CURRICULUM VITAE

**VIRGINIA L. BUTLER**

January 2012

**Education**

Ph.D., 1990, interdisciplinary program in Paleoichthyology, University of Washington

M.A., 1983, Anthropology, University of Washington

B.A., 1977, Anthropology, University of Georgia, *magna cum laude* with honors in Anthropology

**Employment**

Professor, Department of Anthropology, Portland State University, Fall, 2006-currently

Associate Professor, Department of Anthropology, Portland State University, Fall, 2000-Spr 2006

Assistant Professor, Department of Anthropology, Portland State University, 1994-Spr 2000

Research Associate, University of Colorado Museum & Department of Anthropology. 1991-1993

NORCUS Fellow, Postdoctoral Research Associate, U.S. Dept. Energy Laboratory, Richland, WA., Feb. 1992-Feb. 1993

From 1980-1994, as a graduate student Research Assistant or private consultant, analyzed faunal remains (primarily fish) from over 25 locations in Washington, Oregon, Nevada, Missouri, Cook Islands, New Guinea, and Pakistan.

From 1977-1994, as a student Research Assistant, private consultant, or employee, field archaeologist on projects in Alaska, Washington, Missouri, Oregon, and the Cook Islands. Employers included State of Alaska, National Park Service, U.S. Fish & Wildlife Service, and State of Washington.

**Dissertation**

Distinguishing Natural from Cultural Salmonid Deposits in Pacific Northwest North America. 1990. Donald K. Grayson, Academic Supervisor

**Refereed Journal Publications**

Moore, M., D. Wolf, **V.L. Butler** (in press). Bones and zooarchaeology: students use inquiry science to help solve the mystery of the bones. *Science and Children*.

Butler, V.L. (2011). Comments on “Identification, Classification, & Zooarchaeology.” *Ethnobiology Letters* 2:31.

Thornton, Thomas F., Madonna L. Moss, **Virginia L. Butler**, Fritz Funk, Jamie Hebert (2011). Local and Traditional Knowledge and the Historical Ecology of Pacific Herring. *Journal of Ecological Anthropology*14(1):81-88.

Miller, J.A., **V.L. Butler**, C. A. Simenstad, D.H. Backus, A. Kent (2011). Comparison of life history variation in post- and pre-development populations of Columbia River Chinook Salmon (*Oncorhynchus tshawytscha*) using modern and ~500-yr-old archaeological otoliths. *Canadian Journal of Fisheries and Aquatic Sciences* 68:603-617.

Huber, H.R., J.C. Jorgensen, **V.L. Butler**, G. Baker, R. Stevens. (2011) Can salmonid (*Oncorhynchus* spp.) vertebrae be identified to the species level using vertebral morphometrics? *Journal of Archaeological Science* 38(1):136-146.

**Butler, V.L.** (2010). Seeking Balance in “Human Impacts” Research. Comment on Julio Baisre’s “Setting a Baseline for Caribbean Fisheries”. *Journal of Island and Coastal Archaeology* 5:1-4.

Campbell, S.K. and **V.L. Butler** (2010). Archaeological evidence for resilience of Pacific Northwest salmon populations and the socioecological system over the last ~7500 years. *Ecology and Society* 15(1):17.[online] URL: http://www.ecologyandsociety.org/vol15/iss1/art/

Smith, R. E. and **V. L. Butler** (2008). Towards the identification of Lamprey (*Lampetra* spp.) in archaeological contexts. *Journal of Northwest Anthropology*. 42(2):131-142.

Valentine, K., D. Duffield, **V.L. Butler,** R. Hall, N. Lehman (2008) Ancient DNA reveals genotypic relationships among Oregon populations of the sea otter (*Enhydra lutris)* *Conservation Genetics* 9(4):933-938.

**Butler, V.L.** (2007) Relic Hunting, Archaeology, and Loss of Native American Heritage at The Dalles. *Oregon Historical Quarterly* 108(4):624-643.

**Butler, V.L**.and S.K. Campbell (2004). Resource intensification and resource depression in the Pacific Northwest of North America: a zooarchaeological review. *Journal of World Prehistory* 18(4): 327-404.

**Butler, V.L.** (2004). Where have all the native fish gone? The fate of the fish that Lewis and Clark encountered on the lower Columbia River. *Oregon Historical Quarterly* 105(3):438-463.

**Butler, V.L.** and J. E. O’Connor. (2004). 9,000 years of fishing on the Columbia River. *Quaternary Research* 62 (1):1-8.

**Butler, V.L.** (2001). Changing fish use on Mangaia, Southern Cook Islands: resource depression and the prey choice model, *International* *Journal of Osteoarchaeology*. 11:88-100.

**Butler, V.L.** (2000). Resource depression on the Northwest Coast of North America. *Antiquity* 74:649-661.

**Butler, V.L**.and R. A. Schroeder (1998) Do digestive processes leave diagnostic traces on fish bones? *Journal of Archaeological Science* 25:957-971.

**Butler, V.L**.and N. J. Bowers (1998) Ancient DNA from salmon bone: a preliminary study, *Ancient Biomolecules*. 2:17-26.

**Butler, V.L.** (1996) Tui chub taphonomy and the importance of marsh resources in the western Great Basin of North America. *American Antiquity* 61(4):699-717.

Chatters, J.C., **V.L. Butler**, M.J. Scott, D.M. Anderson, and D.N. Neitzel (1995) A paleoscience approach to estimating the effects of climatic warming on salmonid fisheries of the Columbia River basin. *Canadian Special Publication of Journal of Fisheries and Aquatic Sciences* 121:489-496.

Kirch, P.V., D.W. Steadman, **V.L. Butler**, J. Hather, and M.I. Weisler (1995) Prehistory and human ecology in Eastern Polynesia: excavations at Tangatatau Rockshelter, Mangaia, Cook Islands. *Archaeology in Oceania* 30:47-65.

**Butler, V.L**. & J.C. Chatters (1994) The role of bone density in structuring prehistoric salmon bone assemblages. *Journal of Archaeological Science* 21:413-424.

