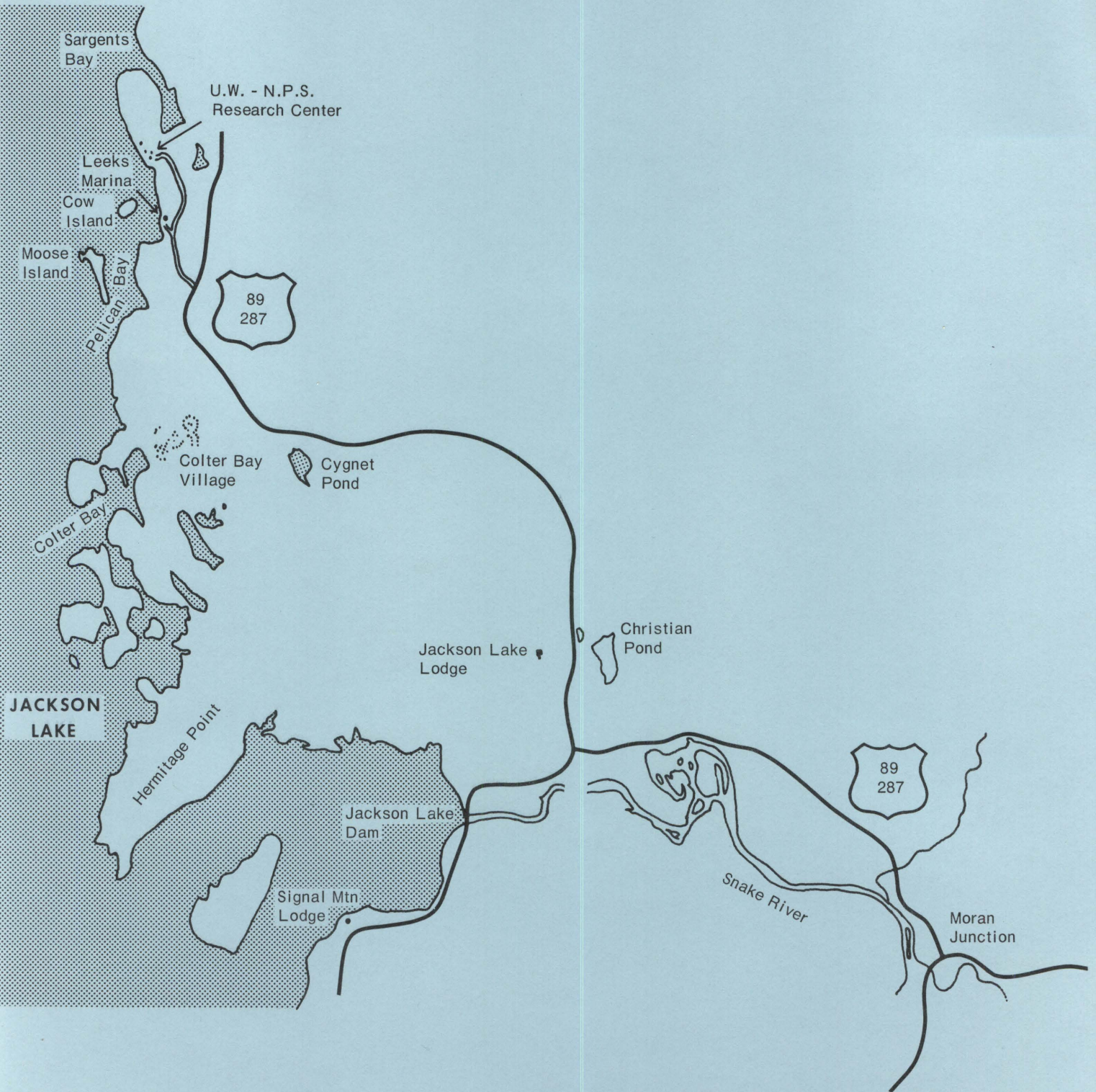




UNIVERSITY OF WYOMING-NATIONAL PARK SERVICE RESEARCH CENTER

University of Wyoming
National Park Service Research Center
Tenth Annual Report
1986





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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, South Dakota and Utah because of the unique features those areas possess. Administratively, the Research Center is governed by a 10-member Steering Committee composed of 5 University of Wyoming representatives and 5 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 October 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 five 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 early December. 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

