

Natural Resource Monitoring Partnership

Natural Resources Monitoring
Partnership (NRMP)



Monitoring Locator and Protocol Library



The need for a new approach in monitoring

- State Wildlife Action Plans
- Provincial/Territorial and IRM Planning
- Bird conservation initiatives
- Federal land & resource agencies
- Landscape/collaborative initiatives

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Business as usual?

- Driven by short-term needs
- Difficult to determine what other agencies are doing for same species
- Inconsistent data collection, storage

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Practical Tools

Good decisions need good information:

- What do we know about existing monitoring?
- What monitoring protocols have already been developed?

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A Solution

Collaborative effort to share key aspects of monitoring programs

- Library of monitoring protocols
- Monitoring locator

Note: NRMP does not house the actual data from monitoring activities.

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Natural Resources Monitoring Partnership

Natural Resources Monitoring Partnership

About the NRMP

Enter or Edit a Project or Protocol

Find a Project

Find a Protocol

Sponsored By:



The Natural Resources Monitoring Partnership



Sampling for aquatic invertebrates in Lacassine, LA. Photo: USGS

Monitoring is essential to making effective management decisions and evaluating the outcomes of those decisions. Unfortunately, limited resources, incomplete information, and international or jurisdictional boundaries can compromise the ability of resource managers to design and implement effective monitoring programs. Too often,

Who Can Access NRMP Projects and Protocols?

Anyone! This site is **free and open** to any user who wishes to learn more about what natural resources are being monitored, and the protocols that are used to govern monitoring projects. To view projects in the NRMP system, go to **Find Monitoring Projects**. To view information about protocols used by monitoring communities, go to **Find Protocols**. It's that simple!

The Partnership is led by agencies/organizations. The work of any individual monitoring programs by participating in natural resource monitoring.

The initial focus of the NRMP is to develop the tools to foster coordination and communication among monitoring communities.

Monitoring Protocols - This is not a database of monitoring protocols; it is a catalog, not a warehouse.

Monitoring "Locator" - An internet-based, GIS application that allows users to identify what natural resource monitoring is being conducted within a particular area (e.g., State, county, Canadian Province, or other selected geographic area). Users of this system will have search tools to find out about ongoing and historic monitoring according to the scales, targets, and objectives that are of interest to them.

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Welcome Back, NRMP Contributors!

Would you like to enter a new project or protocol, or edit a previous contribution? Please login:

username:

password:

Remember my Password

Create an NRMP Contributor Account

Want to contribute a monitoring project or protocol to NRMP? [Create your own account](#) and [Log In](#) to enter a new project or protocol.

Snapshot From the Field



Disclaimer Regarding the Interpretation or Use of Content Submitted to NRMP

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Get set (to enter your project):

- Official project title
- Lead agencies
- Major objectives
- Description of methodology used
- Geographic place name OR
- Bounding coordinates
- URL if data are available on-line



Get set (to enter your protocol):

- Official protocol title
- Authors
- Protocol objectives
- Sampling design
- Field methods
- Analytical methods
- Training requirements

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Public Info / Goals & Objectives

Monitoring pond-breeding amphibians

Brad Timm

Peter W. C. Paton

Todd Tupper

National Park Service; United States Geological Survey

Paton, P. W. C., B. Timm and T. Tupper. 2003. Monitoring pond-breeding amphibians. Long-term coastal ecosystem monitoring program, Cape Cod National Seashore.

2003

http://science.nature.nps.gov/im/monitor/protocols/caco_amphibians.pdf

No relation to another protocol in NRMP Library

Public Domain

Amphibians in vernal and permanent ponds are monitored using various methods, each aimed at specific life stages. Primary methods recommended are anuran call counts and egg mass counts. Other methods are reviewed.

