

A Handbook of Web-based Natural Resource Data, Applications and Tools

Montana, Regional and National Web sites of Interest

Compiled by Montana Fish, Wildlife and Parks, Montana Natural Heritage Program, and Montana
Natural Resource Information System – April 2011

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This handbook provides information on many of Montana’s natural resource data sources that include fish and wildlife data, viewers and assessment tools, and data download sites. Each web site is listed with its URL, a description of what it contains, when you might want to use and for some, an example of how it works. ***You will need to Ctrl +Click your left mouse button to access a web site from a link***

Data Discovery Websites

Natural Resource Information System <http://nris.mt.gov/>

Montana GIS Portal <http://gisportal.mt.gov>

Description: The Montana GIS Portal is a repository of geographic metadata that describes GIS data and web mapping services in the same way a card in a library's card catalog describes a book. The Montana GIS Portal enables the discovery and access of spatial data and web services through its metadata record. If you have geographic data that you want to share, the Portal enables you to make your data and services discoverable, viewable, and accessible by others. GIS professionals and others with GIS software may use the Portal to locate data for viewing an analysis with those programs. Developers may use the GIS Portal to discovery web mapping services for use in their web based mapping tools. The general public may use the Portal to discover data that may be used in data visualization tools like the freely available ArcGIS Explorer.

Before you begin using the Portal, it helps to read the “Search Tips” from the main menu. This will help you find what you are looking for.

Example 1: I want to get a shapefile of the county boundaries for the entire state.

1. Go to: <http://gisportal.mt.gov>
2. Type in “county boundaries” in quotes (without quotes you would get everything with either county or boundaries in the title, metadata, etc.)
3. Results page will provide you with a map of the state showing the layer extent and a list of layers matching your search.
4. Click on “Montana County Boundaries” and you can then Download the data, see the metadata or zoom to an area that you want to download.

5. Clicking on the Download button will take you to the website that contains the data. You will still have to find “county boundaries” on the list and follow those instructions to download.

Example 2: I want to find all spatial layers for extreme southwest Montana (near Clark Canyon Reservoir) which depict water quality in some way. If a point data layer is available, I would like to read the metadata to determine what attributes the layer contains. I may want to download the dataset after reading the metadata. I would like to be kept abreast of any new results for this search in the future (RSS feed).

1. Go to: <http://gisportal.mt.gov>
2. Choose Advanced Search
3. Into the **Text Search** box, type the words “water” and “quality” and click Search
4. A map of Montana and a list of data layers will appear on the screen; when you hover over the map, various areas will be highlighted with the associated data layer also being highlighted.
5. You can now refine your “Geographic Search” to the SW part of the state.
6. While holding down the Shift key, box the southwest portion of the state (directions are also below the map)
 - a. Intersecting means you will receive any and all data layers that intersect the area of interest defined
 - b. Fully within will only include those data layers that are fully within the area of interest
7. Click Search located below the Text Search Box
8. Click on the title of one of the resulting layers
9. Click on the Metadata link
10. Right-click on the Download link and determine where to store the dataset on your computer
11. Click Save
12. Right-click on the GeoRSS link then choose Copy Link Address

Montana Geographic Information Clearinghouse <http://nris.mt.gov/gis/>

Description: The Montana Geographic Information Clearinghouse, as part of the Natural Resource Information System (NRIS), offers access to information about the Montana GIS Community, access to GIS data resources for GIS professionals, and access to maps and interactive mapping tools for the general public. General public users will find the greatest utility in the items found on the right hand side of the page as set of Montana Maps is available at the top of that column, with access to interactive mapping tools beneath that. Interactive mapping tools allow users to map data available from several state agencies with information relevant to several natural resource interests including information about fish and wildlife (as well as other biological information), water and water rights, and air quality just to name a few. GIS professionals can use the tools in the middle of the clearinghouse page to gain access to many of the datasets used in the interactive applications as well as many more data sets relevant to understanding

natural resources. Access to this data will allow people with capable software tools to perform their own processing of this data.

Montana Basemap Service Center <http://giscoordination.mt.gov/>

Description: The Base Map Service Center (BMSC) is a Bureau in the Department of Administration's Information Technology Services Division. The mission of the Montana's BMSC is to develop, support, deliver and promote enterprise geographic data and the spatial technologies to all levels of government and the public. This site contains many of the Montana framework layers, identifying their champions and providing access to the data.

