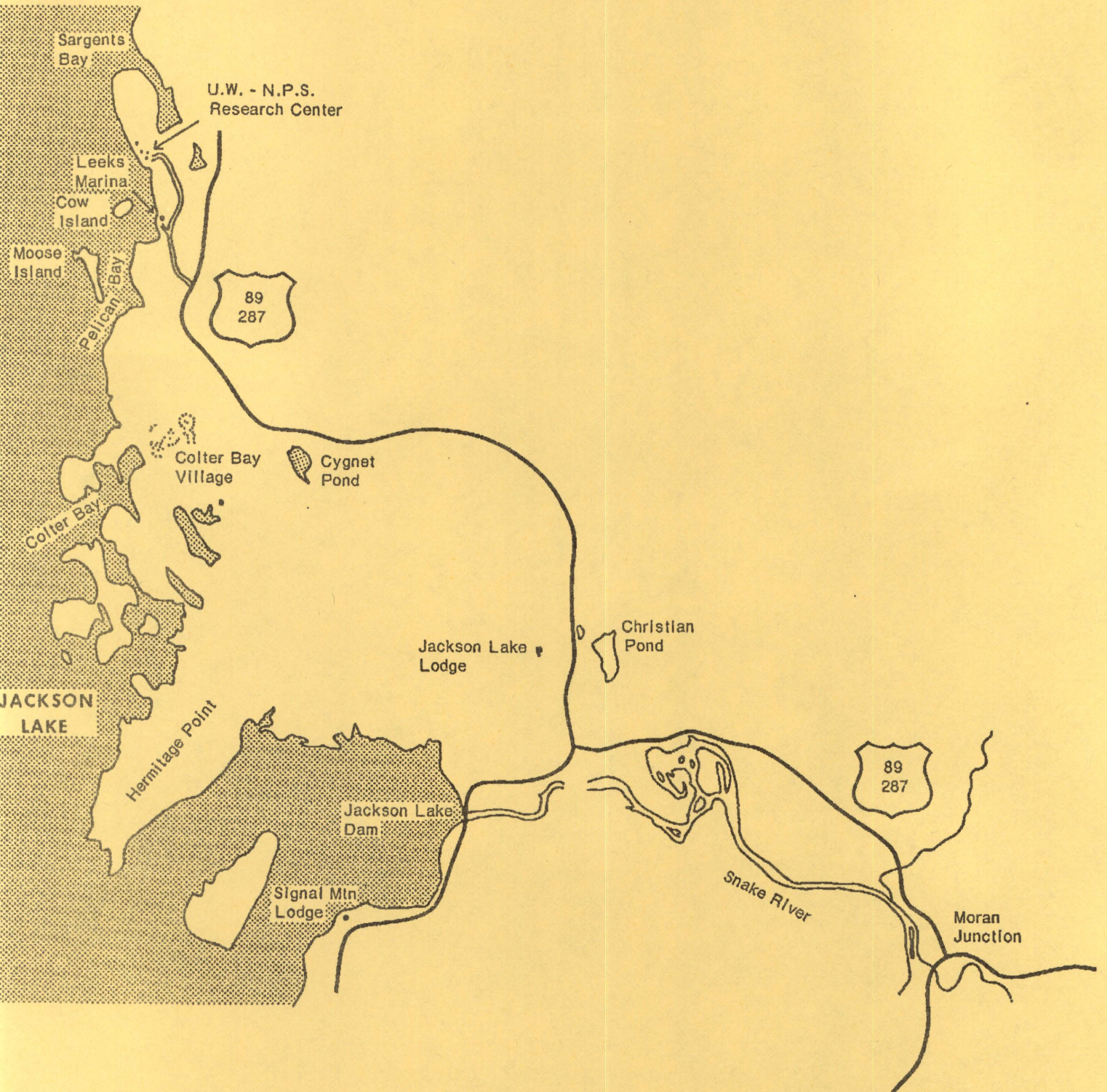


University of Wyoming
National Park Service Research Center
Thirteenth Annual Report
1989



RESEARCH PROJECT KNOWLEDGE

The following project reports have been prepared primarily for administrative use. The information reported is preliminary and may be subject to change as investigators continue. Consequently, information presented may not be used without written permission from the author(s).



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PREFACE TO THE UW-NPS 1989 ANNUAL REPORT

The University of Wyoming-National Park Service (UW-NPS) Research Center supports and administers research in the biological, physical and social sciences performed in the 31 national parks, monuments, and recreation areas in Wyoming, Montana, North Dakota, South Dakota, and Utah. The UW-NPS Research Center annually solicits research proposals from university faculty or full-time governmental research scientists throughout North America through a request for proposals. Research proposals address topics developed by National Park Service scientists, resource managers, and administrators and deal with questions of direct management importance as well as those of a basic scientific nature. The Research Center also considers unsolicited proposals addressing applied and basic scientific questions related to park management, but which may not have been included in the request for proposal packet. Research proposals are distributed to nationally-recognized scientists for peer review and are also reviewed and evaluated by the Research Center's steering committee. This committee is composed of five university faculty and five National Park Service representatives and is chaired by the Dean of the College of Arts and Sciences, University of Wyoming. This committee is responsible for all decisions regarding awarding of research contracts. Research contracts are usually awarded by the middle of March.