- Mr. Robert Barbee, Superintendent, Yellowstone National Park, National Park Service;
- Dr. Kenneth L. Diem, Ex-officio Member, and Director, UW-NPS Research Center;
- Dr. Walter Eggers, Dean, Arts and Sciences College, University of Wyoming and Steering Committee Chairperson;
- Dr. David Egolf, Department of Electrical Engineering, University of Wyoming;
- Dr. Wayne Hubert, Wyoming Coop Research Unit, University of Wyoming;
- Dr. Dan Huff, Chief Scientist, Rocky Mountain Region, National Park Service;
- Ms. Sandra Key, Superintendent, Bryce Canyon National Park, National Park Service;
- Dr. Ronald Marrs, Department of Geology, University of Wyoming;
- Dr. Anne Martha Slater, Department of Anthropology, University of Wyoming;
- 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;

DIRECTOR'S REPORT

Forty proposals were submitted to the Research Center for the 1986 season. Thirty one of these proposals submitted by investigators from 18 institutions were approved (Table 1). Research support totalling \$239,990 was awarded to 21 projects submitted by investigators from 11 institutions.

For the second consecutive year the Center was unable to provide living and laboratory accommodations for all researchers conducting projects within Grand Teton National Park. This space constraint will be relieved in 1987 with the availability of 5 additional housing units (2 in the Lawrence House and 3 in the Boise Cascade House). These two houses will become part of the Research Center facilities by summer 1987.

Late in 1986 Grand Teton National Park maintenance personnel completed extensive asphalt repairs of the Center's entrance road. They also covered that road surface with an oil seal coat and a chipped gravel cover. In addition, the Park administration made a commitment to reshingle the roof of the Johnson Lodge and Garage complex in the latter half of 1987. Several sill logs in the exterior walls of the Berol Lodge are beginning to disintegrate from dry rot. Plans will be made with Grand Teton National Park in 1987 for their repair or replacement. The fine cooperative assistance of Grand Teton National Park personnel in maintenance of the Center's physical plant is greatly appreciated.

Prior to the completion of the repairs to the Jackson Lake Dam and the raising of the Lake level, log sections of sea wall and one associated log and rock crib will need to undergo extensive repairs. Such replacements are vital to greatly reduce the otherwise high potential for erosion which could occur at the future maximum levels of Jackson Lake. Also, these repairs would protect the Boat House aquatic laboratory structure and equipment.

During the course of the summer the Center served as host for a number of meetings. These meetings included the Interagency Grizzly Bear Advisory Committee, the Rocky Mountain Association of University Vice Presidents For Research and the Executive Committee of the Wyoming Chapter of The Wildlife Society. Furthermore, 150 participants at the National Range Management Society summer meeting toured the Center's facilities and were given a brief sketch of the Center's history and its current 5 state national park research program.

Table 1. Funding sources, recipient institution and location of research conducted through the U.W.-N.P.S. Research Center, 1986.

<u>University of Wyoming</u>		<u>Funding Source</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.	
Univ. of WY	Bighorn Canyon N. Rec. Area	Utah State Univ.	Arches NP	San Fran. State Univ.	Private	GTNP	
Univ. of CO	Devils Tower Nat'l Monument	Brigham Young Univ. and Rky. Mt For. & Range Exp. Station	Badlands NP	Sc. Mus. MN	Sc. Mus. MN	GTNP	
Univ. of WY	Glacier Nat'l Park	Utah State Univ.	Bryce Canyon Nat'l Park	Univ. Toronto Can.	Nat. Sc. and Eng. Res. Council of Canada	GTNP	
MT State Univ	GTNP	San Juan College	Capitol Reef Nat'l Park	Univ. of NB-Omaha	Private	GTNP	
U.S.G.S.	GTNP	Univ. of CO	Custer NM	Univ. WY	NSF	GTNP	
A.R.S.	GTNP & YNP	Oregon State Univ.	Custer NM	U.S.G.S. Univ. of New Orleans	U.S.G.S. Private	GTNP	
MT State Univ.	GTNP & YNP	Utah State Univ.	Glen Canyon Nat'l Rec Area	Univ. WY	Private	GTNP	
Carnegie Mus. of Nat. Hist.	GTNP & YNP	Claremont Grad School Univ. of WY	Claremont Grad School Univ. of WY	Claremont Grad School Univ. of WY	Claremont Grad School Univ. of WY	GTNP	YNP

