



NATIONAL BIOMONITORING SPECIMEN BANK

Reports & Publications

(May 2004)

1975

1. Becker, D.A., E.J. Maienthal. 1975. Evaluation and Research of Methodology for the National Environmental Specimen Bank. **EPA/NBS/IGA-D5-0568**.

1976

2. Becker, D.A. 1976. Environmental Sample Banking -Research and Methodology In: *Trace Substances in Environmental Health-X*. D.D. Hemphill, Ed.; University of Missouri-Columbia, 353-359.
3. Maienthal, E.J., & D.A. Becker. 1976. A Survey of Current Literature on Sampling, Sample Handling, and Long-Term Storage for Environmental Materials. **NBS Tech. Note 929**, U.S. Government Printing Office: Washington, DC, 34 pp.

1977

4. Becker, D.A., & E.J. Maienthal. 1977. Evaluation of the National Environmental Specimen Bank Survey; U.S. **EPA-600/1-77-015**, U.S. Environmental Protection Agency. 269 pp.
5. Gills, T.E., & L.T. McClendon. 1977. Role of Neutron Activation Analysis in the Evaluation of Sampling, Storage, and Analysis of Samples for the National Environmental Banking System. *J. Radioanal. Chem.* 39: 285-291.
6. Maienthal, E.J., & D.A. Becker. 1977. A Survey of Current Literature on Sampling, Sample Handling, and Long-Term Storage for Environmental Materials. *Interface* 5(4): 49-62.
7. Rook, H.L., & G.M. Goldstein. 1977. Recommendations of the EPA/NBS Workshop on the National Environmental Specimen Bank; U.S. **EPA-600/1-77-020**. 55 pp.

1978

8. Gills, T.E., H.L. Rook, & P.D. LaFleur. 1978. Evaluation and Research of Methodology for the National Environmental Specimen Bank. **EPA-600/1-78-015**, U.S. Environmental Protection Agency. 66 pp.
9. Goldstein, G.M. 1978. Plan for a National Environmental Specimen Bank; U.S. **EPA 600/1-78-022**; U.S. Environmental Protection Agency. 27 pp.
10. Rook, H.L., & G.M. Goldstein. 1978. The National Environmental Specimen Bank. **NBS Special Publication 501**, U.S. Government Printing Office: Washington, DC. 59 pp.

1979

11. Durst, R.A. 1979. Container Materials for the Preservation of Trace Substances. In: *Monitoring Environmental Materials and Specimen Banking*. N.-P. Luepke, ed., Martinus Nijhoff Publishers: The Hague/Boston/London. 198-202.
12. Gills, T.E., & H.L. Rook. 1979. Specimen Bank Research at the National Bureau of Standards to Insure Proper Scientific Protocols for Sampling, Storage, and Analysis of Environmental Materials. In: *Monitoring Environmental Materials and Specimen Banking*. N.-P. Luepke, ed., Martinus Nijhoff Publishers: The Hague/Boston/London. 263-270.
13. Gills, T.E., H.L. Rook, & R.A. Durst. 1979. The National Environmental Specimen Bank Research Program

for Sampling, Storage, and Analysis. **EPA-600/1-79-017**; U.S. Environmental Protection Agency. 59 pp.

14. Goldstein, G.M. 1979. The National Environmental Specimen Bank; Its Concepts, History, and Objectives. In: *The Use of Biological Specimens for the Assessment of Human Exposure to Environmental Pollutants*. A. Berlin, A.H. Wolff, Y. Hasegawa, eds., Martinus Nijhoff Publishers: The Hague/Boston/London. 165-176.
15. Rook, H.L., & P.D. LaFleur. 1979. Establishing and Operating a Specimen Bank for Environmental Monitoring. In: *The Use of Biological Specimens for the Assessment of Human Exposure to Environmental Pollutants*. A. Berlin, A.H. Wolff, Y. Hasegawa, eds., Martinus Nijhoff Publishers: The Hague/Boston/London. 309-312.

1980

16. Harrison, S.H., T.E. Gills, E.J. Maienthal, H.L. Rook, S.A.Wise, & R. Zeisler. 1980. The National Environmental Specimen Bank Pilot Program. In: *Trace Substances in Environmental Health-XIV*. D.D. Hemphill, ed., University of Missouri-Columbia. 329-340.

1981

17. Harrison, S.H., R. Zeisler, & S.A.Wise. 1981. Pilot Program for the National Environmental Specimen Bank -Phase I. **EPA/600/1-81-025**, U.S. Environmental Protection Agency. 54 pp.
18. Harrison, S.H., R. Zeisler, & S.A.Wise. 1981. Pilot Program for the National Environmental Specimen Bank -Phase I. **EPA/600/1-81-025**, Project Summary, U.S. Environmental Protection Agency. 6 pp.
19. Zeisler, R., & R.R. Greenberg. 1981. Ultratrace Determination of Platinum in Biological Materials via Neutron Activation and Radiochemical Separation. *J. Radioanal. Chem.* 75: 27-37.

