

JAMES L. CONGLETON

CURRICULUM VITAE

Fall, 2008

Professor of Fishery Resources, University of Idaho (Retired)
Assistant Leader, Idaho Cooperative Fish and Wildlife Research Unit (Retired)

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EDUCATION:

Post-doctoral research, 1970-71, Department of Biology, University of Washington
Ph.D., Marine Biology, 1964-70, Scripps Institution of Oceanography
B.S., Zoology, 1960-64, University of Kentucky

EXPERIENCE:

1980-2007, Assistant Leader, Idaho Cooperative Fish and Wildlife Research Unit.
2004-2007, Professor, Department of Fish and Wildlife Resources, College of Natural Resources, University of Idaho. Member of Graduate Faculty.
1980-2007, Associate Professor and member of Graduate Faculty, Univ. of Idaho.
1980-1990, Affiliate Associate Professor, School of Fisheries, University of Washington.
1975-1980, Special Assistant to Washington Cooperative Fishery Research Unit and Affiliate Assistant Professor, College of Fisheries, University of Washington. Member of Graduate Faculty.
1971-1975, Employee of Kramer, Chin and Mayo, Inc. (aquaculture feasibility and planning studies), Seattle, Washington.
1970-1971, National Institutes of Health Postdoctoral Fellow, Department of Biology, University of Washington.

TEACHING ACCOMPLISHMENTS:

Graduate Courses Taught:

Advanced Fish Physiology (Fish 511)

Advanced Fish Ecology (Fish 514)

Graduate Students Advised to Completion of Degree: 22 M.S.; 4 Ph.D.

Additional Service on Graduate Committees : 43 M.S.; 11 Ph.D.

PUBLICATIONS (refereed post-1990, excluding published abstracts):

Welker, T.L. and J.L. Congleton. Effect of dietary alpha-tocopherol + ascorbic acid, selenium, and iron on oxidative stress in sub-yearling Chinook salmon (*Oncorhynchus tshawytscha* Walbaum). *Journal of Animal Physiology and Animal Nutrition*. In Press, Winter 2008.
Patterson, S.D., D.L. Scarnecchia, and J.L. Congleton. 2008. Sexual maturation in kokanee *Oncorhynchus nerka*. *Northwest Science* 82:30-47.
Koch, T.J., J.L. Congleton, and P.J. Anders. 2006. Effects of sediment cover on survival and development of white sturgeon embryos. *North American Journal of Fisheries Management* 26:134-141.
Congleton, J.L. 2006. Stability of some commonly measured blood-chemistry variables in juvenile salmonids exposed to a lethal dose of the anaesthetic MS-222. *Aquaculture Research* 37:1146-1149.
Congleton, J.L., and T. Wagner. 2006. Blood-chemistry indicators of nutritional status in juvenile salmonids.

Journal of Fish Biology 69:473-490.

- Welker, T.L., and J.L. Congleton. 2005. Oxidative stress in migrating spring Chinook salmon smolts of hatchery origin: changes in vitamin E and lipid peroxidation. *Transactions of the American Fisheries Society* 134:1499-1508.
- Wagner, T. and J.L. Congleton. 2004. Blood-chemistry correlates of nutritional condition, tissue damage, and stress in migrating juvenile chinook salmon (*Oncorhynchus tshawytscha*). *Canadian Journal of Fisheries and Aquatic Sciences* 61:1066-1074.
- Wagner, T., J.L. Congleton, and D. Marsh. 2004. Smolt-to-adult return rates of juvenile chinook salmon transported through the Snake-Columbia hydrosystem, USA, in relation to densities of co-transported juvenile steelhead. *Fisheries Research* 68:259-270.
- Welker, T. and J.L. Congleton. 2004. Oxidative stress in juvenile chinook salmon (*Oncorhynchus tshawytsch*). *Aquaculture Research* 35:881-887.
- Congleton, J.L., P.R. Biga, and B.C. Peterson. 2003. Plasma insulin-like growth factor-I concentrations in yearling chinook salmon (*Oncorhynchus tshawytsch*) migrating from the Snake River Basin, USA. *Fish Physiology and Biochemistry* 29:57-66.
- Welker, T. and J.L. Congleton. 2003. Relationship between dietary lipid source, oxidative stress, and the physiological response to stress in sub-yearling chinook salmon (*Oncorhynchus tshawytsch*). *Fish Physiology and Biochemistry* 29:225-235.
- Kelsey, D.A., C.B. Schreck, J.L. Congleton, and L.E. Davis. 2002. Effects of juvenile steelhead on juvenile chinook salmon behavior and physiology. *Transactions of American Fisheries Society* 131:676-689.
- LaFrentz, B.R., S.E. LaPatra, G.R. Jones, J.L. Congleton, B. Sun, and K.D. Cain. 2002. Characterization of serum and mucosal antibody responses and relative percent survival in rainbow trout *Oncorhynchus mykiss* (Walbaum), following immunization and challenge with *Flavobacterium psychrophilum*. *Journal of Fish Diseases* 25:703-713.
- Congleton, J.L., and W.J. LaVoie. 2001. Comparison of blood chemistry values for samples collected from juvenile chinook salmon by three alternative methods. *Journal of Aquatic Animal Health* 13:168-172.
- Congleton, J.L., W.J. LaVoie, C.B. Schreck, and L.E. Davis. 2000. Stress indices in migrating juvenile chinook salmon and steelhead of wild and hatchery before and after barge transportation. *Transactions of American Fisheries Society* 129:946-961.
- Siegel, D.C., and J.L. Congleton. 1997. Bactericidal activity of macrophages of juvenile chinook salmon against *Aeromonas salmonicida* following exposure to live or heat killed *Renibacterium salmoninarum* or the soluble proteins produced by *R. salmoninarum*. *Journal of Aquatic Animal Health* 9:180-189.
- Congleton, J.L. and B. Sun. 1996. Interferon-like activity produced by anterior kidney leucocytes of rainbow trout simulated in vitro by IHN or Poly I:C. *Diseases of Aquatic Organisms* 25:185-195.
- Hedrick, R.P., S.E. LaPatra, S. Yun, K.A. Lauda, G.R. Jones, J.L. Congleton, and P. de Kinkelin. 1994. Induction of protection from infectious hematopoietic necrosis (IHN) in rainbow trout by pre-exposure to cutthroat trout virus (CTV), an avirulent salmonid virus. *Diseases of Aquatic Organisms* 20:111-118.
- Zhang, Y., and J.L. Congleton. 1994. Detection of infectious hematopoietic necrosis (IHN) virus in rearing units for steelhead trout before and during IHN epizootics. *Journal of Aquatic Animal Health* 6:281-287.
- Congleton, J.L., and E.J. Wagner. 1991. Acute-phase hypoferremic response to lipopolysaccharide in rainbow trout (*Oncorhynchus mykiss*). *Comparative Biochemistry and Physiology* 98A:195-200.
- Congleton, J.L., A.R. Greenlee, and S.S. Ristow. 1990. Isolation of leucocytes from the anterior kidney and spleen of rainbow trout in a self-generating density gradient. *Journal of Fish Biology* 36:575-585.
- Congleton, J.L., and E.J. Wagner. 1988. Effects of light intensity on plasma cortisol concentrations in migrating smolts of chinook salmon and steelhead held in tanks or raceways and after passage through experimental flumes. *Trans. Amer. Fish. Soc.* 127:385-393.

