

From: li mac
To: [JWMNR Exhibits](#)
Subject: Comment in Support of POP 108
Date: Wednesday, March 29, 2017 12:46:46 PM
Attachments: [H.W. Li CV-doc.doc](#)

To the Committee members evaluating Policy Option Package 108:

I support full funding. I am a retired Professor of Fisheries and Wildlife Biology at Oregon State University. Although I am retired, I am active in projects I consider to be of critical importance. This past year I was invited by the Oregon Department of Water Resources (ODWR) to provide guidance in preparing for the potential impacts of global climate change on the quantity, quality and timing of runoff from watersheds and their associated streams. The most recent data supports the predictions made by climatologists at the University of Colorado for our region. The amount of precipitation will not change much, but there will be less precipitation in the form of snowpack and rain events will be common, causing the snowpack to melt and run off, rather than slowly soaking into the ground and being stored in aquifers.

What is needed is to generate information for different parts of the state so that we can develop strategies to maintain regional ecosystem patterns which support farmers, ranchers, towns and cities and the natural resource economy so important to our state. That information is badly lacking. Our meetings revealed that we cannot develop regional strategies because we do not have "boots on the ground" to gather the necessary data. The data we do have is patchy through time and space, the stream gauges are in poor repair and routine maintenance is difficult given the budget. As Mark Twain stated, "Whisky is for drinking, but water is for fighting!" Without information communities may fight with each other instead of cooperating to solve the problem.

ODWR was looking ahead. With the little money they could generate, they developed a cooperative program with the Oregon Department of Fish and Wildlife (ODFW) to support a team of two to three systems analysts to develop a computer generated system of gathering the scant data, sorting it through and developing a "first generation platform" to help decision makers to cope with factors such as equity in distribution, tactics that might be employed to preserve our land and riverscapes for Oregonians. We still need better quality data to make the decision based system more reliable and WE WILL NEED BOOTS ON THE GROUND TO GATHER IT!

ODFW is among the elite Fish and Wildlife Departments in North America. This includes the Canadians who are damn good! Why should you believe me? The research that ODFW does is first class. It is published in the best Scientific Journals in applied ecology. The Oregon Hatchery Research Center jointly run by OSU and ODFW has discovered how differences in temperature can lead to changes in migration patterns of juvenile and adult salmon. It has discovered how electricity in hatcheries can inhibit the formation of magnetic pattern recognition that juvenile salmon require to home back to their natal streams instead of straying (perhaps to other states or countries). The sampling of Ocean and lake water for blooms of bluegreen algae saves people from a neurotoxin that accumulates in the food chain. This monitoring is also valuable for the crab fishermen sampling find that domoic acid is no longer found in the crab population (this can occur in a matter of weeks).

Lastly Four OSU Faculty Members were inducted as Fellows of the American Fisheries Society in the first class of inductees. I was one of them. OSU's program is nationally recognized as the best Fish and Wildlife Programs in North America. I attach my Curriculum Vitae for your inspection.

-Dr. Hiram W. Li-
Courtesy Professor
Oregon State University

CURRICULUM VITAE

HIRAM W. LI

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EDUCATION:

A.A.- Biology, City College of San Francisco, 1964
A.B.- Zoology, University of California, Berkeley, 1966
M.S.- Fishery and Wildlife Biology, Colorado State University, 1969
Ph.D.-Ecology, University of California, Davis, 1973

EXPERIENCE:

Assistant Leader and Professor, Oregon Cooperative Fishery Unit, Department of Fisheries and Wildlife, Oregon State University. 1989 to 2007
Assistant Leader and Associate Professor, Oregon Cooperative Fishery Unit. February 1979 to present.
Assistant Professor, Department of Wildlife and Fisheries, University of California, Davis. July 1973 to January 1979.
Acting Assistant Professor, Department of Wildlife and Fisheries, University of California, Davis. July 1972 to June 1973.

PROFESSIONAL SOCIETY MEMBERSHIPS:

American Fisheries Society, North American Benthological Society, Ecological Society of America, Sigma Xi, Phi Kappa Phi, Minorities in Agriculture, Natural Resources and Related Sciences.

PROFESSIONAL ACTIVITIES:

Ecology Advisory Panel for the National Science Foundation (1984-1987).
Ecology Advisory Panel to evaluate Post Doctoral Awards for the National Science Foundation (1988).
Associate Editor for Transactions of the American Fisheries Society (1986-1988).
Educator's Committee, American Fisheries Society (1981-1983).
Editor of the Introduced Fish Section Newsletter (AFS) (1990-1992).
President Elect of the Introduced Fish Section (AFS) (1991).
President of the Introduced Fish Section (AFS) (1992).
Awards Committee, American Fisheries Society (1991).
Awards Chairman, Educator's Section, American Fisheries Society (2004-2005)
Chair of the Legislative Committee, Oregon Chapter of the American Fisheries Society (1995-1997)
EPA Regional Ecosystem Protection & Restoration Peer Review Panel 1996
BPA/NWPPC Science Review Group 1999
Governor's Independent Science Panel, State of Washington (1999-2005)
Hutton Scholarship Committee of the American Fisheries Society to increase diversity within Fisheries (2015- to Present)

Served as a referee for the following journals:

American Midland Naturalist, Ecology, Canadian Journal of Fisheries and Aquatic Sciences, Transactions of the American Fisheries Society, North American Journal of Fisheries Management, Northwest Science, Fisheries, Progressive Fish Culturalist, Hydrobiologia, Environmental Biology of Fishes, Journal of Freshwater Ecology, Ecological Applications, BioScience, Rivers, Environmental Management, Journal of the North American Benthological Society.

HONORS AND AWARDS:

Fellow of the American Fisheries Society 2015

Emmeline Moore Prize (American Fisheries Society (2012)

Water Watch of Oregon Conservation Award (2010)

Award of Excellence, Western Division of the American Fisheries Society (2008)

Scientific Excellence, National CRU Recognition Awards program, USGS (2003)

Excellence in Fisheries Education Award. American Fisheries Society (2003)

James and Mildred Oldfield/E.R. Jackman Foundation Team Award, College of Agricultural Sciences, Oregon State University (Awarded to the Loop Group 2002).

Mentoring for Professional Diversity in Fisheries Award , Equal Opportunities Section of the American Fisheries Society (2001)

Award of Merit, Oregon Chapter of the American Fisheries Society (1998)

Award of Appreciation, Oregon Chapter of the American Fisheries Society (1998)

Outstanding Group Achievement Award, American Institute of Fishery Research Biologists (awarded to the Cooperative Fish and Wildlife Research Units, 1992)

Cooperative Research Units Director's Award for Outstanding Science (awarded to the Oregon Cooperative Fisheries Research Unit, 1991).

Special Achievement Award, U.S. Fish and Wildlife Service, (1992, 1993).

Quality Performance Award, U.S. Fish and Wildlife Service, (1991, 1990, 1989, 1982).

Star Awards(2004, 2003, 2002, 2000, 1999, 1998, 1997, 1996, 1995)

Certificate of Appreciation, American Fisheries Society, (1992).

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Commendation Award, Sport Fishing Institute, 1978.

PUBLICATIONS IN REFEREED JOURNALS:

1. Moyle, P.B., F.W. Fisher, and H.W. Li. 1974. Mississippi silversides and log perch in the Sacramento-San Joaquin River system. *California Fish and Game* 60:144-149.
2. Li, H.W. and P. Adams. 1976. Three simulation games for the instruction of population dynamics. *Fisheries* 1:22.
3. Li, H.W., P.B. Moyle, and R. Garrett. 1976. Effect of the introduction of the Mississippi silverside (*Menidia audens*) on the growth of black crappie (*Pomoxis nigromaculatus*) and white crappie (*P. annularis*) in Clear Lake, California. *Transactions of the American Fisheries Society* 105:404-408.

4. Li, H.W. and P.B. Moyle. 1976. Feeding ecology of the Pit sculpin, *Cottus pitensis*, in Ash Creek, California. *Bulletin of the Southern California Academy of Science* 75:111-118.
5. Nelson, S.G., D.A. Armstrong, A.W. Knight, and H.W. Li. 1977. The effects of temperature and salinity on the metabolic rate of juvenile *Macrobrachium rosenbergii* (Crustacea:Palaemonidae). *Comparative Biochemistry and Physiology* 56:533-537.
6. Nelson, S.G., A.W. Knight, and H.W. Li. 1977. The metabolic cost of food utilization and ammonia production by juvenile *Macrobrachium rosenbergii* (Crustacea: Palaemonidae). *Comparative Biochemistry and Physiology* 57:67-72.
7. Nelson, S.G., H.W. Li, and A.W. Knight. 1977. Calorie, carbon and nitrogen metabolism of juvenile *Macrobrachium rosenbergii* (Crustacea: Palaemonidae). *Comparative Biochemistry and Physiology* 58A:319-327.
8. Li, H.W. and R.W. Brocksen. 1977. Approaches to the analysis of energetic costs of intraspecific competition for space by rainbow trout (*Salmo gairdneri*). *Journal of Fish Biology* 11:329-341.
9. Li, J.L., and H.W. Li. 1979. Species-specific factors affecting predator-prey interactions of the copepod *Acanthocyclops vernalis* with its natural prey. *Limnology and Oceanography* 24:613-626.
10. Li, H.W. and P.B. Moyle. 1981. Ecological analysis of species introductions into aquatic systems. *Transactions of the American Fisheries Society* 110:772-783.
11. Wurtsbaugh, W.A., H.W. Li, and J.L. Li. 1981. Fish versus zooplankton predation in lakes. *Nature* (Lond.) 292:779-780.
12. Hanson, C.H. and H.W. Li. 1983. Behavioral response of juvenile chinook salmon (*Oncorhynchus tshawytscha*) to trash rack bar spacing. *California Fish and Game* 69:18-22.
13. LaBolle, L.D., Jr., H.W. Li, and B.C. Mundy. 1985. Comparison of two samplers for quantitatively collecting larval fishes in upper littoral habitats. *Journal of Fish Biology* 26:139-146.
14. White, J.R., and H.W. Li. 1985. Determination of the energetic cost of swimming from the analysis of growth rate and body composition juvenile chinook salmon, *Oncorhynchus tshawytscha*. *Comparative Biochemistry and Physiology* 81A:25-33.
15. Wurtsbaugh, W. and H. Li. 1985. Diel migrations of a zooplanktivorous fish (*Menidia beryllina*) in relation to the distribution of its prey in a large eutrophic lake. *Limnology and Oceanography* 30:565-576.
16. Weiner, G.S., C.B. Schreck, and H.W. Li. 1986. Effects of low pH on reproduction of rainbow trout. *Transactions of the American Fisheries Society* 115:75-82.
17. Currens, K.P., C.B. Schreck, and H.W. Li. 1988. Reexamination of the use of otolith nuclear dimensions in the identification of juvenile anadromous and nonanadromous rainbow trout (*Salmo gairdneri*). *Fisheries Bulletin* 86:160-163.
18. Resh, V.H., A.V. Brown, A.P. Covich, M.E. Gurtz, H.W. Li, G.W. Minshall, S.R. Reice, A.L. Sheldon, J.B. Wallace and R. Wissmar. 1988. The role of disturbance theory in stream ecology. *Journal of the North American Benthological Society* 7:433-455.

19. Currens, K.P., C.D. Sharpe, R.J. Hjort, C.B. Schreck, and H.W. Li. 1989. Effects of different feeding regimes on the morphometrics of chinook salmon (*Oncorhynchus tshawytscha*) and rainbow trout (*O. mykiss*). *Copeia* 1989:689-695.
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22. Adams, R.M., R.P. Berrens, A. Cerda, P.C. Klingeman, and H.W. Li. 1993. Economic and natural science information in riverine management: case of the John Day River. *Rivers* 4(3):213-226.
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26. Li, H.W., G.A. Lamberti, T.N. Pearsons, C.K. Tait, J.L. Li, and J.C. Buckhouse. 1994. Cumulative effects of riparian disturbance in small streams of the John Day Basin, Oregon. *Transactions of the American Fisheries Society* 123:627-640.
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29. Tait, C.K., J.L. Li, G.A. Lamberti, T.N. Pearsons, and H.W. Li. 1994. Influences of riparian cover on benthic community structure in high desert streams. *Journal of the North American Benthological Society* 13(1):45-56.
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41. Gregory, S.V., H.W. Li and J.L. Li. 2002. Conceptual basis for ecological responses to dam removal. *BioScience* 52:713-723.
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48. Montano-Moctezuma, G., H.W. Li and P.A. Rossignol.2007 Alternative community structures in a kelp-urchin community: a qualitative approach. *Ecological Modeling* 205:343-354.

