CURRICULUM VITAE

Name: Thomas Peter Quinn
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Degrees: B.A. with Distinction in Biology, Swarthmore College, 1976
M.S. in Fisheries, University of Washington, 1978
Ph.D. in Fisheries, University of Washington, 1981

Employment:

2000	Professor, School of Aquatic and Fishery Sciences
1990-2000	Associate Professor, School of Fisheries,
1992-1995	Associate Director for Instruction, School of Fisheries
1986-1990	Assistant Professor, School of Fisheries, Univ. of Washington
1984-1985	Research Associate, Department of Oceanography, University of British Columbia, Vancouver, B.C.
1981-1984	Post-doctoral Fellow, University of British Columbia and Pacific Biological Station, Nanaimo, B. C., Canada

Research Interests:
Behavior, ecology and evolution of fishes, with emphasis on migrations, life history patterns, reproduction, habitat requirements and diversification of Pacific salmon

Honors:
College of Ocean and Fishery Sciences Undergraduate Teaching Award (1989)
Distinguished Teaching Award, University of Washington (1991)
College of Ocean and Fishery Sciences Honorable Mention (Undergraduate: 1990, Graduate: 1990 and 1991) teaching awards
Marsha L. Landolt Distinguished Graduate Mentor Award, University of Washington (2008).
National Research Council panel on the Status of Pacific Northwest Anadromous Salmonids
College of Ocean and Fishery Sciences Distinguished Research Award 1998
Fulbright Fellowship to study in Ireland, 2000
Excellence in Fisheries Education Award, American Fisheries Society, 2010
Elected member, Washington State Academy of Sciences, 2010

Graduate Students Supervised

Master of Science degrees

Anderson, J. H. 2006. Colonization of newly accessible habitat by coho salmon (*Oncorhynchus kisutch*).

Berman, C. H. 1990. Effect of elevated holding temperatures on adult spring chinook salmon reproductive success

Boatright, C. 2003. Timing of migration, spawning, and juvenile emergence by sockeye salmon in Bear Lake, Alaska.

Buck, G. 2003. Migratory pathways of maturing sockeye salmon in Bristol Bay, Alaska.

Buehrens, T. 2011. Growth, movement, survival and spawning habitat of coastal cutthroat trout

Chamberlin, J. 2009. Early marine migratory patterns and the factors that promote resident type behavior of Chinook salmon, *Oncorhynchus tshawytscha*, in Puget Sound, Washington.

Dalton, T. J. 1989. The use of a freshwater trematode as a parasite tag to indicate continental region of origin of ocean-caught steelhead trout.

Denton, K. 2008 The utilization of a salmon subsidy by resident char (*Salvelinus* spp.).

Doctor, K. 2008 Fishing out evolution? Spatial and temporal patterns of migration in sockeye salmon

Erickson, M. 2005. Vertebrate communities in bedrock and gravel bottomed streams of the Willapa basin

Havey, M. 2008 Salmon olfaction: Odor detection and imprinting in *Oncorhynchus* spp.

Hendry, A. P. 1995. Sockeye salmon (*Oncorhynchus nerka*) in Lake Washington: an investigation of ancestral origins, population differentiation, and local adaptation.

Hodgson, S. 2000. Marine and freshwater climatic influences on the migratory timing of adult sockeye salmon.

Jaecks, T. A. 2010. Population Dynamics and Trophic Ecology of Dolly Varden in the Iliamna River, Alaska: Life History of Freshwater Fish Relying on Marine Food Subsidies

Kinnison, M. T. 1997. Population differentiation in chinook salmon introduced to New Zealand: evidence from morphological, reproductive and early life history characters.

Kahler, T. H. 1999. Summer movement and growth of individually marked juvenile salmonids in western Washington streams.

Kendall, N. 2007. Long term fishery selection on size and age at maturity in Bristol Bay, Alaska sockeye salmon.

Leonetti, F. E. 1996. Habitat attributes, sockeye salmon spawning behavior, and redd site characteristics at island beaches, Iliamna Lake, Alaska.