Montana Natural Heritage Program Wetland Data

<http://mtnhp.org/wetlands/default.asp>

Description: The Montana Natural Heritage Program (MTNHP) is the data steward for Montana's wetland information. As wetlands are one of the 14 Montana Framework Layers, our goal is to create a state- wide digital wetland and riparian layer as a resource for management, planning, and restoration efforts. With support from Montana's Wetland Council and our other partners, the Center maps wetlands and riparian areas to FGDC and USFWS National Wetland Inventory (NWI) standards. Additionally, the NWI wetlands are supplemented with hydro- geomorphic (HGM) modifiers to link wetland type with potential function.

There are three ways to acquire wetland mapping data: 1) a pdf for an individual quad map can be downloaded from the Web site, 2) a dataset for the entire state can be downloaded from the Web site, or 3) data for an individual quad can be requested from the Montana Natural Heritage Program. Following approval by USFWS NWI, wetland mapping conducted in Montana is added to the National Wetland Inventory (see NWI below). Digital wetland mapping is necessary to effectively and efficiently assess Montana's wetlands by identifying the type, size, and location of wetland resources.

Montana View <http://montanaview.org/>

Description: MontanaView is a consortium of universities, non-profit organizations and government agencies working within Montana to advance the availability and timely distribution of remotely sensed data. The goals of MontanaView are: to advance the availability and timely distribution of data by maintaining an **archive** of publicly available satellite imagery for Montana; to advance remote sensing through **education and outreach** in the public and private sectors; to advance remote sensing and sustainable technology transfer

through **research** and to build the MontanaView consortium through development activities that increase the organization's visibility and draws new members. This is the best source of remotely sensed data and resources to assist in using remotely sensed data for the state of Montana.

Montana Fish, Wildlife and Parks GIS Data

<http://fwp.mt.gov/doingBusiness/reference/gisData/dataDownload.html>

Description: MFWP provides over 100 data layers that have been created by the agency for the management of fish and wildlife. This is the most up-to-date and complete listing of MFWP data that can be downloaded, including metadata and, in some cases, images. Data layers include: Boundaries - Hunting districts, MFWP's regional administrative boundaries, lands managed and/or owned by MFWP, MFWP Commissioner boundaries, MFWP Enforcement Boundaries. Fisheries/Hydrography- Fish species distribution, hydrography, stream restoration projects, barriers, dams, hatcheries. Wildlife - Wildlife distribution, occurrence.

Montana Data Viewers and Tools

Montana Natural Heritage Tracker <http://mtnhp.org/Tracker>

(Note: Requires PC and Internet Explorer)

Description: The Montana Natural Heritage Tracker provides tabular information associated with animal and plant species observations to the general public by quarter/quarter degrees of latitude and longitude in a manner consistent with P.D. Skaar's Montana Bird Distribution (Lenard et al. 2003). Tracker also provides direct access to spatial and tabular information associated with animal and plant point observation data to agency biologists and resource managers via password protected access. Animal and plant information on this Web site can be viewed in the context of a variety of statewide map information. You can use the Natural Heritage Tracker to get reports and charts for existing observations, viewing summarized observations data on screen, saving maps and data to your local hard drive, or to submit your own observations.

Example 1: Viewing Information: I want to find data for Northern River Otter in Cascade County. I would like to determine the source of the observations near Great Falls as well as the date range to which they apply.

1. Click on the arrow on the right of Reports tab

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This document was created by Montana Fish, Wildlife and Parks, the Montana Natural Heritage Program and the Montana Natural Resource Information System for the Montana Chapter Wildlife Society Annual Meeting 2011 and has been adapted for general distribution April 2011

2. Click on Generalize Observations
3. Expand the "Filter by Animals" folder by clicking on the plus sign
4. Expand the "Mammals" filter
5. Scroll down to Northern River Otter or click in the box and start typing Northern River Otter. Highlight Northern River Otter by clicking on it.
6. Expand the "Filter by Geography" item
7. Expand County and click on Cascade
8. Click the display button; the map will display quarter lat-long grid cells where there are records for Northern River Otter.
9. Expand the Charts and Data bar at the bottom of the page by dragging it upward. Open charts and graphs, or tabular data by opening up the appropriate menu
10. You can also get information on observations within particular quarter lat/long grid cells by clicking on the Identify tool  located in the top toolbar and then clicking on the grid cell of interest.

