

January 2016

PHILLIP S. LOBEL

EDUCATION:

- B.A., with High Honors (Zoology), University of Hawaii at Manoa, 1975
- Ph.D., Biology, Harvard University, 1979
- Post-Doctoral Fellow in Oceanography, Center for Earth & Planetary Physics, Harvard University, 1980 - 1983

CURRENT POSITION:

Professor of Biology (Ichthyology), Boston University
Scientific Dive Safety & Boating Officer, Boston University
NAUI Scuba and Nitrox Instructor # 41363
DAN Diving Medical Response Instructor # 13032
AAUS Scientific Diving Instructor #18887

CURRENT AFFILIATIONS and ACTIVITIES:

Faculty Member, Boston University Marine Program, Boston U.
Department of Biology, Boston U.
Center for Ecology & Conservation Biology, Boston

Advisory Editor, Environmental Biology of Fishes.

Editorial Board Member, Marine Ecology

National Association of Scuba Instructors – Instructor for scuba, Nitrox and first-aid

Divers Alert Network – Instructor for emergency medical response training

American Academy of Underwater Sciences Foundation- Secretary & Board member (2011 -)

- **Other Recent Activities**

2011 NOAA/Office of Oceanic and Atmospheric Research–Aquarius Habitat Review Panel
2009 – 2010 American Academy of Underwater Sciences, Board member & Chair of the
Statistics committee

Lifetime member of the American Society of Ichthyologists and Herpetologists
Lifetime Fellow of the Academy of Underwater Arts and Sciences

RESEARCH SPECIALTIES:

ICHTHYOLOGY, (phylogeny, ecology, behavior and biogeography),
BIOACOUSTICS, **FISHERIES OCEANOGRAPHY**, coral reef ecology,
descriptive physical oceanography, conservation biology, ecological impact assessment studies,
marine pollution and fisheries management.

RECENT FUNDING:

Coral Ecosystem and Marine Resource Initiative (T/E & Sensitive Species).
Department of Defense/Army, Award Number: W9132T-12-2-0049, (PI: Lobel with postdoc L.
Lobel), 9/2012-9/2013,

Acoustic Experiments with Great White Sharks. National Geographic Society's Expeditions
Council grant # EC0627-13, (PI: P. Lobel). 6/2013-9/2013.

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Scientific Awards & Recognition

2012 NOGI Science Awardee, The Academy of Underwater Arts and Sciences

<http://www.auas-nogi.org>

Fish species named *Synodus lobeli* (Synodontidae) by R. S. Waples and J. E. Randall 1988, A revision of the Hawaiian lizard fishes of the genus *Synodus*, with descriptions of four new species. *Pacific Science* 42:178-213.

Fish species named *Elacatinus lobeli* by J. E. Randall & P. L. Colin, 2009

Elacatinus lobeli, a new cleaning goby from Belize and Honduras. *Zootaxa* 2173: 31-40

BOOK

2003 Lobel, P. S. *Marine Life of Johnston Atoll, Central Pacific Ocean*. Natural World Press, OR, 128pp.

PUBLICATIONS:

- ms K. K. Mosharo and P. S. Lobel. A comparison of underwater speakers for animal behavior playback studies.
- submitted Lobel, L.K, Drown, D.M., Barber, P.H., and Lobel, P.S. A genetic assessment of parentage in natural population of blackspot sergeant major damselfish, *Abudefduf sordidus* (Pisces: Pomacentridae). submitted to Coral Reefs
- In press Di Santo V, Lobel PS. How to beat the heat: body size affects thermal tolerance in tropical gobies. *Journal of Experimental Marine Biology and Ecology*
- In press Di Santo, V. & P. S. Lobel. Size affects digestive responses to increasing temperature in fishes: physiological implications of being small in climate change. *Marine Ecology*
- In press R. L. Pyle, P. S. Lobel & J. A. Tomoleoni. The Value of Closed-Circuit Rebreathers for Biological Research. Pollock NW, Sellers SH, Godfrey JM, eds. *Rebreathers and Scientific Diving*. Workshop proceedings. NPS/NOAA/DAN/AAUS: Durham, NC; 2015; in press.
- 99) 2015 Lobel, P. S. & L. K. Lobel. Milestones in Underwater Ichthyology: The First Scientific Divers in America. pages 65- 77. In: Lobel L.K. ed. *Diving for Science 2015*. Proceedings of the American Academy of Underwater Sciences 34th Symposium, 106pp.
- 98) 2015 Lobel, L. K. & P. S. Lobel. Choosing Organisms for Monitoring Contaminant Exposure on Coral Reefs: Case Studies from Johnston Atoll, Central Pacific

- Ocean. pages 48- 64. In: Lobel L.K. ed. Diving for Science 2015. Proceedings of the American Academy of Underwater Sciences 34th Symposium, 106pp.
- 97) 2013 Lobel, P. S. The “Choral Reef”: the ecology of underwater sounds. In M. A. Lang & M. Sayer (eds) Proceedings Joint International Scientific Diving Symposium AAUS & ESDP. Curacao 2013: Pgs 179 – 184.
- 96) 2013 Lobel, P. S. & L. K. Lobel. Stalking spawning fishes. In M. A. Lang & M. Sayer (eds) Proceedings Joint International Scientific Diving Symposium AAUS & ESDP. Curacao 2013: Pgs. 185 – 197.
- 95) 2013 Lobel, L. K. & P. S. Lobel. Junkyard damselfishes: spawning behavior and nest site selection. In M. A. Lang & M. Sayer (eds) Proceedings Joint International Scientific Diving Symposium AAUS & ESDP. Curacao 2013: Pgs 167 – 178.
- 94) 2013 Oliver S. & P. S. Lobel, Direct mate choice for courtship displays (acoustic and visual) in a pomacentrid fish, *Dascyllus albisella*.. Environmental Biology of Fishes 96:447-457.
- 93) 2012 Lobel, P. S. Tracking Grey Reef Sharks Using a Novel Method for Acoustic Tag Attachment and the “Crittircam”. In D. L. Steller & L. K. Lobel (eds.) Diving for Science 2012. Proceedings of the 31th American Academy of Underwater Sciences Symposium. Portland, Maine: AAUS; 2012: 135-143.
- 92) 2012 Mosharo, K, and P S Lobel. A Comparison of Courtship Calls from Two Toadfishes, *Sanopus astrifer* and *Batrachoides gilberti* from Belize. Environmental Biology of Fishes 94 (4) 623 – 638.
- 91) 2011 Lobel, P. S. Milestones in underwater Ichthyology: a historical perspective. In P, Pollock (ed.) Diving for Science 2011. Proceedings of the 30th American Academy of Underwater Sciences Symposium. Portland, Maine: AAUS; 2011: 87-90
- 90) 2011 Lobel, P. S. A review of the hamlets (Serranidae, *Hypoplectrus*) with description of two new species. *Zootaxa* 3096: 1–17
- 89) 2011 Lobel, P. S. and L. K. Lobel. Endemic marine fishes of Belize: evidence of isolation in a unique ecological region. In: Palomares, M.L.D., Pauly, D. (eds.), *Too Precious to Drill: the Marine Biodiversity of Belize*, pp. 48-51. Fisheries Centre Research Reports 19(6). Fisheries Centre, University of British Columbia [ISSN 1198-6727].
- 88) 2011 Lobel, P. S. Transport of reef lizardfish larvae by an ocean eddy in Hawaiian waters *Dynamics of Atmospheres and Oceans* 52 (2011) 119– 130
- 87) 2011 Richlin, M. L. & P. S. Lobel, Effect of depth, habitat and water motion on the abundance and distribution of ciguatera dinoflagellates at Johnston Atoll, Pacific Ocean. *Marine Ecology Progress Series*: 421: 51–66
- 86) 2010 Heyman, W, L Carr, P S Lobel. Diver disturbance to reef fish spawning aggregations: It is better to be disturbed than to be dead. *Marine Ecology Progress Series*: 419: 201–210,
- 85) 2010 Lobel, PS, I. Kaatz, AA Rice. Acoustical behavior of reef Fishes. Chapter 10 in K. Cole (ed), *Reproduction and sexuality in marine fishes: patterns and processes*. Univ Calif Press. 432 pages, ISBN: 9780520264335, October 2010
- 84) 2010 Kaatz, I. M, D. J. Stewart, A. N. Rice and P.S. Lobel. Differences in pectoral fin spine