**Butler, V.L.** (1994) Fish feeding behaviour and fish capture: the case for variation in Lapita fishing strategies. *Archaeology in Oceania* 29:81-90.

**Butler, V.L.** (1993) Natural vs. cultural salmonid remains: origin of The Dalles Roadcut bones, Columbia River, Oregon. *Journal of Archaeological Science* 20:1-24.

**Butler, V.L.** (1990) Fish remains from the Black River sites (45-KI-59 and 45-KI-51D). *Archaeology in Washington* 2:49-65.

**Butler, V.L.** & J.K. Stein (1988) Comment on Changing late Holocene flooding frequencies on the Columbia River, Washington. *Quaternary Research*. 29:186-187.

Kirch, P.V., M.S. Allen, **V.L. Butler**, T.L. Hunt (1987) Is there an early Far Western Lapita Province?: sample size effects and new evidence from Eloaua Island. *Archaeology in Oceania*. 22(3):123-127.

Invited Book Chapters

**Butler, V.L.** and M. Martin(in press). Aboriginal Fisheries on the Lower Columbia River. In *Chinookan Studies,* University of Washington Press. K. M. Ames and R. Boyd, editors.

**Butler, V.L.** (in press). Mussau Fish Remains. In *Mussau Archaeological Project, Papua New Guinea*. (P.V. Kirch, ed). University of California, Berkeley (60 pp).

Smith, Ross E., **V. L. Butler**, Shelia Orwoll, Catherine Wilson-Skogen (2011). Pacific Cod and Salmon Structural Bone Density: Implications for Interpreting Butchering Patterns in North Pacific Archaeofaunas. In *Archaeology of North Pacific Fisheries* (M. Moss and A. Cannon,eds), pp.45-56. University of Alaska Press, Fairbanks.

Moss, M. L., **V.L. Butler**, J.T. Elder. (2011). Herring Bones in Southeast Alaskan Archaeological Sites: The record of Tlingit Use of Yaaw (Pacific Herring, *Clupea pallasii*). In *Archaeology of North Pacific Fisheries*, (M. Moss and A. Cannon, eds), pp.281-291, University of Alaska Press, Fairbanks.

Campbell, S.K. and **V.L. Butler** (2011). Prehistoric Native American use of Animals on the Northwest Coast and Plateau. In *Subsistence* *Economies of Indigenous North American Societies*. (Bruce D. Smith, ed). pp. 83-111. Smithsonian Institution Scholarly Press, in partnership with Roman & Littlefield Publishers.

Campbell, S.K. and **V.L. Butler** (2010). “Fishes and Loaves? Explaining Sustainable, Long Term Animal Harvesting on the Northwest Coast using the “Plant Paradigm”. In *The Archaeology of Anthropogenic Environments*. (R.M. Dean, ed), pp.175-203. University of Southern Illinois-Carbondale, Center for Archaeological Investigations Series, Carbondale, Illinois.

**Butler, V.L.** (2010). Fish Remains. In *Riverine Resource Use on the Oregon-Idaho Border: Archaeological Investigations at 35ML1328 and 35ML1379, North Ontario, Malheur County*. (D.L. Jenkins, T.J. Connolly, and P. W. Baxter, eds.), pp. 153-161. University of Oregon Anthropological Papers No. 69, Museum of Natural and Cultural History and State Museum of Anthropology, Eugene, OR.

**Butler, V.L. (**2009). Luther S. Cressman. Entry in *The Oregon Encyclopedia*. Portland State University and Oregon Historical Society. [http://www.oregonencyclopedia.org/entry/view/cressman\_luther\_1897\_1994\_/]

**Butler, V.L.** and S.K. Campbell. (2006). Northwest Coast and Plateau: Animals. In *Handbook of North American Indians* Volume 3, *Environment, Origins, and Population* (D. H. Ubelaker, ed.). Smithsonian, Washington D.C., pp. 263-273.

**Butler, V.L.** (2005). In Her Own Words: Zooarchaeology and Biological Conservation. In *Archaeology* (D.H. Thomas and R.L. Kelly) Harcourt Brace College Publishers, New York, p. 478.

**Butler, V.L.** and M.G. Delacorte. (2004). Doing Zooarchaeology as if it Mattered: Use of Faunal Data to Address Current Issues in Fish Conservation Biology in Owens Valley, California. In *Archaeology and Conservation Biology.* (R. Lyman, K. Cannon, eds.) University of Utah Press, pp. 25-44.

**Butler, V.L.** (2004). Fish Remains. In *Marmes Rockshelter: A Final Report on 11,000 Years of Cultural Use. (* B.A. Hicks, ed.) WSU Press, Pullman, pp. 319-337.

**Butler, V.L.** (2004). Fish Remains. In *Archaeological Investigations at Pie Creek and Tule Valley Shelters, Elko County, Nevada* (K.R. McGuire, M.G. Delacorte, and K. Carpenter, eds.) Nevada State Museum, Anthropological Papers Number 25, pp. 110-122.

Kopperl, R. and **V.L. Butler**. (2002). Faunal Analysis: Fish Remains In *Vashon Island Archaeology: A View from Burton Acres Shell Midden* (J.K. Stein and L. S. Phillips, eds.) Burke Museum of Natural History and Culture Research Report No. 8. Seattle, pp. 105-117.

**Butler, V.L.** (2001). Fish Faunal Remains. In *Archaeological Survey and Excavations in the Carson Desert and Stillwater Mountains, Nevada*, (R.L. Kelly, ed.) University of Utah Anthropological Papers No. 123, Salt Lake City, pp. 271-280.

**Butler, V.L.** and R.L. Lyman (1996). Taxonomic Identifications and Faunal Summaries: What Should We Be Including in Our Faunal Reports? *Society for American Archaeology Bulletin* 14(1):22.

Kirch, P.V., T.L. Hunt, M. Weisler, **V.L. Butler**, and M.S. Allen (1991) Mussau Islands Prehistory: results of the 1985-86 Excavations. In *Report of the Lapita Homeland Project*, edited by J. Allen and C. Gosden,The Australian National University, Canberra, Australia, pp. 144-163.