49. Bayley, P.B. and H.W. Li. 2008 . Fish responses to grazing exclosures. *North American Journal of Fisheries Management* 28:135-147.
50. Boxall, G.D., G.R. Giannico, and H.W. Li. 2008. Landscape Topography and the distribution of Lahontan cutthroat trout (*Oncorhynchus clarki Henshawii*) in a high desert stream. *Environmental Biology of Fishes* 85:71-84.
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52. Boxall, G.D., G.R. Giannico, and H.W. Li. Accepted. Movement, survival and growth as indicators of habitat quality in a high desert watershed for endangered Lahontan cutthroat trout (*Oncorhynchus clarki henshawii*). *Environmental Biology of Fishes*.
53. Feldhaus, J.W., S.A. Heppell, H.W. Li, and M.G. Mesa. 2010) A physiological approach to quantifying thermal habitat quality for Redband Rainbow Trout (*Oncorhynchus mykiss gairdneri*) in the South Fork John Day River, Oregon. *Environmental Biology of Fishes*. 87:227-290.
54. Tattam, I. A., J. R. Ruzycki, P. B. Bayley, H. W. Li, and G. R. Giannico. 2013. The influence of release strategy and migration history on capture rate of *Oncorhynchus mykiss* in a rotary screw trap. *North American Journal of Fisheries Management* 33:237–244.
55. Tattam, I.A., J.R. Ruzycki, P.B. Bayley, H.W. Li, and G.R. Giannico. Body size and growth rate influence emigration timing of *Oncorhynchus mykiss*.. *Transactions of the American Fisheries Society* 142:1406-1414.
56. White, S.M., Giannico, G.R, and Li, H.W. (Invited review). 2014. A 'behaviorscape' perspective on stream fish ecology and conservation: Linking fish behavior to riverscapes. *Wiley Interdisciplinary Reviews (WIREs) Water* 1(4):385-400.

CHAPTERS OF PUBLISHED SYMPOSIA or BOOKS

1. Li, H.W. 1975. Competition and coexistence in stream fishes. Pages 19-30, in P.B. Moyle and D. Koch (eds). *Symposium on Trout-nongame Fish Relationships in Streams*. Water Resources Center Publication 17, Desert Research Institute, University of Nevada Reno.
2. Moyle, P.B., and H.W. Li. 1979. Community ecology and predator-prey systems in warmwater streams. Pages 171-181, in R.H. Stroud and H.E. Clepper (eds). *Predator-prey Systems in Fisheries Management*. Sport Fisheries Institute, Washington DC.
3. Smith, J.J. and H.W. Li 1983. Energetic factors influencing foraging tactics of rainbow trout (*Salmo gairdneri*). Pages 173-180, in D.L.G. Noakes, D.G. Lindquist, G. Helfman, and J. Ward (eds). *Predator and Prey in Fishes*. Dr. W. Junk, The Hague, Netherlands.

4. Moyle, P.B., H.W. Li, and B.A. Barton. 1986. The Frankenstein Effect: impact of introduced fishes on native fishes in North America. Pages 415-426, *in* R.H. Stroud (ed). Fish Culture in Fisheries Management. American Fisheries Society, Bethesda, MD.
5. Li, H.W., C.B. Schreck, C.E. Bond and E. Rexstad. 1987. Factors influencing changes in fish assemblages of Pacific Northwest streams. Pages 193-202, *in* W.J. Matthews and D.C. Heins (eds). Community and Evolutionary Ecology of North American Stream Fishes. University of Oklahoma Press, Norman OK.
6. Schreck, C.B. and H.W. Li. 1991. Performance capacity of fish: stress and water quality. Pages 21-29, *in* D.E. Brune and J.R. Tomasso (eds), Aquaculture and Water Quality. World Aquaculture Society, Baton Rouge, LA.
7. Bayley, P.B. and H.W. Li. Riverine Fishes. 1992. Chapter 12. Pages 251-281, *in* P. Calow, G.E. Petts (eds.). The Rivers Handbook, Hydrological and Ecological Principles, Volume 1. Blackwell Scientific, Oxford, U.K.
8. Li, H.W. and P.B. Moyle. 1993. Chapter 12. Management of Introduced fishes. Pages 287-308, *in* C. Kohler and W. Hubert (eds), Inland Fisheries Management in North America. American Fisheries Society, Bethesda MD.
9. Li, H.W. and J.L. Li. 1996. Fish Community Composition. Pages 391-406 *in* F.R. Hauer and G.A. Lamberti (eds). *Methods in stream ecology*. Academic Press, N.Y., N.Y.
10. Li, H.W. , K. Currens, D. Bottom, S. Clarke, J. Dambacher, C. Frissell, P. Harris, R.M. Hughes, D. McCullough, A. McGie, K. Moore, R. Nawa, and S. Thiele. 1996. Safe havens: genetic refuges and evolutionarily significant units. Pages 371-380 *in* J. Nielsen (ed.), Evolution and the aquatic Ecosystem: Defining unique units in population conservation. American Fisheries Society. Bethesda MD.
11. Castillo, G.C., J.T. Golden, and H.W. Li. 1995. Variations in relative abundance and year-class strength of petrale sole off Oregon and Washington. Pages 322-344, Proceedings of the Lowell Wakefield Fisheries Symposium. International Symposium on North Pacific flatfish. Alaska Sea Grant College Program. AK-SG-95-04
12. Castillo, G.C., T.W. Miller, J.W. Chapman and H.W. Li. 1996. Non-indigenous species have caused major shifts in the food-base of estuarine-dependent fishes. Pages 101-109, *in* Mackinlay, D. and K. Shearer (Eds.) Gutshop=96 Feeding ecology and nutrition in fish. Symposium Proceedings, Physiology Section of the American Fisheries Society, San Francisco State University, San Francisco, CA, USA.
13. Gresswell, R. E., H. Li, and P. Rossignol. 1998. Ecological risk analysis of a piscivorous fish introduction into the Yellowstone Lake Ecosystem. Pp.122-126. *In* R.E. Gresswell, P. Dwyer, and R. H. Hamre eds. Wild Trout VI Symposium. 216 pp.
14. Li, H.W. and P.B. Moyle. Chapter 13. Management of Exotics, (2nd Edition). 1999. Pages 345-374, *in* C. Kohler and W. Hubert , editors. Inland Fisheries Management in North America. American Fisheries Society. Bethesda MD.
15. Li, H.W., P.A. Rossignol and G. Castillo. 2000. Risk analysis of species introduction: Insights from qualitative modeling. Pages 431-447, *in* Claudi R., and Leach J. (eds). Non-indigenous Fresh Water Organisms in North America; Vectors of Introduction, Biology and Impact. Lewis Press, Boca Raton FL.
16. Walks, D.J., H.W. Li, and G.H. Reeves. 2000. Trout, summer flows and irrigation canals: a study of habitat

condition and trout populations within a complex system. Pages 115-125, *in* I.G. Cowx, (eds) Proceedings of the symposium on Management and Ecology of River Fisheries. Blackwell Scientific, Oxford, U.K.

17. Castillo, G.C., H.W. Li, J.W. Chapman, and T.W. Miller. 2000. Predation on native and nonindigenous amphipod crustaceans by a native estuarine-dependent fish. Pages 177-185, *in* J. Pederson (ed.). Marine bioinvasions. MIT Sea Grant Program, Massachusetts Institute of Technology, Cambridge MA.
18. Li, H.W., J. Dambacher, and D. Buchanan. 2007. Phenotypic variation and redband trout. Pages 14-18 *in* R.K. Schroeder and J.D. Hall (eds.). Redband trout: resilience and challenge in a changing landscape. Oregon Chapter of the American Fisheries Society.
19. Currens, K.P., C.B. Schreck, and H.W. Li. In Press. Evolutionary diversity in redband trout. Pages 10-11 *in* R.K. Schroeder and J.D. Hall (eds.). Redband trout: resilience and challenge in a changing landscape. Oregon Chapter of the American Fisheries Society.
20. Currens, K.P., C.B. Schreck, and H.W. Li. Loss of genetic variation in rainbow trout isolated by ancient and recent barriers. Pages 12-13 *in* R.K. Schroeder and J.D. Hall (eds.). Redband trout: resilience and challenge in a changing landscape. Oregon Chapter of the American Fisheries Society.
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2. Moyle, P.B. and H.W. Li. Fish community structure and predator-prey relationships in warmwater streams. International predator-prey symposium sponsored by the Sport Fishing Institute. 1978.
3. Wurtsbaugh, W.A. and H.W. Li. Diel migrations of the zooplanktivorous fish, *Menidia audens*, in relation to the distribution of its prey. 42nd annual meeting of the American Society of Limnology and Oceanography. 1979.
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10. LaBolle, L.D. and H.W. Li. Importance of the upper littoral Columbia River impoundment. 114th Annual Meeting of the American Fisheries Society. 1985.
11. Li, H.W., C.B. Schreck, C.E. Bond. and E. Rexstad. Factors influencing changes in fish assemblages of Pacific Northwest streams. Symposium on evolution and ecology of stream fishes. 65th Annual Meeting of the American Society of Ichthyologists and Herpetologists. 1985.
12. Moyle, P.B., H.W. Li, and B.A. Barton. The Frankenstein Effect: impact of introduced fishes on native fishes in North America. Symposium on the role of fish culture in fishery management. Sponsored by Fish Culture and Fisheries Management Section, American Fisheries Society. 1985.
13. Wurtsbaugh, W.A. and H. W. Li. Annual cycles in condition indices, prey availability and mortality for the silverside *Menidia beryllina*: field and laboratory studies. 114th Annual Meeting of the American Fisheries Society. 1985.
14. Wurtsbaugh, W.A., and H. W. Li. Light intensity, fish feeding and refugia for zooplankton: studies on *Menidia beryllina* in Clear Lake, California. 48th Meeting of the American Society of Limnology and Oceanography. 1985.
15. Li, H.W. Invited panelist "Impacts of Biological Introductions." 48th Biological Colloquium. Biological Pest Controls: Theory and Application. Oregon State University, Corvallis. 1987.
16. Li, H.W., T. Pearson, and R.S. Gardner. A classification native fishes: case histories for the Northwestern United States. 67th Annual Meeting of the American Society of Ichthyologists and Herpetologists. 1987.
17. Li, H.W., and E. Leitzinger. Use of hierarchical stream properties of fish assemblages. 73rd Annual meeting of the Ecological Society of America. 1988.
18. Li, H.W. The ecology of extinction: habitat fragmentation and chance events. Symposium: Genetics and conservation biology of threatened salmonids in the Pacific Northwest. Oregon State University, May 28-29. 1991.

19. Li, H.W., T.N. Pearsons, C. Tait, and J.L. Li. 1991. Cumulative impacts of riparian damage on rainbow trout populations in high desert streams of the John Day Basin, Oregon. American Fisheries Society, Annual Meeting, San Antonio, TX. Sept. 8-12.
20. Li, J.L., T.N. Pearsons, C.K. Tait, and H.W. Li. 1991. Effects of adding artificial drift: can bottom-up control work? North American Benthological Society, Annual Meeting, Albuquerque, NM. May 20-24.
21. Pearsons, T.N. and H.W. Li. 1991. Habitat selection of stream fishes as mediated by predators, competitors, and habitat complexity: an experimental approach. American Fisheries Society, Annual Meeting, San Antonio, TX. Sept. 8-12.
22. Pearsons, T.N., J.L. Li, C. Tait, and H.W. Li. 1991. "Gimme Shelter": habitat selection by rainbow trout in Hostile environments. American Fisheries Society, Annual Meeting, San Antonio, TX. Sept. 8-12.
23. Pearsons, T.N. and H.W. Li. 1991. Factors influencing local stream fish biodiversity. North Pacific International Chapter of the American Fisheries Society, Annual Meeting, Penticton, B.C. Canada. March 11-13.
24. Tait, C., J. Li, T. Pearsons, and H. Li. 1991. Playing in the trophic cascade: trophic dynamics and steelhead success in marginal warmwater habitats. North Pacific International Chapter of the American Fisheries Society, Annual Meeting, Penticton, B.C. Canada. March 11-13.
25. Tait, C.K., J.L. Li, H.W. Li, and G.A. Lamberti. 1991. Factors influencing macroinvertebrate diversity in high desert streams. North American Benthological Society, Annual Meeting, Albuquerque, NM. May 20-24.
26. Tait, C.N., J.L. Li, H.W. Li., G.A. Lamberti, and T.N. Pearsons. 1992. Influences of riparian cover on benthic community structure in high desert streams. Annual Meeting of the North American Benthological Society, May 23-27, Louisville KY.
27. Li, J.L. and H. W. Li. 1992. Dancing with fishes while educating Little tree (Educating native Americans as Resource Managers). Annual Meeting of the American Fisheries Society, September 14-17, Rapid City SD.
28. Li, H.W., C.K. Tait, J.L. Li, and T.N. Pearsons. 1992. Riparian control of aquatic community structure in high dessert streams. Annual Meeting of the Ecological Society of America, August 9-13, Honolulu HI.
29. Li, H.W. and D.L. Lassuy. 1992. Exotics and introductions disrupt evolutionary processes. Annual Meeting of the American Fisheries Society, September 14-17, Rapid City SD.
30. Rohovec, J. and H.W. Li. 1992. Germ warfare: the spread of pathogens through species introductions. Annual Meeting of the American Fisheries Society, September 14-17, Rapid City SD.

