# Curriculum Vitae Christopher W. Hoagstrom

Weber State University Department of Zoology1 415 Edvalson, Dept. 2505 Ogden, Utah 84408-2505 Phone: (801) 626-7486

ChristopherHoagstrom@weber.edu

**Present Position:** Professor, Zoology, Weber State University

Education:	D:-1	PhD	2006
South Dakota State University	Biology	PnD	2006
Sul Ross State University	Biology	MS	1994
Ohio Northern University	Biology	BS	1992
A			
Academic experience:	D C		2010
Weber State University	Professor		2019 – present
Weber State University	Professor & Department Chair		2017 - 2019
Weber State University	Associate Professor & Department Chair		2012 – 2017
Weber State University	Assistant Professor		2006 - 2012
South Dakota State University	Graduate Research Assistant		2003 - 2006
Sul Ross State University	Graduate Research Assistant		1992 - 1994
Ohio Northern University	Undergraduate Teaching Assistant		1991
Relevant employment (non-academic): U.S. Fish & Wildlife Service, New Mexico Fishery Resources Office	Biological Techn Biologist	ician - Fishery	1993 – 2002
U.S. Geological Survey, Water Resources Division, Columbus, Ohio	Biological Technician		1992
U.S. Department of Agriculture, Animal Plant Health Inspection Service, Plant Protection and Quarantine, Toledo, Ohio	Technician		1991
U.S. National Park Service, Theodore Roosevelt National Park	Student Conservation Association Volunteer		1990

#### Honors

- Weber State University, Brady Presidential Distinguished Professor (2020)
- College of Science Outstanding Mentor, awarded by Weber State University Office of Undergraduate Research (2019)
- Gwen Williams Prize, awarded by the Hemingway Faculty Development Trust for extraordinary work by faculty receiving Hemingway Vitality Grants (2012)
- John R. Morgart Science Award, U.S. Fish and Wildlife Service, Southwest Region, best published paper (2010)
- Jerome Norgren Endowment at South Dakota State University, Fisheries Ph.D. graduate student of the year (2005)
- U.S. Department of the Interior Star Award (2001, September 1999, January 1999)
- U.S. Department of the Interior On-the-Spot Award (1994, 1996)
- U.S. Department of Agriculture Certificate of Merit (1992)
- Dean's List (spring 1989-1990, fall 1990-1991, winter 1991-1992, spring 1991-1992)
- Beta Beta Biological Honor Society (1990)

# RESEARCH Publications

### REFEREED ARTICLES

- Hoagstrom CW, Echelle AA. 2022. Biogeography of the *Macrhybopsis aestivalis* complex (Teleostei: Cyprinidae): emphasis on speciation and ancient heterospecific mitochondrial transfer. Environmental Biology of Fishes, 105:261-287.
- MacGuigan DJ, Hoagstrom CW, Domisch S, Hulsey CD, Near TJ. 2021. Integrative ichthyological species delimitation: reconciling genetic, phenotypic, environmental, and biogeographic evidence in the Greenthroat Darter complex (Percidae:Etheostomatinae). Zoologica Scripta 50:707-733.
- Hoagstrom CW, Osborne MJ. 2021. Biogeography of *Cyprinodon* Across the Great Plains-Chihuahuan Desert Region and Adjacent Areas. Desert Fishes Council Special Publication 2021:20-76.
- Ennen JR, Agha M, Sweat SC, Matamoros WA, Lovich JE, Iverson JB, Rhodin AGJ, Thomson RC, Hoagstrom CW. 2021. A watershed moment: focusing in on sub-basins to focus the geography of turtle conservation across the globe. Biological Conservation 253:108925.
- Osborne MJ, Portnoy DS, Fields AT, Bean MG, Hoagstrom CW, Conway KW. 2021. Under the radar: genetic assessment of Rio Grande Shiner (*Notropis jemezanus*) and Speckled Chub (*Macrhybopsis aestivalis*), two Rio Grande basin endemic cyprinids that have experienced recent range contractions. Conservation Genetics 22:187-204.
- Hoagstrom CW, Bestgen KR, Propst DL, Williams JE. 2020. Searching for common ground between life and extinction. Pages 407-418 *in* DL Propst, JE Williams, KR Bestgen, CW Hoagstrom (editors). Standing Between Life and Extinction. University of Chicago Press.

