

Montana State Digital Library

June to July 2010

Prepared for the August 18, 2010 Commission meeting
by Jennie Stapp, Digital Library Division Administrator.

This report represents accomplishments of:

Library Information Services (LIS),
Montana Natural Heritage Program (MTNHP),
Natural Resource Information System (NRIS).

Goal One, Content: MSL acquires and manages relevant quality content that meets the needs of Montana library partners and patrons.

LIS completed the Fiscal Year 2010 digitization contract on time and on budget. 3,882 state publications were scanned creating 260,272 digital images. Permanent uniform resource locators were created and added to catalog records for all publications scanned in FY10 to give direct full text access to these government publications. In the last two years, 12,026 state publications, or about 20% of our collection, have been scanned amounting to a total of 916,633 scanned images. These publications all reside in our digital depository at the Internet Archive. In the past two years, these publications have been downloaded 357,710 times. Our contract with the Internet Archive was renewed for a third year to allow us to continue this ongoing project.

LIS also licensed the Safari Tech Online book collection to supplement the information technology aspect of the Professional Library Development collection. This license allows LIS to select fifty electronic books (ebooks) at a time from a list of over 9,000 titles for full-text access from the library catalog. New titles will be regularly rotated in based on use statistics and user suggested topics.

Duane Lund has been working with the Natural Resources Conservation Service (NRCS) on maps and spatial analysis for a project based around habitat for prairie birds to be

incorporated into a cross border study with Canada. The larger NRCS project involves cooperating with local land owners, non-governmental groups and several state and federal agencies to determine areas of opportunity for enhancement or recovery. Maps were created to inform interested parties of the data available and to perform some basic analysis. The project is led by our on-site partner and NRCS geographic information systems specialist Cathy Maynard. Gerry Daumiller put together a website to distribute the data and maps associated with this project: <http://nris.mt.gov/nrcs/birdconservation/>

The United State Geological Survey (USGS) delivered the new Border Imagery Data Set to the State Library for inclusion in the Montana Spatial Data Infrastructure (MSDI) Imagery Framework Layer. This data set contains 1 foot resolution imagery across the Montana/Canada border. The imagery goes 10 miles north of the border into Canada and 30 miles south of the border into the US. This is part of a larger project that covers the full US/Canada Border. As part of the Montana data delivery we also received all of the Idaho/Canada Border and about 80 miles of the North Dakota/Canada Border. Gerry Daumiller is developing a website with an index for this dataset so that users can request portions of it as needed.

Two different million milestones were reached by the MTNHP toward the end of June. Animal point observation databases now have 1,030,792 point observation records (725,927 bird records and 304,865 records of other animal species). In addition, 97,738 locations where structured animal surveys (e.g., bird point count or small mammal trapping station) were performed have been documented in the central databases. These observation records and structured surveys are viewable on the Tracker <http://mtnhp.org/Tracker/NHTMap.aspx> website and generalized observations are viewable on the Montana Field Guide <http://fieldguide.mt.gov/>. The MTNHP's wetland photo interpreters have now mapped 1,133,322 acres of wetlands and riparian areas (843,052 acres of wetlands and 290,270 acres of riparian habitat) off of the 2005 NAIP imagery. MTNHP has also recently received two large grants from the U.S. Fish and Wildlife Service and Bureau of Land Management to finish mapping these critical habitats in western and south central Montana in the next few years.

The current status of the mapping and partner contributions toward these efforts can be tracked on the MTNHP website at: http://mtnhp.org/nwi/NWI_Status_map.asp. In collaboration with Montana Fish, Wildlife, and Parks (FWP) and the Macaulay Library of Natural Sounds, 100 new bird calls have been added to the Montana Field Guide (e.g., see Brewer's Sparrow at http://fieldguide.mt.gov/detail_ABPBX94040.aspx). Calls are now available for all passerine birds commonly encountered in Montana and we hope to make calls available for all bird species ever reported in Montana by sometime this fall.

Goal Two, Access: MSL provides libraries, agencies, and its partners and patrons with convenient, high quality, and cost-effective access to library content and services.

Continuing our effort to encourage geographic awareness among librarians and library patrons and to increase use of online applications that highlight Montana's natural resources, the Montana State Library, in a collaborative project between the Digital Library and the Statewide Library Resources division, will launch our first prototype natural resource companion, the Hunter's Companion, in time for hunting season. This online website includes links to resources from the State Library, FWP and the Base Map Service Center (BMSC). The website is designed to help hunters answer four basic questions, what to hunt, when to hunt, where to hunt and how to hunt. Testing for the site was conducted by subject matter experts as well as a task force of librarians. The website is currently in final review. Look for promotional materials and more information in the coming weeks.