Mackey, G. 1999. Investigations of opportunities for genetic and ecological interactions and reproductive success of hatchery and wild steelhead (*Oncorhynchus mykiss*) in Forks Creek, Washington.

Newell, J. 2005. Migration and movement patterns of adult sockeye salmon (*Oncorhynchus nerka*) in Lake Washington.

Nowak, G. 2000. Movement patterns and feeding ecology of cutthroat trout (*Oncorhynchus clarki clarki*) in Lake Washington.

Olson, A. F. 1989. Some aspects of the behavior of chinook salmon, *Oncorhynchus tshawytscha*, in estuaries.

Rhodes, J. S. 1998. Comparative performance of hatchery and naturally reared coho salmon parr in streams: laboratory and field experiments

Rich, H. R. 2006. Effects of climate and density on the distribution, growth, and life history of juvenile sockeye salmon in Iliamna Lake, Alaska.

Roni, P. 1992. Life history and spawning habitat in four stocks of large-bodied chinook salmon (*Oncorhynchus tshawytscha*)

Shreffler, D. K. 1989. Temporary residence and foraging by juvenile salmon in a restored estuarine wetland.

Doctor of Philosophy degrees

Abrey, C. A. 2005. Variation in the early life history of sockeye salmon (*Oncorhynchus nerka*): emergence timing, an ontogenetic shift, and population productivity.

Anderson, J. H. 2011. Dispersal and reproductive success of Chinook (*Oncorhynchus tshawytscha*) and coho (*O. kisutch*) salmon colonizing newly accessible habitat.

Carlson, S. M. 2006. Evolutionary effects of bear predation on salmon life history and morphology.

Dickerson, B. R. 2003. Reproductive success in wild pink salmon, *Oncorhynchus gorbuscha*.

Dittman, A. H. 1994. Behavioral and biochemical mechanisms of olfactory imprinting and homing by coho salmon.

Gende, S. M. 2002. Foraging behavior of bears at salmon streams: intake, choice, and the role of salmon life history.

Hendry, A. P. 1998. Reproductive energetics of Pacific salmon: strategies, tactics and tradeoffs.

Kinnison, M. T. 1999. Life history divergence and population structure of New Zealand chinook salmon: a study of contemporary microevolution.

Lonzarich, D. G. 1994. Stream fish communities in Washington: patterns and processes.

McLean, J. E. 2003.Reproductive success of hatchery and wild steelhead, *Oncorhynchus mykiss*.

Merrick, R. 1995. The relationship of the foraging ecology of Steller sea lions (*Eumetopias jubatus*) to their population decline in Alaska.

Pess, G. R. 2009. Patterns and processes of salmon colonization.

Roni, P. 2000. Response of fish and salamanders to instream restoration in small western Washington and Oregon streams.

Seamons, T. R. 2005. The mating system of steelhead and the effect of length and arrival date on steelhead reproductive success.

Current Students, including general thesis or dissertation topic:

Bond, Morgan (Ph.D.) ecology of salmonid fishes in the Chignik Lake system

Cunningham, Curry (M.S.) evolutionary ecology of sockeye salmon

Goetz, Fred (Ph.D.), migration patterns of salmonids in Puget Sound

Hovel, Rachel (M.S.) climate and competition between sticklebacks and sockeye salmon

Kendall, Neala (Ph.D.), effects of size-selective fishing on sockeye salmon populations

Rohde, Jessica (M.S.) migratory behavior of coho salmon in Puget Sound

Wittouck, Jon (M.S.) habitat use and movements of anadromous cutthroat trout in Puget Sound

Woods, Pamela (dual Ph.D. with University of Iceland), ecology and divergence of Arctic charr

Selected Recent Publications

Essington, T.E., T.P. Quinn and V.E. Ewert. 2000. Intra- and interspecific competition and the reproductive success of sympatric Pacific salmon. Canadian Journal of Fisheries and Aquatic Sciences 57: 205-213.

