

**Environment and Natural Resources Trust Fund
2011-2012 Request for Proposals (RFP)**

LCCMR ID: 022-A2

Project Title: Enhancing Future Forest Conservation Using Gullion's Historic Research

Category: A2. Natural Resource Data and Information: Distribution, Application, and Training

Total Project Budget: \$ \$220,271

Proposed Project Time Period for the Funding Requested: 2 yrs, July 2011 - June 2013

Other Non-State Funds: \$ 0

Summary:

Enhance wildlife conservation in Minnesota by securing the knowledge generated during Gordon Gullion's 30+ years of landmark research in an electronic format for use by tomorrow's natural resource professionals.

Name: Daniel Dessecker

Sponsoring Organization: Ruffed Grouse Society

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Rice Lake WI 54868

Telephone Number: 715-234-8302

Email: rgsdess@chibardun.coop

Web Address: _____

Location

Region: NE

Ecological Section: No. Minnesota and Ontario Peatlands (212M)

County Name: Carlton

City / Township:

_____ Funding Priorities	_____ Multiple Benefits	_____ Outcomes	_____ Knowledge Base
_____ Extent of Impact	_____ Innovation	_____ Scientific/Tech Basis	_____ Urgency
_____ Capacity Readiness	_____ Leverage	_____ Employment	_____ TOTAL _____%

Project Title: Enhancing Future Forest Conservation Using Gullion's Historic Research

I. Project Statement

Project Need: Prior to his untimely death in 1991, Gordon W. Gullion was universally recognized as the world's foremost authority on ruffed grouse. Gullion began his landmark study of ruffed grouse ecology and habitat management in 1958 under the auspices of the University of Minnesota at the Cloquet Forestry Center, Mille Lacs Wildlife Management Area and the Crow Wing Study Area. Gullion's efforts followed those of Ralph King and William Marshall, which were initiated in the 1930's at the urging of Aldo Leopold. The longevity and breadth of this historic research is all but unparalleled in the wildlife management profession.

Over 69,000 individual data records were collected on hard copy data forms. These irreplaceable data include records documenting ruffed grouse habitat use throughout the year, food habits, reproductive success and mortality factors that when used in concert, provide an assessment of ruffed grouse ecology that is the very foundation of ruffed grouse habitat and population management throughout much of the range of this important game bird, particularly the Great Lakes region. The forest management strategies designed to sustain habitats for ruffed grouse have been demonstrated equally beneficial to many species of nongame wildlife, including the seriously imperiled golden-winged warbler (petitioned for protection under the federal Endangered Species Act - February 2010).

Unfortunately, the hard copy data forms have deteriorated to the point that if they are not soon converted to a more permanent medium, the information they contain will be lost forever – and with it an important chapter in the history of wildlife conservation in Minnesota. The loss of these data would seriously compromise efforts of today's resource management professionals to gain new insight into ruffed grouse ecology and management using powerful statistical analysis procedures unavailable to Gullion and his predecessors.

Project Goal: Preserve the Gullion data to enable natural resource management professionals to take advantage of the wealth of information contained therein as they work to predict and assess the implications to forest wildlife of changes in the species composition and age-class structure of the forests of Minnesota and the Great Lakes region.

Project Outcomes: Permanent digital preservation of the data set in a format that can be efficiently analyzed using the latest analytical tools and statistical software to guide the development of forest wildlife conservation policies and practices.

Project Strategy: Data from hard copy forms will be preserved by converting these data to an electronic format. The digital data will then be stored on computer hardware housed at the University of Minnesota, a Department of Natural Resources office or some similar venue and will be available to natural resource management professionals upon request.

II. Description of Project Activities

Activity 1: Preserve Data by Converting to Electronic Format **Budget:** **\$ 143,750**

Preserve data currently stored on rapidly deteriorating hard copy forms by converting these data to an electronic Master Data File.

