

## **Listing of Refereed Journal (51) and Book Chapters (3) from 2005-2010**

### 'Submitted-In Review' and 'Accepted-In Press' (6,0)

- Davidson, J., Good, C., Welsh, Summerfelt, S.T. (**Submitted-In Review**). Rainbow trout *Oncorhynchus mykiss* performance and water quality in replicated water reuse aquaculture systems: II. Effects of accumulating nitrate nitrogen. *Aquacultural Engineering*.
- Good, C., Vinci, B., Snekvik, K., Adams, I., Summerfelt, S., Dilly, S. (**Submitted-In Review**). Assessing the suitability of a partial water reuse system for rearing juvenile Chinook salmon *Oncorhynchus tshawytscha* for stocking in Washington State. *Journal of Aquatic Animal Health*.
- Pederson, L.F., Good, C.M., Pederson, P.B. (**Submitted-In Review**). Low-dose hydrogen peroxide application in closed recirculating aquaculture systems. *Aquaculture*.
- Pfeiffer, T., Summerfelt, S.T., Watten, B.J. (**Submitted-In Review**). Comparative performance of CO<sub>2</sub> measuring methods: Marine aquaculture recirculation system application. *Aquacultural Engineering*.
- Schrader, K.K., Davidson, J., Summerfelt, S.T. (**Accepted-In Press**). Evaluation of ozonation on levels of the off-flavor compounds geosmin and 2-methylisoborneol in water and rainbow trout *Oncorhynchus mykiss* from water recirculation aquaculture systems. *Aquacultural Engineering*.
- Summerfelt, S.T., Clements, S., Gearheart, M. (**Submitted-In Review**). Ozone application and brominated by-products: Monitoring, formation, and destruction in water recirculating systems for fish culture. *Aquacultural Engineering*.

### 2010 (8,0)

- Davidson, J., Good, C., Welsh, C., Brazil, B., Snekvik, K., Summerfelt, S.T. **2010**. Heavy metal and waste metabolite accumulation and their affect on rainbow trout performance in a replicated water reuse system operated at low or high system flushing rates. *Aquacultural Engineering* 41, 136-145.
- Draghi, II, A., Bebak, J., Daniels, S., Geary, S.J., West, A.B., Popov, V.L., Frasca, Jr., S. **2010**. Identification of 'Candidatus Piscichlamydia salmonis' in Arctic charr *Salvelinus alpinus* during a survey of charr production facilities in North America. *Diseases of Aquatic Organisms* 89, 39-49.
- Good, C.M., Thorburn, M.A., Ribble, C.S., Stevenson, R.M.W. **2010**. A prospective matched nested case-control study of bacterial gill disease outbreaks in Ontario, Canada government salmonid hatcheries. *Preventive Veterinary Medicine* 95, 152-157.
- Good, C., Davidson, J., Welsh, C., Snekvik, K., Summerfelt, S.T. **2010**. The effects of carbon dioxide on performance and histopathology of rainbow trout *Oncorhynchus mykiss* in water recirculation aquaculture systems. *Aquacultural Engineering* 42, 51-56.
- Good, C., Davidson, J., Welsh, C., Brazil, B., Snekvik, K., Summerfelt, S.T. **2010**. The impact of water exchange rate on the health and performance of rainbow trout *Oncorhynchus mykiss* in water recirculation aquaculture systems. *Aquaculture* 294, 80-85.
- Schrader, K.K., Summerfelt, S.T. **2010**. Isolation and Distribution of Geosmin-producing *Nocardia* spp. and *Streptomyces* spp. in a Series of Recirculating Aquaculture Systems. *North American Journal of Aquaculture* 72, 1-10.

Sharrer, M.J., Rishel, K., Summerfelt, S.T. **2010**. Evaluation of a membrane biological reactor for reclaiming water, alkalinity, salts, phosphorus, and protein contained in a high-strength aquacultural wastewater. *Bioresource Technologies* 101, 4322-4330.

Sharrer, M.J., Rishel, K., Taylor, A., Vinci, B.J., Summerfelt, S.T. **2010**. The cost and effectiveness of solids thickening technologies for treating backwash and recovering nutrients from intensive aquaculture systems. *Bioresource Technologies* 101, 6630-6641.

#### 2009 (9,0)

Davidson, J., Good, C., Welsh, C., Brazil, B., Snekvik, K., Summerfelt, S.T. **2009**. Heavy metal and waste metabolite accumulation and their affect on rainbow trout performance in a replicated water reuse system operated at low or high system flushing rates. *Aquacultural Engineering* 41, 136-145.

Davidson, J., Bebak, J. Mazik. **2009**. The effects of aquaculture production noise on the growth, condition factor, feed conversion, and survival of rainbow trout, *Oncorhynchus mykiss*. *Aquaculture* 288, 337-343

Good, C.M., Thorburn, M.A., Ribble, C.S., Stevenson, R.M.W. **2009**. Rearing unit-level risk factors for bacterial gill disease treatment in two Ontario, Canada government salmonid hatcheries. *Preventive Veterinary Medicine* 91, 254-260.

