

5. *AGENCY SCIENCE OVERVIEW - BRIEFING*

TABLE OF CONTENTS

	<u>Page</u>
Decision Page.....	<i>i</i>
Selected WDFW Scientists and Their Expertise	1
WDFW Fish, Wildlife, and Habitat Science Publications.....	8

“GREEN SHEET”

Meeting:	October 1-2, 2010
Agenda item 5:	Agency Science Overview - Briefing
Prepared By:	John Pierce
Presented By:	John Pierce, Chief Scientist, Wildlife Program Tim Quinn, Chief Scientist, Habitat Program Ken Warheit, Chief Scientist, Fish Program

Background:

During the January 2010 Commission Meeting, the Commission Chair requested that the Chief Scientists for all three resource programs brief the Commission on the science and research monitoring activities within each program. The Commission also requested a list of researchers and their disciplinary expertise, and an outline describing how projects are selected and funded and if they are peer-reviewed and/or published.

Included in the Commission notebooks are two documents prepared by the three Chief Scientists in the agency. The first document is a list of selected scientists in the agency, their program-division affiliation, education, and area of expertise. Actually, there are a lot more staff (e.g. District Fish, Habitat and Wildlife Biologists, and others) that do, as part of their job, science-based activities such as annual surveys and inventory. The list of selected scientists, provided in this notebook, is intended to represent those scientists that have lead responsibility for scientific data collection and/or analysis for the majority of their work plan.

The second document is a listing, in bibliographic form, of all of the publications that agency staff have either authored or coauthored during the past 5 years. The names of agency staff are highlighted in bold type. Only peer-reviewed publications, WDFW final reports, or scientific technical bulletins are included. Copies of any of the included citations are available upon request.

During the meeting the three Chief Scientists will present the following information to the Commission :

1. Tim Quinn will describe the definition of science in WDFW: the relationship between science and management, fund source, and dollars used to conduct science.
2. John Pierce will describe methods for how WDFW prioritizes science and ensures that the science we do and rely on is high quality, objective, and characteristic of the budget.
3. Ken Warheit will present brief summaries of several fish, wildlife, and habitat science projects we want to highlight.

Policy issue(s) you are bringing to the Commission for consideration:

This is a Commission request for an informational briefing.

Public involvement process used and what you learned:

This is a Commission request for an informational briefing.

Action requested (identify the specific Commission decisions you are seeking):

This is a Commission request for an informational briefing.

Draft motion language:

None.

Justification for Commission action:

None.

Communications Plan:

None.

Selected WDFW Scientists and Their Expertise

Staff	WDFW Division	Education	Job Title	Science Expertise
Azerrad, Jeff	Wildlife Diversity	M.S. Wildlife Science	Conservation Biologist	Urban bird ecology, land use planning, species and habitat management guidelines
Barber, Mike	Habitat Restoration	BS and MS Biology	Environmental Restoration Technical Assistance Section Manager	Fish Passage, Salmonid Habitat Restoration, Habitat Assessment, Project Prioritization
Beausoleil, Rich	Game Management	BS Wildlife Biology MS Wildlife Biology	Bear & Cougar Specialist	Dangerous wildlife conflicts, black bear and mountain lion ecology
Beecher, Hal	Habitat Conservation	AB Biology; MS Biology and Marine Science; PhD Biological Sciences	Instream Flow Biologist	River fish ecology; watershed ecology; instream flow ecology and policy
Benson, Brian	Habitat Restoration	BS Marine Biology	Senior Database Developer	Data modeling, database design and development
Blankenship, Scott	Fish Science	Ph.D.	Molecular Genetics Laboratory Team Leader	Parentage/kinship, population recovery, fishery genetics, hatchery evaluations, integrating genetic and environmental information,
Buchanan, Joe	Wildlife Diversity	B.S.;M.S.	Wildlife Biologist 4	Spotted Owl and Barred Owl ecology and conservation; shorebirds, wildlife habitat relationships; peregrine falcons; raptors
Campbell, Lance	Fish Science	M.Sci.	Fish Ageing Biologist	Fish ageing, otolith microchemistry, operation of mass spectrometry machines
Cheng, Yuk Win (Henry)	Fish Marine Resources	Ph.D.	Senior Research Scientist	statistical modeling, survey design, stock assessment
Cox, Brodie	Fish Science	B.A./ B.S	Biological Data Systems Unit Leader	Project management and systems development, database design
Deol, Raj	Wildlife Science	BASc. Environmental Engineering; Associate GIS Diploma	Wildlife Data Systems Manager	Wildlife Data Systems Design, Reporting, Analysis; Data Architecture; Data Sensitivity & Security; GIS Analysis; Project Mgmt.

Selected WDFW Scientists and Their Expertise

Staff	WDFW Division	Education	Job Title	Science Expertise
Desimone, Steve	Wildlife Diversity	B.S.; M.S.	Wildlife Biologist 3	Goshawks, marbled Murrelets, Spotted owls.
Evenson, Joe	Game Management	B.S. Biology	Marine Bird Specialist	Aerial and vessel surveys for western Washington migratory bird species ;At sea captures, handling, marking, and telemetry of migratory birds; Population dynamics of sea ducks
Grimm, Jeff	Fish Science	B.S.	Otolith Biologist	Otolith thermal marking and decoding
Hayes, Gerry	Wildlife Diversity	B.S.; M.S.	Wildlife Biologist 3	Forest birds, herons, waterbirds, bats, forest carnivores
Hayes, Marc	Habitat Science	BA Marine Biology, MS Herpetology, PhD Herpetological Ecology	Senior Research Scientist, Forests and Fish Section Team Lead	Conservation Biology, Adaptive Management, Stream and Forest Ecosystem-Based Management, Herpetological Conservation Ecology, Marine Systems
Jacobson, John	Habitat Science	BS and MS Wildlife Biology	Habitat GIS Applications	Spatial Data Management, Analyses, and Modeling
Jeffries, Steve	Wildlife Science	B.S., Wildlife Management	Marine Mammal Team Scientist	Seals, sea lions and sea otters; marine mammal population assessment; pinniped capture, tagging and telemetry; marine mammal fisheries interactions; marine mammal diet and trophic relationships; marine mammal stranding response
Kerwin, John	Fish Science	B.S.	Conservation Biology Unit Leader	Fish medicine, behavior, physiology, toxicology, epidemiology, life history; detection and recognition of fish pathogens
Knapp, Shannon	Wildlife Science	B.S. Biology; M.S. Wildlife Science; M.S. Statistics; Ph.D. Statistics	Wildlife Biometrician	Statistical analysis; Mark-recapture population analysis
Koehler, Gary	Wildlife Science	B.S. Environmental Studies, M.S. Wildlife Biology, Ph.D. Wildlife Biology	Wildlife Research Scientist	Cougar and lynx ecology, large carnivore capture and tagging, home range assessment, population demography

Selected WDFW Scientists and Their Expertise

Staff	WDFW Division	Education	Job Title	Science Expertise
Krueger, Kirk	Habitat Science	BA Biology MS Zoology and Physiology PhD Fisheries and Wildlife Science	Research Scientist	Stream fish ecology, species occurrence modeling, fluvial geomorphology, remote sensing, conservation biology, restoration ecology, sampling design, Lower Columbia Estuary restoration, forage fish ecology
Lee, Yong-Woo	Fish Science	Ph.D., Fisheries Science; M.S., Statistics; M.S., Fisheries Science; B.S. Oceanography.	Fish Science Stock Assessment Unit Leader	Stock assessment, fish population dynamics, statistical data analysis, quantitative modeling.
Lowry, Dayv	Fish Science	Ph.D. Biology; B.S. Biology,	Research Scientist	Salmon biology, Crab biology
Mansfield, Kristin	Wildlife Science	B.S. Animal Science, D.V.M. Veterinary Medicine, M.P.V.M. Wildlife Epidemiology	Wildlife Veterinarian	Wildlife Diseases, Wildlife Capture & Handling
McCanna, Joey	Game Management	B.S.,	Upland Bird Specialist	Pheasant/Quail ecology; Pheasant/Quail population monitoring; Turkey capture and tagging.
McCorquodale, Scott	Game Management	Ph.D. Fish and Wildlife Biology; M. S. Forest Resources; B. S. Wildlife Biology	Deer and Elk Specialist	Elk Ecology; Population Estimation; Resource Selection; Survival Analysis; Elk Body Condition Research; Black-tailed Deer Ecology; Chemical Immobilization and Capture of Wild Ungulates; Aerial Survey and Radio-tracking.
Miller, Todd	Fish Science	Highest Degree: BS Biology; Washington State University	Supplementation Research Team Leader	Hatchery effectiveness monitoring; design, construction, installation and maintenance of instream antenna arrays to estimate the number of PIT tagged fish in a stream or population
Moore, Mikal	Game Management	B.A. Biology, M.S. Zoology	Waterfowl Specialist	Mark-recapture analysis, nest survival, band return; Population survey sampling; Population modeling and hypothesis testing using AIC methods; Waterfowl capture, identification, and monitoring;

Selected WDFW Scientists and Their Expertise

Staff	WDFW Division	Education	Job Title	Science Expertise
Murdoch, Andrew	Fish Science	Highest Degree: MS Biology	Hatchery/Wild Interactions Unit Leader	Design and implementation of hatchery monitoring and evaluation programs; juvenile and adult salmon and steelhead abundance estimation; relative reproductive success studies.
Myers, Woody	Wildlife Science	B.S. Wildlife Ecology	Wildlife Research Scientist	Ungulate Ecology and Habitat relationships, Population Dynamics, Landscape Ecology, Ungulate-Vehicle Collisions and public safety, Wildlife Surveys and Telemetry
Olson, Gail	Wildlife Science	B.S. Zoology, M.S. Ecology, PhD. Wildlife Biology	Wildlife Research Scientist	Population dynamics modeling, Population parameter estimation, Biometrics
Palsson, Wayne	Fish Marine Resources	MS	Research Scientist	Marine fish biology, marine protected areas, groundfish stock assessment, creel survey design, undersea survey technology
Pearson, Scott	Wildlife Science	B.S. Biology, M.S. Natural Resources, Ph.D. Wildlife Science	Westside Wildlife Science Team Leader	Seabird, shorebird, and grassland bird ecology, wildlife-habitat relationships, diet, and population status and trends
Pham, Max	Fish Science	B.S.	Information Technology Specialist	Computer languages: Java, MS .NET C# and VB 1.1, 2.0, Javascript, php, C++, C, VB 6.0, MASM,
Pierce, John	Wildlife Science	B.S. Wildlife Ecology; M.S. Wildlife Ecology	Chief Wildlife Scientist	Ecosystem/Landscape Conservation, Wildlife-Habitat relationships Quantitative analysis,
Pierce, Ken	Science	BS. Ecology PhD Landscape Ecology	Habitat GIS Manager/Developer	Landscape ecology remote sensing, spatial statistics
Polacek, Matt	Fish Science	M.Sci.	Large Lakes Biologist	Hydroacoustics, limiting factor analyses, bioenergetics modeling, trophic and food web analyses, primary and secondary productivity, limnology, population dynamics.
Potter, Ann	Wildlife Diversity	B.A. & B.S.	Wildlife Biologist 3	Spotted owls, butterflies, terrestrial insects, T/E species conservation, monitoring,
Price, David	Habitat Restoration	BS Biology, MS Fish Ecology	Restoration Division Lead	Fish Ecology, Salmonid Restoration, Fish Passage