Montana Natural Heritage Map Viewer <http://mtnhp.org/mapviewer/>

Description: The Natural Heritage MapViewer is an interactive web mapping service that allows users to perform a variety of tasks to access and use MTNHP databases and information. The first release includes tools to view, query, and summarize Montana land cover data and land management data. The application has tie-ins to the Montana Field Guide and also allows users to access and view over 12,000 geo-referenced photos of habitats across Montana. This application provides a means of quickly summarizing and displaying land cover and land management information for a variety of user specified administrative boundaries. It can be a valuable tool in deciding how an area of analysis compares to the larger surrounding region for these attributes.

Example 1: I would like a summary of the land cover in Hill County, in a printable report. I might also want to inquire about the details of a particular land cover type.

1. Under the Task Selection tab on the upper left, select "Landcover"
2. Under the Tools tab in the upper left select Summarize Landcover by and select County
3. Click on the Summarize tool  and then click somewhere within Hill County
4. Expand and read the Notes on and Appropriate Uses of Landcover area in the Charts and Data section
5. After examining the results, click on the **Printable Report**  link in the Charts and Data area at the bottom of the screen
6. You can now print this report from you browser
7. Within the report, click on the heading entitled "Great Plains Mixedgrass Prairie" to be directed to the Montana Field Guide on Ecological Systems.

Montana Fish, Wildlife and Parks Crucial Areas Planning System (CAPS)

<http://fwp.mt.gov/wildthings/conservationInAction/crucialAreas.html>

Description: In 2008, Montana Fish, Wildlife & Parks (MFWP) took the lead in conducting a Crucial Areas Assessment. The Assessment evaluated the fish, wildlife and recreational resources of Montana in order to ultimately identify crucial areas and fish and wildlife corridors. CAPS is a mapping application aimed at future planning for a variety of development and conservation purposes so fish, wildlife, and recreational resources can be considered earlier.

Uses: The Crucial Areas Planning System (CAPS) is intended to provide useful and non-regulatory information during the early planning stages of development projects, conservation opportunities, and environmental review. CAPS is not intended to replace consultation with MFWP staff. In cases where federally threatened or endangered species occur, CAPS does not replace a federal consultation under the Endangered Species Act. Finest data resolution is at the square mile section scale or water body, and use of these data layers at a more localized scale is not appropriate and may lead to inaccurate interpretations. The classification may or may not apply to the entire section. Consult the local MFWP biologist for more localized information.

Example: I want to find out what Terrestrial Game Species are associated with a subdivision proposal in the Helena Valley near Fort Harrison which is west of Helena.

1. Go to: <http://fwp.mt.gov/gis/maps/caps/>
2. Read the disclaimer
3. Click on the agreement box and click on continue
4. Take a few minutes to familiarize yourself with the map: Table of Contents: left side; tools: left hand upper corner; other reference layers: upper right hand corner; scale bar/coordinates: right hand lower corner; tray: documentation, suggestions, contacts, etc.
5. There are tools in the left hand corner of the map. Click on the farther left, the zoom tool; it will turn blue.
6. Move your cursor to Helena and draw a small box around the city point
7. The map will zoom in and more details appear. You will see "Fort Harrison" to the west and north of Helena; zoom in to point associated with Fort Harrison
8. The subdivision is located in Section 16 which is where you will focus your exploration
9. Click on the + sign to the left of the folder for "Crucial Areas Supporting Data"; the folder will expand
10. Click on the + sign to the left of the folder for "Terrestrial Layers"; the folder will expand and a message will appear. Please read the message and shut the window by clicking on the  in the upper right corner of the window.
11. Click on the  to the right of the "Terrestrial Game Quality"

12. A message box will come up with a brief explanation of the layer; click on the link in the window and a full description of how the layer was built will be displayed. Once viewed, click on the red x in the upper right corner of the window containing the document to have it close
13. Click the  in the upper right corner of the "Terrestrial Game Quality" window to close the window.
14. Click in the circle to the left of the "Terrestrial Game Quality" to activate the layer
15. A message box titled "Using the Identify Tool" will open. Please read and close the box.
16. Section 16 is a "Class 2" for Terrestrial Game Quality; to learn why it is a Class 2 and other information, click on the  to the left of the "Terrestrial Game Quality" and the ID tool will turn blue.
17. Return your cursor to the map, and click on Section 16.
18. There are 4 boxes within this window; click on each to learn why the section is a class 2 (scroll down to see all the content), what the values are for the other terrestrial layers, examples of what MFWP might recommend for the area and contact information for the MFWP area biologist.
19. The area is highly valued for elk and mule deer winter range and has been predicted as sharp-tailed grouse habitat.
20. You can close the window by clicking the  in the upper right corner of the window.