31. Adams, N.S., W.J. Spearman, C.V. Burger, C.B. Schreck, and H.W. Li. 1993. Variation in mitochondrial DNA and allozymes among populations of chinook salmon, Oncorhynchus tshawytscha, in the Kenai and Kasilof rivers, Alaska, International Symposium on Genetics of Subarctic Fish and Shellfish, May 17-19, Juneau, Alaska.
32. Wurtsbaugh, W.A. and H.W. Li. 1993. Zooplankton refuges from predation: effects of light intensity on feeding by the fish Menidia beryllina. Society of International Limnologists, Barcelona, Spain.
33. Castillo, G., H. Li, and J. Golden. 1993. Comparison of catch rates and year-class strength of Petrale sole, Eopsetta jordani, in two areas off Oregon and Washington. Annual Meeting of the American Fisheries Society, August 29-September 2, Portland OR.
34. Adams, N.S., C.V. Burger, H.W. LI, and C.B. Schreck. 1993. Variation in mitochondrial DNA and allozymes among populations of chinook salmon, Oncorhynchus tshawytscha in the Kenai and Kasilof Rivers, Alaska. Annual Meeting of the American Fisheries Society, August 29-September 2, Portland OR.
35. Tait, C.K., J.L. Li, H.W. Li, and G.A. Lamberti. 1993. Influences of riparian canopy on benthic community structure in high desert streams. Annual Meeting of the American Fisheries Society, August 29-September 2, Portland OR.
36. Adams, N.S., C.V. Burger, H.W. LI, and C.B. Schreck. 1993. Variation in mitochondrial DNA and allozymes among populations of chinook salmon, Oncorhynchus tshawytscha in the Kenai and Kasilof Rivers, Alaska. Annual Meeting of the American Fisheries Society, August 29-September 2, Portland OR.
37. Castillo, G., H. Li, and J. Golden. 1993. Comparison of catch rates and year-class strength of Petrale sole, Eopsetta jordani, in two areas off Oregon and Washington. Annual Meeting of the American Fisheries Society, August 29-September 2, Portland OR.
- 38.. Torgersen, C.E., D.M. Price, B.A. McIntosh, and H.W. Li. 1995. Thermal refugia and chinook salmon habitat in Oregon: applications of Aerial thermal videography. 15th Biennial Workshop on color photography and videography in resource assessment, Indiana State University, Terre Haute, IN.
39. Castillo, G., H.W. Li, J. Chapman and T. Miller. 1995. Exotic invertebrates have trophic effects in northeast Pacific estuaries. Pacific Division-A.A.A.S. Meeting, University of British Columbia, Vancouver, B.C.
40. Castillo, G.C., J.W. Chapman, H.W. Li., and T.W. Miller. Trophic impacts of introduced invertebrates on estuarine-dependent fishes. Annual Meeting of the American Fisheries Society, Dearborn, Michican. 1996
41. Hirsch, C.L, and H.W. Li. Shifts in redband trout use of pools and their microhabitats, including an evaluation of a habitat improvement project in central Oregon. Annual Meeting of the North American Benthological Society, Spring 1996, Kalispell, MT.
42. Li, H.W. 1996. Creatures of light and darkness: Management with exotics. Symposium on nonindigenous species in western aquatic ecosystems. Sponsored by the Western

Aquatic Plant Management Society, and the North American Lake Management Society,
27 March Portland State University.

43. Price, D.M., C.E. Torgersen, H.W. Li and B.A. McIntosh. Interbasin differences in chinook salmon habitat. Annual Meeting of the North American Benthological Society, Spring 1996, Kalispell, MT.
44. Torgersen, C.E., D.M. Price, B.A. McIntosh, and H.W. Li. Multi-scalar approaches for assessing patch dynamics of stream temperature. Annual Meeting of the North American Benthological Society, Spring 1996, Kalispell, MT.
45. Gresswell, R., H.W. Li, and P. Rossignol. 1997. Assessing Ecological Risk of Introductions to the Yellowstone Lake Ecosystem. Annual Meeting of the Society of Conservation Biology, Victoria, B.C., June.
46. Castillo, G.C., J.W. Chapman, T. Miller and H.W. Li. 1997. Predation on native and introduced gammaridean amphipods in mud and sand substratums by juvenile English Sole. Annual Meeting of the American Fisheries Society, Monterey, California, August.
47. Li, H.W., J.B. Kauffman, J.L. Li, K. Dwier, C. Torgersen, K. Wright, B. A. McIntosh, R. Beschta, R. Hopson, C. Daniels, P. McDowell, and S. Sabater. 1997. Patterns of discontinuity and community organization in a highly disturbed stream. 45th Annual Meeting of the North American Benthological Society, San Marcos, TX. May 29.
48. Li, H.W., J.B. Kauffman, J.L. Li, K. Dwier, C. Torgersen, K. Wright, B. A. McIntosh, R. Beschta, R. Hopson, C. Daniels, P. McDowell, and S. Sabater. 1997. A Comparative Study of Thermal Discontinuities and Community Organization From High Desert Watersheds. Annual Meeting of the American Fisheries Society, Monterey, California, August.
49. Li, H.W., Castillo, G., R. Gresswell, J. Dambacher and P.A. Rossignol. 1998. Risk analysis of exotic invasions using qualitative mathematical analysis. 46th Annual Meeting of the North American Benthological Society, Prince Edward Island, Canada, June.
50. Li, H.W. et al. 1998. Geomorphic, hydrologic and Ecological Connectivity in Columbia River Watersheds: implications for endangered salmonids. EPA/NSF Partnership for environmental research. Water and Watersheds Program Review Meeting. Corvallis, Oregon, Oregon State University. January.
51. Dambacher, J., G. Castillo, G. Montano, H. Li, and P. Rossignol. Qualitative Modeling of Fish Communities: Applications Toward Ecosystem Management. Presented at 16th Lowell Wakefield Fisheries Symposium, Ecosystem Considerations in Fisheries Management. September 30-October 3, 1998, Anchorage, Alaska.
51. Li, H.W. Stream fish assemblages: a reflection of riparian dependent processes. Workshop FUNÇÕES E ORDENAMENTO DE ZONAS RIPÁRIAS, Universidade de Trás-os-Montes e Alto Douro, Vila Real, Portugal October 14-16, 1998.
52. Dambacher, J.M., H.W. Li and P.A. Rossignol. 1999. Use of qualitative modeling to assess and predict effects of harvest on multispecies communities. 129th Annual Meeting of the American Fisheries Society, August 29-September 29, 1999, Charlotte, North Carolina.
53. Li, H.W., J. M. Dambacher, R. Gresswell, D.A. Beauchamp, J.R. Ruzycki, and P. A. Rossignol. 1999. Stephen Forbes, risk analysis and pests in trout systems. 129th Annual Meeting of the American Fisheries Society, August 29-September 29, 1999, Charlotte, North Carolina.

54. Li, H.W. 2000. Cultural vs. Ecological Values Governing Natural Resource Management: Lessons from Qualitative Food Webs. International Institute of Fisheries, Economics and Technology. July 10, LaSalle Stewart Center, Corvallis OR

Convened with Bob Hughes the session on Invasive Alien Species for the Oregon AFS 2001 meeting in Portland OR.

55. Hughes, R.M., H.W. Li, S.V. Gregory and R. Wildman. 2001 Changes in fish assemblage structure in the mainstem Willamette River, Oregon. American Fisheries Society Meetings, Phoenix AZ.
56. Montaño-Monteczuma, G., H.W. Li, and P. Rossignol. 2001. Determination of stability of sea urchin-kelp forest communities of Coastal Oregon using qualitative models. Poster. Symposium on Marine Refuges. San Francisco.
57. Li, H.W.¹, K. Gamperl, and K. Rodnick Landscapes and patches; implications for homerange, distribution and thermal adaptation of redband trout (*Oncorhynchus mykiss*). North American Benthological Society Meetings, June 2001, La Crosse WI. North American Benthological Society Meetings, June 2001, La Crosse WI. .
58. Fausch, K.D., C. E. Torgersen, C. V. Baxter, and H. W. Li. Landscapes to riverscapes: bridging the gap between research and conservation of stream fishes. North American Benthological Society Meetings, June 2001, La Crosse WI. .
59. Baxter, C., C. Torgersen, and H.W. Li, Large-scale habitat complementation and the ecological importance of migration to stream fishes in a pacific northwest river system. . North American Benthological Society Meetings, June 2001, La Crosse WI. .
60. Li, H.W., C. Baxter, C. Torgersen and K. Fausch. 2003. The Riverscape: A perspective of restoration of wild fishes in the Pacific Northwest. Aug. 11, 2003, Quebec City, Canada. Annual Meeting of the American Fisheries Society.
61. Baltz, D M E.J, Chesney, H.W. Li, P. A. Rossignol, and T. S. Switzer. 2003. Ecological and Societal Values of Estuarine Habitats" at "Estuaries on the Edge, Convergence of Ocean, land and Culture". September 14-18, 2003. ERF 2003. 17th Biennial Conference of the Estuarine Research Federation, Seattle, Washington.
62. Torgersen, C E, Baxter, C V Li, H W 2003 Pattern detection, scope, and sampling in streams. ASLO, Salt Lake City, UT, February.
62. Liu C.-C., S. Heppell, H. Li, M. Adams, C. Pearl, J. Jorgensen. 2004. Models to qualify the impacts of exotic species on native red-legged frogs (*Rana aurora*). American Society of Ichthyology and Herpetology. Norman OK, May.
63. George Boxall, Guillermo Giannico, and Hiram Li. 2005. Topography and Fragmented Populations of Lahontan Cutthroat Trout (*Oncorhynchus clarki henshawi*). Annual Meeting of the American Fisheries Society. Anchorage AK.

64. Guillermo Giannico, George Boxall, and Hiram Li. 2005. Habitat Use, Survival and Growth of Fragmented Populations of Lahontan Cutthroat Trout (*Oncorhynchus clarki henshawi*). Annual Meeting of the American Fisheries Society. Anchorage AK.
65. Lovtang, J.C. and H.W. Li. 2005. Water Temperature, Invertebrate Drift, and the Scope for Growth for Juvenile Spring Chinook Salmon. Annual Meeting of the North American Benthological Society Joint Assembly with the American Geophysical Union. New Orleans, LA, June.
66. Boxall, G.D. ,G. Guillermo and H.W. Li. 2006. Movement patterns and growth of Lahontan cutthroat trout; a whole-stream, whole-population analysis. American Fisheries Society, September, Lake Placid, N.Y.
67. Osborne-Gowey, J., H., Li, S. Heppell, and A. Jenne. 2005. Growth response of a threatened cutthroat trout to a fluctuating environment. Oral presentation, 37th Congress of the Desert Fishes Council. Cuatrociénegas, Coahuila, Mexico. November, 2005.