Schuett-Hames, D. E., N. P. Peterson, R. Conrad and T. P. Quinn. 2000. Patterns of gravel scour and fill after spawning by chum salmon in a western Washington stream. North American Journal of Fisheries Management 20: 610-617.

Hendry, A.P., J. K. Wenburg, P. Bentzen, E. C. Volk and T. P. Quinn. 2000. Rapid evolution of reproductive isolation in the wild: evidence from introduced salmon. Science 290: 516-518.

Roni, P. and T. P. Quinn. 2001. Effects of wood placement on movements of trout and juvenile coho salmon in natural and artificial stream channels. Trans. Amer. Fish. Soc. 130: 675-685.

Quinn, T. P. and G. B. Buck. 2001. Size and sex selective mortality on adult Pacific salmon: bears, gulls and fish out of water. Trans. Amer. Fish. Soc. 130: 995-1005.

Quinn, T. P., L. Wetzel, S. Bishop, K. Overberg and D. E. Rogers. 2001. Influence of breeding habitat on bear predation, and age at maturity and sexual dimorphism of sockeye salmon populations. Canadian Journal of Zoology 79: 1782-1793.

Kahler, T. H., P. Roni and T. P. Quinn. 2001. Summer movement and growth of juvenile anadromous salmonids in small western Washington streams. Canadian Journal of Fisheries and Aquatic Sciences 58: 1947-1956.

Quinn, T.P., M.T. Kinnison and M.J. Unwin. 2001. Evolution of chinook salmon (*Oncorhynchus tshawytscha*) populations in New Zealand: pattern, rate, and process. Genetica 112/113: 493-513.

Mackey, G., J. E. McLean and T. P. Quinn. 2001. Comparisons of run timing, spatial distribution, and length of wild and newly-established hatchery populations of steelhead in Forks Creek, Washington. N. Amer. J. Fish. Manage. 21: 717-724.

Hodgson, S. and T. P. Quinn. 2002. The timing of adult sockeye salmon migration into fresh water: adaptations by populations to prevailing thermal regimes. Can. J. Zool. 80: 542-555.

Robards, M. D. and T. P. Quinn. 2002. The migratory timing of adult summer-run steelhead trout (*Oncorhynchus mykiss*) in the Columbia River: Six decades of environmental change. Transactions of the American Fisheries Society 131: 523-536.

Quinn, T. P., J. A. Peterson, V. Gallucci, W. K. Hershberger, and E. L. Brannon. 2002. Artificial selection and environmental change: countervailing factors affecting the timing of spawning by coho and chinook salmon. Trans. Amer. Fish. Soc. 131: 591-598.

McLean, J. E., Bentzen, P., and Quinn, T. P. 2003. Differential reproductive success of sympatric, naturally-spawning hatchery and wild steelhead trout (*Oncorhynchus mykiss*) through the adult stage. Canadian Journal of Fisheries and Aquatic Sciences 60: 433-440.

Hilborn, R. T. P. Quinn, D. E. Schindler and D. E. Rogers. 2003. Biocomplexity and fisheries sustainability. Proceedings of the National Academy of Science 100: 6564-8568.

Quinn, T. P. and K. W. Myers. 2004. Anadromy and the marine migrations of Pacific salmon and trout: Rounsefell revisited. Reviews in Fish Biology and Fisheries 14: 421-442.

Quinn, T. P., L. A. Vøllestad, J. Peterson and V. Gallucci. 2004. Influences of fresh water and marine growth on the egg size – egg number tradeoff in coho and chinook salmon. Transactions of the American Fisheries Society 133: 55-65.

Stewart, I. J., S. M. Carlson, C. P. Boatright, G. B. Buck, and T. P. Quinn. 2004. Site fidelity of spawning sockeye salmon (*Oncorhynchus nerka* W.) in the presence and absence of olfactory cues. Ecology of Freshwater Fishes 13: 104-110.