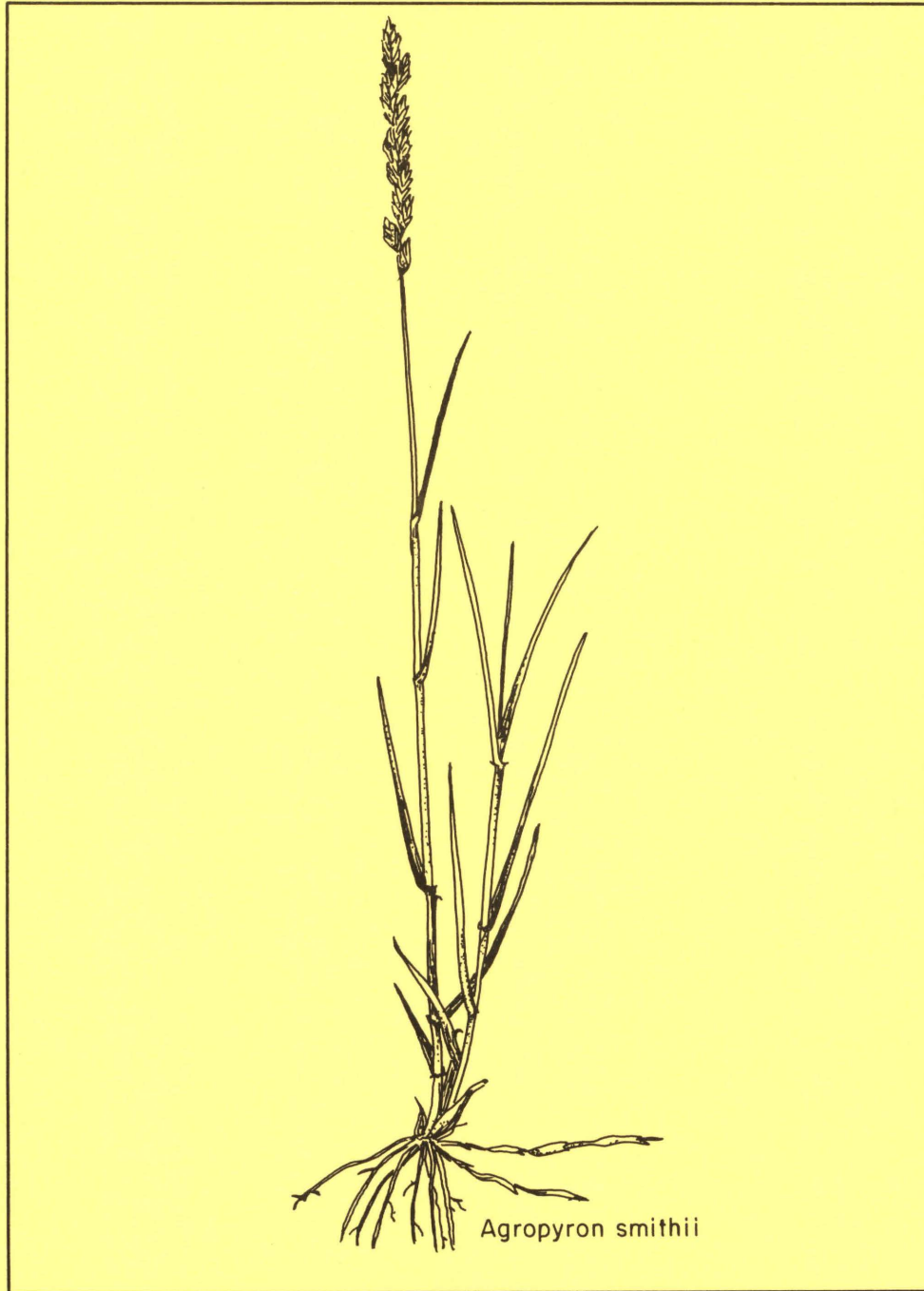
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MT State Univ.	GTNP	Fort Lewis College	NSF	YNP & GTNP
Univ. MN	Jewel Cave Wind Cave	A.R.S.	Private	YNP & GTNP
MT State Univ.	Knife River			
MT State Univ.	Theodore Roosevelt NP			
Univ. MT	Theodore Roosevelt NP			
Univ. MT	YNP			
Univ. MN	YNP			

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 PARK



Agropyron smithii