1982

20. Harrison, S.H., & R. Zeisler. 1982. Distribution of Pollutants and Essential Elements in Human Livers. *Trans. Am. Nuc. Soc.* 41: 209-210.
21. Zeisler, R., & R.R. Greenberg. 1982. Procedure for the Determination of the Platinum Baseline in Biological Materials. *Trans. Am. Nuc. Soc.* 41: 210-211.

1983

22. Zeisler, R., S.H. Harrison, S.A. Wise. 1983. The Pilot National Environmental Specimen Bank - Analysis of Human Liver Specimens. USDOC, **National Bureau of Standards Spec. Pub. 656**. Gaithersburg, Maryland.
23. Zeisler, R., J.K. Langland, & S.H. Harrison. 1983. Cryogenic Homogenization of Biological Tissues. *Anal. Chem.* 55: 2431-2434.

1984

24. Stone, S.F., & R. Zeisler. 1984. Evaluation of Biological Samples for Specimen Banking and Biomonitoring by Nuclear Methods. In: *Proc. 5th International Conference on Nuclear Methods in Environmental and Energy Research*. J.R. Vogt, eds., U.S. Department of Energy Washington, DC. 801-812.
25. Wise, S.A., & R. Zeisler. 1984. The pilot environmental specimen bank program. *Environ. Sci. Technol.* 18: 302A- 307A.
26. Wise, S.A., K.A. Fitzpatrick, S.H. Harrison, & R. Zeisler. 1984. Operation of the U.S. Pilot National Environmental Specimen Bank Program. In: *Environmental Specimen Banking and Monitoring as Related to Banking*. R.A. Lewis, N. Stein, C.W. Lewis, eds., Martinus Nijhoff Publishers: Boston, MA. 108-129.
27. Zeisler, R., S.H. Harrison, & S.A. Wise. 1984. Analysis of Human Liver Specimens in the U.S. Pilot

National Environmental Specimen Bank Program. In: *Environmental Specimen Banking and Monitoring as Related to Banking*. R.A. Lewis, N. Stein, C.W. Lewis, eds., Martinus Nijhoff Publishers: Boston, MA. 331-351.

1985

28. Wise, S.A., & R. Zeisler, Editors. 1985. International Review of Environmental Specimen Banking. **National Bureau of Standards Spec. Pub. 706**. U.S. Government Printing Office, Washington, D.C. Gaithersburg, Maryland. 54 pp.
29. Wise, S.A., & R. Zeisler. 1985. The U.S. Pilot Environmental Specimen Bank Program. In: International Review of Environmental Specimen Banking. **National Bureau of Standards Spec. Pub. 706**. Wise, S.A., & R. Zeisler, eds., Gaithersburg, Maryland. 34-45.
30. Zeisler, R., S.F. Stone, K.A. Fitzpatrick, S.A. Wise. 1985. The Eighth U.S.-German Seminar of State and Planning on Environmental Specimen Banking and the International Review of Environmental Specimen Banking. In: International Review of Environmental Specimen Banking. **National Bureau of Standards Spec. Pub. 706**. Wise, S.A., & R. Zeisler, eds., Gaithersburg, Maryland. 1-3.
31. Zeisler, R., & S.A. Wise. 1985. Quality Assurance and Protocols in Sample Preparation of Biological Samples. In: *Biological Reference Materials: Availability, Uses, and Need for Validation of Nutrient Measurements*. W.R. Wolf, ed., John Wiley & Sons, Inc.: New York, NY. 257-279.

1986

32. Garry, V.F., B.L. Pohlman, M.R. Wick, J.S. Garvey, R. Zeisler. 1986. Chronic Cadmium Intoxication: Tissue Response in an Occupationally Exposed Patient. *Am. J. Indust. Med.* 10: 153-161.
33. Iyengar, G. V., J.T. Tanner, W.R. Wolf, & R. Zeisler. 1986. Preparation and Characterization of Mixed Diet Composite USDIET-I: Determination of Energy, Phytic Acid and Elemental Concentrations. IAEA Coordinated Research Program on Human Daily Dietary Intakes of Nutritionally Important Trace Elements as Measured by Nuclear and Other Techniques, Report on the Second Research Co-Ordination Meeting, Vienna, Austria, April 15-18, 1986.
34. Lauenstein, G. G., M.M. Schantz, S.A. Wise, & R. Zeisler. 1986. Specimen Banking in the National Status and Trends Program: Development of Protocols and First Year Results. Oceans '86 Conference Record, IEEE, New York, NY. 586-589.
35. Zeisler, R. 1986. The Sampling and Analysis of Human Livers. *J. Res. Nat. Bur. Stds.* 91: 75-85.
36. Zeisler, R., & S.F. Stone. 1986. Analysis of Marine Bivalves and Sediments. *Trans. Am. Nucl. Soc.* 53: 201pp.

