



USGS Cooperative Fish and Wildlife Research Units A Model Partnership Program

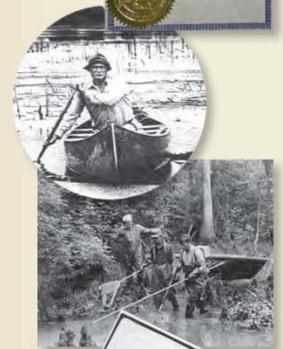
National HPC Coalition

November, 2019



History

- Units born with the 1930 American Game Policy (1932: Iowa; 1935: Nationwide)
- Developed to enable science-based wildlife management
- Established to be a formal cooperative
- Legislated in 1960 Cooperative Research Units Act (PL 86-686)



Mission

GRADUATE EDUCATION TO
DEVELOP THE FUTURE
WORKFORCE

ACTIONABLE RESEARCH TO
MEET COOPERATOR SCIENCE
NEEDS

TECHNICAL ASSISTANCE TO
COOPERATORS ON
APPLICATION AND
INTERPRETATION OF NEW
SCIENCE

Cooperative Research and Training

Units Act

PL 86-686 1960

- Organic Legislation establishing CRU Program
“for the purpose of developing adequate, coordinated, cooperative research and training programs for fish and wildlife resources.”
- Each Unit established through formal Cooperative Agreement
- Federal scientists to serve at universities.
- Limited Federal control.

Fish and Wildlife Improvement Act

PL 95-616 1978

- Allowed Federal funding of research.
- Established the **Research Work Order Process**
- University Indirect Costs capped at 15%
- Allows Universities to establish revolving accounts.
- USGS personnel at the Unit manage these research funds.
- Must include an educational component.

Key Provisions

~ *cooperative intent* ~

- Long-term commitments through formal agreements
- Equal voice to all cooperators
- Purposefully limit federal control



RESEARCH AGENDA

Approved by the CRU Coordinating Committee including the Department of the Interior, the State fish and wildlife agency, the land grant university, and the Wildlife Management Institute



Cooperative Agreement No. 1434-13HQRU1534

AGREEMENT FOR ESTABLISHMENT AND OPERATION

of the

MONTANA COOPERATIVE WILDLIFE RESEARCH UNIT

by the

U.S. GEOLOGICAL SURVEY, DEPARTMENT OF THE INTERIOR

and the

UNIVERSITY OF MONTANA

and the

MONTANA DEPARTMENT OF FISH, WILDLIFE AND PARKS

and the

WILDLIFE MANAGEMENT INSTITUTE

and the

U.S. FISH AND WILDLIFE SERVICE, DEPARTMENT OF THE INTERIOR

Key Provisions

~ cooperative intent ~

- USGS funds FTE
- Universities fund facilities; administrative support; reduce overhead; faculty appointments
- States provide operational and research funding
- Federal partners provide research funding
- WMI provides organizational support

CRU SCIENTISTS

- EMBEDDED IN THE GRADUATE FACILITY OF STATE LAND GRANT UNIVERSITIES
- RECEIVE GRADUATE FACULTY APPOINTMENTS
- RECEIVE ADMINISTRATIVE SUPPORT FROM THE UNIVERSITY
- ASSIGNED OFFICE AND LAB SPACE



4 Cooperative Fish and Wildlife Research Units Program—2015 Annual Report

CRU Mission and Fact Infographics

- Graduate education to develop the workforce
- Actionable research to meet cooperator science needs
- Technical assistance to cooperators on application and integration of new science

CRU scientists:

- are embedded in the graduate faculty of State land grant universities
- receive graduate faculty appointments
- are assigned office and lab space, and
- receive administrative support from the universities

Partnerships

40 units in 38 States

Units receive support from and work closely with their respective State fish and wildlife agency

CRU Facts

- Each CRU is staffed by Federal scientists employed by USGS
- 2-5 Federal research scientists
- The CRU program had its 80th anniversary in 2015
- Over 1,000 students and university staff

Research Agenda

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Partners

- U.S. Geological Survey
- Land Grant Universities
- State Fish and Wildlife Agencies
- Wildlife Management Institute
- U.S. Fish and Wildlife Service

