# Longnose Sucker (*Catostomus catostomus*) Predicted Suitable Habitat Modeling

Distribution Status: Resident Year Round

State Rank: <u>S5</u> Global Rank: <u>G5</u>

### **Modeling Overview**

Data Source Last Updated: June 3, 2022 Model Produced On: August 18, 2022



# **Deductive Modeling**

#### **Modeling Process, Outputs, and Suggested Uses**

This is a simple rule-based model using stream reaches and standing waterbodies where the species presence has been confirmed through direct capture or where they are believed to be present based on the professional judgement of a fisheries biologist due to confirmed presence in adjacent areas. See Montana fish distribution, survey, stocking, and genetic testing information from the Montana Department of Fish, Wildlife, and Parks at: <a href="http://gis-mtfwp.opendata.arcgis.com/">http://gis-mtfwp.opendata.arcgis.com/</a> For compatibility with other predictive distribution models the Montana Natural Heritage Program produces, we have intersected this fish presence information with a uniform grid of hexagons that have been used for planning efforts across the western United States (e.g. Western Association of Fish and Wildlife Agencies - <a href="Crucial Habitat Assessment Tool">Crucial Habitat Assessment Tool</a>). Each hexagon is one square mile in area and approximately one kilometer in length on each side. Any hexagon that intersected a waterbody evaluated as having a species present was classified as suitable habitat; native or introduced. Model outputs are not evaluated and we suggest they be used to generate potential lists of species that may occupy water bodies present within each hexagon for the purposes of landscape-level planning. Model outputs should not be used in place of on-the-ground surveys for species, and wildlife and land management agency biologists should be consulted about the value of using model output to guide habitat management decisions for regional planning efforts or local projects. See <a href="Suggested Contacts for Natural Resource Agencies">Suggested Contacts for Natural Resource Agencies</a> attached to this document.

#### **Deductive Model Output:**

http://mtnhp.org/models/files/Longnose Sucker AFCJC02030 20220818 modelHex.lpk

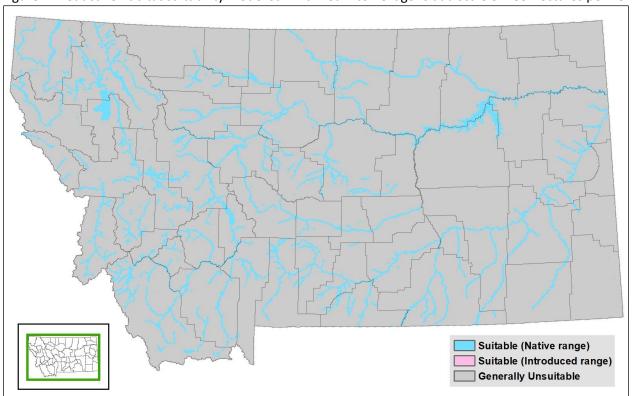
**Suggested Citation:** Montana Natural Heritage Program. 2022. Longnose Sucker (*Catostomus catostomus*) predicted suitable habitat models developed on August 18, 2022. Montana Natural Heritage Program, Helena, MT. 5 pp.

Montana Field Guide Species Account: http://fieldguide.mt.gov/speciesDetail.aspx?elcode=AFCJC02030

Species Model Page: http://mtnhp.org/models/?elcode=AFCJC02030

# **Deductive Model Map Output**

Figure 1. Deductive habitat suitability model summarized into hexagons at a scale of 259 hectares per hexagon.



## **Suggested Contacts for Natural Resource Management Agencies**

As required by Montana statute (MCA 90-15), the Montana Natural Heritage Program works with state, federal, tribal, nongovernmental organizations, and private partners to ensure that the latest animal and plant distribution and status information is incorporated into our databases so that it can be used to inform a variety of permitting and planning processes and management decisions. We encourage you to contact state, federal, and tribal resource management agencies in the area where your project is located and review the permitting overviews by the Montana Department of Environmental Quality, the Montana Department of Natural Resources and Conservation and the Index of Environmental Permits for Montana for guidelines relevant to your efforts. In particular, we encourage you to contact the Montana Department of Fish, Wildlife, and Parks for the latest data and management information regarding hunted and high-profile management species and to use the U.S. Fish and Wildlife Service's Information Planning and Consultation (IPAC) website regarding U.S. Endangered Species Act listed Threatened, Endangered, or Candidate species.