1987

37. Iyengar, G. V., J.T. Tanner, W.R. Wolf, & R. Zeisler. 1987. USDA-FDA-NBS project in the coordinated research program on human daily intake of minor and trace elements. *Proc. Third Conference for Federally Supported Human Nutrition Research Units*, Feb. 24-25, 1987, Bethesda, MD.
38. Iyengar, G. V., J.T. Tanner, W.R. Wolf, & R. Zeisler. 1987. Preparation of a Mixed Human Diet Material for the Determination of Nutrient Elements, Selected Toxic Elements and Organic Nutrients: A Preliminary Report. *Sci. Total Environ.* 61: 235-252.
39. Lauenstein, G.G., S.A. Wise, R. Zeisler, B.J. Koster, M.M. Schantz, S.L. Golembiewska. 1987. National Status and Trends Program for Marine Environmental Quality Specimen Bank Project: Field Manual.

NOAA Tech. Mem. NOS OMA 37. National Oceanic and Atmospheric Administration, Rockville, Maryland.

1988

40. Becker, P.R., S.A. Wise, B.J. Koster, R. Zeisler. 1988. Alaskan Marine Mammal Tissue Archival Project: A Description Including Collection Protocols. U.S. Dep. Commer., National Bureau of Standards, **NBSIR 88-3750**. Gaithersburg, Maryland.
41. Greenberg, R. R. & R. Zeisler. 1988. A Radiochemical Procedure for Ultratrace Determination of Chromium In: Biological Materials. *J. Radioanal. Nucl. Chem.* 124: 5-20.
42. Iyengar, G. V., J.T. Tanner, W.R. Wolf, & R. Zeisler. 1988. Development of Multi-Purpose Reference Materials. *J. Res. Natl. Bur. Stand. (U.S.)*. 93: 1-2.
43. Lauenstein, G.G., & J.A. Calder. 1988. Specimen banking: a key element of the National Oceanic and atmospheric Administration's national status and trends program. In: Progress in Environmental Specimen Banking. **National Bureau of Standards Spec. Pub. 740**. Wise, S.A., R. Zeisler, G.M. Goldstein, eds., Gaithersburg, Maryland. 19-30.
44. Parris, R.M., S.N. Chesler, S.A. Wise. 1988. Improved analytical methodology for the determination of PCBs and pesticides in human liver specimens. In: Progress in Environmental Specimen Banking. **National Bureau of Standards Spec. Pub. 740**. Wise, S.A., R. Zeisler, G.M. Goldstein, eds., Gaithersburg, Maryland. 74-81.
45. Schantz, M.M., S.N. Chesler, B.J. Koster, S.A. Wise. 1988. Analytical methods for the determination of organic contaminants in marine sediments and tissues. In: Progress in Environmental Specimen Banking. **National Bureau of Standards Spec. Pub. 740**. Wise, S.A., R. Zeisler, G.M. Goldstein, eds., Gaithersburg, Maryland. 40-52.
46. Stone, S.F., D.A. Becker, B.J. Koster, P.A. Pella, G. Slater, M.P.M. Tillekeratne, R. Zeisler, R.W. Sanders. 1988. Inorganic methods and results for marine bivalves and sediments. In: Progress in Environmental Specimen Banking. **National Bureau of Standards Spec. Pub. 740**. Wise, S.A., R. Zeisler, G.M. Goldstein, eds., Gaithersburg, Maryland. 62-73.
47. Stone, S. F., R. Zeisler, & B. J. Koster. 1988. Neutron Activation Analysis of Major, Minor, and Trace Elements in Marine Sediment. *Trans. Am. Nucl. Soc.* 56: 228-229.
48. Wise, S.A., B.J. Koster, R. Zeisler. 1988. Status of specimen banking at National Bureau of Standards. In: Progress in Environmental Specimen Banking. **National Bureau of Standards Spec. Pub. 740**. Wise, S.A., R. Zeisler, G.M. Goldstein, eds., Gaithersburg, Maryland. 10-18.
49. Wise, S.A., R. Zeisler, G.M. Goldstein, Editors. 1988. Progress in Environmental Specimen Banking. **National Bureau of Standards Spec. Pub. 740**. U.S. Government Printing Office, Washington, D.C. Gaithersburg, Maryland. 202 pp.
50. Zeisler, R., R.R. Greenberg, S.F. Stone. 1988. The determination of trace elements in human livers. In: Progress in Environmental Specimen Banking. **National Bureau of Standards Spec. Pub. 740**. Wise, S.A., R. Zeisler, G.M. Goldstein, eds., Gaithersburg, Maryland. 82-90.
51. Zeisler, R., R.R. Greenberg, & S.F. Stone. 1988. Radiochemical and Instrumental Neutron Activation Analysis Procedures for the Determination of Low Level Trace Elements in Human Livers. *J. Radioanal. Nucl. Chem.* 124: 47-63.
52. Zeisler, R., R.R. Greenberg, S.F. Stone, & T.M. Sullivan. 1988. Selenium Determinations for the Assessment

of Sample Stability in Specimen Banking. *Trans. Am. Nucl. Soc.* 56: 153-154.