- Hoagstrom CW, Houston D, Mercado-Silva N. 2020. Biodiversity, biogeography, and conservation of North American desert fishes. Pages 36-67 in DL Propst, JE Williams, KR Bestgen, CW Hoagstrom (editors). Standing Between Life and Extinction. University of Chicago Press.
- Ennen JR, Agha M, Sweat SC, Matamoros WA, Lovich JE, Rhodin AGJ, Iverson JB, Hoagstrom CW. 2020. Turtle biogeography: Global regionalization and conservation priorities. Biological Conservation 241:108323.
- Hoagstrom CW, Xiang L, Lewis-Rogers N, Connors PK, Sessions-Robinson A, Mull JF 2019. A quantitative simulation of coevolution with mutation using playing cards. American Biology Teacher 81:127-132.
- Echelle AA, Lang NJ, Borden WC, Schwemm MR, Hoagstrom CW, Eisenhour DJ, Mayden RL, Bussche RAVD. 2018. Molecular systematics of the North American chub genus *Macrhybopsis* (Teleostei: Cyprinidae). Zootaxa 4375:537-554.
- Ennen JR, Matamoros WA, Agha M, Lovich JE, Sweat S, Hoagstrom CW. 2017. Hierarchical, quantitative biogeographic provinces for all North American turtles and their contribution to the biogeography of turtles and the continent. Herpetological Monographs 31:142-168.
- Matamoros WA, Hoagstrom CW, Schaefer JF, Kreiser BR. 2016. Fish faunal provinces of the conterminous United States of America reflect historical geography and familial composition. Biological Reviews 91:813-832.
- Osborne MJ, Diver TA, Hoagstrom CW, Turner TF. 2016. Biogeography of "*Cyprinella lutrensis*": intensive genetic sampling from the Pecos River 'melting pot' reveals a dynamic history and phylogenetic complexity. Biological Journal of the Linnean Society 117:264-284.
- Collyer ML, Hall MD, Smith MD, Hoagstrom CW. 2015. Habitat-morphotype associations of Pecos pupfish (*Cyprinodon pecosensis*) in isolated habitat complexes. Copeia 103:181-199.
- Hoagstrom CW, Archdeacon TP, Davenport SR, Propst DL, Brooks JE. 2015. Intrafragment riverscape conservation for an imperiled, small-bodied, pelagic-broadcast spawning minnow: speckled chub (*Macrhybopsis aestivalis*). Canadian Journal of Fisheries and Aquatic Sciences 72:527-537.
- Hoagstrom, CW, Turner TF. 2015. Recruitment ecology of pelagic-broadcast spawning minnows: paradigms from the ocean advance science and conservation of an imperilled freshwater fauna. Fish and Fisheries 16:282-299.
- Echelle AA, Schwemm MR, Lang NJ, Nagle BC, Simons AM, Unmack PJ, Fisher WL, Hoagstrom CW. 2014. Molecular systematics and historical biogeography of the *Nocomis biguttatus* species group (Teleostei: Cyprinidae): Nuclear and mitochondrial introgression and a cryptic Ozark species. Molecular Phylogenetics and Evolution 81:109-119.
- Hoagstrom CW. 2014. Drift versus retention: an alternative perspective to Wilde and Urbanczyk's 'relationship between river fragment length and persistence of two imperiled great plains cyprinids'. Journal of Freshwater Ecology 29:449-452.
- Hoagstrom CW. 2014. Habitat loss and subdivision are additive mechanisms of fish extinction in fragmented rivers. Global Change Biology 21:4-5.
- Hoagstrom CW, Ung V, Taylor K. 2014. Miocene rivers and taxon cycles clarify the comparative biogeography of North American highland fishes. Journal of Biogeography 41:644-658.

- Davenport SR, Mull JF, Hoagstrom CW. 2013. Attempted consumption of a dangerous, riparian ant (*Camponotus vicinus*) by a threatened, fluvial minnow (*Notropis simus pecosensis*). Southwestern Naturalist 58:126-128.
- Hoagstrom CW, Brooks JE, Davenport SR. 2011. A large-scale conservation perspective considering endemic fishes of the North American plains. Biological Conservation 144:21-34.
- Osborne MJ, Davenport SR, Hoagstrom CW, Turner TF. 2010. Genetic effective size, N<sub>e</sub>, tracks density in a small freshwater cyprinid, Pecos bluntnose shiner (*Notropis simus pecosensis*). Molecular Ecology 19:2832-2844.
- Hoagstrom CW, Berry CR Jr. 2010. The native range of walleye in the Missouri River drainage. North American Journal of Fisheries Management 30:642-654.
- Hoagstrom CW, Zymonas ND, Davenport SR, Propst DL, Brooks JE. 2010. Rapid species replacements between fishes of the North American plains: a case history from the Pecos River. Aquatic Invasions 5:141-153.
- Hoagstrom CW, Remshardt WJ, Smith JR, Brooks JE. 2010. Changing fish faunas in two reaches of the Rio Grande in the Albuquerque Basin. Southwestern Naturalist 55:78-88.
- Hoagstrom CW. 2009. Causes and impacts of salinization in the Lower Pecos River. Great Plains Research 19:27-44.
- Hoagstrom CW, Hayer CA, Berry CR Jr. 2009. Criteria for determining native distributions of poorly-studied taxa: the case of the northern plains killifish in the Cheyenne River drainage, North America. Aquatic Conservation: Marine and Freshwater Ecosystems 19:88-95.
- Hoagstrom CW, Brooks JE, Davenport SR. 2008. Recent habitat association and the historical decline of *Notropis simus pecosensis*. River Research and Applications 24:789-803.
- Hoagstrom CW, Brooks JE, Davenport SR. 2008. Spatiotemporal population trends of *Notropis simus pecosensis*, 1992-2005, in relation to habitat conditions and the annual flow regime. Copeia 2008:5-15.
- Hoagstrom CW, Berry CR Jr. 2008. Morphological diversity among fishes in a Great Plains river drainage. Hydrobiologia 596:367-386.
- Hoagstrom CW, Gosch NJC, DeWitte AC, Berry CR Jr, Duehr JP. 2007. Biodiversity, biogeography, and longitudinal fish faunal structure among perennial, warmwater streams of the Cheyenne River drainage. Prairie Naturalist 39:117-144.
- Selch TM, Hoagstrom CW, Weimer EJ, Duehr JP, Chipps SR. 2007. Influence of fluctuating water levels on mercury concentrations in adult walleye. Bulletin of Environmental Contamination and Toxicology 79:36-40.
- Hoagstrom CW, DeWitte AC, Gosch NJC, Berry CR Jr. 2007. Historical fish assemblage flux in the Cheyenne River below Angostura Dam. Journal of Freshwater Ecology 22:219-229.
- Kaemingk MA, Graeb BDS, Hoagstrom CW, Willis DW. 2007. Patterns of Fish Diversity in a mainstem Missouri River Reservoir and Associated Delta. River Research and Applications 23:786-791.
- Hoagstrom CW, Wall SS, Kral JG, Blackwell BG, Berry CR Jr. 2007. Zoogeographic patterns and faunal change of South Dakota Fishes. Western North American Naturalist 67:161-184.
- Hoagstrom CW, Wall SS, Berry CR Jr, Duehr JP. 2006. River size and fish assemblages in southwestern South Dakota. Great Plains Research 16:117-126.

