



**Technical Report No. 19**

**PRELIMINARY BIBLIOGRAPHY OF RESEARCH  
REPORTS AND HISTORICAL DATA SETS ON  
PADILLA BAY, WASHINGTON (1998)**

**Douglas A. Bulthuis  
and  
Suzanne Shull**

**July 1998**

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Padilla Bay National Estuarine Research Reserve

July 1998

A report of the Washington State Department of Ecology, Padilla Bay National Estuarine Research Reserve, pursuant to National Oceanic and Atmospheric Administration Award No.'s NA77OR0471 and NA77OR0415

Padilla Bay National Estuarine Research Reserve  
Shorelands and Environmental Assessment Program  
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## **ABSTRACT**

Bulthuis, D.A., and S. Shull. 1998. Preliminary Bibliography of Research Reports and Historical Data Sets on Padilla Bay, Washington (1998). Washington State Department of Ecology, Padilla Bay National Estuarine Research Reserve Technical Report No. 19, Mount Vernon, Washington. 32 pp.

This bibliography lists about 228 reports and publications that contain at least some original data or a summary of data on Padilla Bay. The entries are divided into four categories: 1) journal articles, books, and conference proceedings; 2) government agency reports and final reports of research projects; 3) student reports and theses; and 4) data compilations and unpublished reports and letters. The Padilla Bay National Estuarine Research Reserve Technical Report Series and Reprint Series are also included. Copies of most of the reports and publications in this bibliography are located in the Padilla Bay National Estuarine Research Reserve Rod Mack Library.

## INTRODUCTION

The Padilla Bay National Estuarine Research Reserve is part of a national system of research reserves. One of the goals of the system is to preserve and manage sites where estuarine research and monitoring can be conducted to assist in the management of the nation's estuaries. Much of the current information on Padilla Bay is included in government agency reports, student projects, and historical data that is not referenced. The difficulty of accessing these reports and data can hinder the planning and interpretation of research in Padilla Bay. Therefore, the purpose of this bibliography is to compile a list of reports on Padilla Bay: to make research data more accessible to coastal managers and other users, to facilitate the conduct of research in the bay, and to help identify data sets that can be made available via computer databases at Padilla Bay and via the internet.

Published and unpublished reports have been included in this bibliography if they contain at least some original data (or summary of data) on Padilla Bay. The emphasis of certain reports in the bibliography is on the general area (e.g. north Puget Sound); however, at least one sample station or data point on each study is within Padilla Bay. Many other reports on the general area are relevant to Padilla Bay, but these have not been included if they do not contain original data on Padilla Bay itself.

The entries are listed in four categories: journal articles, books, and conference proceedings; government agency reports and final reports of research projects; student reports and theses; and data compilations and unpublished reports and letters. They are arranged alphabetically by author within each category. Following the bibliographic entries are lists of the two series published by Padilla Bay National Estuarine Research Reserve: "Technical Report Series" and "Reprint Series."

Copies of most of the reports are lodged at the Padilla Bay National Estuarine Research Reserve, Rod Mack Library. Following the bibliographic entries for these reports, a line beginning "PBL" gives the Padilla Bay library call number.

During the next two years, historical data sets on Padilla Bay will be identified. Emphasis will be placed on those data sets with a geographic component. Metadata will be developed for the data sets, both data sets and metadata will be placed on computer at Padilla Bay, and some will be made accessible via the internet. An update of this bibliography is planned at the end of this period. It will include a listing of the data sets and metadata that are accessible on computer at Padilla Bay or via the internet.

This report contains almost twice as many entries as the bibliography published in 1993. There are approximately 120 new entries including 41 "discovered" works. "Discovered" works are documents published prior to the printing of, but not included in, the 1993 Padilla Bay Bibliography. Though many potential sources of reports and data were investigated, doubtless some reports relevant to Padilla Bay have been omitted. Please send information about any other reports or publications or corrections to:

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These will be included in any future revisions of the bibliography.

## Journal Articles, Books and Conference Proceedings

- Barrick, R. C., J. I. Hedges and M. L. Peterson. 1980. Hydrocarbon geochemistry of the Puget Sound region - I. sedimentary acyclic hydrocarbons. *Geochimica et Cosmochimica Acta* 44: 1349-1362.
- Barrick, R. C. and J. I. Hedges. 1981. Hydrocarbon geochemistry of the Puget Sound region - II. sedimentary diterpenoid, steroid and triterpenoid hydrocarbons. *Geochimica Cosmochimica Acta* 45: 381-392.
- Barrick, R. C. and F. G. Prahl. 1987. Hydrocarbon geochemistry of the Puget Sound region - III. polycyclic aromatic hydrocarbons in sediments. *Estuarine Coastal and Marine Science* 25: 175-191.
- Beale, H. and M. Schwartz. 1991. Relative rise in sea level during the past 5000 years at six salt marshes in the northern Puget Sound basin, Washington. *Northwest Environmental Journal* 7: 365-366.
- Bernhard, A. E. and E. R. Peele. submitted. Nitrogen limitation of phytoplankton in a low-volume freshwater estuary in Northern Puget Sound. *Marine Ecology Progress Series*.
- Brennan, L. A., J. B. Buchanan, S. G. Herman and T. M. Johnson. 1985. Interhabitat movements of wintering dunlins in western Washington. *Murrelet* 66: 11-16.
- Bulthuis, D. A. 1995. Distribution of seagrasses in a North Puget Sound Estuary: Padilla Bay, Washington, U.S.A. *Aquatic Botany* 50: 99-105.
- Butler, L. M. and C. DePhelps. 1995. Human diversity, community, and viable food and agricultural systems, p. 161-193. *In Exploring the Role of Diversity in Sustainable Agriculture*. American Society of Agronomy, Crop Science Society of America, Soil Science Society of America, Madison, Wisconsin.
- Caine, E. A. 1991. Caprellid amphipods: fast food for the reproductively active. *Journal of Experimental Marine Biology and Ecology* 148: 27-33.
- Calambokidis, J. A., R. D. Everitt, J. C. Cabbage and S. D. Carter. 1979. Harbor seal census for the inland waters of Washington 1977-1978. *Murrelet* 60: 110-112.
- Carpenter, R., M. L. Peterson and J. T. Bennett. 1985. <sup>210</sup>Pb-derived sediment accumulation and mixing rates for the greater Puget Sound region. *Marine Geology* 64: 291-312.
- Cheney, P. M. and T. F. Mumford. 1986. Shellfish and seaweed harvests of Puget Sound. University of Washington Press. Seattle, Washington. 164 pp.
- Chia, F. 1971. Diesel oil spill at Anacortes. *Marine Pollution Bulletin* 2: 105-106.
- Clark, R. C., and J. S. Finley. 1973. Paraffin hydrocarbon patterns in petroleum-polluted mussels. *Marine Pollution Bulletin* 4: 172-176.
- Cordell, J. R. and C. A. Simenstad. 1988. Epibenthic harpacticoid copepods as indicators of wetland fitness, p. 422-431. *In Proceedings First Annual Meeting on Puget Sound Research*. Puget Sound Water Quality Authority, Seattle, Washington.

- DeWitt, T. H., R. C. Swartz and J. O. Lamberson. 1989. Measuring the acute toxicity of estuarine sediments. *Environmental Toxicology and Chemistry* 8: 1035-1048.
- Dinnel, P. A., D. A. Armstrong and C. Dungan. 1985. Initiation of a Dungeness crab, Cancer magister, habitat study in North Puget Sound, p. 327-337. In B. R. Melteff (Symposium Coordinator) Proceedings of the Symposium on Dungeness Crab Biology and Management. University of Alaska, Alaska Sea Grant, Fairbanks, Alaska.
- Dinnel, P. A., D. A. Armstrong and R. O. McMillan. 1993. Evidence for multiple recruitment-cohorts of Puget Sound Dungeness crab, Cancer magister. *Marine Biology* 115: 53-63.
- Ewing, K. 1983. Environmental controls in Pacific Northwest intertidal marsh plant communities. *Canadian Journal of Botany* 61: 1105-1116.
- Gallagher, E. D., P. A. Jumars and D. D. Trueblood. 1983. Facilitation of soft-bottom benthic succession by tube builders. *Ecology* 64: 1200-1216.
- Gardiner, W. and J. Hardy. 1994. Sea surface films: deposition and toxicity in intertidal habitats, p. a-28. In Conference Program and Book of Abstracts ASLO & PSA 1994 Joint Meeting, University of Miami. American Society of Limnology and Oceanography and Phycological Society of America, Miami, Florida.
- Harrison, P. G. and R. E. Bigley. 1982. The recent introduction of the seagrass Zostera japonica Aschers. and Graebn. to the Pacific Coast of North America. *Canadian Journal of Fisheries and Aquatic Sciences* 39: 1642-1648.
- Hoff, R. Z., G. Shigenaka and C. B. J. Henry. 1993. Salt marsh recovery from a crude oil spill: vegetation, oil weathering, and response, p. 307-311. In Proceedings of the 1993 International Oil Spill Conference: Prevention, Preparedness and Response, March 29 – April 1, Tampa, FL. American Petroleum Institute Publication No. 4580.
- Kwan, P. W. and R. C. Clark. 1981. Assessment of oil contamination in the marine environment by pattern recognition analysis of paraffinic hydrocarbon content of mussels. *Analytica Chimica Acta* 133: 151-168.
- Laushman, R. H. 1993. Population genetics of hydrophilous angiosperms. *Aquatic Botany* 44: 147-158.
- Lovvorn, J. R. and J. R. Baldwin. 1996. Intertidal and farmland habitats of ducks in the Puget Sound region: a landscape perspective. *Biological Conservation* 77: 97-114.
- Mayer, J. R. and N. R. Elkins. 1990. Potential for agricultural pesticide runoff to a Puget Sound estuary: Padilla Bay, Washington. *Bulletin of Environmental Contamination and Toxicology* 45: 215-222.
- McKinley, W. R., D. C. Brooks and R. E. Westley. 1959. Measurements of water transport through Swinomish Slough, Washington. *Washington Department of Fisheries and Fisheries Research Papers* 2: 84-87.
- McMillan, R. O., D. A. Armstrong and P. A. Dinnel. 1995. Comparison of intertidal habitat use and growth rates of two northern Puget Sound cohorts of 0+ age Dungeness crab, Cancer magister. *Estuaries* 18: 390-398.