53. Zeisler, R., S.F. Stone, & R.W. Sanders. 1988. Sequential Determination of Biological and Pollutant Elements in Marine Bivalves. *Anal. Chem.* 60: 2760-2765.
54. Zeisler, R., R.R. Greenberg, S.F. Stone, & T.M. Sullivan. 1988. Long-term Stability of the Elemental Composition in Biological Materials. *Fres. Z. Anal. Chem.* 332: 612-615.

1989

55. Wise, S.A., B.J. Koster, R.M. Parris, M.M. Schantz, S.F. Stone, R. Zeisler. 1989. Experiences in environmental specimen banking. *Int. J. Environ. Anal. Chem.* 37:91-106.

1990

56. Becker, P.R., B.J. Koster, S.A. Wise, R. Zeisler. 1990. Alaskan Marine Mammal Tissue Archival Project. *Biol. Trace Element Res.* 26-27: 329-334.
57. Hameedi, M.J. 1990. The Alaska Marine Mammal Tissue Archival Project. *Arctic Research of the United States* 4: 26-30.

1991

58. Becker, P.R., S.A. Wise, B.J. Koster, R. Zeisler. 1991. Alaska Marine Mammal Tissue Archival Project: Revised Collection Protocol. USDOC, National Institute of Standards and Technology, **NISTIR 4529**. Gaithersburg, MD.

1992

59. Becker, P.R., S.A. Wise. 1992. Marine mammal tissue archive program. *Canadian Technical Report of Fisheries and Aquatic Sciences.* 1863: 287-291.
60. Becker, P.R., S.A. Wise, M.M. Schantz, B.J. Koster, R. Zeisler. 1992. Alaska Marine Mammal Tissue Archival Project: Sample Inventory and Results of Analyses of Selected Samples for Organic Compounds and Trace Elements. USDOC, National Institute of Standards and Technology, **NISTIR 4731**. Gaithersburg, MD.
61. Mössner, S., T.R. Spraker, P.R. Becker, K. Ballschmiter. 1992. Ratios of enantiomers of alpha-HCH and determination of alpha-, beta- and gamma-HCH isomers in brain and other tissues of neonatal northern fur seals (*Callorhinus ursinus*). *Chemosphere* 24(9): 1171-1180.
62. Stone, S. F., & R. Zeisler. 1992. Nuclear Analytical Methods in Environmental Specimen Banking. In: *Analytical Approaches as Related to Specimen Banking*, M. Rossbach, P. Ostapczuk, and J. D. Schladot, eds., Springer Verlag, Stuttgart, Germany, 139-152.
63. Zeisler, R., B.J. Koster, S.A. Wise. 1992. Specimen banking at the National Institute of Standards and Technology. In: *Analytical Approaches as Related to Specimen Banking*. Rossbach, M., & J.D. Schladot, eds., Stuttgart: Springer Verlag, 37-49.

1993

64. Becker, P.R. 1993. Studies of contaminants in Arctic marine mammals. *Coastal Zone 93: Proceedings of the 8th Symposium on Coastal and Ocean Management (New Orleans, LA)*, O.T. Magoon, W.S. Wilson, H. Converse, & L.T. Tobin, eds., ASCE, New York, NY. 3: 2479-2493.