- morphology between vocal and silent clades of catfishes (Order Siluriformes): Ecomorphological implications. *Current Zoology* (formerly *Acta Zoologica Sinica*), Feb. 2010, 56(1): 73 - 89
- 83) 2009 Kovitvongsa K. E. & P. S. Lobel Convenient fish acoustic data collection in the digital age. In P, Pollock (ed.) *Diving for Science 2009*. Proceedings of the 28th American Academy of Underwater Sciences Symposium. Dauphin Island, AL: AAUS; 2009: 42-57
- 82) 2009 L. Kerr Lobel and P.S. Lobel, Contaminants in Fishes from Johnston Atoll. Proceedings of the 11th International Coral Reef Symposium, Ft. Lauderdale, Florida, July 2008. pages 1123-1128
- 81) 2009 Stetson P., B. Shank, P. S. Lobel. Mapping reef structure and bathymetry in Belize using Cobra-Tac. Proceedings of the 11th International Coral Reef Symposium July 2008., pgs 510-514
- 80) 2009 Randall, J. E. & Lobel, P. S. A literature review of the sponge-dwelling gobiid fishes of the genus *Elacatinus* from the western Atlantic, with description of two new Caribbean species. *Zootaxa* 2133: 1-19
- 79) 2009 Lobel P. S. Underwater Acoustic Ecology: Boat Noises and Fish Behavior. In P, Pollock (ed.) *Diving for Science 2009*. Proceedings of the 28th American Academy of Underwater Sciences Symposium. Dauphin Island, AL: AAUS; 2009: 31-42
- 78) 2009 Lobel P S, L Rocha, & J E Randall. The color phases and distribution of the western Atlantic labrid fish, *Halichoeres socialis*. *Copeia* 2009 No. 1, 171-174
- 77) 2008 Lobel PS. Diver eco-tourism and the behavior of reef sharks and rays - an overview. In: Brueggeman P, Pollock NW, eds. *Diving for Science 2008*. Proceedings of the 27th American Academy of Underwater Sciences Symposium. Dauphin Island, AL: AAUS; 2008: 103-13.
- 76) 2008 Lobel, P. S., Tagging sharks with acoustic bracelets; a less invasive method. in Marshall, G., editor. Proceedings of the 2007 Animal-Borne Imaging Symposium; 2007 Oct 10-13; Washington D.C., National Geographic Society; 2008. pp. 127-132.
- 75) 2008 Richlen, M. L., S. L. Morton, P. H. Barber and P. S. Lobel 2008. Phylogeography, morphological variation and taxonomy of the toxic dinoflagellate *Gambierdiscus toxicus* (Dinophyceae). *Harmful Algae* 7(5): 614-629
- 74) 2008 Lobel P S and L K Lobel. Biology and Geology of Johnston and Wake Atolls, Pacific Ocean. Chapter 17, in Coral Reefs of the USA Series: *Coral Reefs of the World* , Vol. 1, Riegl, Bernhard; Dodge, Richard E. (Eds.), Springer Verlag Press 806 p
- 73) 2007 Skomal, G., P. Lobel, & G. Marshall The use of animal-borne imaging to assess post-release behavior as it relates to capture stress in grey reef sharks, *Carcharhinus amblyrhynchos*. *The Marine Technology Journal* 41(4):44-48 (special issue for the Proceedings of the Animal Borne Imaging Symposium, National Geographic Society).

- 72) 2006 Rosenthal G. & P. S. Lobel. Fish Communication. CH 2 (pgs 39-78) in *Behavior and physiology of fish* (edited by K, A. Sloman, R. W. Wilson & S. Balshine), Volume 24 *Fish Physiology* (book series). Elsevier Academic Press, 480pp
- 71) 2005 Lobel, P. S. Scuba bubble noise and fish behavior: a rationale for silent diving technology. *Proceedings of the American Academy of Underwater Sciences 2005*, pgs 49-60.
- 70) 2005 Randall John E., Phillip S. Lobel & Christine W. Kennedy. Comparative ecology of the gobies *Nes longus* and *Ctenogobius saepepallens*, both symbiotic with the snapping shrimp *Alpheus floridanus*. *Environmental Biology of Fishes* 74(2):119-127
- 69) 2005 Ripley, J. L. & P. S. Lobel. Reproductive behavior of the Lake Malawi cichlid *Tramitichromis intermedius*. *Environmental Biology of Fishes* 73(2):171-180
- 68) 2004 Ripley, J. L. & P. S. Lobel. Correlation of acoustic and visual communication in the Lake Malawi cichlid *Tramitichromis intermedius*. *Environmental Biology of Fishes* 71(4):389-394
- 67) 2004 Rice, A.A. & P. S. Lobel. The Pharyngeal Jaw Apparatus of the Cichlidae and Pomacentridae: Function in Feeding and Sound Production. *Reviews in Fish Biology and Fisheries* 13:433-444
- 66) 2004 Lobel, P. S. & L. Kerr Lobel. Annotated checklist of the fishes of Wake Atoll. *Pacific Science* 58(1):65-90
- 65) 2003 Randall, J. E., & P. S. Lobel. *Xyrichtys halsteadii*, a new labrid fish from the Central and western Pacific. *Bulletin of Marine Science* 72:971-977
- 64) 2003 Casper, B., P. S. Lobel & H. Yan. Comparative hearing sensitivity among free-swimming and bottom-dwelling elasmobranchs. *Environmental Biology of Fishes* 68:371-379.
- 63) 2003 Ramon, M. L., P. S. Lobel & M. D. Sorensen. Lack of mitochondrial genetic structure in hamlets (*Hypoplectrus* spp.): recent speciation or ongoing hybridization? *Molecular Ecology* (2003)12:2975-2980
- 62) 2003 Randall, J. E., & P. S. Lobel. *Halichoeres socialis*, a new labrid fish from Belize, Caribbean. *Copeia* 2003(1):124-130.
- 61) 2003 Lobel, P. S. Synchronized underwater audio-video recording. Listening to Fish: Proceedings of the International Workshop on the Applications of Passive Acoustics to Fisheries. MIT SeaGrant publication, Cambridge, MA pages 127-130
- 60) 2003 Lobel, P. S. Reef Fish Courtship and Mating Sounds: unique signals for acoustic monitoring. Listening to Fish: Proceedings of the International Workshop on the Applications of Passive Acoustics to Fisheries. MIT SeaGrant publication, Cambridge, MA pages 54-58