**Butler, V.L.** (1988). Lapita fishing strategies: the faunal evidence. In *Archaeology of the Lapita Cultural Complex: a critical review*, edited by P.V. Kirch and T.L. Hunt. Thomas Burke Memorial Washington State Museum Research Report No. 5, pp. 99-115.

**Butler, V.L.** (1987). Distinguishing natural from cultural salmonid remains in the Pacific Northwest of North America. In *Natural formation processes and the archaeological record*, (D.T. Nash and M.D. Petraglia, eds.) BAR International Series, No. 352, pp. 131-147.

Book Reviews:

**Butler, V.L.** (2010).Review of:*Integrating Zooarchaeology and Paleoethnobotany: A Consideration of Issues, Methods, and Cases.* A.M. VanDerwarker and T.M. Peres (Eds). *Ethnobiology Letters* 1:20-21.

**Butler, V.L.** (2008). Review of: *Fishing in Pre-European New Zealand* by Foss Leach, 2006, published by New Zealand Journal of Archaeology and Archaeofauna, Wellington, NZ. *Archaeology in Oceania.*

**Butler, V.L.** (2008). Review of: *Emerging from the Mist: Studies in Northwest Coast Culture History* R.G. Matson, G. Coupland, and Q. MACKIE (Eds.), 2003 UBC Press, Vancouver, BC. *American Antiquity* 73(1):

**Butler, V.L.** (1995). Review of: Prehistoric Fish Catches in New Zealand (B.F. Leach and A.S. Boocock). BAR International Series 584. *Asian Perspectives* 34(2):305-307.

**Butler, V.L.** (1995). Review of: Ozette Archaeological Project Research Reports, Volume II, Fauna. (S. Samuels, ed.) Department of Anthropology, Washington State University, Pullman and National Park Service. *American Antiquity* 60(3): 555-556.

**Non-Refereed Publications**

2010 (with Alexander E. Stevenson, Jessica A. Miller, Dongya Y. Yang, Camilla F. Speller, and Nicole Misarti). The Use of Archaeological Fish Remains to Establish Pre-development Salmonid Biogeography in the Upper Klamath Basin. Final Report to NOAA-NMFS (Contract #AB133F09CQ0039). (55 pp)

2009 (with Kristine Bovy and R. L. Lyman). Faunal Remains from Station Camp (45PC105) . In *Historical Archaeology at the Middle Village: Station Camp/McGowan Site (45PC106), Station Camp Unit, Lewis & Clark National Park, Pacific County, Washington*. Prepared for Washington State Historical Society & Washington State Department of Transportation. Northwest Cultural Resources Institute Report No. 1. (23 pp)

2008 (with Jessica Miller and Charles Simenstad), Microchemistry of Chinook Salmon Otoliths from the Colville Reservation: Progress Report submitted to the Confederated Tribes of the Colville, Nespelem, Washington.

2007 Letter to Okanagan Public Utility District: Studies to determine historical presence of anadromy above Similkameen Falls under Enloe Hydroelectric Project, P-12569. (4 pp)

2007 Fish Remains from North Ontario Interchange Sites (35 ML 1328, ML 1379). Report Submitted to Oregon State Museum of Natural and Cultural History. (15 pp).

2006 Fish Remains from the Spokane Site (45SP266). Report Submitted to Archaeological Historical Services, Eastern Washington University, Cheney, Washington.

2004 Fish Remains from the St. Johns Site (35 MU 44/46). Report Submitted to Cascadia Archaeology, Seattle, WA (32 pp).

2003 (with Greg Baker). Fish Remains from Swiftwater Rockshelters (45CH433). In *Swiftwater Rockshelters (45CH433): Results of Data Recovery Excavations on the Upper Wenatchee River, Chelan County, Washington* (Rebecca A. Stevens, ed). Eastern Washington University Reports in Archaeology and History 100-120, Archaeological and Historical Services, Cheney.

2003 Fish Remains from CA-SIS 240, Lower Klamath Lake, California. Report Submitted to USFWS, Tualatin, OR (10 pp).

1. Fish remains from Hungry Valley, NV. Report submitted to Far Western Anthropological Research Group, Davis, CA (22 pp).

2001 Fish remains from Elwood Point Shell Midden (45 KP 116). Report submitted to Larson Anthropological/Archaeological Services, Inc. Gig Harbor, WA (7 pp).

2000 Faunal Remains from 35 MU 117 (Appendix B). In Cultural Resource Survey for the Proposed Wapato Corrections Facility and Data Recovery Excavations at 35MU117. Archaeological Investigations Northwest, Inc. Report No. 205, Portland, OR (25 pp).

1. Fish Remains from the Southern Owens Valley, Alabama Gates Project. In *The Changing Role of Riverine Environments in the Prehistory of the Central-Western Great Basin: Data Recovery Excavations at Six Prehistoric Sites in Owens Valley, California*. Far Western Anthropological Research Group, Inc., Davis, CA (20 pp.)

1999 Fish Remains from the Ash Creek Project, Southern Owens Valley. Report submitted to Far Western Anthropological Research Group, Inc., Davis, CA, November, 2000.

1999 Fish Remains from Bay Street Midden (45KP115) (**V.L. Butler** and G. Baker). Report submitted to Larson Anthropological/Archaeological Services, Ltd, Gig Harbor, WA (13 pp).

1. A New Look at an Old Site: Report of 1993 Testing at The Dalles Roadcut Site. *Current Archaeological Happenings in Oregon* 23(3): 9-10.

1996 Fish Remains from 35 MU 105 (Appendix B). In *Data Recovery Excavations at the Columbia Slough Site, Multnomah County, OR*. Archaeological Investigations Northwest, Report 121.

1995 Fish remains. In *Archaeological investigations in the Achugao and Matansa areas of Saipan, Mariana Islands*, edited by B.M. Butler. Micronesian Archaeological Survey Report No. 30.

1994 Allentown Fish Remains and Fish Remains from 45 KI 438 and 45 KI 438A (Appendix 1). In *Allentown Site (45 KI 431) and White Lake Site (45 KI 438 and 45 KI 438A) Data Recovery*, by D.E. Lewarch et al., LAAS Technical Report #95-8, 1996).