Good, C., Davidson, J., Welsh, C., Brazil, B., Snekvik, K., Summerfelt, S.T. **2009**. The impact of water exchange rate on the health and performance of rainbow trout *Oncorhynchus mykiss* in water recirculation aquaculture systems. *Aquaculture* 294, 80-85.

Sharrer, M.J., Rishel, K., Summerfelt, S.T. **2009**. Evaluation of geotextile filtration applying coagulant and flocculant amendments for aquaculture biosolids dewatering and phosphorus removal. *Aquacultural Engineering* 40, 1-10.

Summerfelt, S.T., Davidson, J., Wilson, G., Waldrop, T. **2009**. Advances in fish harvest technologies for circular tanks. *Aquacultural Engineering* 40, 62-71.

Summerfelt, S.T., Sharrer, M.J., Tsukuda, S.M., Gearheart, M. **2009**. Process requirements for achieving full-flow disinfection of recirculating water using ozonation and UV irradiation. *Aquacultural Engineering* 40, 17-27.

Summerfelt, S.T., Sharrer, M., Gearheart, M., Gillette, K., Vinci, B.J. **2009**. Evaluation of partial water reuse systems used for Atlantic salmon smolt production at the White River National Fish Hatchery. *Aquacultural Engineering* 41, 78-84.

Wolters, W., Masters, A., Vinci, B., Summerfelt, S.T. **2009**. Design, loading, and water quality in recirculating systems for Atlantic salmon (*Salmo salar*) at the USDA ARS National Cold Water Marine Aquaculture Center (Franklin, ME). *Aquacultural Engineering* 41, 60-70.

#### 2008 (4,3)

Barbash, P., J. Fletcher, A. Carta, S. Summerfelt, J. Bebak-Williams, and D. Creaser. **2008**. Reductions in bacterial micro-organisms by filtration and ozonation of the surface water supply at the USFWS Northeast Fishery Center. Pages 87-96 in S.V. Amaral, D. Mathur, E.P. Taft, III, editors. *Advances in Fisheries Bioengineering*. American Fisheries Society, Symposium 61, Bethesda, MD.

Colt, J., Rust, M., Summerfelt, S., Pfeiffer, T., Fivelstad, S. **2008**. Energy and resource consumption of land-based Atlantic salmon smolt hatcheries in the Pacific Northwest (USA). *Aquaculture* 280, 94-108.

- Davidson, J., Helwig, N., Summerfelt, S.T. **2008**. Fluidized sand biofilters used to remove ammonia, biochemical oxygen demand, total coliform bacteria, and suspended solids from an intensive aquaculture effluent. *Aquacultural Engineering* 39, 6-15.
- Good, C.M., Thorburn, M.A., Stevenson, R.M.W. **2008**. Factors associated with the incidence of bacterial gill disease in salmonid lots reared in Ontario, Canada government hatcheries. *Preventive Veterinary Medicine* 83, 297-307.
- Masters, A.L., Vinci, B.J., Brazil, B. Creaser, D.A., Summerfelt, S.T. **2008**. Performance Characterization of Influent and Effluent Treatment Systems: A Case Study at Craig Brook National Fish Hatchery. *Aquacultural Engineering* 38, 66-76.
- Summerfelt, S.T. and B.J. Vinci. **2008**. Better management practices for recirculating systems. Pages 389-426 in C.S. Tucker and J.A. Hargreaves (editors), *Environmental Best Management Practices for Aquaculture*. Blackwell Publishing: Ames, Iowa.
- Summerfelt, S.T., J. Bebak-Williams, J. Fletcher, A. Carta, and D. Creaser. **2008**. Description of the surface water filtration and ozone treatment system at the Northeast Fishery Center. Pages 97-121 in S.V. Amaral, D. Mathur, E.P. Taft, III, editors. *Advances in Fisheries Bioengineering*. American Fisheries Society, Symposium 61, Bethesda, MD.