- 59) 2002 Heemstra, P. C., W. D. Anderson jr, P. S. Lobel. Serranidae; Groupers (seabasses, creolefish, coney, hamlets, anthiines, and soapfishes), pages 1308-1369, *In* Carpenter, K.E. (ed.), *The living marine resources of the Western Central Atlantic. Volume 2: Bony fishes, part 1 (Acipenseridae to Grammatidae). FAO Species Identification Guide for Fishery Purposes and American Society of Ichthyologists and Herpetologists Special Publication No. 5.*Rome, FAO. pp. 601-1374.
- 58) 2002 Lobel P. S. & L. M. Kerr. Status of contaminants in Johnston Atoll lagoon sediments after 70 years of U.S. military occupation., **In** M.K. Kasim Moosa, S. Soemodihardjo, A. Nontji, A. Soegiarto, K. Romimohtarto, Sukarno and Suharsono. (Editors) *Proceedings of the Ninth International Coral Reef Symposium, Bali, Indonesia, October 23-27 2000.* Published by the Ministry of Environment, the Indonesian Institute of Sciences and the International Society for Reef Studies. Pages 861 to 866.
- 57) 2002 Rice, A.A. & P. S. Lobel. Enzyme activities of pharyngeal jaw musculature in the cichlid *Tramitichromis intermedius*: implications for sound production in cichlid fishes. *The Journal of Experimental Biology* 205:3519–3523
- 56) 2002 Ripley, J. L., P. S. Lobel & H. Y. Yan. Correlation of sound production with hearing sensitivity in the Lake Malawi cichlid, *Tramitichromis intermedius*. *Bioacoustics* 12:238-240.
- 55) 2002 Lobel, P. S. Diversity of fish spawning sounds and the application of passive acoustic monitoring. *Bioacoustics* 12:286-289.
- 54) 2001 Rice, A. N., D. S. Portnoy, I. M. Kaatz, & P. S. Lobel. Differentiation of pharyngeal muscles on the basis of enzyme activities in the cichlid *Tramitichromis intermedius*. *Biological Bulletin* 201:258-260.
- 53) 2001 Kaatz, I. M. & P. S. Lobel. A comparison of sounds recorded from a catfish (*Orinocodoras eigenmanni*, Doradidae) in an aquarium and in the field. *Biological Bulletin* 201:278-280.
- 52) 2001 Lobel P. S. Fish bioacoustics and behavior: passive acoustic detection and the application of a closed-circuit rebreather for field study. *Marine Technology Society Journal* 35(2):19-28.
- 51) 2001 Lobel, P. S. Acoustic behavior of cichlid fishes. *Journal of Aquaculture & Aquatic Sciences* 9:167-186.
- 50) 2001 Cohen, A. L., G. D. Layne, S. R. Hart & P. S. Lobel, Kinetic control of skeletal Sr/Ca in a symbiotic coral. *Paleoceanography* 16:20-26.
- 49) 2000 Sancho, G., A. R. Solow, & P. S. Lobel. Environmental influences on the diel timing of spawning in coral reef fishes. *Marine Ecological Progress Series* 206:193-212.
- 48) 2000 Sancho, G., C. W. Petersen, & P. S. Lobel. Predator-prey relations at a spawning aggregation site of coral reef fishes. *Marine Ecological Progress Series* 203:275-288.

- 47) 1999 Kerr, L. M., P. S. Lobel & M. Ingoglia. Evaluation of a Reporter Gene System Biomarker for detecting Contamination in Tropical Marine Sediments. *Biological Bulletin* 197:79-82.
- 46) 1999 Kaatz, I. & P. S. Lobel, The acoustic behavior and reproduction of five species of *Corydoris* catfishes. *Biological Bulletin* 197:241-242
- 45) 1999 Lobel P. S. & L. M. Kerr, Courtship sounds of *Abudefduf sordidus* (Pomacentridae) *Biological Bulletin* 197:242-244.
- 44) 1998 Lobel, P. S. Possible species specific courtship sounds by two sympatric cichlid fishes in Lake Malawi, Africa. *Environmental Biology of Fishes* 52: 443-452.
- 43) 1998 Mann, D.A. & P.S. Lobel. Acoustic Behavior of the Damselfish, *Dascyllus albisella*: behavior and Geographic Variation. *Environmental Biology of Fishes* 51:421-428.
- 42) 1998 Economakis, A. E. & P. S. Lobel. Aggregations of grey reef sharks, *Carcharhinus amblyrhynchos*, at Johnston Atoll, Central Pacific Ocean. *Environmental Biology of Fishes* 51(2):129-139.
- 41) 1997 Cohen, A., P. S. Lobel, & G. L. Tomasky. An unusual event of Coral bleaching on Johnston Atoll, Central Pacific Ocean. *Biological Bulletin* 193:276-279.
- 40) 1997 Kerr, L. M., K. Lang, & P.S. Lobel. PCB contamination relative to age for a Pacific damselfish, *Abudefduf sordidus* (Pomacentridae) *Biological Bulletin* 193:279-281.
- 39) 1997 Lobel, P.S. Comparative settlement age of damselfish larvae (*Plectroglyphidodon imparipennis*, Pomacentridae) from Hawaii and Johnston Atoll. *Biological Bulletin* 193: 281-283.
- 38) 1997 Sancho, G., D. Ma, & P. Lobel. Behavioral observations of colonization by larval *Ctenochaetus strigosus* (Acanthuridae) *Marine Ecological Progress Series* 153:311-315.
- 37) 1997 Johnson O., D. Osborne, C. Wildgoose, W. Worstell & P. Lobel. Development and testing of a Large-Area Underwater Survey Device. *IEEE Transactions on Nuclear Science* 44(3):792-798.
- 36) 1997 Mann, D.A. & P.S. Lobel. Information content and Propagation of Damselfish (Pomacentridae) Courtship Sounds. *Journal of the Acoustical Society of America* 101(6):3783-3791.
- 35) 1996 Lobel, P. S. Spawning sound of the Trunkfish, *Ostracion meleagris* (Ostraciidae). *Biological Bulletin* 191: 308-309.
- 34) 1996 Shelltema, R. S., I. P. Williams & P. S. Lobel, Retention and long distance dispersal between oceanic islands by planktonic larvae of benthic gastropod Mollusca *American Malacological Bulletin* 12:67-75.
- 33) 1996 Sanderson S. L., C.R. Chesnutt & P. S. Lobel. Evidence for ram suspension feeding by a piscivorous fish. *Environmental Biology of Fishes* 46:365-373.
- 32) 1995 Mann, D. A. & P. S. Lobel. Passive acoustic detection of spawning sounds produced by the damselfish, *Dascyllus albisella* (Pomacentridae). *Bioacoustics* 6:199-213.