Use of the MTNHP's web applications continued to grow in FY10. Visits to the MTNHP's homepage (<http://mtnhp.org/>) and Montana Field Guide (<http://fieldguide.mt.gov/>) in FY10 were up about 15% from the use they received in FY09 and use of the Tracker application (<http://mtnhp.org/Tracker/NHTMap.aspx>) held steady. We received 61,281 visits to our homepage in FY10 with the average visit lasting just over 3 minutes. That is 5,107 visits per month or 1,277 visits per week on average for a total of 3,166 hours of use on just our homepage alone. The Montana Field Guide, our collaborative web application with FWP is being used by natural resource professionals around the state, K-12 and Universities around

the state, and the general public in Montana and around the world. In the last year, the Montana Field Guide has received 223,400 visits with an average visit of about 3 minutes. Total use in FY10 has been 11,170 hours, equivalent to an average use of 931 hours per month or 233 hours per week on average. It is typical for 20 to 40 patrons to use the Field Guide during business hours each day. Since the middle of June 2007 when we released the Tracker application, it has had 9,240 hours of agency level use and 11,267 hours of public level use for a total of 20,507 hours of use; 570 hours per month or 142 hours per week on average.

The MTNHP's Meghan Burns and Allan Cox recently collaborated to make wetland and riparian mapping data for Montana more readily available via a one-stop web application at: http://mtnhp.org/nwi/nwi_data.asp. Patrons can select regions of Montana via an interactive map and then download wetland maps for individual USGS 1:24,000 quadrangle maps as shapefiles or PDF map files. Patrons can also request wetland mapping information for broader areas directly from MTNHP staff.

The MTNHP's Web Programmer, Dave Ratz, expanded queries on the advanced search option for the Montana Field Guide (<http://fieldguide.mt.gov/AdvancedSearch.aspx>) to provide more search options and make them compatible with the MTNHP's Species of Concern Report query options <http://mtnhp.org/SpeciesOfConcern/?AorP=a>

The MTNHP's Aquatic Ecologist, Dave Stagliano, produced a poster on the Freshwater Mussels of Montana that summarizes information on the identification, distribution, habitat use, status, and unique biology of the state's 3 native and 3 introduced species. These posters will be a wonderful introduction to resource managers and the general public on these species which are dependent on fish species for a portion of their life cycle. Posters are available at the Montana State Library and at FWP offices statewide.

A wetland program development grant provided by the Montana Department of Environmental Quality (DEQ) recently allowed the MTNHP's Zoology Program to georeference 10,185 digital

photos of wetlands associated with more than 9,600 wetland surveys conducted across Montana between 2000 and 2009 for the presence of pond breeding amphibians and aquatic reptiles. These photos were made available to all users on the Tracker <http://mtnhp.org/Tracker/> website (see Photo Viewer tab), in order to allow them to view wetlands across the state. For agency biologists and resources managers logging onto the Tracker website with agency level access, we color coded the photos as to the degree of structural or water quality impact documented at the wetland during the time of survey in order to assist resource managers in addressing potential management issues.

As part of a joint project with the Montana Department of Natural Resources and Conservation (DNRC) to update the Water Rights Query System, Jeff Dobb developed a new Water Rights Map Viewer that improves access to water right related data. The query system had previously allowed users to map the water right points of diversion in the NRIS Topofinder application. This new map viewer is more focused on water rights and it not only shows the location of points of diversion, but also the places of use for that water. The interface also allows users to toggle between a Topographic Map, Hydrography Layer, or Air Photo background. Finally, users can view a full water right abstract and access a cadastral report from this new tool. An example of a mapped water right can be found at:

<http://nris.mt.gov/dnrc/waterrights/WRDetail.aspx?wrKey=237967-1>

To access the full query system:

<http://nris.mt.gov/dnrc/waterrights/default.aspx>

LIS worked with Sara Groves, the Marketing and Communications Coordinator to prepare the books, create the tags with scannable bar codes, and to catalog the items for the Ready 2 Read Goes Wild trunks. These trunks will be available for circulation and for interlibrary loan to libraries around the state. For more information about this project see the Marketing and Communications Coordinator report from Sara.

Goal Three, Consultation and Leadership: MSL provides consultation and leadership to enable its patrons and partners to reach their goals.

Evan Hammer worked with the Information Technology Services Division (ITSD) ESRI Enterprise License Agreement (ELA) renegotiation team and the ESRI ELA user group to secure GIS software for state agencies under an extension to the ELA that has been in place since state fiscal year 2008. A tentative agreement has been reached that will extend the agreement through June 30, 2015 at the same cost per year that was agreed to in the original agreement.