Outcome: Development of Electronic Master Data File **Completion Date:** **January 2013**

Activity 2: Simplify Data Retrieval to Facilitate Use **Budget:** **\$ 75,003**

Establish subsets of the Master Data File based on ecological, spatial and temporal attributes (e.g. cause of mortality, location, month-year, etc.). Establish companion subset keys to enable future users to easily and efficiently navigate and retrieve data relevant for the specific analytical task.

Outcome: Develop Data Subsets and Keys **Completion Date:** **June 30, 2013**

III. Project Strategy

A. Project Team/Partners

Ruffed Grouse Society (RGS) – Daniel Dessecker

RGS will serve as the grantee and fiscal agent for project costs. RGS will review project activity progress and submit payments from grant funds to project partners. RGS expertise will help to ensure that the Data File subsets developed are both ecologically relevant and useable for practitioners.

Svoboda Ecological Resources (SER), Shorewood, MN – Franklin Svoboda

SER will coordinate and supervise the development of the electronic Master Data File and all data subsets and companion subset keys. SER will convert location data to latitude-longitude coordinates to enhance spatial analysis of relevant data and to facilitate on-site follow-up assessments for future research efforts. Svoboda's experience as Gullion's ruffed grouse research assistant from 1963 to 1973 will be invaluable to ensure the successful completion of this project.

B. Timeline Requirements

The project will begin in July, 2011 and will be completed no later than June 30, 2013.

C. Long-term Strategy and Future Funding Needs

A significant potential application for these data is the development and validation of predictive models to assess ruffed grouse population response to changes in the composition and structure of future forest landscapes. This type of predictive model could be developed through work conducted by the University of Minnesota's Gordon W. Gullion Chair in Wildlife Research and Education.

2011-2012 Detailed Project Budget

IV. TOTAL TRUST FUND REQUEST BUDGET 2 years

BUDGET ITEM							AMOUNT
Personnel	%FTE	;%\$ Salary	;%\$ Benefits	Time Period	# People	Amount	
Dan Dessecker	8	77	23	2011 – 2012	1	\$13,728	\$ 13,728
Contracts: Helgeson Enterprises – data entry of card records, digital scans and conversion to MS Access format - \$143,750 Svoboda Ecological Resources - Supervise data entry conversions and database format, test database files, GIS spatial analysis - \$61,275							\$ 205,025
Equipment/Tools/Supplies:							\$ -
Travel: Pick up and return cards to Cloquet Research Center 180 mi x 2 x 2 x 0.55 = \$396 Trips to HE to deliver cards and review data entry procedure 45 mi x 2 x 14 x 0.55 = \$693 MS contractor meetings 30 x 2 x 13 x 0.55 = \$429							\$ 1,518
Additional Budget Items:							\$ -
TOTAL ENVIRONMENT & NATURAL RESOURCES TRUST FUND \$ REQUEST							\$ 220,271

