

Montana State Digital Library
December 2010 to January 2011

Prepared for the February 9, 2011 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 staff processed and sent another 7 boxes (325 state publications) to the Internet Archive to be digitized. Based on image counts and past averages, LIS estimates 39 more boxes need to be shipped to complete the FY 2011 contract with the Internet Archive.

LIS also increased the frequency of web crawls of the Montana Legislature website to capture frequent changes as a result of the Legislative session. The new weekly capture in Archive Montana (http://msl.mt.gov/For_State_Employees/Archive_Montana/default.asp) will provide long term access to legislative proceedings that will eventually disappear from the live website.

NRIS GIS Analyst, Gerry Daumiller completed work on the Yellowstone Clearinghouse project. The Clearinghouse includes a variety of data for the Yellowstone River corridor including aerial photos, elevation data, floodplain analysis and much more. Recently additional datasets including historical aerial photography for Park County were added to the website, and a map viewer was added to improve access to the GIS layers provided through the clearinghouse. The Yellowstone Clearinghouse can be viewed at: <http://nr.is.mt.gov/yellowstone/> and the Map Viewer can be accessed directly at: <http://nr.is.mt.gov/yellowstone/MapView.asp>. Warren Kellogg, Yellowstone Technical Advisory Committee Chair said of the site, "This looks really good! Good Job! The organization of data sets and imagery make them much easier to find and access."

MTNHP Zoologist, Paul Hendricks, completed *A Guide to the Land Snails and Slugs of Montana*. This 200 page report, summarizing what is known about the distribution, status, and taxonomy of the 78 land mollusk species known from Montana involved over three years of Paul's time and is the first publication of its kind in Montana. It will

eventually serve as the basis for a published Field Guide to the Land Mollusks of Montana.

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.

NRIS wrote and submitted an application to become a full partner in the Geospatial Multistate Archive and Preservation Partnership (GeoMAPP) (<http://www.geomapp.net/>), a program of the Library of Congress National Digital Information Infrastructure and Preservation Program. The GeoMAPP program is researching and developing best practices for the development of geospatial archives. NRIS has been involved in this project as an informational partner for more than a year. If funded, the grant will support NRIS staff efforts to develop a data inventory and spatial data collection development policy which will include a geospatial data archives strategy. Of particular interest for further evaluation during the grant period is the use of the Internet Archive services for this purpose. Additionally, this grant would provide partial funding to purchase a geospatial data archive server. The total amount requested was approximately \$95,000 to be spent over calendar year 2011. This grant application was supported by the state Geographic Information Officer, the State Records Manager and the State Archivist.

MTNHP Web Projects Manager, Dave Ratz, built the first draft of a web page that will be used to enter and edit plant, animal and biological community literature in the newly designed MTNHP Reference Database. This internal application will also allow MTNHP staff to associate literature with individual plants, animals, or communities and to decide whether the literature is appropriate to be shown on the Montana Field Guide and other web applications. Dave also created a program that will populate fields in the reference database using information from WorldCat records using OCLC numbers as a match point.

In order to help patrons make better use of MTNHP resources, a series of webinars will be offered by MTNHP staff between January 25th and March 3rd that are designed to provide: (1) an overview of MTNHP data resources and web applications; (2) information on accessing wetland data resources; (3) training on using the Natural Heritage Tracker and Map Viewer web applications. Over one hundred people are already signed up to attend these webinars.

Following completion of the transition from OCLC's CONTENTdm to the Internet Archive as MSL's primary repository for digital state publications, LIS is evaluating how to maintain a presence in the Montana Memory Project (MMP) which remains a key discovery tool for persons seeking information that documents the history of Montana. Much like the catalog records for these publications that currently exist in the Montana Shared Catalog and in WorldCat, LIS could maintain "pointer records" in the MMP that

link to the digital content hosted at the Internet Archive. At the request of the MMP executive committee, the staff is creating a batch of test records for upload to the MMP. LIS staff and the MMP executive committee will then evaluate the feasibility of creating and maintaining this additional access point from both a staff and a user perspective.

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

In early December MTNHP Aquatic Ecologist, Dave Stagliano presented to Bureau of Land Management, Montana Department of Fish, Wildlife and Parks (FWP), and US Geological Survey the results of his 2010 surveys for exotic American Bullfrogs that have spread along the Yellowstone River near Billings.

MTNHP Interim Director and Senior Zoologist, Bryce Maxell, gave an invited presentation in Lincoln Nebraska, December 15-16 on predictive distribution modeling for wildlife species. The presentation was given in collaboration with Scott Story at FWP. In attendance were approximately 25 wildlife management personnel from Fish and Game agencies and Natural Heritage Programs in North Dakota, South Dakota, Nebraska, and Colorado. Bryce also gave invited presentations to the U.S. Forest Service's (USFS) Wildlife Council on MTNHP data resources and the results of projects the MTNHP has completed for the USFS and to the Montana Wetland Council on beaver creation of amphibian breeding, foraging, and overwintering habitat.

LIS Systems Analyst Chris Stockwell, and Program Manager, Jim Kammerer wrote an article for the Internet Archive blog announcing that MSL had adopted the Internet Archive as its institutional repository (see Literature Sample). The post was unexpectedly republished in several other blogs resulting in considerable publicity. At least one of these blogs has a nationwide readership of more than 10,000 persons. At the behest of Brewster Kahle, founder of the Internet Archive, these staff also posted detailed instructions on how LIS successfully batch uploaded copies of its digital assets to its new repository. This will be useful information for other librarians interested in migrating content to the Internet Archive.

