

Jereme William Gaeta, PhD

Assistant Professor of Fish Ecology, Management, and Conservation
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EDUCATION

University of Wisconsin – Madison Advisor: Dr. Stephen R. Carpenter	Limnology and Marine Sciences	PhD May 2012
University of Wisconsin – Madison Advisor: Dr. Stephen R. Carpenter	Limnology and Marine Sciences	MS May 2009
California State University – Bakersfield	Biology	BS June 2006

PROFESSIONAL APPOINTMENTS

Utah State University, Department of Watershed Science and the Ecology Center Assistant Professor of Fish Ecology, Conservation, and Management Faculty Advisor of Bachelor of Science degree in Fisheries and Aquatic Sciences		2014 – present 2016 – present
University of Wisconsin – Madison, Center for Limnology Postdoctoral Research Associate Graduate Research Assistant		2012 – 2014 2007 – 2012
University of Wisconsin – Madison, Zoology Teaching Assistant		2008, 2009

PROFESSIONAL EXPERIENCE

Utah State University, Department of Watershed Sciences and the Ecology Center <u>Assistant Professor of Fish Ecology, Conservation, and Management</u> Fish Ecology, Invasive Ecology, and Predator-Prey Dynamics		2014 – present
University of Wisconsin – Madison, Center for Limnology <u>Postdoctoral Research Associate</u> Climate change and resilience of sport fisheries in lakes Postdoctoral Mentor: Dr. M. Jake Vander Zanden		2012 – 2014
<u>Graduate Research Assistant</u> PhD thesis: <i>Identifying, quantifying, and mitigating direct and indirect anthropogenic effects on north temperate game fishes</i> Advisor: Dr. Stephen R. Carpenter		2009 – 2012
MS thesis: <i>Lakeshore residential development and growth of largemouth bass: A cross lakes comparison</i> Advisor: Dr. Stephen R. Carpenter		2007 – 2009
Northwest Observers, Inc. National Marine Fisheries Service North Pacific Groundfish Observer Bering Sea		2006
California State University – Bakersfield, Department of Biology Laboratory Technician – Ichthyofaunal analyst Principal Investigator: Dr. Kenneth Gobalet Laboratory		2003 – 2006
University of California – San Diego, SCRIPPS Institute of Oceanography Research Intern (STARS Scholar) – Red muscle distribution in big-eye thresher sharks; movement patterns of common thresher sharks Principal Investigator: Dr. Jeffrey Graham		2004

GRANTS

Gaeta, J.W. Does Drought Reduce Littoral Habitat and Tributary Connectivity Available to Bear Lake Fishes? Utah Department of Natural Resources (\$140k)		2016-2018
Gaeta, J.W. Development of Common Carp Population Assessment and Mitigation Strategies in Utah Lake, UT. June Sucker Recovery Implementation Program (\$83k)		2016-2017
Wilcock, P., Atwood, T., Belmont, P., Hammill, E., and Gaeta, J.W. Comprehensive Study and Recommendations for Instream Flow Requirements on Sixth Water Creek and Diamond Fork River. Utah Reclamation Mitigation and Conservation Commission (\$500k; JWG - \$149k)		2016-2018

Gaeta, J.W. Evaluation of the threat of invasive northern pike to endangered June sucker. June Sucker Recovery Implementation Program (\$179k)	2015-2017
Gaeta, J.W. Utah Lake Resource Dynamics and Ecosystem Change. June Sucker Recovery Implementation Program (\$186k)	2015-2017
Gaeta, J.W. Implement Red Butte Management Plan. June Sucker Recovery Implementation Program (\$16k)	2015-2016
Gaeta, J.W. The Response of cold-water fishes to drought in an Intermountain West lake. USU Research Catalyst Grant. (\$20k)	2015-2016
Gaeta, J.W. Does drought reduce littoral habitat and tributary connectivity available to Bear Lake fishes? Office of Research and Graduate Studies Research Assistantship for MS Plan-A degree. (\$18k)	2015-2017
Budy, P.B. and Gaeta, J.W. Pyramid Lake Fishery Evaluation. US Fish & Wildlife. (\$49k; JWG - \$6k)	2015-2016
Budy, P.B. and Gaeta, J.W. Weber River Bluehead Sucker Recruitment Bottleneck Study Utah Division of Wildlife Resources. (\$75k; JWG - \$4k)	2015-2018

AWARDS AND RECOGNITION

Gaeta: <i>Best Professional Presentation Award</i> Utah Chapter Meeting of the American Fisheries Society	2016
Chuck Carpenter (mentored undergraduate): <i>Best Contributed Poster Award</i> Utah Chapter Meeting of the American Fisheries Society	2016
Gaeta et al. (2014) most read CJFAS paper of 2014	2015
Gaeta et al. (2014) selected as the first ever CJFAS Editor's Choice article	2014

MANUSCRIPTS IN PREPARATION (Complete manuscripts being internal reviewed or revised)

Underlined names denote graduate students

Maloney, B., **Gaeta, J.W.**, and Budy, P. Evaluating habitat-based niche requirements and recruitment bottlenecks for imperiled bluehead sucker (*Catostomus discobolus*).