Goals/Questions

Focus(s)

Population status and trends

Focus & Extent

Amphibians

Annually

This protocol was designed for the Cape Cod National Seashore, Massachusetts. It is expected that the protocol will have direct application at other Seashore parks, as well as Fish and Wildlife Service coastal refuges, within the Atlantic and Gulf Co

Elements

Design Abstract

Included in Protocol

Methods

Included in Protocol

(Laboratory) Methods Abstract

Included in Protocol

Monitoring Abstract

Included in Protocol

Monitoring pond-breeding amphibians

Section 1: Bibliographic Info / Goals & Objectives

* / Yellow fields are Mandatory



+ Author(s) (limit 500 characters)

Enter 1 author per textbox in format John A. Smith or J

Brad Timm

Peter W. C. Paton

Todd Tupper

* **Originating Agency** (limit 500 characters)

If an Agency or Institution developed the Protocol, please enter the name in "Originating Agency" textbox. If the protocol was developed by an individual, check the box next to "Originator is NOT an Agency" in the Citation field below

National Park Service; United States Geological Survey

Originator is NOT an Agency

Citation (limit 500 characters)

Paton, P. W. C., B. Timm and T. Tupper. 2003. Monitoring pond-breeding amphibians. Long-term coastal ecosystem monitoring program, Cape Cod National Seashore

Examples:

Jaeger, R.G. 1994. Transect Sampling. Pages 103-106. In: Donnelly, R.W. McDiarmid, L.C. Hayek, and M.S. Foster, eds. Monitoring Biological Diversity: Standard Methods for Amphibians. Institution Press, Washington, D.C.

Washington-Allen, R.A., N.E. West, R.D. Ramsey, and R.A. Mittermeier. 1997. Protocol for Retrospective Remote Sensing-Based Ecological Assessment of Rangelands. Rangeland Ecology & Management 59: 19-29

* **Date of Publication** (YYYY)

2003

Section 1: Bibliographic Info / Objectives and Methods

Title: Blanchard's Cricket Frog Surveys in Southwestern Wisconsin

Project Investigator(s): Rori Paloski
Tara Bergeson

Lead Agency / Organization(s): Wisconsin Department of Natural Resources

Project Contact: Tara Bergeson
Wisconsin Department of Natural Resources
101 South Webster Street
PO Box 7921
Madison WI
53707-7921 USA
608-264-6043
Tara.Bergeson@wisconsin.gov

Partners: United States Geological Survey,
Upper Mississippi Environmental Sciences Center

Objective: These surveys focused on resurveying historic sites within the cricket frog's extant range in Wisconsin. Our objective in 2005 was to identify new, potential cricket frog sites through GIS analysis and survey these locations to better determine the current status and distribution of the cricket frog in southwestern Wisconsin.

Management Question(s) Addressed: Threatened and endangered species

Site Identification - We used the Wisconsin Natural Heritage Inventory (NHI) database, including data from the 1991, 1994, and 2004 cricket frog surveys, to compile a list of historic survey sites and locations. There are 177 cricket frog records in the NHI database, dating back to a 1910 record from Dodge County. Because cricket frogs are now believed to be restricted

Blanchard's Cricket Frog Surveys in Southwestern Wisconsin

Section 3: Project Status and Location



* / Yellow fields are Mandatory



View only Required Fields

*Project Progress

Active

*Start Date

Year 2004 Month Day

End Date

Year Month Day

*Monitoring Location

- I want to enter the location(s) by Place Name
- I want to enter the exact coordinates of my Project Area(s)
- I want to enter the location(s) using a map interface

Enter Location(s) by Place Name

Lookup the name of the park, refuge, county, city, state, or water body in the NBII Gazeteer. Then select the specific location from the list of matches that appear below the search box. Coordinates for your selected location will be generated automatically.

Wisconsin

Lookup Place Name

Wisconsin, Wisconsin, UNITED STATES (first-order administrative division)

Locality

If you wish, you can provide a specific description of the project location, such as milemarkers, signposts, directions, or quadrants

Add Another Monitoring Location

Save Draft / Next Section

Section 1: Bibliographic Info / Objectives and Methods

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 Project Investigator (s): Rori Paloski
 Tara Bergeson