Selected WDFW Scientists and Their Expertise

Staff	WDFW Division	Education	Job Title	Science Expertise
Quinn, Timothy	Habitat Science	BS Ecology, MS Physiology, PhD Wildlife Ecology	Chief Habitat Scientist	Ecosystem-Based Management, Conservation Biology, Adaptive Management
Rawding, Daniel J.	Fish Science	B.S. Fishery Science; M.S. Environmental Science	Natural Resource Scientist:	Adult and juvenile salmon and steelhead mark-recapture, Area-Under-the-Curve, snorkel, redd, and sonar monitoring program
Rice, Cliff	Wildlife Science	B.S. Biology, M.S. Zoology, Ph.D. Wildlife Science	Wildlife Research Scientist	Mountain goat ecology, mobile computing, habitat selection, simulation, space use, black-tailed deer ecology, imputation.
Ryding, Kristen	Fish Science	Ph.D. Quantitative Ecology and Resource Management; M.S. Quantitative Ecology and Resource Management; B.S. Mechanical Engineering,	Senior Research Scientist	Applied and theoretical statistics; developing analysis methods for field survey data to estimate demographic parameters; design of mark-recapture studies; assessing impacts of mark-selective fisheries.
Sato, Chris	Wildlife Diversity	M.S. Environmental Studies	Conservation Biologist	Wildlife-habitat relationships, strategic planning, writing & report development, data management, small/midsize forest mammal ecology and forensics
Schroder, Steve	Fish Science	Ph.D.	Senior Research Scientist	Salmonid behavior, ecology, and life history; salmonid recovery and supplementation; artificial culture of salmonids; domestication effects on salmonids; mass marking development and application; otolith microchemistry
Schroeder, Mike	Wildlife Science	Ph.D. Wildlife Ecology; M.S. Wildlife Ecology; B.S. Wildlife Science	Wildlife Research Scientist	Ecology and management of prairie grouse; avian ecology; forest grouse ecology.
Schuett-Hames, Joanne	Wildlife Diversity	M.S. Environmental Studies	Conservation Biologist	wildlife connectivity, wildlife-habitat relationships, amphibian ecology, salmonid ecology
Sizemore, Bob	Fish Marine Resources	B.S Biology; M.A. Science Education	Marine subtidal biologist	Invertebrate population dynamics, fishery management, and nearshore ecological processes
Small, Maureen	Fish Science	Ph.D.	Fish and Wildlife Geneticist	Population analysis, population connectivity, adaptation, hatchery interactions

Selected WDFW Scientists and Their Expertise

Staff	WDFW Division	Education	Job Title	Science Expertise
Snyder, Shelly	Wildlife Science	B.S. Biology and Environmental Science; M.S. Natural Resource Management	Wildlife GIS Manager	Remote Sensing and GIS applications for wildlife management
Strom, Are	Fish Science	B.S.	Information Technology Specialist	SAS, R, S +, .NET, statistical analysis and biometric modeling
Tsou, Tien-Shui (Theresa)	Fish Marine Resources	Ph.D.	Senior Research Scientist	Population dynamics, stock assessment, ecosystem modeling, statistical modeling, biological oceanography, fishery oceanography
Vadas, Bob	Habitat Conservation	BA Zoology and Botany, MS Zoology, PhD Fisheries and Wildlife Science	Research Scientist	Stream- and Estuarine-Fish Habitat Ecology, Ecosystem-Based Instream-Flow and Riparian Management, Conservation Biology, Aquatic Food Webs, Fluvial Geomorphology, Biostatistics
Vander Haegen, Matt	Wildlife Science	Ph.D. Wildlife Ecology; M.S. Wildlife Ecology; B.S. Wildlife and Fisheries Management	Eastside Wildlife Science Team Leader	Population biology; landscape-scale effects on wildlife; species/habitat associations; quantitative ecology
Warheit, Kenneth I.	Fish Science	B.S. Natural Resources; Ph.D. Integrative Biology/Paleontology	Chief Fish Scientist,	Conservation genetics, statistical/population genetic modeling, molecular forensics, study design
Watson, Jim	Wildlife Science	B.S. Biology M.S. Fish and Wildlife Management	Wildlife Research Scientist	Raptors/Small Mammals/Herps –Env. Contaminants/ Movements/ Population Modeling/ Human Impacts/Windpower
Weiss, Andy	Fish Science	Highest Degree: B.A.S	Information Technology Specialist	Software engineering methodology, VB.NET, C, Python, ArcGIS, cartographic theory and design, surveying, spatial analysis, statistics and statistical modeling, landscape ecology
West, James E.	Fish Marine Resources	M.Sc. Zoology; B.S. Marine Biology	Senior Research Scientist	Marine ecology, toxicology, and the natural history of Puget Sound.
Wilhere, George	Habitat Science	BS and MS Biomedical Engineering; MS Neurobiology; MEM Conservation Biology	Senior Research Scientist	Quantitative Analysis; Habitat and Population Modelling; Relationships between Science and Policy

Selected WDFW Scientists and Their Expertise

Staff	WDFW Division	Education	Job Title	Science Expertise
Zimmerman, Mara	Fish Science	Highest Degree: Ph.D.	Wild Salmon Production / Evaluation Unit Leader	Salmon ecology, life history diversity, Spawner- recruit models, Ecosystem interactions, Multivariate statistics, Stable Isotope analysis

WDFW Fish, Wildlife, and Habitat Science Publications (2005-2010)

- Aldridge, C. L., S. E. Nielsen, H. L. Beyer, M. S. Boyce, J. W. Connelly, S. T. Knick, and **M. A. Schroeder**. 2008. Range-wide patterns of greater sage-grouse persistence. *Diversity and Distributions*. 19:983-994.
- Ashbrook, C.E.**, J.R. Skalski, **J.D. Dixon**, **K.W. Yi**, and **E.A.Schwartz**. 2008. *Estimating bycatch survival in a mark-selective fishery*. Pages 677-686 in J.L. Nielsen, J.J. Dodson, K. American Fisheries Society Symposium Number 49
- Ashbrook, C.E.**, **K.W. Hassel**, **J.F. Dixon**, and A. Hoffmann. *Tangle nets*. 2007. Pages 363-384 in D.H. Johnson, B.M. Shrier, J.S. O'Neal, J.A. Knutzen, X. Augerot, T.A. O'Neill, and T.N. Pearsons. *Salmonid field protocols handbook: techniques for assessing status and trends in salmon and trout populations*. American Fisheries Society. Bethesda, Maryland.
- Azerrad, J.**, **J. Carleton**, **J. Davis**, **T. Quinn**, **C. Sato**, **M. Tirhi**, **S. Tomassi**, and **G. Wilhere**. 2009. Landscape Planning for Washington's Fish and Wildlife: Managing for Biodiversity in Developing Areas. Washington Department of Fish and Wildlife, Olympia, WA.
- Bart, J., **J.B. Buchanan**, and B. Altman. 2005. Improving the Breeding Bird Survey. Pages 771-776 in Ralph, C.J. and T.D. Rich (editors). Bird conservation implementation and integration in the Americas: proceedings of the third international Partners in Flight Conference. USDA Forest Service, General Technical Report, PSW-GTR-191, Albany, California.
- Bartosh, O., Ryken, A. E., **Tudor, M.**, & J. Mayer-Smith (2010). Tahoma outdoor academy: Learning about science and the environment inside and outside the classroom. In Exemplary science for resolving societal challenges, ed. R. E. Yager, 93-110. Arlington , VA : NSTA Press.
- Bartosh, O., **Tudor, M.**, & Ferguson L., and C. Taylor. (2009). Impact of Environment-Based Teaching on Student Achievement: A Study of Washington State Middle Schools. *Middle Grades Research Journal*, Volume 4, No. 4, 1-16.
- Bartosh, O., **Tudor, M.**, & L. Ferguson and C. Taylor. (in press). Teaching for the standardized tests outside: a study of Washington State middle schools. Edited Book: Exemplary Middle Grades Research: Evidenced-Based Studies Linking Theory to Practice. 2009.
- Bartosh, O., **Tudor, M.**, Taylor, C., & L. Ferguson. (2006). Improving WASL scores through environmental education: is it possible? *Applied Environmental Education and Communication*. Volume 5, Number 3, 77-85.
- Base, D.L.**, **S. Zender**, and **J.W. Watson**. (2007). Golden eagles (*Aquila chrysaetos*) build new nest below cliff and provision fallen nestling. *Journal of Raptor Research* 41:76-77.
- Beecher, H. A.**, Caldwell, B. A., S. Brett DeMond, S. B., and **D. Seiler**. (Accepted July 2010 pending revision). An empirical assessment of the Physical Habitat Simulation (PHABSIM) using long term monitoring of coho salmon smolt production in Bingham Creek, Washington. *North American Journal of Fisheries Management*.

WDFW Fish, Wildlife, and Habitat Science Publications (2005-2010)

- Beechie, T. R. Dinicola, T. Klinger, J. Newton, T. Paulson, and **T. Quinn**. 2007. The future of Puget Sound habitat. In pages 57-62 (Mary H. Ruckelshaus and Michelle M. McClure coordinators). Sound science: synthesizing ecological and socioeconomic information about the Puget Sound ecosystem. Prepared in cooperation with the Sound Science collaborative team. US Dept of Commerce, National Oceanic & Atmospheric Administration (NMFS), Northwest Fisheries Science Center. Seattle, Washington 93 pp.
- Bilby, R., W. Ehinger, **T. Quinn**, **G. Volkhardt**, **K. Krueger**, **D. Seiler**, G. Pess, C. Jordan, M. McHenry and D. Poon. 2005. Study evaluates fish response to management actions. *Western Forester* 50(2): 14-15.
- Blankenship SM, Small MP, Bumgarner JD** (2009) Temporal Stability of Genetic Variation within Natural Populations of Summer Steelhead Receiving Mitigation Hatchery Fish. *Transactions of the American Fisheries Society* 138, 1052-1064.
- Braun, C. E., J. W. Connelly, and **M. A. Schroeder**. 2005. Seasonal habitat requirements for sage-grouse: spring, summer, fall, and winter. In N. L. Shaw, S. B. Monsen, M. Pellant, editors. Sage-grouse habitat restoration symposium proceedings: 2001 June 4-7; Boise, ID. RMRS-P-38. Rocky Mountain Research Station, Fort Collins, Colorado.
- Buchanan, J.B.** 2005. Avian conservation in Washington. Pages 12-18 *in* Wahl, T.R., B. Tweit, and S.G. Mlodinow (editors). *Birds of Washington: status and distribution*. Oregon State University Press, Corvallis, Oregon.
- Buchanan, J.B.** 2005. Challenges of avian conservation on non-federal forests in the Pacific Northwest. Pages 419-428 *in* Ralph, C.J. and T.D. Rich (editors). *Bird conservation implementation and integration in the Americas: proceedings of the third international Partners in Flight Conference*. USDA Forest Service, General Technical Report, PSW-GTR-191, Albany, California.
- Buchanan, J.B.** 2005. Priorities for implementation of the Northern Pacific Coast regional shorebird management plan. Pages 112-114 *in* Ralph, C.J. and T.D. Rich (editors). *Bird conservation implementation and integration in the Americas: proceedings of the third international Partners in Flight Conference*. USDA Forest Service, General Technical Report, PSW-GTR-191, Albany, California.
- Buchanan, J.B.** 2006. Black-bellied Plovers at Totten Inlet, Washington: phenology of spring migration, and changes in winter, spring and autumn abundance. *Washington Birds* 9:24-34.
- Buchanan, J.B.** 2006. Distribution and abundance of wintering Northern Shrikes in Washington. *Washington Birds* 9:12-19.
- Buchanan, J.B.** 2006. Message from the Editor. *Washington Birds* 9:78-79.
- Buchanan, J.B.** 2006. Sanderling feeds from carcass of Northern Fulmar. *Wader Study Group Bulletin* 110:65.
- Buchanan, J.B.** 2006. Vocalizations of the Greater Yellowlegs in western Washington. *Washington Birds* 9:55-62.