Regional Presentations and Workshops

- 1 .Chaired session on Habitat Assessment Models. Annual Meeting of the Pacific Fisheries Biologists. Kah-Nee-Ta, Oregon. 1979.
2. Li, H.W. Factors affecting community structure of fishes in Deer Creek, California, Palouse Chapter of the American Fisheries Society, Moscow, ID. 1979.
3. Li, H.W. The role of habitat assessment models in fisheries management, Oregon Clean Water conference, McKenzie Bridge, Oregon. 1980.
4. Li, H.W. Panelist on "Ethics and Professionalism". Western Section of the American Fisheries Society. Portland, Oregon, 1986.
5. Chaired session of Large-Scale Environmental Changes and Impacts on Oregon Fisheries. Annual Meeting of the Oregon Chapter of the American Fisheries Society, Bend Oregon. 1989.
6. Li, H.W., G.A. Lamberti, T.N. Pearsons, C.K. Tait, J.L. Li, and J.C. Buckhouse. Detection of cumulative impacts of land use through habitat classification of streams. Annual Meeting of the Oregon Chapter of the American Fisheries Society, Bend. Oregon, Welches, Oregon. 1990.
7. Li, H.W., Two visions of nature: poetic vs. agribusiness. Humboldt Chapters of the Wildlife Society, American Fisheries Society, and Conservation Unlimited. 16th Annual Conference. Arcata, California. 1990
8. Li, H.W., T.N. Pearsons, C.K. Tait, and J.L. Li. Factors affecting aquatic communities in the John Day Basin. Symposium: New Perspectives in Managing Rangeland Ecosystems. Oregon State University, Corvallis, Oregon. 1991.
9. Li, H.W., K.J. Rodnick, and A. Crook. Habitat diversity and fish community structure in Willamette Valley Streams. Annual Meeting of the Oregon Chapter of the American Fisheries Society, Kah-Nee-Ta, Oregon. 1984.
10. Li, H.W. Revetments as ecological units in the Willamette River. Annual Meeting of the Oregon Chapter of the American Fisheries Society. Lincoln City, Oregon, 1985.

11. Hjort, R., H.W. Li, and C.B. Schreck. Habitat utilization by resident fishes in John Day Pool. Annual Meeting of the Oregon Chapter of the American Fisheries Society, Kah-Nee-Ta, Oregon. 1982.
12. House, R., H.W. Li, and K. Rodnick. Effects of competition on models of habitat quality. Annual Meeting of the Oregon Chapter of the American Fisheries Society, Kah-Nee-Ta, Oregon. 1982.
13. Mundy, B., L. LaBolle, P. Hulett, and H. Li. 1982. Early life history patterns of resident fishes in the lower Columbia River. Annual Meeting of the Oregon Chapter of the American Fisheries Society, Kah-Nee-Ta, Oregon. 1982.
14. Rodnick, K. and H.W. Li. Multivariate approach to define elements of habitat selection: availability and utilization patterns. Annual Meeting of the Oregon Chapter of the American Fisheries Society, Kah-Nee-Ta, Oregon. 1982.
15. Labolle, L.D. and H.W. Li. Diel patterns of habitat utilization by post-larval fishes in Lake Umatilla. Annual Meeting of the Pacific Fisheries Biologists, The Dalles, Oregon. 1983.
16. Schreck, C.B. and H.W. Li. Involvement of cortisol in social status of juvenile coho salmon. Western Regional Conference Comparative Endocrinology, University of California, Berkeley. 1983.
17. Hjort, R., C.B. Schreck, H.W. Li, and C.S. Sharpe. Chinook and steelhead of the Columbia River--are the stocks different? Annual Meeting of the Oregon Chapter of the American Fisheries Society, Kah-Nee-Ta, Oregon. 1986.
18. Gardner, R.S., and H.W. Li. A behavioral approach to quantify prey preferences of the northern squawfish (Ptychocheilus oregonensis). Annual Meeting of the Oregon Chapter of the American Fisheries Society, Welches, Oregon. 1987.
19. Noble, S.M. and H.W. Li. The impact of hatchery steelhead fry when hatchery fry have prior residence. Annual Meeting of the Oregon Chapter of the American Fisheries Society, Welches, Oregon. 1987.
20. Mesa, M., C.B. Schreck, and H.W. Li. Behavioral response of cutthroat trout (Salmo clarki) to electrofishing. Annual Meeting of the Oregon Chapter of the American Fisheries Society, Ashland, Oregon. 1988.
21. Pearsons, T. and H.W. Li. Resistance of high desert stream fishes to flash flooding. Annual Meeting of the Oregon Chapter of the American Fisheries Society, Bend, Oregon. 1989.
22. Li, H.W., G.A. Lamberti, and J.C. Buckhouse. A strategy for determining cumulative impacts: riparian case histories. Annual Meeting of the Oregon Chapter of the American Fisheries Society, Bend Oregon. 1989.
23. Currens, K.P., A.R. Hemmingsen, D.V. Buchanan, C.B. Schreck, and H.W. Li. Allozyme variation and resistance to Ceratomyxa shasta in rainbow trout (Oncorhynchus mykiss). Annual Meeting of the Gilbert Ichthyology Society, Seattle, Washington. 1990.

24. Pearsons, T. and H.W. Li. An experimental test of habitat richness and species diversity in the John Day River Oregon. Annual Meeting of the Gilbert Ichthyology Society, Seattle, Washington. 1990.
25. Pearsons, T. and H.W. Li. Effects of habitat complexity on stream fish community structure. Annual Meeting of the Oregon Chapter of the American Fisheries Society, Bend, Oregon, Welches, Oregon. 1990.
26. Tait, C., T. Pearsons, H. Li, and J. Li. Playing in the trophic cascade: effects of trophic manipulations on algal/macroinvertebrate communities in a high desert stream. Oregon Chapter of the American Fisheries Society, Annual Meeting, Gleneden Beach, Oregon. 1991.
27. Tait, C.K., J.L. Li, H.W. Li, and G.A. Lamberti. 1993. Influences of riparian canopy on benthic community structure in high desert streams. Annual Meeting of the American Fisheries Society, August 29-September 2, Portland OR.
28. Li, H.W. 1994. Habitat needs of high desert salmonids. (Plenary Session of the Sustaining rangeland ecosystems symposium. sponsored by the Blue Mountains Natural Resources Institute, Oregon Chapter of the Wildlife Society, Pacific Northwest Section of the Society for Range Management, Oregon Chapter of the American Fisheries Society, Eastern Oregon State College, La Grande, Oregon 29 August.
29. Chapman, J., G. Castillo, and H.W. Li. 1994. Potential effects of ballast water exotics on food chains in Oregon estuaries. Annual Meeting of the Oregon Chapter of the American Fisheries Society, Sun River, Oregon.
30. Initiated and Chaired Session on Biodiversity issues along the Pacific Rim. Annual Meeting of the Oregon Chapter of the American Fisheries Society, Sun River, Oregon.
31. McIntosh, B., D. Price, C. Torgersen, and H.W. Li. 1994. RadioActive: tracking spring chinook salmon in eastern Oregon Watersheds. Annual Meeting of the Oregon Chapter of the American Fisheries Society, Sun River, Oregon.
32. Li, H.W. 1994. Introductory Remarks to the Session on Physical Challenges of Anadromous Fish Restoration. Klamath Basin Fisheries Symposium. Eureka CA. March 23. 1994.
33. Moderated this session and the Panel Discussion.
34. Li, H.W., K. Currens, and AFS Watershed Classification Committee. 1994. Safe havens: genetic refuges and ESU's. Evolution and the Aquatic Ecosystem. Defining unique units in population conservation. AFS Monterey, CA May 23.
35. Li, H.W. 1994. Not Salmon Alone: interactions with native and Exotic species. Conservation of Pacific Salmon. Issues and questions for the future. LaSells Stewart Center, Oregon State University, Corvallis OR, April 27-28.
36. Li, H.W. 1994. The Role of alien aquatic infestations on the devastation of biodiversity in freshwater communities. Oregon Chapter of the Wildlife Society. LaSells Stewart Center, Oregon State University, Corvallis OR, 17 May.

37. Torgersen, C.E., D.M. Price, B.A. McIntosh, and H.W. Li. 1995. Thermal infrared remote sensing and habitat ecology of spring chinook in the John Day River. Annual Meeting of the Oregon Chapter of the American Fisheries Society, Ashland OR.
38. Torgersen, C.E., D.M. Price, B.A. McIntosh, and H.W. Li. 1995. Thermal infrared remote sensing and habitat ecology of spring chinook in the John Day River. Problems of Salmon in the Columbia River, Water Resources Research Institute, Portland Oregon.
- 39.. Li, H.W. 1995. Salmon and science from the perspective of cultural values. To swim with the salmon: ecology of faith, creation of hope, Westminster House, Corvallis OR.
40. Li, H.W. 1995. Impacts of grazing on high desert trout streams. Annual meeting of the Oregon Natural Desert Association, Malheur National Wildlife Refuge, Oregon.
41. Hirsch, C.L. and H.W. Li. 1996. Shifts in redband trout use of pools and their microhabitats, including an evaluation of a habitat improvement project in central Oregon. 32nd Annual Meeting, Oregon Chapter of the American Fisheries Society, 23 Feb. 96, Sunriver, OR
42. Li, H.W. 1996. Evolutionary considerations in the development and design of fish refuges. 32nd Annual Meeting, Oregon Chapter of the American Fisheries Society, 22 Feb. 96, Sunriver, OR
43. Price, D.M., C.E. Torgersen, H.W. Li and B.A. McIntosh. 1996. Interbasin differences in chinook salmon habitat. 32nd Annual Meeting, Oregon Chapter of the American Fisheries Society, 23 Feb. 96, Sunriver, OR
44. Currens, K.P., C.B. Schreck, and H.W. Li. 1996. Evolution, genetics, and conservation of redband trout. Western Division of the American Fisheries Society, Eugene, Oregon.
45. Li, H.W. and D. Buchanan. 1996. Landscape influences on the adaptive response of inland rainbow trout: a historical perspective. Inland Rainbow Trout Workshop, Malheur Field Station, Princeton, Oregon.
46. Li, H.W., J.L. Li, C. Torgersen, T. Pearsons, C. Tait, J. Ebersole and W. Liss. 1997. Riparian dependence and the ecology of desert trout streams. Riparian use, ecology and management. Symposium on Riparian Use, Ecology and Management, LaSells-Stewart Center, O.S.U. Corvallis, May 27.
47. Li, H.W., J.L. Li, C. Torgersen, T. Pearsons, C. Tait, J. Ebersole and W. Liss. 1997. Riparian dependence and the ecology of desert trout streams. Riparian and Watershed Management in the Interior Northwest, La Grande, OR., September 11th.
48. Walks, D. and H.W. Li. 1997. Discharge modifications and its effects on trout populations and habitat in the Deschutes River of Central Oregon. Annual Meeting of the Oregon Chapter of the American Fisheries Society, Salishan, Oregon. February.
49. Li, H.W. et al. 1998. Geomorphic, hydrologic and Ecological Connectivity in Columbia River Watersheds: implications for endangered salmonids. EPA/NSF Partnership for environmental research. Water and Watersheds Program Review Meeting. Corvallis, Oregon, Oregon State University. January.
50. Habron, G., H. Li, and C. Smith. 1998. Agricultural landowners' perspectives toward adaptive watershed management: implications of the coastal salmon restoration initiative. Annual Meeting of the Oregon Chapter of the American Fisheries Society. Sun River, Oregon February.

