Hilary A Morey

South Dakota Game, Fish and Parks
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Education

2011 M.S. Wildlife and Fisheries Science-Fisheries Option. South Dakota State University (SDSU), Brookings, SD.

Thesis: Influence of Diet and Environmental Variation on Physiological Responses of Juvenile Pallid Sturgeon (*Scaphirhynchus albus*).

2009 B.S. Fisheries and Water Resources-Fisheries Option, and Biology with Aquaculture minor. University of Wisconsin-Stevens Point (UWSP), Stevens Point, WI.

Professional Experience

Environmental Review Senior Biologist October 2018-present

SD Game, Fish and Parks, Pierre, SD

I review proposed development projects in the state of South Dakota related to potential impacts to federally and state threatened and endangered species and their habitats. As part of the review process, I provide information on wildlife, wildlife habitat and work with developers to help them avoid or minimize conflicts with wildlife and wildlife habitat. I review relevant scientific literature related to habitat conservation, habitat restoration, wildlife ecology and impacts of development on sensitive species and incorporate that evidence into recommendations and official correspondence. I work with GFP staff across the state to compile information related to federally and state threatened and endangered species and provide comments during the NEPA review process for various projects and federal agencies in South Dakota (Western Area Power Administration, Army Corps of Engineers, Bureau of Land Management). I assist with preparing and implementing various species management plans for sensitive species in South Dakota. I occasionally assist with field work and research projects as needs arrive including: aerial raptor surveys, ground-based raptor surveys, ground based prairie grouse lek surveys, song bird banding and fisheries research. I serve on the Interagency Review Team for reviewing wetland mitigation projects and banking instruments related to Section 404 of The Clean Water Act. I also assist GFP personnel

with designing projects that avoid or minimize impacts to Waters of the United States and assist with permitting and clearances related to Section 404 of the Clean Water Act. I work with GFP staff to prepare ESA Section 7 documentation for various Federal Agencies (Federal Highway Administration, Army Corps of Engineers, U.S. Coast Guard, Bureau of Reclamation) and work with GFP staff to avoid and minimize impacts to state and federally listed threatened or endangered species. I work extensively with local governments, state and federal agencies to provide information, guidance and recommendations related to wildlife conservation. I provide relevant information (data, peer-reviewed literature, reports etc.) and testimony to the South Dakota Public Utilities Commission at evidentiary hearings and through official correspondence. I serve as a co-principle investigator on two State Wildlife Grants (T-94-R-1: Prairie Grouse Ecology in Relation to the Sweetland Wind Energy Facility and T-92-R-1-Estimating Raptor Density at Two Wind Energy Facilities in Northeastern South Dakota).

Fisheries Biologist April 2013 – October 2018

SD Game, Fish and Parks, Ft. Pierre, SD

I lead and assisted field crews to complete biological surveys on Lake Sharpe and Lake Oahe in central South Dakota. Biological surveys included deploying gear such as: mono and multifilament gill nets, boat electrofishing, trotlines, fyke nets and drifted trammel nets. I was the project lead for conducting nightime hydroacoustics surveys on Lake Oahe for coldwater prey fish (rainbow smelt and lake herring). I assisted with age-estimation of hard structures (otoliths, scales and fin rays), annual report review and preparation, manuscript preparation, manuscript reviews, creating presentations for public outreach, creating professional presentations and reviewing presentations for co-workers. I managed a multi-species acoustic telemetry database as part of multiple research projects on Lake Sharpe, SD. I wrote and reviewed research proposals to secure project funding. I hired, trained, supervised and mentored seasonal fisheries technicians (1-2 per field season) and assisted with mentoring and training numerous fisheries interns. I assisted with the development of new station projects and performed data analysis as needs arose. I presented results of such analyses in the form of technical presentations to stakeholder groups and peer groups at professional meetings. I participated in and assisted in coordinating multiple outreach and education events throughout South Dakota.

Biological Science Technician (Fisheries) December 2011 – April 2013

U.S. Fish and Wildlife Service, Columbia, MO.

I lead and assisted field crews to complete biological assessments on the lower Missouri River related to the Pallid Sturgeon Population Assessment Program. Biological

assessments include deploying gear such as the otter trawl, experimental mesh gillnets, trotlines, mini-fyke nets, drifted trammel nets, push trawl and electrofishing. I conducted and assisted in data collection on field computers (tablets), and oversee data management/quality control. I conducted standardized sampling to monitor long-term pallid sturgeon population trends and long-term fish community trends. I have also lead electofishing crews in the Chicago Area Waterway System (CAWS) to monitor for Asian carp presence, and assisted with environmental DNA (eDNA) sampling in the CAWS. I assisted the USFWS-Carterville office with reviewing Dual Frequency Identification Sonar (DIDSON) videos. I was responsible for writing annual reports, paper datasheet quality control, analyzing long-term datasets and maintaining multiple databases (Microsoft Access) for the Pallid Sturgeon Population Assessment Program. I participated in and assisted in coordinating multiple outreach and education events throughout the Columbia, Missouri area. I supervised and trained seasonal employees on Pallid Sturgeon Monitoring Protocols. I assisted with the development of new station projects, and performed data analysis as needs arose. I presented results of such analyses in the form of technical presentations to stakeholder groups and peer groups at professional meetings.