1987 Fish Remains. In *The Duwamish No. 1 site: 1986 data recovery*, URS Corporation and BOAS, Inc. edited by D.E. Lewarch, pp. 10-1 thru 10-37.

1987 Holocene salmonid resources of the Upper Columbia River. Research Report 2, Institute of Environmental Studies, Office of Public Archaeology, University of Washington, Seattle, Wa. (V.L. Butler and R.F. Schalk)

1986 Prehistoric and historic fisheries of the Duwamish River drainage system, Appendix III. In *The status of anadromous fishes of the Green/Duwamish River system*, by G.B. Grette, and E.O. Salo. Report submitted to the Seattle District U. S. Army Corps of Engineers.

1984 Vertebrate remains from three sites in the New Melones Archaeological Project Area, Appendix 12B. In *The New Melones Archaeological Project, California: Indian sites 04-CAL-S-286, 04-CAL-S-347, 04-CAL-S-461*. Vol. IV. pp. 1075-1100. (with R.D. Leonard and D.K. Grayson)

1. Vertebrate remains from the town of Melones, 04-Cal-S-315 in the New Melones Project Area, Appendix 1. In *Robinson's Ferry, Melones: History of a Mother Lode town, 1848-1942*. Vol. VIII. pp. 159-198. (with R.D. Leonard and D.K. Grayson)

1983 Vertebrate remains from 25 historic sites in the New Melones Project Area, Appendix 3. In *The New Melones Archaeological Project, California: synthesis of research at historical sites*, Vol. VII, pp. 411-446. (with R.D. Leonard and D.K. Grayson)

1. Fish remains from the Black River sites (45-KI-59, 45-KI-51D). On file at the Office of Public Archaeology, University of Washington, Seattle, Wa.

1982 Vertebrate remains from sites 04-CAL-S-487, 04-CAL-S-507, 04-CAL-S-561, 04-CAL-S-582, 04-TUO-S-268, 04-TUO-S-646, in the New Melones Project area, Appendix 1. *In The New Melones Archaeological Project, California: data recovery from historical sites*. pp. 275-312. (with R.D. Leonard, and D.K. Grayson)

1981 Artifact descriptions and laboratory manual, Anthropology and Historic Preservation, Cooperative Park Studies Unit, University of Alaska, Fairbanks, *Occasional Paper* No. 25. (with M.K. Kelley, C.W. Davis, D.C. Linck, K.M. Schoenberg, and H.M. Shields)

**Presentations at Professional Meetings**

Oral

Does the absence of evidence mean an evidence of absence? Applying zooarchaeological records to fish conservation issues in the Similkameen River of the Okanogan Highlands. **Virginia L. Butler** and J. Tait Elder. **Invited** **Presentation** Society for American Archaeology, Sacramento,CA, 2011.

Putting old animal bones and teeth to work for conservation biology in metro-Portland. 9th Annual Urban Ecology and Conservation Symposium, Portland, Oregon, January 24, 2011.

Putting Old Bones to Work for Conservation Biology: Using Ancient DNA & Geochemistry to Determine Past Salmon Distribution in the Klamath Basin of Southeast Oregon. International Congress of Archaeozoology, Paris, France, August 23-28.

All fish at the Table: A review of Ethnohistorical and Archaeological Fish Bone Records from the Lower Columbia River. **Virginia L. Butler** and Michael A. Martin, Northwest Anthropological Conference, Ellensburg, March 24-27, 2010.

Putting Old Bones to Work for Conservation Biology:Using Ancient Dna And Carbon/Nitrogen Isotope Analysis To Determine Past Salmon Distribution In The Klamath Basin Of Southeastern Oregon. **Virginia L. Butler**, Nicole Misarti, Dongya Y. Yang, Camilla F. Speller, Thomas J. Connolly, Dennis L. Jenkins. 17th Annual Arctic Conference, Boulder, CO, Nov. 13-14, 2009.

Evidence for Anadromous Salmonids in the Upper Klamath Basin Based on DNA and Geochemistry Analysis of Archaeological Remains. **Virginia L. Butler**, Nicole Misarti, Dongya Y. Yang, Camilla F. Speller, Thomas J. Connolly, Dennis L. Jenkins. Presented to Gilbert Ichthyological Society, September 19. Friday Harbor Laboratory, University of Washington, 2008.

The Archaeological Record for Fish Species Distribution in the Klamath Basin, Oregon. (**V. Butler**, J. Tait Elder, and Daniel M. Gilmour). Gilbert Ichthyological Society Meetings, Ashland, OR, Sept 2008.

Evaluating the Effects of Bone Density on Prehistoric Pacific Cod and Halibut Taxonomic Abundance and Body Part Representation. (Ross Smith, **Virginia Butler**, Shelia Orwoll, and Catherine Wilson-Skogen) **Invited** **Presentation** Society for American Archaeology, Vancouver, B.C., 2008

The Relationship between Relic Hunters and Professional Archaeologists on the Lower Columbia River in the early 20th Century. Society for American Archaeology, Vancouver, B.C., 2008.

Resilience in Pacific Northwest Salmon Populations over the last ~7,500 years: Insights from Archaeological Faunal Records. (**V. Butler** and S. Campbell). **Invited** **Presentation**, Pathways to Resilience: Sustaining Pacific Salmon in a Changing World, Portland, OR, Sea Grant, April 2007.

What Archaeology Tells Us. **Invited Presentation**, Celilo Stories: New Conversations about an Ancient Place, Center for Columbia River History,The Dalles, OR, March, 2007.

The 13,000 year history of Columbia River Salmon and other fishes. (**V. Butler** and J. Chatters). Gilbert Ichthyological Society Meetings, Newport, OR, Sept 2006.

On Foraging Models and Lower Columbia River Fish Use (**V. Butler**). **Invited Presentation** at the International Council for Archaeozoology meetings, Mexico City, August, 2006.

Sustainability of Hunting & Fishing Harvests in the Pacific NW over the last 8,000 years. (S. Campbell and **V. Butler**). **Invited Presentation** at the American Anthropological Association meetings, Washington D.C., Dec, 2005.