- Muehlstein, L. K., D. Porter and F. T. Short. 1988. Labyrinthula sp., a marine slime mold producing the symptoms of wasting disease in eelgrass, Zostera marina. *Marine Biology* 99: 465-472.
- Newby, T. C. 1973. Changes in the Washington State harbor seal population 1942 - 1972. *Murrelet* 54: 4-6.
- Newby, T. C. 1973. Observations on the breeding behavior of the harbor seal in the State of Washington. *Journal of Mammalogy* 54: 540-543.
- Reed, A., M. A. Davison and D. K. Kraege. 1989. Segregation of brent geese Branta bernicla wintering and staging in Puget Sound and the Strait of Georgia. *Wildfowl* 40: 22-31.
- Ruckelshaus, M. H., R. C. Wissmar and C. A. Simenstad. 1988. Mussel growth and estuarine habitat quality, p. 463-472. *In* Proceedings of the First Annual Meeting on Puget Sound Research. Puget Sound Water Quality Authority, Seattle, Washington.
- Ruckelshaus, M. H., R. C. Wissmar and C. A. Simenstad. 1990. Sources and fates of organic matter: utilization of eelgrass carbon by estuarine bivalves, p. 13-20. *In* Merkel, K. W. and R. S. Hoffman (Technical editors) Proceedings of the California Eelgrass Symposium. Sweetwater River Press, National City, California.
- Ruckelshaus, M. H., R. C. Wissmar and C. A. Simenstad. 1993. The importance of autotroph distribution to mussel growth in a well-mixed, temperate estuary. *Estuaries* 16: 898-912.
- Scheffer, V. B. and J. W. Slipp. 1944. The harbor seal in Washington State. *American Midland Naturalist* 32: 373-416.
- Scott, D. B. 1974. Recent benthonic foraminifera from Samish and Padilla Bays, Washington. *Northwest Science* 48: 211-218.
- Shelford, V. E., A. O. Weese, L. A. Rice, D. I. Rasmussen and A. Maclean. 1935. Some marine biotic communities of the Pacific coast of North America: Part I. General survey of the communities. *Ecological Monographs* 5: 249-354.
- Simenstad, C. A. and J. R. Cordell. 1992. Species and assemblage diversity of nearshore epibenthic harpacticoid copepods: natural and human influences. *Northwest Environmental Journal* 8: 154-155.
- Speich, S. M., J. Calambokidas, D. W. Shea, J. Peard, M. Witter and D. M. Fry. 1992. Eggshell thinning and organochlorine contaminants in western Washington waterbirds. *Colonial Waterbirds* 15: 103-112.
- Stiller, J. W. and A. L. Denton. 1995. One hundred years of Spartina alterniflora (Poaceae) in Willapa Bay, Washington: random amplified polymorphic DNA analysis of an invasive population. *Molecular Ecology* 4:355-363.
- Thom, R. M. 1990. A review of eelgrass (Zostera marina L.) transplanting projects in the Pacific Northwest. *Northwest Environmental Journal* 6: 121-137.
- Thom, R. M. 1990. Spatial and temporal patterns in plant standing stock and primary production in a temperate seagrass system. *Botanica Marina* 33: 497-510.

- Thom, R. M. 1992. Accretion rates of low intertidal salt marshes in the Pacific Northwest. *Wetlands (Journal of the Society of Wetland Scientists)* 12: 147-156.
- Thom, R., B. Miller and M. Kennedy. 1995. Temporal patterns of grazers and vegetation in a temperate seagrass system. *Aquatic Botany* 50: 201-205.
- Williams, S. L. and M. H. Ruckelshaus. 1993. Effects of nitrogen availability and herbivory on eelgrass (*Zostera marina*) and epiphytes. *Ecology* 74: 904-918.

**Government Agency Reports  
and  
Final Reports of Research Projects**

- Anderson, W. C., L. M. Butler, R. Carkner, S. Kuo and D. Havens. 1995. *Cropping strategies and water quality final report*. Mount Vernon, WA. 177 pp. Final report prepared for the State of Washington - Department of Ecology Grant Number - 91195 by Washington State University.
- Anonymous. 1993. *Padilla Bay/Bay View watershed monitoring project, final monitoring plan*. Mount Vernon, WA. 53 pp. Skagit County Department of Planning and Community Development and Washington State Department of Ecology.
- Anonymous. 1994. *Trace elements and oil-related contaminants in sediment, bivalves, and eelgrass from Padilla and Fidalgo Bays, Skagit County, Washington, 1988*. Olympia, WA. 20 pp. plus appendices. United States Fish and Wildlife Service, Ecological Services, Washington State Office.
- Beak Consultants. 1975. *Oil pollution and the significant biological resources of Puget Sound: a review and analysis of available information*. Olympia, WA. 147 pp. plus. Washington State Department of Ecology. [Baseline Study Program North Puget Sound, Appendix I]  
[PBL: WDOE, 1975, 110.1 VOL. I]
- Beale, H. 1991. *Relative rise in sea-level during the past 5000 years at six salt marshes in northern Puget Sound, Washington*. Bellingham, WA. 73 pp. Prepared for Shorelands and Coastal Zone Management Program, Washington State Department of Ecology by Western Washington University, Department of Geology.  
[PBL: WDOE, 1991, 102.1]
- Brown, D. W., A. J. Friedman, P. G. Prohaska and W. D., MacLeod. 1979. *Investigation of petroleum in the marine environs of the Strait of Juan de Fuca and northern Puget Sound*. Seattle, WA. NOAA Environmental Research Laboratories EPA-600/7-79-164.  
[PBL: EPA, 1979, 107.1]
- Brown, D. W., A. J. Friedman, P. G. Prohaska and W. D., MacLeod. 1981. *Investigation of petroleum in the marine environs of the Strait of Juan de Fuca and northern Puget Sound Part II (second-year continuation)*. Boulder, CO. NOAA Office of Marine Pollution Assessment.
- Bulthuis, D. A. 1989. *Bibliography of reports on Padilla Bay, Washington*. Mount Vernon, WA. 9 pp. Washington State Department of Ecology, Padilla Bay National Estuarine Research Reserve Technical Report No. 1.
- Bulthuis, D. A. 1991. *Distribution of habitats and summer standing crop of seagrasses and macroalgae in Padilla Bay, Washington, 1989*. Mount Vernon, WA. 35 pp. Washington State Department of Ecology, Padilla Bay National Estuarine Research Reserve Technical Report No. 2.
- Bulthuis, D. A. 1993. *Review of water quality data in the Padilla Bay/Bay View watershed*. Mount Vernon, WA. 72 pp. Washington State Department of Ecology, Padilla Bay National Estuarine Research Reserve Technical Report No. 10.

- Bulthuis, D. A. 1993. *Padilla Bay Bibliography, 1993*. Mount Vernon, WA. 22 pp. Washington State Department of Ecology, Padilla Bay National Estuarine Research Reserve Technical Report No. 6.
- Bulthuis, D. A. 1996. *Coastal habitats in Padilla Bay, Washington: a review*. Vicksburg, MS. 57 pp. U.S. Army Engineers Waterways Experiment Station, U.S. Army Engineer Waterways Experiment Station, Environmental Impact Research program, Technical Report EL-96-15.
- Bulthuis, D. A. 1996. *Nutrients and suspended solids in Padilla Bay and its watershed during 1995-96*. Mount Vernon, WA. 45 pp. plus appendices. Padilla Bay National Estuarine Research Reserve.
- Bulthuis, D. A. 1996. *Suspended sediments in Joe Leary Slough, a north Puget Sound coastal stream draining an agricultural watershed*. Mount Vernon, WA. 46 pp. Washington State Department of Ecology, Padilla Bay National Estuarine Research Reserve Technical Report No. 5.
- Bulthuis, D. A. 1997. *Padilla Demonstration Farm: soil salinity and soil nutrients in December, 1996*. Mount Vernon, WA. 16 pp. Washington State Department of Ecology Publication No. 97-111, Padilla Bay National Estuarine Research Reserve Technical Report No. 18.
- Bulthuis, D. A. and W. C. Anderson. 1996. *Survey for pesticides on the Padilla Bay National Estuarine Research Reserve Demonstration Farm, 1993*. Mount Vernon, WA. 15 pp. Washington State Department of Ecology Publication No. 96-121, Padilla Bay National Estuarine Research Reserve Technical Report No. 16.
- Bulthuis, D. A. and A. M. Conrad. 1995. *Swinomish Channel and Padilla Bay: surface currents during flood tide and water quality*. Mount Vernon, WA. 99 pp. Washington State Department of Ecology Publication No. SWR-R-95-88, Padilla Bay National Estuarine Research Reserve Technical Report No. 14.
- Bulthuis, D. A. and A. M. Conrad. 1996. *Guemes Channel and Padilla Bay: surface currents during flood tide*. Mount Vernon, WA. 133 pp. Washington State Department of Ecology, Padilla Bay National Estuarine Research Reserve Technical Report No. 15.
- Bulthuis, D. A. and M. J. Hartman. 1994. *Effects of application of glyphosate during summer on epiphytes of the eelgrasses *Zostera marina* and *Zostera japonica* in Padilla Bay, Washington*. Mount Vernon, WA. 40 pp. Washington State Department of Ecology Publication No. 94-170, Padilla Bay National Estuarine Research Reserve Technical Report No. 9.
- Bulthuis, D. A. and B. F. MacDonald. 1997. *Salinity intrusion in lower Joe Leary Slough during January and February, 1997*. Mount Vernon, WA. 14 pp. Washington State Department of Ecology, Shorelands and Water Resources Program, Padilla Bay National Estuarine Research Reserve. [An informal report to the Director of the Padilla Bay National Estuarine Research Reserve].
- Bulthuis, D. A. and B. A. Scott. 1993. *Effects of application of glyphosate on cordgrass, *Spartina alterniflora*, and adjacent native salt marsh vegetation in Padilla Bay, Washington*. Mount Vernon, WA. 29 pp. Washington State Department of Ecology, Padilla Bay National Estuarine Research Reserve Technical Report No. 7.

- Bulthuis, D. A. and T. Shaw. 1992. *Acute toxicity of intertidal sediments from Padilla Bay, Washington, to the amphipod, Rhepoxynius abronius*. Mount Vernon, WA. 37 pp. Washington State Department of Ecology, Padilla Bay National Estuarine Research Reserve Technical Report No. 4.
- Bulthuis, D. A. and T. Shaw. 1993. *Effects of application of glyphosate on the eelgrasses Zostera marina and Zostera japonica in Padilla Bay, Washington*. Mount Vernon, WA. 45 pp. Washington State Department of Ecology Publication No. 94-47, Padilla Bay National Estuarine Research Reserve Technical Report No. 8.
- Butkus, S. 1995. *Impaired and threatened waterbodies requiring additional pollution controls: proposed 1996 section 303(d) list*. Olympia, WA. 25 pp. Washington State Department of Ecology Publication No. WQ-R-95-83.
- Canadian Hydrographic Service. 1983. *Current Atlas Juan de Fuca Strait to Strait of Georgia*. Sidney, British Columbia. 212 pp. Canadian Hydrographic Service, Pacific Region, Department of Fisheries and Oceans, Institute of Ocean Sciences.
- Cassidy, P. M. and G. L. McKeen. 1986. *Padilla Bay baseline water quality record*. Anacortes, WA. 472 pp. Final report to Marine & Estuarine Management Division, NOAA, Grant No. NA85AA-D-CZ046 by the Shannon Point Marine Center, Western Washington University. Washington State Department of Ecology, Padilla Bay National Estuarine Research Reserve Reprint Series No. 2.
- City of Anacortes. 1984. *Ship Harbor Marina final environmental impact statement*. Anacortes, WA. City of Anacortes.
- Cochrane Consulting. 1994. *Padilla Bay/Bay view watershed water quality study final report*. Bellingham, WA. 59 pp. Prepared for Skagit County Department of Planning and Community Development and Washington State Department of Ecology Grant Number - G9200187 by the Skagit County Department of Planning and Community Development.
- Columbia Analytical Services, Inc. 1992. *Analytical Report of Joe Leary Project for Skagit County Public Works*. Kelso, WA. 16 pp. Columbia Analytical Services, Inc.
- Crecelius, E. A., T. J. Fortman, S. L. Kiesser, C. W. Apts and O. A. Cotter. 1989. *Survey of contaminants in two Puget Sound marinas*. Sequim, WA. 30 pp. plus appendices. Report to U.S. Environmental Protection Agency Region 10, Seattle, WA by Battelle, Marine Sciences Laboratory, EPA 910/9-89-014.
- Davis, D. A. 1993. *Washington State pesticide monitoring program - reconnaissance sampling of surface waters (1992)*. Olympia, WA. 38 pp. Washington State Department of Ecology.
- Davis, D. 1996. *Washington State pesticide monitoring program 1994 surface water sampling report*. Olympia, WA. 19 pp. plus appendices. Washington State Department of Ecology Publication No. 96-305.
- Davis, D. and A. Johnson. 1994. *Washington State pesticide monitoring program 1993 surface water sampling report*. Olympia, WA. 21 pp. plus appendices. Washington State Department of Ecology Publication No. 94-164.