OTHER PROFESSIONAL ACTIVITIES, HONORS AND AWARDS:

Professional meeting presentations: over 70

Grants and Contracts Awarded as Principal Investigator (partial list): Total \$2,480,000
Effects of sedimentation on white sturgeon embryo survival. Kootenai Tribe of Idaho, 2002-04.

Physiological responses of juvenile salmon to barge transportation. Corps of Engineers, 1997-2004.

Physiological responses of juvenile salmon to downstream migration through the Snake-Columbia hydropower system. Corps of Engineers, 1997-2003.

Oxidative stress in juvenile salmonids. Idaho Department of Fish and Game, 1996-98.

Methods for improved performance of fish separators at Snake River dams. Corps of Engineers, 1996-2000.

Control of IHN virus in cultured salmonids. Western Regional Aquaculture Consortium, 1996-98.

Consequences of descaling of juvenile salmonids at Snake River dams for physiological condition and survival. Corps of Engineers, 1995-1997.

Control of bacterial kidney disease in cultured salmonids. Western Regional Aquaculture Consortium, 1987-96,

Design of flumes for passage of juvenile salmonids around Snake River dams. Corps of Engineers, 1987,

Stress responses of juvenile salmonids to transportation system. Corps of Engineers, 1983.

Workshops Organized:

Co-chair, 24th Annual Smolt Workshop. University of Idaho, Moscow, Idaho. 2003.

Organizer of workshop “Nutrition of juvenile salmonids: Can post-release survival be improved?”, Boise, Idaho. 1997.

Organizer, Moderator, and Editor of Proceedings for workshop: “Passage and Survival of Snake River Salmon” (American Fisheries Society, Idaho Water Resources Institute, and Idaho Cooperative Fish & Wildlife Research Unit). University of Idaho, Moscow, Idaho. 1992.

Organizer of workshop “Stream Hydrology and Hydraulics” (American Fisheries Society). Boise, Idaho. 1991.

Review and Editing:

Reviewer of manuscripts submitted to: *Transactions of American Fisheries Society*, *Journal of Aquatic Animal Health*, *North American Journal of Fisheries Management*, *Northwest Science*, *Marine Biology*, *Endocrinology of Domestic Animals*, *Aquaculture Research*, *Fisheries Research*, and *Canadian Journal of Fisheries and Aquatic Science*.

Reviewer of research proposals submitted to: National Research Initiative Competitive Grants Program (USDA), Sea Grant Program, NSF Small Business Initiative Program, Idaho State Board of Education, National Wetlands Center, and CALFED Bay-Estuary Research Program.

Associate Editor for *Transactions of the American Fisheries Society*, 1998-99.

Awards and Honors:

Leadership Award and Star Award from Cooperative Research Units Center in recognition of role in Columbia River fisheries research, 2004.

Star Award from Coop. Research Units Center in recognition of significant recent publications, 2003.

Star Award from U.S. Department of Interior in recognition of quality of research, 1999.

Finalist for Best Paper Award, *Journal of Aquatic Animal Health*, 1997.

Outstanding Service Award, Idaho Chapter of American Fisheries Society, 1992.