Resource Intensification and Resource Depression in the Pacific Northwest: A Zooarchaelogical Review. Presented at the Eagle Lake Zooarchaeolgy Conference, Eagle Lake, CA, July 2005.

A Study of Fish Storage in the Great Basin: Evidence and Implications. (**V.L. Butler)** **Invited Presentation** at the 29th Great Basin Anthropological Conference, Sparks, Nevada, Oct. 14-16, 2004.

The Holocene History of Salmon in the Columbia River Basin. (**V. Butler** and J. Chatters). Presented at the Eagle Lake Zooarchaeolgy Conference, Eagle Lake, CA, July 2004.

Where Have All the Native Fish Gone? The History of Lewis and Clark’s fishes of the Lower Columbia. **Invited Presentation** at the meeting of the Society for Environmental History, Victoria, British Columbia, April, 2004.

Were Salmon the Highest Ranked Fish in the Lower Columbia River? (**V.L. Butler**), Northwest Anthropological Conference, Eugene, OR, March, 2004. (also Organizer and Chair of session, “Recent Research on the Lower Columbia”, which included this presentation & 15 speakers)

The Holocene History of Salmon in the Columbia River Basin. (**V. Butler** and J. Chatters). Presented at the meeting of the Geological Society of America, Seattle, WA, November, 2003.

Preliminary Research into the Holocene History of Bison in the Intermountain West: A Synthesis of Archaeological and Paleontological Faunas. (N, Stutte and **V. Butler**) Presented at the Northwest Anthropological Conference, Bellingham, WA, March, 2003.

Fish remains from Pie Creek Shelter, Nevada. **Invited Presentation** at the Great Basin Anthropological Conference, Elko, Nevada, October 2002.

Where have all the native fish gone? Zooarchaeology highlights homogenization of fish assemblages in western North America. **Invited Presentation** at the International Council of Archaeozoology Conference, Durham, England, August 2002.

Importance of zooarchaeology to Native Americans. Keynote presentation at the Native American Fish and Wildlife Society, 19th Annual Pacific Regional Conference, Tamastlikt Cultural Institute, Pendleton, OR, October 2001.

Contribution of zooarchaeology to conservation biology (**V.L. Butler** & M. G. Delacorte) Presented at the meeting of the Gilbert Ichthyological Society, Newport, OR, September, 2001.

Doing zooarchaeology as if it mattered: use of faunal data to address issues in conservation biology. (**V.L. Butler** & M.G. Delacorte). **Invited Presentation** at the 66th Meeting of the Society for American Archaeology, New Orleans, LA, April, 2001.

Desert fishes of the past: archaeological fish remains from Owens Valley, California. (**V.L. Butler** & M.G. Delacorte). Presented at 32nd Meeting of the Desert Fishes Council, Death Valley, California, November, 2000.

On the Holocene record of fishes in Owens Valley: Evidence for environmental change or resource intensification? (**V.L. Butler** & M.G. Delacorte). Presented at the Great Basin Anthropological Conference, Ogden, UT, October 2000.

Human-caused resource depression in the late Holocene: an example from the Lower Columbia River, Oregon, U.S.A. Presented at the International Congress for Archaeozoology, Fish Remains Working Group, Hunter College, New York, September, 1999.

Late Holocene Subsistence Change in the Portland Basin (**V.L. Butler** and R. Schroeder). Presented at the 52nd Annual Northwest Anthropological Conference, Newport, OR, April, 1999.

Ancient DNA from salmon bone (**V.L. Butler** & N.J. Bowers) Presented at the meeting of the Gilbert Ichthyological Society, Friday Harbor, WA, September, 1998.

Changing Fish Use on Mangaia, Southern Cook Islands: Resource Depression and the Prey Choice Model. Presented at the 8th International Congress for Archaeozoology, University of Victoria, BC, Canada, August, 1998.

Vashon Island Archaeological Project: Fauna and Flora. (R. Kopperl, K. Bovy, **V. Butler**, L. Philips, and N. Stenholm). **Invited Presentation** at the 50th Annual Northwest Anthropological Conference, Ellensburg, WA, April, 1997.

Problems and prospects for ancient salmon DNA research (**V.L. Butler** & N. J. Bowers). **Invited Presentation** at the 50th Annual Northwest Anthropological Conference, Ellensburg, WA, April, 1997.

The Dalles Roadcut lithics and the organization of Cascade lithic technology (**V.L. Butler** & V.J. Graber). Presented at the 49th Annual Northwest Anthropological Conference, Moscow, Idaho, March, 1996.

Co-Organizer and Chair (with R.L. Lyman) of Forum: Taxonomic Identifications and Faunal Summaries: What Should we be including in our faunal reports? Presented at the 60th Meeting of the Society for American Archaeology, Minneapolis, MN, May, 1995.

Recent field investigations at The Dalles Roadcut, Columbia River, Oregon (**V.L. Butler** and C.F. Waythomas). Presented at the 47th Annual Northwest Anthropological Conference, Spokane, WA, March, 1994.

The effects of prehistoric human predation and habitat alteration on fish populations in Mangaia, Cook Islands, Polynesia. **Invited Presentation** at the 58th Meeting of the Society for American Archaeology, St. Louis, MO, April, 1993.

Importance of bone density in structuring salmon bone assemblages **(V.L. Butler** & J.C. Chatters). Presented at the 46th Northwest Anthropology Conference, Western Washington University, Bellingham, WA, March, 1993.

Herbivore vs. carnivore fish capture: the case for variation in Lapita fishing strategies. **Invited Presentation** at the 57th Meeting of the Society for American Archaeology, Pittsburgh, PA, April, 1992.

The Dalles Roadcut salmon bones: Natural or Cultural? **Invited Presentation** at the 55th Meeting of the Society for American Archaeology, Las Vegas, Nevada, April, 1990.

Natural versus cultural salmon bones: a preliminary assessment of The Dalles "Roadcut" remains. Presented at the 4th Meeting of the International Council for Archaeozoology, Fish Remains Working Group, York, England, September, 1987.