WDFW Fish, Wildlife, and Habitat Science Publications (2005-2010)

- Buchanan, J.B.** 2007. Changes in the seasonal abundance of Greater Yellowlegs at Totten Inlet, Washington. *Bird Populations* 8:21-25.
- Buchanan, J.B.** 2007. Fatal conspecific interaction involving European Starlings at a cavity nest site. *Bluebird* 29(3):12.
- Buchanan, J.B.** 2007. Increasing winter abundance of the Marbled Godwit in Washington. *Western Birds* 38:216-218.
- Buchanan, J.B.** 2007. Nearshore birds in Puget Sound. Puget Sound Nearshore Partnership report No. 2006-05. Seattle District, United States Army Corps of Engineers, Seattle, Washington. Available at <http://www.pugetsoundnearshore.org>.
- Buchanan, J.B.** 2007. Observations of Red Knots *Calidris canutus* in coastal Washington, USA: the 2007 spring migration. *Wader Study Group Bulletin* 114: 55-56.
- Buchanan, J.B.** 2008. Field guide to owls of California and the West, by H. Peeters [book review]. *Journal of Field Ornithology* 79:224-226.
- Buchanan, J.B.** 2008. The 2008 survey of Red Knots at Grays Harbor and Willapa Bay, Washington. *Wader Study Group Bulletin* 115:177-181.
- Buchanan, J.B.** 2009. Balancing competing habitat management needs for Northern Spotted Owls and other bird species in dry forest landscapes. Pages 109-117 in: Arizmendi, C. C. Thompson, D. Demerest, and T. Rich (Editors), *Proceedings of the Fourth International Partners in Flight Conference: Tundra to Tropics*. University of Texas – Pan American Press, Edinburg, Texas.
- Buchanan, J.B.** 2009. Change in the winter occurrence of Merlins at a western Washington estuary following recovery of Peregrine Falcon populations. *Journal of Raptor Research* 43:149-151.
- Buchanan, J.B.** 2009. State and provincial summaries of Long-billed Curlew status: Washington. Pages 52-56 in Fellows, S.D. and S.L. Jones (editors), *Status assessment and conservation action plan for the Long-billed Curlew (*Numenius americanus*)*. United States Department of the Interior, Fish and Wildlife Service, Biological Technical Publication FWS/BTP-R6012-2009. Washington, D.C.
- Buchanan, J.B.** 2010. Behavior of spring migrant Black-bellied Plovers at Totten Inlet, Washington: agonistic or courtship function? *Washington Birds*. In Press.
- Buchanan, J.B.** 2010. Collisions and in-flight calamities involving shorebirds in western Washington. *Washington Birds*. In Press.
- Buchanan, J.B.** 2010. Flight behaviour of Western Sandpipers *Calidris mauri* in a hailstorm. *Wader Study Group Bulletin* 116:195.
- Buchanan, J.B.** 2010. Hunting tactics of peregrines and other falcons, by D. Dekker [book review]. *Journal of Raptor Research*. In Press.

WDFW Fish, Wildlife, and Habitat Science Publications (2005-2010)

- Buchanan, J.B.** 2010. Is simultaneous hunting in winter by Merlins cooperative? *Journal of Raptor Research* 44:156-158.
- Buchanan, J.B.** 2006. A census of spring migrant Red Knots *Calidris canutus* in coastal Washington, USA: results from 2006. *Wader Study Group Bulletin* 111:64-66.
- Buchanan, J.B.** and **J.W. Watson.** 2010. Group hunting by immature bald eagles directed at gulls. *Northwestern Naturalist* 91:222-225.
- Buchanan, J.B.** and P. Swedeen. 2005. Briefing report to the Washington State Forest Practices Board on Spotted Owl status and Forest Practices Rules. Washington Department of Fish and Wildlife, Olympia, Washington.
- Buchanan, J.B.** and P. Swedeen. 2005. Stakeholder review of the draft briefing report to the Washington State Forest Practices Board regarding the Spotted Owl: stakeholder comments and Washington Department of Fish and Wildlife responses. Washington Department of Fish and Wildlife, Olympia, Washington.
- Buchanan, J.B.** and T.L. Fleming. 2008. Observations of Peregrine Falcon hunting flights and incidents of predation on landbirds during autumn migration in coastal Washington. *Washington Birds* 10:11-15.
- Buchanan, J.B., L.J. Salzer, G.E. Hayes, G. Schirato, and G. Wiles.** 2010. Red Knot *Calidris canutus* migration at Grays Harbor and Willapa Bay, Washington: spring 2009. *Wader Study Group Bulletin* 117:41-45.
- Buchanan, J.B.,** R.J. Gutiérrez, R.G. Anthony, T. Cullinan, L.V. Diller, E.D. Forsman, and A.B. Franklin. 2007. A synopsis of suggested approaches to address potential competitive interactions between Barred Owls (*Strix varia*) and Spotted Owls (*S. occidentalis*). *Biological Invasions* 9:679-691.
- Buckley, R. M., **L.L. LeClair, E.C. Volk, and S.L. Schroder.** 2007. Preliminary results of transgenerational marking of larval marine fish otoliths. Pages 21–32 *In* J. Heifetz, J. Dicosimo, A.J. Gharrett, M.S.Love, V.M. O'Connell, and R.D. Stanley (eds). *Biology, Assessment, and Management of North Pacific Rockfishes*. Alaska Sea Grant College Program Report (AK-SG-07-01). Alaska Sea Grant College Program, Juneau, AK.
- Cameron, C.E, R. L. Zuerner, S .Raverty, K.M. Colegrove, S. Norman, **D.M. Lambourn, S.J. Jeffries,** and F.M. Gulland 2008. Use of Polymerase Chain Reaction to detect *Leptospira* infection amongst pinniped populations during a 2004 outbreak along the West coast of North America. *Journal of Clinical Microbiology* 46:5, 1728-1733.
- Cheng, Y.W.** 2010. Inverse prediction for fish length–length conversion. *Fisheries Research*, 106, 112-114.
- Cheng, Y.W.** 2010. Correcting bias and estimating uncertainty in sustainable yields from the depletion-corrected average catch (DCAC) method. WDFW Technical Report No. (not assigned yet).

WDFW Fish, Wildlife, and Habitat Science Publications (2005-2010)

- Cheng, Y.W.** and **LeClair, L. L.** 2010. A quantitative evaluation of the effect of freezing temperatures on the survival of New Zealand mudsnails (*Patamopyrus antipodarum*, Gray 1843), in Olympia Washington's Capitol Lake. WDFW Technical Report. No. (not assigned yet).
- Chutter, M.J., I. Blackburn, D. Bonin, **J.B. Buchanan**, D. Cunnington, L. Feldes, A. Harestad, D. Heppner, L. Kiss, S. Leech, J. Smith, J. Surgenor, W. Wall, L. Waterhouse, and L. Williams. 2007. Guidance and some components of action planning for the Northern Spotted Owl (*Strix occidentalis caurina*) in British Columbia. British Columbia Ministry of the Environment, Victoria, British Columbia, Canada.
- Cole, M.B., **D.M. Price**, and B.R. Fransen. 2006. Change in the upper extent of fish distribution in eastern Washington streams between 2001 and 2002. Transactions of the American Fisheries Society. 135:634–642.
- Connelly, J. W., and **M. A. Schroeder**. 2007. Historical and current approaches to monitoring to monitoring greater sage-grouse. Pages 3-9 in K. P. Reese and R. T. Bowyer, editors. Monitoring populations of sage-grouse. College of Natural Resources Experiment Station, University of Idaho, Moscow, Idaho, USA.
- Connelly, J. W., C. E. Braun, **M. A. Schroeder**, and C. A. Hagen. 2007. Setting the record straight: a response to “sage-grouse at the crossroads”. Rangelands, December.
- Connor, W. P., **J. G. Sneva**, K. F. Tiffan, R. K. Steinhorst, and D. Ross. 2005. Two alternative juvenile life history types for fall Chinook salmon in the Snake River basin. Transactions of the American Fisheries Society 134:291–304.
- Cook, R. C., J. G. Cook, T. R. Stephenson, **W. L. Myers**, **S. McCorquodale**, D.J. Vales, L. L. Irwin, **P. B. Hall**, **R. D. Spencer**, S.L. Murphie, K.A. Schoeneckner, and **P. Miller**. 2010. Revisions of rump fat and body scoring indices for deer, elk and moose. Journal of Wildlife Management 74(4):880-896.
- Cook, R. C., T. R. Stephenson, **W. L. Myers**, J. G. Cook, and L. A. Shipley. 2007. Validating predictive models for nutritional condition in mule deer. Journal of Wildlife Management. 71(6):1934-1943.
- Cooley, H.S., R. B. Wielgus, **G. Koehler** and B. Maletzke. 2009. Source populations in carnivore management: cougar demography and emigration in a lightly hunted population. Animal Conservation. 10.1111:1469-1795.
- Cooley, H.S., R.B. Wielgus, H.S. Robinson, **G. Koehler**, and B. Maletzke. 2009. Does hunting regulate cougar populations: a test of the compensatory mortality hypothesis. Ecology 90: 2913–2921
- Curry, T.R. and **M.P. Hayes**. 2009. *Rana aurora* (Northern Red-legged Frog). Egg mass disturbance. Herpetological Review 40(2):208-209.
- Desimone, S.M.** and S. DeStephano. 2005. Temporal patterns of Northern Goshawk nest area occupancy and habitat: a retrospective analysis. Journal of Raptor Research 39:310-323.

WDFW Fish, Wildlife, and Habitat Science Publications (2005-2010)

- Destephano, S., M.T. McGrath, S.K. Daw, and **S.M. Desimone**. 2006. Ecology and habitat of breeding Northern Goshawks in the inland Pacific Northwest: a summary of research in the 1990s. *Studies in Avian Biology* 31:75-84.
- Dillingham, P. W., J. R. Skalski, and **K. E. Ryding** 2005. Fine-scale geographic interactions between Steller sea lion (*Eumetopias jubatus*) trends and local fisheries. *Canadian Journal of Fisheries and Aquatic Sciences* 63:107-119
- Doornik, D.M., B.A. Berejikian, **L.A. Campbell**, and **E.C. Volk**. 2010. The effect of a supplementation program on the genetic and life history characteristics of an *Oncorhynchus mykiss* population. *Canadian Journal of Fisheries and Aquatic Sciences* 67: 1449-1458.
- Douglas, A.B., J. Calambokidis, S.Raverty, **S.J. Jeffries**, **D.M. Lambourn** and S.A. Norman 2008. Incidence of ship strikes of large whales in Washington State. *Journal of the Marine Biological Association of the United Kingdom*, 1-12.
- Drovetski, S.V., **S.F. Pearson**, and S. Rohwer. 2005. Streaked horned lark (*Eremophila alpestris strigata*) has distinct mitochondrial DNA. *Conservation Genetics*: 6:875-883.
- Dubey, J.P., **K. Mansfield**, **B. Hall**, O.C.H. Kwok, and P. Thulliez. 2008. Seroprevalence of *Neospora caninum* and *Toxoplasma gondii* in black-tailed deer (*Odocoileus hemionus columbianus*) and mule deer (*Odocoileus hemionus hemionus*). *Veterinary Parasitology* 156:310-313.
- Dugger, Katie M., Frank Wagner, Robert G. Anthony, and **Gail S. Olson**. 2005. The Relationship Between Habitat Characteristics And Demographic Performance Of Northern Spotted Owls In Southern Oregon. *The Condor* 107: 863-878.
- Dunwiddie, P., E. Alverson, A. Stanley, R. Gilbert, **S. Pearson**, **D. Hays**, J. Arnett, E. Delvin, D. Grosboll, and C. Marschner. 2006. The vascular plant flora of the South Puget Sound prairies, Washington, USA. *Davidsonia* 17:51-69.
- Estes-Zumpf, W.A., J.L. Rachlow, L.P. Waits, and **K.I. Warheit**. (2010). Dispersal, gene flow, and population genetic structure in the pygmy rabbit (*Brachylagus idahoensis*). *JOURNAL OF MAMMALOGY* 91:208-219
- Falxa, G.**, J. Baldwin, D. Lynch, S.K. Nelson, S.L. Miller, **S.F. Pearson**, C.J. Ralph, M.G. Raphael, C. Strong, T. Bloxton, B. Galleher, B. Hogoboom, **M. Lance**, R. Young, and M. H. Huff. 2008. Marbled murrelet effectiveness monitoring, Northwest Forest Plan: 2004-2007. U.S. Fish and Wildlife summary report, 25pp.
- Falxa, G.A.**, J. Baldwin, D. Lynch, S.K. Nelson, S.L. Miller, **S.F. Pearson**, M.G. Raphael, C. Strong, T. Bloxton, B. Galleher, B. Hogoboom, M. Lance, and R. Young. 2009. Marbled murrelet effectiveness monitoring, Northwest Forest Plan: 2008 summary report. 19 p.
- Fast, D.L., D. Neeley, D.T. Lind, M.V. Johnston, C.R. Strom, W.J. Bosch, C.M. Knudsen, **S.L. Schroder**, and B.D. Watson. 2008. Survival comparison of spring Chinook salmon reared in a production hatchery under optimum conventional and seminatural conditions. *Transactions of the American Fisheries Society*. 137: 1507-1518.