- Hoagstrom CW, Berry CR Jr. 2006. Island biogeography of native fish faunas among Great Plains drainage basins: basin scale features influence composition. American Fisheries Society Symposium 48:221-264.
- Hoagstrom CW, Brooks JE. 2005. Distribution and status of Arkansas River shiner *Notropis girardi* and Rio Grande shiner *Notropis jemezanus*, Pecos River, New Mexico. Texas Journal of Science 57:35-58.
- Hoagstrom CW. 2003. Historical and recent fish fauna of the Lower Pecos River. Pages 91-110 *in* G. P. Garrett and N. L. Allan (editors). Aquatic fauna of the northern Chihuahuan Desert. Special Publications of the Museum of Texas Tech University 46.
- Hoagstrom CW, Brooks JE. 1999. Distribution, status, and conservation of the Pecos pupfish, *Cyprinodon pecosensis*. Technical Report No. 2, New Mexico Department of Game and Fish, Santa Fe.
- Echelle AA, Hoagstrom CW, Echelle AF, Brooks JE. 1997. Expanded occurrence of genetically introgressed pupfish (Cyprinodontidae: *Cyprinodon pecosensis* x *variegatus*) in New Mexico. Southwestern Naturalist 42:336-339.

### EDITED BOOKS

Propst DL, Williams JE, Bestgen KR, Hoagstrom CW. 2020. Standing Between Life and Extinction: Ethics and Ecology of Conserving Aquatic Species in North American Deserts. University of Chicago Press.

## **EDITED PROCEEDINGS**

Bean MG, Garrett GP, Hoagstrom CW. 2021. Proceedings of the Desert Fishes Council Special Publication 2021. Desert Fishes Council.

## OTHER PUBLICATIONS (NOT PEER-REVIEWED)

- Galat DL, Braaten PJ, Guy C, Hoagstrom C, Horton T, Moser D, Paukert C. In Press. Chapter 10: Missouri River. *In* MD Delong, TD Jardine, AC Benke, CE Cushing (editors). Rivers of North America, second edition. Academic Press
- Hoagstrom CW. 2020. Case Study 6.8: Pecos River restoration and the threatened Pecos bluntnose shiner, New Mexico. Pages 290-291 *in* MK Briggs, WR Osterkamp (editors). Renewing our rivers, stream corridor restoration in dryland regions. The University of Arizona Press.
- Hoagstrom CW, Adams WE Jr, Neumann RM, Willis DW. 2011. Guide to the fishes of South Dakota. Department of Wildlife and Fisheries Sciences, South Dakota State University, Brookings, SD.
- Hoagstrom CW, Wall SS, Kral JG, Blackwell BG. 2007. Recent zoogeography of South Dakota fishes. Pages 37-89 *in* CR Berry Jr, KF Higgins, DW Willis, and SR Chipps (editors). History of fisheries and fishing in South Dakota. South Dakota Department of Game, Fish and Parks, Pierre.
- Hoagstrom CW, DeWitte AC, Gosch NJC, Berry CR Jr. 2006. Perennial-Warmwater Fish Communities of the Cheyenne River Drainage: a seasonal assessment. Proceedings of the South Dakota Academy of Science 85:213-245.

- Hoagstrom CW, Hayer CA, Kral JG, Wall SS, Berry CR Jr. 2006. Rare and Declining Fishes of South Dakota: a river drainage scale perspective. Proceedings of the South Dakota Academy of Science 85:171-211.
- Berry CR Jr, Hoagstrom CW. 2003. Bioethics in a changing world: fisheries issues. Fisheries 28(9):30-31.