Review of explanations for salmonid bone scarcity in the Pacific Northwest. Presented at the 52nd Meeting of the Society for American Archaeology, Toronto, Ottawa, Canada, May, 1987.

Distinguishing natural from cultural salmonid remains in the Pacific Northwest**. Invited Presentation** at the 51st Meeting of the Society for American Archaeology, April, 1986, New Orleans, Louisiana.

Zooarchaeology of the Black River, A.D. 500-1850. **Invited Presentation** at the 35th Northwest Anthropological Conference, Simon Fraser University, Burnaby, British Columbia, Canada, April, 1982.

Poster

Beyond the palimpsest: Using high resolution excavation techniques to evaluate household scale economic strategies and earthquake response on the Northwest Coast. Sarah L. Sterling, Kristine M. Bovy, **Virginia L. Butler**, Sarah K. Campbell, Michael A. Etnier. Society for American Archaeology, Sacramento, CA, 2011.

Chronology and ecology of late Pleistocene megafauna of the northern Willamette Valley. Daniel M. Gilmour , **Virginia L. Butler**, Douglas J. Kennett, Brendan J. Culleton, and Edward Byrd Davis. Society for American Archaeology, Sacramento, CA, 2011.

"Ground truthing" the use of radiographic analysis of vertebral growth rings for age determination of Pacific salmon (*Oncorhynchus* sp.). Anthony Hofkamp and **Virginia L. Butler**. Society for American Archaeology, Sacramento, CA, 2011.

Using Archaeological Fish Remains to Determine Species of Anadromous Salmon and Trout in the Upper Klamath Basin Before Hydropower Development. **Virginia L. Butler**, Nicole Misarti, Dongya Y. Yang, Camilla F. Speller, Thomas J. Connolly, Dennis L. Jenkins, Alexander E. Stevenson. Klamath Science Conference, February 1-5, 2010, Medford, Oregon.

Does the Absence of Evidence mean an Evidence of Absence? Applying Zooarchaeological Records to Fish Conservation Issues in the Similkameen River of the Okanagon Highlands. (J. Tait Elder & **V.L. Butler**). Northwest Anthropological Conference, Victoria, BC, April 2008.

Archaeological Resource Preservation: Developing a Model for the City of Portland (W.A. Wright & **V.L. Butler**). Society for American Archaeology, Vancouver, BC, March 2008.

The effects of Holocene climate change on fish populations in Owens Valley, California.

(**V.L. Butler** & M.Delacorte). 22nd Pacific Climate Workshop, Asilomar State Conference Grounds, Pacific Grove, California, March 2006.

Is There Evidence for Resource Depression on the South-Central Northwest Coast? **(V. L. Butler** & S. K. Campbell). Society for American Archaeology, Salt Lake City, April 2005

Why the Debate: Bulk Samples Really Are Useful to Zooarchaeology. (**V.L. Butler**, M.G. Delacorte, K. M. Ames, A. Trieu). Society for American Archaeology, Milwaukee, WI, June 2003.

Contribution of Zooarchaeology to Conservation Biology, Owens Valley, CA. (**V.L. Butler** & M.G. Delacorte). Society of Environmental Journalists, Portland OR, October, 2001.

Geoarchaeology of The Dalles Roadcut: An early-mid Holocene site on the Columbia River (**V.L. Butler** and J.E. O'Connor). Presented at the 65th Meeting of the Society for American Archaeology, Philadelphia, PA, April, 2000.

Ancient DNA from salmon bone: a preliminary study (**V.L. Butler** & N.J. Bowers) Presented at the 63rd Meeting of the Society for American Archaeology, Seattle, WA, March, 1998.

Does digestion leave diagnostic traces on fish remains? (**V.L. Butler** & R.A. Schroeder). Presented at the 25th Great Basin Anthropological Conference, Kings Beach, CA, October, 1996 (awarded best poster).

Importance of bone density in structuring salmon bone assemblages (**V.L. Butler** & J.C. Chatters). Presented at the 58th Meeting of the Society for American Archaeology, St. Louis, MO, April, 1993 (awarded best poster).

**Workshop, Symposia**

Discussant for session: Climate Change, Human Response, and Archaeozoology. International Congress of Archaeozoology, Paris, France, August 22-28, 2010.

Discussant for session: Red Fish (salmon), White Fish (cod), Big Fish (halibut), Small Fish (herring):

The Archaeology of North Pacific Fisheries 73rd Annual Meeting, Society for American Archaeology, Vancouver, BC, March, 2008.

Discussant for session: Island Zooarchaeology: Synergy and Synthesis, 72nd Annual Meeting, Society for American Archaeology, Austin, TX, April, 2007.

Panelist, Transcending Borders: Pacific Salmon and Interdisciplinary Approaches to Fisheries Conservation, The Bill Lane Center for the Study of the North American West Stanford University, Feb. 1-2, 2007.

Discussant for session: Applying Biological Concepts to the Explanation of the Archaeological Record, 70th Annual Meeting, Society for American Archaeology, Salt Lake City, UT, March, 2005.

**Invited Presentations**

 **-** Museum of Cultural and Natural History, Univ. Oregon, October 2010.

 **-** Hatfield Marine Center, Newport, OR, December, 2009.

 -University of North Texas, Denton, October, 2007.

* Eastern New Mexico University, Portales, NM, April, 2006.
* University of California-Davis, May, 2005.
* Quaternary Research Center, University of Washington, Seattle, WA, February 2003.
* Boise State University, Boise, ID, February 2003.
* University of Georgia, April, 2002.
* Ecology, Evolution, and Conservation Biology Unit, University of Nevada, Reno, November, 2001.
* U.S. Fish and Wildlife Service Portland, Oregon, October, 2001.
* University of Washington, Department of Anthropology, May, 2000.
* Sigma Xi Distinguished Speaker, 2005-07. Presented lectures to Sigma Xi Chapters: Hoffman- LaRoche, New Jersey;

 Whitman College, Walla Walla, WA;

 University of Idaho, Moscow;

 University of Hawai’i (Manoa and Hilo);

 Southern Oregon University, Ashland, OR,

 Fort Lewis College, Colorado,

 University of New Mexico, Albuquerque,

 Portland State University.

