

Montana State Digital Library

April 2011 to May 2011

Prepared for the June 8, 2011 Commission meeting
by Jennie Stapp, Digital Library Division Administrator.

This report represents accomplishments of
Library Information Services (LIS),
Natural Resource Information System (NRIS)
& the Montana Natural Heritage Program (MTNHP).

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

LIS processed and sent another 27 boxes (971 state publications) to be digitized. These shipments are estimated to be enough to complete the FY 2011 contract with the Internet Archive ahead of schedule. LIS is also working with the vendor and the state procurement office to renew the FY2012 contract. Changes to the contract include a reduction from \$45,000 to \$25,000 as a result of recent budget cuts and an added provision that requires the vendor to resolve digitization issues within a two week time frame unless a longer resolution time frame is mutually agreed upon. Reduction in funding for digitization means that the amount of publications that will be digitized over the next biennium will be reduced by almost half. Although the process to digitize publications will slow, LIS staff will use the time normally spent processing publication to further promote the digitized collections.

LIS recently signed a three year subscription renewal for our web archiving service, Archive-it. This agreement locks in a static price for the next three years. Furthermore, the vendor voluntarily and generously gave LIS an unexpected three-year discount commensurate with the 5% agency-wide budget cut. This web archive service supports Archive Montana

(http://msl.mt.gov/For_State_Employees/Archive_Montana/default.asp), a web archive for websites within the mt.gov domain. This web archive is a key tool that MSL relies on to meet our mission to provide permanent public access to Montana state publications. Additionally, state agencies have begun to use the web archive as a disaster recovery resource.

In a renewal for a separate database, another vendor also agreed to roll back their cost to our 2009 price level.

NRIS and the Base Map Service Center (BMSC) have been working together to keep the Montana GIS community updated on the United States Department of Agriculture Farm Services Agency plans to collect aerial imagery for the state of Montana during the summer of 2011 as part of the National Aerial Imagery Program (NAIP). NRIS has acquired imagery from this program in the past and still makes NAIP imagery from 2005 and 2009 available to patrons in a variety of formats including web services, data downloads, and web map services. Within the library we also find this imagery to be a valuable backdrop for a number of web applications as well as digital and paper maps that we produce for patrons. The 2011 imagery data collection is expected to begin on June 15 and run through September 2011 with data delivery possibly as soon as October 2011. NRIS and BMSC are working together to inform the community of different data delivery options and the costs associated with those different options. In addition to being a valuable data source for natural resource managers, NRIS also performs these tasks as part of their role as a Montana Spatial Data Infrastructure (MSDI) Imagery Framework Steward.

MTNHP Systems and Services staff, Karen Walker, Joy Ritter, and Allan Cox completed major spatial alignment and conservation easement updates to the Montana Land Management Database. This land management information is made available to our partners and the general public via the Natural Heritage Tracker <http://mtnhp.org/Tracker/>, the Natural Heritage Map Viewer

<http://mtnhp.org/mapviewer/> as well as in static PDF documents

<http://mtnhp.org/stew.asp>

MTNHP Interim Director/Senior Zoologist, Bryce Maxell, and Systems and Services Staff, Scott Blum and Karen Walker, created Species Occurrence polygons for 44 animal species that have been added to the Montana Species of Concern list in the past few years and have updated Species Occurrences for several hundred other Montana Animal Species of Concern. These Species Occurrences are used daily in environmental reviews conducted by government agencies, consultants, nongovernment organizations, and the general public. Species Occurrences are viewable online to state and federal agency partners on the Natural Heritage Tracker

<http://mtnhp.org/Tracker/NHTMap.aspx> website.

MTNHP Botanist, Scott Mincemoyer, reviewed and updated the status ranks for more than two hundred plant species and made this information available on MTNHP websites to provide easy access to partners. Scott also updated the Montana Checklist of Vascular Plants to reflect numerous taxonomic and status changes and, working with MTNHP Data Assistant, Martin Miller, added or edited 200 plant observation records in the Botany Database.

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 staff worked with Jennie Stapp and Tom Marino to update the top level NRIS web page - <http://nrис.mt.gov/default.asp>. The content and organization of the page had become out of date and the layout was no longer consistent with most of the other pages within the MSL website. The new site includes a brief description of the NRIS program, offers quick access to some commonly used natural resource data access tools, and showcases some NRIS maps and tools in a map/image gallery. An effort was also made to provide more direct access to the Geographic Literacy Campaign and the

wealth of information available from the GIS Data Hotlist. The updated site went live on April 5.

The Geographic Literacy Campaign launched our second companion, the Fishing Companion, <http://msl.mt.gov/fishing/>, in April in time for MLA. Like its predecessor, the Hunting Companion, the fishing companion combines resources from several natural resource agencies to answer the questions, how, when, where and what to fish. MSL received very positive feedback on the Hunting Companion and the Fishing Companion was met with much excitement by the library community.