McLean, J. E., Bentzen, P., and Quinn, T. P. 2004. Differential reproductive success of sympatric, naturally spawning hatchery and wild steelhead (*Oncorhynchus mykiss*). Environmental Biology of Fishes 69: 359-369.

Brannon, E. L., M. S. Powell, T. P. Quinn and A. Talbot. 2004. Population structure of Columbia River basin chinook salmon and steelhead trout. Revs. Fish. Sci. 12: 99-232.

Boatright, C., T. Quinn and R. Hilborn. 2004. Timing of adult migration and stock structure of sockeye salmon in Bear Lake, Alaska. Transactions of the American Fisheries Society 133: 911-921.

Hendry, A. P., V. Castric, M. T. Kinnison, and T. P. Quinn. 2004. The evolution of philopatry and dispersal: homing versus straing in salmonids. Pages 52-91 in A. P. Hendry, and S. C. Stearns, editors. Evolution illuminated: salmon and their relatives. Oxford University Press, Oxford.

Dickerson, B. R., K. W. Brinck, M. F. Willson, P. Bentzen and T. P. Quinn. 2005. Relative importance of body size and timing of arrival to breeding grounds in reproductive success of pink salmon. Ecology 86: 347-352.

Quinn, T. P. 2005. The Behavior and Ecology of Pacific Salmon and Trout. University of Washington Press, Seattle. 378 pages.

McLean, J. E., P. Bentzen, and T. P. Quinn. 2005 Nonrandom, size- and timing-biased breeding in a hatchery population of steelhead trout. Conservation Biology 19: 446-454.

Quinn, T. P., B. R. Dickerson and L. A. Vøllestad. 2005. Marine survival and distribution patterns of two Puget Sound hatchery populations of coho (*Oncorhynchus kisutch*) and chinook (*O. tshawytscha*) salmon. Fisheries Research 76: 209-220

Newell, J. and T. P. Quinn. 2005. Behavioral thermoregulation by maturing adult sockeye salmon (*Oncorhynchus nerka*) in a stratified lake prior to spawning. Canadian Journal of Zoology 83: 1232-1239.

Hodgson, S., T. P. Quinn, R. Hilborn, R. C. Francis, and D. E. Rogers. 2006. Marine and freshwater climatic factors affecting interannual variation in the timing of return migration to fresh water of sockeye salmon. Fisheries Oceanography 15: 1-24.

Quinn, T. P., I. J. Stewart and C. P. Boatright. 2006. Experimental evidence of homing to site of incubation by mature sockeye salmon (*Oncorhynchus nerka*). Anim. Behav. 77: 941-949.

Seamons, T. R., P. Bentzen and T.P. Quinn. 2007. DNA parentage analysis reveals inter-annual variation in selection: results from 19 consecutive brood years in steelhead trout. Evolutionary Ecology Research 9:409-431.

Newell, J. C., K. L. Fresh, and T. P. Quinn. 2007. Arrival patterns and movements of adult sockeye salmon (*Oncorhynchus nerka*) in Lake Washington: implications for management of an urban fishery. N. Amer. J. Fish. Manage. 27: 908-917.

Quinn, T. P., S. Hodgson, L. Flynn, R. Hilborn and D. E. Rogers. 2007. Directional selection by commercial fisheries and the timing of sockeye salmon (*Oncorhynchus nerka*) migrations. Ecological Applications 17: 731-739.

Quinn, T. P., D. M. Eggers, J. H. Clark, and H. B. Rich, Jr. 2007. Density, climate, and the processes of prespawning mortality and egg retention in Pacific salmon (*Oncorhynchus* spp.). Canadian Journal of Fisheries and Aquatic Sciences 64: 574-582.

Schtickzelle, N. and T. P. Quinn. 2007. A metapopulation perspective for salmon and other anadromous fish. Fish and Fisheries 8: 297-314.