WDFW Fish, Wildlife, and Habitat Science Publications (2005-2010)

- Fenger, M., **J.B. Buchanan**, T.J. Cade, E.D. Forsman, S.M. Haig, K. Martin, and W.A. Rapley. 2007. Northern Spotted Owl population enhancement and recovery in British Columbia: proposed five-year action plan. Prepared by the Spotted Owl Population Enhancement Team for the government of British Columbia, Victoria, British Columbia, Canada.
- Fernández, G., **J.B. Buchanan**, R.E. Gill, Jr., R. Lanctot, and N. Warnock. 2008. Conservation plan for Dunlin with breeding populations in North America (*Calidris alpina arctica*, *C.a. pacifica*, and *C.a. hudsonia*). Version 1.0. Manomet Center for Conservation Sciences, Manomet, Massachusetts.
- Fernández, G., N. Warnock, D.B. Lank, and **J.B. Buchanan**. 2006. Conservation plan for the Western Sandpiper. Version 1.0. Manomet Center for Conservation Sciences, Manomet, Massachusetts.
- Franklin, J.F., M.A. Hemstrom, R. Van Pelt, and **J.B. Buchanan**. 2008. The case for active management of dry forest types in eastern Washington: perpetuating and creating old forest structures and functions. Washington Department of Natural Resources, Olympia, Washington.
- Franklin, J.F., M.A. Hemstrom, R. Van Pelt, S. Hull, R. Crawford, S. Curry, W. Obermeyer, and **J. Buchanan**. 2007. Extent and distribution of old forest conditions on Washington Department of Natural Resources-managed forest lands in eastern Washington. Washington Department of Natural Resources, Olympia, Washington.
- Fritts, A. L., and T. N. Pearsons**. 2006. *Effects of predation by nonnative smallmouth bass on native salmonid prey: the role of predator and prey size. Transactions of the American Fisheries Society 135:853-860.*
- Fritts, A. L., and T. N. Pearsons**. 2008. *Can non-native smallmouth bass, Micropterus dolomieu, be swamped by hatchery fish releases to increase juvenile Chinook salmon, Oncorhynchus tshawytscha, survival? Environmental Biology of Fishes 83:499-508.*
- Fritts, A. L., Scott, J. L., and T.N. Pearsons**. 2007. *The effects of domestication on the relative vulnerability of hatchery and wild origin spring Chinook salmon (Oncorhynchus tshawytscha) to predation. Canadian Journal of Fisheries and Aquatic Sciences 64:813-818.*
- Gallagher, S.P., **P.K.J. Hahn** and D.H. Johnson. 2007. Redd Counts. P. 197-234 in Johnson, Shrier, O'Neal, Knutzen, Augerot, O'Neill, & Pearsons. Salmonid Field Protocols Handbook: Tech. for Assessing Status & Trends in Salmon & Trout Pop., Amer. Fish. Soc., Bethesda, MA.
- Gallinat, M. P., J. D. Bumgarner, M. L. Schuck, and G. W. Mendel**. 2008. *Supplementation of an ESA-Listed Spring Chinook Population with Management Limitations. Pages 967-975 in J. L. Nielsen, J. Dodson, K. Friedland, T. R. Hamon, J. Musick, and E. Verspoor, editors. Reconciling fisheries with conservation: proceedings of the Fourth World Fisheries Congress. American Fisheries Society, Symposium 49, Bethesda, Maryland.*
- Galloway, A. W. E., **M. Tudor**, and **W. M. Vander Haegen**. 2006. A comparison of student and professional data describing an Oregon white oak stand. Wildlife Society Bulletin 34:1425-1429

WDFW Fish, Wildlife, and Habitat Science Publications (2005-2010)

- Galloway, A., R. Hickey, and **G. Koehler**. In press. . A Survey of Ungulates by Students along Rural School Bus Routes. Society & Natural Resources
- Gaydos, J.K., W. A. Miller, C. Johnson†, H. Zornetzer, A. Melli, A. Packham, **S. J. Jeffries, M. M. Lance**, and P. A. Conrad. 2008. Novel and canine genotypes of *Giardia duodenalis* in harbor seals (*Phoca vitulina richardsi*). J. Parasitol, 94(6), pp. 1264-1268.
- Goldstein, T., F.M.D. Gulland, B.M. Aldridge, J.T. Harvey, T. Rowles, **D.M. Lambourn, S.J. Jeffries**, L. Measures, P.K. Yochem, B.S. Stewart, R.J. Small, D.P. King, J.L. Stott and J.A.K. Mazet. 2004. Antibodies to Phocine herpesvirus-1 are common in North American harbor seals (*Phoca vitulina*). J. Wildl. Disease. 39(3) 487- 494.
- Gregory, S. C., **W. M. Vander Haegen, Wan-Ying Chang**, and S. D. West. 2010. Nest site selection by western gray squirrels at their northern range terminus. Journal of Wildlife Management 74:18-25.
- Griffin, K. A., M. Hebblewhite, H. S. Robinson, P. Zager, S. M. Barber-Meyer, D. Christianson, S. Creel, N. C. Harris, M. A. Hurley, D. H. Jackson, B. K. Johnson, L. D. Mech, **W. L. Myers**, J. D. Raithel, M. Schlegel, B. L. Smith, C. White, and P. J. White. *In Press*. Predator diversity and phenology drives compensatory neonatal elk mortality in the northwestern United States. Journal of Animal Ecology.0:0 000:000.
- Hagen, C. A., J. W. Connelly, and **M. A. Schroeder**. 2007. A meta-analysis of greater sage-grouse *Centrocercus urophasianus* nesting and brood-rearing habitats. Wildlife Biology 13:42-50.
- Hahn, P.K.J.**, R.E. Bailey, and A. Ritchie. 2007. Beach Seining. P. 267-324 in Johnson, Shrier, O'Neal, Knutzen, Augerot, O'Neill, & Pearsons. Salmonid Field Protocols Handbook: Tech. for Assessing Status & Trends in Salmon & Trout Pop., Amer. Fish. Soc., Bethesda, MA.
- Hallock, L.A.** 2009. A Conservation Assessment for the Sharp-tailed Snake in Washington and Oregon (*Contia tenuis*). Report prepared by Washington Natural Heritage Program, Olympia, Washington, for the USDA Forest Service and USDI Bureau of Land Management, Region 6, Oregon and Washington. October 14, 2009. 30 pp + appendices.
- Hallock, L.A.** 2009. Surveys for Oregon Spotted Frog (*Rana pretiosa*) and Cascades Frog (*Rana cascadae*) at select wetlands in the Trout Lake Creek Watershed, Gifford Pinchot National Forest, Mt. Adams Ranger District. Report prepared by Washington Natural Heritage Program, Olympia, Washington, for the USDA Forest Service and USDI Bureau of Land Management, Region 6, Oregon and Washington. September 15, 2009. 24 pp + appendices.
- Hallock, L.A.** and **A.P. McIntyre**. 2009. Inventory and Monitoring. *In* Olson, D.H. (coord. ed.), Herpetological Conservation in Northwestern North America. Northwestern Naturalist 90:81-82.
- Hardee, S.E., **M.M. Lance, S.J. Jeffries**, P.F. Olesiuk, and A. Acevedo-Gutierrez. Movements and home ranges of harbor seals (*Phoca vitulina*) in the inland waters of the Pacific Northwest. Submitted February 2009 to Marine Ecology Progress Series.

WDFW Fish, Wildlife, and Habitat Science Publications (2005-2010)

- Harrenstien, L.A., M.V. Finnegan, N.L. Woodford, **K.G. Mansfield**, W.R. Waters, J.P. Bannantine, M.L. Paustian, M.M. Garner, A.C. Bakke, C.A. Peloquin, and T.M. Phillips. 2006. *Mycobacterium avium* in pygmy rabbits (*Brachylagus idahoensis*): 28 cases. *Journal of Zoo and Wildlife Medicine* 37:498-512.
- Hayes, C.B., and **M.P. Hayes**. 2008. *Elgaria coerulea* (Northern Alligator Lizard). Juvenile growth. *Herpetological Review* 39(2):222-223.
- Hayes, M. P. T. Quinn, D. J. Dugger, T. L. Hicks**, M.A. Melchiors, and D.E. Runde. 2006. Dispersion of coastal tailed frog (*Ascaphus truei*): a hypothesis relating occurrence of frogs in non-fish bearing headwater basin to their seasonal movements. *Journal of Herpetology*. 40: 533-545
- Hayes, M. P., T. Quinn**, K. O Richter, J. P. **Schuett-Hames**, J. T. Serra Shean. 2008. Maintaining Lentic-Breeding Amphibians in Urbanizing Landscapes: The Case Study of the Northern Red-Legged Frog (*Rana aurora*). *Herpetological Conservation: Volume III*.
- Hayes, M.P.** 2007. Size record? *Herpetological Review* 38(4):393.
- Hayes, M.P.** and **T. Quinn**. 2005. *Rhyacotriton kezeri*. In M. J. Lannoo (Editor), *Conservation of Amphibians of North America*. University of California Press.
- Hayes, M.P.**, C.J. Rombough and C.B. Hayes. 2007. *Rana aurora* (Northern Red-legged Frog). Movement. *Herpetological Review* 38(2):192-193.
- Hayes, M.P.**, J.D. Engler and C.J. Rombough. 2006. *Rana pretiosa* (Oregon Spotted Frog). Predation. *Herpetological Review* 37(2):209-210.
- Hayes, M.P.**, M.R. Jennings, and G.B. Rathbun. 2006. *Rana draytonii* (California Red-legged Frog). Prey. *Herpetological Review* 37(4):449.
- Hayes, M.P., T. Quinn**, and **T.L. Hicks**. 2008. Implications of Capitol Lake Management for Fish and Wildlife. 88 pp. + appendices
- Hayes, M.P., T. Quinn**, D.J. Dugger, **T.L. Hicks**, M.A. Melchiors, and D.E. Runde. 2006. Dispersion of Coastal Tailed Frog (*Ascaphus truei*): a hypothesis relating occurrence of frogs in non-fish-bearing headwater basins to their seasonal movements. *Journal of Herpetology* 40(4):533-545.
- Hayes, M.P.; T. Quinn**; K.O. Richter; **J.P. Schuett-Hames**; and J.T. Serra Shean. 2008. Maintaining Lentic-Breeding Amphibians in Urbanizing Landscapes: The Case Study of the Northern Red-Legged Frog (*Rana aurora*). Pp. 445-461. In: Mitchell, J.C., R.E. Jung Brown, and B. Bartholomew (editors), *Urban Herpetology*, Society for the Study of Amphibians and Reptiles, *Herpetological Conservation* 3. [Book chapter]
- Healey, S.P.; Yang, Z.; Cohen, W. B.; **Pierce, D. J.** 2006. Application of two regression-based methods to estimate the effects of partial harvest on forest structure using Landsat data. *Rem. Sens.of Env.*101 (1):115-126.