Montana Field Guide <http://fieldguide.mt.gov/>

Description: These guides and this web site are a collaborative effort between the Montana Natural Heritage Program and Montana Fish, Wildlife and Parks. They are all available from <http://fieldguide.mt.gov>.

The Animal Field Guide provides information on identification, habitat, ecology, reproduction, range, and distribution of Montana's animals; new features include a hierarchical approach to finding an animal of interest, thumbnail photos of the animals and additional links. The Plant Field Guide offers information on plant species of concern, including references and photographs. The Lichen Field Guide provides information on lichens. The Ecosystem Field Guide offers information on Ecological Systems (recurring groups of biological communities that are found in similar physical environments).

Montana Fisheries Information System <http://fwp.mt.gov/fishing/mFish/default.html>

Description: The Montana Fisheries Information System (MFISH) is a database containing information on fish species distribution, supporting data for distribution, and information related to the management of aquatic resources in Montana. The database is managed and maintained by the Strategic Planning and Data Services Bureau (SPDS) of the Fish and Wildlife Division of Montana Fish, Wildlife, and Parks and is annually updated through interviews with MFWP, US Forest Service (USFS), US Fish and Wildlife Service (USFWS), Bureau of Land

Management (BLM) and tribal fisheries biologists and supplemented with information provided in technical documents and reports. This system could be used for any information gathering that might impact a stream or lake in the state; or if there is an individual fish species of interest. This system could be used for any information gathering that might impact a stream or lake in the state.

Montana Cadastral Mapping <http://giscoordination.mt.gov/cadastral/applications.asp>

Description: As part of the Base Map Service Center, the Cadastral data is the information about rights and interest in land. Cadastral data may also be known as real estate data, parcel information, or tax parcel information. Montana Cadastral Framework is built primarily upon the measurement based cadastral reference of the Geographic Coordinate Database (GCDB) maintained by the BLM, with tax parcels as defined by the Dept. of Revenue. The Framework also carries an increasing amount of related and vertically integrated data such as Stewardship data, county and state boundaries, and state trust lands. Land management maps can also be downloaded as PDF files at: http://mtnhp.org/stew/stew_maps.asp

Montana Department of Natural Resources and Conservation

Montana Reinvestment Act <http://recovery.mt.gov/default.mcp>

Description: This site allows Montanans to follow how we are reinvesting and rebuilding Montana with federal funding from the American Recovery and Reinvestment Act. An estimated 11,000 jobs will be created or saved and the majority of Montanans will see tax relief.

Montana Web Mapper <http://www.bogc.dnrc.mt.gov/Web site/mtcbm/viewer.htm>

Description: This web mapping tool is designed to provide for the Development of Best Management Practices utilizing Geographical Information Systems technologies for efficient environmental protection during Coal Bed Methane Production. The project began in the Montana portion of the Powder River Basin and will extend GIS tool's capability to be used in the Montana Board of Oil and Gas Conservation (MBOGC) permitting process. This tool allows for the modeling of effects of proposed wells and will allow MBOGC to make more effective, timely decisions that may also alleviate many legal, moral, and ethical issues faced by the Board on a day-to-day basis.

Montana Natural Resource Information System Interactive Applications

<http://nris.mt.gov/interactive.asp>

The Natural Resource Information System (NRIS) has created and provides links to a variety of mapping applications and query systems. Some have already been listed in this handbook and others are listed below.

Digital Atlas of Montana <http://maps2.nris.mt.gov/mapper/>

An interactive mapping tool for accessing a wide variety of information about Montana's counties, streams, towns, and watersheds.

Topographic Map Finder (Topofinder)

<http://maps2.nris.mt.gov/scripts/esrimap.dll?name=LocMap&Cmd=Map>

Browse Montana's USGS topographic maps and automatically zoom to any point based on latitude/longitude, township/range/section, place name, or quadrangle name.