For your convenience, we have compiled a list of relevant agency contacts and links below; check our website for updates.

#### Montana Fish, Wildlife, and Parks

Fish Species	Zachary Shattuck zshattuck@mt.gov (406) 444-1231			
	or			
	Eric Roberts eroberts@mt.gov (406) 444-5334			
American Bison Black-footed Ferret Black-tailed Prairie Dog Bald Eagle Golden Eagle Common Loon Least Tern Piping Plover	Kristina Smucker <u>ksmucker@mt.gov</u> (406) 444-5209			
Whooping Crane Grizzly Bear Greater Sage Grouse Trumpeter Swan Big Game Upland Game Birds Furbearers	Brian Wakeling <u>Brian.Wakeling@mt.gov</u> (406) 444-3940			
Managed Terrestrial Game and Nongame Animal Data	Smith Wells – MFWP Data Analyst smith.wells@mt.gov (406) 444-3759			
Fisheries Data	Ryan Alger – MFWP Data Analyst <u>ryan.alger@mt.gov</u> (406) 444-5365			
Wildlife and Fisheries Scientific Collector's Permits	https://fwp.mt.gov/buyandapply/commercialwildlifeandscientificpermits/scientific Kammi McClain for Wildlife Kammi.McClain@mt.gov (406) 444-2612 Kim Wedde for Fisheries kim.wedde@mt.gov (406) 444-5594			
Fish and Wildlife Recommendations for Subdivision Development	Charlie Sperry <u>CSperry@mt.gov</u> (406) 444-3888 See also: <u>https://fwp.mt.gov/conservation/living-with-wildlife/subdivision-recommendations</u>			
Regional Contacts  1 4 6 7	Region 1 -       Kalispell       (406) 752-5501       fwprg12@mt.gov         Region 2 -       Missoula       (406) 542-5500       fwprg22@mt.gov         Region 3 -       Bozeman       (406) 577-7900       fwprg3@mt.gov         Region 4 -       Great Falls       (406) 454-5840       fwprg42@mt.gov         Region 5 -       Billings       (406) 247-2940       fwprg52@mt.gov         Region 6 -       Glasgow       (406) 228-3700       fwprg62@mt.gov         Region 7 -       Miles City       (406) 234-0900       fwprg72@mt.gov			

#### **Montana Department of Agriculture**

General Contact Information: https://agr.mt.gov/About/Office-Locations/Office-Locations-and-Field-Offices

Noxious Weeds: <a href="https://agr.mt.gov/Noxious-Weeds">https://agr.mt.gov/Noxious-Weeds</a>

#### **Montana Department of Environmental Quality**

Permitting and Operator Assistance for all Environmental Permits: https://deq.mt.gov/Permitting

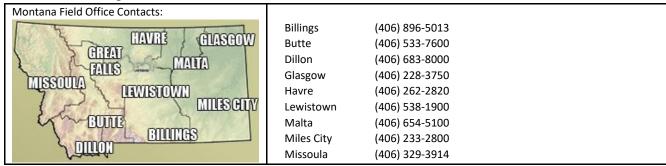
#### **Montana Department of Natural Resources and Conservation**

Overview of, and contacts for, licenses and permits for state lands, water, and forested lands: http://dnrc.mt.gov/licenses-and-permits

Stream Permitting (310 permits) and an overview of various water and stream related permits (e.g., Stream Protection Act 124, Federal Clean Water Act 404, Federal Rivers and Harbors Act Section 10, Short-term Water Quality Standard for Turbidity 318 Authorization, etc.). http://dnrc.mt.gov/divisions/cardd/conservation-districts/the-310-law