WDFW Fish, Wildlife, and Habitat Science Publications (2005-2010)

- Hicks, T.L., D.E. Mangan, A.P. McIntyre and M.P. Hayes. 2008. *Rhyacotriton kezeri* larval diet. Herpetological Review. 39(4): 456-457.
- Himworth, C, Haulena, M, Lambourn, D, Gaydos, J, Huggins, J, Calambokidis, J, Ford, J, Zarembo, K, and Raverty, S. 2010. Pathology and Epidemiology of Phocid Herpesvirus-1 Infections in Wild and Rehab Harbor Seals (*Phoca vitulina*) in the Northeastern Pacific. Journal of Wildlife Diseases. Journal of Wildlife Diseases, 46(3):1046-1051, 2010
- Huber, H.R., S.J. Jeffries, D.M. Lambourn, and B.R. Dickerson. 2010. Population substructure of harbor seals (*Phoca vitulina richardsi*) in Washington State using mtDNA. Canadian Journal of Zoology 88: 280–288.
- Huby-Chilton, F., A.A. Gajadahr, K. Mansfield, W.J. Foreyt, and N.B. Chilton. 2006. Bighorn sheep, a new host record for *Parelaphostrongylus odocoilei* (Nematoda: Protostrongylidae). Journal of Wildlife Diseases 42:877-882.
- Hunter, M, T. Quinn, and M. P. Hayes. 2005. Low Flow Spatial Characteristics in Forested Headwater Channels of Southwest Washington. Journal of American Water Resources. June: 503-516.
- Hunter, M.A. and T. Quinn. 2009. Summer water temperature in alluvial and bedrock channels of the Olympic Peninsula. Western Journal of Applied Forestry 24:103-108.
- Huyghe K, Breugelmans K, Small M, et al. (2009) Characterization of polymorphic microsatellite markers in the Dalmatian wall lizard *Podarcis melisellensis* (Squamata: Lacertidae). Molecular Ecology Resources 9, 299-301.
- Huyghe K, Small M, Vanhooydonck B, et al. (2010) Genetic divergence among sympatric colour morphs of the Dalmatian wall lizard (*Podarcis melisellensis*). Genetica 138, 387-393.
- Iachetti, P., J. Floberg, G. Wilhere, and 12 other authors. 2006. A Conservation Assessment for the North Cascades and Pacific Ranges Ecoregion. Prepared by the Nature Conservancy of Canada, The Nature Conservancy, and the Washington Department of Fish and Wildlife. Nature Conservancy of Canada, Victoria, BC.
- Jennings, M.R. and M.P. Hayes. 2005. *Rana boylii* (Foothill Yellow-legged Frog). Coloration. Herpetological Review 36(4):438.
- Johnson, C. L., G. M. Temple, T. N. Pearsons, and T. D. Webster. 2009. An Evaluation of Data Entry Error and Proofing Methods for Fisheries Data. Transactions of the American Fisheries Society 138:593-601.
- Johnson, D.H., G.C. White, A.B. Franklin, L.V. Diller, I. Blackburn, D.J. Pierce, G.S. Olson, J.B. Buchanan, J. Thrailkill, B. Woodbridge, M. Ostwald. 2008. Study designs for Barred Owl removal experiments to evaluate potential effects on Northern Spotted Owls. Report prepared for the U.S. Fish and Wildlife Service, Lacey, WA and Yreka, CA. Washington Department of Fish and Wildlife, Olympia, Washington.

WDFW Fish, Wildlife, and Habitat Science Publications (2005-2010)

- Johnson, L. L., D.P. Lomax, M.M. Myers, O.P. Olson, S.Y. Sol, S.M. O'Neill, **J.E. West**, T.K. Collier. 2008. Xenoestrogen exposure and effects in English sole (*Parophrys vetulus*) from Puget Sound, WA. *Aquatic Toxicology* 88(1): 29-38.
- Johnstone-Yellin, T. L., L. A. Shipley, and **W. L. Myers**. 2006. Effectiveness of vaginal implant transmitters in locating mule deer fawns. *Wildlife Society Bulletin* 34(2): 338-344.
- Johnstone-Yellin, T. L., L. A. Shipley, **W. L. Myers**, and H. S. Robinson. 2009. To twin or not to twin? Tradeoffs in litter size and fawn survival in mule deer. *Journal of Mammalogy* 90(2):453-460.
- Kalk, P. and **C.G. Rice**. 2010. Identification and marking techniques. pp. 493-503 In: D.G. Kleiman, K.V. Thompson, and C.K. Baer (eds). *Wild Mammals in Captivity*. 2nd edition. University of Chicago Press. Chicago, IL, USA.
- Karraker, N.E., D.S. Pilliod, E.L. Bull, P.S. Corn. L.V. Diller, L.A., Dupuis, **M.P. Hayes**, B.R. Hossack, G.R. Hodgson, E.J. Hyde, K. Lohman, B.R. Norman, L.M. Ollivier, C.A. Pearl, C.R. Peterson. 2006. Taxonomic variation in the oviposition by Tailed Frogs (*Ascaphus* spp.). *Northwestern Naturalist* 87:87-97.
- Kassler TW, Hawkins DK**, Tipping JM (2008) Summer-Run Hatchery Steelhead Have Naturalized in the South Fork Skykomish River, Washington. *Transactions of the American Fisheries Society* 137, 763-771.
- Kersh, G.J, D.M. **Lambourn, D.M**, J.S. Self , A.M. Akmajian, J.B.Stanton, T.V. Baszler, S.A. Raverty, and R.F. Massung, 2010. *Coxiella burnetii* infection of a Steller Sea Lion (*Eumetopias jubatus*) found in Washington state. [J Clin Microbiol](#) 48(9):3428-31 (2010)
- Knudsen, C.M., M.V. Johnston, **S.L. Schroder**, W.J. Bosch, D.L. Fast, and C.R. Strom. 2009. Effects of passive integrated transponder tags on smolt-to-adult recruit survival, growth, and behavior of hatchery spring Chinook salmon. *North American Journal of Fisheries Management* 29:658-669.
- Knudsen, C.M., **S.L. Schroder**, C.A. Busack, M.V. Johnston, T.N. Pearsons, W.J. Bosch, and D.E. Fast. 2006. Comparison of life history traits between first-generation hatchery and wild upper Yakima River spring Chinook salmon. *Transactions of the American Fisheries Society* 135: 1130 – 1144.
- Knudsen, C.M., **S.L. Schroder**, C.A. Busack, M.V. Johnston, T.N. Pearsons, and C.R. Strom. 2008. Comparison of female reproductive traits and progeny of first-generation hatchery and wild upper river spring Chinook salmon. *Transactions of the American Fisheries Society* 137: 1433-1445.
- Koehler, G. M.**, B. T. Maletzke, J. A. von Kienast, K. B. Aubry, R. B. Wielgus, R. H. Naney. in press. Habitat Fragmentation and the Persistence of Lynx Populations in Washington State. *Journal of Wildlife Management*. 72(7):000-000.
- Koehler, G..M.** and **D.J. Pierce**.2005. Survival, cause-specific mortality, sex and ages of American black bears in Washington state, USA. *Ursus*. 16(2):157-166.

WDFW Fish, Wildlife, and Habitat Science Publications (2005-2010)

- Koehler, G.M.**, B. T. Maletzke, J. A. von Kienast, K. B. Aubry, R. B. Wielgus, R. H. Naney. 2008. Habitat Fragmentation and the Persistence of Lynx Populations in Washington State. *Journal of Wildlife Management*. 72(7):1518-1524.
- Kraege, D.K.** 2005. Species accounts for greater white-fronted goose, snow goose, brant, Canada goose, cackling goose. Pages 29-34 *in* T. R. Wahl, Tweit, B., and Mlodinow, S.G. editors, *Birds of Washington*, Oregon State University Press, Corvallis, OR, USA.
- Kraege, D.K.**, S. Boyd, and V.V. Baranyuk 2008. Monitoring and management of Wrangel Island lesser snow geese in Washington State, USA, and British Columbia, Canada. *Casarca* 11(1): 70-83.
- Kroll, A.J., **M.P. Hayes**, and J.G. MacCracken. 2009. Concerns regarding the use of amphibians as metrics of critical biological thresholds: a comment on Welsh and Hodgson (2008). *Freshwater Biology* 54(11):2364-2373.
- Krueger, K. L., D. Penttila, T. Quinn.** 2007. An Assessment of the Efficacy of Forage Fish Egg Surveys. Puget Sound research symposium. Biennial Georgia Basin Puget Sound Research Conference. Vancouver, Canada.
- Krueger, K. L., K. B. Pierce, Jr., T. Quinn, and D. E. Penttila.** In press. Anticipated Effects of Sea Level Rise in Puget Sound on Two Beach-spawning Fishes. *Proceedings of Puget Sound Shorelines and the Impacts of Armoring: State of the Science*. May 12 – 14, 2009 Alderbrook Inn, Washington.
- Krueger, K. L., K. Pierce, N. Pittman, K. Samson, R. Nauer, D. Price and T. Quinn.** 2010. Intensively Monitored Watersheds: Habitat Monitoring Report 2010. Report to the Salmon Recovery Funding Board.
- Krueger, K. L., P. Chapman, M. Hallock, and T. Quinn.** 2007. Some effects of suction dredge placer mining on the short-term survival of freshwater mussels in Washington. *Northwest Science* 81: 323-332.
- Krueger, K. L., T. Quinn, R. Carman, S. Wyllie-Echeverria, T. Wyllie-Echeverria, K. Fresh, B. Williams.** 2007. Estimating sufficient sample sizes to detect changes in eelgrass density. Biennial Georgia Basin Puget Sound Research Conference. Vancouver, Canada. Extended abstract.
- Laidre, K.L., R.J. Jameson, E. Gurarie, **S.J. Jeffries** and **H. Allen**. 2009. Spatial habitat use patterns of sea otters in coastal Washington. *J. Mammalogy* 90(4): 906-917.
- Lance, M. M., and C. W. Thompson.** 2005. Overlap in diets and foraging of Common Murres and Rhinoceros Auklets after the breeding season. *Auk* 122 (3): 887-901.
- Lance, M.M., and S.J. Jeffries.** 2006. Estimating importance of rockfish, lingcod and other bottomfish in the diet of harbor seals in the San Juan Islands. Contract Report to SeaDoc Society Research Agreement No. K004431-22. Washington Department of Fish and Wildlife, Olympia WA. 20 pp.
- Lance, M.M., and S.J. Jeffries.** 2007. Temporal and spatial variability of harbor seal diet in the San Juan Island archipelago. Contract Report to SeaDoc Society Research Agreement No. K004431-25. Washington Department of Fish and Wildlife, Olympia WA. 21 pp.

WDFW Fish, Wildlife, and Habitat Science Publications (2005-2010)

- Lance, M.M.,** and **S.J. Jeffries.** 2009. Harbor seal diet in Hood Canal, South Puget Sound and the San Juan Island archipelago. Contract Report to Pacific States Marine Fisheries Commission for Job Code 497; NOAA Award No. NA05NMF4391151. Washington Department of Fish and Wildlife, Olympia WA. 30 pp.
- LeClair, L. L.** and **Cheng, Y.W.** 2010. New Zealand mud snail (*Potamopygrus antipodarum*, Gray 1843) survival following a controlled saltwater backflush of an impounded freshwater lake connected to the sea. WDFW Technical Report. No. (not assigned yet).
- Lee, Y.-W.** and Sampson, D.B. 2009. Dietary variations in three co-occurring rockfish species off Pacific Northwest during anomalous oceanographic events in 1998 and 1999. U.S. Fishery Bulletin. 107:510-522.
- Lee, Y.-W.,** Megrey, B.A., and Macklin, S.A. 2009. Evaluating the performance of Gulf of Alaska walleye pollock recruitment forecasting models using a Monte Carlo resampling strategy. Canadian Journal of Fisheries and Aquatic Sciences. 66: 367-381.
- Liu, W., K.A. Brayton, W.C. Davis, **K. Mansfield**, J. Lagerquist, W. Foreyt, and S. Srikumaran. 2007. *Mannheimia (Pasteurella) hemolytica* leukotoxin utilizes cd18 as its receptor on bighorn sheep leukocytes. Journal of Wildlife Diseases 43:75-81.
- Locke, A., C. Stalnaker, S. Zellmer, K. Williams, **H. Beecher**, T. Richards, C. Robertson, A. Wald, A. Paul, and T. Annear. 2008. Integrated Approaches to Riverine Resource Stewardship – Case Studies, Science, Law, People, and Policy. Instream Flow Council, Cheyenne, WY. 430 pp.
- Lowry, D** and PJ Motta. (2007). Ontogeny of feeding behavior and cranial morphology in the whitespotted bambooshark *Chiloscyllium plagiosum*. *Mar Biol.* 151: 2013-2023. DOI:10.1007/s00227-007-0642-z.
- Lowry, D** and PJ Motta. (2008). Relative importance of growth and behaviour to elasmobranch suction-feeding performance over early ontogeny. *J Royal Soc. Interface.* 5: 641-52. DOI:10.1098/rsif.2007.1189.
- Lowry, D,** Castro, A, Mara, K, Whitenack, L, Delius, B, Motta, P and G Burgess. (2009). Identification of shark species and size from forensic analysis of bite damage. *Mar Biol.* 156: 2483-2492. DOI:10.1007/s00227-009-1273-3.
- Lowry, D,** Motta, PJ, and RE Hueter. (2007). The ontogeny of feeding behavior and cranial morphology in the leopard shark *Triakis semifasciata* (Girard 1854): a longitudinal perspective. *J Exp Mar Biol and Ecol.* 341 (2): 153-167. DOI:10.1016/j.jembe.2006.07.018.
- Lowry, D,** Wintzer, AP, Matott, MP, Whitenack, LB, Huber, DR, Dean, M, and PJ Motta. (2005). Aerial and aquatic feeding in the Silver Arawana *Osteoglossum bicirrhosum*. *Env Biol of Fishes* 73 (4): 453-462. DOI:10.1007/s10641-005-3214-4.
- Major III, Walter W., J. M. Grassley, **K. E. Ryding**, C. E. Grue, T. N. Pearsons and A. Stephenson. 2005. The abundance and consumption of fish by California gulls and ring-billed gulls at water and fish management structures with the Yakima River, Washington State. *Waterbirds* 28(3):366-377.

