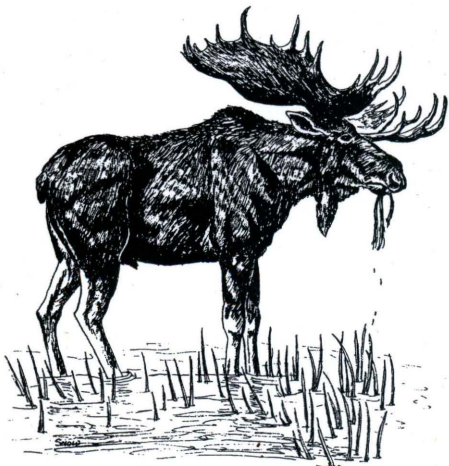


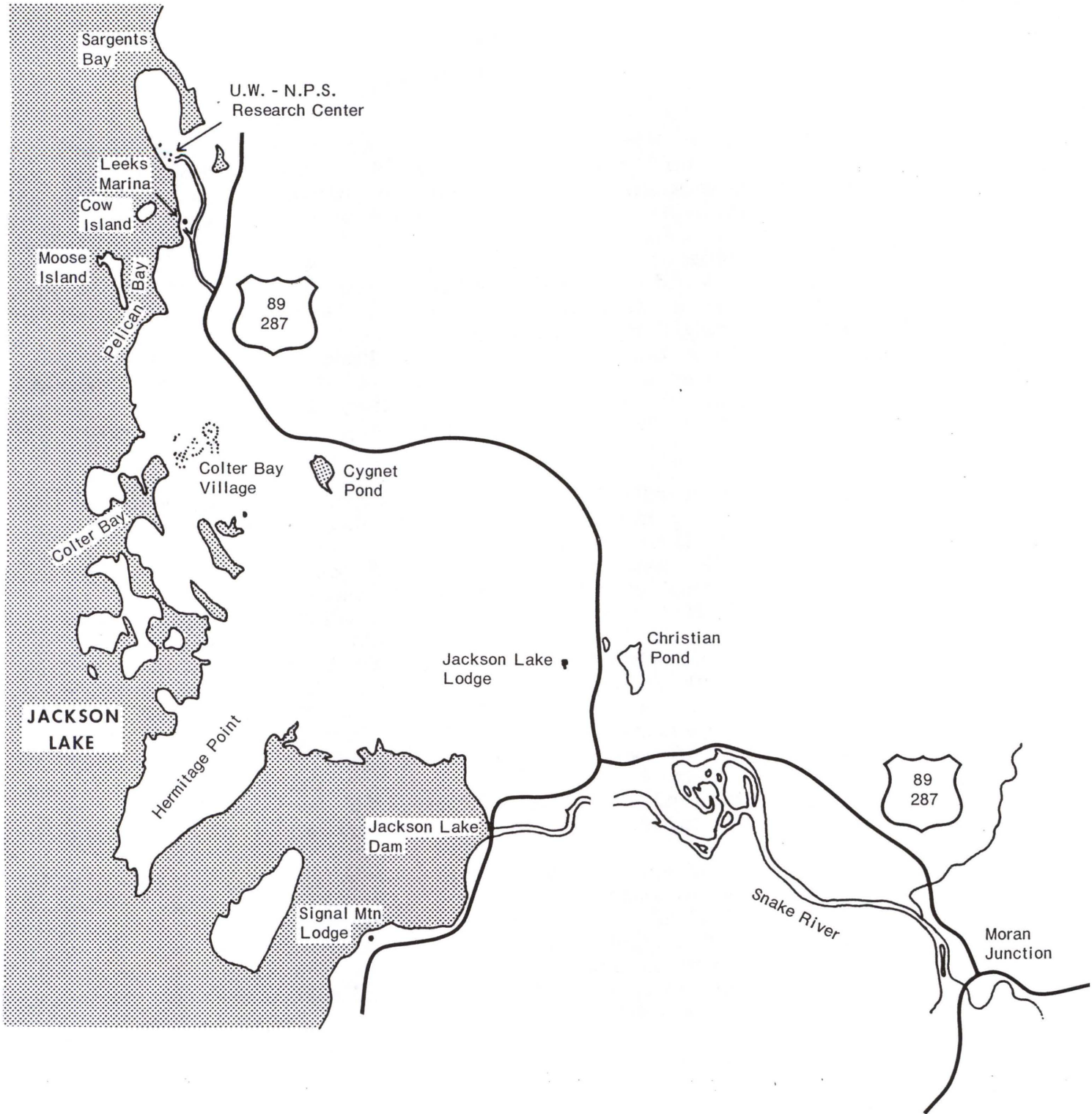
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UNIVERSITY OF WYOMING-NATIONAL PARK SERVICE RESEARCH CENTER

University of Wyoming
National Park Service Research Center
Sixth Annual Report
1982





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PREFACE

The University of Wyoming-National Park Service Research Center sponsors and supports substantial and significant research in the biological, physical and social sciences which can best be done in National Park areas of Wyoming, Montana, North Dakota and South Dakota because of the unique features those areas possess. Administratively, the Research Center is governed by an 8-member Steering Committee composed of 4 University of Wyoming representatives and 4 National Park Service representatives. The Dean of the Arts and Sciences College serves as Committee Chairperson. A faculty member of the University of Wyoming is Director of the Research Center program and is administrator of the Research Center facilities. Also, the Director is an ex-officio member of the Steering Committee. The Research Center physical plant consists of laboratory, library, living, seminar, shop and storage accommodations. Those facilities are normally operational from mid-May to mid-October.