#### Presentations

#### ORAL PRESENTATIONS

- Hoagstrom CW, Echelle AA. 2021. Southwestern endemic *Macrhybopsis*: legacies of peripheral isolation. Annual Meeting of the Desert Fishes Council, {virtual}.
- Hoagstrom CW. 2021. The legacy of climate survival in endemic desert fishes. Virtual Annual Meeting of the Western Division of the American Fisheries Society: Amplifying Science in a Changing World. Special session: Climate Change Effects on Fish and Fisheries in a Changing World Session 2. [invited presentation].
- Hoagstrom CW. 2019. Meeting in the middle: biogeography of Pecos drainage *Cyprinodon*. Desert Fishes Council Annual Symposium, Alpine, TX.
- Hoagstrom CW, Bestgen KR, Propst DL, Williams JE. 2018. Searching for Common Ground between Life and Extinction. Desert Fishes Council Annual Symposium, Furnace Creek, CA.
- Hoagstrom CW, Houston D, Mercado-Silva N. 2016. Celebrating and conserving the diversity of desert fishes. Desert Fishes Council Annual Symposium, Albuquerque, NM.
- Propst DL, Williams J, Bestgen K, Hoagstrom CW. 2016. Standing Between Life and Extinction: Ethics and Ecology of Conserving Aquatic Species in the American Southwest. Desert Fishes Council Annual Symposium, Albuquerque, NM.
- Hoagstrom CW. 2016. Using long-term data to solve a minnow-conservation puzzle. Joint Meeting of Ichthyologists and Herpetologists, New Orleans, LA [invited presentation].
- Ennen JR, Agha M, Lovich JE, Matamoros WA, Sinervo B, Spinks PE, Shaffer HB, Nowakowski J, Todd BD, Price SJ, Hoagstrom CW, Hazzard S. 2016. Macroecological and Evolutionary Patterns of Turtles at two scales, Global and Continental. Turtle Survival Alliance Conference, New Orleans, LA.
- Hoagstrom CW. 2016. Evidence for hybrid metapopulations of pelagic-broadcast spawning minnows in the Pecos River, New Mexico. Great Plains Landscape Conservation Cooperative Webinar (20 Jan. 2016, 2 pm) [invited presentation].
- Hoagstrom CW, Caldwell C, Peterson D. 2015. Wetland habitat associations of imperiled Pecos Pupfish, *Cyprinodon pecosensis*, in a brackish ciénega. Desert Fishes Council Annual Symposium, Death Valley, CA.
- Hoagstrom CW, Taylor K. 2015. Deep Endemism of Fishes in the Ozarks and Pre-Pleistocene Highland Vicariance. Joint Meeting of Ichthyologists and Herpetologists, Reno, NV.
- Mecham, DJ, Hoagstrom CW, Graeb, BDS. 2014. The effects of river channel restoration on early juvenile fishes and meiofauna of the Pecos River, New Mexico. Desert Fishes Council Annual Symposium, Los Cabos, BCS.
- Hoagstrom CW, Archdeacon TP, Davenport SR, Propst DL, Brooks JE. 2014. Last-stand population ecology in fragmented rivers and conservation in de-facto refugia. Desert Fishes Council Annual Symposium, Los Cabos, BCS.