- 31) 1995 Lobel P. S. & D. A. Mann. Spawning sounds of the damselfish, *Dascyllus albisella* (Pomacentridae), and relationship to male size. *Bioacoustics* 6:187-198.
- 30) 1994 Lobel, P. S., D. Mann, G. Sancho. Pollution and Coastal Fishes: How much do we know? pp. 1 - 13 in M. N. A. Peterson (ed.) Cleaning Up Our Coastal Backyards. Ocean Policy Inst. of the Pacific Forum, Center for Strategic and International Studies. Honolulu, Hi., 67pp.
- 29) 1994 Dacey, J. W., G. King & P. S. Lobel. Herbivory by reef fishes and the production of dimethylsulfide. *Marine Ecological Progress Series* 112:67-74.
- 28) 1992 Lobel, P. S. Sounds produced by spawning fishes. *Environmental Biology of Fishes* 33:351-358.
- 27) 1989 Lobel, P. S. Spawning behavior of *Chaetodon multicinctus* (Chaetodontidae); pairs and intruders. *Environmental Biology of Fishes* 25(1-3):125-130.
- 26) 1989 Lobel, P. S. Ocean current variability and the spawning season of Hawaiian reef fishes. *Environmental Biology of Fishes* 2 (3):161-171.
- 25) 1988 Lobel, P. S. Biotechnology and fisheries oceanography. pp. 296-299. In: A. Vlavianos-Arvanitis (ed.) Proceedings of the First International Conference on Biopolitics. Biopolitics International Organization, Athens, Greece.
- 24) 1988 Lobel, P. S. Quantitative evaluation of brine-liquid disposal in the ocean. pp. 223-240. In: E. K. Datta (ed.) Proceedings of the 1987 Conference on Pacific Basin Management of the 200 Nautical Mile Exclusive Economic Zone. Pacific Basin Management Council. Honolulu, HI, July 1987.
- 23) 1988 Lobel, P. S. & A. R. Robinson. Larval fishes and zooplankton in a cyclonic eddy in Hawaiian waters. *Journal of Plankton Research* 10(6):1209-1223.
- 22) 1988 Lobel, P. S., D. M. Anderson & M. Durand-Clement. Assessment of ciguatera dinoflagellate populations: sample variability and algal substrate selection. *Biological Bulletin* 175:94-101.
- 21) 1987 Anderson, D. M. & P. S. Lobel. The continuing enigma of ciguatera. *Biological Bulletin* 172:89-107.
- 20) 1986 Lobel, P. S. & A. R. Robinson. Transport and entrapment of fish larvae by ocean mesoscale eddies and currents in Hawaiian waters. *Deep-Sea Research* 33:483-500.
- 19) 1986 Lobel, P. S. & J. E. Randall. Swarming behavior of the hyperiid amphipod, *Anchylomera blossevilli*. *Journal of Plankton Research* 8: 253-262.
- 18) 1985 Randall, J. E., P. S. Lobel & E. H. Chave. Annotated Checklist of Fishes of Johnston Atoll. *Pacific Science* 39(1):24-80.
- 17) 1985 Lobel, P. S. & S. Neudecker. Diurnal periodicity of spawning activity by the Hamlet fish, *Hypoplectrus guttavarius* (Serranidae). In: M. L. Reaka (ed.), The Ecology of Coral Reefs, Vol. 3: 71-86, Symposia Series for Undersea Research, NOAA, Rockville, MD.

- 16) 1985 Robinson, A. R. & P. S. Lobel. The impact of ocean eddies on coastal currents. pp. 325-334. In: L. Magaard et al. (eds.) The Hawaiian Ocean Experiment Proceedings. Hawaii Inst. Geophysics Spec. Publ., 1985
- 15) 1985 Lobel, P. S. & A. R. Robinson. The potential role of ocean eddies in the life histories of Hawaiian fishes. pp. 61-86. In: L. Magaard et al. (eds.) The Hawaiian Ocean Experiment Proceedings. Hawaii Inst. Geophysics Spec. Publ. 1985.
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- 13) 1982 Neudecker, S. & P. S. Lobel. Mating systems of chaetodontid and pomacanthid fishes at St. Croix. *Zeitschrift für Tierpsychologie* 59:299-318.
- 12) 1981 Lobel, P. S. & J. C. Ogden. Foraging by the herbivorous parrotfish, *Sparisoma radians*. *Marine Biology* 64:173-183.
- 11) 1981 Lobel, P. S. *Bodianus prognathus* (Labridae, Pisces), a new longnose hogfish from the Central Pacific. *Pacific Science* 35(1):45-50.
- 10) 1981 Lobel, P. S. Trophic biology of Herbivorous reef fishes: Alimentary pH and digestive strategies. *Journal of Fish Biology* 19:365-397.
- 9) 1980 Levine, J. S., P. S. Lobel & E. F. MacNichol, Jr. Visual communication in fishes, pp. 447-475. *Environmental Physiology of Fishes*, M. A. Ali, Editor, Plenum Press.
- 8) 1980 Lobel, P. S. & R. E. Johannes. Nesting, eggs and larvae of triggerfishes; (Balistidae). *Environmental Biology of Fishes* 15(3):251-252.
- 7) 1980 Lobel, P. S. Invasion of the Mozambique Tilapia (*Sarotherodon mossambicus*; Pisces; Cichlidae) of a Pacific Atoll marine ecosystem. *Micronesica* 16(2):349-355.
- 6) 1980 Lobel, P. S. Herbivory by damselfishes and their role in coral reef community ecology. *Bulletin of Marine Science* 30:273-289.
- 5) 1979 Lobel, P. S. Description of a new Hawaiian gobiid fish of the genus, *Trimma*. *Breviora* No. 456, 15 pp.
- 4) 1978 Ogden, J. C. & P. S. Lobel. The role of herbivorous fishes and urchins in coral reef communities, *Environmental Biology of Fishes* 3:49-63.
- 3) 1978 Lobel, P. S. Gilbertese and Ellice Islander names for fishes and other organisms, *Micronesica* 14(2):177-197.
- 2) 1978 Lobel, P. S. Diel, lunar and seasonal periodicity in the reproductive behavior of the pomacanthid fish, *Centropyge potteri* and some other reef fishes in Hawaii, *Pacific Science* 32:193-207.
- 1) 1976 Lobel, P. S. Predation on the Cleanerfish (*Labroides*) by a hawkfish (*Cirrhitus*), *Copeia* 1976:384-385.

Booklets

- A] 2005 Lobel, P.S. & Richlen, M.L. Coral Reef Protection Guidelines for Department of Defense Vessels and Installations. Legacy Resource Management Program, Department of Defense, Washington, DC. 25
- B] 2005 Lobel, P.S. & Richlen, M.L.. The Department of Defense Coral Reef Assessment Protocol. Legacy Resource Management Program, Department of Defense. Washington, DC. 30 pp.
- C] 2003 Lobel, P. S., B. A. Schrieber, G. McCloskey & L. O'Shea. An ecological assessment of Johnston Atoll. Publ. US Army, Aberdeen, MD, 49pp
<http://www.cma.army.mil/johnston.aspx>
- D] 2000 Kerr, L. M & P. S. Lobel (eds). Department of Defense Coral Reef Protection Implementation Plan. US Coral Reef Task Force Rpt. GPO, Wash. DC
The site for the DoD *Coral Reef Protection Implementation Plan* is
<https://www.denix.osd.mil/denix/Public/ES-Programs/Conservation/Legacy/Coral-Reef/Plan/coralreef.html>
- E] 1998 Lobel, P. S. Coral Reef Conservation Guide for the Military. Legacy Resource Management Program, US DoD, Special Publ. 12 pp.
Reports on the DoD website: The Coral Reef Conservation Guide for the Military
<http://osiris.cso.uiuc.edu/denix/Public/ES-Programs/Conservation/Legacy/Coral/coral.html>
- F] 1976 Chave, E. H. & P. S. Lobel. Waikiki Aquarium Docent Handbook, A guide to Hawaiian marine life for teachers. Waikiki Aquarium Publication. 72 pp.
- G] 1974 Chave, E. H. & P. S. Lobel. (revised 1975) Marine and freshwater aquarium systems for tropical animals. Sea Grant Publication, Honolulu, 88 pp