65. Becker, P.R., B.J. Koster, S.A. Wise, R. Zeisler. 1993. Biological specimen banking in Arctic research: an Alaska perspective. *Sci. Total Environ.* 139/140: 69-95.
66. Lillestolen, T.I., P.R. Becker, D. Wilkinson. 1993. The National Marine Mammal Tissue Bank and Stranding Network Program. *Coastal Zone 93: Proceedings of the 8th Symposium on Coastal and Ocean Management (New Orleans, LA)*, O.T. Magoon, W.S. Wilson, H. converse, & L.T. Tobin, eds., ASCE, New York, NY. 3: 2494-2504.
67. Lillestolen, T.I., N. Foster, S.A. Wise. 1993. Development of the National Marine Mammal Tissue Bank. *Sci. Total Environ.* 239/140: 97-107.
68. Schantz, M.M., B.J. Koster, R. Zeisler, S.A. Wise, P.R. Becker. 1993. Determination of PCBs and chlorinated hydrocarbons in marine mammal tissues. *Sci. Total Environ.* 139/140: 323-345.
69. Wise, S.A. 1993. Quality assurance of contaminant measurements in marine mammal tissues. *Coastal Zone 93: Proceedings of the 8th Symposium on Coastal and Ocean Management (New Orleans, LA)*, O.T. Magoon, W.S. Wilson, H. converse, & L.T. Tobin, eds., ASCE, New York, NY. 3: 2531-2541.
70. Wise, S.A., B.J. Koster, J.L. Langland, & R. Zeisler. 1993. Current activities within the National Biomonitoring Specimen Bank. *Sci. Total Environ.* 139/140:1-12.
71. Wise, S.A., M.M. Schantz, B.J. Koster, R. Demiralp, E.A. Mackey, R.R. Greenberg, M. Burow, P. Ostapczuk, & T.I. Lillestolen. 1993. Development of frozen whale blubber and liver reference materials for the measurement of organic and inorganic contaminants. *Fresenius J. Anal. Chem.* 345: 270-277.
72. Zeisler, R., R. Demiralp, B.J. Koster, P.R. Becker, M. Burow, P. Ostapczuk, & S.A. Wise. 1993. Determination of inorganic constituents in marine mammal tissues. *Sci. Total Environ.* 139/140: 365-386

1994

73. Becker, P.R., D. Wilkinson, & T.I. Lillestolen. 1994. Marine Mammal Health and Stranding Response Program: Program Development Plan. USDOC, NOAA Tech. Memo. **NMFS-OPR-94-2**. Silver Spring, MD.
74. Koster, B.J., S.A. Wise, & P.R. Becker. 1994. Alaska Marine Mammal Tissue Archival Project: Specimen Inventory. USDOC, National Institute of Standards and Technology, **NISTIR 5462**. Gaithersburg, MD.
75. Mössner, S., I. Barudio, T.S. Spraker, G. Antonelis, G. Early, J.R. Geraci, P.R. Becker, & K. Ballschmiter. 1994. Determination of HCHs, PCBs, and DDTs in brain tissues of marine mammals of different age. *Fresenius J. Anal. Chem.* 349: 708-716.

1995

76. Becker, P.R., E.A. Mackey, R. Demiralp, R. Suydam, G. Early, B.J. Koster, & S.A. Wise. 1995. Relationship of silver with selenium and mercury in liver of two species of toothed whales (Odontocetes). *Mar. Poll. Bull.* 30(4): 262-271.
77. Becker, P.R., E.A. Mackey, M.M. Schantz, R. Demiralp, R.R. Greenberg, B.J. Koster, S.A. Wise, & D.C.G. Muir. 1995. Concentrations of Chlorinated Hydrocarbons, Heavy Metals and Other Elements in Tissues Banked by the Alaska Marine Mammal Tissue Archival Project. USDOC, National Institute of Standards and Technology, **NISTIR 5620**. Gaithersburg, MD.
78. Mackey, E.A., R. Demiralp, P.R. Becker, R.R. Greenberg, B.J. Koster, & S.A. Wise. 1995. Trace element concentrations in cetacean liver tissues archived in the National Marine Mammal Tissue Bank. *Sci. Total Environ.* 175:25-41.

79. Schantz, M.M., B.J. Koster, L.M. Oakley, S.B. Schiller, & S.A. Wise. 1995. Certification of polychlorinated biphenyl congeners and chlorinated pesticides in whale blubber standard reference material. *Anal. Chem.* 67(5): 901-910.
80. Wise, S. A. & B.J. Koster. 1995. Considerations in the Design of an Environmental Specimen Bank: Experiences of the National Biomonitoring Specimen Bank Program. *Environ. Health Perspect.* 103 (Suppl. 3): 61-67.

1996

81. Donais (Behlke), M.K., P.C. Uden, M.M. Schantz, & S.A. Wise. 1996. Development, Validation, and Application of a Method for Quantification of Methylmercury in Biological Marine Materials Using Gas Chromatography Atomic Emission Detection. *Anal. Chem.* 68(21): 3859-3866.
82. Lauenstein, G.G., A.Y. Cantillo, B.J. Koster, M.M. Schantz, S.F. Stone, R. Zeisler, & S.A. Wise. 1996. National Status and Trends Program Specimen Bank: Sampling Protocols, Analytical Methods, Results, and Archive of Samples. NOAA Tech. Memo. **NOS ORCA 98**. National Oceanic and Atmospheric Administration, Silver Spring, Maryland 158 pp.
83. Mackey, E.A., P.R. Becker, R. Demiralp, R.R. Greenberg, B.J. Koster, & S.A. Wise. 1996. Bioaccumulation of vanadium and other trace elements in livers of Alaskan cetaceans and pinnipeds. *Arch. Environ. Contam. Toxicol.* 30: 503-512.
84. Schantz, M.M., B.J. Koster, S.A. Wise, M. Segstro, D.C.G. Muir, S. Mössner, K. Ballschmiter, & P.R. Becker. 1996. Interlaboratory comparison study for PCB congeners and chlorinated pesticides in beluga whale blubber. *Chemosphere* 33: 1369-1390.