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Methodology: Site Identification - We used the Wisconsin Natural Heritage Inventory (NHI) database, including data from the 1991, 1994, and 2004 cricket frog surveys, to compile a list of historic survey sites and locations. There are 177 cricket frog records in the NHI database, dating back to a 1910 record from Dodge County. Because cricket frogs are now believed to be restricted to Grant, Iowa, and Lafayette Counties in Wisconsin, we focused on sites within these counties. ArcMap 8.0 and 1995 digital orthophotos were used to visually select potentially suitable cricket frog breeding habitat that had not been previously surveyed (historic records). We defined suitable habitat as open canopy ponds, streams and wetlands. Through this process we identified 329 potential sites in Grant, Iowa and Lafayette Counties. Because of the large number of potential sites and limited resources, we conducted cricket frog surveys at a subsample of the 329 potential sites. We focused on areas of the extant cricket frog range that had not been previously surveyed and selected 91 sites scattered throughout the three counties. In addition to the 91 newly identified potential sites, 22 historic sites were resurveyed in 2005. Breeding Call Surveys - To determine whether cricket frogs were present at our survey sites, we

Blanchard's Cricket Frog Surveys in Southwestern Wisconsin

Section 4: Data Availability and Contact



* / Yellow fields are Mandatory



View only Required Fields

* Is the Data available

- Data is available for external use
- Data is not yet available
- Data will not be made available for external use

Format

- Database
- Paper Forms
- Spreadsheet

+ Data Contact(s)

Name (limit 500 characters)

Tara Bergeson

Position (limit 500 characters)

Environmental Toxicologist

Address (limit 1000 characters) per line

101 South Webster Street

PO Box 7921

City (limit 250 characters)

Madison

State or Province

WI

Zip or Postal Code (limit 250 characters)

53707-7921



- [Find a Protocol](#)
- [Back to: Natural Resources Monitoring Partnership](#)
- [Protocols Search](#)

Find Monitoring Protocols

Beginning in January 2007, users will be able to browse for monitoring protocols by specific focus (such as by major monitoring focus, major management issue, taxonomic group, specific taxa, habitat, or place) and will also be able to search the collection by specific metadata properties.

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- national park service
- estuarine habitats
- black-tailed prairie dog

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Legend for the Protocol Quick View Display

- SD** = Sampling Design
- M** = Field/Lab Methods
- DH** = Data Handling
- DR** = Data Reporting
- TR** = Training/Expertise
- AM** = Analytical Methods
- REF** = References
- OPS** = Operational Requirements

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Search Protocol

There are 8 Protocol resources available.

Title:	Originating Agency	SD	M	DH	DR	TR	AM	REF	OPS	
Small Mammals	National Park Service	✓	✓	✓	✓	✓	✓	✓	✓	Full Metadata
Waterbird Monitoring Protocol for Cape Cod National Seashore and other Coastal Parks, Refuges, and Protected Areas	United States Geological Survey; National Park Service	✓	✓	✓	✓	✓	✓	✓	✓	Full Metadata
Monitoring Salt Marsh Vegetation: A Protocol for the Long-Term Ecosystem Monitoring Program at Cape Cod National Seashore	National Park Service; United States Geological Survey	✓	✓	✓	✓	✗	✓	✓	✓	Full Metadata
Water Quality Monitoring Protocol for Kettle Ponds of Cape Cod National Seashore	National Park Service	✓	✓	✓	✓	✗	✓	✓	✗	Full Metadata

Keep in mind...

- NRMP does not review or edit
- Quality of submissions varies
- Users evaluate quality by reading associated information

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NRMP was built for YOU!

- Easy access to protocols
- Ability to evaluate protocols
- Opportunities for collaboration with neighbors

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Don't reinvent the wheel!

- Save time and money
- Easy to use
- Immediate access to protocols and data sources covering the continent

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NRMP wants you!

- Visit the website
- Join the partnership
- Let others know about your monitoring projects
- Share your protocols

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BACK TO: Inventory & Monitoring

Natural Resources Monitoring Partnership

- About the NRMP
- Enter or Edit a Project or Protocol
- Find a Project
- Find a Protocol
- News and Announcements

Welcome to the Natural Resources Monitoring Partnership



Banding a Black oystercatcher at Kenai Fjords National Park, AK. (Photo Courtesy Ron Niebrugge, USGS Alaska Cooperative Research Unit)

The Natural Resources Monitoring Partnership would like to welcome you to the Monitoring Protocols Library and Monitoring Locator System. These tools are the result of many years of hard work on the part of state, Canadian provincial and federal natural resource management agencies, nongovernmental organizations, and academic institutions.

