Taylor N. Preul-Stimetz
Northern Lakes Fisheries Research Scientist
Northern Highland Fishery Research Area
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EDUCATION

M.S. Fisheries Management | Montana State University 2022
B.S. Biology-Ecology | Northern Michigan University 2017
Natural Resources General Credits | Nicolet Area Technical College 2013-2014
Rotary Youth Exchange Student | Kouvolan yhteislyseo lukio- Finland 2011-2012

PROFESSIONAL EXPERIENCE

Northern Lakes Fisheries Research Scientist *2025-present*
Escanaba Lake Research Station, WI Department of Natural Resources

Research Analyst and Scientist *2024-2025*
Escanaba Lake Research Station, WI Department of Natural Resources

Fish Biologist- Advanced *2023-2024*
Escanaba Lake Research Station, WI Department of Natural Resources

Fish Biologist *2022-2023*
Escanaba Lake Research Station, WI Department of Natural Resources

Metalsmithing Fabrication & Store Manager *2020-2022*
Hattie Rex, Bozeman, MT

Graduate Research Assistant *2020-2022*
Montana State University, Bozeman, MT

Graduate Teaching Assistant; Writing Center *2020-2021*
Montana State University, Bozeman, MT

Graduate Teaching Assistant; Biology *2018-2020*
Montana State University, Bozeman, MT

Laboratory/Research Manager *2017-2018*
Montana State University, Bozeman, MT

Fisheries Technician-Adv *2017*
National Park Service, Yellowstone National Park, WY

Native Trout Conservation Intern *2016*
National Park Service, Yellowstone National Park, WY

Water Quality and AIS Intern *2015*
National Park Service, Sleeping Bear Dunes National Lakeshore, MI

Conservation Intern (Crew Leader) *2015*
Marquette Conservation District, Marquette, MI

Watercraft Inspector- Clean Boats Clean Waters *2014*
Metonga Lake Association, Crandon WI

Fisheries Technician *2006-present*
Sokaogon Chippewa Community, Mole Lake, WI

RESEARCH EXPERIENCE

In-progress Research Projects

- Test and validate different gears to create a standardized sampling method for forage fish across a variety of north temperate lake habitats. Assess relative abundance and length distribution of forage and test for seasonal availability.
- Quantify the effects of beaver dams on stream morphology and fish communities relative to streams with no beaver activity across Wisconsin.
- Test efficacy of Hester Dendy macroinvertebrate traps deployed on tree drops in north temperate lakes.

M.Sc. Thesis and Research **2018-2022**

Relating the reproductive performance of westslope cutthroat trout to trait specialization to screen for artificial selection in a conservation hatchery

Testing the application of the Distell Fatmeter to measure whole-body energy of juvenile *Oncorhynchus clarkii lewisi*

The validation of blood cortisol and metabolites to assess the primary and secondary stress response of rainbow trout (*Oncorhynchus mykiss*)

The validation of non-lethal aging methods for use in juvenile *Oncorhynchus clarkii lewisi*

B.Sc. Research **2016-2017**

Validation of brook trout (*Salvelinus fontinalis)* metabolic rate vs. time of day

Predator avoidance of bluegill (*Lepomis macrochirus)* at elevated temperatures

PUBLICATIONS

Preul-Stimetz, T.N., Renik, K., Shaw, S.L. Sass, G.G. 2025. Identifying critical periods of recovery in a highly exploited walleye population. *Transactions of the American Fisheries Society.* In review.

Preul-Stimetz, T.N., Smith, C.D., Shaw, S.L., Feiner, Z.S., Sass, G.G. and Reed, J.R. 2025 Preservation in formalin variably affects egg size parameters of Walleye. *The Journal of Wildlife Management*, p.e70095.

Preul-Stimetz, T.N., Shaw, S.L., Feiner, Z.S. and Sass, G.G., 2024. Evaluating the potential importance of individual identity, maternal traits, and environment as predictors of egg characteristics in walleye Sander vitreus. *Fisheries Research*, *278*, p.107107.