**Honors, Fellowships, Grants, and Contracts**

The ZooArch Project: Improving Middle Grade Student Achievement in Science, Submitted to Institute of Education Sciences, U.S. Dept. Education, submitted Sept 2011, PI. ($1.2 million)

Collaborative Research: Impacts of Abrupt Environmental Change on North Pacific Human Ecosystem Dynamics using High Resolution Zooarchaeological Records from Coastal Washington, Submitted to National Science Foundation, Fall, 2011, PI ($243,514).

Sigma Xi Columbia-Willamette Chapter Outstanding Researcher Award: Earth Sciences, May 2011 ($500)

Use of Geochemical and Genetic Analysis of Archaeological Fish Remains to Address Management, Conservation, and Community Outreach Efforts in the Upper Columbia and Upper Klamath Basins, Pre-Proposal Submitted to Oregon Sea Grant. Co-PI with Jessica Miller, Oregon State University, Submitted February 2011 ($276,000; not funded)

# Analysis of Fish Remains, Geoarchaeology and Collaborative Engagement with the Lower Elwha Klallam Tribe, Washington State Department of Historic Preservation ($16,543, submitted April 2011, not funded).

Using Archaeology to Examine Animal and Human Response to Northwest Coast Environmental Change. Proposal for Faculty Enhancement Grant, Portland State University, Submitted January 2011 ($12,300; funded)

K-8 Teacher Training: Developing Scientific Habits of Mind through Zooarchaeology, Biology, Social Sciences, Environmental Health, Food, and Science Writing. *Cradle to Career Initiative* Planning Grant Proposal to Office of Academic Affairs, Portland State University*,* Submitted January 2011 ($12,500; funded)

NOAA-NMFS. Archaeo-fish record in the Klamath Basin. 2010 ($62,000; funded)

Museum of Natural and Cultural History, University of Oregon, 2008 ($8000)

North Pacific Research Board (~$100,000--Tom Thornton, PI; Butler Co-PI).

Archaeological Historical Services, Eastern Washington University, Cheney, WA, June 2006 ($3500).

Sigma Xi Distinguished Speaker, 2005-2007

John Eliot Outstanding Teaching Award in Anthropology, 2005, 1998 ($500)

National Park Service, Fish Faunal Analysis, Station Camp, Lower Columbia, 2004 ($10,000)

Cascadia Archaeology, Fish Faunal Analysis, Portland Basin, 2003-2004 ($8000)

Far Western Anthropological Research Group, Davis, CA, 2003 ($3973)

Far Western Anthropological Research Group, Davis, CA, 2001 ($4832)

Ben Cullen Prize for 2000, from journal *Antiquity* ($750)

U.S. Fish & Wildlife Service, Lower Klamath Lake National Wildlife Refuge Faunal Analysis, 2000-2003 ($8250)

Archaeological Investigations Northwest, Fish Faunal Analysis, Portland Basin, 2000

Faculty Development Award, Portland State University, 1999-2000

The Columbia Gorge Discovery Center, Talus Slope Project, 1999 ($2000)

Colville Confederated Tribes, Marmes Rockshelter Fish Faunal Analysis, 1999 ($3000)

Faculty Development Award, Portland State University, 1996-97

Best Poster of 25th Great Basin Anthropological Conference, 1996

Best Professional Poster of 58th Meeting of the Society for American Archaeology, 1993

Northwest College & University Association for Science Fellowships, 1992-93

National Geographic Society, 1992

University of Washington Graduate School Research Fund Travel Grant, 1987

University of Washington Graduate School Dissertation Fellowship, 1987

Achievement Rewards for College Scientists, 1987

Sigma Xi Grant, 1986

Rachel Royston Scholarship, 1984-85, 1986-87

**Teaching, Mentoring, and Curricular Achievements**

UNST, Freshman Inquiry, Columbia River Basin (2005-2007)

UNST, Sophomore Inquiry, Archaeology

Anth 150/102, Introduction to Archaeology

Anth 170/101, Introduction to Physical Anthropology

Anth 350, Archaeology Method and Theory

Anth 365, North American Prehistory

Anth 399/368, Oceania Prehistory

Anth 452/552, Laboratory Methods in Archaeology

Anth 455/555, Analysis of Faunal Remains

Anth 550 Core Seminar in Archaeology

University Studies Sophomore Cluster Coordinator (Archaeology Cluster). Developed and taught course 8 times, 1999-2007. The Sophomore level course introduces students to the field of archaeology; 29 upper division courses (in Biology, Black Studies, Geography, Geology, and History) are linked to the cluster.

Campus Advisor, American Indian Sciences and Engineering Society (AISES) PSU Chapter 1998-2000. AISES is a national organization that provides educational and professional opportunities for American Indians.

Thesis Committees: PSU

## Anthropology

Committee Member: Steve Hamilton, John Wolf, Melissa Darby, Russ Hatz, Alexander Gall, Tom Becker, Leslie O’Rourke, Robert David, Kori Barnum, Stephanie Butler, Paul Solimano, William Gardner O’Kearny, Janna Tuck, Jamie Hebert, Meris Mullaley, Karla Schilling, Kristin Fuld, Elaine Dorset

Chair: Kendal McDonald (completed 2002), Nicole Stutte (completed 2005), Michael Martin (completed 2006), Martin Adams (completed 2008), Ross Smith (completed 2008), James Tait Elder (completed 2010), Danny Gilmour (completed 2011), Alex Stevenson (completed 2011), Cassie Manning (completed 2011), Anthony Hofkamp, Katie Wojcik, Shoshana Rosenberg, Gage Myers

*History* (Graduate Office Representative)

Roberta Ulrich

*Biology* (Graduate Office Representative)

Janina Lamb, Leslee Parr, Joel Lenox, Jan Zinck, Christine Gunter, Zahra Mehdizadehkashi (Ph.D), Lynda Boyer, Colette Bailey-Darland, Kim Valentine, Laura Roberts, Kristen Walker, Barbara Edmonds (Ph.D), Amy Dolan, Steve Woodley, Sarah Bartos Smith, Lorelei Patrick

*English* (Graduate Office Representative)

Peggy Savage

*Geography* (Graduate Office Representative)

John Schwab, Lindsey Hudson

*Geology* (Graduate Office Representative)

Lorraine Woxel, Christy Lee, Darren Beckstrand

*Psychology* (Graduate Office Representative)

David Hall (MA and Ph.D.)