TopFinder II <http://nris.mt.gov/topofinder2/unsupportedBrowser.htm>

An alternate version of the Topofinder application. It incorporates a friendlier user interface and takes advantage of our seamless raster data coverages.

Clean Water Act Information Center <http://cwaic.mt.gov/>

CWAIC is the Department of Environmental Quality's public access clearinghouse for obtaining information on federal and state mandated 305(b)/303(d) water quality reports, public comment, water quality laws, and Montana's water quality programs.

Water Right Query System <http://nris.mt.gov/dnrc/waterrights/default.aspx>

Query, report, and map Department of Natural Resources and Conservation Water Right Data.

DEQ Online Query Service <http://nris.mt.gov/deq/remsitequery/portal.aspx>

This service allows you to search several DEQ databases for information on facilities which may generate or handle hazardous wastes and sites that may contain potentially hazardous substances and/or petroleum products.

Public Water Supplies <http://nris.mt.gov/wis/swap/swapquery.asp>

Search the Department of Environmental Quality's Source Water Protection Program database for Source Water Assessments and maps of Montana's public water supplies.

404 Permit Finder <http://maps2.nris.mt.gov/mapper/Corp404/CorpMain.asp>

Interactive query and mapping of Army Corps of Engineers stream and wetland permits since 1990.

MT Water Quality Tracker <http://nris.mt.gov/Apps/WQProject/watermain.asp>

This database contains information about all the water quality monitoring sites available from 12 Federal, State, Tribal, and Private agencies in Montana. The application contains links to data about each site and maps of the site areas.

In addition to statewide applications, there are also several watershed level mapping services and conversion tools.

Regional and National Web sites of Interest

Conservation Registry <http://www.conservationregistry.org>

Description: The Registry is an online, centralized database that records, tracks, and maps on-the-ground conservation projects. The purpose of the Registry is to help users understand the context, distribution, and effectiveness of our collective efforts to protect and restore ecosystems. It is a synthesis tool that gathers project information from multiple sources. The Registry can also act as a project management tool for those agencies and organizations that do not have the resources to build their own tracking database or still track projects on paper.

The Registry captures three project types. The first type is a project designed to protect or restore habitat, fish and wildlife, or an ecological process. The second type of project is a change in land designation to enhance the focus on conservation management. The third category includes monitoring, research and education projects tied to a location.

Data Basin <http://databasin.org>

Description: Data Basin is a free system that connects you with spatial datasets, non-technical tools, and a network of scientists and practitioners. You can explore and download a vast library of datasets, connect to external data sources, upload and publish your own datasets, connect to experts, create working groups, and produce customized maps that can be easily shared. This is a great web site for folks that do not have access to GIS software. By joining Data Basin you are given access to the datasets, maps, and tools. You also get to connect to a broad spectrum of people working on conservation-related efforts. Registering is easy and free. DataBasin is powered by Environmental Systems Research Institute ArcGIS Online (ESRI), and therefore requires all Data Basin users to obtain an ESRI global account during registration. Each user is given 2 GB of free data storage space by ESRI for their uploaded data.

Gap Analysis Viewers <http://gapanalysis.usgs.gov/viewers/>

Description: The USGS Gap Analysis Program is in the process of creating interactive maps for viewing its data sets. They are creating national viewers for land cover, protected areas, and species. Each of these viewers enables users to browse and download all or parts of the data sets.

National Atlas <http://www.nationalatlas.gov/index.html>

Description: Nationalatlas.gov™ contains a remarkable range of products and services to meet the diverse needs of people who are looking for maps and geographic information about America. This Web site provides more than 1,900 map layers that you can select, display, and make your own maps at a local or national scale. Ready-to-print maps of various sizes are available along with dynamic maps of geographic phenomena and articles that describe the different map layers.

Natural Resource Conservation Association Soil Data Mart

<http://soildatamart.nrcs.usda.gov>

Description: The Soil Data Mart allows you to determine where soil tabular and spatial data is available; download data for one soil survey area at a time. (Download requests for more than one survey area at a time can be submitted through the [Geospatial Data Gateway](#). Going through the Geospatial Data Gateway also provides the option to obtain data on CD or DVD.); download a template Microsoft Access® database for working with downloaded data; generate a variety of reports for one soil survey area at a time; find out who to contact for information about soil data for a particular state; and "Subscribe" or "unsubscribe" to a soil survey area. A person who is subscribed will automatically be notified whenever data for that soil survey area is updated. You must register and login before doing this. *Once you get to the site, you can select a state with the Select State button and begin your download.*

An alternative presentation of the soil survey area data contained in the Soil Data Mart, including on screen or printed soil maps, is available through the [Web Soil Survey](#), an online data viewer for soil data and information. *(see Data Viewers and Tools)*

The [Soil Data Access](#) Web site provides additional options for requesting soil tabular and spatial data. This Web site and suite of web services is geared towards intermediate and advanced end-users.