The UW-NPS Research Center also operates a NPS-owned field research station in Grand Teton National Park. The Research Station provides researchers in the biological, physical, and social sciences the opportunity to work in the diverse aquatic and terrestrial environments of Grand Teton National Park and the surrounding Greater Yellowstone Ecosystem. Station facilities include housing for up to 40 researchers, wet and dry laboratories, a library, herbarium, boats, and shop accommodations. The Research Station operates annually from mid-May to the end of October and is available to researchers working in the Greater Yellowstone Ecosystem regardless of funding source.

STEERING COMMITTEE MEMBERS

- Dr. Donald Brosz, Agricultural Engineering, University of Wyoming;
- Dr. Walter Eggers, Dean, Arts and Sciences College, University of Wyoming and Steering Committee Chairperson;
- Dr. William Gern, Acting Director, UW-NPS Research Center;
- Mr. Marshall Gingery, Assistant Superintendent-Natural Resources, Grand Teton National Park, National Park Service;
- Dr. Wayne Hubert, Wyoming Cooperative Fish and Wildlife Research Unit, University of Wyoming;
- Dr. Ronald Marrs, Department of Geology and Geophysics, University of Wyoming;
- Mr. Clifford Martinka, Chief Scientist, Glacier National Park, National Park Service;
- Mr. Larry May, Assistant Superintendent, Glen Canyon National Recreation Area, National Park Service;
- Mr. Irvin Mortenson, Superintendent, Badlands National Park, National Park Service;
- Dr. Robert Schiller, Chief, Branch of Science, Rocky Mountain Region, National Park Service;
- Dr. Anne Martha Slater, Department of Anthropology, University of Wyoming;

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DIRECTOR'S STATEMENT

Nineteen-eighty-nine began with significant changes in Research Center personnel. Dr. Kenneth Diem, the Research Center's director since 1976, retired in January after 13 years of service. During Ken's tenure as director, the center supported and administered over 250 studies in the biological, physical, and social sciences totalling more than \$2 million. Ken also oversaw the relocation of the UW-NPS Research Station from Moran to its current location at the AMK Ranch. Over 125 scientific papers, abstracts, and theses based on work performed at the station were published while Ken was director. In the spring of 1989, Drs. Mark Boyce and George Menkens were appointed the Research Center's director and assistant director, respectively. In September, Joseph Meyer was awarded the first U.W.-N.P.S. postdoctoral fellowship, conducting research on Spotted Owls in Oregon.

In 1989, 43 projects, involving scientists at 31 institutions, and totaling more than \$580,000, were administered and funded by the UW-NPS Research Center. The number of projects and the funding levels were increased significantly with the addition of 8 projects related to the 1988 fires in Yellowstone and Grand Teton National Parks. In addition, Wyoming Senator Malcolm Wallop secured an additional \$800,000 for fire related research funds for the US Forest Service and the National Park Service. These funds will be used to support new and continuing research projects related to the 1988 fires. The UW-NPS Research Center will advertise projects, facilitate and guide the competitive and peer review process, and administer many of the projects for the National Park Service, and one for the US Forest Service.

During the summer of 1989 the field station was filled to capacity from mid-June through the end of August. The center's facilities were used by researchers from the time the station opened on 15 May until closing on 2 November. In addition, the Research Station hosted 8 scientific, professional, and educational meetings during the summer and early fall. Research Station staff initiated an informal seminar series enlisting researchers living at the station. Station staff also assisted in initiating a seminar series which focused on research being conducted in the Greater Yellowstone Ecosystem. This program was a cooperative effort between the Research Station, Grand Teton National Park, and the Teton Science School. Both seminar series were successful and will be continued in the summer of 1990.

The station's 1989 season was climaxed by hosting portions of the ministerial meetings between US Secretary of State James

Baker and Soviet Foreign Minister Eduard Schevardnadze on September 22 and 23. The research station's Berol Lodge served as the site of the private meetings between Secretary Baker and Minister Schevardnadze. Even though security was tight, the research station continued to function normally with little inconvenience for researchers.

During 1989 the Research Center acquired two microcomputers for use at the field station, including modems to facilitate communications. Our library is now catalogued in the CARL system which can be accessed by participating universities in Wyoming and Colorado. Likewise, using computer modems we can now access all features of CARL from the AMK Ranch.

In addition to support from the National Park Service and the University of Wyoming, the Research Center also gratefully acknowledges research support from the U.S.D.A. Forest Service, U.S.D.I. Bureau of Land Management, and the National Council for Air and Stream Improvement.

RESEARCH PROJECT REPORTS

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