Abstracts & Reviews published

- 2002 Lobel, P. S. Diversity of fish courtship and spawning sounds and application for monitoring reproduction. *J. Acoust. Soc. Am.* 112:2201
- 2002 Mann, D. A., W. D. Ma, P. S. Lobel. Sound production by the toadfish *Sanopus astrifer*. *J. Acoust. Soc. Am.* 112:2202
- 1998 Lobel, P. S. Passive acoustic monitoring of fish reproduction coupled to physical oceanographic variables. EOS, *Transactions American Geophysical Union* 79(1):OS180 [abstract]
- 1996 Lobel P. S. Fishes of the Tropical Eastern Pacific by G. R. Allen & D. R. Robertson [Book Review] *Quarterly Review of Biology* 71(3): 423
- 1995 Mann D. A. & P. S. Lobel, Passive acoustic detection of fish sound production associated with courtship and spawning. *Bulletin of Marine Science* 57(3):705-706
- 1995 Lobel P. S. & D. A. Mann, Courtship and mating sounds of *Dascyllus albisella* (Pomacentridae). [abstract] *Bulletin of Marine Science* 57(3):705

- 1993 Lobel, P.S. The Ecology Of Fishes On Coral Reefs. Edited by P. F. Sale 1991
[Book review:] *Copeia* 1993 (2):571-572

NOTE: I do not list invited lectures or meeting presentations in my CV as it would be simply too long.

Selected POPULAR PUBLICATIONS: (Selected Titles, total number = 26)

- 1995 Lobel, P. S. The Coral Reefs: Symbol of BioDiversity *Oceanus* Vol. 38
- 1993 Lobel P. S. Underwater "Sound-Bites" - Fish Talk and Aquarium Noise. *Freshwater and Marine Aquarium Magazine* 16(10): 198-205.
- 1991 Lobel, P. S. Mating strategies of coastal marine fishes. *Oceanus* 34(3): 19-26.
- 1985 Lobel, P. S. Spawning behavior of the spotted trunkfish, *Ostracion meleagris*, *Freshwater and Marine Aquarium Magazine* 8(8): 26-28.
- 1984 Lobel, P. S. Spawning behavior of the harlequin bass, *Serranus tigrinus*. *Freshwater and Marine Aquarium Magazine* 7(7): 34-35.
- 1979 Lobel, P. S. Traditional remedies for tropical fish poisoning in the Pacific, *Sea Frontiers* (25): 239-245.
- 1978 Lobel, P. S. Spawning behavior of reef fishes, *Marine Aquarist Magazine* 8(7): 6-16.
- 1976 Lobel, P. S. & J. B. Culp. A decompression chamber for fishes, *Sea Frontiers* (22):204-208.

TECHNICAL RESEARCH REPORTS (n=19)

- 2002 Lobel, P.S., G. Skomal, & I. Fredland.. Edgartown Great Pond Project: Exploration and Documentation of fish species residence and spawning habits in Edgartown Great Pond. Annual Report to Great Pond Foundation. 28 pp.
- 1998 Lobel P. S. & L. M. Kerr. Ecological Risk Assessment for the nearshore marine environment of the former HO storage site, Johnston Atoll. Tech. Rpt to the USAF, US Army, Defense Nuclear Agency, USFWS, USCG. 128pp.
- 1996 Lobel P. S. & L. M. Kerr, Johnston Atoll Phase 1 Marine Sediment Sampling Field Report. Report to the USAF, US Army, Defense Nuclear Agency, USFWS, US Coast Guard., 164 pp.
- 1996 Lobel P. S. & L. M. Kerr, Johnston Atoll Phase 11 Marine Sediment and Biota Sampling Field. Report. Tech. Rpt to the USAF, US Army, Defense Nuclear Agency, USFWS, USCG. 58 pp.
- 1995 Lobel, P. S. Course reference manual; Fourteenth Coast Guard District Diver Training Program; AtoN Battery Survey and Recovery in the Pacific. Tech. Rpt.
- 1994 Maragos, J. M. et al. (incl. P.S. Lobel). Marine and Coastal Areas Survey of the Main Palau Islands: Part 2 Rapid Ecological Assessment Synthesis Report. Prepared for the Republic of Palau by the Nature Conservancy and CORIAL

- 1994 Lobel et al. Annual Report: Marine Environmental Monitoring Program, Johnston Atoll Report to the USAF, US Army, Defense Nuclear Agency, USFWS, USCG
- 1993 Lobel et al. Johnston Atoll Sampling and Analysis Plan. (revised 1994) Report to the USAF, US Army, Defense Nuclear Agency, USFWS, US Coast Guard
- 1993 Lobel et al. Annual Report: Marine Environmental Monitoring Program, Johnston Atoll. Report to the USAF, US Army, Defense Nuclear Agency, USFWS, US Coast Guard
- 1989 Lobel, P. S., E. Kalko, J. Moore & C. Sussman. Fish and Wildlife Survey of Lake Telle, Likouala Rainforest, People's Republic of Congo. Report to World Wildlife Fund - U.S. and the National Geographic Society. .
- 1988 Lobel, P. S. Monitoring plan for ocean disposal of JACADS brine, Rpt. to U.S. Army Corps Engineers, Honolulu, 20 pp.
- 1988 Lobel, P. S. Literature review of tunas and billfishes in the vicinity of Johnston Atoll. Rpt. to U.S. Army Engineers, Honolulu, 12 pp.
- 1988 Lobel, P. S. Ocean Current and plume study, Johnston Atoll: May 1988. Rpt. to U.S. Army Engineers, Honolulu, 31 pp.
- 1988 Lobel, P. S. Dilution of JACADS brine in the ocean: Summary Rpt. to U.S. Army Corps Engineers, Honolulu, 12 pp.
- 1988 Lobel, P. S. Summary of oceanography around Johnston Atoll. Rpt. to U.S. Army Corps of Engineers, Honolulu, HI, 27 p.
- 1985 Lobel, P. S. Synopsis of biological and physical oceanographic data on fishes, plankton and ocean currents along the Kona coast, Hawaii. Final Rpt. to Dept. of Energy OTEC Pgrm, 252 pp.
- 1985 Lobel, P. S. Oceanographic investigations to assess the impact of proposed deep ocean disposal of brine waste off Johnston Atoll, U.S. Army Corps of Engineers, Honolulu, HI, 135p.
- 1984 Lobel, P. S. (editor) Ecological investigations to assess the impact of proposed deep ocean disposal of brine waste off Johnston Atoll. U.S. Army Corps of Engineers, Honolulu, HI, 222p.
- 1981 Neudecker, S., P. S. Lobel, & W. Hamilton, III. Social behavior and foraging ecology of Caribbean chaetodontids. Final Report for NOAA Hydrolab, NOAA Undersea Research Program, 22 pp.