National Wetlands Inventory <http://www.fws.gov/wetlands/Data/Mapper.html>

Description: The Wetlands Mapper integrates digital map data with other resource information to produce timely and relevant management and decision support tools. The status of wetland and riparian mapping in the U.S. can be visualized using this web mapping application. Data can be downloaded from the Web site for an entire state or for an area of

interest. Much of the data for Montana that eventually makes it into this database originates within the Montana Natural Heritage Program.

PLANTS Database <http://plants.usda.gov/java>

Description: The PLANTS Database provides standardized information about the vascular plants, mosses, liverworts, hornworts, and lichens of the U.S. and its territories. It includes names, plant symbols, checklists, distributional data, species abstracts, characteristics, images, crop information, automated tools, onward Web links, and references. This information primarily promotes land conservation in the United States and its territories, but academic, educational, and general use is encouraged. PLANTS reduces government spending by minimizing duplication and making information exchange possible across agencies and disciplines.

PLANTS is a collaborative effort of the [USDA NRCS National Plant Data Center](#) (NPDC), the [USDA NRCS Information Technology Center](#) (ITC), The [USDA National Information Technology Center](#) (NITC), and many other partners. Much of the PLANTS data and design is developed at NPDC, and the Web application is programmed at ITC and NITC and served through the USDA Web Farm. Here's more information about who does what on the [PLANTS Team](#), our [Partners](#), and our [Data Contributors](#).

StreamNet <http://www.streamnet.org/>

Description: StreamNet is a cooperative information management and data dissemination project focused on fisheries and aquatic related data and data related services in the Columbia River basin and the Pacific Northwest. We are funded through the Northwest Power and Conservation Council's Fish and Wildlife Program by the Bonneville Power administration and are administered by the Pacific States Marine Fisheries Commission. The project supports staff inside the management agencies to obtain, georeference, and standardize data. The data are maintained and disseminated through the Pacific States Marine Fisheries Commission (PSMFC). A variety of data are provided in tabular format and as maps and GIS layers. Information is available through the online database query, interactive maps, the Data Store, or by custom request.

TRACS <http://www.fws.ekosystem.us>

Description: TRACS is a system being developed by USFWS in conjunction with partner states to track the outcomes and effectiveness of programs administered under the USFWS Wildlife and Sport Fisheries – State Wildlife Grants account (SWG). The system will represent the spatial distribution of SWG projects and provide links to goals, outcomes, and deliverables. Spatial and tabular queries will allow users to summarize by Species of Greatest Conservation Need, priority community types, and geographic focal areas. Release date is currently slated for late 2011 or early 2012. Eventually this system may cover other projects funded under the Wildlife and Sport Fisheries account.

The Web Soil Survey <http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>

Description: The Web Soil Survey (WSS) provides soil data and information produced by the National Cooperative Soil Survey. It is operated by the USDA Natural Resources Conservation Service (NRCS) and provides access to the largest natural resource information system in the world. NRCS has soil maps and data available online for more than 95 percent of the nation's counties and anticipates having 100 percent in the near future. The site is updated and maintained online as the single authoritative source of soil survey information.

Western Governors' Association <http://www.westgov.org/index.php>

Description: The Western Governors' Association (WGA), formed in 1984, is an independent, non-partisan organization of Governors from 19 Western states, two Pacific-flag territories and one commonwealth. The Association was formed to provide strong multistate leadership in an era of critical change in the economy and demography of the West. The Western Governors recognize that many vital issues and opportunities shaping our future cross state lines and are shared throughout the West. In June, 2010, the Governors adopted a policy resolution that committed their state agencies to complete their decision support systems within three years. Through the Wildlife Council, <http://www.westgov.org/initiatives/wildlife> established in 2008, each participating state is coordinating its wildlife data with neighboring states, applying common definitions for crucial habitat and wildlife corridors. The information developed will be made publically available online by states across the entire region. MFWP Crucial Areas Planning System (CAPS) is a product that will feed into the WGA Wildlife Initiative.