In April, MTNHP added a new tool set to the Natural Heritage MapViewer <http://mtnhp.org/mapviewer/> that enables the display and query of the Montana Land Management Data. The database depicts four main categories of land management: 1) Public Lands, 2) Conservation Easements, 3) Managed areas and special designated lands such as wildlife refuges, Research Natural Areas, wilderness, etc., and 4) Lands owned by land trusts or other private conservation oriented entities.

MTNHP and NRIS staffs are collaborating with staff of the BMSC to cache the 2009 NAIP aerial imagery in order to make it available for use via a web map service. MTNHP and NRIS staff also collaborated to make the 2010 land cover map and wetland and riparian mapping data layers, two of the fourteen MSDI framework layers, available via the Montana GIS Portal <http://gisportal.msl.mt.gov/> and web mapping services.

Friends and supporters of the MTNHP can now stay in touch with the program via Facebook. To view information there, visit: <http://www.facebook.com/pages/Montana-Natural-Heritage-Program/149153959657?ref=mf> or if you are on Facebook, search for the Montana Natural Heritage Program.

LIS successfully updated 3,388 of its local catalog records with links to digital content in the state publications repository at the Internet Archive. This is the culmination of

several months' work. Volume fields and OCLC numbers first needed to be added to the state publications metadata in order to create persistent uniform resource locators (PURLs). LIS staff next worked with OCLC staff to overlay our WorldCat records with new 856 MARC tags. And finally LIS staff worked with Montana Shared Catalog staff to overlay the local records with the new working links.

LIS will soon launch a public blog. For the past few months, staff has become familiar with WordPress software, chosen a unique blog name, i.e. "Beyond the Stacks", and written a growing body of content that is being archived. The intended audience for the blog are librarians and the public who may be interested in LIS efforts to make accessible Montana government information.

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

MTNHP Aquatic Ecologist, Dave Stagliano and Bryce Maxell produced a report on surveys for American Bullfrogs and aquatic species in the Billings area which will guide American Bullfrog control efforts by Fish, Wildlife & Parks (FWP), United States Geological Survey, and Rocky Mountain College along the Yellowstone River through 2012. Dave Stagliano also produced a public interest article on the Salmonflies of Montana which appeared in the May/June Issue of Montana Outdoors Magazine.

Bryce Maxell, Scott Blum and Karen Walker, and Landscape Ecologist, Meghan Burns, completed a report summarizing statewide mapping of Black-tailed Prairie Dog (*Cynomys ludovicianus*) colonies using the 2009 NAIP imagery. This report will be used by the Bureau of Land Management (BLM), FWP, and United States Fish & Wildlife Service to manage the species and identify potential release sites for the endangered Black-footed Ferret (*Mustela nigripes*).

MTNHP Systems and Services Program Manager Allan Cox, and Karen Walker, gave three presentations at the 2011 NatureServe Conference in Nebraska City, Nebraska the week of May 9th – 13th. These talks provided overviews on how MTNHP web applications and automated data routines empower our patrons, our management of the Montana Land Management layer, and our new reference management system. The talks were well attended and received a great deal of interest from other programs in the Heritage network that are looking to do similar things.

Meghan Burns, collaborated with the Montana Department of Environmental Quality to provide GIS and global positioning system (GPS) training to individuals associated with conservation districts, watershed groups, weed districts, state and county employees, water quality protection districts, tribal governments, and nonprofit organizations May 4th through 6th in Helena.

Dave Stagliano and Bryce Maxell, gave invited webinar presentations to the United States Forest Service Region 1 Fisheries Biologists and Hydrologists on the Distribution, Status, and Conservation of the Western Pearlshell Mussel and Amphibian Research, Management Issues and Tools for Resource Managers, respectively on March 30th. In his role as an Associate Editor for the Journal of Intermountain Sciences, Dave Stagliano served at the Board Meeting to direct the journal to become web-enabled by digitizing back issues and making them web accessible by 2012.

MTNHP's Bryce Maxell, Allan Cox, Linda Vance, Scott Mincemoyer, and Darlene Patzer gave MTNHP program updates to the Montana/Dakotas state BLM office leadership team in Billings on April 14th in order better coordinate data flow and project work between BLM and MTNHP.

MTNHP Program Botanist, Scott Mincemoyer, gave a presentation on the status of Spalding's Catchfly in Montana at an interagency technical team meeting focused on the recovery strategy for this Threatened species in Spokane, Washington on April 20th.

Bryce Maxell gave presentations on MTNHP data resources and herpetofauna, bat, and mollusk surveys conducted on the Missoula Field Office BLM lands in Missoula on April 25th and mapping Black-tailed Prairie Dog colonies across Montana using the 2005 and 2009 NAIP imagery in Miles City on May 11th.

NRIS was awarded an MLIA grant for \$17,500 to support the ongoing stewardship of the MSDI Hydrography Framework Layer during the state fiscal year 2012. This funding will help support stewardship tasks such as holding regular work group meetings, maintaining a hydrography work group web site and mailing list, and providing support to partner agencies on projects that will result in a more detailed and accurate state hydrography dataset. The Hydrography Framework Layer is the mapped surface water for Montana. This data is essential of many natural resource agencies. For example, The Department of Natural Resources and Conservation (DNRC) relies on accurate hydrography in their work to manage points of diversion for water rights.