Flood and Fire Resources: <a href="http://dnrc.mt.gov/flood-and-fire">http://dnrc.mt.gov/flood-and-fire</a>

#### **Bureau of Land Management**



#### **United States Army Corps of Engineers**

Montana Regulatory Office for federal permits related to construction in water and wetlands (406) 441-1375 <a href="https://www.nwo.usace.army.mil/Missions/Regulatory-Program/Montana/">https://www.nwo.usace.army.mil/Missions/Regulatory-Program/Montana/</a>

#### **United States Environmental Protection Agency**

Environmental information, notices, permitting, and contacts <a href="https://www.epa.gov/mt">https://www.epa.gov/mt</a> Gateway to state resource locators <a href="https://www.envcap.org/srl/index.php">https://www.envcap.org/srl/index.php</a>

#### United States Fish and Wildlife Service

Information Planning and Conservation (IPAC) website: <a href="https://ecos.fws.gov/ipac/">https://ecos.fws.gov/ipac/</a>
Montana Ecological Services Field Office (406) 449-5225 <a href="https://www.fws.gov/montanafieldoffice/">https://www.fws.gov/montanafieldoffice/</a>

#### **United States Forest Service**

Regional Office Contacts – Missoula			
Wildlife Program Leader	Tammy Fletcher	tammy.fletcher2@usda.gov	(406) 329-3086
Wildlife Ecologist	Cara Staab	cara.staab@usda.gov	(406) 329-3677
Fish Program Leader	Scott Spaulding	scott.spaulding@usda.gov	(406) 329-3287
Fish Ecologist	Cameron Thomas	cameron.thomas@usda.gov	(406) 329-3087
TES Program	Lydia Allen	lydia.allen@usda.gov	(406) 329-3558
Interagency Grizzly Bear Coordinator	Scott Jackson	scott.jackson@usda.gov	(406) 329-3664
Acting Regional Botanist	Amanda Hendrix	amanda.hendrix@usda.gov	(651) 447-3016
Regional Vegetation Ecologist	Mary Manning	marry.manning@usda.gov	(406) 329-3304
Invasive Species Program Manager	Michelle Cox	michelle.cox2@usda.gov	(406) 329-3669

#### **Tribal Nations**



<u>Assiniboine & Gros Ventre Tribes – Fort Belknap Reservation</u>

<u>Assiniboine & Sioux Tribes – Fort Peck Reservation</u>

Blackfeet Tribe - Blackfeet Reservation

Chippewa Creek Tribe - Rocky Boy's Reservation

**Crow Tribe - Crow Reservation** 

Little Shell Chippewa Tribe

Northern Cheyenne Tribe - Northern Cheyenne Reservation

Salish & Kootenai Tribes - Flathead Reservation

#### Natural Heritage Programs and Conservation Data Centres in Surrounding States and Provinces

Alberta Conservation Information Management System

**British Columbia Conservation Data Centre** 

Idaho Natural Heritage Program

North Dakota Natural Heritage Program

Saskatchewan Conservation Data Centre

South Dakota Natural Heritage Program

**Wyoming Natural Diversity Database** 

#### **Invasive Species Management Contacts and Information**

#### **Aquatic Invasive Species**

Montana Fish, Wildlife, and Parks Aquatic Invasive Species staff

Montana Department of Natural Resources and Conservation's Aquatic Invasive Species Grant Program

Montana Invasive Species Council (MISC)

<u>Upper Columbia Conservation Commission (UC3)</u>

#### **Noxious Weeds**

Montana Weed Control Association Contacts Webpage

Montana Biological Weed Control Coordination Project

Montana Department of Agriculture - Noxious Weeds

**Montana Weed Control Association** 

Montana Fish, Wildlife, and Parks - Noxious Weeds

Montana State University Integrated Pest Management Extension

**Integrated Noxious Weed Management after Wildfires** 

Fire Management and Invasive Plants