#### 2007 (9,0)

- Bebak, J.A., Welch, T.J., Starliper, C.E., Baya, A.M., Garner, M.M. **2007**. An Outbreak of Rainbow Trout Fry Syndrome at a West Virginia Farm Controlled through Improved Husbandry. *Journal of the American Veterinary Medical Association* 231, 114-116.
- Clingerman, J., Bebak, J., Mazik, P.M., Summerfelt, S.T. **2007**. Use of avoidance response by rainbow trout to carbon dioxide for fish self-transfer between tanks. *Aquacultural Engineering* 37, 234-251.
- Davidson, J., Frankel, A., Ellison, W., Summerfelt, S.T., Popper, A.N., Mazik, P., Bebak, J. **2007**. Minimizing noise in fiberglass aquaculture tanks: Noise reduction potential of various retrofits. *Aquacultural Engineering* 37, 125-131.
- Draghi, A., Bebak, J., Popov, V.L., Noble, A.C., Geary, S.J., West, A.B., Byrne, P., Frasca Jr., S. **2007**. Characterization of a Neochlamydia-like Bacterium Associated with Epitheliocystis in Cultured Arctic Char *Salvelinus alpinus*. *Diseases of Aquatic Organisms*. 76, 27-38.
- Labatut, R.A., Ebeling, J.M., Bhaskaran, R., Timmons, M.B. **2007**. Effects of inlet and outlet flow characteristics on mixed-cell raceway (MCR) hydrodynamics. *Aquacultural Engineering* 37, 158-170.
- Labatut, R.A., Ebeling, J.M., Bhaskaran, R., Timmons, M.B. **2007**. Hydrodynamics of a large-scale mixed-cell raceway (MCR): Experimental studies. *Aquacultural Engineering* 37, 132-143.
- Sharrer, M.J., Tal, Y., Ferrier, D., Hankins, J.A., Summerfelt, S.T. **2007**. Membrane biological reactor treatment of a saline backwash flow from a recirculating aquaculture system. *Aquacultural Engineering* 35, 159-176.
- Sharrer, M.J., Summerfelt, S.T. **2007**. Ozonation followed by ultraviolet irradiation provides effective bacteria inactivation in a freshwater recirculating system. *Aquacultural Engineering* 37, 180-191.
- Wysocki, L.E., Davidson, J.W.<sup>3rd</sup>, Smith, M.E., Frankel, A.S., Ellison, T.E., Mazik, P.M., Popper, A.N., and Bebak, J. **2007**. The effects of aquaculture production noise on hearing, growth, and disease resistance of rainbow trout, *Oncorhynchus mykiss*. *Aquaculture* 272, 687-697.

2006 (8,0)

- Brazil, B.L., Summerfelt, S.T. **2006**. Aerobic treatment of gravity thickening tank supernatant. *Aquacultural Engineering* 34, 92-102.
- Bullock, G.L., Schill, W.B. **2006**. The Effect of Disinfection Strategies on Transmission of *Aeromonas salmonicida* and *Yersinia ruckeri* in a Recirculating Aquaculture System. *International Journal of Recirculating Aquaculture* 7, 1-11.
- Campbell, P. J., Galligan, D.T., Bebak-Williams, J. **2006**. Trout Farm Optimization: Identifying Opportunities at a Sole-proprietor Farm. *Journal of Applied Aquaculture* 18(2),1-21.
- Ebeling, J. M., Welsh, C.F., Rishel, K.L. 2006. Performance evaluation of the Hydrotech belt filter using coagulation / flocculation aids (alum/polymers) for the removal of suspended solids and phosphorus from intensive recirculating microscreen backwash effluent. *Aquaculture Engineering* 35, 61-77.
- Ebeling, J.M., Timmons, M.B., Bisogni, J.J., **2006**. Engineering analysis of the stoichiometry of photoautotrophic, autotrophic, and heterotrophic control of ammonia-nitrogen in aquaculture production systems. *Aquaculture* 257, 346-358.
- Gearheart, J. M., Masters, A.L., Bebak-Williams, J. **2006**. Application of Methods for the Detoxification and Neutralization of Formalin in Fish Hatchery Effluents. *North American Journal of Aquaculture* 68, 256–263
- Rishel, K. L., Ebeling, J.M. **2006**. Screening and evaluation of alum and polymer combinations as coagulation/flocculation aids to treat effluents from intensive aquaculture systems. *Journal World Aquaculture Society* 37(2), 191-199.
- Summerfelt, S.T. **2006**. Design and management of conventional fluidized-sand biofilters. *Aquacultural Engineering* 34, 275-302.

2005 (7,0)

- Adler, P.R., Sikora, L.J. **2005**. Mesophilic composting of Arctic char manure. *Compost Science and Utilization* 13, 34-42.
- Davidson, J., Summerfelt, S.T. **2005**. Solids removal from a coldwater recirculating system – comparison of a swirl separator and a radial-flow settler. *Aquacultural Engineering* 33, 47-61.
- Danley, M. L., Kenney, B.P., Mazik, P.M., Kiser, R., Hankins, J.H. **2005**. Effects of Carbon Dioxide Exposure on Intensively Cultured Rainbow Trout *Oncorhynchus mykiss*: Physiological Responses & Fillet Attributes. *Journal of World Aquaculture Society* 36(3), 249-261.
- Ebeling, J.M., Rishel, K.L., Sibrell, P.L. **2005**. Screening and evaluation of polymers as flocculation aids for the treatment of aquacultural effluents. *Aquacultural Engineering* 33, 235-249.
- Noble, A.C., M.M. Garner, R.W. Nordhausen. **2005**. Chronic diarrhea in Arctic char (*Salvelinus alpinus*) cultured in a semi-closed recirculation system. *Bulletin of the European Association of Fish Pathologists* 25, 248-255.
- Jittinandana, S., Kenney, P.B., Mazik, P.M., Danley, M., Nelson, C.D., Kiser, R.A., Hankins, J.A. **2005**. Transport and stunning affect quality of Arctic char fillets. *Journal of Muscle Foods* 16, 274-288.
- Sharrer, M.J., Summerfelt, S.T., Bullock, G.L., Gleason, L.E., Taeuber, J. **2005**. Inactivation of bacteria using ultraviolet irradiation in a recirculating salmonid culture system. *Aquacultural Engineering* 33, 135-149.