51. Castillo, G.C., H.W. Li, and P.A. Rossignol. 1998. Neutral stability of a benthic estuarine community as a buffer to biological invasions. Annual Meeting of the Oregon Chapter of the American Fisheries Society. Sun River, Oregon February.
52. Dambacher, J., G. Castillo, G. Montaño-Monteczuma, R. Gresswell, H. Li, and P. Rossignol. 1998. Qualitative modeling of fish communities: applications toward ecosystem management. Annual Meeting of the Oregon Chapter of the American Fisheries Society. Sun River, Oregon February.
53. Beschta, R. L. , R. Hopson, C. Baxter, P. McDowell, S. Jett, J.B. Kauffman, K. Dwire, J. Brookshire, B. A. McIntosh, H. W. Li, C. Torgersen, J. L. Li, and K. Wright. 1998. Geomorphic, hydrologic, and riparian influences on temperature structure of high desert streams of the Blue Mountains. Annual Meeting of the Oregon Chapter of the American Fisheries Society. Sun River, Oregon February.
54. Wright, K., C. Torgersen, B. A. McIntosh, H. W. Li, J. L. Li, R. L. Beschta, R. Hopson, C. Baxter, P. McDowell, S. Jett, J.B. Kauffman, K. Dwire, and J. Brookshire . 1998. Responses of stream biota to variations in longitudinal temperature patterns in high desert streams of the Blue Mountains. Annual Meeting of the Oregon Chapter of the American Fisheries Society. Sun River, Oregon February.
55. Dambacher, J., H.W. Li and P. Rossignol. 1998 Risk Analysis of exotic invasions using qualitative mathematical analysis. Workshop: Management implications of co-occurring native and introduced fishes, Oct. 27-28, Portland, Oregon.
56. Baxter, C., C. Torgersen, J. Ebersole, H. Li, B. McIntosh and W. Liss. 1999. System stress in headwater streams: where have all the juvenile chinook gone? Oregon Chapter of the American Fisheries Society, February 10-12, Sun River Oregon.
56. Torgersen, C., C. Baxter, K. Wright, H. Li and B. McIntosh. 1999. Using geography to put the continua back in the "River Continuum": longitudinal analysis of stream habitat and fish distribution. Oregon Chapter of the American Fisheries Society, February 10-12, Sun River Oregon.
57. Li, H.W. 2000. John Day and Grande Ronde River Comparisons: evidence for breaching Snake River dams. Ridgetop to Ridge top. OWEB Symposia. November 7, 2000, Eugene Hilton Baxter,
58. Baxter, C., C. Torgersen, and H.W. Li. Life in motion: the importance of migration to stream fishes in northeastern Oregon. Oregon Chapter of the American Fisheries Society, February 16, 2001, Portland OR.
59. Close, D., M.S. Fitzpatrick and H.W. Li. Status and importance of Pacific lampreys (*Lampetra tridentata*) in the Columbia River Basin. Oregon Chapter of the American Fisheries Society, February 16, 2001, Portland OR.
61. Close, D., M.S. Fitzpatrick and H.W. Li. Swimming performance and exhaustive stress in Pacific lampreys (*Lampetra tridentata*). Oregon Chapter of the American Fisheries Society, February 16, 2001, Portland OR
62. Close, D., M.S. Fitzpatrick and H.W. Li. The effects of intraperitoneally implanted radio transmitters on the physiology and swimming performance of Pacific lampreys (*Lampetra tridentata*). Oregon Chapter of the American Fisheries Society, February 16, 2001, Portland OR

63. Dambacher, J., K. Jones, and H.W. Li. Equal probability sampling for the status review of Great Basin redband trout: a method that worked! Oregon Chapter of the American Fisheries Society, February 15, 2001, Portland OR.
64. LaRue, M.L., D.J. Stouder, J.L. Li and H.W. Li. Landuse and drought: a fish eye view. Oregon Chapter of the American Fisheries Society, February 15, 2001, Portland OR.
65. Ebersole, J., C.V. Baxter, H.W. Li, W.J. Liss, and C. Frissell. 2001 Detecting temporal dynamics and ecological effects of smallmouth bass invasion in northeast Oregon Streams. AFS Symposium Detecting temporal dynamics and ecological effects of smallmouth bass invasion in northeast Oregon streams. Oregon Chapter of the American Fisheries Society, February 15, 2001, Portland OR.
66. Dambacher, J. , H.W. Li and P.A. Rossignol. Historical reconstruction through qualitative modeling of the effects of exotic fish introduction in Tenmile Lakes, Oregon. Oregon Chapter of the American Fisheries Society, February 15, 2001, Portland OR.
67. Castillo, G. and H.W. Li. Distribution, trophic role and community impacts of introduced species in two Oregon estuaries. . Oregon Chapter of the American Fisheries Society, February 15, 2001, Portland OR.
68. Li, H.W.. 2001. The Endangered Species Act and Traditional Ecological Knowledge: the convergence of culture and values. Northwest Chapter of the Native American Fish and Wildlife Society. Oct. 30, Pendleton OR.
69. Li, H.W., K.P. Currens, J.D. McIntyre, D.R. Montgomery, D.W. Reiser. 2001. Independent Science Panel's recommendations for monitoring salmonid recovery in Washington State. Society for Ecological Restoration, Northwest Chapter , April 5, 2001, Bellevue WA.
70. Montaño-Montecuma, G., H.W. Li, and P. Rossignol. 2001. Determination of stability of sea urchin-kelp forest communities of Coastal Oregon using qualitative models. Poster. Symposium on Marine Refuges. San Francisco.
71. C., C. Torgersen, and H.W. Li. Life in motion: the importance of migration to stream fishes in northeastern Oregon. Oregon Chapter of the American Fisheries Society, February 16, 2001, Portland OR.
72. Torgersen, C.E., C.V. Baxter, and H.W. Li. 2002. Spatial scaling and longitudinal patterns of fish assemblage and stream habitat relationships. Oregon Chapter of the American Fisheries Society, 27 Feb.-March 1, Sunriver OR.
73. Li, H.W. 2002. Science, Washington's salmon recovery plan, and the SF 49ers: a synthesis. Oregon Chapter of the American Fisheries Society, 27 Feb.-March 1, Sunriver OR.
74. Li, J.L., S. L. Johnson, H.W. Li ,C. Frady, G. Shippentower, and W. Gerth. 2002. What a difference a day makes! a diel study of rainbow trout diet in the Imnaha River Basin. Oregon Chapter of the American Fisheries Society, 27 Feb.-March 1, Sunriver OR.
75. Li, H.W., G. Shippentower, J.L. Li, C. Schreck and C. Frady. 2002. Long-term and short-term effects of stomach pumping on rainbow trout. Oregon Chapter of the American Fisheries Society, 27 Feb.-March 1, Sunriver OR.

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77. Li, H.W. Willamette Valley Environmental Forum: A tale of two watersheds: Evidence for breaching the Snake River Dams. Sept. 25, 2002. Corvallis Public Library.
78. Li, H.W. 2003. The riverscape: a strategic perspective of stream and riparian restoration. Annual Meeting of the Oregon Chapter of the American Fisheries Society, Feb. 27 2003, Eugene OR.
80. Li, J.L., H.W. Li and S.L. Johnson. 2003 Linking streams and the land. Annual Meeting of the Oregon Chapter of the American Fisheries Society, Feb. 27 2003, Eugene OR.
81. Bayley, P. B. and H.W. Li. 2003. Response of fish to grazing enclosures: have we been successful in restoring habitat? Annual Meeting of the Oregon Chapter of the American Fisheries Society, Feb. 27 2003, Eugene OR.
82. Lovtang, J. and H.W. Li. 2003. Seasonal distribution and habitat associations of juvenile spring chinook salmon in the Metolius River Basin, Oregon. Annual Meeting of the Oregon Chapter of the American Fisheries Society, Feb. 27 2003, Eugene OR.
83. Li, H.W. Kansas State Dept. of Biology, The Value of qualitative mathematical models in adaptive management of natural resources. Oct. 1 2002, Manhattan Kansas.
84. Li, H.W. NMFS-Seattle. A tale of two watersheds: Evidence for breaching the Snake River Dams. Oct. 10. 2002, Seattle WA.
85. Krentz, L., H. Li, I. Fleming, K. Jones and T. Cornwell. 2004. Habitat Use and movement of sea-run cutthroat trout in the Salmon River estuary. 40th Annual Meeting of the Oregon Chapter of the American Fisheries Society, Sun River, Oregon February.
86. Bottom, D., S. Bryce, S. Clarke, J. Dambacher, C. Frisell, B. Hughes, H. Li, D. McCullough, A. McGie, K. Moore and R. Nawa. An ecosystem strategy to conserve aquatic biodiversity. 40th Annual Meeting of the Oregon Chapter of the American Fisheries Society, Sun River, Oregon February.
87. Boxall, G., G. Giannico, H. Li and M. Varner. 2005. Topography and distribution patterns of Lahontan cutthroat trout (*Oncorhynchus clarki henshawi*) in a stream habitat mosaic. 41st Meeting of the Oregon Chapter of the American Fisheries Society, Corvallis OR, February.
88. Feldhaus, J.W., M.G. Mesa, S.A. Heppell, L.J. Madsen and H.W. Li. 2005. Physiological tools to assess thermal stream habitat quality for redband trout (*Oncorhynchus mykiss*) in the South Fork John Day River. 41st Meeting of the Oregon Chapter of the American Fisheries Society, Corvallis OR, February.
90. Giannico, G., S. Heppell, H.W. Li, C. Jordan, M. Newsom, P. Larsen, N. Bouwes and J. Ruzycski. 2005. A riverscape perspective: Tier III Monitoring as a planning tool for restoration. 41st Meeting of the Oregon Chapter of the American Fisheries Society, Corvallis OR, February.

91. Lovtang, J.C. and H.W. Li. 2005. Strategies for survival: habitat use and distribution of juvenile chinook salmon in the Metolius River Basin, Oregon. 41st Meeting of the Oregon Chapter of the American Fisheries Society, Corvallis OR, February.
92. Tattam, I.A., J.R. Ruzycki, W.H. Wilson and T.D. Goby, H.W. Li and G.R. Giannico. 2005. Estimating abundance and spatial distribution of fall migrating *Oncorhynchus mykiss* in the South Fork of the John Day River. 41st Meeting of the Oregon Chapter of the American Fisheries Society, Corvallis OR, February.
93. Madrinan, L.F., H.W. Li, G. Giannico, S. Gregory, and B.E. Feist. 2005. Linking fine- and coarse-scale studies to determine spatial distribution of redband trout (*Oncorhynchus mykiss gairdneri*) at the watershed scale. 41st Meeting of the Oregon Chapter of the American Fisheries Society, Corvallis OR, February.
94. Osborne-Gowey, G. Boxall, A. Jenne, S. Heppell, H. Li, C. Pereira and M. Varner. 2005. Responses of an endangered cutthroat trout to an exotic invading charr. 41st Meeting of the Oregon Chapter of the American Fisheries Society, Corvallis OR, February.
95. Boxall, G., G. Giannico, and H. Li. 2006. Habitat use, survival and growth of fragmented populations of Lahontan cutthroat trout (*Oncorhynchus clarki henshawi*). Oregon Chapter of the American Fisheries Society, March, Sun River, OR
96. Clemens, B.J., R.J. Magie, D.A. Young, M.G. Mesa, H.W. Li, and C.B. Schreck. 2006. Movements and distribution of Radio-tagged adult Pacific lamprey in the Willamette Basin. Oregon Chapter of the American Fisheries Society, March, Sun River, OR.
97. Madrinan, L.F., H.W. Li, and G. Giannico. 2006. Testing hypotheses of limiting factors that control spatial distribution of redband (*Oncorhynchus mykiss gairdneri*) from a Riverscape Perspective. Oregon Chapter of the American Fisheries Society, March, Sun River, OR.
98. Osborne-Gowey, J., H.W. Li, S. Heppell, and A. Jenne. 2006. Anorexia and the threatened Lahontan cutthroat trout: results and ecological implications from a competitive interaction study. Oregon Chapter of the American Fisheries Society, March, Sun River, OR
99. Tattam, I.A., J.R. Ruzycki, W.H. Wilson, H.W. Li and G.R. Giannico. 2006. Examining tradeoffs of Movement and Growth by *Oncorhynchus mykiss* of the Sour Fork John Day River. Oregon Chapter of the American Fisheries Society, March, Sun River, OR
100. Tattam, I.A., J.R. Ruzycki, W.H. Wilson, J.E. Schricker, and H.W. Li. 2006. It's not as simple as "counting fish": estimating rotary screw trap efficiency for juvenile steelhead trout. Northwest Scientific Association Annual Meeting, March.
101. White, S.M., H.W. Li, and G. Giannico. 2006. Smile! You're on candid (fish) camera: does method of observation affect fish behavior? Oregon Chapter of the American Fisheries Society, March, Sun River, OR.

INVITED UNIVERSITY SEMINARS (External)

University of Idaho Li, H.W. Factors affecting community structure of fishes in Deer Creek, California, Palouse Chapter of the American Fisheries Society, Moscow, ID. 1979.

Humboldt State University Li, H.W., Two visions of nature: poetic vs. agribusiness. Humboldt Chapters of the Wildlife Society, American Fisheries Society, and Conservation Unlimited. 16th Annual Conference. Arcata, California. 1990

University of Washington Li, H.W. 1994. The effect of stream temperature on the patterns of habitat use and trophodynamics on fishes in the high desert streams of Oregon. October.

Portland State University Li, H.W. 1996. Creatures of light and darkness: Management with exotics. Symposium on nonindigenous species in western aquatic ecosystems. Sponsored by the Western Aquatic Plant Management Society, and the North American Lake Management Society, 27 March Portland State University.

Colorado State University Li, H.W. The impact of cattle grazing on the riparian zones and fishes in the high desert trout streams of eastern Oregon. September 1997.

UC Davis Li, H.W. Impacts of overgrazing on watersheds and fish habitats in high desert stream systems of eastern Oregon, May 1998.

