# Brown Trout (Salmo trutta) Predicted Suitable Habitat Modeling

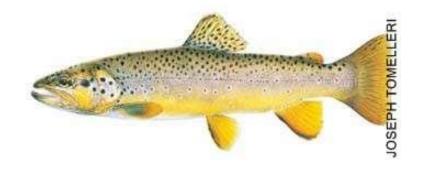
**Distribution Status: Resident Year Round** 

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

### **Modeling Overview**

Data Source Last Updated: August 23, 2018

Model Produced On: July 11, 2019



# **Deductive Modeling**

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

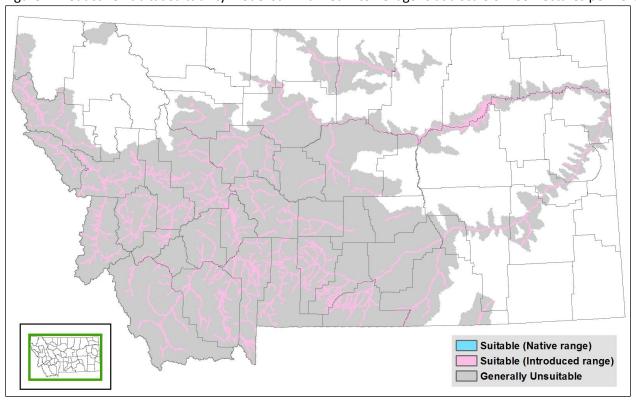
This is a simple rule-based model using stream reaches and standing waterbodies where the species presence has been confirmed through direct capture or where they are believed to be present based on the professional judgement of a fisheries biologist due to confirmed presence in adjacent areas. See Montana 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.

**Suggested Citation:** Montana Natural Heritage Program. 2019. Brown Trout (*Salmo trutta*) predicted suitable habitat models developed on July 11, 2019. Montana Natural Heritage Program, Helena, MT. 4 pp.

Montana Field Guide Species Account: http://fieldguide.mt.gov/speciesDetail.aspx?elcode=AFCHA04070

# **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 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 planning processes and management decisions. In addition to the information you receive from us, we encourage you to contact state, federal, and tribal resource management agencies in the area where your project is located. They may have additional data or management 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 Conservation (IPAC) website <a href="http://ecos.fws.gov/ipac/">http://ecos.fws.gov/ipac/</a> 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:

#### Montana Fish, Wildlife, and Parks

Fish Species	Zachary Shattuck zshattuck@mt.gov (406) 444-1231		
	or		
	Lee Nelson <u>leenelson@mt.gov</u> (406) 444-2447		
American Bison			
Black-footed Ferret	Lauri Hanauska-Brown <u>LHanauska-Brown@mt.gov</u> (406) 444-5209		
Black-tailed Prairie Dog			
Bald Eagle			
Golden Eagle			
Common Loon			
Least Tern			
Piping Plover			
Whooping Crane			
Grizzly Bear			
Greater Sage Grouse	John Vore <u>ivore@mt.gov</u> (406) 444-5209		
Trumpeter Swan			
Big Game			
Upland Game Birds			
Furbearers			
Managed Terrestrial Game and	Smith Wells – MFWP Data Analyst smith.wells@mt.gov (406) 444-3759		
Nongame Animal Data			
Fisheries Data	Adam Petersen – MFWP Fish Data Manager apetersen@mt.gov (406) 444-1275		
Wildlife and Fisheries Scientific	http://fwp.mt.gov/doingBusiness/licenses/scientificWildlife/		
Collector's Permits	Karen Speeg for Wildlife kspeeg@mt.gov (406) 444-2612		
	Kim Wedde for Fisheries kim.wedde@mt.gov (406) 444-5594		
Fish and Wildlife Recommendations	Renee Lemon RLemon@mt.gov (406) 444-3738) See also:		
for Subdivision Development			
	http://fwp.mt.gov/fishAndWildlife/livingWithWildlife/buildingWithWildlife/subdivisionRecommendations/		
Regional Contacts	Region 1 (Kalispell) (406) 752-5501		
1 4 6 7	Region 2 (Missoula) (406) 542-5500		
	Region 3 (Bozeman) (406) 994-4042		
	Region 4 (Great Falls) (406) 454-5840		
	Region 5 (Billings) (406) 247-2940		
Menny A	Region 7 (Miles City) (406) 234-0900		

#### U.S. Fish and Wildlife Service

Information Planning and Conservation (IPAC) website: <a href="http://ecos.fws.gov/ipac/">http://ecos.fws.gov/ipac/</a>

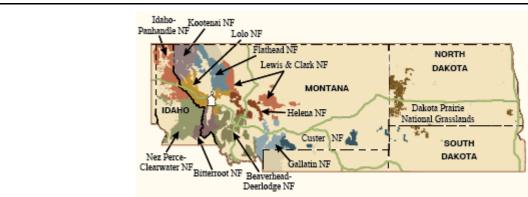
Montana Ecological Services Field Office: http://www.fws.gov/montanafieldoffice/ (406) 449-5225

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



Billings: (406) 896-5013 Butte: (406) 533-7600 Dillon: (406) 683-8000 Glasgow: (406) 228-3750 Havre: (406) 262-2820 Lewistown: (406) 538-1900 Malta: (406) 654-5100 Miles City: (406) 233-2800 Missoula: (406) 329-3914

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



#### Regional Office – Missoula, Montana Contacts

		,	
Wildlife Program Leader:	Tammy Fletcher	tammyfletcher@fs.fed.us	(406) 329-3588
Wildlife Ecologist:	Cara Staab	cstaab@fs.fed.us	(406) 329-3677
Fish Program Leader:	Scott Spaulding	scottspaulding@fs.fed.us	(406) 329-3287
Fish Ecologist:	Cameron Thomas	cathomas@fs.fed.us	(406) 329-3087
TES Program:	Lydia Allen	<u>Irallen@fs.fed.us</u>	(406) 329-3558
Interagency Grizzly Bear Coordinator:	Scott Jackson	sjackson03@fs.fed.us	(406) 329-3664
Regional Botanist:	Steve Shelly	sshelly@fs.fed.us	(406) 329-3041

#### **Tribal Nations**



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

Assiniboine & Sioux Tribes - Fort Peck Reservation

Blackfeet Tribe - Blackfeet Reservation

Chippewa Creek Tribe - Rocky Boy's Reservation

<u>Crow Tribe – Crow Reservation</u>

Little Shell Chippewa Tribe

Northern Cheyenne Tribe - Northern Cheyenne Reservation

Salish & Kootenai Tribes - Flathead Reservation