Preul-Stimetz, T.N. Shaw, S.L. Sass, G.G. 2024. Whole-lake coarse woody habitat addition facilitates ecosystem regime restructuring in an oligotrophic lake. *Lake and Reservoir Management.* 1-18. https://doi.org/10.1080/10402381.2024.2401792

IN PREPARATION

Preul-Stimetz, T.N., Shaw, S.L. Sass, G.G. The influence of a trophy harvest regulation on a Smallmouth Bass populations. *In preparation.*

Stoll, W., Mrnak, J.T., **Preul-Stimetz, T.N.,** Shaw, S.L. Sass, G.G. Coarse woody habitat minimally influences isotopic signatures of a north-temperate lake fish community. *In preparation*

Renik, K.A., Shaw, S.L., **Preul-Stimetz, T.N.,** Sass, G.G. Comparison of methods for calculating exploitation in walleye populations of Northern Wisconsin. *In preparation.*

Von Bargen, D., **Preul-Stimetz, T.N.,** Wilkinson, M., Feiner, Z.F., Jensen, O., Sass, G.G. Influences of angler technology on fish catchability and "harvestability" in Escanaba Lake, Wisconsin over time. *In preparation.*
Vanderbloemen, S., Hoffman, N., **Preul-Stimetz, T.N**., Mitro, M. Validating the use of brook trout maxilla as a non-lethal form of accurate age estimation. *In preparation.*
Eberhard, C.E., **Preul-Stimetz, T.N.,** Shaw, S.L., Feiner, Z., Sass, G.G. Abiotic and biotic factors driving year class strength of Yellow Perch (*Perca flavecens). In preparation.*
Thurin, K., Shaw, S.L., Davis, R., **Preul-Stimetz, T.N.** Machine learning and automation of fish aging estimation using artificial intelligence. *In preparation.*

PRESENTATIONS

Sass, G.G., Shaw,S.L., **Preul-Stimetz, T.N.** Status and trends of black bass fisheries in Wisconsin: regulation (in)effectiveness? (National AFS 2025)

Preul-Stimetz, T.N., Renik, K.M., Shaw, S.L., Sass., G.G. Identifying critical periods of recovery in a highly exploited walleye population (WI AFS 2025)

Stoll, W., Mrnak, J.T., **Preul-Stimetz, T.N**., Shaw, S.L., Sass., G.G. Coarse woody habitat minimally influences isotopic signatures of a north-temperate lake fish community (WI AFS 2025)

Eberhard, C, **Preul-Stimetz, T.N.,** Feiner, Z.F., Shaw, S.L. Ovulation status does not affect the egg size of walleye (*Sander vitreus)* (WI AFS 2025)

Von Bargen, D., **Preul-Stimetz, T.N.,** Wilkinson, M., Feiner, Z.F., Jensen, O., Sass, G.G. Has improved angler technology influenced fish catchability and "harvestability" in Escanaba Lake, Wisconsin over time? (WI AFS 2025)

Preul-Stimetz, T.N. Shaw, S.L. Feiner, Z.S. Sass., G.G. The relative importance of individual identity, maternal traits, and environment as predictors of egg characteristics in walleye (*Sander vitreus*) (Midwest Fish and Wildlife, 2024)

Preul-Stimetz, T.N. Shaw, S.L. Feiner, Z.S. Sass., G.G. Individual identity outweighs body size, condition, and environment, in determining egg size of walleye (Sander vitreus) (WI AFS, 2025)

Preul-Stimetz, T.N. The effects of whole-lake coarse woody habitat addition on aquatic ecosystems (Science in the Northwoods, 2024)

Preul-Stimetz, T.N., Shaw, S.L., Feiner, Z.S., Sass., G.G. Investigating relationships among walleye (*Sander vitreus)* egg quality, maternal traits, and environmental factors. (WI AFS 2023)

The Fisheries Podcast: Accounting for Cutthroat Trout Physiology in a Conservation Hatchery (2022)

Preul, T, N., Bourret, S, L., Verhille, C, E., Validation of the use of behavioral assessments in identifying wild origin westslope cutthroat trout vulnerable to artificial selection at Sekokini Springs Hatchery, MT. (MT AFS, 2021)

Noble, B., **Preul, T.N**., Verhille, C., Investigating metabolomics as a means of quantifying the primary stress response in Rainbow Trout (*Oncorhynchus mykiss*) (MT AFS, 2020)

Preul, T, N., Fish personalities and the pace of life (Honors Lecture, 2020)

Preul, T, N., Bourret, S, L., Verhille, C, E., Historical Analysis Reveals Limitations of Traditional Performance Metrics in Assessing *Oncorhynchus clarkii lewisi"*. (MT AFS, 2019)