Current Program

- *Units in 38 states at 40 universities*
- Federal investment (USGS) of \$18.4M (~94% salary) leveraged to ~ \$40M in state & federal grants, plus ~ \$20M university in-kind staff/facilities support = ~\$80M
- Unit research from genes to landscapes
- Hundreds of graduate students (~600/yr) involved in priority research projects in support of federal & state management



Current Program

Cooperative Fish and Wildlife Research Unit Locations



U.S. Department of the Interior
U.S. Geological Survey



Species of Greatest Conservation Need

Energy and Wildlife

Decision Science

Endangered Species

Harvest and Population Management

Invasive Species

Ecosystem Services

Wildlife Disease

Landscape Ecology

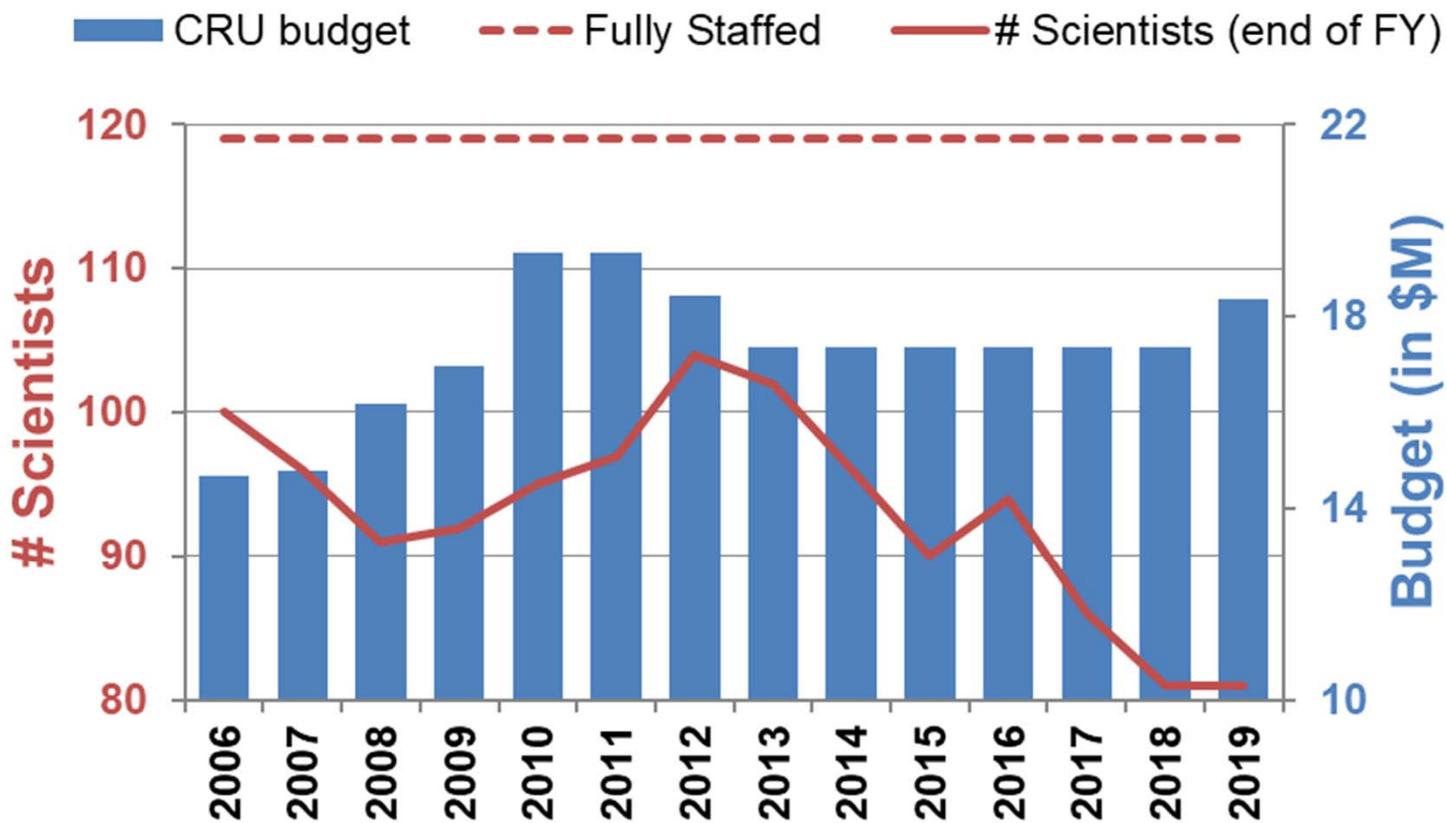
Human Dimensions of Fish and Wildlife Conservation