Carlson, S. M. and T. P. Quinn. 2007. Ten years of varying lake level and selection on size-at-maturity in sockeye salmon. Ecology 88: 2620-2629

Anderson, J. H. P. M. Kiffney, G. R. Pess and T. P. Quinn. 2008. Summer distribution and growth of juvenile coho salmon during colonization of newly accessible habitat. Transactions of the American Fisheries Society 137: 772-781.

Kinnison, M. T., M. J. Unwin and T. P. Quinn. 2008. Eco-evolutionary versus habitat contributions to invasion in salmon: experimental evaluation in the wild. Molecular Ecology 17: 405-414.

McLean, J. E., T. R. Seamons, M. B. Dauer, P. Bentzen and T. P. Quinn. 2008. Variation in reproductive success and effective number of breeders in a hatchery population of steelhead trout (*Oncorhynchus mykiss*): examination by microsatellite-based parentage analysis. Conservation Genetics 9: 295-304.

Westley, P., R. Hilborn, T. P. Quinn, G. Ruggerone, and D. E. Schindler. 2008. Long-term changes in rearing habitat and downstream movement by juvenile sockeye salmon (*Oncorhynchus nerka*) in an interconnected Alaska lake system. Ecology of Freshwater Fish 17: 443-454.

Lin, J., T. P. Quinn, R. Hilborn and L. Hauser. 2008. Fine-scale differentiation between sockeye salmon ecotypes and the effect of phenotype on straying. Heredity 101: 341-350.

Lin, J., E. Ziegler; L. Hauser, and T. P. Quinn. 2008. Contrasting patterns of morphological and neutral genetic divergence in geographically proximate populations of sockeye salmon (*Oncorhynchus nerka*) in Lake Aleknagik, Alaska. Journal of Fish Biology 73: 1993-2004.

Quinn, T. P., S. M. Carlson, S. M. Gende, and H. B. Rich, Jr. 2009. Transportation of Pacific salmon carcasses from streams to riparian forests by bears. Canadian Journal of Zoology 87: 195-203.

Dauer, M. B., T. R. Seamons, L. Hauser, T. P. Quinn, and K. A. Naish. 2009. Estimating the ratio of hatchery-produced to wild adult steelhead on the spawning grounds using scale pattern analyses. Transactions of the American Fisheries Society 138: 15-22.

Rich, H. B., Jr., T. P. Quinn, M. D. Scheuerell, and D. E. Schindler.2009. Climate and intra-specific competition control the growth and life history of juvenile sockeye salmon (*Oncorhynchus nerka*) in Iliamna Lake, Alaska. Canadian Journal of Fisheries and Aquatic Sciences 66: 238-246.

Seamons, T. R., M. B. Dauer, J. Sneva and T. P. Quinn. 2009. Use of parentage assignment and DNA genotyping to validate scale analysis for estimating steelhead trout (*Oncorhynchus mykiss*) age and spawning history. North American Journal of Fisheries Management 29: 396-403.

Carlson, S. M., H. B. Rich, Jr., and T. P. Quinn. 2009. Does variation in selection imposed by bears drive divergence among populations in the size and shape of sockeye salmon? Evolution 63: 1244-1261.

Kendall, N. W. and T. P. Quinn. 2009. Effects of population-specific variation in age and length on fishery selection and exploitation rates of sockeye salmon. Canadian Journal of Fisheries and Aquatic Sciences 66: 896-908.

Quinn, T. P., K. Doctor, N. Kendall and H. B. Rich, Jr. 2009. Diadromy and the life history of sockeye salmon: nature, nurture, and the hand of man. American Fisheries Society Symposium 69: 23-42.

Doctor, K. K. and T. P. Quinn. 2009. The potential for adaptation-by-time in sockeye salmon (*Oncorhynchus nerka)*: The interactions of body size and in-stream reproductive lifespan with date of arrival and breeding location. Canadian Journal of Zoology 87: 708-717.

Kendall, N. W., J. J. Hard and T. P. Quinn. 2009. Quantifying six decades of fishery selection for size and age at maturity in sockeye salmon. Evolutionary Applications 2: 523-536.