- DePhelps, C. 1993. *Agriculture/estuary natural resource and water quality issues: models for research and education Padilla Bay National Estuarine Research Reserve*. Pullman, WA. 176 pp. Washington State University, College of Agriculture and Home Economics.
- Dinnel, P. A., J. A. Armstrong, R. R. Lauth, K. Larsen, D. A. Armstrong and S. Sulkin. 1990. *Fish predation on Dungeness Crab in Padilla Bay, Washington*. Seattle, WA. 69 pp. University of Washington, Fisheries Research Institute FRI-UW-9001. Padilla Bay National Estuarine Research Reserve Reprint Series No. 14.
- Dinnel, P. A., R. O. McMillan, D. A. Armstrong, T. C. Wainwright, A. J. Whiley, R. Burge and R. Bumgarner. 1986. *Padilla Bay Dungeness crab, *Cancer magister*, habitat study*. Seattle, WA. 78 pp. Final report to NOAA/MEMD, Washington D.C., Grant No. NA85-AA-D-CZ046 by the Fisheries Research Institute, University of Washington. Padilla Bay National Estuarine Research Reserve Reprint Series No. 3.
- Dion, N. P. and S. S. Sumioka. 1984. *Seawater intrusion into coastal aquifers in Washington, 1978*. Olympia, WA. 13 p plus plates. Washington State Department of Ecology, *Water-Supply Bulletin* 56.
- Ebasco Environmental. 1992. *Final Report Element A Spartina: distribution, biology, and ecology*. Seattle, WA. 39 pp. Washington State Department of Ecology.
- Ebaugh, J. E. 1995. *Ecological survey, baseline sampling and research report for the Hat Island Natural Resource Conservation Area*. Mount Vernon, WA. 115 pp. Padilla Bay National Estuarine Research Reserve.
- Ecology and Environment, Inc. 1986. *Site inspection report of P.M. Northwest dump, Anacortes, Washington*. Seattle, WA. 18 pp. Report to U.S. Environmental Protection Agency, Region X. TDD R10-8510-17, 17A, 17B.
- Ehrsam, L. C., T. S. English, J. Matches, D. Weitkamp, R. Cardwell, R. S. LeGore, E. W. Steele and R. Onheim. 1972. *Biological assessment of diesel spill, phase II, Anacortes, Washington, September 1971*. 81 pp. Report to U.S. Environmental Protection Agency. [PBL: EPA, 1971, 109.1]
- Entranco Engineers and R. Nelson. 1989. *Padilla Bay hydrologic study*. Bellingham, WA. 29 pp. plus appendices. Prepared for Western Washington University. Padilla Bay National Estuarine Research Reserve Reprint Series No. 12.
- Evans-Hamilton and D.R. Systems. 1987. *Puget Sound Environmental Atlas*. Seattle, WA. U.S. Environmental Protection Agency, Puget Sound Water Quality Authority, U.S. Army Corps of Engineers.
- Everitt, R. D., C. H. Fiscus, and R. L. DeLong. 1979. *Marine mammals of northern Puget Sound and the Strait of Juan de Fuca: a report on investigations November 1, 1977 - October 31, 1978*. Boulder CO. 191 pp. Marine Ecosystems Analysis Program, Environmental Research Laboratories. [NTIS PB-299287] ERL MESA-41.
- Everitt, R. D., C. H. Fiscus and R. L. DeLong. 1980. *Northern Puget Sound marine mammals*. Washington, D.C. 134 pp. U.S. Environmental Protection Agency. EPA-600/7-80-139. [PBL: EPA, 1980, 105.1]

- Fagergren, D. C., W. S. Wright, F. R. Shuman, J. E. Merrill and K. P. Ferjancic. 1989. *Padilla Bay aquaculture feasibility analysis*. Port Orchard, WA. 34 pp. Report to Washington State Department of Ecology by Fish Pro. [PBL: WDOE, 1989, 105.1]
- Feely, R. A. and M. F. Lamb. 1979. *A study of the dispersal of suspended sediment from the Fraser and Skagit river into northern Puget Sound using Landsat imagery*. Seattle, WA. 46 pp. Prepared for the MESA (Marine Ecosystems Analysis) Puget Sound Project, EPA Interagency Agreement No. D6-E693-EN, Program Element No. EHE625-A by the NOAA Pacific Marine Environmental Research Laboratories. EPA-600/7-79-165
- Frenkel, R. E. and L. M. Kunze. 1984. *Introduction and spread of three *Spartina* species in the Pacific northwest*. Washington, D.C. 8 pp. Paper presented at the Annual Meeting of the Association of American Geographers, April 22-25, 1984.
- Gardner, F. 1978. *North Puget Sound Baseline Program 1974 - 1977*. Olympia, WA. 82 pp. Washington State Department of Ecology. [PBL: WDOE, 1978, 106.1]
- Gardner, F., J. S. Isakson, J. P. Houghton, M. A. Jordan and M. A. Kyte. 1981. *Washington coastal areas of major biological significance*. Olympia, WA. 631 pp. Washington State Department of Ecology. [PBL: WDOE, 1981, 106.1]
- Giles, S. L. and D. A. Bulthuis. 1996. *Water quality and drainage patterns in the No Name Slough Watershed and on the Padilla Bay Demonstration Farm during summer 1996*. Mount Vernon, WA. 21 pp. Padilla Bay National Estuarine Research Reserve.
- Goodwin, L. C. 1973. *Distribution and abundance of subtidal hard-shell clams in Puget Sound, Washington*. Olympia, WA. 81 pp. Washington State Department of Fisheries, Technical Report 14. [PBL: WDOE, 1973, 108.1]
- Granger, T. and M. Burg. 1986. *Plant communities of a salt marsh in Padilla Bay, Washington*. Olympia, WA. 14 pp. Washington State Department of Ecology, Shorelands & Coastal Zone Management Program, Wetlands Section, Padilla Bay National Estuarine Research Reserve Reprint Series No. 4.
- Hong West & Associates. 1990. *Monitoring well construction report, Gibraltar and Saulk landfills, Skagit County, Washington*. Lynnwood, WA. 19 pp. plus appendices. Prepared for R.W. Beck and Associates Project No. 8938.
- Hoyle-Dodson, G. and P. Stasch. 1995. *Texaco USA (Anacortes) class II inspection*. Olympia, WA. 27 pp. plus appendices. Washington State Department of Ecology, Environmental Investigations and Laboratory Services Program Publication No. 95-314.
- Institute of Wildlife and Environmental Toxicology. 1993. *Toxic substance monitoring in environmental samples before and after initiation of the Skagit County waste incinerator system: a model study*. Pendleton, SC. 281 pp. Institute of Wildlife and Environmental Toxicology. Research report for project no: 7014.
- Island Canoe, Inc. 1987. *San Juan current guide including the Gulf Islands and Strait of Juan De Fuca*. Bainbridge Island, WA. 6 charts. Island Canoe, Inc.

- Janzen, C. D. and L. B. Eisner. 1993. *Marine Water Column Ambient Monitoring Program: Annual Report for Wateryear 1991*. Olympia, WA. 86 pp. plus appendices. Washington State Department of Ecology, Environmental Investigations and Laboratory Services Program, Ambient Monitoring Section Publication No. 93-13.
- Janzen, C. D. and L. B. Eisner. 1993. *Marine Water Column Ambient Monitoring Program: Wateryear 1992 Data Report*. Olympia, WA. 22 pp. plus appendices. Washington State Department of Ecology, Environmental Investigations and Laboratory Services Program, Ambient Monitoring Section Publication No. 93-41.
- Jeffrey, R. 1976. *A preliminary inventory of the biota of Padilla Bay*. 38 pp. Washington State Department of Game, Washington State Department of Fisheries, and Western Washington University. Padilla Bay National Estuarine Research Reserve Reprint Series No. 1.
- Jeffrey, R., R. C. Parker and P. M. Henry. 1977. *Wetlands Survey, Northwestern Washington*. Olympia, WA. 41 pp. Washington State Department of Game. [PBL: WDOW, 1977, 113.1]
- Johannessen, J. 1993. *Fate of sediment placed at Bay View State Park*. Bellingham, WA. 50 pp. plus appendices. Coastal Geologic Services.
- Johnson, A. and D. Davis. 1996. *Washington State pesticide monitoring program: Pesticides and PCBs in marine mussels, 1995*. Olympia, WA. 20 pp. Washington State Department of Ecology.
- Jones & Stokes Associates. 1988. *Restoration potential of diked estuarine wetlands in Washington and Oregon Phase I: inventory of candidate sites*. Bellevue, WA. 111 pp. Prepared for the USEPA, Contract No. 68-02-4381, Work Assignment No. 10. EPA-910/9-88-242.
- Keuler, R. F. 1978. *Characteristics and processes of the coastal zone in Skagit County, Washington*. Bellingham, WA. 48 pp. Report to Washington State Department of Ecology by Western Washington University, Department of Geology. [PBL: WWU, 1977, 113.1]
- Koons, R. R. and R. D. Cardwell. 1981. *Significant areas for certain species of food fish and shellfish in Puget Sound*. Olympia, WA. 46 pp. Washington State Department of Fisheries Technical Report No. 59. [PBL: WDOE, 1981, 101.1]
- Long, E. R., A. B. Benedict, R. D. Everitt, B. S. Miller, C. F. Nyblade, C. A. Simestad, S. M. Speich, T. R. Wahl and H. H. Webber. 1983. *A synthesis of biological data from the strait of Juan de Fuca and northern Puget Sound*. Washington D.C. 295 pp. United States Environmental Protection Agency EPA-600/7-82-004. [PBL: EPA, 1982, 102.1]
- Manuwal, D. A. 1977. *Marine bird populations in Washington State, final report*. Washington, D.C. 116 pp. National Wildlife Federation.

