

BIOGRAPHICAL SKETCH

Raymond C. Highsmith

National Institute for Undersea Science and Technology

University of Mississippi Field Station

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Professional Preparation

University of Iowa, Zoology, B. A. 1972 with honors and distinction, Phi Beta Kappa

University of Washington, Zoology, Ph.D. 1979

Smithsonian Institution (STRI Postdoctoral Fellow), Coral Reef Ecology, 1979-81

Friday Harbor Laboratories (U.W.) Postdoctoral Fellow, Marine Ecology, 1981-83

Appointments

Executive Director, National Institute for Undersea Science and Technology, Univ. of MS, 2005-

Director, University of Mississippi Field Station, 2005-

Director, Center for Water and Wetlands Resources, U. M., 2005-

Professor of Marine Science Emeritus, Univ. of Alaska Fairbanks, 2005-

Director, Global Undersea Research Unit, Univ. Alaska Fairbanks, 1998-2005

Professor of Marine Science, University of Alaska Fairbanks, 1992-2005

Director, West Coast and Polar Regions Undersea Research Center, 1990-2005

Director, Kasitsna Bay Laboratory, UAF, 1990-2005

Associate Professor of Marine Science, University of Alaska Fairbanks, 1983-1991

Selected Publications

Diercks, A., R. Highsmith, V. Asper, D. Joung, L. Guo, Z. Zhou, A. Shiller, S. Joye, A. Teske and S. Lohrenz. Submitted. Deep fluorescence features consistent with petroleum hydrocarbons emanating from the Deepwater Horizon wellhead site.

Harwell, M. A., J. H. Gentile, K. W. Cummins, R. C. Highsmith, R. Hilborn, C. P. McRoy, J. Parish and T. Weingartner. In press. Conceptual Model of the Prince William Sound, Alaska, Ecosystem. HERA

Bluhm, B. A., K. O. Coyle, B. Konar and R. C. Highsmith. 2007. High gray whale relative abundances associated with an oceanographic front in the south-central Chukchi Sea. *Deep Sea Research II* 54:2919-2933.

Coyle, K. O., B. Konar, A. Blanchard, R. C. Highsmith and others. 2007. Potential effects of temperature on the benthic infaunal community on the Southeastern Bering Sea shelf: Possible impacts of climate change. *Deep Sea Research II* 54:2885-2905.

Coyle, K. O., B. A. Bluhm, B. Konar, A. Blanchard and R. C. Highsmith. 2007. Amphipod prey of gray whales in the northern Bering Sea: comparison of biomass and distribution between the mid-1980s and 2002-03. *Deep Sea Research II* 54:2906-2918.

Highsmith, R. C., K. O. Coyle, B. A. Bluhm and B. Konar. 2006. Gray whales in the Bering and Chukchi Seas. Chapter in J. Estes, D. P. DeMaster, R. L. Brownell Jr., D. F. Doak and T. M. Williams (eds.), *Whales, Whaling and Ocean Ecosystems*, University of California Press, pp 303-313.

- Highsmith, R. C. and K. O. Coyle. 1990. High productivity of northern Bering Sea benthic amphipods. *Nature* 344:862-864.
- Knowlton, A. L. and R. C. Highsmith. 2005. Nudibranch-sponge feeding dynamics: Benefits of symbiont-containing sponge to *Archidoris montereyensis* (Cooper, 1862) and recovery of nudibranch feeding scars by *Halichondria panicea* (Pallas, 1766). *J. Experimental Marine Biology and Ecology* 327:36-46.
- Erpenbeck, D., A. L. Knowlton, S. L. Talbot, R. C. Highsmith and R. W. M. Van Soest. 2004. A molecular comparison of Alaska and northeast Atlantic *Halichondria panicea* (Pallas 1776) (Porifera: Demospongiae) populations. *Proc. VI International Sponge Conf. Boll. Mus. Ist. Biol. Univ. Genova* 68:319-325.
- Knowlton, A. L., B. J. Pearson, S. L. Talbot and R. C. Highsmith. 2003. Isolation and Characterization of microsatellite loci in the intertidal sponge *Halichondria panicea*. *Mol. Ecol. Notes* 3:560-562.
- Knowlton, A. L. and R. C. Highsmith. 2000. Convergence in the time-space continuum: a predator-prey interaction. *Mar. Ecol. Prog. Ser.* 197:285-291.
- Bunch, T., R. Highsmith and G. Shields. 1998. Genetic evidence for dispersal of larvae of Tanner crabs *Chionoecetes bairdi* by the Alaskan Coastal Current. *Molecular Mar. Biology and Biotechnology* 7:153-159.

Synergistic Activities

- Co-convenor, Deepwater Horizon Oil Spill special session, AGU, San Francisco, Dec. 2010
- Initiated a coastal teaching program for the Graduate Program in Marine Sci. and Limnology at UAF, developed new courses (Biol. and Ecol. of Marine Invertebrates, Field Problems in Marine Biol., Marine Biol. and Ecol. Field Course, Marine Studies for Sci. Teachers).
- Employed ~12 Alaskan Native students in NSF-funded benthic project.
- NSF panel
- President of the Western Association of Marine Laboratories (x2), President-Elect of the Natl. Assoc. of Marine Laboratories. Board of Directors, Natl. Assoc. of Marine Laboratories.
- Executive Committee Member-at-Large, Southeastern Association of Marine Labs, 2011-2013
- Appointed, Federal-State Task Force for Gold Dredging in Norton Sound, AK.
- Technical advisor, Cook Inlet Keeper; Technical advisor, Pratt Museum, Homer, Ak
- Research Com., Education Com., Kachemak Bay National Estuarine Research Reserve
- Coastal Research Com., Southeastern Universities Research Association (SURA)
- Board of Trustees, Secretary, Mississippi –Alabama Sea Grant Consortium, 2009-

Collaborators & Other Affiliations

Collaborators: B. Bluhm, Univ. Alaska Fairbanks; M. Carroll, Akvaplan-Niva; J. Carroll, Akvaplan-Niva; K. Coyle, Univ. Alaska Fairbanks; S. Denisenko, Zoological Inst. – St. Petersburg; B. Konar, Univ. Alaska Fairbanks, J. Anderson, R. Buchhotz, M. Slattery, C. Lutken, M. Holland, C. Ochs, Univ. MS; V. Asper, S. Lohrenz, U. Southern MS; M. Joye, U. Georgia; A. Teske, U. North Carolina.

Graduate advisor: Dr. Alan J. Kohn (retired), University of Washington;

Postdoctoral advisors: Haris Lessios, Smithsonian (STRI), Peter Glynn, RSMAS U. Miami; Dennis Willows and Richard Strathmann, Friday Harbor Labs

Thesis Advisor: T. Bunch, Plum Island Res. Lab; M. Carroll, Akvaplan-Niva; M. Fujiwara, UC Santa Barbara; A. Knowlton, University of Alaska Fairbanks; P. Ribbens, Tesoro; S. Sklavounos, RSMAS U. Miami; Jennifer Trask, Western Washington Univ.