Denton, K. P., H. B. Rich, Jr., and T. P. Quinn. 2009. Diet, movement, and growth of non-anadromous Dolly Varden *Salvelinus malma* in response to sockeye salmon *Oncorhynchus nerka* subsidies. Transactions of the American Fisheries Society 138: 1207-1219.

Quinn, T. P. 2009. Pacific salmon population structure and dynamics: A perspective from Bristol Bay on life history variation across spatial and temporal scales. American Fisheries Society Symposium 70: 857-871

Armstrong, J. B., D. E. Schindler, K. L. Omori, C. P. Ruff, and T. P. Quinn. 2010. Thermal heterogeneity mediates the effects of pulsed subsidies across a landscape. Ecology 91:1445-1454

Doctor, K. K., R. Hilborn, M.Rowse and T. P. Quinn. 2010. Spatial and temporal patterns of upriver migration by sockeye salmon, *Oncorhynchus nerka*, populations in the Wood River system, Bristol Bay, Alaska. Transactions of the American Fisheries Society 139: 80-91.

Seamons, T. R. and T. P. Quinn. 2010. Sex-specific patterns of lifetime reproductive success in single and repeat breeding steelhead trout (*Oncorhynchus mykiss*). Behavioral Ecology and Sociobiology 64: 505-513.

Greene, C. M., J. E. Hall, K. R. Guilbault, and T. P. Quinn. 2010. Improved viability of populations with diverse life history portfolios. Biology Letters 6: 382-386.

Westley, P. A. H., D. E. Schindler, G. T. Ruggerone, T. P. Quinn and R. Hilborn. 2010. Natural habitat change, commercial fishing, climate, and dispersal interact to restructure an Alaskan fish metacommunity. Oecologia 163: 471-484.

Anderson, J. H., P. L. Faulds, W. I. Atlas, G. R. Pess, and T. P. Quinn. 2010. Selection on breeding date and body size in colonizing coho salmon, *Oncorhynchus kisutch.* Molecular Ecology 19: 2562-2573.

Schindler, D. E., R. Hilborn, B. Chasco, C. P. Boatright, T. P. Quinn, L. A. Rogers, and M. S. Webster. 2010. Population diversity and the portfolio effect in an exploited species. Nature 465: 609-612.

Kendall, N. W., H. B. Rich, Jr., L. R. Jensen, and T. P. Quinn. 2010. Climate effects on inter-annual variation in growth of the freshwater mussel, *Anodonta beringiana*, in an Alaskan lake. Freshwater Biology 55:2339-2346.

Denton, K. P., H. B. Rich, Jr., J. W. Moore and T. P. Quinn. 2010. The utilization of a Pacific salmon subsidy by three populations of charr (*Salvelinus* spp.). Journal of Fish Biology 77: 1006–1023

Moore, M. E. , F. A. Goetz, D. M. Van Doornik, E. P. Tezak, T. P. Quinn, J. J. Reyes-Tomassini, and B. A. Berejikian. 2010. Early marine migration patterns of wild coastal cutthroat trout (*Oncorhynchus clarki clarki*), steelhead trout (*Oncorhynchus mykiss*), and their hybrids. Public Library of Science One 5(9): E12881

Reed, T. E., G. Martinek, and T. P. Quinn. 2010. Lake-specific variation in growth, migration timing, and survival of juvenile sockeye salmon, *Oncorhynchus nerka*: separating environmental from genetic influences. Journal of Fish Biology 77: 692-705.

Kendall, N. W., A. H. Dittman, and T. P. Quinn. 2010. Comparative maturation schedules of two Columbia River sockeye salmon, *Oncorhynchus nerka*, populations. Endangered Species Research 13: 51-61.

Quinn, T. P., T. R. Seamons, L. A. Vøllestad, and E. Duffy. 2011. Effects of growth and reproductive history on the egg size - fecundity tradeoff in steelhead trout, *Oncorhynchus mykiss*. Transactions of the American Fisheries Society 140: 123 – 135.