ACADEMIC AND RESEARCH AWARDS:

- 1975 High honors for undergraduate thesis in Zoology, University of Hawaii.
- 1975-79 Harvard grant-in-aid, tuition plus stipend.
- 1976 Anderson Fund grant for doctoral research, Harvard University.
- 1978-79 National Science Foundation grant for doctoral dissertation research: The effect of fishes on the coral reef community; biological adaptations and relationships of the herbivores.
- 1980-81 National Science Foundation grant: Eddy currents and the life cycle of reef fishes (with A. R. Robinson).
- 1981-83 National Science Foundation: Eddy currents and the life cycle of reef fishes, Part II (with A. R. Robinson).
- 1983-84 U.S. Army Corps Engineers Contract: Environmental and Fisheries investigations at Johnston Atoll.

- 1984-85 University of California, Berkeley and Department of Energy Grant: Description and analysis of the physical and biological oceanography of Hawaii. 1985
- 1985 Cooperative Inst. for Marine and Atmospheric Studies, Invited Scientist March 1985 Univ. Miami and NOAA
- 1985 Mellon Foundation Independent Study Award, Woods Hole Oceanographic Inst..
- 1985-87 National Marine Fisheries Service and WHOI. Cooperative Fishery Biology Research Project: Ecology of juvenile cod and haddock (with Peter Wiebe and Cabell Davis).
- 1985-89 U.S. Army Corps of Engineers contract: Oceanography of Johnston Atoll.
- 1986 Sea Grant Program: Seagrass herbivory by parrotfish and the production of dimethylsulfide (with John Dacey).
- 1986 New England Biolabs Foundation Grant: A field analysis of fishes and algae at St. Barthelemy with emphasis on ciguateric species (with Don Anderson).
- 1986-88 University of Hawaii Foundation Grant: Development of oceanographic survey methods and technology using aircraft (with Martin Vitousek).
- 1987-88 Island Foundation Grant: Acoustic location and tracking of spawning fishes.
- 1988 Smith Special Studies Fund Award (WHOI).
- 1988-89 New England Biolabs Foundation Grant: Fish and wildlife conservation study in the Congo.
- 1988-89 National Geographic Society Grant: Collection of fishes from Lake Telle, Congo.
- 1988-89 World Wildlife Fund Grant: Fish and wildlife conservation study in the Congo.
- 1989 Sea Grant: Study of Cape Cod fishes using new acoustic technology.
- 1989 Kelley Foundation Grant: Study of Cape Cod fishes using new acoustic technology.
- 1989 National Undersea Research Center (NOAA), St. Croix AQUARIUS habitat program Grant: vocalizations of fishes.
- 1990 Sea Grant: Analysis of species-specific sequences from natural populations (with D. Prasher)
- 1990 World Wildlife Fund Grant: An acoustic study of fishes in Lake Malawi.
- 1991 National Undersea Research Program (NOAA) University of North Carolina at Wilmington, Acoustic study of reef fishes in the Florida Keys. Aquarius Underwater Habitat Program, Grant.
- 1993-1997 Pacific Equatorial Atoll research lab establishment and operations, Johnston Atoll Department of Defense/Army Legacy grant (DAMD17-93-J-3052)
- 1994-95 Johnston Atoll Ecosystem Study – Office of Naval Research
- 1994 Artificial Reef feasibility study in Cape Cod. State of Massachusetts grant
- 1995-1998 Johnston Atoll Ocean Science Study, Office of Naval Research
- 1996-1997 High Resolution Calibration and Validation of Proxy Records in Corals (with Anne Cohen, Subcontract via Woods Hole Oceanographic Institution) National Science Foundation
- 1997-2001 Military Commander's Guide for Safe Operations Around Coral Reefs and survey of Wake Atoll. Department of Defense/Army
- 1998-2002 Johnston Atoll Ocean and Reef. Ecosystem Study IIa Department of Defense/Army Research Office
- 1998-2002 Johnston Atoll Ocean and Reef Ecosystem Study IIb Department of Defense/Army Research Office
- 1999-2001 The coral reef protection plan and book. Department of Defense/Army Legacy grant
- 2001-2005 Edgartown Great Pond Foundation – study of Great Pond, Marthas Vineyard
- 2001-2002 Training US Navy Divers in underwater scientific diving methodology Department of Defense/Army Legacy grant
- 2002-2005 Johnston Atoll Ocean and Reef Ecosystem Study V, Army Research Office
- 2002-2005 Dept. Defense Legacy Resource Management Pgm Grant: Navy diver training program and coral reef monitoring and assessment.
- 2006-2011 Dept. Defense Legacy Resource Management Pgm Grant: Coral Reef Management Program & US Coral Reef Task Force.

- 2006-2009 Conservation International grant: Belize Marine Management Study.
 2008-2009 Conservation International Evaluating potential impact of divers on spawning snappers (Lobel subcontract from TAMU with W. Heyman)
2012-2013 Dept. Defense Legacy Resource Management Pgm Grant: Coral Ecosystem and Resource Initiative
2013 Acoustic Experiments with Great White Sharks. National Geographic Society's Expeditions Council, #EC0627-13

ACADEMIC AND PROFESSIONAL EXPERIENCE:

Undergraduate - University of Hawaii (1971- 1975)

- 1971-75 Undergraduate in Zoology, University of Hawaii.
 1971-73 Assistant Curator of Fishes, University of Hawaii, Dr. George S. Losey, Curator.
 1973 -74 Assistant Manager, Enewetak Marine Biological Laboratory, Enewetak Atoll, Marshall Islands, Dr. Phil Helfrich, Director.
 1972-73 Instructor, University of Hawaii, Sea Grant program.
 1973-74 Cruise Instructor in Marine Biology, Blue Water Marine Laboratory Department of Continuing Education, University of Hawaii.
 1973-75 Member, Dean of Marine Program's Waikiki Aquarium Advisory Committee.
 1974 Assistant to Dr. G. S. Losey, University of Hawaii, Pa'a Mahulepu Kauai marine survey, Ecological Impact Study (Nov).
 1974-75 Undergraduate representative, Department of Zoology, University of Hawaii.
 1975 Honors Department Colloquium Leader, Hawaiian Fisheries, University of Hawaii (Jan-May).

Graduate Student – Harvard University (1975 – 1979)

- 1975-79 Graduate student in Biology, Harvard University.
 1975 Teaching Fellow, Ichthyology (Prof. K. F. Liem), Harvard University (Sept-Feb).
 1976 Research Assistant for Dr. John Ogden, West Indies Laboratory, U.S. Virgin Islands (Sept-Dec).
 1977 Research Assistant for Drs. Jane Lubchenco and Bruce Menge, Smithsonian Tropical Research Institute, Panama (Dec-May).
 1977 Research Assistant for Dr. John Ogden, West Indies Laboratory, U.S. Virgin Islands (Jun-Sept).
 1977 Consultant to Aqua-engineers, St. Croix (Ecological Impact Study) (July).
 1978 Teaching Fellow, Population and Community Ecology (Prof. K. Sebens), Harvard University (Feb-June).
 1978-79 Research Assistant for Dr. K. Sebens, Harvard University.
 1978-79 Consultant for Cambridge-Seven Associates, Inc. on exhibits designed for the Baltimore Aquarium (designated the U.S. National Aquarium).