- Manuwal, D. A., T. R. Wahl and S. M. Speich. 1979. *The seasonal distribution and abundance of marine bird populations in the Strait of Juan de Fuca and northern Puget Sound in 1978*. Boulder, CO. 391 pp. Marine Ecosystems Analysis Program, Environmental Research Laboratories ERL MESA-44.  
[PBL: NOAA, 1979, Tech. Mem., 109.1]
- Mathematical Sciences Northwest. 1977. *Washington coastal areas of major biological significance*. Olympia, WA. 651 pp. Washington State Department of Ecology,
- Mayer, J. R. 1989. *Potential impact of agricultural pesticide runoff on *Zostera marina* and *Zostera japonica* (eelgrass communities) in Padilla Bay, Washington*. Bellingham, WA. 42 pp. Final report submitted to Washington State Department of Ecology for Padilla Bay Agricultural Pesticide Study by Western Washington University, Huxley College of Environmental Studies. Padilla Bay National Estuarine Research Reserve Technical Report No. 11.
- Mayer, J. R. and N. R. Elkins. 1988. *Agricultural pesticides in Padilla Bay, Washington: potential impact on *Zostera marina* (eelgrass) communities, bibliography*. Bellingham, WA. 79 pp. Report to Washington State Department of Ecology, Agricultural Waste Grant Program by Western Washington University, Huxley College of Environmental Studies.  
[PBL: WWU, 1988, 109.1; WDOE, 1988, 109.1]
- Merrill, G. G. 1995. *The effect of *Zostera japonica* on the growth of *Zostera marina* in their shared transitional boundary*. Mount Vernon, WA. 16 pp. Washington State Department of Ecology Publication No. 95-68, Padilla Bay National Estuarine Research Reserve Technical Report No. 12.
- Miller, B. S., C. A. Simenstad, L. L. Moulton, K. L. Fresh, F. C. Funk, W. A. Karp and S. F. Borton. 1977. *Puget Sound Baseline Program nearshore fish survey*. Olympia, WA. 220 pp. [Baseline Study Program North Puget Sound, Appendix O, Nearshore Fishes final report July 1974 - June 1977]. Washington State Department of Ecology.  
[PBL: WDOE, 1978, 101.1]
- Neale, A. T. 1952. *Report of an investigation of the condition of oysters on Pioneer Oyster Company beds 1, 2 and 3 in Padilla Bay*. 3 pp. Washington Pollution Control Commission.  
[PBL: HIST., 1952, 109.1]
- Ness, A. O., D. E. Buchana, C. G. Richins and W. T. Leighty. 1960. *Soil survey of Skagit County, Washington*. 91 p + maps. U.S.D.A., Soil Conservation Service, Series 1951 No. 6.
- Newton, J. A., S. L. Albertson and A. L. Thomson. 1997. *Washington State Marine Water Quality in 1994 and 1995*. Olympia, WA. 71 pp. plus appendices. Washington State Department of Ecology, Environmental Investigations and Laboratory Services Program, Publication No. 97-316.
- Newton, J. A., S. A. Bell and M. A. Golliet. 1994. *Marine Water Column Ambient Monitoring Program: Wateryear 1993 Data Report*. Olympia, WA. 57 pp. plus appendices. Washington State Department of Ecology, Environmental Investigations and Laboratory Services Program, Ambient Monitoring Program, Publication No. 94-210.

- Nookachamps Watershed Management Committee and Skagit County Department of Planning & Community Development. 1995. *Nookachamps watershed nonpoint action plan*. Mount Vernon, WA. Skagit County Department of Planning & Community Development.
- Orlob, G. T., A. T. Neals and C. Lindsay. 1950. *Pulp mill pollution and oyster culture in Padilla and Fidalgo Bays, a preliminary survey*. 4 pp. Washington Pollution Control Commission.  
[PBL: HIST., 1950, 104.1]
- Pacific Groundwater Group. 1992. Appendix B: Groundwater resource assessment, coordinated water system plan, Skagit County, Washington. *In Skagit County, Coordinated Water System Plan*. Olympia, WA. pp. 29. Economic and Engineering Services, Inc.
- Pacific Rim Planners. 1980. *Swinomish Channel dredged material reuse study*. 77 pp. plus appendix. Report prepared for Skagit County Planning Department.  
[PBL: SKAGIT CO., 1980, 113.1]
- Padilla Bay/Bay View Watershed Management Committee and Skagit County Department of Planning and Community Development. 1995. *Padilla Bay/Bay View watershed nonpoint action plan*. Mount Vernon, WA. Skagit County Department of Planning and Community Development.
- Parametrix, Inc. 1992. *Draft Preliminary hydrogeological assessment Inman landfill*. Kirkland, WA. 35 pp. plus appendices. Prepared for Skagit County Public Works.
- Parker, B. B. and J. T. Bruce. 1980. *Puget Sound approaches circulatory survey*. Rockville, MD. 98 pp. NOAA/NOS Oceanographic Circulatory Survey Report No. 3.
- Pastorok, R. A., R. Sonnerup, J. J. Greene, M. A. Jacobson, L. B. Read and R. C. Barrick. 1989. *Interim performance standards for Puget Sound reference areas*. Bellevue, WA. 73 pp. plus appendices. Final report for Washington State Department of Ecology (Ecology Contract C0089108; PTI Contract C901-08) by PTI Environmental Services.
- Pawlak, B. T. 1994. *Analysis of the policies and management practices of Washington State agencies as they pertain to the seagrasses, *Zostera marina* and *Zostera japonica**. Seattle, WA. University of Washington, School of Marine Affairs. Washington Department of Ecology Publication No. 94-121, Padilla Bay National Estuarine Research Reserve Reprint Series No. 20.
- Penttila, D. 1982. *The surf smelt spawning beaches of Fidalgo Bay, Washington Nov. 1981 - March 1982*. 19 pp. Briefing report to the Washington Department of Fisheries.  
[PBL: WDOF, 1982, 107.1]
- Penttila, D. 1983. *Observations on the surf smelt spawning beaches in the Fidalgo Bay area, October 1982 - March 1983*. 13 pp. Briefing report to the Washington State Department of Fisheries.  
[PBL: WDOF, 1983, 107.1]
- Penttila, D. 1984. *Summary of winter herring hydroacoustic/trawl surveys in the Bellingham Bay area December 1983 - January 1984*. 16 pp. Briefing report to the Washington State Department of Fisheries.  
[PBL: WDOF, 1984, 107.1]

- Penttila, D. 1985. *Summary of winter herring hydroacoustic/trawl surveys in the Bellingham Bay area December 1984 - January 1985*. 13 pp. Briefing report to the Washington State Department of Fisheries.  
[PBL: WDOF, 1985, 109.1]
- Riggs, S.R. 1992. *Distribution of Spartina alterniflora in Padilla Bay, Washington, in 1991*. Mount Vernon, WA. 63 pp. Padilla Bay National Estuarine Research Reserve, Technical Report No. 3.
- Riggs, S. R. 1997. *Padilla Bay National Estuarine Research Reserve Natural Resource Stewardship and Management Report*. 123 pp. plus appendices. Mount Vernon, WA. Washington State Department of Ecology, Padilla Bay National Estuarine Research Reserve.
- Riggs, S. R. and D. A. Bulthuis. 1994. *Estimated net aerial primary productivity and monitoring of selected characteristics of Spartina alterniflora in Padilla Bay, Washington, April 1992 - May 1993*. Mount Vernon, WA. 45 pp. Washington State Department of Ecology Publication No. 94-176, Padilla Bay National Estuarine Research Reserve Technical Report No. 11.
- Riggs, S. R. and D. A. Bulthuis. 1995. *Effectiveness of a wiper application of glyphosate on Spartina alterniflora in Padilla Bay, Washington*. Mount Vernon, WA. 20 pp. Washington State Department of Ecology, Padilla Bay National Estuarine Research Reserve Technical Report No. 13.
- Salo, L. J. 1975. *A baseline survey of significant marine birds in Washington State*. 418 pp. Washington State Department of Ecology, Washington Department of Game, Coastal Zone Environmental Studies Report 1.
- Saxton, W. W. and A. Young. 1948. *Investigation of sulfite waste liquor pollution in Fidalgo and Padilla Bays*. 25 pp. Pollution Control Commission, Technical Bulletin No. 1.  
[PBL: HIST., 1948, 113.1]
- Sceva, J. E. 1950. *Preliminary report on the ground-water resources of southwestern Skagit County, Washington*. Tacoma, WA. 40 pp. Prepared in cooperation with State of Washington, Department of Conservation and Development, Division of Hydraulics by the United States Department of the Interior Geological Survey, State of Washington Ground-Water Report No. 1.
- Seattle Marine Laboratories. 1974. *Evaluation of the adequacy of the Scott Paper Company submarine outfall in Guemes Channel*. Seattle, WA. 63 pp. plus appendices. Seattle Marine Laboratories.
- Simenstad, C. A., J. R. Cordell, R. C. Wissmar, K. L. Fresh, S. L. Schroder, M. Carr, G. Sanborn and M. Burg. 1988. *Assemblage structure, microhabitat distribution and food web linkages of epibenthic crustaceans in Padilla Bay National Estuarine Research Reserve, Washington*. Seattle, WA. 60 pp. Final report to NOAA/MEMD Grant No. NA86AA-D-CZ027 by University of Washington, Fisheries Research Institute, FRI-UW-8813. Padilla Bay National Estuarine Research Reserve Reprint Series No. 9

- Simenstad, C. A., B. S. Miller, C. F. Nyblade, K. Thornburgh and L. J. Bledsoe. 1979. *Food web relationships of northern Puget Sound and the Strait of Juan de Fuca, a synthesis of the available knowledge*. Washington D.C. 334 pp. U.S. Environmental Protection Agency, EPA 600/7-79-259.  
[PBL: EPA, 1979, 109.1]
- Skagit County Planning Dept. 1978. *Skagit County shoreline access study*. Mount Vernon, WA. Skagit County Planning Department.
- Skagit County Department of Planning and Community Development. 1993. Mount Vernon, WA. 6 pp. plus appendices. *Padilla Bay/Bay View watershed stream survey report*. Skagit County Department of Planning and Community Development and Washington State Department of Ecology.
- Skagit County Public Works. 1995. *1994 Groundwater Annual Report Inman Landfill*. Mount Vernon, Washington. 25 pp. plus appendices. Skagit County Public Works.
- Smith, G. F. 1979. *A quantitative sampling program of benthic communities in nearshore subtidal areas within the Rosario Strait region of northern Puget Sound, Washington State (1976)*. Olympia, WA. 105 pp. Washington State Department of Ecology, Oil Baseline Program, [Baseline Study Program North Puget Sound, Appendix L, Western Washington University Subtidal Study Huxley College].  
[PBL: WDOE, 1972, 113.2]
- Smith, G. F. and H. H. Webber. 1978. *A biological sampling program of intertidal habitats of northern Puget Sound*. Olympia, WA. 311 pp. Washington State Department of Ecology, [Baseline Study Program North Puget Sound, Appendix K, Western Washington University Intertidal Study].  
[PBL: WDOE, 1978, 109.1]
- Speich, S. M. and T. R. Wahl. 1989. *Catalog of Washington Seabird Colonies*. 510 pp. U.S. Fish and Wildlife Service, OCS Study MMS 89-0054.  
[PBL: USDI, 1989, 108.1]
- Sweet, Edwards & Associates, Inc. 1985. *Inman landfill hydrogeologic investigation, phase I report*. Redmond, Washington. 24 pp. Submitted to R.W. Beck & Associates.
- Sweet, Edwards & Associates, Inc. 1987. *Inman landfill hydrogeologic investigation, phase II report*. Kelso, Washington. 27 pp. Report to R.W. Beck & Associates and Skagit County Public Works.
- Sylvester, R. O. and F. L. Clogston. 1958. *A study of the preoperational marine environment in the vicinity of the Texas Company refinery Puget Sound Works Anacortes, Washington*. [Unpublished report to Texas Company] 157 pp.  
[PBL: HIST., 1958, 110.1]
- Tetra Tech. 1988. *Assessment of potential toxic problems in non-urban areas of Puget Sound*. Seattle, WA. 173 pp. Final Report, Contract Nos. 68-03-3319 & 68-02-4341 U.S. Environmental Protection Agency, EPA 503/3-88-002.