Universidade de Trás-os-Montes e Alto Douro, Li, H.W. Stream fish assemblages: a reflection of riparian dependent processes. Vila Real, Portugal October 14-16, 1998.

Idaho State University. Li, H.W. The effect of overgrazing on the ecology of fishes in high desert streams of Oregon.

Kansas State University Li, H.W. The Value of qualitative mathematical models in adaptive management of natural resources. Oct. 1 2002, Manhattan Kansas.

University of Oklahoma Li, H.W. Controversy of the Snake River Dams from the Perspective of the Riverscape: connecting Maps to Fish Habitats, October 2004.

Li, H.W. Qualitative Mathematical Analysis of Communities and Ecosystems: If you can draw, you can model. ...

WORKSHOPS

Riparian Ecology Workshop BLM, Prineville 1996. Organized session at Jim Eisner's (BLM) behest, invited speakers, presented talk.

Workshop FUNÇÕES E ORDENAMENTO DE ZONAS RIPÁRIAS, *Stream fish assemblages: a reflection of riparian dependent processes.*, Universidade de Trás-os-Montes e Alto Douro, Vila Real, Portugal October 14-16, 1998.

Andrews LTER Site. Application of qualitative modeling to problems of ecosystem management. May 2-5 2001 and October 3-6, 2001

LSU. *Modeling the dead zone.* September 10-12, 2002

KSU. *Modeling the bobwhite quail.* Oct. 1-3, 2002

Graduate Student Symposium, Qualitative Mathematical Workshop. 2003., La Salle Stewart Center, Oregon State University, October

IMST/OWEB Workshop on Effectiveness Monitoring.,

National Center for Ecological Analysis and Synthesis: *Aquatic Gap* Santa Barbara, Jan 17-20, 2006

Oregon Chapter of the American Fisheries Society, *Symposium on the Role of Lobbyists on Fisheries Issues*, Sun River March 1, 2006.

TECHNICAL PUBLICATIONS AND REPORTS

1. Li, H.W. 1975. The use of computer simulation games in the training of applied ecologists. Proceedings of the Winter Simulation Conference. National Association of Simulation and Gaming. pp 275-276.
2. Hanson, C.H., J.R. White, and H.W. Li. 1977. An alternative approach for developing intake velocity design criteria. Transactions of Cal-Neva Wildlife. pp 10-18.
3. Hanson, C.H., J.R. White, and H.W. Li. 1977. Entrapment and impingement of fishes by power plant cooling-water intakes: an overview. Marine Fisheries Review 39:7-17.
4. Alley, D. and H.W. Li. 1977. Significance of microhabitat selection for fishes in a Sierra foothill stream. Transactions of Cal-Neva Wildlife. pp 27-33.
5. Alley, D., D.H. Dettman, H.W. Li and P.B. Moyle. 1977. Habitats of native fishes in the Sacramento River Basin. Symposium on Riparian Habitat. Institute of Ecology Publications, University of California, Davis, 15:87-97.

6. Li, H.W. and N. Mosman. 1977. Analysis of the Clear Lake commercial fishery using different surplus yield models. Transactions of Cal-Neva Wildl. pp 112-117.
7. Li, H.W. and P.B. Moyle. 1977. Analysis of a disturbed ecosystem: Clear Lake, California. Final Technical Report NSF Grant DEB74-23702. 35 pp.
8. Hjort, R.C., B.C. Mundy, P.L. Hulett, H.W. Li, C.B. Schreck, R.A. Tubb, H.W. Horton, L.D. LaBolle, A.G. Maule, and C.E. Stainbrook. 1981. habitat requirements for resident fishes in the reservoirs of the lower Columbia River. U.S. Army Corps Engineers Final Report contract No. DAC57-79-C-0067, 180 pp.
9. Rodnick, K. and H.W. Li. 1983. Habitat suitability index models: littleneck clam. USDI Fish Wildl. Serv. FWS/OBS-82/10./59. 15 pp.
10. Edwards, E.A., H.W. Li and C.B. Schreck. 1983. Habitat suitability index models: longnose dace. USDI Fish Wildl. Serv. FWS/OBS-82/10.33.
11. Li, H.W., C.B. Schreck, R.A. Tubb, K. Rodnick, M. Ahlgren, and A. Crook. 1983. The impact of small-scale dams on fishes of the Willamette River, Oregon and an evaluation of fishhabitat models. Water Resources Research Institute, OR State Univ., WRRRI-91. 82 pp.
12. Hjort, R.C., P.L. Hulett, L.D. LaBolle, and H.W. Li. 1984. Fish and invertebrates of revetments and other habitats in the Willamette River Oregon. U.S. Army Corps Engineers Waterways Experiment Station, EWQOS Tech. Rep. E-84-9, 116 pp.
13. Schreck, C.B., H.W. Li, A.G. Maule, B.A. Barton, L. Sigismondi, and P.J. Prete. 1984. Columbia River salmonid outmigration: McNary Dam passage and enhanced smolt quality. BPA Report, Project No., 82-16. 112 pp.
14. Li, H.W., C.B. Schreck, and K.J. Rodnick. 1984. Assessment of habitat quality models for cutthroat trout (Salmo clarkiclarki) and coho salmon (Oncorhynchus kisutch) for Oregon's coastal streams. Pages 57-111, in J.W. Terrell (ed.), Proceedings of a workshop on fish habitat suitability index models. USDI Fish Wildl. Serv. Biol. Rep. 85. 393 pp.
15. Li, H.W., C.B. Schreck, and R.A. Tubb. 1984. Comparisons of habitats near spur dikes, continuous revetments, and natural banks for larval, juvenile, and adult fishes of the Willamette River. Water Resources Research Institute, OR State Univ., WRRRI-95, 15pp.
16. Schreck, C.B., H.W. Li, R.C. Hjort, C.S. Sharpe, K.P. Currens, P.L. Hulett, S.L. Stone, S.B. Yamada. 1986. Stock identification of Columbia River chinook salmon and steelhead trout. USDOE, BPA Project 83-451, 184 pp.
17. Li, H.W., G.A. Lamberti, J.C. Buckhouse, T.N. Pearsons, C. Tait, and J.L. Li. 1990. Cumulative impact of riparian cover on thermal loading, trophic processes and juvenile steelhead trout in small streams of the John Day Basin. Oregon Water Resource Research Institute, 45 pp.
18. Li, H.W., T.N. Pearsons, C.K. Tait, J.L. Li and R. Gaither. 1991. Approaches to evaluate habitat improvement programs in streams of the John Day Basin. Completion Report to the Research Section of the Oregon Department of Fish and Wildlife, HW 34, Corvallis Oregon.

19. Adams, R. M., P.C. Klingeman, and H.W. Li. 1990. A bioeconomic analysis of water allocations and fish habitat enhancements, John Day Basin, Oregon. U.S. Geological Survey Grant Number 14-68-0001-G1479 168pp.
20. Li, H.W., D. Bella and R. Jacobs. 1992. Biological Indicators of Global Climate Change. Proceedings of the U.S. Fish and Wildlife Service Workshop, Nov. 13-15, 1990. Oregon State University.
21. Li, H.W., J. Chapman, J. Carlton, J. Golden, G. Castillo, T. Miller, L. Xin and J. Bonnicksen. 1994. Trophic impacts of ballast water exotics in estuarine benthic communities: pilot project. A report for Oregon Sea Grant. Project No. 30-262-5876-S95. Corvallis OR 41 p.
22. Marcot, B.G., M.J. Wisdomm, H.W. Li and G.C. Castillo. 1994. Managing for reatured, threatened, endangered and sensitive species and unique habitats for ecosystem sustainability. *In*: R.L. Everett (Assessment team Leader). Eastside Forest Ecosystem Health Assessment. General Technical Report. PNW-GTR-329. USDA Forest Service, Portland OR, Vol. III:43 p.
23. Li, H.W. 1995. Non-native species. Pages 428-429, *in* E.T. LaRoe, G.S. Farris, C.E. Puckett, P.D. Doran, and M.J. Mac (Eds.). Our living resources: A report to the nation on the distribution, abundance, and health of U.S. plants, animals, and ecosystems. USDI National Biological Service, Washington, D.C.
24. Williamson, K.J., D.A. Bella, R.L. Beschta, G. Grant, P.C. Klingeman, H.W. Li and P.O. Nelson. 1995. Gravel disturbance impacts on salmon habitat and stream health. Volume I: Summary Report. Oregon Water Resources Research Institute, Corvallis, OR.
25. Minear, P, M. Meleason, G. Castillo, J.L. Li, S. Gregory, and H.W. Li. 1995. Impacts of gravel disturbance on stream condition and salmon habitat. *In* K.J. Williamson (ed), Gravel disturbance impacts on salmon habitat and stream health. Volume II: Technical Background Report. Oregon Water Resources Research Institute, Corvallis, OR.
26. Close, D.A., M.S. Fitzpatrick, H.W. Li, B. Parker, and G. James. 1995. Status report of the Pacific Lamprey (*Lampetra tridentata*). Bonneville Power Administration. Project Number 94-026.
27. Torgersen, C.E., D.M. Price, B.A. McIntosh, and H.W. Li. 1995. Thermal refugia and chinook salmon habitat in Oregon: applications of airborne thermal videography. *In* Proceedings of the 15th Biennial Workshop on Videography and Color Photography in Resource Assessment./ American Society for Photogrammetry and Remote Sensing. Department of Geography, Geology and Anthropology, Indiana State University, Terre Haute, Indiana. 167-171 pp.
29. Li, H.W., J.B. Kauffman, R.L. Beschta and B.A. McIntosh.. 1998. The relationship of cattle and salmon redds at Catherine Creek: a scientific assessment. Agriculture Experiment Station Special Publications 994, Oregon State University. 37 pp.
30. Hatch, S., L. Cleveland, K. Miles, P. Ponds, H. Li, P. McClenahan and D. Trauger. 1997. Project reviews: Pine Bluff Cooperative Fishery Project, University of Arkansas-Pine bluff; Grambling Cooperative Wildlife Project, Grambling State University. Cooperative Research Units, Headquarters, U.S.G.S. B.R.D.
30. Dambacher, J.M., H.W. Li and P.A. Rossignol. 1999. Historical reconstruction through qualitative modeling, of the effects of exotic fish introductions in Tenmile Lakes, Oregon. Pages 219-233 *in* ODFW and NMFS. management implications of co-occurring native and

introduced fishes: proceedings of the workshop. October 27-28, 1998, Portland, Oregon, 243 pages. Available from: National Marine Fisheries Service, 525 N.E. Oregon St., Suite 510, Portland OR 97232.

31. Li, H.W., R.L. Beschta, J.B. Kauffman, J.L. Li, B.A. McIntosh, P.A. McDowell. 2000. Hydrologic, geomorphic and ecological connectivity in Columbia river watersheds: implications for endangered salmonids. Completion Report to the EPA Star Program (EPA & NSF Water and Watersheds Competitive Grant Program), R82-4774-010, 112 Pages.
32. Independent Science Panel. May 2000. Review of *Statewide Strategy to Recover Salmon: Extinction is not an Option*. Report 2000-1 <http://www.governor.wa.gov/gspro/science/documents.htm>
33. Independent Science Panel. December 2000. Recommendations for Salmon Monitoring Salmonid Recovery in Washington State. Report 2000-2 <http://www.governor.wa.gov/gspro/science/documents.htm>
34. Li, H.W. 2002. A Comparison of Longitudinal Temperature Patterns In Relation To The Distribution And Movement Of Redband Trout (*Oncorhynchus Mykiss Spp.*) In The Little Blitzen River And Bridge Creek, Harney County, Oregon. Completion Report To Oregon Department of Environmental Quality, March 22, 2002.
35. Kauffman, J.B., P. Bayley, H. Li, P. McDowell and R./L. Beschta. 2002. Research/Evaluate Restoration of NE Oregon Streams: Effects of livestock exclosures (corridor fencing) on riparian vegetation, stream geomorphic features, and fish populations. Completion Report 2000-051 and 2000051-01, Bonneville Power Administration.
35. Independent Science Panel. February 2002. Instream Flows for Salmon. Tech Memo 2002-1, Salmon Recovery Office, Washington State. <http://www.governor.wa.gov/gspro/science/documents.htm>
36. Independent Science Panel. July 2002. Responses of Salmon and Trout to Habitat Changes. Tech Memo 2002-2, Salmon Recovery Office, Washington State. [Http://www.governor.wa.gov/gspro/science/documents.htm](http://www.governor.wa.gov/gspro/science/documents.htm)
37. Independent Science Panel. June 2003. Review of Stormwater Management Procedures for Western Washington. Report-2003-1. <http://www.governor.wa.gov/gspro/science/documents.htm>
38. Bouwes, N. (ed), P. Bayley, M. Bowen, D. Butcher, G. Giannico, S. Heppell, C. Jordan, P. Larsen, H. Li, M. Newsome, and J. Ruzycski. 2004. Analytical framework and study plan outline: The United States Bureau of Reclamation-Funded John Day River, Oregon, Research
39. Independent Science Panel. 2006. Review of "Study Plan for the Intensively Monitored Watershed Program. Independent Science Panel Report 2006-1, August 31, 2006.
40. 2016-17 Policy Advisory Group for the Oregon Department of Water Resources. The objective was to review and revise Oregon's Integrated Water Resources Strategy in light of potential water scarcity induced by global climate change. My role was to inform the group about how aquatic organisms and riparian wetlands would be affected by different prescriptions

Book Reviews

- Li, H.W. 1999. Book Review for Journal of the North American Benthological Society: Nonindigenous fishes introduced into inland waters of the United States. Pam L. Fuller, Leo G. Nico, and James D. Williams. ISSN: 0097-0638. ISBN: 1-888569-14-X. American Fisheries Society Special Publication 27. Bethesda, MD 20814-2199, 1999. 613 pp. \$49 (Hardback/Cloth).
- Li, H.W. 2000. Recovering River Systems is a Synthesis of Science, Politics and Policy. 2000.BioScience (*In Press July issue*).