1997

85. Becker, P.R., E.A. Mackey, R. Demiralp, B.J. Koster, & S.A. Wise. 1997. Establishing baseline levels of elements in marine mammals through analysis of banked liver tissues. In: *Environmental Biomonitoring and Specimen Banking*, K.S. Subramanian & G.V. Iyengar, eds., ACS Symposium Series 654. American Chemical Society Books, Washington, DC. 23: 261-270
86. Becker, P.R., E.A. Mackey, R. Demiralp, M.M. Schantz, B.J. Koster, & S.A. Wise. 1997. Concentrations of chlorinated hydrocarbons and trace elements in marine mammal tissues archived in the U.S. National Biomonitoring Specimen Bank. *Chemosphere.* 34(9/10): 2067-2098.
87. Becker, P.R., S.A. Wise, L. Thorsteinson, B.J. Koster, & T. Rowles. 1997. Specimen banking of marine organisms in the United States: current status and long-term prospective. *Chemosphere.* 34(9/10): 1889-1906.
88. Krahn, M.M., P.R. Becker, K.L. Tilbury, & J.E. Stein. 1997. Organochlorine contaminants in blubber of four seal species: integrating biomonitoring and specimen banking. *Chemosphere.* 34(9/10): 2109-2121
89. Ponce, R.A., G.M. Egeland, John P. Middaugh, & P.R. Becker. 1997. Twenty years of trace metal analyses of marine mammals: Evaluation and summation of data from Alaska and other Arctic regions. *State of Alaska Epidemiology Bulletin* Vol. 1, No. 3, 15 p.
90. Wise, S.A., P.R. Becker, B.J. Porter, E.A. Mackey. 1997. Environmental specimen banking - two decades of experience at NIST. In: *Proceedings of International Workshop on Ultra-Long-Term Cryogenic Preservation Network of Biological and Environmental Specimens*, T. Shibata and T. Etoh, eds., Osaka, Japan, November 3 - 5, 1997, pp. 100 - 105.

91. Rowles, T.K., L.K. Thorsteinson, P.R. Becker, Wise, S.A. 1997. Marine environmental specimen banking, an integrated approach. In: *Proceedings of International Workshop on Ultra-Long-Term Cryogenic Preservation Network of Biological and Environmental Specimens*, T. Shibata and T. Etoh, eds., Osaka, Japan, November 3 - 5, 1997, pp. 163 - 167.
92. Becker, P. & B. Porter. 1998. Banking of Specimens and Quality Assurance/Quality Control, in *Report of the Sea Turtle Health Assessment Workshop*. 2-3 February 1998 Part I: Background and Information Needs. NOAA Tech. Memo., **NOS-NCCS-CCEHBR-0003**, December 1998 p. 7-13.
93. Papa, R. & P. Becker. 1998. Alaska Harbor Seal Contaminants: A Review. In, *Harbor Seal Investigations in Alaska, Annual Report*. R. J. Small. Alaska Department of Fish and Game, Anchorage, Alaska. October 1998, p. 117 - 185.
94. Goessler, W., A. Rudorfer, E.A. Mackey, P.R. Becker, & K.J. Irgolic. 1998. Determination of arsenic compounds in marine mammals with high performance liquid chromatography and inductively coupled plasma mass spectrometry as element specific detector. *Appl. Organometal. Chem.* 12: 491-501.
95. Papa, R.S. & P.R. Becker. 1998. Alaska Harbor Seal (*Phoca vitulina*) Contaminants: A Review with Annotated Bibliography. USDOC, National Institute of Standards and Technology, **NISTIR 6211**. Charleston, SC. 249 pp.