- Thom, R. M. 1988. *Benthic primary production in the eelgrass meadow at the Padilla Bay National Estuarine Research Reserve, Washington*. Seattle, WA. 33 pp. Final report to Marine & Estuarine Management Division, NOAA, Grant No. NA86AA-D-CZ027, by the University of Washington, Fisheries Research Institute, FRI-UW-8808. Padilla Bay National Estuarine Research Reserve Reprint Series No. 10.
- Thom, R. M. 1989. *A review of eelgrass (*Zostera marina* L.) transplant projects in the Pacific Northwest*. Seattle, WA. 13 pp. Final report submitted to PTI Environmental Services for U.S. Army Corps Engineers, Contract DACW67-88-D-0024; PTI Contract C843-03, by the University of Washington, Fisheries Research Institute.
- Thom, R. M. 1989. *Plant standing stock and productivity on tidal flats in Padilla Bay, Washington: a temperate north Pacific estuarine embayment*. Seattle, WA. 37 pp. Final report to Marine & Estuarine Management Division, NOAA grant NA87AA-D-CZ-009, by the University of Washington, Fisheries Research Institute, FRI-UW-8909. Padilla Bay National Estuarine Research Reserve Reprint Series No. 13.
- Thom, R. M. and L. Hallum. 1990. *Long-term changes in the areal extent of tidal marshes, eelgrass meadows and kelp forests of Puget Sound*. Seattle, Washington. 55 pp. plus appendices. University of Washington, Fisheries Research Institute, Wetland Ecosystem Team, EPA 910/9-91-005, FRI-UW-9008.
- Thom, R. M., B. Miller, and M. Kennedy. 1991. *Temporal patterns of grazers and vegetation in a temperate seagrass system*. Seattle, Washington. 28 pp. Final report to U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Sanctuaries and Reserves Division by the University of Washington, Fisheries Research Institute, FRI-UW-8909. Padilla Bay National Estuarine Research Reserve Reprint Series No. 15.
- TRA. 1977. *Skagit County Dredge Disposal Site Analysis*. 110 pp. Report to Skagit Regional Planning Council
- TRA. 1977. *Skagit County marine recreation site analysis*. 97 pp. plus appendix. Report to Skagit Regional Planning Council
- Trumble, R., D. Pentilla, D. Day, P. McAllister, J. Boettner, R. Adair and P. Wares. 1977. *Results of herring spawning ground surveys in Puget Sound, 1975 and 1976*. 28 pp. Washington State Department of Fisheries, Progress Report No. 21. [PBL: WDOF, 1977, 107.1]
- Turner, D. O. 1980. *Investigation of the tidal soils of Padilla Bay*. 15 pp. College of Agricultural Research Center, Washington State University, Bulletin No. 0885.
- United States Department of Agriculture Soil Conservation Service. 1989. *Soil survey of Skagit County area, Washington*. 72 p plus maps. United States Department of Agriculture Soil Conservation Service, 3.
- URS Consultants. 1985? *Swinomish marina draft environmental impact statement*. Seattle, WA.
- U.S. Army Corps of Engineers, Seattle District. 1981. *Final environmental statement supplement No. 2: Swinomish Channel maintenance dredging, Skagit County, Washington*. Seattle, WA. 29 pp. plus appendices. U.S. Army Corps. of Engineers.

- U.S. Army Corps of Engineers, Seattle District, Environmental Resources Section. 1993. *Emergent noxious weed control*. Seattle, Washington. U.S. Army Corps of Engineers.
- U.S. Army Engineer District. 1976. *Final environmental impact statement Swinomish Channel maintenance dredging Skagit County, Washington*. Seattle, WA. 164 pp. plus appendices. U.S. Army Corps. of Engineers.  
[PBL: SKAGIT CO., 1976, 101.1; USACE, 1976, 101.1]
- U.S. Department of Commerce, National Oceanic Atmospheric Administration Office, Coastal Zone Management and Washington State Department of Ecology. 1980. *Final environmental impact statement, proposed estuarine sanctuary grant award for Padilla Bay, Skagit County, Washington to State of Washington*. 47 pp.  
[PBL: WDOE, 1980, 107.1]
- U.S. Fish & Wildlife Service. 1980. *Important fish and wildlife habitat of Washington, an inventory*. 85 pp.  
[PBL: USFWS, 1980, 105.1]
- U.S. Fish and Wildlife Service, Ecological Services, Washington State Office. 1994. *Trace elements and oil-related contaminants in sediment, bivalves, and eelgrass from Padilla and Fidalgo Bays, Skagit County, Washington, 1988*. Olympia, WA. 20 pp. plus appendices. U.S. Fish and Wildlife Service.
- Wagner, R. A., C. D. Ziebell and A. I. Livingston. 1957. *An investigation of pollution in northern Puget Sound*. 27 pp. Washington Pollution Control Commission, Technical Bulletin No. 22.  
[PBL: WPCC, 1957, 113.1]
- Wahl, T. R., S. M. Speich, D. A. Manuwal, K. V. Hirsch and C. Miller. 1981. *Marine bird populations of the Strait of Juan de Fuca, Strait of Georgia, and adjacent waters in 1978 and 1979*. Washington, D.C. 789 pp. U.S. Environmental Protection Agency, EPA-600/7-81-156.  
[PBL: EPA, 1981, 110.1]
- Washington Department of Ecology. 1978. *Coastal Zone Atlas of Washington: Volume Two Skagit County*. Washington State Department of Ecology, DOE 77-21-2.
- Washington State Department of Ecology, Shorelands Division. 1984. *Padilla Bay National Estuarine Sanctuary Management Plan*. Olympia, WA. 52 pp. Washington State Department of Ecology.
- Washington Department of Game. 1972. *Estuaries: a resource worth saving*.
- Washington State Department of Health. 1992. *Department of Health, 1990 technical report, shellfish tasks for Puget Sound Ambient Monitoring Program*. Olympia, WA. 50 pp. Washington State Department of Health, Office of Shellfish Programs.
- Washington State Enforcement Project, Federal Water Pollution Control Administration. 1967. *Pollution effects of pulp and paper mill wastes in Puget Sound: a report on studies conducted by the Washington State Enforcement Project*. 486 pp. NTIS PB-216 545.

- Watson, J. A., J. P. Smith, L. C. Ehram, R. H. Parker, W. G. Blanton, D. E. Solomon and C. J. Blanton. 1971. *Biological assessment of diesel spill in the vicinity of Anacortes, Washington*. 84 pp. Final report by Texas Instruments Inc. to the U.S. Environmental Protection Agency.  
[PBL: EPA, 1971, 109.1]
- Webber, H. H. 1985. *Research prospectus - the Padilla Bay National Estuarine Sanctuary: 1985*. Bellingham, WA. 63 pp. Final report to U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Marine and Estuarine Management Division, Grant No. NA84AA-D-CZ025 by Western Washington University.  
[PBL: NOAA, 1985 Tech. Rpt., 109.1]
- Webber, H. H., T. F., Mumford and J. Eby. 1987. *Remote sensing inventory of the seagrass meadow of the Padilla Bay National Estuarine Research Reserve. Areal extent and estimation of biomass*. Bellingham, WA. 70 pp. Final report to Marine & Estuarine Management Division, NOAA grant no. NA86AA-D-CZ027 by Western Washington University, Huxley College of Environmental Studies. Padilla Bay National Estuarine Research Reserve Reprint Series No. 6.
- Westlake, D. W. S., F. D. Cook and A. M. Jobson. 1978. *Microbial degradation of petroleum hydrocarbons*. Seattle, WA. 65 pp. U.S. Environmental Protection Agency, Washington D.C. EPA-600/7-78-148.
- Westlake, D. W. S. and F. D. Cook. 1980. *Petroleum biodegradation potential of northern Puget Sound and Strait of Juan de Fuca*. Washington D.C. 133 pp. U.S. Environmental Protection Agency, EPA-600/7-80-133.
- Wiggins, J. and E. Binney. 1987. *A baseline study of the distribution of Spartina alterniflora in Padilla Bay*. 28 pp. Padilla Bay National Estuarine Research Reserve Reprint Series No. 7.
- Williams, S. L. September 1991. *Ammonium production in the sediments of the intertidal eelgrass bed in Padilla Bay National Estuarine Research Reserve*. San Diego, CA. 22 pp. Report to U.S. Department of Commerce, NOAA, Marine & Estuarine Management Division under contract NA88AA-D-CZ016.
- Wissmar, R. C. 1986. *Definition of the origins and fates of organic nitrogen in food webs of Padilla Bay National Estuarine Research Reserve*. Seattle, WA. 23 pp. Final report to Marine & Estuarine Management Division, NOAA grant no. NA85AA-D-CZ046 by University of Washington, Fisheries Research Institute. Padilla Bay National Estuarine Research Reserve Reprint Series No. 5.
- Zeh, J. E., J. P. Houghton and D. C. Lees. 1981. *Evaluation of existing marine intertidal and shallow subtidal biologic data*. Washington, D.C. 262 pp. U.S. Environmental Protection Agency, EPA 600/7-81-036.