GRANTS AND CONTRACTS

1. Clear Lake Mosquito Abatement District \$7,000 *Efficacy of the inland silverside as a biological control agent*. 1975
2. California Trout \$3,000 *Microhabitat overlap between rainbow trout and Sacramento squawfish*. 1975
3. California Department of Fish and Game \$20,000 *Investigations of the role of light on the critical swimming speed of juvenile chinook salmon*. 1975
4. National Science Foundation DEB74-2372 \$23,000 *Analysis of a Disturbed Ecosystem: Clear Lake, California*. Co-PI's: H.W. Li and P.B. Moyle. 1976
5. Office of Water Research and Technology \$26,000 *A research Program to examine fish behavior in response to hydraulic flow fields-development of biological design criteria for proposed water diversions*. Co-PI's: H.W. Li and C.H. Hanson. 1976
6. State of California Mosquito Control Funds \$30,000 *Bioenergetic model of mosquitofish-mosquito predation dynamics*. 1977-1979 Co-PI's: H.W. Li and J.J. Cech
7. U.S. Army Corps of Engineers \$285,000 *Habitat requirements for resident fishes in the reservoirs of the lower Columbia River*. 1979-1981. Co-PI's: H.W. Li, C.B. Schreck, H. Horton, R.A. Tubb.
8. Habitat Evaluation Program (USFWS) \$59,000 *Species suitability curves for Pacific Coast fishes*. 1978-1980 Co-PI's: C.B. Schreck and H.W. Li.
9. Water Resource Research Institute \$45,000 *Prediction of impact of low-head hydroelectrical dams on Willamette fishes using three habitat assessment models*. 1980-1983. Co-PI's: H.W. Li, C.B. Schreck, and R.A. Tubb.
10. Waterways Experiment Station \$84,000 *Willamette River Aquatic habitat study*. 1982-83. Co-PI's: H.W. Li and C.B. Schreck.
11. Environmental Protection Agency \$40,000 *Impacts of surface water acidification on commercially and recreationally important salmonid fishes: effects on reproductive success and recruitment*. 1981-1984 Co-PI's: C.B. Schreck and H.W. Li.
12. U.S. Fish and Wildlife Service \$4,000 *Habitat suitability of the blue mussel*. 1983 Co-PI's: H.W. Li and C.B. Schreck.
13. Water Resource Research Institute \$8,000 *Examination of revetted banks as rearing areas for larval and post-larval fishes*. 1983-1984. Co-PI's: H.W. Li, C.B. Schreck, R.A. Tubb

14. Water Resource Research Institute \$45,000 *Evaluation of habitat improvement programs in the John Day Basin, 1985-1987.*
15. Water Resource Research Institute \$35,000 *Cumulative impact of riparian cover on thermal loading, trophic processes, and juvenile steelhead trout in small streams of the John Day Basin, 1988-1990*
16. Bonneville Power Administration \$390,000 *Stock identification of Columbia River chinook salmon and steelhead trout. 1983-1986. Co-PI's: C.B. Schreck and H.W. Li.*
17. Water Resource Research Institute \$45,000 *Use of habitat classification to define flow standards for the John Day basin. 1985-1987. Co-PI's: H.W. Li, J. Lichatowich, and R.A. Tubb.*
18. U.S. Geological Survey Grant \$135,000 *Economic analysis of habitat improvement structures and water policy for the John Day basin. 1988-1990. Co-PI's: R. Adams, H.W. Li, and P. Klingeman.*
19. Water Resources Research Institute \$12,000 *Cumulative impact of riparian canopy removal in small watersheds on juvenile salmonid fishes in the John Day Basin. 1988 Co-PI's: G. A. Lamberti, H.W. Li and J. Buckhouse.*
20. Oregon Department of Fish and Wildlife \$300,000 *Role of improved hatchery oxygenation to raceways on migratory performance of chinook salmon in the Willamette River. Co-PI: R.D. Ewing, C.B. Schreck, and H.W. Li.*
21. American Indian Summer Internships \$35,000 (USDA and USFWS support since 1980)
22. Oregon Department of Fish and Wildlife \$53,000 *Development of Assessment methodologies for evaluation of Stream Rehabilitation Programs in Eastern Oregon. PI: Hiram Li.*
23. U.S. Fish and Wildlife Service \$25,000. *A Comparison of Factors Affecting Biological Diversity in Streams and Rivers of Eastern and Western U.S.: Hierarchical Scaling of the John Day Basin. Co-PI: Mike Scott and Hiram Li.*
24. Sea Grant \$36,000 *The effects of exotic benthic invertebrates on the feeding habits of benthic fishes. Co-PI: Hiram Li, John Chapman, James Carlton, James Golden.*
25. Bonneville Power Association \$250,000 *Coldwater refuges for adult spring chinook salmon in the Blue Mountains, Co-PI: McIntosh, B.A. and H.W. Li.*
26. Oregon Division of State Lands \$125,000 *Gravel disturbance impacts on salmon habitat and stream health. Co-PI: Williamson, W.J., D.A. Bella, R.L. Beschta, G. Grant, P.C. Klingeman, H.W. Li, and P.O. Nelson.*
27. USDA CSRS National Research Initiative Competitive Grants Program \$250,000 *Low-flow augmentation through market transfers of Deschutes River Water. Co-PI: Stevens, J.B., R. Adams, F. Obermiller, G. Perry and H.W. Li.*
28. National Science Foundation/EPA \$900,000 *Collaborative Research: Hydrologic, geomorphic, and ecological connectivity in Columbia River Watersheds: implications for endangered salmonids. Co-PI: Li, H.W., J.B. Kauffman, J. Li, R.L. Beschta, B.A. McIntosh, P. McDowell and M. Abrams.*
29. U.S. Army Corps of Engineers \$20,000 *Physiological costs incurred by Pacific lamprey (*Lampetra tridentata*) during dam passage. Co-PI: Li, H.W. and M. Fitzpatrick.*

30. Bonneville Power Administration (through the Confederated Tribes of the Umatilla Indian Reservation) \$125,000 *Lamprey restoration and research project*. Co-PI: Li, H.W. and M. Fitzpatrick.
31. NOAA Sea Grant. *Development of ornithine decarboxylase as a measure of recent growth in Pacific salmonids*. \$40,465, Co-PI R. W. Ewing and H.W. Li
32. NOAA Sea Grant. *Juvenile salmon rearing in restoring wetlands of the Salmon River*. \$40,465, Co-PI R. W. Ewing and H.W. Li
33. Bonneville Power Administration. \$200,000. *Research/Evaluate restoration of NE Oregon Streams and develop management guidelines*. Co-PI: Boone Kauffman, Pat McDowell, Bob Beschta and H.W. Li.
34. Bonneville Power Administration. Strategies for riparian recovery: plant succession & salmon. \$200,000. Co-PI: Judith Li, Sherri L. Johnson and H.W. Li.
35. Cooperative Research Units, Biological Resources Division, USGS. *Application of Qualitative Modeling to Problems of Ecosystem Management – A Workshop*. \$30,000
36. Amphibian Research Monitoring Initiative, Biological Resources Division, USGS. *Qualitative Models to Predict the Impacts of Exotic Species on Native Anurans*. \$42,000, Co-PI Selina Heppell and H.W. Li
37. Portland General Electric. Distribution and Habitat Utilization of Juvenile Spring Chinook Salmon in the Metolius River Basin. \$200K, PI: Hiram Li.
38. National Fish and Wildlife Foundation. *Cumulative Effects of Watershed Fragmentation on Populations of Lahontan Cutthroat Trout (Oncorhynchus clarki henshawi): A Riverscape Perspective*. \$168,000, Co-PI: H.W. Li, Guillermo Giannico, and Scott Heppell.
39. U.S. Fish and Wildlife Service. *The Physiological Status of Lahontan Cutthroat Trout (Oncorhynchus clarkii henshawi) in suitable vs. marginal habitats*. \$75,000, Co-PI: H.W. Li, Guillermo Giannico, and Scott Heppell.
40. NOAA Coastal Ocean Program, *Hypoxia, nekton and habitat in the nGOM: Modeling and retrospective analyses*. \$14,000, Co-PI: Donald Baltz, Ed Chesney and H.W. Li
41. Bureau of Reclamation. *Indexing Carrying Capacity of Salmonids on the Basis of Longitudinal Stream Temperatures*. \$800,000, Co-PI: H.W. Li, Guillermo Giannico and Scott Heppell.
42. NMFS. Comparative study of redband/steelhead trout (*Oncorhynchus mykiss*) production in Bridge Creek and the South Fork John Day River. \$65,093 Hiram W. Li
43. ODFW. Examination of interference competition between bulltrout and kokanee for spawning habitat. \$70,000 Guillermo Giannico and

STUDENTS SUPERVISED AS MAJOR PROFESSOR:

Ph.D. Students

Note: * denotes that student currently(held/ holds) an academic appointment. [UCD] and [OSU] denotes UC Davis and Ore. State Univ. graduate, respectively.

- 1.* Steven Nelson. 1977. Bioenergetics of juvenile *Macrobrachium rosenbergii* (Crustacea; Palaemonidae). Professor-Emeritus, University of Guam. [UCD]
2. Charles H. Hanson. 1980. Energetic considerations in velocity preference and swimming speed selection of juvenile fishes. Terra Nova private consultants. [UCD]
- 3.* Wayne A. Wurtsbaugh. 1981. Internal and external controls on plankton abundance in a large eutrophic lake: Clear Lake California, **Professor Emeritus**, Utah State University. [UCD]
4. Peter Adams. 1988. Trophic and life history considerations with respect to multispecies management policies. Research Biologist, National Marine Fisheries Service, U.C. Santa Cruz. [UCD]
5. Dennis Lassuy. 1990. Herbivory of a north temperate stream fish (*Acrocheilus alutaceus*). U.S. Fish and Wildlife Service, Region 5, Anchorage AK [OSU]
- 6.* Todd Pearsons. 1994. Formation and maintenance of fish assemblages in a high desert Oregon stream. Washington Department of Wildlife. Project Leader, Yakima Species Interaction Study. Adjunct Professor, Central Washington University. [OSU]
7. Kenneth P. Currens. 1997. Evolution and risk in conservation of Pacific salmon. Geneticist, Northwest Indian Fisheries Commission. [Co-Major Professor, Carl Schreck] [OSU]
8. Cynthia Tait. 1998. Influences of riparian canopy on aquatic communities in high desert streams of eastern Oregon. Fisheries Biologist, BLM [OSU]
- 9.* Geoff Habron, 1999. An assessment of community-based adaptive watershed management in three Umpqua Basin Watersheds. Associate Professor, Michigan State University. **(African American)** [Co-Major Professor, Court Smith] [OSU]
10. Gonzalo Castillo. 2000. Fisheries Biologist, U.S. Fish and Wildlife Service, Stockton CA **(Hispanic American)** [OSU]
11. Christian Zimmerman, 2000, Ecological relation of sympatric steelhead and resident rainbow trout in the Deschutes River, Oregon. U.S. Fish and Wildlife Service [Co-Major Professor, Gordon Reeves]. [OSU]
- 12.* Jeff Dambacher, 2001. Qualitative analysis of the community matrix. Fisheries Biologist, CSIRO, Hobart. Adjunct Professor, University of Tasmania. [OSU]