V. OTHER FUNDS

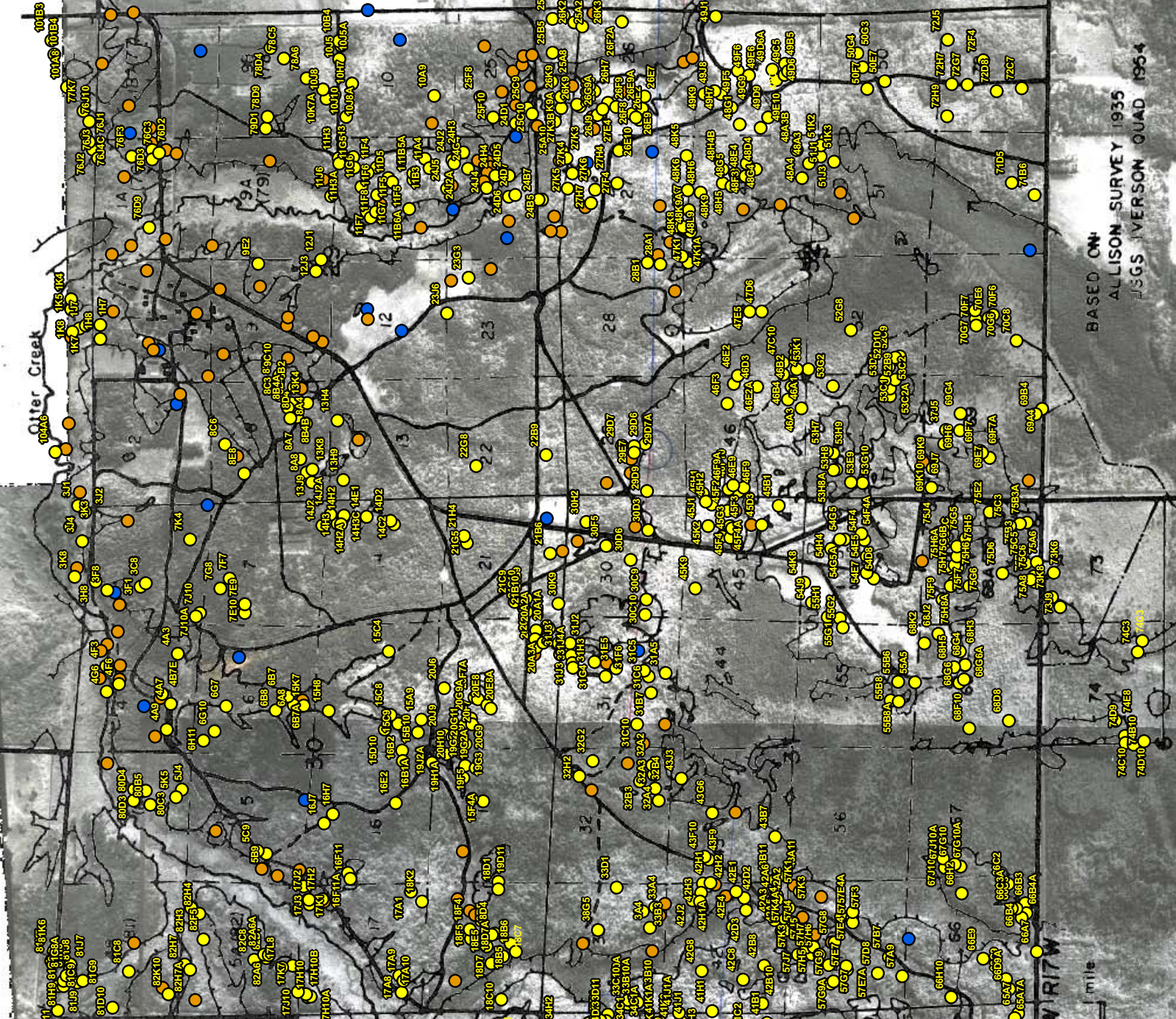
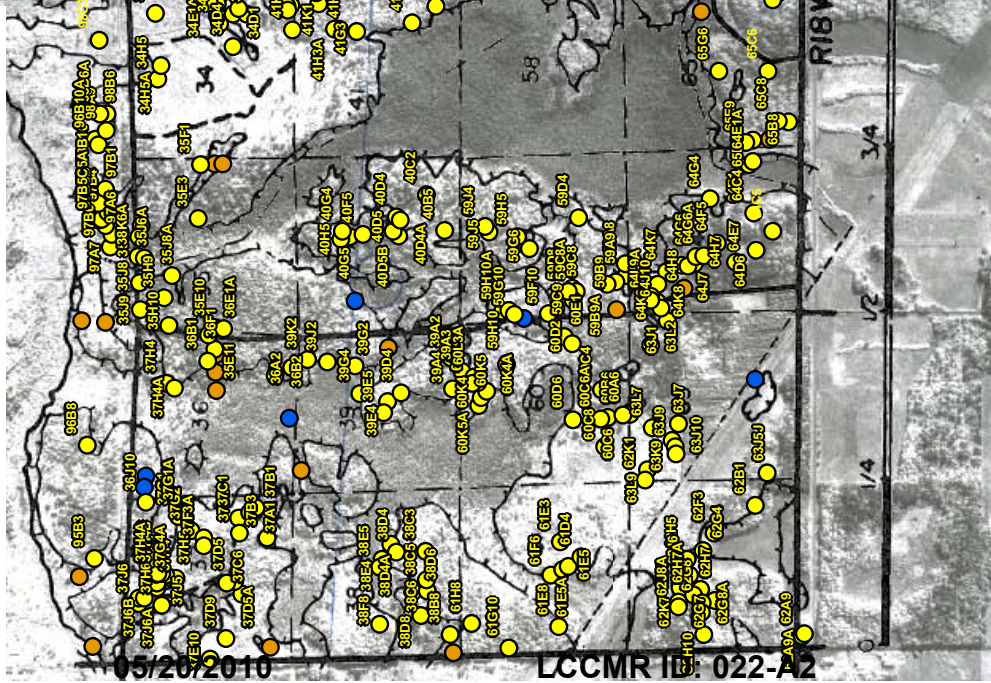
SOURCE OF FUNDS	AMOUNT	Status
Other Non-State \$ Being Applied to Project During Project Period:	\$ -	NA
Other State \$ Being Applied to Project During Project Period:	\$ -	NA
In-kind Services During Project Period: RGS & Svoboda Ecological Resources Margie Vollmer (RGS Accounting): 4% of FTE: Salary (2 yrs) = \$3,200, Fringe (2 yrs) = \$960. Dessecker travel: (2 yrs), 12 trips to Cities; 270 miles per trip @ \$0.55 per mile = \$1,782; meals for these trips - \$15 per trip x 12 = \$180. Total RGS in-kind = \$6,122. Carolyn Dillin & Erica Britcher (SER Admin Staff) 100 Hours (over 2 Years) = \$4,000; Frank Svoboda (Project Mtgs) 100 hours (over 2 years) = \$7,500; Purchase Idrisi Software for project use - \$1,300. Total SER in-kind = \$12,800	\$ 18,922	NA
Remaining \$ from Current ENRTF Appropriation (if applicable):	\$ -	NA
Funding History:	\$ -	NA

