

CURRICULUM VITAE

Daryl J. Boness

PRESENT POSITIONS

Retired Senior Scientist, Smithsonian Institution

Current Part-time positions:

Commissioner & Chairman
U.S. Marine Mammal Commission
(Appointed by President Barak Obama & confirmed
by the U.S Senate, June 2010)

Editor-in-Chief
Marine Mammal Science (scientific journal
of the Society for Marine Mammalogy)

EDUCATION

B.A.	Cornell College, Iowa	1972	Biology and Psychology
M.A.	Hollins College, Virginia	1973	Human Psychophysiology
Ph.D.	Dalhousie University, Nova Scotia	1979	Behavioral Ecology (in Psychology)

HONORS AND AWARDS

- B.A. Degree, Magna Cum Laude
- Beta Beta Beta, National Biological Honor Society, 1971 (Chapter President)
- Phi Beta Kappa, National Scholastic Honor Society, 1972
- Hollins College Graduate Fellowship, 1972 to 1973
- Dalhousie University Graduate Fellowship, 1973 to 1975
- National Research Council of Canada Graduate Fellowship, 1975 to 1978
- Sigma Xi Research Society, 1981
- Smithsonian Institution Exceptional Service Award, 1987
- Smithsonian Institution Personal Recognition for Ingenuity, Drive, & Excellence, 1994, 1995
- Smithsonian 150th Anniversary Scholarly Leadership Award, 1996
- Smithsonian Merit Pay Award for Performance as Department Chair, 1998
- Smithsonian Merit Pay Award for Outstanding Performance as Department Head, 2001

PROFESSIONAL EXPERIENCE

- Curator of Mammals: In charge of aquatic vertebrates (seal, beaver, and otter), bear, canid, and felid collections; supervised 11 animal keepers; assisted in the design of an aquatic habitat complex (\$12,000,000; never completed); performed research in the field and at the National Zoo, Smithsonian Institution; 1978 to 1985

- Research Zoologist, Dept. of Zoological Research, National Zoological Park, Smithsonian Institution: Responsible for conducting original research on marine mammal behavior and advising zoo husbandry staff on seal husbandry and water quality; 1985 to 1996
- Acting Assistant Director for Research, National Zoological Park: Headed the Research Department while the Assistant Director for Research was on sabbatical; supervised department staff (7 staff research scientists, 8 postdoctoral associates, and 7 graduate students); chaired the Research Council (a review and policy-making board of 17 Ph.D. or D.V.M. staff); represented the research interests of the Zoo at high-level Zoo and Smithsonian meetings; December 1986 to April 1987
- Scientific Advisor, U.S. Marine Mammal Commission, Executive Branch; 1993 to 2010
- Research Professor, Department of Biology, American University; 1994 to 2003
- Acting Head, Department of Zoological Research: completed six-month detail as Head of the Department following abolishment of the Assistant Director's position (the previous position that had responsibility for running the Department) and in the interim to establishing a rotating Department Chair. I had ultimate responsibility for running the Department of Zoological Research, which consisted of 7 research scientists (GS-12 to Senior Scientist level), 9 technical and administrative support staff, and a varying number of associates, postdoctoral fellows, and graduate and undergraduate students; November 1996 to May 1997
- Chairman, Department of Zoological Research, National Zoological Park: I had ultimate responsibility for running the Department of Zoological Research, which consisted of 11 research scientists (GS-12 to Senior Scientist level), 10 technical and administrative support staff, and a varying number of associates, postdoctoral fellows, and graduate and undergraduate students. The Department included a molecular genetics laboratory, comparative nutrition laboratory, a sound and video analysis laboratory, a migratory bird center, and a public science education exhibit area with several functional labs open to the public; May 1997 to September 2000
- Senior Scientist and Head, Department of Conservation Biology, National Zoological Park: In a reorganization of the Zoo, several operations were merged into a new department, which I headed. The department consists of 24 research scientists (GS-12 to Senior Scientist level), 12 technical and administrative support staff, and varying numbers of associates, postdoctoral fellows, and graduate and undergraduate students. The department is comprised of several units: Genetics; Comparative and Clinical Nutrition; Behavior, Ecology and Population Biology; Migratory Bird Center; Monitoring and Assessment of Biodiversity Program; International Wildlife and Conservation Training Program and Public Science Outreach. The mission of the department is to advance the preservation of biodiversity through research, conservation activities, training of young professionals and public education; May 1997 to December 2003