Today's Voices of Conservation Science Podcast: Conservation Propagation of Westslope Cutthroat Trout (2019)

Preul, T, N. Assessing inter-individual variation in phenotypic profile of wild-captured westslope cutthroat trout at Sekokini Springs Hatchery (Whiteboard Talk, Ecology Department Seminar, 2019)

Preul, T, N. Ladies choice: an alternative theory of evolution (6- Minutes of Science, Ecology Department Seminar, 2019)

Lake Trout Kill Elk: Yellowstone Fisheries Public Education Sessions (2017)

Preul, T.N., Zimmerman, G., Majinska, Maxwell. Validation of brook trout metabolic rate at different times of day (2017)

AWARDS & GRANTS

Midwest Fish and Wildlife Travel Grant (650$) **2024**
North Central Division American Fisheries Society

Diversity and Inclusion Mentorship Award (500$) **2021-2022**
Western Division American Fisheries Society; D&I Committee

SITKA Ecosystem Grant (1000$) **2021**
SITKA Gear Co.

Jim Belsey Graduate Student Award (1000$) **2019**
Montana State University || Bozeman, MT

FELLOWSHIPS

STEM Storytellers; National Science Foundation **2019- 2020**
Montana State University || Bozeman, MT

Northwoods Environmental Scholar Program **2012-2013**
U.S. Forest Service || Rhinelander, WI

SERVICE & SOCIETIES

Member; National Ski Patrol **2023-pres.**

Trail Crew and First Responder **2022-pres.**
Lakeland Area Mountain Bike Organization || Woodruff, WI

Member; North American Lake Management Society **2024-pres.**

Mentor; Hutton Junior Scholars Program **2019-pres.**
American Fisheries Society

Member; Diversity and Inclusion Committee **2020-2022**
Western Division of AFS

Member; Women in Science and Engineering **2019-2022**
Montana State University, Bozeman MT

Member; American Association for the Advancement of Science

Sub-Unit President, AFS **2020-2021**
Montana State University || Bozeman, MT

Vice President, Three Minute Thesis Competition **2019-2020**
Montana State University || Bozeman, MT

Sub-Unit Communication Director, AFS **2019-2020**
Montana State University || Bozeman, MT
Director of External Affairs; Associated Students of NMU **2015- 2017**
Northern Michigan University || Marquette, MI
Member; American Fisheries Society (National) **2016-pres.**

MENTORING

DNR Technician Research Supervisor | 2022-pres.
Evan Weister (23'), Elise Bass (24'), Al Jorgenson (23'), Matt Bartz (23-24'), Christina Eberhard (24'-pres.), Max Monfort (24'), Dylan Von Bargen (24'-pres.), Kelsey Thurin (25'-pres.), Kyle Kamm (25'), Dylan Wendricks (25'), Willem Stoll (24-25')

Graduate Research Mentor | 2018-2022
Benjamin Noble (19-21'), Joshua Heishmann (19-21'), Carl Young (19-21'), Maggie LaRue (18-20'), Gavin Demorest (21-22'), Kayleigh Frazier (19-21'), Sierra Quinn (21')

CERTIFICATIONS

Adult First Aid and CPR; Health and Safety Institute **2025**
Boulder Junction, WI
Maxi-Boom Principal Operator; WI DNR **2023**
Sayner, WI
Beginner Chainsaw Operator; WI DNR **2023**
Boulder Junction, WI
Wilderness First Aid; SOLO Wilderness Medical School **2021**
Bozeman, MT
Electroshocking Certification; Montana Fish Wildlife and Parks **2018**
Great Falls, MT
MOCC - USFWS **2017**
Yellowstone National Park, WY

PROFESSIONAL NETWORKS

Research Gate Profile: https://www.researchgate.net/profile/Taylor_Preul
LinkedIn Profile: https://www.linkedin.com/in/taylor-preul-3b21701a2/

PROFESSIONAL REFERENCES

Greg Sass	**Samuel Bourret**	**Brian Ertel**
Fisheries Research Team Leader	Fisheries Biologist	Fisheries Biologist
Wisconsin DNR	Montana FWP	Yellowstone National Park
(715) 891-1875	(406) 751- 4556	(406) 223- 6049
gregory.sass@wisconsin.gov	SBourret@mt.gov	brian.ertel@nps.gov