WDFW Fish, Wildlife, and Habitat Science Publications (2005-2010)

- Maletzke, B.T., **G. M. Koehler**, R. B. Wielgus, K. B. Aubry, M. A. Evans. 2008. Habitat conditions associated with lynx hunting behavior during winter in northern Washington. *Journal of Wildlife Management*. 72(7):1473- 1478.
- Mansfield, K.G.**, F.J.M. Verstraete, and P.J. Pascoe. 2006. Mitigating pain during tooth extraction from conscious deer. *Wildlife Society Bulletin* 34:201-202.
- McIntyre, A.P., M.P. Hayes** and **T. Quinn**. 2009. Type N Feasibility Study. A report submitted to the Landscape and Wildlife Advisory Group, Amphibian Research Consortium, and the Cooperative Monitoring, Evaluation, and Research Committee. 48 pp. + appendices
- McIntyre, A.P.**, R.A. Schmitz, and C.M. Crisafulli. 2006. Associations of the Van Dyke's Salamander (*Plethodon vandykei*) with geomorphic conditions in headwall seeps of the Cascade Range, Washington State. *Journal of Herpetology* 40(3):309-322.
- McKelvey, K., J.von Kienast, K.Aubry, **G. Koehler**, B. Malezke, J. Squires, E. Lindquist, S. Loch, and M. Swartz. 2006. DNA analysis of hair and scat collected along snow tracks to document the presence of Canada lynx. *Wildlife Society Bulletin* 34(2)451-455.
- McPhee, M. V., **M. S. Zimmerman**, T. D. Beacham, B. R. Beckman, J. B. Olsen, L. W. Seeb, and W. D. Templin. 2010. Abundance and structure in the Arctic-Yukon-Kuskokwim region. *In* C. C. Krueger and C. E. Zimmerman, editors. Pacific salmon: ecology and management of Western Alaska's populations. American Fisheries Society, Bethesda, Maryland.
- Morris-Pocock, J.A., S.A. Taylor, T.P. Birt, M. Damus, J.F. Piatt, **K.I. Warheit.**, V.L. Friesen. 2008. Population genetic structure in Atlantic and Pacific Ocean common murre (*Uria aalge*) populations: natural replicate tests of post-Pleistocene population differentiation. *MOLECULAR ECOLOGY* 17:4859-4873.
- Mos,L., Tabuchi,M., Dangerfield,N., **Jeffries,S.J.**, Koop,B.F., and Ross,P.S. 2007. Contaminant-associated disruption of vitamin A and its receptor (RAR α) in free-ranging harbour seals (*Phoca vitulina*). *Aquat.Toxicol.* 81: 319-328.
- Motta, PJ, Hueter, RE, Tricas, TC, Summers, AP, Huber, DR, **Lowry, D**, Mara, K, Matott, MP, Whitenack, LB, and AP Wintzer. (2008). Functional morphology of the feeding apparatus, design constraints, and suction performance in the nurse shark *Ginglymostoma cirratum*. *J Morph* 269: 1041-1055. DOI:10.1002/jmor.10626.
- Murdoch, A.R., M.A. Tonseth, and T. L. Miller**. 2009. Migration patterns and spawning distribution of adult hatchery sockeye salmon released as parr from net-pens in Lake Wenatchee, Washington. *North American Journal of Fisheries Management* 29:447-459.
- Murdoch, A.R.**, P.W. James, and T.N. Pearsons. 2005. Interactions between rainbow trout and bridgelip sucker spawning in a small Washington stream. *Northwest Science* 79:120-130.
- Murdoch, A.R.**, T.N. Pearsons, and T.W. Maitland. 2009. The number of redds constructed per female spring Chinook salmon in the Wenatchee River Basin. *North American Journal of Fisheries Management* 29:441-446.

WDFW Fish, Wildlife, and Habitat Science Publications (2005-2010)

- Murdoch, A.R.**, T.N. Pearsons, and **T.W. Maitland**. 2009. The use of carcass recovery data in evaluating the spawning distribution and timing of spring Chinook salmon in the Chiwawa River, Washington. *North American Journal of Fisheries Management* 29:1206-1213.
- Murdoch, A.R.**, T.N. Pearsons, and **T.W. Maitland**. 2010. Estimating the spawning escapement of hatchery and natural origin spring Chinook salmon using redd and carcass data. *North American Journal of Fisheries Management* 30:361-375.
- Myers, J. M., C. Busack, **D. Rawding**, **A. R. Marshall**, D. J. Teel, D. M. Van Doornik, M. T. Maher. 2006. Historical population structure of Pacific salmonids in the Willamette River and lower Columbia River basins. U.S. Dept. of Commerce, NOAA Tech. Memo., NMFS-NWFSC-73, 311 p.
- Myers, W.L.** W.E. Foreyt, P.A. Talcott, J.E. Evermann, and **W.Y. Chang**. *In press*. Serologic, trace element, and parasitic survey of free-ranging mule deer in eastern Washington. *Journal of Wildlife Diseases*.
- Narum, S.R. et al. (17 authors). 2008. Differentiating salmon populations at broad and fine geographical scales with microsatellites and single nucleotide polymorphisms. *MOLECULAR ECOLOGY* 17:3464–3477
- O'Donnell, R. P.**, **T. Quinn**, **M. P. Hayes**, **K. E. Ryding**. 2007. Comparison of three methods for surveying amphibians in forested headwater seeps in Washington. *Northwest Science* 81: 274-283.
- O'Donnell, R.P1, **T. Quinn**, **M. P. Hayes**, and **KE Ryding**. 2007. Comparison of Three Methods for Surveying Amphibians in Forested Seep Habitats in Washington State. *Northwest Science* 81(4): 274-283
- Olson, Gail S.**, Robert G. Anthony, Eric D. Forsman, Steven H. Ackers Peter J. Loschl Janice A. Reid, Katie M. Dugger, Elizabeth M. Glenn, And William J. Ripple. 2005. Modeling Of Site Occupancy Dynamics For Northern Spotted Owls, With Emphasis On The Effects Of Barred Owls. *Journal Of Wildlife Management* 69: 918-932.
- O'Neill, S. M. and **J. E. West** 2009. Marine Distribution, Life History Traits, and the Accumulation of Polychlorinated Biphenyls in Chinook Salmon from Puget Sound, Washington. *Transactions of the American Fisheries Society* 138(3): 616-632.
- Pacunski, R.E.**, **W.A. Palsson**, H.G. Greene, and D.R. Gunderson. 2008. Conducting visual surveys with a small ROV in shallow water. Pages 109-128 in *Marine Habitat Mapping Technology for Alaska*, J.R. Reynolds and H.G. Greene, eds. Alaska Sea Grant Program, AK-SG-08-03. 282 p.
- Palmeri-Miles, A.F., K.A. Douville, J.A. Tyson, K.D. Ramsdell and **M.P. Hayes**. 2010. Field observations of oviposition and early development of the Coastal Tailed Frog (*Ascaphus truei*). *Northwestern Naturalist* 91(2):206-213.
- Palsson, W.A.** 2009. The status of spiny dogfish in Puget Sound. Pages 39-52 in V.F. Gallucci, G.A. McFarlane, and G.G. Bargmann, editors. *Biology and management of dogfish sharks*. American Fisheries Society, Bethesda, Maryland.

WDFW Fish, Wildlife, and Habitat Science Publications (2005-2010)

- Palsson, W.A., R.E. Pacunski**, T.R. Parra, and J. Beam. 2008. The effects of hypoxia on marine fish populations in southern Hood Canal, Washington. Pages 255-280 in *Mitigating Natural Disasters in Fisheries Ecosystems*, K.D. McLaughlin, ed. American Fisheries Society, Symposium 64, Bethesda, Maryland. 446 p.
- Pearl, C.A. and **M.P. Hayes**. 2002. Predation by Oregon Spotted Frog (*Rana pretiosa*) on Western Toads (*Bufo boreas*) in Oregon. *American Midland Naturalist* 147(1):145-152.
- Pearson, S.F.** and B. Altman. 2005. Range-wide Streaked Horned Lark (*Eremophila alpestris strigata*) assessment and preliminary conservation strategy. Washington Department of Fish and Wildlife, Olympia, WA.
- Pearson, S.F.**, and M. Hopey. 2005. Streaked Horned Lark nest success, habitat selection, and habitat enhancement experiments for the Puget lowlands, Coastal Washington, and Columbia River Islands. Natural Areas Program Report 2005-1. Washington Dept. of Natural Resources. Olympia, WA.
- Pearson, S.F.**, H. Anderson, and M. Hopey. 2005. Streaked Horned Lark monitoring, habitat manipulations, and a conspecific attraction experiment. Final Report. Washington Department of Fish and Wildlife, Olympia, WA.
- Pearsons, T. N., and G. M. Temple**. 2007. *Impacts of early stages of salmon supplementation and reintroduction programs on three trout species. North American Journal of Fisheries Management* 27:1-20.
- Pearsons, T. N., and G. M. Temple**. 2010. *Changes to rainbow trout abundance and salmonid biomass in a Washington watershed as related to hatchery salmon supplementation. Transactions of the American Fisheries Society* 139:502-520.
- Pearsons, T. N., C. L. Johnson, B. B. James, and G. M. Temple**. 2009. *Abundance and distribution of precociously mature male spring Chinook salmon of hatchery and natural origin in the Yakima River. North American Journal of Fisheries Management* 29:778-790.
- Pearsons, T. N., Fritts, A. L. and J. L. Scott**. 2007. *The effects of hatchery domestication on competitive dominance of juvenile spring Chinook salmon (Oncorhynchus tshawytscha). Canadian Journal of Fisheries and Aquatic Sciences* 64:803-812.
- Pierce, D.J., J. B. Buchanan, B. L. Cosentino, and S. Snyder**. 2005. An assessment of Spotted Owl habitat on non-federal lands in Washington between 1996 and 2004. Final Report. Washington Department of Fish and Wildlife, Olympia, Washington, USA. 187 p
- Pitcher, K.W., Olesiuk, P.F., Brown, R.F., Lowry, M.S., **Jeffries, S.J.**, Sease, J.L., Perryman, W.L., Stinchcomb, C.E., and Lowry, L.F. 2007. Abundance and distribution of the eastern North Pacific Steller sea lion (*Eumetopias jubatus*) population. *Fish. Bull.* 107: 102–115.
- Polacek, M., C.M. Baldwin**, and K. Knuttgen. 2006. Status distribution, diet, and growth of Burbot in Lake Roosevelt, Washington. *Northwest Science* 80: 153-164.