Oele, D.L., **Gaeta, J.W.**, Rypel, A.L. and McIntyre, P.B. Growth dynamics of young-of-year northern pike: implications for recruitment and management.

Reynolds, J. and **Gaeta, J.W.** Predicting the impact of a northern pike (*esox lucius*) invasion on an endangered species and sport fishes.

Tunney, T.D., Hansen, G.J.A., Sass, G., Rypel, A.L., Pedersen, E., Perales, K.M., Goto, D., Hansen, J.F., Hennessey, J.M., **Gaeta, J.W.**, Vander Zanden, M.J., and Carpenter, S.R. Food web trade-offs in inland recreational fishery management.

MANUSCRIPTS IN REVIEW

Gaeta, J.W., Ahrenstorff, T.D., Diana, J.S., Fetzer, W.W., Jones, T.S, Lawson, Z.J., McInerney, M.C., Santucci, Jr., V.J., and Vander Zanden, M.J. Go big or ... don't? A field-based diet evaluation of freshwater piscivore and prey fish size relationships.

Klobucar, S.L., **Gaeta, J.W.**, and Budy, P. A changing menu in a changing climate: Using experimental and long-term data to predict invertebrate prey biomass and availability in arctic lakes.

PEER-REVIEWED PUBLICATIONS

* Denotes mentored undergraduate

- Pedersen, E.J, Goto, D., **Gaeta, J.W.**, Hansen, G.J.A., Sass, G.G., Vander Zanden, M.J., Cichosz, T.A., and Rypel, A.L. *in press*. Long-term growth rate changes in northern Wisconsin walleye populations. *Canadian Journal of Fisheries and Aquatic Sciences*.