1999

96. Becker, P.R., Porter, B.J., Mackey, E.A., Schantz, M.M., Demiralp, R., and Wise, S.A. 1999. National Marine Mammal Tissue Bank and Quality Assurance Program: Protocols, Inventory, and Analytical Results. U.S. Department of Commerce, National Institute of Standards and Technology, **NISTIR 6279**. Gaithersburg, MD. 183 pp.
97. Krone, C.A., P.A. Robisch, K.L. Tilbury, J.E. Stein, E.A. Mackey, P.R. Becker, T.M. O'Hara, & L.M. Philo. 1999. Elements in liver tissues of bowhead whales (*Balaena mysticetus*). *Mar. Mam. Sci.* 15(1): 123-142.
98. Mackey, E.A., Demiralp, R., Fitzpatrick, K.A., Porter, B.J., Wise, S.A., Becker, P.R., Greenberg, R.R. 1999. Quality assurance in analysis of cryogenically stored liver tissue specimens from the NIST National Biomonitoring Specimen Bank (NBSB). *Sci. Total Environ.* 226 (1999): 165-176.
99. Porter, B.J., S.A. Wise, P.R. Becker. 1999. National Biomonitoring Specimen Bank: Alaska Marine Mammal Tissue Archival Project and the National Marine Mammal Tissue Bank Specimen Inventory. **NISTIR 6345**. National Institute of Standards and Technology, Gaithersburg, MD. 242 p.
100. O'Hara, T.M., M.M. Krahn, D. Boyd, P.R. Becker, L.M. Philo. 1999. Organochlorine contaminant levels in Eskimo harvested bowhead whales of Arctic Alaska. *J. Wildlife Diseases* 35(4): 741-752.
101. Krahn, M.M., D.G. Burrows, J.E. Stein, P.R. Becker, M.M. Schantz, D.C.G. Muir, T.M. O'Hara, T. Rowles. 1999. White whales (*Delphinapterus leucas*) from three Alaskan stocks: concentrations and patterns of persistent organochlorine contaminants in blubber. *J. Cetacean Res. Manage.* 1(3): 239-249.

2000

102. Becker, P.R., M.M. Krahn, E.A. Mackey, R. Demiralp, M.M. Schantz, M. Epstein, M.K. Donais, B. Porter, D.C.G. Muir, and S.A. Wise. 2000. Concentrations of polychlorinated biphenyls (PCBs), chlorinated pesticides, and heavy metals and other elements in tissues of beluga whales (*Delphinapterus leucas*) from Cook Inlet, Alaska. *Mar. Fish. Rev.* 62(3): 81-98.

2001

103. Pugh, R.S. and P.R. Becker. 2001. Sea Turtle Contaminants: A Review with Annotated Bibliography. **NISTIR 6700**, National Institute of Standards and Technology, Gaithersburg, MD. 144 p.
104. Becker, P.R., R.S. Pugh, M.M. Schantz, E.A. Mackey, R. Demiralp, M.S. Epstein, M.K. Donais, B.J. Porter, S.A. Wise, and B.A. Mahoney. 2001. Persistent Chlorinated Compounds and Elements in Tissues of Cook Inlet Beluga Whales, *Delphinapterus leucas*, Banked by the Alaska Marine Mammal Tissue Archival Project. **NISTIR 6702**, OCS Study, MMS 2000-067, National Institute of Standards and Technology, Gaithersburg, MD. 67 p.
105. York, G.W., B.J. Porter, R.S. Pugh, D.G. Roseaneau, K. Simac, P.R. Becker, L.K. Thorsteinson, and S.A. Wise. 2001. Seabird Tissue and Archival and Monitoring Program: Protocols for Collecting and Banking Seabird Eggs. **NISTIR 6735**, OCS Study, MMS 2001-031, National Institute of Standards and Technology, Gaithersburg, MD. 23 p.
106. Becker, P.R., E.A. Mackey, R. Demiralp, M.S. Eptstein, M.K. Donais, W. A. Goessler, B.J. Porter, and S.A. Wise. Heavy Metals and Other Trace Elements Measured in Tissues of Marine Mammals Archived by the Alaska Marine Mammal Tissue Archival Project from the Bering Sea and Cook Inlet, Alaska. Proceedings of the International AMAP Workshop on Trends and Effects of Heavy Metals in the Arctic. (In Review)
107. Fair, P.A. and P.R. Becker. 2000. Review of Stress in Marine Mammals. *J. Aquat. Ecosyst. Stress Recovery*. 7(4): 335-354.