## Student Reports and Theses

- Anonymous. 1983. *Southwest Padilla Bay tidelands environmental impact assessment*. Bellingham, WA. 95 pp. Student report. Western Washington University, Huxley College of Environmental Studies.  
[PBL: Student Rpt., 1983, Huxley, WWU.]
- Antrim, L. D. 1985. *Trace metals in the ecosystem of Padilla Bay, Washington*. Bellingham, WA. 78 pp. M.S. Thesis. Western Washington University.  
[PBL: M. Th., 1985, Antrim.]
- Barreca, J. L. 1982. *Subtidal benthic communities and densities of petroleum-degrading bacteria in Padilla Bay, Washington*. Bellingham, WA. 83 pp. M.S. Thesis. Western Washington University.  
[PBL: M. Th., 1982, Barreca.]
- Beale, Harriet. 1990. *Relative rise in sea-level during the late Holocene at six salt marshes in the Puget Basin, Washington*. Bellingham, WA. 157 pp. M.S. Thesis. Western Washington University.  
[PBL: M. Th., 1990, 102.1]
- Bernhard, A. E. 1993. *Nutrient limitation of phytoplankton in Padilla Bay*. Bellingham, WA. 73 pp. M.S. Thesis. Western Washington University. Washington State Department of Ecology (Publication No. 94-92), Padilla Bay National Estuarine Research Reserve Reprint Series No. 19.
- Brainard, M. A. 1996. *Seasonal phytoplankton grazing in North Puget Sound, Washington*. Bellingham, WA. 64 pp. M.S. Thesis. Western Washington University.
- Clark, J. A. 1981. *Comparisons of biomass, morphology, and reproduction in the eelgrass *Zostera japonica* in two substrate types at three elevations in Padilla Bay, Washington*. Bellingham, WA. 16 pp. Student Report. Western Washington University, Huxley College of Environmental Studies.
- Cooper, C. 1997. *Factors affecting the abundance of the introduced snail, *Batillaria zonalis*, at Padilla Bay, Washington*. Friday Harbor, WA. 6 pp. plus figures and table. Student report. University of Washington, Friday Harbor Laboratories.
- Culver, M., M. Dobie, L. Ferguson, A. Frank, K. Johnson and P. Iolavera. 1996. *The current status of Padilla Bay National Estuarine Research Reserve*. Seattle, WA. 24 pp. plus figures, tables, & appendices. Student project. University of Washington, Wetlands Ecology Group.
- Fresh, K. L. 1979. *Distribution and abundance of fishes occurring in the nearshore surface waters of northern Puget Sound, Washington*. Seattle, WA. 120 pp. M.S. Thesis. University of Washington.  
[PBL: M. Th., 1979, Fresh.]
- Gardiner, W. W. 1992. *Sea surface films: deposition and toxicity in intertidal habitats*. Bellingham, WA. 72 pp. M.S. Thesis. Western Washington University. Padilla Bay National Estuarine Research Reserve Reprint Series No. 16.

- Guintoli, P. 1983. *A census of small mammals in mixed coniferous-deciduous woods and open field habitats*. Bellingham, WA. 14 pp. Student report. Western Washington University, Huxley College of Environmental Studies.  
[PBL: Student Rpt., 1983, Guintoli.]
- Hatten, J. 1984. *A survey of the avian fauna at the Padilla Bay Estuarine Interpretive and Research Center*. Bellingham, WA. 29 pp. Student report. Western Washington University, Huxley College of Environmental Studies.  
[PBL: Student Rpt., 1984, Hatten.]
- Hourdequin, M. 1994. *Interaction between two species of seagrass in Padilla Bay: evidence for competition between *Zostera marina* and the exotic *Zostera japonica**. Friday Harbor, WA. 9 pp. Student report. University of Washington, Friday Harbor Laboratories.
- Johnson, S. 1993. *Possibilities of nitrogen limitation in Fidalgo, Samish and Padilla Bays during the summer months*. Bellingham, WA. 9 pp. plus figures. Student report. Western Washington University, Huxley College of Environmental Studies.
- Kahler, T. H. 1994. *A comparison of infaunal communities associated with *Zostera marina* or non-vegetated intertidal soft-sediments in Padilla Bay, Washington*. Seattle, WA. 11 pp. Student report. University of Washington, Department of Zoology.
- Keuler, R. F. 1979. *Coastal zone processes and geomorphology of Skagit County, Washington*. Bellingham, WA. 48 pp. M.S. Thesis. Western Washington University, Department of Geology.  
[PBL: M. Th., 1979, Keuler.]
- Lehto, J. A. 1997. *The use of protists and detritus as a diet for the first zoeal stage of the brachyuran crabs *Cancer Magister* and *Hemigrapsus Oregonensis**. Bellingham, WA. 81 pp. M.S. Thesis. Western Washington University, Huxley College of Environmental Studies. Washington State Department of Ecology Publication No. 97-109, Padilla Bay National Estuarine Research Reserve Reprint Series No. 27.
- Lepa, K. 1991. *Marine invertebrate communities associated with *Zostera marina* and *Zostera japonica* from Padilla Bay, Washington*. Student report. University of Idaho.
- Luce, T. R. 1986. *Total coliform and fecal coliform levels in Padilla Bay and surrounding water*. Bellingham, WA. 13 pp. Student report. Western Washington University.
- MacDonald, B. 1994. *Laboratory growth responses of Padilla Bay *Ulva expansa* to various nutrient regimes*. Bellingham, WA. 26 pp. Student report. Western Washington University.
- McMillan, Russell O. 1991. *Abundance, settlement, growth and habitat use by juvenile Dungeness crab, *Cancer magister*, in inland waters of northern Puget Sound, Washington*. Seattle, WA. 53 pp. M.S. Thesis. University of Washington. Padilla Bay National Estuarine Research Reserve Reprint Series No. 18.
- Morton, M. D. 1988. *Mapping seagrass meadows using Landsat-5 TM imagery and a microcomputer*. Bellingham, WA. 43 pp. M.S. Thesis. Western Washington University.

- Norman, D. M. 1991. *Organochlorine pesticides and polychlorinated biphenyl congeners in Great Blue Herons from the Puget Sound ecosystem*. Bellingham, WA. 248 pp. M.S. Thesis. Western Washington University.
- Palm, S. V. 1996. *Manila clam (*Venerupis philippinarum*) utilization or radiolabelled diets composed of phytoplankton or detrital particulates*. Bellingham, WA. 76 pp. M.S. Thesis. Western Washington University. Washington State Department of Ecology Publication No. 96-105, Padilla Bay National Estuarine Research Reserve Reprint Series No. 20.
- Pantalone, V. 1985. *Opportunistic feeding habits of the Pacific staghorn sculpin (*Leptocottus armatus*) in Padilla Bay, Washington..* Seattle, WA. 32 pp. Student report. University of Washington.  
[PBL: Student Rpt., 1985, Pantalone.]
- Riggs, S.R. 1983. *Zostera japonica and Zostera marina: comparison of biomass and faunal communities*. Bellingham, WA. 10 pp. Student report. Western Washington University, Huxley College of Environmental Studies.  
[PBL: Student Rpt., 1983, Riggs.]
- Riggs, S. R. 1995. *The effect of exposure to environmental normoxia and hypoxia on photosynthetic rate and chlorophyll concentration in intertidal Zostera marina leaves*. Bellingham, WA. 74 pp. M.S. Thesis. Western Washington University, Washington State Department of Ecology Publication No. SWR-95-77, Padilla Bay National Estuarine Research Reserve Reprint Series No. 22.
- Ruckelshaus, M. H. 1988. *The effects of habitat characteristics on mussel growth in Padilla Bay, Washington*. Seattle, WA. 53 pp. M.S. Thesis. University of Washington. Padilla Bay National Estuarine Research Reserve Reprint Series No. 8.
- Rutherford, N. R. 1997. *Nitrogen exchange between the sediments and water column in vegetated and non-vegetated sites in Padilla Bay, Washington*. Bellingham, WA. 40 pp. M.S. Thesis. Western Washington University. Washington State Department of Ecology Publication No. 97-110, Padilla Bay National Estuarine Research Reserve Reprint Series No. 26.
- Scott, D. B. 1973. *Recent benthonic foraminifera from Samish and Padilla Bays, Washington*. Bellingham, WA. 63 pp. M.S. Thesis. Western Washington University.  
[PBL: M. Th., 1973, Scott.]
- Shaw, M. C. 1995. *Diel predator-prey interactions between shiner perch and Caprella californica, relative to caprellid distribution upon Zostera marina*. Bellingham, WA. 60 pp. M.S. Thesis. Western Washington University. Washington State Department of Ecology Publication No. SWR 95-75, Padilla Bay National Estuarine Research Reserve Reprint Series No. 23.
- Shaw, T. C. 1994. *Temporal, diel, and vertical distribution variation of epiphyte grazers in a temperate eelgrass (Zostera marina L.) system*. Bellingham, WA. 61 pp. M.S. Thesis. Western Washington University. Washington State Department of Ecology Publication No. 94-157, Padilla Bay National Estuarine Research Reserve Reprint No. 21.

- Siegfried, R. T. 1978. *Stratigraphy and chronology of raised marine terraces, Bay View Ridge, Skagit County, Washington*. Bellingham, WA. 52 pp. M.S. Thesis. Western Washington University.  
[PBL: M. Th., 1978, Siegfried.]
- Thompson, K. M. 1995. *Bacterial production and consumption in microlayer and subsurface waters of Padilla Bay, Washington*. Bellingham, WA. 82 pp. M.S. Thesis. Western Washington University. Washington State Department of Ecology Publication No. SWR 95-76, Padilla Bay National Estuarine Research Reserve Reprint Series No. 20.
- Wiggins, J. R. 1992. *The effect of landfill leachate from Padilla Bay on the abundance of epibenthic harpacticoid copepods and sediment toxicity measured with the amphipod bioassay (*Rhepoxinius abronius*)*. Bellingham, WA. 58 pp. M. S. Thesis. Western Washington University. Padilla Bay National Estuarine Research Reserve Reprint Series No. 17.
- Wissmar, R. C. 1984. *Physical, chemical and biological characteristics of a shallow water homogeneous estuary*. Bellingham, WA. 26 pp. Student report.  
[PBL: Student. Rpt., 1984, Wissmar.]

## Data Compilations, Unpublished Reports and Letters

- Booth, B. 1995. Data report to Douglas Bulthuis, from Bob Booth, State of Washington, Department of Ecology. 2 pp. [Includes fecal coliform data from Joe Leary Slough]
- Bulthuis, D. A. and J. S. Shellenberger. 1995. *Short-term variability of salinity, temperature, and dissolved oxygen in a coastal stream with outflow controlled by tidal gates, June and July, 1995*. Mount Vernon, WA. Washington State Department of Ecology, Padilla Bay National Estuarine Research Reserve. [Unpublished report]
- Bulthuis, D. A. and T. C. Stevens. 1991. *Padilla Bay National Estuarine Research Reserve Research and Monitoring Plan*. 22 pp. Padilla Bay National Estuarine Research Reserve, Mount Vernon, WA. [Unpublished report]
- Butler, P. A. 1968. *Pesticide DDE, DDD, DDT analysis, monthly at Padilla Bay, Dec. 1965 - Dec. 1968*. Gulf Breeze, Florida. [Report to Washington State Shellfish Laboratories by the Bureau of Commercial Fisheries Biological Laboratory]  
[PBL: HIST., 1968, 110.1]
- Clark, J. A. 1981. *Comparisons of biomass, morphology, and reproduction in the eelgrass Zostera japonica in two substrate types at three elevations in Padilla Bay, Washington*. Bellingham, WA. 16 pp. Huxley College of Environmental Studies, Western Washington University. [Unpublished student problem series report]
- Cleland, B. 1991. Letter to Terry Stevens, Director, Padilla Bay National Estuarine Research Reserve, from B. Cleland, State of Washington Department of Health. 12 pp. [Includes fecal coliform data from Padilla Bay]
- Cordell, J. R. 1986. *Swinomish boat basin site epibenthic zooplankton, 1 March 1986*. 43 pp. [Unpublished report to URS, Inc., by Fisheries Research Institute, University of Washington]  
[PBL: U.W., 1986, Cordell, 103.1]
- Cox, J. M. 1993. Letter to Sharon Christopherson, NOAA/HAZMAT, from J. Cox, Evans-Hamilton, Inc. 9 pp. [Includes drift card beaching areas in the Straits of Georgia and Juan de Fuca]
- Fitzpatrick, K. C. 1989. Letter to John Thayer, Skagit County Department of Health. 4 pp. [Includes concentrations of metals from a single grab sample of leachate at March Point landfill]
- Huckestein, L. A. 1993. Letter to Britt Pfaff, Skagit County Health Department, from L. Huckestein, Columbia Analytical Services. 9 pp. [Includes results of volatile organic compounds, organic halides, dissolved metals, and nutrients from analyses of water from Joe Leary Slough near the Inman landfill]
- Huckestein, L. A. 1994. Letter to Britt Pfaff, Skagit County Health Department, from L. Huckestein, Columbia Analytical Services. 9 pp. [Includes results of volatile organic compounds, nutrients and bacteria from analysis of water and sediments in Joe Leary Slough near the Inman landfill]

