# REPORT ON THE ACTIVITIES OF THE JACKSON HOLE BIOLOGICAL RESEARCH STATION SUMMER 1972

L. Floyd Clarke, Director

UNIVERSITY OF WYOMING Laramie, Wyoming

## **ACKNOWLEDGMENTS**

Since I am being retired as Director of the Jackson Hole Biological Research Station, this will be my last Annual Report. I should like to express my personal appreciation for the very fine, continued cooperation of the New York Zoological Society. Their continued interest is reflected in many ways including major contributions in the development of buildings and research facilities, and continued financial support of many research projects. The cooperation and support by the Park Service has been continually increasing over the years. The cooperation of the University administration has been very fine throughout the years, providing adequate operating budgets as well as contributing to the development of physical facilities at the Station. I trust that the cooperation enjoyed in the past will continue in future years. The cooperation of the Advisory Board, consisting of University and Grand Teton National Park personnel, throughout all this time is also greatly appreciated.

Several private individuals have made substantial contributions to assist research workers and help in improvement of the facilities. I should like to take this opportunity to thank them again for their interest in and support of the Research Station.

L. Floyd Clarke

# CONTENTS

	Page
RESEARCH PROJECT REPORTS	1
Investigators:	
Altmann, Margaret Asplund, R. Owen Beetle, Alan A. Bergstrom, Robert C. Camenzind, Franz J. Costain, Brenton Jannett, Frederick J. Jr. Jannett, Janice McFeters, Gordon A. Noble, Glenn A. Parker, Michael Pinter, Aelita J. Salisbury, Frank B. Sutton, John F. Wright, Gary A.	2 3 4 5 7 8 9 10 11 13 15 16 18 19 21
COOPERATION WITH OTHER AGENCIES AND INDIVIDUALS	27
SEMINARS	28
FINANCIAL REPORT	29
LIST OF PUBLICATIONS ON RESEARCH AT JACKSON HOLE BIOLOGICAL RESEARCH STATION	30

1

RESEARCH PROJECT REPORTS

4

Researchers Who Spent a Short Period of Time at the Station:

John W. Huckabee Environmental Sciences Division Oak Ridge National Laboratory

Project: Collecting moss in the Gros Ventre mountains for mercury analysis to include in study of monitoring mercury in the environment.

Ellis G. MacLeod Department of Entomology University of Illinois

Project: Study of feeding and reproductive activities of lacewings which occur in Jackson Hole.

# COOPERATION WITH OTHER AGENCIES AND INDIVIDUALS

The following were among the most important cooperative activities with other agencies and individuals.

- 1. Teton Sciences Field Biology School.

  High school students under the supervision of Mr. Ted Major visited the Research Station for a full day. During this visit the students had an opportunity to become acquainted with the operation of the Station and its purposes and functions, as well as to observe many of the research projects which were under way. Also, Mr. Major and his students participated in almost all of the evening seminars at the Station.
- 2. Grand Teton National Park cooperated closely with the Research Station in connection with the various research projects. Biologists Peter Hayden, Bob Wood and Lloyd Loope, working with the Grand Teton National Park, were especially helpful to the Station workers in connection with their various ecological studies. Also, the Station enjoyed the closest cooperation with Mr. Charles McCurdy, Chief Naturalist. The Station appreciates the continued cooperation of Grand Teton National Park personnel.

Contacts were continued with the Forest Service biologists and Wyoming Game and Fish Department personnel. The Wyoming Game and Fish Department used the Research Station as headquarters for a fisheries survey project which was being undertaken on Jackson Lake.

- 3. As in previous years, a number of scientists interested in ecological research were visitors at the Station, resulting in helpful, mutual interchange of ideas concerning research projects.
- 4. The research personnel of the Station supplied advice and other help on many occasions to individuals and agencies in the area on many different biological problems.

### SEMINARS

A very interesting series of seminars was presented. Dr. Charles Ferguson, an eminent authority on tree aging and its ecological significance, visited the Station and presented a seminar. Also, Forest Service Biologist, David A. Calwell, and Yellowstone Park Biologist, Dr. Douglas B. Houston, contributed interesting seminars. As in past years, these seminars were well attended both by Station personnel and scientists in the area, resulting in interesting and informative discussions.

Following is a list of the seminars presented.

- June 23 Dr. Charles Ferguson Visitor from the University of Arizona.

  Correlation of annual rings with climatic factors in tree growth.
- June 29 Dr. Frank B. Salisbury Utah State University.
  Growth of plants at low temperatures.
  Critical analysis of theory of evolution.
- July 6 Dr. Alan A. Beetle University of Wyoming.
  Range exclosure studies in Jackson Hole.
- July 13 Dr. Aelita J. Pinter Louisiana State University in New Orleans.

  Mutations in Microtus montanus from laboratory and natural environments.
- July 20 David A. Calwell Visitor, U.S. Forest Service Biologist,
  Teton National Forest.

  Parasitic diseases of wildlife.
- July 27 Dr. John Sutton Texas Tech University.
  Paleontology of the Colter Formation.
- Aug. 3 Dr. Robert C. Bergstrom University of Wyoming. Parasites of ungulates in Jackson Hole.
- Aug. 10 Dr. Douglas B. Houston Visitor, Yellowstone National Park Biologist.

  Ungulate ecology studies in Yellowstone National Park.

In addition to the regularly scheduled seminars, evening informal discussion groups and slide shows were very frequent occurrences. The use of the Library-Seminar room was encouraged to stimulate communication among the investigators at the Station as well as among other scientists in the area.

# FINANCIAL REPORT 1971-72

October 1, 1971-June 30, 1972

<u>Item</u>	Budgeted	Expended	Carried Over To Next Year's Budget
Research Projects	\$ 894.00	\$	\$
Part-time Assistants	500.00	500.00	
Equipment	2,264.20	399.00	1,865.00
Supplies	1,224.62	142.17	1,050.00
Contractual	1,001.73	317.44	678.00
Travel	484.50	41.55	131.40
Fixed Charges	286.00		286.00
	\$6,655.05	\$1,400.16	\$4,010.40

July 1, 1972-October 10, 1972

<u>Item</u>	Budgeted*	Obligated or Expended	Unexpended
Research Projects	\$ 4,714.00	\$ 2,440.00	\$ 2,274.00
Part-time Assistants	3,000.00	2,500.00	500.00
Clarke Salary	3,550.00	3,550.00	
Equipment	3,130.00	145.00	2,985.00
Supplies	2,750.00	781.03	1,968.97
Contractual	2,026.00	732.45	1,293.55
Travel	505.40	131.40	374.00
Fixed Charges	386.00		386.00
	\$20,061.40	\$10,279.88	\$ 9,781.52

In addition to above expenditures, an amount of \$190.00 was expended from Special Grant funds for electrical rewiring.

Rent received in the amount of \$620.00 was placed in the General Fund of the University.

Grants-in-aid in the amount of \$2,700.00 were given to investigators by the New York Zoological Society.

8

<sup>\*</sup>Includes money carried over from previous year, therefore, does not indicate amounts appropriated for one year.