WDFW Fish, Wildlife, and Habitat Science Publications (2005-2010)

- Popper, K., **G. Wilhere**, and 10 other authors. 2007. The East Cascades – Modoc Plateau and West Cascades Ecoregional Assessments. Prepared by The Nature Conservancy and the Washington Department of Fish and Wildlife. The Nature Conservancy, Portland, OR.
- Powell, S.L., W.B. Cohen, Z. Yang, **D.J. Pierce**, and M. Alberti. 2008. Quantification of Impervious Surface in the Snohomish Water Resources Inventory Area of Western Washington from 1972-2006. *Rem. Sens. Env.* (112) 1895-1908.
- Price, D. M., Ryding, K. E., and M.R. Barber.** 2005. Status and Trend Monitoring for Fish Passage in Washington Forestlands: Methodology Review and Preferred Study Design.
- Price, D.M., T. Quinn, and R.J. Barnard.** (In Press). Fish passage effectiveness of recently constructed road-crossing culverts in the Puget Sound region of Washington State. *North American Journal of Fisheries Management*.
- Price, R.F., **D.J. Dugger, T.L. Hicks** and **M.P. Hayes.** 2006. *Dicamptodon copei* (Cope's Giant Salamander). Predation. *Herpetological Review* 37(4):436-437.
- Pryce, B., P. Iachetti, **G. Wilhere**, and 12 other authors. 2006. Okanagan Ecoregional Assessment. Prepared by Nature Conservancy of Canada, The Nature Conservancy, and the Washington Department of Fish and Wildlife. Nature Conservancy of Canada, Victoria, BC.
- Purcell, S and **Cheng, Y.W.** 2010. Experimental restocking and seasonal visibility of a coral reef gastropod assessed by temporal modeling, *Aquatic biology*, 9, 227-238.
- Quinn T., Kalinowski, S., Bicknell, R. Olds, C., Schirato, M., Price, D., Byrnes, C., Kloempken, D., and R. Barnard.** A 2006 Pilot Study of Hydraulic Permit Compliance, Implementation, and Effectiveness in Region 6. Washington Department of Fish and Wildlife.
- Quinn, T.** 2008. No Way Home: The Decline of the World's Great Animal Migrations. Book Review. *Environmental Practice* 10: 83-85.
- Quinn, T., M. P Hayes, D. J. Dugger, T. L. Hicks, and A. Hoffmann.** 2007. Comparison of two techniques for surveying headwater stream amphibians. *Journal of Wildlife Management*. 71: 282-288.
- Rabinowe, J. H., J. T. Serra, M. P. Hayes, and T. Quinn. 2002. *Rana Aurora Aurora* diet. *Herpetological Review* 33: 28.
- Raphael, Martin G.; Baldwin, Jim; Falxa, Gary A.; Huff, Mark H.; **Lance, Monique;** Miller, Sherri L.; **Pearson, Scott F.;** Ralph, C. John; Strong, Craig; Thompson, Chris. 2007. Regional population monitoring of the marbled murrelet: field and analytical methods. Gen. Tech. Rep. PNW-GTR-716. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 70 p.
- Rawding, D. T. Cooney, and C. Sharpe.** 2010. Life history of Tule Fall Chinook Salmon in Lower Columbia River tributaries with estimates of juvenile survival, intrinsic productivity, and capacity from life cycle studies. Pages 169- 213 in NOAA. Lower Columbia River Chinook salmon life-cycle modeling. Northwest Fisheries Science Center. Seattle, WA.

WDFW Fish, Wildlife, and Habitat Science Publications (2005-2010)

- Rice, C. G.** 2006. Present and future mountain goat research in Washington State, USA. Proceedings of the Biennial Symposium on Northern Wild Sheep and Goat Council 14:87-99.
- Rice, C.G.** 2008. Seasonal altitudinal movements of mountain goats. *Journal of Wildlife Management* 72(8):1706-1716.
- Rice, C.G.** in press. Status of mountain goats in Washington. Biennial Symposium of the Northern Wild Sheep and Goat Council 17.
- Rice, C.G. and B. Hall.** 2007. Hematologic and biochemical reference intervals for mountain goats (*Oreamnos americanus*): effects of capture conditions. *Northwest Science* 81(3):306-214.
- Rice, C.G. and D. Gay.** 2010. Effects of mountain goat harvest on historic and contemporary populations. *Northwest Naturalist* 91:40-57.
- Rice, C.G., K.J. Jenkins, and W. Chang.** 2009. A sightability model for mountain goats. *Journal of Wildlife Management* 73(3):468-478.
- Ricketts, N.L., and M.P. Hayes.** 2009. 2009 Pilot Citizen Science Stillwater Amphibian Protocol Summary Report. 33 pp. + appendices
- Roloff, G.J., G.F. Wihere, T. Quinn, and S Kohlmann.** 2001. An overview of models and their role in wildlife management. In D. H. Johnson and T. O'Neill (Editors). *Wildlife-habitat relationships in Oregon and Washington*. Oregon State University Press, Corvallis
- Rombough, C. J., and M. P. Hayes.** 2005. Novel aspects of oviposition site preparation by female foothill yellow-legged frogs (*Rana boylei*). *Northwestern Naturalist* 86:157-160.
- Rombough, C.J. and M.P. Hayes.** 2007. *Rana boylei* (Foothill Yellow-legged Frog). Reproduction. *Herpetological Review* 38(1):70-71.
- Rombough, C.J. and M.P. Hayes.** 2008. *Rana pretiosa* (Oregon Spotted Frog). Reproduction. *Herpetological Review* 39(3):340-341.
- Rombough, C.J., J. Chastain, A.M. Schwab and M.P. Hayes.** 2005. *Rana boylei* (Foothill Yellow-legged Frog). Predation. *Herpetological Review* 36(4):438-439.
- Rombough, C.J., M.P. Hayes and J.D. Engler.** 2006. *Rana pretiosa* (Oregon Spotted Frog). Maximum size. *Herpetological Review* 37(2):210.
- Ryding, K.E.,** Millsbaugh, J.J., Skalski, J.R. 2007 Using time series to estimate rates of population change from abundance data. *Journal of Wildlife Management*.
- Schroder SL, Knudsen CM, Pearsons TN, Kassler T, Sewall Y, et al.** (2008) Breeding Success of Wild and First-Generation Hatchery Female Spring Chinook Salmon Spawning in an Artificial Stream. *Transactions of the American Fisheries Society* 137, 1475-1489.
- Schroder, S.L.,** C.M. Knudsen, T.N. Pearsons, T.W. Kassler, S.F. Young, C.A. Busack, and D.E. Fast. 2008. Breeding success of wild and first-generation hatchery female spring Chinook salmon spawning in an artificial stream. *Transactions of the American Fisheries Society* 137:1475-1489.

WDFW Fish, Wildlife, and Habitat Science Publications (2005-2010)

- Schroeder, S.L.**, C.M. Knudsen, T.N. Pearsons, **T.W. Kassler**, **S.F. Young**, E.P. Beall, and D.E. Fast. 2010. Behavior and breeding success of wild and first generation hatchery male spring Chinook salmon spawning in an artificial stream. Transactions of the American Fisheries Society
- Schroeder, M. A.** 2007. Effects of wind power development on sage-grouse. Pages 28-31 in Susan Savitt Schwartz (editor). Proceedings of the NWCC Wildlife Workgroup Research Planning Meeting VI. San Antonio, Texas, 14-15 November 2006. <http://www.nationalwind.org/events/wildlife/2006-3/proceedings.pdf>
- Schroeder, M. A.** 2005. Blue grouse. Pages 69-70 in T. R. Wahl, B. Tweit, and S. G. Mlodinow, editors. Birds of Washington. Oregon State University Press, Corvallis, Oregon.
- Schroeder, M. A.** 2005. Greater sage-grouse. Pages 67-68 in T. R. Wahl, B. Tweit, and S. G. Mlodinow, editors. Birds of Washington. Oregon State University Press, Corvallis, Oregon.
- Schroeder, M. A.** 2005. Ruffed grouse. Page 66 in T. R. Wahl, B. Tweit, and S. G. Mlodinow, editors. Birds of Washington. Oregon State University Press, Corvallis, Oregon.
- Schroeder, M. A.** 2005. Ruffed grouse. Page 66 in T. R. Wahl, B. Tweit, and S. G. Mlodinow, editors. Birds of Washington. Oregon State University Press, Corvallis, Oregon.
- Schroeder, M. A.** 2005. Sharp-tailed grouse. Pages 70-71 in T. R. Wahl, B. Tweit, and S. G. Mlodinow, editors. Birds of Washington. Oregon State University Press, Corvallis, Oregon.
- Schroeder, M. A.** 2005. White-tailed ptarmigan. Pages 68-69 in T. R. Wahl, B. Tweit, and S. G. Mlodinow, editors. Birds of Washington. Oregon State University Press, Corvallis, Oregon.
- Schroeder, M. A.**, and L. A. Robb. 2005. Criteria for gender and age. Pages 303-338 in C. E. Braun, editor. Techniques for wildlife investigations and management. Sixth edition. The Wildlife Society. Bethesda, Maryland.
- Schroeder, M. A.**, J. W. Connelly, C. L. Wambolt, C. E. Braun, C. A. Hagen, and M. R. Frisina. 2006. Society for Range Management Issue Paper: Ecology and management of sage-grouse and sage-grouse habitat – a reply. Rangelands June:2-7.
- Schroeder, M. A.**, S. C. Heintz, A. W. Piston, and F. C. Zwickel, 2009. Regional phenotypic variation in the sooty grouse. Western Birds 40:152-154.
- 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 age and spawning history. North American Journal of Fisheries Management 29:396-403.
- Sharpe, C., B. Glaser and D. Rawding.** 2009. *Spawning escapement, juvenile production, and contribution to fisheries of Coweeman River fall Chinook salmon: A completion report for work in 2007 and 2008. WDFW Technical Report FPA 09-01. 63pp.*
- Sharpe, C.S.** 2007. Physiological stress responses to automated and manual vaccine injection procedures in yearling coho salmon. North American Journal of Aquaculture. 69:180–184.

WDFW Fish, Wildlife, and Habitat Science Publications (2005-2010)

- Sharpe, C.S., B. Beckman, K. Cooper, and P.L. Hulett.** 2007. Growth modulation during juvenile rearing can reduce rates of residualism in the progeny of wild steelhead broodstock. *North American Journal of Fish Management*. 27:1355–1368.
- Shirk, A.J., D.O. Wallin, S.A. Cushman, **C.G. Rice**, and **K.I. Warheit**. 2010. Inferring landscape effects on gene flow: a new model selection framework. *Molecular Ecology* 19(17):3603-3619.
- Skalski, J. R., **K. E. Ryding**, J. J. Millspaugh. 2005 *Wildlife Demographics: Analysis of Field Survey Data*. Academic Press/Elsevier. 636 pp.
- Skalski, J.R., Millspaugh, J.J, **Ryding, K.E.** 2006. The impact of hunter postseason questionnaire design on big game harvest estimations. *Wildlife Society Bulletin* 34(2): 329-337.
- Skalski, JR, JJ Millspaugh, **KE Ryding**. 2008. Effects of asymptotic and maximum age estimates on calculated rates of population change. *Ecol. Model.* 212:528-535.
- Small M, Frye A, Von Bargaen J, Young S** (2006) Genetic Structure of Chum Salmon (*Oncorhynchus keta*) Populations in the Lower Columbia River: Are Chum Salmon in Cascade Tributaries Remnant Populations? *Conservation Genetics* 7, 65-78.
- Small MP**, Currens K, Johnson TH, Frye AE, **Von Bargaen JF** (2009) Impacts of supplementation: genetic diversity in supplemented and unsupplemented populations of summer chum salmon (*Oncorhynchus keta*) in Puget Sound (Washington, USA). *Canadian Journal of Fisheries and Aquatic Sciences* 66, 1216-1229.
- Small MP**, Loxterman JL, Frye AE, et al. (2005) Temporal and Spatial Genetic Structure among Some Pacific Herring Populations in Puget Sound and the Southern Strait of Georgia. *Transactions of the American Fisheries Society* 134, 1329-1341.
- Small MP**, McLellan JG, Loxterman J, et al. (2007) Fine-Scale Population Structure of Rainbow Trout in the Spokane River Drainage in Relation to Hatchery Stocking and Barriers. *Transactions of the American Fisheries Society* 136, 301-317.
- Smith, J., G.D. Sutherland, D.T. O'Brien, F.L. Waterhouse, **J.B. Buchanan**, J. Hobbs, and A.S. Harestad. 2008. Relationships between elevation and slope at Barred Owl sites in southwestern British Columbia. Technical Report TR-040. Research Section, Coast Forest Region, BC Ministry of Forests and Range. Nanaimo, BC.
- Spaulding AW, Mock KE, Schroeder MA, **Warheit KI** (2006) Recency, range expansion, and unsorted lineages: implications for interpreting neutral genetic variation in the sharp-tailed grouse (*Tympanuchus phasianellus*). *Molecular Ecology* 15, 2317-2332.
- Spaulding, A.W., K.E. Mock, **M.A. Schroeder**, and **K.I. Warheit**. 2006. Recency, range expansion, and unsorted lineages: implications for interpreting neutral genetic variation in the sharp-tailed grouse (*Tympanuchus phasianellus*). *Molecular Ecology* 15:2317-2332.