Graduate Research Assistant (M.S.) June 2009 – November 2011

South Dakota State University, Brookings, SD.

I conducted research on pallid sturgeon physiology, including the effects of diet and temperature regime on growth, food consumption and metabolism. I maintained the U.S.G.S. cooperative research unit wet lab at SDSU, where we housed 48 federally endangered pallid sturgeon and supervised and trained technicians. I presented the results of my research in the form of posters and technical presentations.

Fisheries technician April - June 2009

Wisconsin Department of Natural Resources, Oshkosh, WI

I assisted with the spring lake sturgeon spawning assessment, including capturing and PIT tagging large spawning adults. I also embedded, sectioned, and aged otoliths for a Lake Winnebago System-wide research project.

Assistant Laboratory Manager September 2004 – May 2009

Aquatic Biomonitoring Laboratory, UWSP, Stevens Point, WI

My primary job duties were to prepare slide mounts of Chironomidae larvae for identification, and sorting biotic index samples. I also prepared and updated laboratory protocols, tested new protocols, trained new personnel on laboratory protocols and participated in hiring and retention decisions. I identified aquatic insects to family level, assisted in quality control and assurance checks of sorted samples, and performed data transcription of sample information to proper log sheets.

Aquaculture Laboratory Assistant January - May 2009

Aquaculture Laboratory, UWSP, Stevens Point, WI

I assisted in designing and conducting a compensatory growth study using juvenile yellow perch. Juvenile yellow perch were reared on three different feeding regimes, and growth was measured weekly. Duties included collecting and analyzing growth data, and general maintenance of aquaculture facilities.

Fisheries Genetics Researcher September 2008 – May 2009

Molecular Conservation Genetics Laboratory, UWSP, Stevens Point, WI

I worked as an independent researcher identifying molecular markers for hybrid detection in *Morone* species. Job duties included DNA extraction from fin clips, polymerase chain reaction, microsatellite genotyping, data analysis and primer optimization.

Student Ambassador May – August 2008

Nyumbani Village, Kitui, Kenya

Through the Global Environmental Management program at UWSP, I was selected to travel to Nyumbani Village, Kenya to assist in managing an organic farm. I created crop rotation, harvest, and planting schedules to maximize yields and reduce pest problems. Our overarching objective was to produce a surplus of food for the villagers to sell in organic markets to bring income into the village. This position required collaboration with many different village officials, residents and farm laborers.

Fish Pathology Researcher September 2007 – May 2009

Histology Laboratory, UWSP, Stevens Point, WI

I worked as an independent researcher, characterizing the pathology of "white-tail syndrome" in cultured yellow perch using histological methods including preparing and embedding specimens, sectioning specimens, reagent preparation, microtome sectioning and examination of specimens using light microscopy. As part of a two person team, I worked with a number of private aquaculturists in central Wisconsin to collect specimens and determine a cause for this uncategorized disease.

Hydrologic Technician May – August 2007

May-July 2006

Chequamegon-Nicolet National Forest, USDA Forest Service, Park Falls, WI

I conducted road-stream crossing inventories and fish passage surveys across the Chequamegon-Nicolet National Forest. I also assisted with hook and line surveys, remnant logging dam surveys, and stream crossing construction. I managed road-stream crossing data in Microsoft excel and access and used the program FishXing to identify possible fish passage barriers throughout the forest.

Fisheries Technician/Intern May – August 2005

Utah Division of Wildlife Resources, Vernal, UT

I performed extensive backpack electro-fishing in the Uinta Mountains. We used depletion-removal techniques to remove invasive brook trout and hybrid cutthroat trout to restore native and genetically pure Colorado River strain cutthroat trout. Other duties included riparian habitat improvements (i.e. - removing invasive plant species), trout egg collection and fertilization and various maintenance on stream sampling equipment.