Drumming Log Location Map



- Drumming Logs
- Trapping Sites
- Weather Stations

Plotted on:
1964 Aerial Photography
Data Projected in North
American Datum of 1983,
Universal Transverse
Mercator, Zone 15 N



BASED ON:
ALLISON SURVEY 1935
JCSG IVERSON QUAD 1954

Project Title: Enhancing Future Forest Conservation Using Gullion's Historic Research

Project Manager Qualifications and Organization Description

Project Manager – Daniel R. Dessecker

Dan Dessecker is the Director of Conservation Policy for the Ruffed Grouse Society and currently serves as the Society's Regional Biologist for Minnesota as well.

Dan received a B.S. in Wildlife Management (1981) from the University of Wisconsin - Stevens Point and a M.S. in Wildlife Management (1984) from the Pennsylvania State University. His professional interests include the historical and current roles of disturbance in forest ecology and he has published extensively on this and related topics.

Dan is past-president of the Wisconsin Chapter of The Wildlife Society and served as Chair of the American Wildlife Conservation Partners in 2003. AWCP is a consortium of 44 national wildlife conservation organizations that work to affect wildlife and natural resource policy at the federal level. He was appointed in 2006 by then Secretary of the US Department of the Interior, Gale Norton, to serve on the newly established Sporting Conservation Council. The 12-member Council is charged with providing guidance to the Secretaries of Agriculture and the Interior on issues related to wildlife conservation and hunting.

Organization Description – Ruffed Grouse Society

The Ruffed Grouse Society is the one international non-profit wildlife conservation organization dedicated to promoting conditions suitable for ruffed grouse, American woodcock and related wildlife to sustain our sport hunting tradition and outdoor heritage. RGS enjoys the support of 100+ chapters across the United States, including 15 in Minnesota. The 15 Minnesota RGS chapters represent approximately 3,000 members.