17. Budy, P. and **Gaeta, J.W.** *in press*. Trout as an Invader: A Synthesis of Problems and Perspectives in Western North America. In Lobón-Cerviá, J., editor. The Brown Trout (*Salmo trutta*): A primer on a paradigmatic species.
16. **Gaeta, J.W.**, Hrabik, T.R., Sass, G.G., Roth, B.M., Gilbert, S., and Vander Zanden, M.J. 2015. A whole-lake experiment to control invasive rainbow smelt via overharvest and a food web manipulation. *Hydrobiologia* Special Issue: "Invasion Biology" 746(1): 433-444. (IF: 2.275; cited by 9)
15. Hansen, G.J.A., Carpenter, S.R., **Gaeta, J.W.**, Hennessy, J.M., and Vander Zanden, M.J. 2015. Predicting walleye recruitment as a tool for prioritizing management actions. *Canadian Journal of Fisheries and Aquatic Sciences* 72(5):661-672. (IF: 2.287; cited by 13)
14. Hansen, G.J.A., **Gaeta, J.W.**, Hansen, J.F., and Carpenter, S.R. 2015. Learning to manage and managing to learn: sustaining inland fisheries in a changing environment. *Fisheries* 40: 56-64. (IF: 1.781; cited by 20)
13. Hansen, J.F., Sass, G.G., **Gaeta, J.W.**, Hansen, G.J.A., Isermann, D.A., Lyons, J., and Vander Zanden, M.J. 2015. Largemouth Bass Management in Wisconsin: Intraspecific and Interspecific Implications of Abundance Increases. Pages 193-206 in M. D. Tringali, J. M. Long, T. W. Birdsong, and M. S. Allen, editors. Black Bass Diversity: Multidisciplinary Science for Conservation. American Fisheries Society, Bethesda, MD. (cited by 9)
12. Turnbull, J., Gobalet, K.W., **Gaeta, J.W.**, and Des Lauriers, M.R. 2015. The Native American Fishery of Cedros Island, Baja California, and a Comparison with the Fisheries of the Islands of the Southern California Bight. *Journal of California and Great Basin Anthropology* 35(1): 69-86. (IF: 0.42; cited by 2)
11. **Gaeta, J.W.**, Sass, G.G., and Carpenter, S.R. 2014. Drought-driven lake level decline: effects on coarse woody habitat and fishes. *Canadian Journal of Fisheries and Aquatic Sciences* 71(2): 315-325. (IF: 2.287; cited by 23)
10. **Gaeta, J.W.**, Beardmore, B., Latzka, A.W., Provencher, B., and Carpenter, S.R. 2013. Catch-and-release rates of sport fishes in northern Wisconsin. *North American Journal of Fisheries Management* 33(3): 606-614. (IF: 0.954; cited by 15)
9. Hansen, G.J.A., Hein, C.L., Roth, B.M., Vander Zanden, M.J., **Gaeta, J.W.**, Latzka, A.W., and Carpenter, S.R. 2013. Food web consequences of a long-term invasive crayfish removal. *Canadian Journal of Fisheries and Aquatic Sciences* 70(7): 1109-1122. (IF: 2.287; cited by 28)
8. Butsic, V., **Gaeta, J.W.**, and Radeloff, V. 2012. The ability of zoning and land acquisition to increase property values and maintain largemouth bass growth rates in an amenity rich region. *Landscape and Urban Planning* 107: 69-78. (IF: 3.037; cited by 6)
7. **Gaeta, J.W.**, Read, J.S., Kitchell, J.F., and Carpenter, S.R. 2012. Eradication via destratification: whole-lake mixing to selectively remove rainbow smelt, a cold-water invasive species. *Ecological Applications* 22(3): 817-827. (IF: 4.126; cited by 9)
6. Sass, G.G., Carpenter, S.R., **Gaeta, J.W.**, Kitchell, J.F., and Ahrenstorff, T.D. 2012. Whole-lake addition of coarse woody habitat: response of fish populations. *Aquatic Sciences* 74(2): 255-266. (IF: 2.706; cited by 20)
5. **Gaeta, J.W.** and Kornis, M.S. 2011. Stem borer frequency and composition in healthy *Spartina alterniflora* (smooth cordgrass) and dieback zones in a southern Atlantic Coast salt marsh. *Estuaries and Coasts* 34:1078-1083. (IF: 2.535; cited by 10)
4. **Gaeta, J.W.**, Guarascio, M.J., Sass, G.G., and Carpenter, S.R. 2011. Lakeshore residential development and growth of largemouth bass (*Micropterus salmoides*): a cross-lakes comparison. *Ecology of Freshwater Fish* 20: 92-101. (IF: 1.701; cited by 31)
3. Lawson, Z.J.* , **Gaeta, J.W.**, and Carpenter, S.R. 2011. Coarse woody habitat, lakeshore residential development, and largemouth bass nesting behavior. *North American Journal of Fisheries Management* 31(4): 666-670. (IF: 0.954; cited by 17)
2. Jones, T.L., Garza, S.C., Porcasi, J.F., and **Gaeta, J.W.** 2009. Another trans-Holocene sequence from Diablo Canyon: new faunal and radiocarbon findings from CA-SLO-585, San Luis Obispo County, California. *Journal of California and Great Basin Anthropology* 29(1): 77-89. (cited by 8)

1. Jones, T.L., Porcasi, J.F., **Gaeta, J.W.**, and Coddling, B.F. 2008. The Diablo Canyon fauna: A coarse-grained record of trans-Holocene foraging from the central California mainland coast. *American Antiquity* 73(2): 289-316. (IF: 1.51; cited by 47)

COURSEWORK, ADVISING, & MENTORING

Coursework

Fish Diversity Lecture (WATS 3100) and Laboratory (WATS 3110)	Fall 2015, 2016
Stream Temperature and Bioenergetics Modeling – WATS 6900 (003)	Fall 2015
Ecological Analysis with Mixed Effects Models – WATS 6450	Spring 2015, Fall 2016

Graduate Advisees – (4) MS Student and (0) PhD Students

Ryan Dillingham – Utah State University, Department of Watershed Science and the Ecology Center. Effects of a whole-lake invasive carp removal on the fish and macroinvertebrate community.	Summer 2016 - present
Hayley Glassic – Utah State University, Department of Watershed Sciences and the Ecology Center. Multiyear drought and fish spawning behavior and success in Bear Lake, UT/ID and it's associated tributaries.	Summer 2015 - present
Bryan Maloney – Utah State University, Department of Watershed Sciences and the Ecology Center. Co-advised. Habitat selection and spawning behavior of bluehead sucker, a species of concern.	Spring 2015 - present
Jamie Reynolds – Utah State University, Department of Watershed Sciences and the Ecology Center. The effects of a northern pike invasion on a sportfish community and an endangered species.	Summer 2015 - present

Undergraduate Advising

Faculty Advisor for the Department of Watershed Sciences Bachelor of Science degree in Fisheries and Aquatic Sciences	Spring 2016 - present
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Mentored Undergraduate Research Projects