The Director annually calls for research proposals in early September from institutions and individuals requesting such notification. Included with this solicitation are 1) guidelines for proposal preparation, 2) housing and laboratory information, 3) Research Center operational policies, and 4) the Research Center operational calendar. Topics for research include 1) those research problems identified by Park personnel, and 2) research problems suggested by outside individuals on basic or applied proposals they consider to be timely and important and uniquely appropriate to the National Park areas of the four states concerned. While many of the research topics will be directed at solution to management problems and improvement of interpretation information, there will be a concerted effort to encourage and maintain support for a substantial basic research program. Research projects may extend beyond the exact boundaries of the Park areas to work on problems common to the Park lands and adjacent lands. Limited funds are available for support of meritorious research projects. Also, research studies may be funded by other institutions or by individuals.

Investigator(s) submitting proposals to the Research Center should be a faculty member of an academic institution or a full-time member of a governmental research institution. Scientific and fiscal accountability must be assigned to an academic or governmental research institution. Normally all proposals should reach the Director no later than mid-November. The decisions of the Steering Committee concerning approval and where applicable, funding, are released no later than early March.

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STEERING COMMITTEE MEMBERS

- Dr. Donald J. Brosz, Department of Agricultural Engineering, University of Wyoming;
- Dr. Kenneth L. Diem, Ex-officio Member, and Director, UW-NPS Research Center;
- Dr. Raymond Jacquot, Department of Electrical Engineering, University of Wyoming;
- Dr. Jason L. Lillegraven, Department of Geology, University of Wyoming;
- Mr. Neil J. Reid, Chief Scientist, Rocky Mountain Region, National Park Service;
- Mr. Jack Stark, Superintendent, Grand Teton National Park, National Park Service;
- Mr. Jimmy D. Taylor, Superintendent, Grant-Kohrs Ranch National Historic Site, National Park Service;
- Mr. John Townsley, Superintendent, Yellowstone National Park, National Park Service;
- Dr. Joan Wadlow, Dean, Arts and Sciences College, University of Wyoming and Steering Committee Chairperson.

DIRECTOR'S REPORT

Thirty three proposals were submitted to the Research Center for the 1982 season. Twenty one of these proposals submitted by investigators from 15 institutions were approved. Thirteen of these proposals received grant support from the Research Center totalling \$114,769 (U.W.-\$55,049; N.P.S.-\$59,720). A summary of the sources of research funding, recipient institution and location of the research is presented in Table 1. Twelve of these studies were conducted by researchers residing at the Research Center in Grand Teton National Park. One researcher, Dr. William Watts, Trinity College, Dublin, Ireland, conducted research in Grand Teton National Park. A decrease of 6% in N.P.S. research grant funding compared to 1981 is of concern with respect to the long term impact on the Center's cooperative program. This situation is aggravated by the inability of Grand Teton National Park to acquire sufficient funding to meet the N.P.S. minimal obligations under the cooperative agreement for maintenance of the Center's utility and service facilities.

A new compact 4-wheel drive station wagon has provided greater economy of operation for a broad array of Center ground transportation needs. The one N.P.S. house trailer was permanently moved from the Research Center to Mammoth in Yellowstone National Park.

The second biennial meeting of 17 resource scientists and managers from park areas in the four state area was held at the Research Center in September. A major portion of the meeting was devoted to evaluating the Research Center program with respect to the quality of the research, productivity and contributions of the research to resource data banks and management, efficiency of the program operations and park area involvement. In addition, the fall REACT meeting involving Wyoming and Federal agencies concerned with recreational and related natural resources management was held at the Center in late September.

Table 1. Funding sources, recipient institution and location of research conducted through the U.W.-N.P.S. Research Center, 1982.

| <u>Funding Source</u> | | | | | |
|------------------------------|-------------------|------------------------------|------------------------|--|-------------------------------------|
| <u>University of Wyoming</u> | | <u>National Park Service</u> | | <u>Other Grants or Non-Grant Support</u> | |
| Recip. Instit. | Location of Res. | Recip. Instit. | Location of Res. | Recip. Instit. | Fund Source Location of Res. |
| Loma Linda U. | Fossil Butte | Iowa S.U. | Wind Cave | A.R.S. | A.R.S. G.T.N.P. & Y.N.P. |
| A.R.S. | G.T.N.P. & Y.N.P. | Mich. Tech. | Wind Cave | U. of Wash. | N.S.F. G.T.N.P. |
| U. Wyo. | Bighorn Can. | Mich. Tech. | Y.N.P. | San. Fran. S.U. | Priv. G.T.N.P. |
| U. Wyo. | G.T.N.P. | Colo. S.U. | Badlands | U. New Orleans | Priv. G.T.N.P. |
| U. Wyo. & E. Kentucky | | Loma Linda U. | Fossil Butte | U. Wyo. | U. Wyo. & Agr.Exp. Y.N.P. |
| Univ. U. Wyo. | Y.N.P. G.T.N.P. | Mont. S.U. Mont. S.U. | Y.N.P. Theo. Roosevelt | Sc. Mus. of Minn. | Sc. Mus. of Minn. G.T.N.P. |
| | | U. of Mont. | Grant Kohrs | U. of Wash. U. of Texas | Priv. Priv. G.T.N.P. & Y.N.P. |
| | | | | N. Mex. S.U. | Priv. G.T.N.P. |

RESEARCH PROJECT REPORTS

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





BADLANDS NATIONAL MONUMENT

HANSEN