Thesis Committees: Other Universities

*Anthropology*

 UC-Santa Cruz, Cristie Boone, Ph.D.

 U. Washington, Robert Kopperl, Ph.D.

 U. Utah, David Byers, Ph.D.

 Tel Aviv University, Irit Zohar, Ph.D.

 U. Auckland, Alaric Nicholls, M.A.

 U. Auckland, Andrew McAllister, M.A

 Simon Fraser University, Nova Pierson, M.A.

**University Committees**

 Graduate Council, 2004-8

 CLAS Curriculum Committee, 2002-2005

 PSU Faculty Senate, 2003-5, 09-currently

 Committee on Committees, 2004-5

 Faculty Development Committee, 2010-currently

 Search Committee—CLAS Dean, 2011

**Community Outreach Achievements**

Public Presentations about my archaeological research at The Dalles, OR:

- Sept 2008, The Dalles History Days, The Dalles, OR

-May 1999, Yakima Valley Community College, WA

-March 1999, The Dalles Discovery Center, The Dalles, OR

-March 1999, Warm Springs Confederated Tribes, Warm Springs, OR.

-March 1999, Yakama Indian Nation, Toppenish, WA.

-October 1998, PSU chapter of Sigma XI.

-September 1998, Windows on the Past, USFS, Portland, OR

-February 1998, Archaeological Institute of America, Salem, OR

-March 1995, Columbia Gorge Community College, The Dalles, OR.

**-** February1994, Oregon Archaeological Society, Portland, OR.

- presentation on importance of archaeology to 200 Girl Scouts, Clackamas County, June 2007.

-presentation to Oregon Archaeological Society, Holocene History of Columbia River Fishes, Oregon Museum of Science and History, October 2003.

-co-leader of day-long field trip for U.S. Geological Survey employees to Ridgefield National Wildlife Refuge, October 2003. Presented records of Lower Columbia fishes and archaeology

- Presentation on archaeology, Clackamas High School, September, 2003-2010

- Presented 4-hr workshop to middle school girls club on archaeology and animal bone analysis, January 2003,2004, 2005

- Organized and Developed interactive exhibit at the Intel International Science and Engineering Fair, Portland, OR, May 2004. Introduced ~ 400 middle school and high school students to field of zooarchaeology through hands on displays and posters. Three graduate students participated in the 1.5 day event.

- Practitioner/Role Model for Advocates for Women in Science and Engineering & Mathematics (AWSEM), Saturday Academy. Listed in Directory as resource for Portland Area educators;

- October, 1999. Presented slide-show lecture and lab tour on Columbia Basin Archaeology, to participants in Sigma Xi/AAAS- sponsored tour, “In the Wake of Lewis and Clark Expedition” .

- May, 1998. Presented slide-show lecture on Ancient DNA for the *Missing Links-Alive!* Program at Oregon Museum of Science and Industry.

- September, 1997. Organized “Archaeology at Portland State”, an evening of slide-show presentations by PSU faculty on their research in archaeology, as part of Oregon Archaeology Week. Also presented lecture on my current research on Ancient DNA in archaeological salmon bone.

- October, 1996. Presented lecture on career opportunities in archaeology to 9-11th graders, Benson High School MESA (Math, Engineering, Science Achievement) Chapter.

- September, 1996, Presented slide show/lecture to 200 middle school students at Atkinson Middle School, SE Portland. Three PSU anthropology students assisted with program, which included students’ study of lithics, faunal remains, and field equipment.

- 1996-currrently. Practitioner/Role Model for Advocates for Women in Science Engineering & Mathematics (AWSEM), Saturday Academy. Listed in AWSEM Directory as resource for Portland educators.

-June, 1996 and June 1998, served as judge to Science Fair OMSI, high school students participating in the Stepping Stones Mentoring Program, American Indian Science and Engineering Society Chapter.

- April, 1996, 2-hr slide show/lecture and lab demonstration about archaeology and cultural resources management to high school students and their families, participating in the Stepping Stones Mentoring Program, American Indian Science and Engineering Society PSU Chapter.

- April, 1996, Presented lecture/slide show about archaeology to 6th grade class, Palisades Elementary School, Lake Oswego.

- September 1995, *Oregon Archaeology Week*. Open House at PSU. Presented series of posters on geoarchaeology, radiocarbon dating, lithic analysis, and excavation at The Dalles, OR.

- October 1995, *Washington Archaeology Week*, Open House at Ridgefield, WA. Presented Posters and Lecture on research at The Dalles, OR.

- October, 1995, Assisted 5th/6th Graders at White Salmon Middle School (White Salmon, WA) with mock Excavation Project

- November, 1995, Oregon Archaeological Society, Portland (OMSI), Public Lecture “Prehistoric Human Impacts to the South Pacific Islands”.

**Editorial Board**

*Journal of Island and Coastal Research*

**Contribution to Profession**

 1995 Co-Chair, Meeting of the Northwest Anthropology Conference, Portland,

 2006 Annual Meeting, Society for American Archaeology, Program Committee

 2007-currently, Fyxell Award Committee, Society for American Archaeology

 2007-currently, Distinguished Lecture Committee, Sigma Xi (National)

 2008-Organizer and Chair, Great Basin Anthropological Conference, Portland, Oct. 2008

 2010-Nominating Committee, Society for American Archaeology

**Memberships in Professional Societies**

Society for American Archaeology

Society for Archaeological Sciences

Association for Oregon Archaeologists

Association for Washington Archaeology

International Council of Archaeozoology

Sigma XI

Gilbert Ichthyological Society

American Fisheries Society

Society for Conservation Biology

Phi Kappa Phi

National Science Teacher Association