- 13.* Gabriella Montaño, 2002. Sea urchin-kelp forest communities in marine reserves and areas of exploitation : community interactions, populations, and metapopulation analyses. (Assistant Professor-Instituto de Investigaciones Oceanológicas Universidad Autónoma de Baja California). [OSU]
- 14.* Christian Torgersen, 2002. A geographical framework for assessing longitudinal patterns in stream habitat and fish distribution. Landscape Ecologist USGS-BRD (Forest and Range Ecosystem Science Center, Cascadia Campus, Assistant Professor and Department of Forestry, University of Washington. [OSU]
- 15.* Colden Baxter. 2002. Fish movement and assemblage dynamics in a Pacific Northwest Riverscape. Assistant Professor, Idaho State University. [Co-Major Professor, Bruce McIntosh]. [OSU]
16. Todd Miller, 2006, Trophic dynamics of marine nekton and zooplankton within the Northern California Current pelagic ecosystem. [Co-Major Professor, Rick Broeder] [OSU]
17. Valerie Kelley, Retired from U.S.G.S. Portland & Portland State. Now at Linfield College, Oregon [Co-Major Professor, Dixon Landers]. [OSU]
18. Francisco Madriñan, In Progress [Co-Major Professor, Guillermo Giannico] [OSU]
19. Seth White, 2008. Associate Director of Research, Columbia Intertribal Fish Commission [OSU]
20. Geoff Hosack, 2007?. CSIRO, Hobart, Tazmania. [OSU]
21. **Kenneth Currens, Date. Head of Research, Northwest Indian Fish and Wildlife Commission.**

M.S. Students

1. Joan Jurancich. 1975. California Department of Water Quality. [UCD]
2. Ralph Elston. 1975. 1975. Ontogeny of size selective predation and feeding habits of the Mississippi silverside, *Menidia audens*, in Clear Lake, California. Research Scientist, Batelle Northwest, Sequim, WA. [UCD]
3. David Dettman. 1977. 1977. Distribution, abundance and microhabitat segregation of rainbow trout and Sacramento squawfish in Deer Creek, California, Don Kelley and Associates, Fisheries Consultants. [UCD]
4. Donald W. Alley, Jr. 1977. The energetic significance of microhabitat selection by fishes in a foothill Sierra stream. [UCD]
5. James White. 1978. Determination of the energetic cost of swimming from the analysis of juvenile chinook salmon, *Oncorhynchus tshawytscha*. Regional Biologist, California Department of Fish and Game.

[UCD]

6. Larry D. LaBolle. 1984. Importance of the upper littoral zone as rearing area for larval and juvenile fishes in a Columbia River impoundment. Chief Regional Biologist, Idaho Department of Fish and Game, Pocatello ID. Biologist, Spokane PUD. [OSU]
- 7.* Kenneth J. Rodnick. 1983. Seasonal distribution and habitat selection by the redbside shiner, *Richardsonius balteatus*, in a small Oregon Stream. **Professor Emeritus**, Idaho State University [OSU]
8. Gary Weiner. 1984. Influences of environmental acidification on salmonid reproduction. Ph.D. program, University of Indiana. [Co-Major Professor Carl Schreck] [OSU]
9. Mark Wade. 1987. The relative effects of *Ceratomyxa shasta* on crosses of resistant and susceptible stocks of summer steelhead. District Biologist, Oregon Department of Fish and Wildlife retired. [OSU]
10. Currens, Kenneth. 1987. Genetic differentiation of resident and anadromous rainbow trout (*Salmo gairdneri*) in the Deschutes River Basin, Oregon. Ph..D. Program O.S.U. [Co-major Professor Carl Schreck] [OSU]
11. Amy Crook Kruse. 1988. Relationships between fish species distribution and habitat in the Willamette River Drainage in Western Oregon. Ecologist, Alaska Department of Environmental Conservation. [OSU]
12. Keith Hatch. 1990. Phenotypic comparison of thirty-eight steelhead (*Oncorhynchus mykiss*) populations from coastal Oregon. Fisheries Biologist, U.S. Fish and Wildlife Service, Fisheries Resources, Vancouver, WA; Fisheries Biologist, Columbia River Intertribal Fish Commission. BIA, Governor's Salmon Restoration Task Force. [OSU], (**Confederated Tribes of the Siletz**)
13. Sandra Noble. 1990. Impacts of earlier emerging steelhead fry of hatchery origin on the social structure, distribution and growth of wild steelhead fry. Project Leader, U.S. Fish and Wildlife Service, Leavenworth National Fish Hatchery, Leavenworth, WA. [OSU]
14. Patrick Hulett. 1991. Patterns of genetic inheritance and variation through ontogeny for hatchery and wild stocks of chinook salmon. Fisheries Geneticist, Washington Department of Fisheries, Longview WA. [OSU]
15. Gonzalo Castillo. 1992. Fluctuations of year-class strength in Petrale sole (*Eopsetta jordani*) and their relation to environmental factors. Ph.D. Program, Department of Fisheries and Wildlife, Oregon State University. [OSU] (**Hispanic American**)
16. Eric Leitzinger. 1993. The influence of riparian habitat and salmonid microhabitat selection on fish assemblage structure in the upper John Day Basin, Oregon. Fisheries Biologist, Idaho Department of Fish & Game, Salmon Idaho. [OSU]
17. Phadrea Ponds. 1993. Underrepresentation of minorities in natural resource professions: Biological Resources Division, Ft. Collins, Colorado. [OSU] (**African-American**).
18. Noah Adams. 1994. Variation in mitochondrial DNA and allozymes discriminates early and late forms of chinook salmon (*Oncorhynchus tshawytscha*) in the Kenai and Kasilof Rivers, Alaska. Fisheries

Biologist, National Biological Service, Cook Washington. .[OSU] (Native American)

19. Christine Hirsch. 1995 . Seasonal shifts in redband trout use of pools and their microhabitats in three Oregon streams. Fisheries Biologist, Siuslaw National Forest. .[OSU]
20. Christian Torgersen. 1996. Multi-scalar assessment of thermal patterns and the distribution of chinook salmon in the John Day River Basin, Oregon. 1996, Ph.D. Program, Department of Fisheries and Wildlife, Oregon State University. .[OSU]
21. Deb Walks. 1997. Discharge and its consequences to physical habitat and trout populations in the Deschutes River of central Oregon. Ph.D. University of Toronto [Co-Major Professor, Gordon Reeves] .[OSU]
22. Doug Bateman. 1997. A comparison of nest site selection and reproductive effort by reticulate sculpin (*Cottus perplexus*) in two streams of different geologies in the central Coast Range of Oregon, FRESC, Research Associate .[OSU]
23. David Price, 1998. Multiscale habitat electivity and movement patterns by adult spring chinook salmon in seven river basins of northeast Oregon. Fisheries Biologist, Washington Department of Fish and Wildlife .[OSU]
- 24.* David Close, 2001. Effects of acute stress and tagging on the physiology and swimming performance of Pacific lampreys (*Lampetra tridentata*). Fisheries Biologist, Confederated Tribes of Umatilla [Co-Major Professor Martin Fitzpatrick] .[OSU] (Native American)
25. Michelle LaRue, 2001. Characterization of stream fish assemblages and land use associations within a southern Ohio National Forest. [Co-Major Professor, Judith Li] .[OSU]
26. Jens Lovtang, 2005. Distribution, habitat use and Growth of juvenile chinook salmon in the Metolius River Basin, Oregon. Fish Harvest Manager, Confederated Tribes of Warm Springs. .[OSU]
27. Shawn McKinney. 2005. Characterization of pools and reaches with salmonid species in the Alsea and Nestucca subbasins. [Co-Major Professor, Gordon Reeves]. Natural Resource Conservation Service. .[OSU]
28. Joseph Feldhaus. 2006. Heat shock proteins and physiological stress in redband rainbow trout (*Oncorhynchus mykiss gairdneri*) in the South Fork John Day River, Oregon. [Co-Major Professor, Scott Heppell]. Fisheries Biologist at The Oregon Department of Fisheries and Wildlife Research Center at La Grande, Oregon
29. Jeremiah Osborne-Gowey, 2007, Responses of a Threatened Cutthroat Trout to an Introduced, Invading Salmonid: Ecological Implications for Growth, Stress, and Behavior. [Co-Major Professor Scott Heppell]. M.S. Program in Natural Resource Policy, O.S.,U. Ph.D. Program at the University of Colorado in Policy and Natural Resource Ecology.
30. Ian Tattam, 2007. Seasonal Life History of *Oncorhynchus mykiss* in the South Fork John Day River Basin, Fisheries Biologist at The Oregon Department of Fisheries and Wildlife Research Center at La Grande, Oregon
31. Lisa Kentz, in progress [Co-Major Professor, Ian Fleming] Research Biologist, Oregon Department of Fish

and Wildlife. Nichole Sather, in progress

32. Nichole Sather, in progress. [Jamestown Band of the S'klallam Tribe]

Thesis Committee Member

Note: Thesis supervisor's names are listed on the top line. Departmental affiliations are listed in parentheses

U.C. Davis Students

Francisco Ayalla's students (Genetics)
John Avise (Ph.D.)

Joe Cech's students (Wildlife & Fisheries Biology)
Bruce Vondracek (Ph.D.)
Mike Massingill (M.S.)

Ted Foin's students (Environmental Studies)
Tom Coon (M.S.)

Charles Goldman's students (Zoology)
Garth Redfield (M.S., Ph.D.)
Larry Paulsen (Ph.D.)

Peter Moyle's students (Wildlife and Fisheries)
Gary Grossman (MS, PhD)
Don Baltz (PhD)
Jerry Smith (PhD)
Robert Daniels (PhD)
Tom Taylor (MS)
Jaime Sturgess (MS)
Bruce Bachen (MS)
John Dentler (MS)
Bill Tippets

George Tchobanaglou's students (Environmental Engineering)
John Colt (MS)

Oregon State Students

Richard Adams' students (Agriculture and Natural Resource Economics)
Neal S. Johnson (M.S.)
Antonio Cerda (Ph.D.)

Norm Anderson's student
Jo Christianson (M.S.)

Robert Beschta's students (Forest Engineering)
Ed Salmonin (M.S.)

Carl Bond's students (Fisheries & Wildlife)
Jack Williams (Ph.D.)

Guillermo Giannico's students

Matt Weeber (M.S.)
George Boxall (M.S.)

James Hall's students (Fisheries & Wildlife)

Brian Spence (Ph.D.)
Gordon Reeves (Ph.D.)
Jeff Dambacher (M.S.)
Hugrun Gunnarsdottir (M.S.)

Heppell, Selina (Fisheries & Wildlife)

Michael Liu (Ph.D.)

Howard Horton's students (Fisheries & Wildlife)

Richard Carmichael (MS)
Alec Maule (MS)

Boone Kauffman's students (Fisheries & Wildlife)

Nick Otting (M.S.)

Gary Larson's students (Fisheries & Wildlife)

Mark Buktechnica (M.S.)

Judy Li's students (Fisheries & Wildlife)

Kristopher Wright (Ph.D.)
Stephanie Gunckle (M.S.)
Bill Gerth (M.S.)

Bill Liss' students (Fisheries & Wildlife)

Joe Ebersole (Ph.D.)

Doug Markle's students (Fisheries & Wildlife)

Wolf Wagman (Ph.D.)
Paolo Petri (Ph.D.)
Fred Getz (M.S.)
Debra Bills (MS)
Todd Pearsons (MS)
Sue Reithal (MS)

Gordon Reeves' Students (Fisheries & Wildlife)

Craig Tinus (MS)

Phil Rossignol's students (Fisheries & Wildlife)

Jennifer Orme Zavaleta (Ph.D.)
Aaron Kimo Morris (MS) (Entomology)
Isreal Duran (MS) (Entomology)

Jim Sedell's students (Fisheries & Wildlife)
Bruce McIntosh (Ph.D.)

Carl Schreck's students (Fisheries & Wildlife)
Matt Mesa
Steve Jacobs (MS)

Richard Tubb's students (Fisheries & Wildlife)
Chris Stainbrook (MS)
Tina Rohm (MS)

Al Tyler's students (Fisheries & Wildlife)
Gordon Kruse (Ph.D.)