Jennie Stapp was invited to present the Montana Place Names Companion application to a group of southwest Montana Farm and Ranch brokers at their monthly meeting on July 7th in Bozeman. This group of rural real estate experts was highly interested in the history of names and their ability to learn more about the regions where they work.

MTNHP staff has recently provided training sessions on a variety of topics. MTNHP Program Botanist, Scott Mincemoyer, funded by a DEQ Wetland Program Development Grant is offering a series of seven 1-day wetland plant identification workshops this summer across Montana: Helena (2), Missoula (2), Bozeman, Swan Valley, and Billings. These field-based workshops are designed to provide biologists, resource managers and others who work on wetlands or wetland management with the basic skills required to identify Montana's common wetland plant genera and species, including invasive plants. MTNHP Systems and Services Manager, Allan Cox, recently provided trainings to Montana Department of Transportation and DNRC staff members on MTNHP web applications and data resources. MTNHP Ecologists, Karen Newlon and Tara Luna, recently ran a wetland assessment and plant identification workshop for the Northern Cheyenne Tribal Reservation. Tara Luna also provided two workshops on the National Vegetation Classification Standard in Polson and Dillon in June.

Goal Four, Collaboration: MSL promotes partnerships and encourages collaboration among its partners and patrons so that their information needs can be met.

MTNHP staff is currently involved in a variety of field projects in collaboration with partner agencies. MTNHP Botanist, Scott Mincemoyer, is conducting surveys funded by the U.S. Fish and Wildlife Service for the federally listed species Water Howelia (*Howellia aquatilis*), Ute Ladies' Tresses (*Spiranthes diluvialis*), and Spalding's Catchfly (*Silene spaldingii*). MTNHP Zoologists, Bryce Maxell, Paul Hendricks, Susan Lenard, and Coburn Currier are conducting surveys for reptile hibernacula and amphibian breeding sites in the Tongue and Powder River watersheds (Bureau of Land Management (BLM)), amphibian, reptile, bat and terrestrial mollusk surveys across western Montana (BLM), amphibian surveys on the Longpines Unit of the Sioux District of the Custer National Forest and the Malta Field Office of the Bureau of Land Management (U.S. Forest Service and BLM), grassland bird surveys across northeastern Montana (FWP and BLM), and riparian bird surveys across the Helena National Forest (U.S. Forest Service). MTNHP Ecologists, Linda Vance, Karen Newlon, Cat McIntyre, and Tara Luna are advancing wetland assessment methodologies and conducting wetland assessments across western Montana (U.S. Environmental Protection Agency (EPA), BLM), ground truthing land cover assessments across Montana (Montana Land Information Advisory Council), and ground truthing riparian mapping and assessing riparian status across Montana (U.S. EPA).

LIS met with Environmental Quality Center (EQC) staff, part of the legislative branch, to discuss how to provide access to Montana Environmental Policy Act publications. Both groups have met before to figure out how to use the metadata and scanned images available from EQC to batch create catalog records that point to the LIS digital depository. LIS is one step closer to this goal after meeting with their information technology staff at EQC. LIS agreed to provide a proposal for a test pilot by the end of August 2010.

Evan Hammer worked with Stu Kirkpatrick of the BMSC to develop a business plan for the stewardship of the MSDI Imagery Framework data set for the coming fiscal year. The business plan identifies long term objectives for the stewardship of this framework layer as well as specific objectives to be accomplished by these two groups over the coming year. The plan is available from the MSDI Imagery Framework website:

<http://giscoordination.mt.gov/ortho/default.asp>

For direct access to the plan:

http://giscoordination.mt.gov/ortho/FY_11_plan/DRAFT_2011_Imagery_Business_Plan.doc

Goal Five, Sustainable Success: MSL is a well-run organization and a sought-after employer; it is efficient and effective (measured against partner and patron outcomes), and successfully engaged in its ongoing mission.

Diane Papineau attended the ESRI International User Conference in San Diego, CA from July 12-16, 2010. Diane was able to attend several technical and paper sessions and was able to network with some of the NRIS partners in attendance including representatives from the GeoMapp spatial data archiving project.

University of Montana Vice President of Research, Dan Dwyer, will be initiating an open search for a permanent Director of the MTNHP beginning in August, 2010.

Cat McIntyre recently attended the Society for Wetland Scientists meeting in Salt Lake City in order to update her training on wetland science and management.

LIS has begun screening 54 applications submitted for the state publications librarian position. Interviews are expected to begin the first week of August.