- Hoagstrom CW, Taylor K. 2014. Evidence that a Centrifugal-Speciation/Taxon-Cycle Process Produced Endemism in the Ouachita Mountains via Peripheral Isolation. Joint Meeting of Ichthyologists and Herpetologists, Chattanooga, TN.
- Hoagstrom CW, Archdeacon TP, Davenport SR, Propst DL, Brooks JE. 2013. Population regulation and conservation of speckled chub *Macrhybopsis aestivalis*. Desert Fishes Council Annual Symposium, Flagstaff, AZ.
- Hoagstrom, CW, Riviere-Ung V, Taylor K. 2013. Tertiary Origins of Fish Endemism in North American Highlands: Parallel Evolution, Taxon Cycles, and Human Intrusions. Joint Meeting of Ichthyologists and Herpetologists, Albuquerque, NM. Fish out of Water: evolutionary and ecological issues in the conservation of fishes in water-altered environments special symposium [invited presentation].
- Collyer ML, Hoagstrom CW. 2013. Examining the association between ecology and morphology in the Pecos pupfish (*Cyprinodon pecosensis*) in an altered and ecologically diverse landscape. American Society of Ichthyologists and Herpetologists, Albuquerque, NM. Fish out of Water: evolutionary and ecological issues in the conservation of fishes in water-altered environments special symposium [invited presentation].
- Hoagstrom CW, Turner TF. 2012. The recruitment sequence, fish community assembly, & conservation ecology in arid-land rivers. Desert Fishes Council Annual Symposium, Death Valley, CA. Evolutionary Ecology of Refuge Populations of Protected Fishes special symposium [invited presentation].
- Hoagstrom CW, Davenport SR, Brooks JE, Propst DL. 2012. Complex life history, ecology, and conservation of speckled chub (*Macrhybopsis aestivalis*), a benthic, opportunistic, pelagic-broadcast spawning minnow. Annual meeting of the Society for Freshwater Science, Louisville, KT.
- Hoagstrom CW. 2011. Fish endemism and conservation in the plains, North America. Science Conversations presented by the Weber State University Chapter of Sigma Xi. Ogden, UT.
- Hoagstrom CW. 2011. Biological homogenization by rapid species replacement. Seminar speaker. Utah State University, College of Natural Resources [invited presentation], Logan, UT.
- Hoagstrom CW. 2010. Challenges ahead and research needs. Break-out period presenter. Restoring Rivers in the Southwestern U.S. and Northern Mexico, a Bi-National Conference On Learning From the Past To Benefit the Future [invited presentation]. Tucson, AZ.
- Hoagstrom CW, Zymonas ND, Davenport SR, Propst DL, Brooks JE. 2010. Ecology of rapid replacement Rio Grande silvery minnow vs. plains minnow middle Pecos River, New Mexico. Desert Fishes Council Annual Symposium, Moab, UT.
- Osborne MJ, Davenport SR, Hoagstrom CW, Turner TF. 2010. Genetic effective size, N<sub>e</sub>, tracks density in a small freshwater cyprinid, Pecos bluntnose shiner (*Notropis simus pecosensis*). Desert Fishes Council Annual Symposium, Moab, UT.
- Hoagstrom CW. 2010. Benthic fish assemblages in northern Utah. Western Division of the American Fisheries Society Annual Meeting, Salt Lake City, UT.
- Hoagstrom CW. 2009. Benthic fish assemblages in northern Utah. 6<sup>th</sup> Annual Faculty Forum, WSU, Ogden, UT.
- Hoagstrom CW, Davenport SR, Brooks JE. 2009. Biogeography and long-term conservation of fishes and aquatic habitats of the Pecos River drainage. Western Division of the American Fisheries Society Annual Meeting, Albuquerque, NM.

- Davenport SR, Hoagstrom CW, Archdeacon TP. 2009. Response of Pecos River fish community to surface flow intermittence. Western Division of the American Fisheries Society Annual Meeting, Albuquerque, NM.
- Kodric-Brown A, Hoagstrom CW, Brooks JE. 2009. Fish assemblages of sinkholes in the lower Pecos River Basin of New Mexico. Western Division of the American Fisheries Society Annual Meeting, Albuquerque, NM.
- Holmes NV, Hoagstrom CW. 2009. Ecomorphology of sculpin in northeastern Utah. Western Division of the American Fisheries Society Annual Meeting, Albuquerque, NM.
- Holmes NV, Hoagstrom CW. 2009. Ecomorphology of sculpin in northeastern Utah. Weber State University Undergraduate Research Symposium, Ogden, UT.
- Holmes NV, Hoagstrom CW. 2009. Ecomorphology of sculpin, a native fish of northeastern Utah. Utah Conference on Undergraduate Research, Salt Lake City, UT.
- Hoagstrom CW. 2009. Preliminary data on the distribution, habitat association, and population structure of Paiute sculpin *Cottus beldingii* in northeastern Utah. Utah Chapter of the American Fisheries Society Annual Meeting, Moab, UT.
- Holmes NV, Hoagstrom CW. 2009. Ecomorphology of sculpin in northeastern Utah. Utah Chapter of the American Fisheries Society Annual Meeting, Moab, UT.
- Hoagstrom CW, Holmes NV. 2008. Ecomorphological relations between *Cottus* species and their environment in northeastern Utah. Desert Fishes Council Annual Symposium, Cuatro Ciénegas, Coahuila.
- Hoagstrom CW, Holmes NV. 2008. How does the environmental variation among streams affect morphological variation of individual fish? 5<sup>th</sup> Annual Faculty Forum, WSU, Ogden, UT.
- Hoagstrom CW. 2008. Hydrological causes and ecological impacts of salinization in the Lower Pecos River. Annual meeting of the North American Benthological Society, Salt Lake City, UT.
- Hoagstrom CW, Brooks JE, Davenport SR. 2007. Recent habitat association and the historical decline of *Notropis simus pecosensis*. Desert Fishes Council Annual Symposium, Ventura, CA.
- Hoagstrom CW, Brooks JE, Davenport SR. 2006. Spatiotemporal population patterns of the Pecos bluntnose shiner, 1992-2005. Desert Fishes Council Annual Symposium, Furnace Creek, CA.
- Davenport SR, Hoagstrom CW, Brooks JE. 2006. Effects of surface flow intermittence on a Great Plain's fish community, Pecos River, New Mexico. Desert Fishes Council Annual Symposium, Furnace Creek, CA.
- Kaemingk MA, Graeb BDS, Hoagstrom CW, Willis DW. 2006. Patterns of fish diversity within the Lewis and Clark Reservoir and delta. 67th Midwest Fish and Wildlife Conference, Omaha, NE.
- Berry CR, Hoagstrom CW. 2006. Status of fishes in South Dakota with emphasis on declining species in eastern rivers. Eastern South Dakota Water Conference, Brookings, SD.
- Hoagstrom CW, Berry CR, Gosch NJC, DeWitte AC. 2006. Fish assemblage structure in the North American Great Plains: a case history. Annual Meeting of the North American Benthological Society, Anchorage, AK.