- Huckestein, L. A. 1995. Letter to Britt Pfaff, Skagit County Health Department, from L. Huckestein, Columbia Analytical Services. 9 pp. [Includes results of volatile organic compounds, iron and magnesium from analyses of water from Joe Leary Slough near the Inman landfill]
- Huckestein, L. A. 1996. Letter to Britt Pfaff, Skagit County Health Department, from L. Huckestein, Columbia Analytical Services. 9 pp. [Includes results of volatile organic compounds, iron and manganese, from analyses of water from Joe Leary Slough near the Inman landfill; and field samples by Pfaff for bacteria, temperature, conductivity, and pH]
- Johnson, A. 1989. *Analysis of Padilla Bay intertidal sediments for cresylic acid*. Washington State Department of Ecology, Environmental Investigations and Laboratory Services. [Unpublished memorandum]  
[PBL: WDOE, 1989, 101.1]
- Lisser, B. G. 1993. Letter to Terry Stevens, Padilla Bay National Estuarine Research Reserve, from Bruce Lisser, Semrau and Lisser. 7 pp. [Contains vertical and horizontal survey data on Bench Marks on Dike Island and in the southeastern shoreline of Padilla Bay]
- McLanahan, E. C., A. T. Scholz, K. O'Laughlin and P. Cassidy. 1984. *Radiotelemetry investigations of harbor seal (*Phoca vitulina*) summer haulout activity at the Padilla Bay National Estuarine Sanctuary*. 19 pp. Eastern Washington University, Department of Biology, Cheney, WA. [Unpublished report]
- McLanahan, E. C., A. T. Scholz, K. O'Laughlin and P. Cassidy. 1984. *Status of the harbor seal (*Phoca vitulina*) population in northern Puget Sound and San Juan Islands: 1983-1984*. 11 pp. Eastern Washington University, Department of Biology, Cheney, WA. [Unpublished report]
- Milat, C. and K. B. Pfaff. 1990. Letter to Terry Stevens, Director, Padilla Bay National Estuarine Research Reserve. 4 pp. [Includes results of organic halogens from analysis of water and sediments in Joe Leary Slough near the Inman landfill]
- Milham, S. 1986. *Site inspection report Skagit County - March Point Landfill, Anacortes, Washington*. 7 pp. plus appendices. Olympia, WA. Washington State Department of Ecology, Preliminary assessment/site inspection section, Hazardous Waste Cleanup Program, WAD980638944. [Unpublished report]
- Muller-Parker, G. 1991. *Water parameters, Swinomish Channel, March 1-2, 1991*. Shannon Point Marine Laboratories, Anacortes, Washington. [Data report from class exercise]
- Noone-Fisher, C. 1991. Letter to Britt Pfaff, Skagit County Health Department. 9 pp. [Includes results of volatile organic compounds, nutrients and bacteria from analysis of water and sediments in Joe Leary Slough near the Inman landfill]
- Nyblade, C. F. 1986. *Swinomish tribal marina E.I.S. benthic macro-invertebrate resources*. [Unpublished report]  
[PBL: Marina, 1986, 103.1]

- Onat, A. R. B. 1986. *Cultural resources survey of the Swinomish channel marina*. 45 pp. BOAS Inc. [Unpublished report]  
[PBL: Marina, 1986, 113.1]
- Pacific Ocean Farms, Inc. *Report on a survey of the commercial shellfish population and sediment types of Padilla Bay Skagit County, Washington*. Orion Corporation, Seattle Washington. [Undated, unpagued]  
[PBL: HIST., undated, 113.2]
- Park, R. A., Jae K. Lee and Douglas J. Canning. 1992. *Potential effects of sea level rise on Washington State wetlands*. 14 pp. plus 40 figures. Bloomington, Indiana. Indiana University, School of Public and Environmental Affairs and Washington State Department of Ecology. [Unpublished report]
- Parker, R. C. and B. Aberle. 1979. *A situation report on the Spartina infestation in northwest Washington*. 9 pp. [Unpublished report by Washington State Department of Game]
- Pfaff, B. 1994. Letter to Doug Bulthuis, Padilla Bay National Estuarine Research Reserve, from Britt Pfaff, Skagit County Department of Health. 17 pp. [Includes results of volatile organic compounds, nutrients and bacteria from analyses of water and sediments in Joe Leary Slough near Inmann Landfill]
- Prescott, S. 1978. Letter to John Glynn, Washington State Department of Ecology, from Shirley Prescott, Washington State Department of Ecology. 11 pp. [Includes field data and fecal coliform data in Swinomish Channel]
- Riggs, S.R. 1998. *Species list for Padilla Bay National Estuarine Research Reserve*. [An unpublished list of plant and animal species reported for Padilla Bay, maintained and updated at Padilla Bay National Estuarine Research Reserve by Sharon Riggs]
- Sayce, K. 1993. Letter to Sharon Riggs, Padilla Bay National Estuarine Research Reserve, from Kathleen Sayce. 1 pp. [Spartina alterniflora identified]
- Scholz, A. T. and E. C. McLanahan. 1984. *Radio-biotelemetry investigations of harbor seals (Phoca vitulina) conducted at Padilla Bay National Estuarine Sanctuary*. 8 pp. [Unpublished report]
- Shannon Point Marine Lab. 1991. *Physical oceanographic study of Guemes Channel, Skagit County Washington*. Anacortes, WA. 30 pp. Shannon Point Marine Lab, Spring 1991 Physical Oceanography. [Unpublished class report]
- Summers, W., D. Dobyns, G. Haferkorn, M. Hively, B. Jernberg and T. Powell. 1985. *The physical oceanography of Guemes Channel and its approaches*. Anacortes, WA. 40 pp. Shannon Point Marine Center, Summer 1985 Oceanography Course. [Unpublished class report]
- URS Consultants. 1986. *North Swinomish Channel marina: fisheries investigations conducted between 13 April 1983 - 15 June 1983*. Seattle, WA. 22 pp. [Unpublished report by URS Consultants]  
[PBL: Marina, 1986, 113.2]

- Wahl, T. R. 1986. *Swinomish marina proposal: Impacts on birds*. 11 pp. [Unpublished report]  
[PBL: Marina, undated,Wahl, 113.1]
- Walker, T. 1993. Letter to Doug Bulthuis, Padilla Bay National Estuarine Research Reserve, from Terry Walker, State of Washington, Department of Health. 6 pp. [Includes fecal coliform data in Padilla Bay]
- Williams, S. L. 1989. *The effect of sediment and water column nitrogen enrichments on eelgrass versus epiphyte growth and the effects of epifauna in Padilla Bay, Washington*. [Unpublished-Draft final report to MEMD/NOAA]
- Woolrich, B. 1992. Letter to Dr. Doug Bulthuis, Padilla Bay National Estuarine Research Reserve, from Bob Woolrich, State of Washington, Department of Health. 11 pp. [Includes data on concentrations of metals and hydrocarbons in native littleneck clam tissue from March Point]

## Padilla Bay National Estuarine Research Reserve Technical Report Series

- No. 1: Bulthuis, D. A. 1989. *Bibliography of reports on Padilla Bay, Washington*. Mount Vernon, WA. 9 pp. Washington State Department of Ecology, Padilla Bay National Estuarine Research Reserve Technical Report No. 1.
- No. 2: Bulthuis, D. A. 1991. *Distribution of habitats and summer standing crop of seagrasses and macroalgae in Padilla Bay, Washington, 1989*. Mount Vernon, WA. 35 pp. Washington State Department of Ecology, Padilla Bay National Estuarine Research Reserve Technical Report No. 2.
- No. 3: Riggs, S.R. 1992. *Distribution of Spartina alterniflora in Padilla Bay, Washington, in 1991*. Mount Vernon, WA. 63 pp. Washington State Department of Ecology, Padilla Bay National Estuarine Research Reserve Technical Report No. 3.
- No. 4: Bulthuis, D. A. and T. Shaw. 1992. *Acute toxicity of intertidal sediments from Padilla Bay, Washington, to the amphipod, Rhepoxynius abronius*. Mount Vernon, WA. 37 pp. Washington State Department of Ecology, Padilla Bay National Estuarine Research Reserve Technical Report No. 4.
- No. 5: Bulthuis, D. A. 1996. *Suspended sediments in Joe Leary Slough, a north Puget Sound coastal stream draining an agricultural watershed*. Mount Vernon, WA. 46 pp. Washington State Department of Ecology, Padilla Bay National Estuarine Research Reserve Technical Report No. 5.
- No. 6: Bulthuis, D. A. 1993. *Padilla Bay Bibliography, 1993*. Mount Vernon, WA. 22 pp. Washington State Department of Ecology, Padilla Bay National Estuarine Research Reserve Technical Report No. 6.
- No. 7: Bulthuis, D. A. and B. A. Scott. 1993. *Effects of application of glyphosate on cordgrass, Spartina alterniflora, and adjacent native salt marsh vegetation in Padilla Bay, Washington*. Mount Vernon, WA. 29 pp. Washington State Department of Ecology, Padilla Bay National Estuarine Research Reserve Technical Report No. 7.
- No. 8: Bulthuis, D. A. and T. Shaw. 1993. *Effects of application of glyphosate on the eelgrasses Zostera marina and Zostera japonica in Padilla Bay, Washington*. Mount Vernon, WA. 45 pp. Washington State Department of Ecology Publication No. 94-47, Padilla Bay National Estuarine Research Reserve Technical Report No. 8.
- No. 9: Bulthuis, D. A. and M. J. Hartman. 1994. *Effects of application of glyphosate during summer on epiphytes of the eelgrasses Zostera marina and Zostera japonica in Padilla Bay, Washington*. Mount Vernon, WA. 40 pp. Washington Department of Ecology Publication No. 94-170, Padilla Bay National Estuarine Research Reserve Technical Report No. 9.
- No. 10: Bulthuis, D. A. 1993. *Review of water quality data in the Padilla Bay/Bay View watershed*. Mount Vernon, WA. 72 pp. Washington State Department of Ecology, Padilla Bay National Estuarine Research Reserve Technical Report No. 10.