Post-doctoral Fellow, Research Fellow - Harvard University (1980- 1984)

- 1980-83 Postdoctoral Fellow in Oceanography, Harvard University.
 1982 Consultant to Rockwell International on Ocean Currents in Hawaii, in support of a project for NOAA and Dept. Energy (Sept).
 1983-84 Research Fellow in Oceanography, Harvard University.
 1983 Project Leader for the University of Hawaii oceanographic research study at Johnston Atoll involving NOAA's submarine, MAKALII (Hawaii Undersea Research Laboratory) (Sept-Oct).

Assistant to Associate Scientist, Woods Hole Oceanographic Institution (1984 – 1994)

- 1984-85 The Hawaiian Ocean Experiment, Board Member, University of Hawaii.
 1984-88 Assistant Scientist, Biology Department, Woods Hole Oceanographic Institution.
 1984-1989 Associate in Oceanography, Center for Earth and Planetary Physics, Harvard University.
 1985 Research Affiliate, Hawaii Institute for Marine Biology, University of Hawaii.
 1985 - 1990 Lecturer, Northeastern Univ. East-West Marine Biology pgm held in Jamaica
 1986 Invited Visiting Prof. Discovery Bay Marine Lab, Jamaica.

- 1986 National Academy of Sciences Ocean Studies Board, Caribbean Plan.
- 1985 Invited scientist, Cooperative Institute for Marine and Atmospheric Studies, University of Miami (March).
- 1987 Biopolitics International Organization, Athens, Greece, Founding Member.
- 1987-1992 Consultant for Aubrey Consulting Inc. on the environmental impact of beach restoration, coastal dredging and shoreline developments; Jupiter Island, Florida.
- 1988-1994 Associate Scientist, Woods Hole Oceanographic Institution.
- 1990 -2003 Chief Scientist, Johnston Atoll Ocean Science Study and Marine Environmental Monitoring Program, US Army, US Air Force, Defense Nuclear Agency, USCG.
- 1991 Biodiversity Study Group, Ocean Policy Institute of the Pacific Forum, Honolulu, HI, and the Center for Strategic International Studies (Washington, DC).
- 1991-93 The New York Bight Biological Review and Assessment Team, U.S. Army Corps of Engineers, Waterways Experiment Station.
- 1993-1996 Consultant on the problem of Dredging and Ciguatera, HASEKO Inc, Honolulu, HI.

Associate to Full Professor, Boston University (1994 – present)

- 1994-1996 Expert Witness for Oshima, Chun, Fong & Chung Attorneys at Law, Honolulu, HI
- 1996 Scientific Liaison and Member, US Dept. of Defense Coral Reef Initiative Planning Committee (Chairman, Gary Vest, Principal assistant Deputy Undersecretary of Defense [Environmental Security])
- 1997-1999 Member, Outfall Monitoring Task Force Science Council, State of Massachusetts
- 1998-1999 Scientific Advisor, WGBH Large-format films, Boston, MA.
Project just completed is the IMAX film on sharks of Cocos island, Costa Rica,
- 1994-2003 Associate Professor of Biology (tenured), Boston University
- 2002-2008 Chief Scientist: Department of Defense Coral Reef Task Force Team.
- 2003- present Professor of Biology and Dive Safety Officer, Boston University
- 2008 – 2010 American Academy of Underwater Sciences – Board member and chairman of the diving statistics committee
- 2011-present American Academy of Underwater Sciences Foundation – Secretary & Board member

Scientific Diving Activities, Certifications and Experience

2012 NOGI Science Awardee, The Academy of Underwater Arts and Sciences

<http://www.auas-nogi.org>

Dive Safety Officer, Boston University

Instructor Scuba and NITROX, National Association of Underwater Instructors (NAUI) # 41363

Divers Alert Network Instructor for Diving Emergency Management #13032

- First-Aid for hazardous marine life Instructor
- AED Instructor
- Diving First-Aid for professional divers Instructor
- Emergency Oxygen for scuba diving injuries Instructor
- Neurological assessment Instructor
- CPR: Health care provider with First Aid Instructor

○ See <http://www.diversalertnetwork.org/training/directory/>

First Aid and CPR Instructor, American Safety & Health Institute

DiveMaster, Professional Association of Dive Instructors (PADI)

Enriched Air Nitrox Diver, International Assoc. of Nitrox & Technical Divers.

Rebreather Diver, International Association of Nitrox and Technical Divers.

SSI Platinum-Pro Certification for more than 7500 scuba dives.

Past Diving Activities and Certifications

- 1969-1970** scientific diver & assistant, Shark Research Station operated by the Cleveland Aquarium and Sea World, Florida Keys
- 1971- 1975** University of Hawaii Scientific Diver
- 1972-1973** Assistant Lab manager and divemaster, Enewetak Marine Lab, Marshall Islands, University of Hawaii, Atomic Energy Commission .
- 1975- 1983** Harvard University Scientific Diver and Dive Safety Officer for the Kona, Hawaii Harvard Marine Research Field Station
- 1976-1979** West Indies Marine Laboratory Scientific Diver, St Croix, USVI
- 1977** Smithsonian Inst. Tropical Research Station, Panama, Scientific Diver
- 1980&1982** NOAA Aquanaut: two saturation missions in the underwater habitat Hydrolab, ST Croix, USVI
- 1984- 1994** Woods Hole Oceanographic Institution Scientific Diver
- 1983- 1992** Discovery Bay Marine Lab, Jamaica, Scientific Diver *incl.* tri-mix diving
- 1986 -1990** NOAA Working Diver certification
- 1992** NOAA Working diver recertification and NOAA Nitrox qualification.
- 1993 – 2003** Scientific Dive Safety Officer, Johnston Atoll, Dept of Defense.
- 1995 –** US Coast Guard dive instructor for underwater hazmat, Honolulu, HI
- 1994-2006** Dive Control Board member, Marine Biological Lab.
- 2003-2006** US Navy Diver and instructor (by waiver as scientific diver), DoD
- 2003** NAUI Instructor certification #41363
- 2003-2006** Co-Diving Safety Officer for BUMP/MBL pgm
- 2006 – present** Diving Safety Officer, Boston University.
- 2006** Divers Alert Network Instructor certification
- 2006** NAUI Nitrox instructor certification
- 2010** Awarded SSI Platinum-Pro Certification for more than 7500 scuba dives

FIELD RESEARCH EXPERIENCE:

I have conducted research on wild fish populations since 1969 and have participated in more than 100 major expeditions. This includes studies of coral reef fishes, deep-sea mesopelagic fishes and freshwater fishes in remote jungles. Since 1979 I have been the chief scientist on most of these projects. This experience has provided me with a working knowledge of the environment and people in the many regions of the world.

The experience of field operations during scientific research projects has trained me in: scientific diving, boat operations and maintenance, navigation (satellite, loran, sextant and compass), radio communications (licensed), SCUBA (certified), underwater and scientific photography, physical oceanographic instrumentation (current meters, CTD profiler, XBT systems, temperature - tide dataloggers, licor light profilers, etc.), and the logistic realities of domestic and international travel accompanied by lots of excess baggage.