This collaborative effort was inspired by the need to improve monitoring efforts in

order to support effective evaluation and decision-making. These tools were built for you and are only successful if you participate. Sharing your data is quick and easy and opens up a whole new set of options to complement and enhance monitoring efforts and save time and fund in protocol development.

Don't reinvent the wheel! The NRMP was built with you in mind

- Save time and funds in protocol development by using our Smart query
- Get easy access to monitoring protocols throughout the U.S. and

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Password:

Remember my Password

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NRMP Partners

Natural Resources Monitoring Partnership (NRMP)



BACK TO: Natural Resources Monitoring Partnership

Projects Search

- [Browse Projects by Agency](#)
- [Browse Projects by Management Question](#)
- [Browse Projects by Science Focus](#)

Search for a Monitoring Project

Search for a monitoring project using simple terms, such as:

grasslands
birds
Florida

Search Monitoring Projects

Search

Title:	Lead Agency / Organization(s)	Place	Is the Data available
--------	-------------------------------	-------	-----------------------

Browse Monitoring Projects in NRMP



[Browse by Lead Agency](#)
Locate projects by the agencies who lead the monitoring effort.



[Browse by Science Focus](#)
Locate projects by the science topic, sub-topic, and specialty.

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[Plants, Animals & Other Organisms](#)

[Habitats](#)

[Ecological Topics](#)

[Geographic Perspectives](#)

[Toolkit](#)

Natural Resources Monitoring Partnership (NRMP)



[BACK TO: Find a Project](#)

[Biology: Projects Home](#)

[Projects by Habitat](#)

[Projects by Taxa](#)

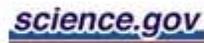
Browse Biological Monitoring Projects

Biological monitoring projects in the NRMP system are topically organized by two major themes: projects focused on habitats and projects focused on taxa.

Projects that address taxa within a specific habitat will be listed in both thematic areas. Additionally, all projects in the Biology section will also be listed in the Projects by Agency and Projects by Management Question sections.

The NBII Program is administered by the Biological Informatics Office of the U.S. Geological Survey

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BACK TO: Browse Projects by Science Focus

Projects by Taxa Home

- Amphibians**
- Birds**
- Fishes**
- Invertebrates**
- Mammals**
- Plants**
- Reptiles**

Browse Projects by Major Taxonomic Group

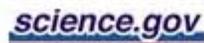
Many monitoring projects focus on a taxonomic group, or even individual species, sub-species, or populations.

Currently, information about monitoring projects has been submitted to the NRMP for the following taxonomic groups:

- Amphibians
- Birds
- Fishes
- Invertebrates
- Mammals
- Plants
- Reptiles

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- Projects by Taxa Home**
- [Amphibians](#)
 - [Birds](#)
 - [Fishes](#)
 - [Invertebrates](#)
 - [Mammals](#)
 - [Plants](#)
 - [Reptiles](#)

Bird Monitoring Projects

Search 155 Results Within Bird Monitoring Projects

Title:	Lead Agency / Organization(s)	Place	Is the Data available	
Georgia Resident Canada Goose Population Monitoring	Georgia Department of Natural Resources	Georgia , Georgia , UNITED STATES (first-order administrative division)	Data will not be made available for external use	Full Metadata
Grassland bird monitoring on Iroquois NWR, NY	United States Fish and Wildlife Service	Iroquois National Wildlife Refuge, Genesee, New York , UNITED STATES (Park)	Data is available for external use	Full Metadata
Bald Eagle Status and Distribution at Arnold Air Force Base	Arnold Air Force Base	Woods Reservoir, Franklin, Tennessee , UNITED STATES (Reservoir)	Data is available for external use	Full Metadata
Observational Wild Turkey Survey on Barksdale Air Force Base, Louisiana	Barksdale Air Force Base Louisiana Department of Wildlife and Fisheries	Louisiana , Louisiana , UNITED STATES (first-order administrative division)	Data is not yet available	Full Metadata
Barrow Eider Migration Past Point Barrow LRRS, Alaska	United States Air Force	Barrow, Point, North Slope, Alaska , UNITED STATES (cape)	Data is not yet available	Full Metadata
Summer Breeding Bird Surveys on Beale Air Force Base, California	Beale Air Force Base	California , California , UNITED STATES (first-order administrative division)	Data is not yet available	Full Metadata

Bird monitoring at Fort Leonard Wood, Missouri

Fort Leonard Wood

Missouri , Missouri , UNITED STATES (first-order administrative division)

Data is not yet available

[Summary](#)
[Metadata](#)

Project Investigator(s)

Joe Proffitt

Lead Agency / Organization(s)

Fort Leonard Wood

Project Contact

Chris Eberly
DoD Partners In Flight
60 Fishback Court
Warrenton VA
20186 United States
540-349-9662
ceberly@dodpif.org

Partners

Objective

The purpose of the project is to document use of area by migrants and colonial nesters.