Caroline Maggi – Utah State University WATS – 4970 – Independent Research Growth of Bear Lake Whitefish before and during drought conditions	Fall 2014
Regina Nobre – UW-Madison ZOO 699 Senior Thesis & Directed Studies Documenting lake area loss during drought (2005 – 2010) in Wisconsin's Northern Highlands Lake District with remote sensing and aerial photos	Spring 2013
Elizabeth Mackey – UW-Madison ZOO 699 Senior Thesis & Directed Studies Rainbow smelt (<i>Osmerus mordax</i>) growth across time in two distinct food webs	Spring 2010, Fall 2009
Zachary Lawson – UW-Madison, Chauncey Juday Limnological Data Scholarship Coarse woody habitat, lakeshore residential development, and largemouth bass nesting behavior (Lawson et al. 2011. North American Journal of Fisheries Management)	Fall 2009, Summer 2009
Zachary Lawson – UW-Madison, ZOO 699 Senior Thesis & Directed Studies Impacts of a whole-lake coarse woody habitat manipulation on largemouth bass foraging	Spring 2009, Fall 2008
Zachary Lawson – UW-Madison, NSF Research Experience for Undergraduates Impacts of a whole-lake coarse woody habitat manipulation on largemouth bass foraging	Summer 2008

MEDIA COVERAGE

Gaeta et al. 2014. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> . <i>Ottawa Citizen</i> article "Let fallen logs lie, study shows cottagers"	Jan 20, 2015
Michigan State University's <i>Capital News Service</i> article titled "Woodsman, place that limb under water in a pond or a lake"	April 25, 2014
Canadian Broadcasting Corporation's <i>Superior Mornings Radio</i> interview titled "Fish Hunger Games"	March 13, 2014
<i>Great Lakes Echo</i> article titled "Wood loss turns fish into binge-eaters"	March 5, 2014
Wonk on the Wildlife Ecology Blog post titled "Why Fish Need Wood"	Feb 3, 2014
<i>Wisconsin Public Radio</i> segment titled "Climate Change May Mean Fewer Fallen Trees"	Jan 15, 2014

For Fish To Use As Shelter”
University of Wisconsin – Madison’s Homepage and News website. Jan 15, 2014
Article titled “Fish forced into the ‘foraging arena’ when lakes lose their trees”

Gaeta et al. 2013. *North American Journal of Fisheries Management*.
In Fisherman Magazine article titled “Catch-and-Release Rates” Oct 2013
University of Wisconsin – Madison’s News website.
Article titled “Study suggests some fishing regs aren’t in line with fishing reality” July 9, 2013

Gaeta et al. 2011. *Ecology of Freshwater Fishes*.
In Fisherman Magazine article titled “Lakeshore Development and Bass Growth” August 2016

PROFESSIONAL TRAINING, WORKSHOPS, SERVICE, & MEMBERSHIP

Write Winning Grant Proposals Nov 2014
Dr. Peg AtKisson from Grant Writers’ Seminars and Workshops, LLC.
Utah State University

Hydroacoustic Assessment Workshop Oct 2014
BioSonics, Inc

Doing Bayesian data analysis workshop July 2012
Dr. John K. Kruschke
University of Wisconsin – Madison

Communicating climate change workshop: Translating science & telling stories July 2012
The Society of Environmental Journalists
Michigan State University – Kellogg Biological Station

Journal Reviewer:
Canadian Journal of Fisheries and Aquatic Sciences, Ecology of Freshwater Fish,
Environmental Biology of Fishes, Fish and Fisheries, Fisheries, Freshwater Biology,
Journal of Great Lakes Research, and North American Journal of Fisheries
Management.

Fellowship Reviewer:
Graduate Women in Science Fellowship

Professional Society Membership:
National American Fisheries Society, Utah Chapter of the American Fisheries Society

INVITED PRESENTATIONS

Gaeta, J.W. Invasive species, multiyear drought, and predator prey dynamics: quantifying and mitigating drivers of change in lentic ecosystems. Western Warmwater Species Meeting. Spokane, WA. July 2017.

CONTRIBUTED ORAL CONFERENCE PRESENTATIONS

(PRIMARY OR STUDENT AUTHOR ONLY)

‡ Denotes graduate student

* Denotes mentored undergraduate

Gaeta, J.W. and Landom, K. Phosphorus to fishes: Whole-ecosystem response of a shallow reservoir to drought and an invasive carp removal with an emphasis on endangered fish conservation. National Meeting of the Association for the Sciences of Limnology and Oceanography. Santa Fe, NM. June 2016.