LIS staff created and made available a How to Guide for accessing digital state publications as part of a poster session for the annual Montana Library Association meeting in Billings, MT, April 6-9. This venue was a prime opportunity to update Montana librarians on the current status of the digitization project.

Evan Hammer, NRIS Manager and Gerry Daumiller, GIS Analyst attended the Montana Association of GIS Professionals (MAGIP) spring meeting in Lewistown, MT on April 11-12, 2011. Gerry presented an update on the status of the Geographic Names Framework Layer and Evan provided an update on the Imagery Framework Layer. Evan also led a presentation on using and contributing to the Montana GIS Portal. The MAGIP meetings provide a valuable opportunity for NRIS to keep the GIS community updated on their activities. This particular meeting is especially valuable as the only GIS meeting that specifically targets communities in central and eastern Montana and focuses on topics relevant to them.

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

Formal participation of NRIS in the GeoSpatial Multi-State Archive and Preservation Partnership (GeoMAPP) began in late March, and much of April was dedicated to an orientation process for NRIS staff. Several meetings were held to orient NRIS with the GeoMAPP work groups (Outreach and Mentoring, Data Transfer and Preservation, Storage and Access and Business Planning) and the materials available through the GeoMAPP wiki. Staff participated in a two-day online onboarding session in late April. MSL is looking forward to hosting a Face-to Face GeoMAPP meeting in Helena from June 21-23, 2011. The agenda and other planning for that meeting is on-going. Benefits of partnership in this program are already being seen as NRIS is reviewing the "Best Practices for GeoSpatial Data Transfer for Digital Preservation" document. NRIS already began the planning process for a spatial data inventory and the best practices document provides some very useful information to help with this planning.

MTNHP's Ecology Program staff and Botanist, Scott Mincemoyer, are collaborating with the Environmental Protection Agency (EPA) and Fort Peck and Confederated Salish, Pend d'Oreille and Kootenai Tribes to complete National Wetland Condition Assessments (NWCA) across Montana. As part of this national effort, Senior Ecologist Linda Vance and Ecologist Cat McIntyre led a portion of the NWCA training session for the EPA and its partners on May 9th through 14th in Fort Collins, Colorado. MTNHP's collaboration on this national survey is designed to provide estimates of wetland ecological integrity and rank the wetland stressors most commonly associated with poor conditions in Montana.

Linda Vance, Meghan Burns, and Ecology Project Manager, Karen Newlon, all attended the MAGIP Spring Technical Session in Lewistown on April 11th and 12th and gave presentations there on MTNPH data resources.

MTNHP Zoologists Paul Hendricks and Susan Lenard collaborated with staff at the U.S. Army Corps of Engineers to inventory and monitor bats at facilities around Libby Dam.

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.

Grant Austin began work as the new NRIS Web Systems Developer on April 4, 2011. Grant immediately went to work updating the DNRC water rights query system, a project that has been on hold since the position was left vacant. Grant is an experienced and skilled developer; he is very interested in how he can use his skills to update and improve a number of NRIS and other MSL applications. We are very happy to have Grant on board.

After a nationwide search that lasted more than 6 months, the University of Montana has hired Dr. Neil Snow as the new Director of MTNHP. Dr. Snow is a Botanist by training and is currently on the staff at the Bishop Museum in Honolulu, Hawaii. He will begin as Director on July 1.

Interim Director and Senior Zoologist Bryce Maxell will resume his full time duties as Senior Zoologist on July 1 after serving as Interim Director for more than eighteen months. During his time as Interim Director Bryce ably led staff following the death of Director Sue Crispin. He used the interim period to draft a new MTNHP Strategic Plan (http://mtnhp.org/docs/2011_strategic_plan.pdf) that was reviewed and endorsed by staff and MTNHP partners. During this time, MTNHP also made significant improvements to the tools used to disseminate data to patrons and partners with the release of the new MNTHP MapViewer. The State Library wishes to thank Bryce for his dedication and humble service to MTNHP.

Digital Library Director, Jennie Stapp, continues to serve as a member of the GIS Taskforce requested by David Ewer, Governor's Budget Director. This Taskforce is recommending an administrative merger of the BMSC into the State Library as a way to improve the efficient delivery of GIS data to Montana.

The MTNHP has hired two new Ecologists/Photointerpreters, Steve Fernandes and Kyla Zaret, to assist with the MTNHP's Wetland and Riparian Mapping Center's statewide wetland and riparian mapping efforts.

LIS lost two valuable staff members during this period. State Publications Librarian, Myrtle Humphries, accepted a position in Arizona and Cataloging and Metadata Specialist, Jess Tobin, is moving to Seattle with her husband where he will take a position with Amazon.com. Staff is preparing the necessary documentation to advertise these positions. We hope to fill these positions as soon as possible.