- Hoagstrom CW, DeWitte AC, Gosch NJC, Berry CR Jr. 2006. Perennial-Warmwater Fish Communities of the Cheyenne River Drainage: a seasonal assessment. South Dakota Academy of Science Meeting, Chamberlain, SD.
- Hoagstrom CW, Hayer CA, Kral JG, Wall SS, Berry CR Jr. 2006. Rare and Declining Fishes of South Dakota: a river drainage scale perspective. South Dakota Academy of Science Meeting, Chamberlain, SD.
- Hoagstrom CW, Wall SS, Kral JG, Blackwell BG, Berry CR Jr. 2006. Distributional trends of South Dakota Fishes among river drainages and over time. Dakota Chapter American Fisheries Society Meeting, Chamberlain, SD.
- Hoagstrom CW, Berry CR Jr. 2006. South Dakota's river fish inventory and habitat analysis: 15-year summary of fish ecology discoveries, Part II. Dakota Chapter American Fisheries Society Meeting, Chamberlain, SD.
- Berry CR Jr., Hoagstrom CW. 2006. South Dakota's river fish inventory and habitat analysis: 15-year summary of fish ecology discoveries, Part I. Dakota Chapter American Fisheries Society Meeting, Chamberlain, SD.
- Kaemingk MA, Graeb BDS, Hoagstrom CW, Willis DW. 2006. Patterns of Juvenile Fish Diversity within the Lewis and Clark Reservoir System. Dakota Chapter American Fisheries Society Meeting, Chamberlain, SD.
- Hoagstrom CW, Berry CR Jr, Gosch NJC, DeWitte AC. 2005. Is it "normal" for smallmouth bass to dominate the Cheyenne River below Angostura Dam during drought periods? Midwest Fish & Wildlife Conference, Grand Rapids, MI.
- Selch TM, Chipps SR, Hoagstrom CW, Duehr JP, Weimer EJ. 2005. Predictive models relating mercury concentrations in top-level piscivores to water level fluctuations and physicochemical properties. Midwest Fish & Wildlife Conference, Grand Rapids, MI.
- Duehr JP, Hoagstrom CW, Berry CR Jr. 2005. Segment and reach scale geomorphology and associated fish assemblages in the Cheyenne River Basin. Joint Assembly of the American Geophysical Union, North American Benthological Society, Society of Exploration Geophysicists, and the Solar Physics Division of the American Astronomical Society, New Orleans, LA.
- Hoagstrom CW, Berry CR Jr. 2004. Fluviogeomorphical continua and fish communities in western South Dakota Rivers. Midwest Fish & Wildlife Conference, Indianapolis, IN.
- Hoagstrom CW, Berry CR Jr. 2004. Zoogeography of native fishes in western Missouri River tributary watersheds from the Yellowstone to the Platte. Annual Meeting of the American Fisheries Society, Madison, WI.
- Hoagstrom CW. 2004. Downstream reduction of fish species richness in the Cheyenne River, South Dakota, U.S.A. Annual Meeting of the North American Benthological Society, Vancouver, BC.
- Hoagstrom CW. 2004. Pelagic, broadcast spawning minnows in South Dakota? Dakota Chapter American Fisheries Society Meeting, Pierre, South Dakota.
- Hoagstrom CW, Berry CR Jr. 2003. Channel Catfish Distribution in Western South Dakota. Midwest Fish & Wildlife Conference, Kansas City, MO.
- Berry CR Jr., Morey NM, Hoagstrom CW. 2003. Recreational Catfishing, Status of Channel and Flathead Catfish Populations, and Proposed Flood Control Measures in Eastern South Dakota. Midwest Fish & Wildlife Conference, Kansas City, MO.