Professional Affiliation

2004 – Present	American Fisheries Society National Chapter (2009-Present) Fisheries Management Section (2013- 2018) Education Section (2010-2018) Genetics Section (2009-2018) Dakota Chapter (2009-present) South Dakota State University Student Sub-unit (2009-2011) Wisconsin Chapter (2008-2012) University of Wisconsin-Stevens Point Student Sub-unit (2004-2009)
2012 - 2018	North American Sturgeon and Paddlefish Society
2018-Present	The Wildlife Society (National Chapter) South Dakota Chapter
2018-Present	Association of State Wetland Managers

Professional Service

Energy Committee Chair 2021-Present
South Dakota Chapter of the Wildlife Society

Wind Wildlife Working Group Member 2021-Present
Association of Fish and Wildlife Agencies

Energy and Wildlife Policy Committee Member 2020-Present
Association of Fish and Wildlife Agencies

Wind Energy Work Group Chair July 2020-present
Midwest Landscape Initiative
Midwest Association of Fish and Wildlife Agencies

Mentor 2020-Present
The Wildlife Society-South Dakota Chapter

Wind Energy Work Group Member 2019-Present
Midwest Landscape Initiative
Midwest Association of Fish and Wildlife Agencies

Technical Committee Member 2019-Present
Midwest Landscape Initiative
Midwest Association of Fish and Wildlife Agencies

Crucial Habitat Assessment Tool Technical Committee 2019-Present
Western Association of Fish and Wildlife Agencies

Crucial Habitat Assessment Tool Policy Committee 2019-Present
Western Association of Fish and Wildlife Agencies

AFS Professional Certification Committee 2017-2020
American Fisheries Society

Board Member at Large 2017-2018
North American Sturgeon and Paddlefish Society

Website Manager 2015-2018
Dakota Chapter AFS

Secretary 2015-2018
North Central Division AFS Walleye Technical Committee

Poster Judge February 2015
Annual Meeting, Dakota Chapter AFS, Bismarck, ND

Young Professional Committee Member 2013-2018
Fisheries Management Section
Committee Chair 2013-2014
North Central Division AFS Walleye Technical Committee

Peer Reviewer 2009-Present
Fisheries Management and Ecology and Transactions of the American Fisheries Society, Prairie Naturalist.

Publications

Gravenhof, D.A., **H.A. Morey,** C.W. Goble, M.J. Fincel and J.L. Davis. 2020. Short term survival and tag retention of gizzard shad implanted with dummy transmitters. Journal of Fisheries Sciences 14:001-007.

Fincel, M., N. Kludt, **H. Meyer**, M. Weber and C. Longhenry. 2019. Long-term data suggest potential interactions of introduced walleye and smallmouth bass on native sauger in four Missouri River impoundments. Journal of Fish and Wildlife Management. 10:602-618.

Maahs, B.C., **H.A. Meyer**, N.D. Huysman, J.M. Voorhees and M.E. Barnes. 2018. Mortality of landlocked fall chinook salmon broodstock after electrofishing or ascending a fish ladder. Jacobs Journal of Aquaculture and Research 3:1-3.

Huysman N., J.M. Vorhees, **H. Meyer**, E. Krebs and M.E. Barnes. 2018. Chracteristics of landlocked fall chinook salmon producing either viable or completely non-viable eggs. International Journal of Fisheries and Aquatic Sciences 6: 86-88.

Reese, S.E., A.J. Long, H.A. **Meyer** and M.E. Barnes. 2017. Landlocked fall chinook salmon sperm motility after short term milt storage. International Journal of Innovative Studies in Aquatic Biology and Fisheries, 3:9-13.

Meyer, HA, SR Chipps, BDS Graeb, and RA Klumb. 2017. Growth, food consumption and energy status of age-0 pallid sturgeon (*Scaphirhynchus albus*) fed a commercial or invertebrate diet. Journal of Fish and Wildlife Management.

Kaemingk, MA, DJ Dembkowski, **HA Meyer**, and LM Gigliotti. 2013. Some insight for undergraduates seeking an advanced degree in wildlife and fisheries sciences. Fisheries.

Training Received

Reflections on Agency Management Association of Fish and Wildlife Agencies	March 2021
Adaptive Leadership Principles Association of Fish and Wildlife Agencies	July 2020
Mitigation Banking and In-Lieu Fee Program Interagency Review Team Training The Conservation Fund	June 2019
Writing and reviewing NEPA documents Shipley Group	March 2019
Overview of the NEPA Process Shipley Group	January 2019
Nationwide Permits Wetland Training Institute	January 2019
First Aid, Adult CPR Red Cross	August 2018
S.C.U.B.A.-Openwater Diving SSI	October 2017
Program MARK Workshop Iowa State University	July 2017
Sturgeon and Paddlefish tagging and age estimation North American Sturgeon and Paddlefish Society	October 2015

ATV Operation Training South Dakota Game, Fish and Parks	September 2014
R for Fisheries Scientists Michigan State University/American Fisheries Society	August 2013
Electrofishing Safety (FWS-CSP2202-OLT)	June 2012
Sturgeon Osmoregulation Workshop North American Sturgeon Conservation Society	July 2011
National Safety Council Defensive Driving Course Department of the Interior	January 2011
Motorboat Operators Certification Course Department of the Interior	May 2010