Tropical Western Atlantic Ocean and Caribbean: Florida (East Coast and Keys), Turks and Caicos Islands, U.S. Virgin Islands, Jamaica, St. Barthelemy, San Andres and Isle Providence (Columbia), San Blas Islands (Panama), Belize; Cancun, Mexico.

Northwestern Atlantic Ocean: New England waters, mostly Cape Cod.

Tropical Eastern Pacific: La Paz, Mexico

Pacific Ocean: Hawaiian Islands, Johnston Atoll, Marshall Islands, Wake Atoll, Line Islands (Kiribati), Pacific coast of Panama, Taiwan, Pohnpei, Palau & Guam, Saipan, Philippines.

Africa, inland freshwater: Republic of Congo; and Lake Malawi, Malawi.

Indian Ocean: South Africa (Durban); Bali, Indonesia.

South America: Amazon area surrounding Leticia, Columbia (included parts of Brazil and Peru)

NATIONAL AND INTERNATIONAL SCIENCE COMMITTEES:

- 1984-85 The Hawaiian Ocean Experiment, University of Hawaii.
1986 National Academy of Sciences Ocean Studies Board, Caribbean Plan.
1987 Biopolitics International Organization, Athens, Greece,
Founding Member.
1991-93 The New York Bight Biological Review and Assessment Team, U.S. Army
Corps of Engineers, Waterways Experiment Station.
1991 Biodiversity Study Group, Ocean Policy Institute of the Pacific Forum, Honolulu, HI, and the
Center for Strategic International Studies (Washington, DC).
1996 Scientific Liason and Member, US Dept. of Defense Coral Reef Initiative Planning Committee
(Chairman, Gary Vest, Principal assistant Deputy Undersecretary of Defense [Environmental
security]) note: produced the publication: 1998 Lobel, P. S. Coral Reef Conservation Guide for
the Military. Legacy Resource Management Program, US DoD, Special Publ. 12 pp
2009 – 2010 American Academy of Underwater Sciences, Board member & Chair of the Statistics committee
2010-2011 National Oceanographic and Atmospheric Agency, Review Board for the Undersea habitat
Program.

Synergistic Activities and Service.

Service to the Scientific Community: I serve as a board member and Secretary for the American Academy of Underwater Sciences (AAUS) Foundation and I am active in the AAUS society. This organization operates through University designated Dive Safety Officers to ensure scientists comply with OSHA safety regulations (this is similar to the regulatory function of the IACUC national and University committees). I have been involved with establishing new diving regulations for advanced underwater breathing apparatus devices known as “Rebreathers”. Rebreathers are silent, bubble free diving technologies that enable noiseless recordings of underwater animal sounds among other advantages. They are highly technical and require advanced training. As the DSO for BU, I am responsible for all scientific diver training at Boston University. I am also a lifetime member of the American Society for Ichthyologists and Herpetologists.

Service to the US National Interest: During 1983 to 2005, I led the scientific research team that evaluated the impact on the marine environment from the US Army’s prototype facility for the destruction of chemical weapons (i.e. nerve and mustard gases) on a remote Pacific coral atoll, Johnston Atoll. The work also included impact study of “agent orange” and nuclear weapons fallout. This project operated under a Joint Task Force with funding from the Defense Nuclear Agency, US Air Force, US Army, US Navy and US Coast Guard. The lessons learned from this project were transferred to the training of US Navy divers and in developing the policy for the Department of Defense stewardship of marine protected areas (e.g. <http://www.denix.osd.mil/nr/upload/dodbk5.pdf> and <http://www.dtic.mil/dtic/tr/fulltext/u2/a571836.pdf>)

Contribution to the refinement of research tools: My lab advanced the use of passive acoustic monitoring as a means of quantifying fish spawning patterns and locations. We developed hydrophones and real-time devices for the detection and recording of specific fish sounds in the wild. Our publications have documented the unique spawning sounds and other sounds of many reef fish species. We have also developed new tools for use in acoustics tracking of fishes (eg Lobel 2012 AAUS symp.) and for detecting nuclear radiation underwater (Johnson et al 1997).

BIOGRAPHICAL PUBLICATIONS with reviews of P. Lobel scientific research:

These three books are written as biographical stories about scientific research.

Each one has a chapter about PSL (pdf files available upon request).

- ***Agassiz's Legacy: Scientists' Reflections on the Value of Field Experience***
by Elizabeth Higgins Gladfelter 2002, Oxford University Press,
- ***Confessions of an eco-redneck, or, How I learned to gut-shoot trout & save the wilderness at the same time.*** By Steve Chapple 1997 New York: Plenum Press.
- ***The NPR Interviews.1994***, edited by R. Siegel.-Interview with P. Lobel, pp. 144-145. Houghton Mifflin Company, Boston and New York, 376 pp.

FILMS

Award winning science education video: 1993

SCRUMP - *the music video with Phil and Fish*

<http://www.youtube.com/watch?v=4ebjtxqbil0>

National Geographic Television Shows – two television shows on the series “Wildlife Chronicles”. Episode: Sharks of Johnston Atoll, Episode: Shark ecotourism of Palau.

WEB information sources for Lobel Research

SCRUMP - *the music video with Phil and Fish* <http://www.youtube.com/watch?v=4ebjtxqbil0>

August 2003 national geographic

http://news.nationalgeographic.com/news/2003/08/0811_030811_sharkcam.html#main

BU Bridge article on shark conservation April 2003

<http://www.bu.edu/bridge/archive/2003/04-18/shark.html>

SeaGrant International Workshop on fish bioacoustics, April 2002

Phillip S. Lobel, short paper - Fish mating Sounds

<http://seagrant.mit.edu/cfer/acoustics/exsum/lobel/extended1.html>

SeaGrant International Workshop on fish bioacoustics, April 2002

Phillip S. Lobel, short paper - Synchronized underwater audio-video recording

<http://seagrant.mit.edu/cfer/acoustics/exsum/lobel/extended2.html>

BU Bridge article Oct 2001 -Story describing research by Lobel at Johnston Atoll.

<http://www.bu.edu/bridge/archive/2001/10-19/coralreef.htm>

Christian Science Monitor Nov 8 2001 -Story describing fish acoustic research by Lobel and others

<http://www.csmonitor.com/2001/1108/p16s1-stss.html>

CNN International news June 13, 2002, Tuning in to a deep sea monster

<http://www.cnn.com/2002/TECH/science/06/13/bloop/index.html>

and

<http://lawsofsilence.blogspot.com/2010/06/bloop.html>

New York Times, 8 April 2008

What’s Making That Awful Racket? Surprisingly, It May Be Fish

http://www.nytimes.com/2008/04/08/science/08fish.html?pagewanted=all&_r=0

Department of Defense Coral Reef Protection Plans

for main page see – <http://www.denix.osd.mil/nr/>

The Coral Reef Conservation Guide for the Military *(by P. S. Lobel)*
http://www.denix.osd.mil/nr/upload/Coral_Reef_Conservation_Guide_for_the_Military.pdf

DoD Coral Reef Protection Implementation Plan *(by L. K. Lobel & P. S. Lobel)* is
<http://www.denix.osd.mil/nr/upload/dodbk5.pdf>

Johnston Atoll Ecological Risk Assessment
<http://www.dtic.mil/dtic/tr/fulltext/u2/a571836.pdf>