- Hoagstrom CW, Brooks JE. 2003. Pecos bluntnose shiner conservation status. Society for Conservation Biology Annual Meeting, Duluth, MN.
- Hoagstrom CW. 2002. Length structure of the Pecos bluntnose shiner population at two temporal scales. Joint Meeting of the Ichthyologists and Herpetologists, Kansas City, MO.
- Hoagstrom CW. 2002. Pecos bluntnose shiner: size-related habitat use. Annual Symposium of the Desert Fishes Council, Hotel Fiesta Inn, San Luis Potosi.
- Brooks JE, Propst DL, Dudley RK, Hoagstrom CW, Platania SP, Turner TF. 2002. Native fish research and management in the upper/middle Rio Grande basin, 2002. Annual Symposium of the Desert Fishes Council, Hotel Fiesta Inn, San Luis Potosi.
- Hoagstrom CW. 2001. Habitat preference of Rio Pecos fluvial cyprinids. Meeting of the North American Benthological Society, LaCrosse, WI.
- Hoagstrom CW. 2001. Historical and recent distributions of lower Pecos River fishes. Annual Symposium of the Desert Fishes Council, Alpine, TX.
- Brooks JE, Propst DL, Hoagstrom CW, Platania SP, Turner TF, Wiley BG. 2001. Native fish research and management in the upper/middle Rio Grande basin during 2001. Annual Symposium of the Desert Fishes Council, Alpine, TX.
- Tashjian PL, Hoagstrom CW. 2001. The Physical In-Channel Habitat of the Middle Pecos River, New Mexico: Geomorphic Control on Native Fish Community. American Water Resources Association National Conference, Albuquerque, NM.
- Hoagstrom CW. 2000. Significance of fluvial, sand-bed habitat to desert river minnow conservation. Annual Symposium of the Desert Fishes Council, Death Valley, CA.
- Brooks JE, Propst DL, Dudley RK, Hoagstrom CW, Monzingo J, Platania SP, Smith JR. 2000. Native fish research and management in New Mexico during 2000. Annual Symposium of the Desert Fishes Council, Death Valley, CA.
- Hoagstrom CW. 1999. Native fishes in the Pecos River, New Mexico. Annual Symposium of the Desert Fishes Council, Ciudad Victoria, Tamaulipas.
- Hoagstrom CW. 1999. Fate of native Pecos River fishes: Red Bluff Dam to Sheffield, Texas. Symposium on the Resources of the Chihuahuan Desert Region: U.S. and Mexico, Alpine, TX.
- Hoagstrom CW. 1998. Pelagic spawning cyprinids and reservoir operation, Pecos River, NM. Southwestern Association of Naturalists Annual Meeting, Albuquerque, NM.
- Hoagstrom CW. 1998. Endemic Pecos River minnows. Uniting the Basin Congress, El Paso, TX.
- Hoagstrom CW, Brooks JE. 1998. Distribution, status, and conservation of the Pecos pupfish, *Cyprinodon pecosensis*. Annual Symposium of the Desert Fishes Council, Wahweap Lodge, Page, AZ.
- Hoagstrom CW. 1997. Reservoir operation, habitat, and cyprinid fishes in the middle Pecos River, NM. Annual Symposium of the Desert Fishes Council, Death Valley National Park, CA.
- Hoagstrom CW. 1995. Fish population interactions in a southeast New Mexican sinkhole. Annual Symposium of the Desert Fishes Council, Peppermill Hotel Casino, Reno, NV.
- Hoagstrom CW. 1994. Status of estuarine fishes inhabiting the Pecos River. Annual Symposium of the Desert Fishes Council, Death Valley National Park, Furnace Creek, CA.

#### POSTER PRESENTATIONS

- Hoagstrom CW, Houston D, Mercado-Silva N. 2018. Biodiversity, Biogeography, & Conservation of North American Desert Fishes I: Areas of Endemism; Poster presentation, Desert Fishes Council; Furnace Creek, CA
- Hoagstrom CW, Houston D, Mercado-Silva N. 2018. Biodiversity, Biogeography, & Conservation of North American Desert Fishes II: Faunal Assembly; Poster presentation, Desert Fishes Council; Furnace Creek, CA
- Hoagstrom CW, Davenport SR, Propst DL, Brooks JE. 2015. Conserving relict ecosystems for grassland-endemic riverine minnows. Joint Meeting of Ichthyologists and Herpetologists, Reno, NV.
- Hoagstrom CW, Archdeacon TP, Davenport SR, Propst DL, Brooks JE. 2014. Intra-fragment riverscape conservation for an imperiled, small-bodied, pelagic-broadcast spawning minnow. Joint Meeting of Ichthyologists and Herpetologists, Chattanooga, TN.
- Hoagstrom CW. 2012. The Coahuilan connection to the Interior highlands. Desert Fishes Council Annual Symposium, Death Valley, CA.
- Anderson T, Kingsford M, Hoagstrom CW. 2012. Fish in your backyard? Factors affecting trout presence in Wasatch Front creeks. Desert Fishes Council Annual Symposium, Death Valley, CA.
- Abbott J, Booth J, Anderson T, Hoagstrom CW. 2012. Rainbow Trout (*Oncorhynchus mykiss*) Population Structure in Strongs Creek, Ogden, Utah. National Conference on Undergraduate Research, Ogden, UT.
- Green S, Remkes T, Van Leuven D, Hoagstrom CW. 2012. Assessment of Age and Growth in Rainbow Trout (*Oncorhynchus mykiss*) in Strongs Creek, Ogden Utah. National Conference on Undergraduate Research, Ogden, UT.
- Anderson T, Kingsford M, Hoagstrom CW. 2012. Fish in your backyard? Factors affecting trout presence in Wasatch Front creeks. National Conference on Undergraduate Research, Ogden, UT.
- Anderson T, Kingsford M, Hoagstrom CW. 2012. Fish in your backyard? Factors affecting trout presence in Wasatch Front creeks. Day at the Utah State Capitol, event, Salt Lake City, UT.
- Anderson T and CW Hoagstrom. 2011. Fish in your backyard? Finding trout in Wasatch Front creeks. Weber State University Undergraduate Research Symposium, Ogden, UT.
- Knight Z and CW Hoagstrom. 2011. Rainbow Trout Abundance and Population Structure in Creeks Along the Wasatch Front, Utah. Weber State University Undergraduate Research Symposium, Ogden, UT.
- Anderson T and CW Hoagstrom. 2011. Fish in your backyard? Finding trout in Wasatch Front creeks. Day at the Utah State Capitol, event, Salt Lake City, UT.
- Geary SA, and CW Hoagstrom. 2010. Habitat research for a least chub refuge at the Ogden Nature Center. Weber State University Undergraduate Research Symposium, Ogden, UT.
- Hoskins AJ, and CW Hoagstrom. 2010. Non-native fishes of the Ogden Nature Center and potential for least chub introduction. Weber State University Undergraduate Research Symposium, Ogden, UT.