Gaeta, J.W. and Landom, K. The effects of a whole-lake invasive carp removal on the recovery of endangered June sucker. Utah Chapter Meeting of the American Fisheries Society. Altamont, UT. March 2016. *Awarded ‘Best Professional Presentation’*

Glassic, H. ‡ and **Gaeta, J.W.** The influence of drought-induced lake level fluctuations on available fish habitat and the endemic Bear Lake sculpin (*Cottus extensus*). Utah Chapter Meeting of the American Fisheries Society. Altamont, UT. March 2016.

- Reynolds, J.† and **Gaeta, J.W.** Potential predation effects of invasive northern pike (*Esox lucius*) on endangered June sucker (*Chasmistes liorus*) in Utah Lake, UT. Utah Chapter Meeting of the American Fisheries Society. Altamont, UT. March 2016.
- Gaeta, J.W.** Muskellunge (*Esox masquinongy*) Predation on Walleye (*Sander vitreus*) Affects Population Size Structure and Harvest: A Modeling Approach. National Meeting of the American Fisheries Society. Portland, OR. August 2015.
- Gaeta, J.W.** Humans, fishes and climate: Understanding and managing drivers of change in lake ecosystems. Utah Chapter of the American Fisheries Society Annual Meeting, Moab, UT. March 2015.
- Gaeta, J.W.**, Sass, G.G., and Carpenter, S.R. Climate-driven lake level loss: effects on coarse woody habitat and fishes. Ecological Society of America Annual Meeting, Minneapolis, MN. August 2013.
- Gaeta, J.W.**, Hansen, G. A., Carpenter, S.R., Vander Zanden, M.J. Largemouth bass consumption of young-of-the-year walleye in northern Wisconsin: modeling hype and reality. North Central Division of the American Fisheries Society Joint Meeting of the Centrarchid, Esocid, and Walleye Technical Committees, Wausau, WI. July 2013.
- Gaeta, J.W.**, Lawson, Z.J., Sass, G.G., and Carpenter, S.R. Do climate driven reductions in lake level alter littoral habitat and affect fish populations? American Fisheries Society National Meeting, St. Paul, MN August 2012.
- Gaeta, J.W.**, Hansen, G. A., Hansen, J. F. Bass-Walleye Interactions Under Climate Change – *Roundtable Discussion*. North Central Division of the American Fisheries Society Joint Meeting of the Centrarchid, Esocid, and Walleye Technical Committees. Hayward, WI. July 2012.
- Gaeta, J.W.**, Read, J.S., Kitchell, J.F., and Carpenter, S.R. Fish and physics: a whole-lake thermal manipulation to remove invasive rainbow smelt. Science in the Northwoods Conference, Boulder Junction, WI September 2010.
- Gaeta, J.W.**, Guarascio, M.J., Sass, G.G., and Carpenter, S.R. Shoreline development and growth of largemouth bass (*Micropterus salmoides*): a cross-lakes comparison. American Fisheries Society Tri-Chapter Meeting (Minnesota, Ontario, Wisconsin), Duluth, MN February 2009.
- Gaeta, J.W.**, Guarascio, M.J., Sass, G.G., and Carpenter, S.R. Shoreline development and growth of largemouth bass (*Micropterus salmoides*): a cross-lakes comparison. Ecological Society of America Annual Meeting, Milwaukee, WI August 2008.
- Gaeta, J.W.**, Cartamil, D., and Graham, J. Red muscle distribution and quantity in *Alopias superciliosus*, the big-eye thresher shark. University of San Diego Summer Research Conference, San Diego, CA August 2004.
- Gaeta, J.W.** and Gobalet, K.W. Large fraction fish material from SLO-2: Fitch (1972) revisited. Southern California Academy of Sciences Annual Meeting, Long Beach, CA May 2004.

CONTRIBUTED POSTER CONFERENCE PRESENTATIONS

(PRIMARY OR STUDENT AUTHOR ONLY)

‡ Denotes graduate student

* Denotes mentored undergraduate

- Carpenter, C.* , Reynolds, J. ‡, and **Gaeta, J.W.**, Deciphering the Pike Puzzle: Comparing invasive pike body condition and length-at-age to pike in their native range. Utah Chapter Meeting of the American Fisheries Society. Altamont, UT. March 2016. *Awarded 'Best Contributed Poster'*
- Gaeta, J.W.**, Guarascio, M.J., Sass, G.G., and Carpenter, S.R. Shoreline development and growth of largemouth bass (*Micropterus salmoides*): a cross-lakes comparison. Long Term Ecological Research All Scientists Meeting, Estes Park, CO September 2009.