2002

108. Pugh, R.S., B.J. Porter, P.R. Becker, and S.A. Wise. 2002. National Biomonitoring Specimen Bank, NIST-Charleston Laboratory: Clean Room and Specimen Bank Protocols. **NISTIR 6752**, National Institute of Standards and Technology, Gaithersburg, MD. 74p.
109. Kucklick, J.R., W. Struntz, P.R. Becker, G.W. York, and J.E. Bohonowych. 2002. Persistent Organochlorine Pollutants in Ringed Seals and Polar Bears Collected from Northern Alaska. *Sci. Total Environ.* 287: 45-49.
110. Kucklick, J.R., W.D.J. Struntz, P.R. Becker, M.M. Schantz, E.Mackey, R. Demiralp, M.S. Epstein, B.J. Porter, S.A. Wise, W.E. McFee, and M.K. Stolen. 2002. Persistent Organochlorine Pollutants and Elements Determined in Tissues of Rough-Toothed Dolphin (*Steno bradendensis*) Banked from a Mass Stranding Event. **NISTIR 6857**, National Institute of Standards and Technology, Gaithersburg, MD. 57 p.
111. Kucklick, J.R., S.J. Christopher, P.R. Becker, R.S. Pugh, B.J. Porter, M.M. Schantz, E.A. Mackey, S.A. Wise, and T.K. Rowles. 2002. Description and Results of the 2000 NIST/NOAA Interlaboratory Comparison Exercise Program for Organic Contaminants and Trace Elements in Marine Mammal Tissues. **NISTIR 6849**, National Institute of Standards and Technology, Gaithersburg, MD, 26 p. + appendices.
112. Kucklick, J.R. and Krahn, P. Arctic Monitoring and Assessment Program (AMAP) Contribution for the U.S. for Ringed Seals. AMAP Assessment Report: Pollution Issues. Submitted
113. Kucklick, J.R., P.R. Becker, W.D.J. Struntz, M.M. Schantz, and S.A. Wise. 2002. Persistent Organochlorine Pollutants (POPs) in Marine Mammals Collected from Alaskan Coastal Waters. Proceedings of the International Workshop on Marine Pollution by Persistent Organic Pollutants (POPs). The 17th Global Environment Tsukuba, February 26-27, 2001. Center for Global Environmental Research, National Institute for Environmental Studies CGER-I052-2002, 29-43 pp.
114. Christopher, S.J., S.S. Vander Pol, R.S. Pugh, R.D. Day, and P.R. Becker. 2002. Determination of mercury in the eggs of common murre (*Uria aalge*) for the seabird tissue archival and monitoring project. *J. Anal. At.*

Spectrom., 17: 780-785.

115. Mackey, E.A., R.D. Oflaz, M.S. Epstein, B. Buehler, B.J. Porter, T. Rowles, S.A. Wise, and P.R. Becker. Elemental Composition of Liver and Kidney Tissues of Rough-Toothed Dolphins (*Steno bredanensis*). *Arch. Env. Contam. Toxicol.* (In press).
116. Struntz, D.J.W., McLellan, W.A., Dilaman, R.M., Blum, J.E., Kucklick, J.R., and Pabst, D.A. Blubber Development in Bottlenose Dolphins (*Tursiops truncatus*). *Journal of Morphology.* (In press).
117. Tuerk, K.J.S. 2002. Persistent Organic Pollutants in Atlantic White-Sided Dolphins (*Lagenorhynchus acutus*) and Rough-Toothed Dolphins (*Steno bredanensis*). M.S. Thesis. College of Charleston, Charleston, SC.
118. Vander Pol, S. S. 2002. Persistent Organic Pollutants (POPs) in Alaskan Murre (*Uria spp.*) Eggs. M.S. Thesis, College of Charleston, Charleston, SC.

2003

119. Vander Pol, S.S., Christopher, S.J., Roseneau, D.G., Becker, P.R., Day, R.R., Kucklick, J.R., Pugh, R.S., Simac, K.S., York, G.W. 2003. Seabird Tissue Archival and Monitoring Project: Egg Collections and Analytical Results for 1999-2002, **NISTIR 7029**, National Institute of Standards and Technology, Gaithersburg, MD. 79 p

2004

120. Poster, D.L., Schantz, M.M., Kucklick, J.R., Lopez de Ida, M.J., Porter, B.J., Pugh, R.S., and Wise, S.A. 2004. Three new mussel tissue standard reference materials (SRMs) for the determination of organic contaminants. *Anal. Bioanal. Chem.* 378:1213-1231.
121. Kenny, D.E., O'Hara, T.M., Chen, T.C., Lu, Z., Tian, X., and Holick, M.F. 2004 Vitamin D Content in Alaskan Arctic Zooplankton, Fishes, and Marine Mammals. *Zoo Biology* 23: 33-43.
122. Vander Pol, S.S., Becker, P.R., Kucklick, J.R., Pugh, R.S., Roseneau, D.G., and Simac, K.S. 2004. Persistent Organic Pollutants in Alaskan Murre (*Uria spp.*) Eggs: Geographical, Species, and Temporal Comparisons. *Environ. Sci. Technol.* 38:1305-1312.

2005

123. Tuerk, K.J., Kucklick, J.R., Becker, P.R., Stapleton, H., Baker, J.E. 2005. Persistent organic pollutants in two dolphin species with focus on toxaphene and polybrominated diphenyl ethers. *Environ. Sci. Technol.* 39 (3): 692-698
124. Tuerk, J.J., Kucklick, J.R., McFee, W., Pugh, R.S., and Becker, P.R. 2005. Life History Effects on POPs in the Atlantic White-Sided Dolphin (*Lagenorhynchus acutus*). *Arch. Environ. Cont. Toxicol.* In press.
125. Vander Pol, S.S., Pugh, R.S., and Becker, P.R. 2005 Chemicals in Arctic Seabirds: I. Annotated Bibliography, **NISTIR 7196**, National Institute of Standards and Technology, Gaithersburg, MD. 266 p.
- 126.