Chamberlin, J., K. L. Fresh, A. N. Kagley, and T. P. Quinn. 2011. Movements of yearling Chinook salmon (*Oncorhynchus tshawytscha*) during their first summer in marine waters of Hood Canal, Washington. Transactions of the American Fisheries Society 140: 429-439.

Quinn, T. P., M. J. Unwin and M. T. Kinnison. 2011. Contemporary divergence in migratory timing of naturalized populations of Chinook salmon, *Oncorhynchus tshawytscha*, in New Zealand. Evolutionary Ecology Research 13: 45-54.

Baker, M. R., N. W. Kendall, T. A. Branch, D. E. Schindler, and T. P. Quinn. 2011. Selection due to non-retention mortality in gillnet fisheries for salmon. Evol. Applications 4: 429-443.

Kendall, N. W. and T. P. Quinn. 2011. Length and age trends of Chinook salmon in the Nushagak River, Alaska related to commercial and recreational fishery selection and exploitation. Transactions of the American Fisheries Society 140: 611-622.

In press

Quinn, T. P., J. Chamberlin, and E. L. Brannon. Experimental evidence of population-specific spatial distributions of Chinook salmon, *Oncorhynchus tshawytscha.* Environmental Biology of Fishes.

Chamberlin, J. W., T. E. Essington, J. W. Ferguson, and T. P. Quinn. The influence of hatchery rearing practices on salmon migratory behavior: Is the tendency of Chinook salmon to remain within Puget Sound affected by size and date of release? Transactions of the American Fisheries Society.

Quinn, T.P., N. W. Kendall, H.B. Rich, Jr., and B. E. Chasco. Diel vertical movements, and effects of infection by the cestode *Schistocephalus solidus* on daytime proximity of three-spined sticklebacks (*Gasterosteus aculeatus)* to the surface of a large Alaskan lake. Oecologia

Quinn, T. P., H. B. Rich, Jr., D. Gosse, and N. Schtickzelle. Population dynamics and asynchrony at fine spatial scales: A case history of sockeye salmon population structure in Alaska. Canadian Journal of Fisheries and Aquatic Sciences

Quinn, T. P., T. R. Seamons, and S. P. Johnson. Stable isotopes of carbon and nitrogen indicate differences in marine ecology between wild and hatchery-produced steelhead trout, *Oncorhynchus mykiss*. Transactions of the American Fisheries Society

Lin, J. E., R. Hilborn, T. P. Quinn, and L. Hauser. Self-sustaining populations, population sinks or aggregates of strays: chum (*Oncorhynchus keta*) and Chinook salmon (*O. tshawytscha*) in the Wood River system, Alaska. Molecular Ecology

Kendall, N. W. and T. P. Quinn. Comparative size-selectivity among Alaskan sockeye salmon fisheries: implications for harvest-induced evolution. Ecological Applications

Selected Recent Research Grants and Contracts

Experimental approaches to Pacific salmon enhancement and habitat restoration. T.P. Quinn. Weyerhaeuser Foundation. $232,000 from the Weyerhaeuser Company Foundation, 1996 – 2003.

Factors affecting the growth, survival, habitat use and competitive success of naturally-reared and hatchery-reared coho salmon. T.P. Quinn and R. Bilby. June 16, 1996 - June 15, 1998. $45,719 from the Washington Sea Grant Program.

Instream restoration strategies to protect endangered salmonids. T.P. Quinn. October 1, 1996 - March 30, 1998. $64,438 from National Marine Fisheries Service.

Phenotypic variation and reproductive success in Pacific salmon. T.P. Quinn. June 1, 1997 – April 30, 2001. $145,000 from U.S. Forest Service.

Preliminary assessment of the migratory behavior and feeding ecology of cutthroat trout in Lake Washington. T.P. Quinn. October 1 – December 31, 1997. $6395 from Washington Department of Fish and Wildlife.

Juvenile salmon and culverts. T.P. Quinn. December 16, 1997 – July 31, 1998. $11,500 from Washington Department of Transportation.