Contributing fish and wildlife data to Montana's central databases

Information Generally Required

- Who – List the observer's name (the more information the better), list the person submitting the observation (probably you)
- What – Species (this needs to be unambiguous, e.g., Short-tailed weasel not just "weasel")
- When – Exact date or date range for observation (for birds this may dictate the Type Status of the observation; birds must be reported with a Type Status of "B", "b", "t", "W", or "w")
- Where – We need to know as precisely as possible where the species was observed and how the observer determined that location. Coordinates with a clearly specified coordinate system, datum, zone (if UTM), and locational uncertainty are desired.

Montana Natural Heritage Program (MTNHP) Data Entry

- Please see <http://mtnhp.org/observations.asp> for details. Each form indicates how to submit the observations to the Montana Natural Heritage Program.
- Simple Web-based animal observation form
- Excel spreadsheet - This can be downloaded from the Tracker site and then submitted to Montana Natural Heritage Program
- **Natural Heritage Tracker** <http://mtnhp.org/Tracker> (*Note: Requires PC and Internet Explorer*)
- **Example of Submitting an Observation:** I want to submit an observation of an immature Bald Eagle that I saw on the road to Stemple Pass.
 1. Use the Sign In on the top tab to either sign in (if you have an existing account) or create an account)
 2. Click Add Animal Observation
 3. Click By Point (on Map). Note: that there are also options to enter lists of species observed by QQLL or TRS online, or enter larger numbers of observations in an Excel spreadsheet that you can email in to the Natural Heritage Program.
 4. Use the zoom and pan tools to locate a point where you have made an animal observation (click on Map Layers and use the Highway map to find Stemple Pass)
 5. Locate a point 3 miles up the road (west) from the junction of Hwy 279 and Stemple Pass Road (Virginia Creek)
 - a. Use the distance measuring tool from the top tool bar to measure the three miles
 6. Click on the Add Observation tool (looks like a target next to the Add Animal Observations) and then click the point three miles up from the junction
 7. A window should open prompting you for more information about the observation
 8. Click the Calendar icon near the Exact Date text box and choose a date for the observation
 9. Notice the information that has been populated into the Location Box.
 10. Enter "Three mile mark of Stemple Pass Road" into the Locality text box

11. Click Next to move to the next tab
 12. Choose the Type of Animal Report you are making, in this case “Birds-Incidental Observations”
 13. Choose Bald Eagle from the list of species, then click Next
 14. In the next window, choose Observation Type “t” since we have not observed this bird doing anything related to breeding (not even in the right date range for possible breeding)
 15. Choose Within 100 Meters for How Close...
 16. Fill in 1 in the Number of Subadults box
 17. Under Species Observation Notes enter “Extensive white markings on axillaries and coverts. Clearly a juvenile bird.”
 18. Under Habitat Observation Notes enter “Bird perched at top of cottonwood in riparian area until spooked by my vehicle.”
 19. Click Next
 20. On this screen you will be presented with a summary of the information that you have submitted. Normally you would click Next to save the observation to the database, in this case please **CLICK CANCEL**
 21. After the submission, you are presented with a message that thanks you and lets you know that your observation will be reviewed.
- Hard copy - Hard copy observations are always welcome. Observations can be submitted to bmaxell@mt.gov.

Montana Fish, Wildlife and Parks

- Scientific Collector Permit –MCA Statute 87-2-806 - Taking fish or game for scientific purposes requires a collector to apply to the department for a permit. An accredited representative of an accredited school, college, university, or other institution of learning or of any governmental agency or an individual who is investigating a scientific subject for which collection is necessary, may take, kill, capture, and possess for that purpose any birds, fish, or animals protected by Montana law or department or commission rule if a permit to collect is authorized by the department. A person who desires to engage in the scientific investigation shall apply to the department for a permit.
 - fwp.mt.gov → Doing Business → Licenses and Permits → Scientific Fish and Wildlife
 - <http://fwp.mt.gov/doingBusiness/licenses/scientificWildlife.html>
 - Application for Permit available
 - Reporting form available
 - All materials can be submitted to fwpwld@mt.gov
- Wolves – Wolf observations can be reported online using this link <http://fwp.mt.gov/wildthings/management/wolf/wolfObservationForm.html>

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