- Eames J, T Healy, B Galbraith, and CW Hoagstrom. 2010. Survival of the Pyramid Lake strain of the Lahontan Cutthroat in Spring Creek, Utah. Weber State University Undergraduate Research Symposium, Ogden, UT.
- Cranney MD, CW Hoagstrom. 2009. Morphological variation among humpback whitefish in three Alaskan creeks. Western Division of the American Fisheries Society Annual Meeting, Albuquerque, NM.
- Cranney MD, CW Hoagstrom. 2009. Morphological variation among humpback whitefish in three Alaskan creeks. Weber State University Undergraduate Research Symposium, Ogden, UT.
- Johnson S, CW Hoagstrom. 2009. Relations between stream habitat, distribution, & population structure of Paiute sculpin, *Cottus beldingii*. Posters on the Hill event at the state capitol, Salt Lake City, UT.
- Johnson S, CW Hoagstrom. 2008. Relations between stream habitat, distribution, & population structure of Paiute sculpin, *Cottus beldingii*. Weber State University Undergraduate Research Symposium, Ogden, UT.
- Hoagstrom CW, and CR Berry Jr. 2006. Is the walleye *Sander vitreus* native to South Dakota. Dakota Chapter American Fisheries Society Meeting, Chamberlain, SD.
- Hoagstrom CW, AC DeWitte, NJC Gosch, JP Duehr, and CR Berry Jr. 2005. *Notropis stramineus missuriensis* (Cope): a forgotten subspecies? Dakota Chapter American Fisheries Society Meeting, Bismarck, ND.
- Duehr JP, CW Hoagstrom, and CR Berry Jr. 2004. Comparison of fish species diversity in two small western South Dakota watersheds. Annual Meeting of the North American Benthological Society, Vancouver, BC.
- Berry CR Jr, and CW Hoagstrom. 2003. Ethics: recreational fishing, fisheries profession, and fisheries education. American Institute of Biological Sciences Annual Meeting, Arlington, VA.

## External grants received

- COMPARATIVE ECOLOGY AND POPULATION MANAGEMENT OF FISH ASSEMBLAGES IN PRAIRIE RIVERS. 2013. Grant proposal funded by Great Plains Landscape Conservation Cooperative for \$47,036.
- SEASONAL ECOLOGY OF PECOS PUPFISH IN A DYNAMIC, REMNANT WETLAND. 2012. Grant proposal funded by U.S. Geological Survey for \$87,699. Administered through *Dr. Colleen Caldwell*, U.S. Geological Survey, New Mexico Cooperative Fish and Wildlife Research Unit, Department of Fishery and Wildlife Sciences, New Mexico State University.
- CHANNEL RESTORATION AND PECOS BLUNTNOSE SHINER RECRUITMENT.
   2011. Grant proposal funded by U.S. Bureau of Reclamation for \$203,860. Dr. Brian Graeb,
   Department of Wildlife and Fisheries Sciences, South Dakota State University, co-principal investigator.
- FISH INVENTORIES IN AND FISH POPULATIONS AND ASSEMBLAGE COMPARISONS AMONG THREE TETLIN NWR STREAMS, Challenge Cost Share, U.S. Fish and Wildlife Service, Anchorage, Alaska for \$5000.
- FISHES AND RIVERINE HABITAT OF BADLANDS NATIONAL PARK, WITH EMPHASIS ON THE STURGEON CHUB AND OTHER IMPERILED SPECIES. 2006.

South Dakota State University, Brookings, SD. Grant proposal funded by the National Park Service and South Dakota State University (Park Oriented Biological Support Program) for \$76,833. Grant in part supported an MS level research assistant for two years. Coauthored with *Dr. Charles R. Berry, Jr.* 

• RIO GRANDE SILVERY MINNOW ECOLOGICAL INVESTIGATIONS, HABITAT UTILIZATION BY RIO GRANDE SILVERY MINNOW IN RELATION TO GEOMORPHIC REACH, DISCHARGE, AND POLLUTION, MAINSTEM RIO GRANDE, BERNALILLO TO SAN MARCIAL, NEW MEXICO. 2002-2003. U.S. Fish and Wildlife Service, New Mexico Fishery Resources Office, Albuquerque, NM. Grant proposal funded by the Endangered Species Act Work Group for the Middle Rio Grande, NM for \$107,400 in 2003 and \$213,240 in 2004. Coauthored with *Mr. Paul L. Tashjian*.