Jennie Stapp is serving as MSL's representative to the GIS Work Group, a Governor's Office-sponsored task force charged with evaluating the current state of GIS services in Montana. Through a small sub-committee this task force is evaluating GIS roles and responsibilities, organizational structure, funding, marketing and education and outreach.

The NRIS Advisory Committee met on December 9, 2010. This was the first meeting for new representatives Nat Carter of the Department of Environmental Quality (DEQ) and Jim Robinson of the Department of Natural Resources and Conservation (DNRC). Following a lengthy discussion of the purpose of the advisory committee and the

structure and discussion topics of NRIS advisory committee meetings, it was recommended that a chair be chosen from among the representatives to help direct NRIS in future meeting planning. Nat Carter was nominated to be the chair and accepted that nomination pending approval by his supervisor. Amy Bamber of the Department of Agriculture and Stan Sternberg of the Department of Transportation expressed interest in a greater level of data coordination with NRIS.

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

The benefits of improved collaboration between the Base Map Service Center (BMSC), NRIS and MTNHP are already being felt following the move of the BMSC to MSL in November. Staff are collaborating to improve access to the 2009 National Agriculture Imagery Program imagery through a cached image service, staff have met to discuss how to review and integrate workflows related to land ownership data management and NRIS and BMSC staff are both sitting on a work group with city and county representatives who desire to develop an online mapping application to provide access to information on Helena's trails system.

In response to state employee concerns regarding access to MSL databases, LIS did significant off-state network testing of EZProxy, the statewide authentication solution managed by Statewide Library Resources. LIS staff worked with the EZProxy server administrator improve the EZProxy configuration files. LIS staff also worked with the state Information Technology Services Division and MSL's network administrator to understand state network processes and to produce a network diagram for future reference. Another positive outcome was the development of staff instructions on how to communicate with users experiencing this type of information technology problem.

MTNHP and NRIS had a meeting with patrons from DEQ to discuss how NRIS and Heritage resources are being used in that agency. Several bureaus within DEQ were represented and critical topics discussed included the most desirable formats for data delivery (Hardcopy vs. GeoPDF vs. ArcReader .PMF files). DEQ reiterated the need for time stamped "official" reports for project documentation though interest was expressed in some of the other more flexible alternatives.

Gerry Daumiller and Evan Hammer attended the Montana Spatial Data Infrastructure (MSDI) Administrative Boundary work group meeting on December 28, 2010. The meeting marked the beginning FY12 MSDI Boundary grant application planning and a key topic was identifying boundary data sets to be integrated into the framework data layer in the coming year. Several ideas were discussed including the documentation of state agency administrative boundaries such as DNRC Land office and water regional office boundaries. Centralizing this data in a single database that coincides with other

framework data would improve public access and it would also be beneficial to the MTNHP program efforts to provide access to Montana Land Management information.

On December 13th, the MTNHP held its annual partner's meeting in order to inform partner representatives of the MTNHP's activities over the past year, make them aware of new data resources that have been developed, and to get feedback on their data needs over the next few years. The meeting was attended by over 40 people representing state and federal agencies, county planners, private industry, and conservation trusts. The MTNHP received a great deal of positive feedback on the data resources made available over the last few years and all participants agreed that access to natural resource information in Montana greatly exceeds what has been achieved in other western states because of the placement of, and collaboration between, NRIS and MTNHP in the State Library. Partner's appreciated the way NRIS and the MTNHP help integrate data resources across all agencies and businesses and requested more training on accessing MTNHP and NRIS data resources.

In collaboration with FWP and the Natural Resource Conservation Service staff, MTNHP and NRIS staff created a web service for the 2009 Montana Land Cover Layer that can be used by GIS users and in a variety of map-based web applications.

MTNHP Botanist, Scott Mincemoyer attended a Montana Weed Control Association meeting in Great Falls on January 17th.

MTNHP Interim Director and Senior Zoologist, Bryce Maxell, attended a two day meeting, December 1st and 2nd, to collaborate with numerous state and federal agencies on the future of bird inventory and monitoring across Montana and the western United States.

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.

Approximately 100 current and past MTNHP and NRIS staff and partners celebrated the 25th anniversary of the inception of MTNHP and NRIS on the evening of December 13th at Benny's Bistro in Helena. A good time was had by all as we remembered and celebrated the accomplishments of these two programs over the past 25 years.

NRIS is currently interviewing candidates for the vacant Web Developer position. We hope to have this position filled by early to mid-February.

After incorporating partner feedback provided during the MTNHP partner's meeting, the MTNHP finalized the program's Strategic Plan for 2010 through 2014. The plan can be accessed at: http://mtnhp.org/docs/2010_2014_strategic_plan.pdf

MTNHP Ecology Projects Managers Karen Newlon and Cat McIntyre completed an 8-day course on Essentials of Management in January.

MTNHP Biological Data System Coordinator, Karen Walker, attended a two day class on managing SQL databases on January 12th and 13th; ongoing training on SQL databases is essential to proper management of MTNHP data resources.