The timing of adult sockeye salmon migrations. R. Hilborn and T.P. Quinn. September 1, 1998 – August 31, 2000 (with Ray Hilborn). $42,539 from Washington Sea Grant Program.

Lake Washington Cutthroat Trout. T.P. Quinn. April 1, 1998 – July 31, 2000. $62,233 from Washington Department of Fish and Wildlife.

Migrations and population structure of steelhead trout in the Columbia River. T.P. Quinn. $15000. February 1999 to December 1999. University of Idaho subcontract, Bonneville Power Administration.

Conservation genetics of steelhead trout: variation in reproductive success in small populations. P. Bentzen and T.P. Quinn. August 1, 1999 to July 30, 2002. $279,006 from National Science Foundation.

Trends in adult coho and chinook salmon at the University of Washington's hatchery. T.P. Quinn and V. Gallucci. $69856. Metro King County. December 1999 to December 2000. $76901 supplement in 2001 and $81,393 in 2002.

Interactions between wild and hatchery steelhead: Evaluating key assumptions. $24000. June 16 2000 – June 15 2001. T.P. Quinn and P. Bentzen. Hatchery Scientific Review Groupc/o Interagency Committee for Outdoor Recreation Hatchery Scientific Review Group, Interagency Committee for Outdoor Recreation, Washington State. $34856 supplement in 2001 – 2002.

LTREB: Climatic and density-dependent effects on the ecology of sockeye salmon and their freshwater ecosystems. $119,754. National Science Foundation. (Hilborn and Schindler, co-P.I.s). Sept. 16 2002 – Sept. 15, 2004.

The migratory behavior of adult sockeye salmon in Lake Washington. $39,115. Seattle Public Utilities. May 15 2003 – June 30 2006.

Re-colonization of the upper Cedar River by anadromous salmonids. $210,289. Washington Sea Grant Program. February 2004 – January 2007. Renewed for $237,233 through 2010.

Evaluation of the reproductive success of wild and hatchery steelhead in natural and hatchery environments (co-P.I.s: Lorenz Hauser and Kerry Naish). $259,604 per year. The

Bonneville Power Administration. December 2003 – December 2004. Renewed annually through December 2008.

Biocomplexity and fisheries sustainability. (co-P.I. with Ray Hilborn, Daniel Schindler, and Lorenz Hauser). National Science Foundation. $2,033,715, Sept. 2004 to August 2009.

Biocomplexity, sustainability, and the role of small populations (co-PI with Ray Hilborn, Daniel Schindler, and Lorenz Hauser. Pew Foundation. $249,339. June 2005 – June 2007.

Migration patterns and residence of Chinook salmon in Puget Sound. NOAA Fisheries. $225,124. June 1, 2006 – August 31, 2009.

Success of Cedar River salmon colonization: a genetic assessment. $90,300. City of Seattle. August 2005 – August 2009.

Development of a bioassay for natural odor detection and discrimination in salmonids (with Dr. Andrew Dittman, NOAA-Fisheries). $24,897. NOAA-Fisheries. August 2005 – October 2007. Supplemented with an additional $7028 in June 2007.

Sustainable Fisheries: A Foundation for Salmon Conservation. Gordon and Betty Moore Foundation. $3.6 M. co-P.I. with Ray Hilborn and Daniel Schindler. 16 May 2008 – 15 May 2011. Renewal of grant from 2005 – 2008.

Ecology and behavior of trout in the Cedar River. NOAA-Fisheries. $56,394. Sept 2008 – Sept 2010.

Conservation of trout in Washington. Wild Fish Conservancy. $5000. January 2009 – January 2010.

Success of Cedar River salmon colonization: A genetic assessment. City of Seattle. $65,322. November 1 2009 – October 31 2011.

Resident and migrant salmon and trout nearshore and marine habitat use in WRIA 2. Washington State Recreation and Conservation Office. 16 March 2010 – 15 March 2013. $298,660.

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