- No. 11: Riggs, S. R. and D. A. Bulthuis. 1994. *Estimated net aerial primary productivity and monitoring of selected characteristics of Spartina alterniflora in Padilla Bay, Washington, April 1992 - May 1993*. Mount Vernon, WA. 45 pp. Washington State Department of Ecology Publication No. 94-176, Padilla Bay National Estuarine Research Reserve Technical Report No. 11.
- No. 12: Merrill, G. G. 1995. *The effect of Zostera japonica on the growth of Zostera marina in their shared transitional boundary*. Mount Vernon, WA. 16 pp. Washington State Department of Ecology Publication No. 95-68, Padilla Bay National Estuarine Research Reserve Technical Report No. 12.
- No. 13: Riggs, S. R. and D. A. Bulthuis. 1995. *Effectiveness of a wiper application of glyphosate on Spartina alterniflora in Padilla Bay, Washington*. Mount Vernon, WA. 20 pp. Washington State Department of Ecology, Padilla Bay National Estuarine Research Reserve Technical Report No. 13.
- No. 14: Bulthuis, D. A. and A. M. Conrad. 1995. *Swinomish Channel and Padilla Bay: surface currents during flood tide and water quality*. Mount Vernon, WA. 99 pp. Washington State Department of Ecology, Padilla Bay National Estuarine Research Reserve Technical Report No. 14.
- No. 15: Bulthuis, D. A. and A. M. Conrad. 1996. *Guemes Channel and Padilla Bay: surface currents during flood tide*. Mount Vernon, WA. 133 pp. Washington State Department of Ecology, Padilla Bay National Estuarine Research Reserve Technical Report No. 15.
- No. 16: Bulthuis, D. A. and W. C. Anderson. 1996. *Survey for pesticides on the Padilla Bay National Estuarine Research Reserve Demonstration Farm, 1993*. Mount Vernon, WA. 15 pp. Washington State Department of Ecology Publication No. 96-121, Padilla Bay National Estuarine Research Reserve Technical Report No. 16.
- No. 18: Bulthuis, D. A. 1997. *Padilla Demonstration Farm: soil salinity and soil nutrients in December, 1996*. Mount Vernon, WA. 16 pp. Washington State Department of Ecology Publication No. 97-111, Padilla Bay National Estuarine Research Reserve Technical Report No. 18.

## Padilla Bay National Estuarine Research Reserve Reprint Series

- No. 1: Jeffrey, R. 1976. *A preliminary inventory of the biota of Padilla Bay*. Bellingham, WA. 38 pp. Washington State Departments of Game & Fisheries and Western Washington State College, Huxley College of Environmental Sciences and Department of Biology. Padilla Bay National Estuarine Research Reserve Reprint Series No. 1.
- No. 2: Cassidy, P. M. and G. L. McKeen. 1986. *Padilla Bay baseline water quality record*. Anacortes, WA. 472 pp. Report to NOAA/OCRM/MEMD by Western Washington University, Shannon Point Marine Center. Padilla Bay National Estuarine Research Reserve Reprint Series No. 2.
- No. 3: Dinnel, P. A., R. O. McMillan, D. A. Armstrong, T. C. Wainwright, A. J. Whiley, R. Burge and R. Bumgarner. 1986. *Padilla Bay Dungeness crab, Cancer magister, habitat study*. Seattle, WA. 78 pp. Report to NOAA/OCRM/MEMD by University of Washington, Fisheries Research Institute. Padilla Bay National Estuarine Research Reserve Reprint Series No. 3.
- No. 4: Granger, T. and M. Burg. 1986. *Plant communities of a salt marsh in Padilla Bay, Washington*. Olympia, WA. 14 pp. Washington State Department of Ecology, Shorelands & Coastal Zone Management Program, Wetlands Section. Padilla Bay National Estuarine Research Reserve Reprint Series No. 4.
- No. 5: Wissmar, R. C. 1986. *Definition of the origins and fates of organic nitrogen in food webs of Padilla Bay National Estuarine Research Reserve*. Seattle, WA. 22 pp. Report to NOAA/OCRM/MEMD by University of Washington, Fisheries Research Institute. Padilla Bay National Estuarine Research Reserve Reprint Series No. 5.
- No. 6: Webber, H. H., T. F., Mumford and J. Eby. 1987. *Remote sensing inventory of the seagrass meadow of the Padilla Bay National Estuarine Research Reserve. Areal extent and estimation of biomass*. Bellingham, WA. 70 pp. Report to NOAA/OCRM/MEMD by Western Washington University, Huxley College of Environmental Studies. Padilla Bay National Estuarine Research Reserve Reprint Series No. 6.
- No. 7: Wiggins, J. and E. Binney. 1987. *A baseline study of the distribution of Spartina alterniflora in Padilla Bay*. Mount Vernon, WA. 28 pp. Report to Washington State Department of Ecology, Padilla Bay National Estuarine Research Reserve Reprint Series No. 7.
- No. 8: Ruckelshaus. 1988. *Effects of habitat characteristics on mussel growth in Padilla Bay, Washington*. Seattle, WA. 53 pp. M.S. Thesis. University of Washington. Padilla Bay National Estuarine Research Reserve Reprint Series No. 8.
- No. 9: Simenstad, C. A., J. R. Cordell, R. C. Wissmar, K. L. Fresh, S. L. Schroder, M. Carr, G. Sanborn and M. Burg. 1988. *Assemblage structure, microhabitat distribution and food web linkages of epibenthic crustaceans in Padilla Bay National Estuarine Research Reserve, Washington*. Seattle, WA. 60 pp. Report to NOAA/OCRM/MEMD by University of Washington, Fisheries Research Institute FRI-UW-8813. Padilla Bay National Estuarine Research Reserve Reprint Series No. 9.

- No. 10: Thom, R. M. 1988. *Benthic primary production in the eelgrass meadow at the Padilla Bay National Estuarine Research Reserve, Washington*. Seattle, WA. 33 pp. Report to NOAA/OCRM/MEMD by University of Washington, Fisheries Research Institute FRI-UW-8808. Padilla Bay National Estuarine Research Reserve Reprint Series No. 10.
- No. 11: Mayer, J. R. 1989. *Potential impact of agricultural pesticide runoff on *Zostera marina* and *Zostera japonica* (eelgrass communities) in Padilla Bay, Washington*. Bellingham, WA. 42 pp. Western Washington University, Huxley College of Environmental Studies. Padilla Bay National Estuarine Research Reserve Reprint No. 11.
- No. 12: Entranco Engineers and R. Nelson. 1989. *Padilla Bay hydrologic study*. Kirkland, WA. 29 pp. plus appendices. Report to Western Washington University by Entranco Engineers, Inc. Padilla Bay National Estuarine Research Reserve Reprint Series No. 12.
- No. 13: Thom, R. M. 1989. *Plant standing stock and productivity on tidal flats in Padilla Bay, Washington: a temperate north Pacific estuarine embayment*. Seattle, WA. 37 pp. Report to NOAA/OCRM/MEMD by University of Washington, Fisheries Research Institute FRI-UW-8909. Padilla Bay National Estuarine Research Reserve Reprint Series No. 13.
- No. 14: Dinnel, P. A., J. A. Armstrong, R. R. Lauth, K. Larsen, D. A. Armstrong and S. Sulkin. 1990. *Fish predation on Dungeness Crab in Padilla Bay, Washington*. Seattle, WA. 69 pp. Report to NOAA/OCRM/MEMD by University of Washington, Fisheries Research Institute FRI-UW-9001. Padilla Bay National Estuarine Research Reserve Reprint Series No. 14.
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- No. 18: McMillan, Russell O. 1991. *Abundance, settlement, growth and habitat use by juvenile Dungeness crab, *Cancer magister*, in inland waters of northern Puget Sound, Washington*. Seattle, WA. 53 pp. M.S. Thesis. University of Washington. Padilla Bay National Estuarine Research Reserve Reprint Series No. 18.

- No. 19: Bernhard, A. E. 1993. *Nutrient limitation of phytoplankton in Padilla Bay*. Bellingham, WA. 73 pp. M.S. Thesis. Western Washington University. Washington State Department of Ecology Publication No. 94-92, Padilla Bay National Estuarine Research Reserve Reprint Series No. 19.
- No. 20: Pawlak, B. T. 1994. *Analysis of the policies and management practices of Washington State agencies as they pertain to the seagrasses, Zostera marina and Zostera japonica*. Seattle, WA. 20 pp. University of Washington, School of Marine Affairs. Washington State Department of Ecology Publication No. 94-121, Padilla Bay National Estuarine Research Reserve Reprint Series No. 20.
- No. 21: Shaw, T. C. 1994. *Temporal, diel, and vertical distribution variation of epiphyte grazers in a temperate eelgrass (Zostera marina L.) system*. Bellingham, WA. 61 pp. M.S. Thesis. Western Washington University. Washington State Department of Ecology Publication No. 94-157, Padilla Bay National Estuarine Research Reserve Reprint No. 21.
- No. 22: Riggs, S. R. 1995. *The effect of exposure to environmental normoxia and hypoxia on photosynthetic rate and chlorophyll concentration in intertidal Zostera marina leaves*. Bellingham, WA. 74 pp. M.S. Thesis. Western Washington University. Washington State Department of Ecology Publication No. SWR-95-77, Padilla Bay National Estuarine Research Reserve Reprint Series No. 22.
- No. 23: Shaw, M. C. 1995. *Diel predator-prey interactions between shiner perch and Caprella californica, relative to caprellid distribution upon Zostera marina*. Bellingham, WA. 60 pp. M.S. Thesis. Western Washington University. Washington State Department of Ecology Publication No. SWR 95-75, Padilla Bay National Estuarine Research Reserve Reprint Series No. 23.
- No. 24: Thompson, K. M. 1995. *Bacterial production and consumption in microlayer and subsurface waters of Padilla Bay, Washington*. Bellingham, WA. 82 pp. M.S. Thesis. Western Washington University. Washington State Department of Ecology Publication No. SWR 95-76, Padilla Bay National Estuarine Research Reserve Reprint Series No. 20.
- No. 25: Palm, S. V. 1996. *Manila clam (Venerupis philippinarum) utilization or radiolabelled diets composed of phytoplankton or detrital particulates*. Bellingham, WA. 76 pp. M.S. Thesis. Western Washington University. Washington State Department of Ecology Publication No. 96-105, Padilla Bay National Estuarine Research Reserve Reprint Series No. 20.
- No. 26: Rutherford, N. R. 1997. *Nitrogen exchange between the sediments and water column in vegetated and non-vegetated sites in Padilla Bay, Washington*. Bellingham, WA. 40 pp. M.S. Thesis. Western Washington University. Washington State Department of Ecology Publication No. 97-110, Padilla Bay National Estuarine Research Reserve Reprint Series No. 26.
- No. 27: Lehto, J. A. 1997. *The use of protists and detritus as a diet for the first zoeal stage of the brachyuran crabs Cancer Magister and Hemigrapsus Oregonensis*. Bellingham, WA. 81 pp. M.S. Thesis. Western Washington University, Huxley College of Environmental Studies. Washington State Department of Ecology Publication No. 97-109, Padilla Bay National Estuarine Research Reserve Reprint Series No. 27.

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