WDFW Fish, Wildlife, and Habitat Science Publications (2005-2010)

- Spies, T.A., J.D. Miller, **J.B. Buchanan**, J.F. Lehmkuhl, J.F. Franklin, S.P. Healey, P.F. Hessburg, H.D. Safford, W.B. Cohen, R.S.H. Kennedy, E.E. Knapp, J.K. Agee, and M. Moeur. 2009. Underestimating risks to the Northern Spotted Owl in fire-prone forests: Response to Hanson et al. *Conservation Biology* 24:330-333.
- Steinhaus, K., Cox, J., and **M. Tudor**. (2009) Day Trips Are Not Enough: A Study Reveals How combining EE Day Trips and Extended Outdoor Experiences Can Impact Student Knowledge and Attitudes. *Thresholds In Education*. Northern Illinois University. Vol. XXXV, No. 3, Fall 2009.
- Stephenson J, Campbell M, Hess J, **Small M**, et al. (2009) A centralized model for creating shared, standardized, microsatellite data that simplifies inter-laboratory collaboration. *Conservation Genetics* 10, 1145-1149.
- Stiver, S., T. Apa, J. Bohne, D. Bunnell, P. Deibert, S. Gardner, M. Hilliard, C. McCarthy, **M. A. Schroeder**. 2007. Greater sage-grouse comprehensive conservation strategy. Western Association of Fish and Wildlife Agencies. Cheyenne, Wyoming.
- Sutherland, G.D., D.T. O'Brien, S.A. Fall, F.L. Waterhouse, A.S. Harestad, and **J.B. Buchanan**. 2007. A framework to support landscape analyses of habitat supply and effects on populations of forest-dwelling species: a case study based on the Northern Spotted Owl. Technical Report 038, British Columbia Ministry of Forests and Range, Research Branch, Victoria, British Columbia, Canada.
- Tear, T.H., P. Karieva, P.L. Angermeir, P. Comer, B. Czech, R. Kautz, L. Landon, D. Mehlman, K. Murphy, M. Ruckleshaus, J.M. Scott, and **G. Wilhere**. 2005. How much is enough?: the recurrent problem of setting measurable objectives in conservation. *Bioscience* 55:835-849. Cover article for October 2005 issue of *Bioscience*.
- Temple, G. M., and T. N. Pearsons**. 2006. *Evaluation of the recovery period in mark-recapture population estimates of rainbow trout in small streams*. *North American Journal of Fisheries Management* 26:941-948.
- Temple, G. M., and T. N. Pearsons**. 2007. *Electrofishing: backpack and driftboat*. Pages 95-132 in D. H. Johnson and six co-editors. *Salmonid protocols handbook: techniques for assessing status and trends in salmon and trout populations*. American Fisheries Society, Bethesda, Maryland.
- Tollefson, T. N., L. A. Shipley, **W. L. Myers**, D.H. Keisler, and N. Dasgupta. 2010. Influence of summer and autumn nutrition on body condition and reproduction in lactating mule deer. *Journal of Wildlife Management* 74(5):974-986.
- Tudor, M. and O'Malley, M.** (2007). Citizen Science: Stewardship Education in Washington State. *American Fisheries Society Symposium* 55:93-101.
- Tyson, J.A.**, K.A. Douville and **M.P. Hayes**. 2009. *Rhyacotriton olympicus* (Olympic Torrent Salamander). Maximum larval size. *Herpetological Review* 40(1):67.

WDFW Fish, Wildlife, and Habitat Science Publications (2005-2010)

- Vadas, R.L., Jr., H.A. Beecher, S.N. Boessow,** and K.A. Ensenat. 2008. Coastal cutthroat trout ecohydrology and habitat use in Irely Creek, Washington. Pages 85-58 in: P.J. Conolly, T.H. Williams, and R.E. Gresswell, editors. The 2005 coastal cutthroat trout symposium: status, management, biology, and conservation. Oregon Chapter, American Fisheries Society, Portland.
- Vander Haegen, G.E., **C.A. Ashbrook,** K.W. Yi, and J.F. Dixon. 2004. Survival of spring Chinook salmon captured and released in a selective commercial fishery using gill nets and tangle nets. Fisheries Research 68: 231-133.
- Vander Haegen, W. M.** 2007. Fragmentation by agriculture influences reproductive success of birds in a shrubsteppe landscape. Ecological Applications 17:934-947
- Vander Haegen, W. M.** 2005. Sage Sparrow (*Amphispiza belli*). Pages 328-329 in T. R. Wahl, B. Tweit, and S. G. Mlodinow, editors. The Birds of Washington. Oregon State University Press, Corvallis.
- Vander Haegen, W. M.** 2005. Sage Thrasher (*Oreoscoptes montanus*). Pages 299-300 in T. R. Wahl, B. Tweit, and S. G. Mlodinow, editors. The Birds of Washington. Oregon State University Press, Corvallis.
- Vander Haegen, W. M.,** S. L. Clark, K. M. Perillo, **D. A. Anderson,** and **H. L. Allen.** 2009. Survival and causes of mortality of head-started western pond turtles on Pierce National Wildlife Refuge, Washington. Journal of Wildlife Management 73: 1402-1406.
- Vander Schaaf, D., **G. Wilhere,** and 10 other authors. 2006. A Conservation Assessment of the Pacific Northwest Coast Ecoregion. Prepared by the Nature Conservancy, the Nature Conservancy of Canada, and Washington Department of Fish and Wildlife. The Nature Conservancy, Portland, OR.
- Varland, D.E., T.L. Fleming, and **J.B. Buchanan.** 2008. Tundra Peregrine Falcon (*Falco peregrinus tundrius*) records from western Washington. Washington Birds 10:48-57.
- Volk, E.C., **S.L. Schroder,** and **J.J. Grimm.** 2005. Otolith thermal marking. Pages 447-463 In S.X. Cardin, K.D. Friedland, and J.R. Waldman (eds) Stock Identification Methods, Elsevier Press.
- Wallace.F.R., T.Tsou, Y.W. Cheng** and **L. Wargo.** Summary of the coastal black rockfish tagging program 1981-2008. WDFW Technical Report. No. (not assigned yet).
- Washington Department of Fish and Wildlife.** 2009. Landscape Planning for Washington's Wildlife: Managing for Biodiversity in Developing Areas. Washington Department of Fish and Wildlife, Olympia, WA. 88 pp. + app.
- Waterstrat, F.T., A.P. McIntyre, M.P. Hayes, K.M. Phillips,** and **T.R. Curry.** 2008. *Ascaphus truei* (Coastal Tailed Frog). Atypical Amplexus. Herpetological Review 39(4):458.
- Waterstrat, F.T., R.L. Crawford,** and **M.P. Hayes.** 2007. *Ascaphus truei* (Tailed Frog). Spider Prey. Herpetological Review 38(3):318.

WDFW Fish, Wildlife, and Habitat Science Publications (2005-2010)

- West, J. E.** and S. M. O'Neill. 2007. Thirty years of Persistent Bioaccumulative Toxics in Puget Sound: time trends of PCBs and PBDE flame retardants in three fish species. 2007 Georgia Basin Puget Sound Research Conference. 6 pp
- West, J. E.,** S. M. O'Neill, and G.M. Ylitalo. 2008. Spatial extent, magnitude, and patterns of persistent organochlorine pollutants in Pacific herring (*Clupea pallasii*) populations in the Puget Sound (USA) and Strait of Georgia (Canada). *Science of the Total Environment* **394**(2-3): 369-378.
- Wilhere, G., T. Quinn,** K. Ceder, B. Altman, **J. Buchanan, S. Desimone,** J. Halofsky, **G. Hayes,** J. Kozma, A. Kroll, J. MacCracken, N. Maggiulli, D. Varland, and M. Vaughn. 2010. Interim Technical Report of the Washington Landscape-level Wildlife Assessment Project. Washington Dept. of Fish and Wildlife, Olympia, WA. 82 pp.
- Wilhere, G.F.** 2006. A critique of Svancara and colleagues. *Bioscience* 56:93-94.
- Wilhere, G.F.** 2008. The how-much-is-enough myth. *Conservation Biology* 22:514-517. One of "Top 5 articles accessed from 2008" at *Conservation Biology* internet site.
- Wilhere, G.F.** 2009. Society needs a range of alternatives: a reply to Villard and Jonsson. *Conservation Biology* 23:4-5.
- Wilhere, G.F.** 2009. Three paradoxes of habitat conservation plans. *Environmental Management* 44:1089-1098.
- Wilhere, G.F.,** and M. Goering. 2010. One method does not fit all: a reply to Segan et al. *Biological Conservation* 143:1.
- Wilhere, G.F.,** M. Goering, and H. Wang. 2008. Average optimacity: an index to guide site prioritization for biodiversity conservation. *Biological Conservation* 141:770-781.
- Wilhere, G.F., M. J. Linders,** and **B. L. Consentino.** 2007. Defining alternative futures and projecting their effects on the spatial distributions of wildlife habitats. *Landscape and Urban Planning* 79:385-400.
- Williams, C. K., M.D. Samuel, V.V. Baranyuk, E.G. Cooch, and **D.K. Kraege** 2008. Winter fidelity and apparent survival of lesser snow goose populations in the Pacific Flyway. *Journal of Wildlife Management* 72(1):159-167.
- Williams, G.D., P.S. Levin, and **W.A. Palsson.** 2010. Rockfish in Puget Sound: An ecological history of exploitation. *Marine Policy* 34 (2010) 1010–1020.
- Williamson, K.S., **A.R. Murdoch, T. N. Pearsons,** E. J. Ward, and M. J. Ford. *in press.* Factors influencing the relative fitness of hatchery and wild spring Chinook salmon in the Wenatchee River. *Canadian Journal of Fisheries and Aquatic Sciences* XX: xxxx – xxxx.
- Williamson, S.J., D. Keppie, R. Davison, D. Budeau, S. Carrière, D. Rabe and **M. Schroeder.** 2008. Spruce grouse continental conservation plan. Association of Fish and Wildlife Agencies. Washington, DC. 60 pages.

WDFW Fish, Wildlife, and Habitat Science Publications (2005-2010)

- Winans G, McHenry M, Baker J, **Small M**, et al. (2008) Genetic Inventory of Anadromous Pacific Salmonids of the Elwha River Prior to Dam Removal Northwest Science 82, 128-141.
- Windschitl, M., K. Dvornich, A. E. Ryken, , **M. Tudor**, and **G. Koehler**, 2007. A comparative model of field investigations: Aligning school science inquiry with the practices of contemporary science. School Science and Mathematics 1 (107), 367-390.
- Windschitl, M., Ryken, A., **Tudor, M.**, **Koehler, G.**, and K. Dvornich. (2007). A Comparative Model of field Investigations: Aligning Standards for School Science Inquiry with the Practices of Contemporary Science. School Science and Mathematics. Volume 107, Number 1, January.
- Zimmerman, M. S.** 2006. Predator communities associated with brook stickleback (*Culaea inconstans*) prey: patterns in body size. Canadian Journal of Fisheries and Aquatic Sciences 63:297-309.
- Zimmerman, M. S.** 2007. A field study of brook stickleback morphology: multiple predators and multiple traits. Canadian Journal of Zoology 85:250-260.
- Zimmerman, M. S.**, and **C. C. Krueger**. 2009. An ecosystem perspective on re-establishing native deepwater fishes in the Laurentian Great Lakes. North American Journal of Fisheries Management. 29: 1352-1371.
- Zimmerman, M. S.**, **C. C. Krueger**, and R. L. Eshenroder. 2006. Phenotypic diversity of lake trout in Great Slave Lake: differences in morphology, buoyancy, and habitat depth. Transactions of the American Fisheries Society 135:1056-1067.
- Zimmerman, M. S.**, **C. C. Krueger**, and R. L. Eshenroder. 2007. Morphological and ecological differences between shallow- and deep-water morphotypes in Lake Mistassini, Quebec. Journal of Great Lakes Research 33:156-169.
- Zimmerman, M. S.**, S. N. Schmidt, **C. C. Krueger**, M. J. Vander Zanden, and R. L. Eshenroder. 2009. Ontogenetic niche shifts and resource partitioning of lake trout morphotypes. Canadian Journal of Fisheries and Aquatic Sciences 66:1007-1018.