Management Question(s) Addressed

Population status and trends

Methodology

A survey of spring migrants began in 1989 and was repeated annually through 1993. The next survey was in 2005 and will be repeated about every 3 years. Species presence / absence information is recorded. In addition great blue heron rookeries are monitored annually. Nests are counted in the spring and data are contributed to the Missouri Natural Heritage program.

Methodology Keywords

Protocol(s) Used

Primary Focus



Search



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BACK TO: Natural Resources Monitoring Partnership

Protocols Search

- Browse Protocols by Agency
- Browse Protocols by Management Question
- Browse Protocols by Science Focus

Find Monitoring Protocols

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- bird
- national park service
- estuarine habitats
- black-tailed prairie dog

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Legend for the Protocol Quick View Display

- D** = Sampling Design
- F** = Field/Lab Methods
- H** = Data Handling
- R** = Data Reporting
- T** = Training/Expertise
- M** = Analytical Methods
- EF** = References
- PS** = Operational requirements

Search Protocol

Search



Search

Natural Resources Monitoring Partnership (NRMP)



BACK TO: Natural Resources Monitoring Partnership

Protocols Search

- [Browse Protocols by Agency](#)
- [Browse Protocols by Management Question](#)
- [Browse Protocols by Science Focus](#)

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Search Protocol

Search



Search

- [NBII Home](#)
- [Plants, Animals & Other Organisms](#)
- [Habitats](#)
- [Ecological Topics](#)
- [Geographic Perspectives](#)
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- BACK TO: Find a Protocol**
- Protocols by Management Question**
- [Agricultural Practices](#)
 - [Climate Change](#)
 - [Contaminants](#)
 - [Diseases & Pathogens](#)
 - [Extreme Weather Events](#)
 - [Fire](#)
 - [Herbivory Effects](#)
 - [Insect Infestation](#)
 - [Invasive Species](#)
 - [Land Use Conversion](#)
 - [Light Pollution](#)
 - [Noise Effects](#)
 - [Other Management Issues](#)
 - [Population Status & Trends](#)

Browse Protocols by Management Question

This section allows users to browse for and view protocols organized by the specific management question(s) they were designed to address.



Search



- BACK TO: Find a Protocol**
- Protocols by Management Question
 - Agricultural Practices
 - Climate Change
 - Contaminants
 - Diseases & Pathogens
 - Extreme Weather Events
 - Fire
 - Herbivory Effects
 - Insect Infestation
 - Invasive Species
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 - Noise Effects
 - Other Management Issues
 - Population Status & Trends

Renewable Resource Use										
There are 1 Protocol resources available.										
Title:	Originating Agency	SD	M	DH	DR	TR	AM	REF	OPS	
Stream Flow	United States Geological Survey; National Park Service	✓	✓	✓	✓	✓	✓	✓	✓	Full Metadata



- BACK TO: Find a Protocol**
- Protocols by Management Question
 - Agricultural Practices
 - Climate Change
 - Contaminants
 - Diseases & Pathogens
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Stream Flow	United States Geological Survey; National Park Service	✓	✓	✓	✓	✓	✓	✓	✓	Summary Metadata

Author(s)
Marion, Norris
Originating Agency
United States Geological Survey; National Park Service
Citation
Norris, Marion. 2005. National Capital Region Network Streamflow Data Collection and Quality Assurance Protocol. National Park Service, National Capital Region Network, Washington D.C.
Date of Publication
2005
URL
http://science.nature.nps.gov/im/monitor/protocols/NCRN_StreamFlow.pdf
Protocol Keywords
Discharge
National Capital Region
Runoff
Stream flow