Climate Science

Advanced Technologies

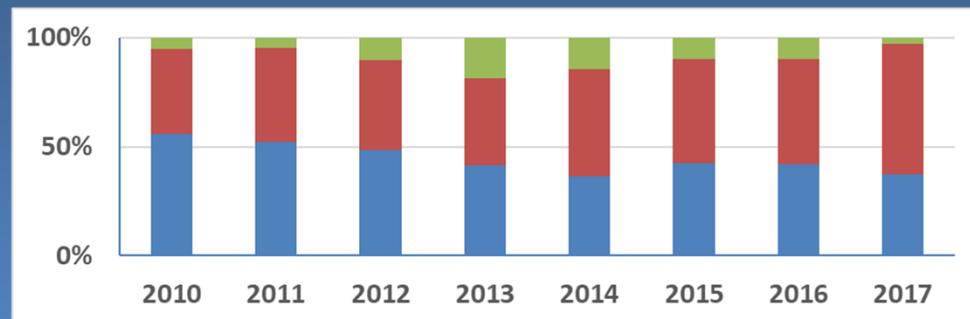
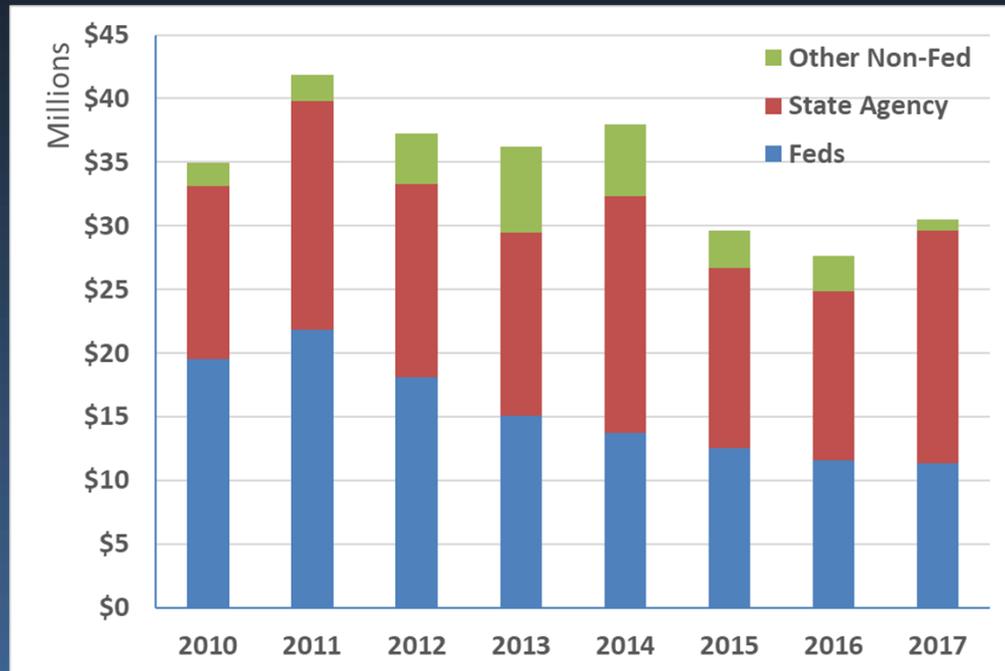


Budget and Staffing



Research Funding

- Stability in Reimbursables



Challenges

- Fluctuating nature of federal budgets
- Changes to traditional university departments & programs
- Unit health - vigor of support – shared potential & commitment



Research That Fuels Decision Making

- CRU Model designed to produce on-the-ground outcomes
 - Model established a vital framework for State, Federal, Non-Governmental Collaboration
 - Robust in development of new advances while able to deliver traditional science needs
 - Legal Congressional Mandate



398

Scientific publications



70

Courses taught



909

Presentations



42

Invited seminars



19

Workshops

Questions?

