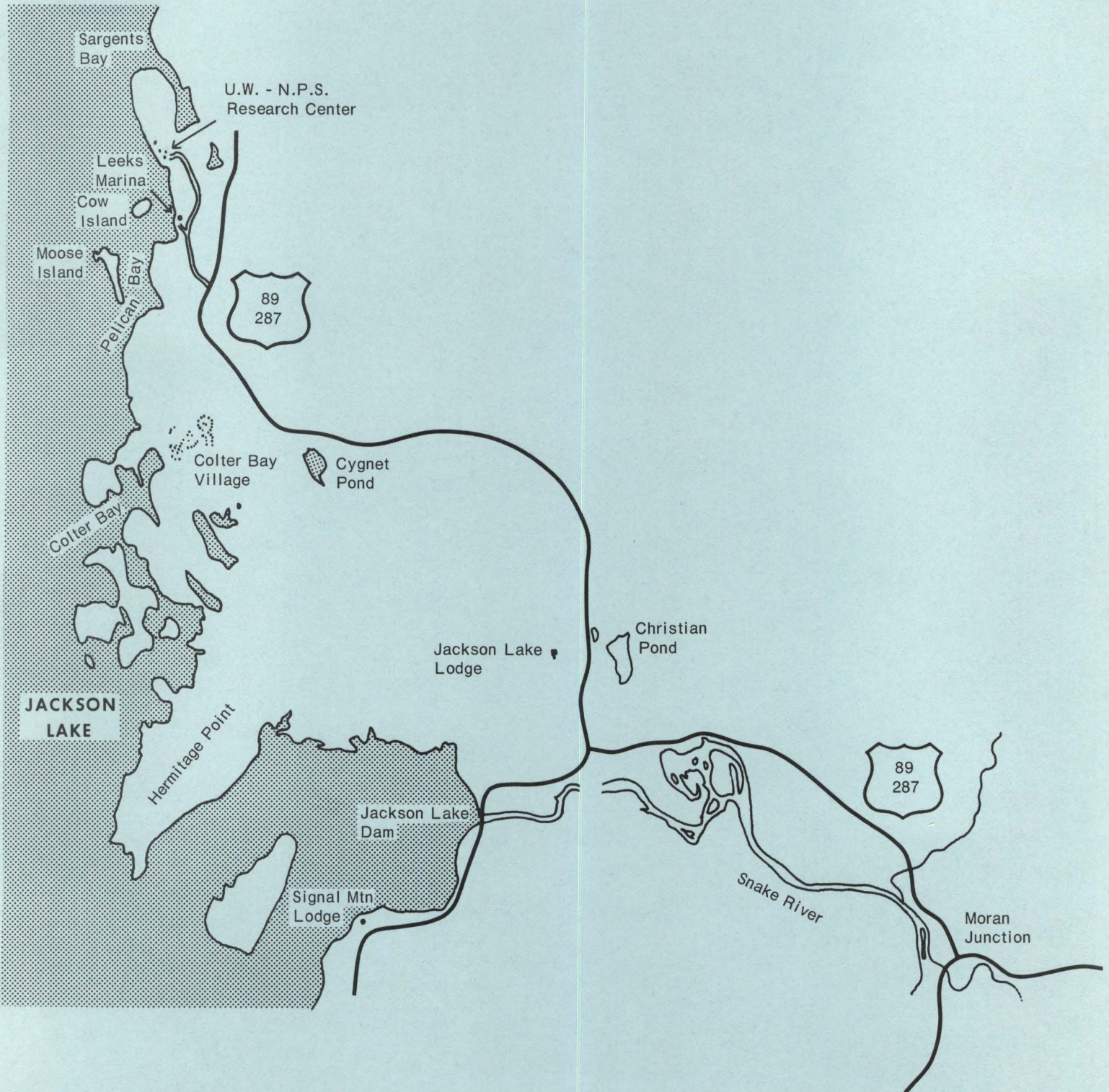




UNIVERSITY OF WYOMING-NATIONAL PARK SERVICE RESEARCH CENTER

University of Wyoming
National Park Service Research Center
Seventh Annual Report
1983





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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. Phyllis Bear, Department of Microbiology and Veterinary Medicine, 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. James Steidtman, 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. Robert Barbee, 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

Forty nine proposals were submitted to the Research Center for the 1983 season. Twenty three of these proposals submitted by investigators from 12 institutions were approved. Twelve of these proposals received grant support from the Research Center totalling \$124,467. Four of the 22 approved research projects requiring fiscal support could not be funded. Regional NPS Research funds were available, however, requests to Washington NPS administrators for approval to expend the funds for those four projects were denied without providing any reasons for that action. Also, Grand Teton National Park continues to be unsuccessful in its efforts to acquire sufficient funding to fulfill the minimal N.P.S. obligations under the Center's Cooperative Agreement for maintenance of the Center's utility and service facilities.

The University was able to continue maintenance of the buildings with rebuilding and tiling of the Johnson Lodge dining room, kitchen and two bathroom floors. In addition two outside fire alarm systems were connected to existing interior smoke and heat sensing alarms in the Johnson and Berol Lodges. Also, an emergency standby propane fueled 5 KW electric generator was installed to assure maintenance of water supplies and pressure in the entire Center water system during electrical power outages.

Research resources at the Center were increased with the acquisition of complete sets of 1979 black and white and color infrared aerial photographs of Grand Teton National Park and some adjacent areas. Data and word processing capabilities were acquired with the purchase of a TRS-80 Computer.

The well being of some of the magnificent Douglas Fir trees around the Center buildings is threatened by encroachment of spruce bud worms and by bark beetles. Thus far efforts to maintain the trees in a healthy, vigorous state seems to be successfully fending off attacks by these organisms.

The Center was privileged to have Dr. Meinhardt Moser from the University of Innsbruck, Austria conduct research on the mushrooms of Grand Teton and Yellowstone National Park. Dr. Moser is a specialist on the Cortinarius species and was a collaborator with Dr. McKnight in the summer research

Table 1. Funding sources, recipient institution and location of research conducted through the U.W.-N.P.S. Research Center, 1983.

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



JOHNSON LODGE
Photo By: Kenneth L. Diem

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).