- Adjunct Professor, Department of Biology, Dalhousie University, Canada; 1999 to 2003
- Adjunct Professor, Department of Biology, La Rochelle University, France; 1999 to 2004
- Smithsonian Senior Scientist (retired and Research Associate); January 2004 to present
- Research Professor, Department of Wildlife Ecology and School of Marine Science, University of Maine, Orono; July 2005 to December 2010
- Research Professor, Marine Science Center, University of New England, Biddeford, ME 2010-present
- Chairman, Committee of Scientific Advisors for the U.S. Marine Mammal Commission; 2008 to June 2010
- Chairman, U.S. Marine Mammal Commission. This is a Senate-Approved Presidential Appointment. The Chairman serves as one of three Commissioners and has ultimate responsibility for all decisions within this small independent government agency with a budget of just over \$3 million. The MMC mandate is to provide oversight of U.S. policy and actions regarding marine mammal protection and conservation. The MMC was established under the Marine Mammal Protection Act of 1972; By statute the term is 3 years but one serves until replaced - June 2010-present.
- Editor-in-Chief of Marine Mammal Science, the scientific journal of the Society for Marine Mammalogy; December 2007 to present

PROFESSIONAL ORGANIZATIONS

- American Society of Mammalogists (currently inactive)
- Animal Behavior Society (currently inactive)
- Society for Marine Mammalogy (Charter Member)
- Society for Conservation Biology (currently inactive)
- International Society for Behavioral Ecology (currently inactive)
- Washington Biologists Field Club (Life Member)

COMMITTEES AND APPOINTMENTS

Within Smithsonian:

- National Zoological Park Ad Hoc Children's Zoo Committee, 1985 to 1986
- National Zoological Park Information Services Panel, 1985 to 1988
- National Zoological Park Water Quality Control Committee, 1986 to 1989 (Chairman, 1986)

- Smithsonian Institution Academic Program Committee for Environmental Sciences, 1987 to 1989
- National Zoological Park Committee on Science and Exhibits, 1987 to 1989 (Chairman)
- National Zoological Park Institutional Animal Care and Use Committee, 1989 to 1993
- National Zoological Park Research Council, Chairman, 1993 to 2001
- Smithsonian Institution Congress of Scholars, representative for National Zoological Park, 1994 to 1997
- Planning Committee, Learning is a Family Experience Education Program, National Zoological Park, 1994 to 1997
- National Zoological Park Committee on Technology and Education, 1995 to 1999
- National Zoological Park/Smithsonian Institution Fellowship Review Committee Chair, 1995 to 2003
- National Zoological Park Planning and Design Committee for exhibit on water, 1997 to 2000
- Session Facilitator, pan-Smithsonian conference on research and educational outreach, 1997
- Member of the National Zoological Park Senior Management Team (advise the Director on Zoo on policy and direction), 1997 to 2003
- Smithsonian Institution Grant Review Panel for Seidell Foundation Grants, 1997 to 2003
- Interagency Review of Grade Evaluation of Research Scientists, 1998

Outside Smithsonian:

- Board of Scientific Advisors, Okeanos Oceanographic Foundation, 1980 to 1996
- Professional Consultant, Graduate Studies in Museum Sciences, George Washington University, 1981 to 1984
- Chair, Behavior Session, International Marine Mammal Conference, 1989
- Conference Awards Committee, Marine Mammal Society, 1991
- Institute of Museum Services, Conservation Program Grants, Field Reviewer, 1994
- Institute of Museum Services, Panel to Review the Program for Conservation Grants, 1994
- Chair, Behavior Session, International Marine Mammal Conference, 1995
- Student Awards Judge, International Marine Mammal Conference, 1995
- Review Panel to Evaluate the Hawaiian Monk Seal Research Program, U.S. National Marine Fisheries Service, NOAA, 1995
- Review Panel to Evaluate Pinniped Research Program, Alaska Department of Fish and Game, 1995
- Scientific Review Board for GulfCet II Project, Texas Institute of Oceanography, Texas A&M University at Galveston, 1996 to 1999
- Review Panel Institute of Museum Services Conservation Program Grants, 1996
- Marine Mammal Negotiated Rulemaking Advisory Committee (Observer for Marine Mammal Commission), U.S. Department of Agriculture, Animal and Plant Health Inspection Service, 1996
- Member, Organizing Committee, Animal Behavior Society Annual Meeting, 1997
- Member, Marine Mammal Committee, American Society of Mammalogists, 1997 to 2006
- Abstract Review Committee (Behavior Chair), International Marine Mammal Conference, 1997

- Abstract Review Committee, Symposium on Hawaiian and Mediterranean Monk Seal Conservation and Biology, 1997
- Review Panel to Evaluate Steller Sea Lion Recovery Program (Behavior), U.S. National Marine Fisheries Service, NOAA, 1997
- Steering Committee, Millennium Marine Mammal Symposium at Annual Meeting, American Society of Mammalogists, 1998 to 1999
- Nominated for President-Elect, Society for Marine Mammalogy, 1998 (not elected)
- Session Chair, Human and Animal Acceptability Studies, Sonic Boom Symposium, Acoustical Society of America, 1998
- Review Panel to Evaluate Marine Mammal Research Programs, Office of Naval Research, 1998
- Elected to Washington Biologists Field Club, 1998 to present (Board Member, 1999, 2000)
- Review Panel to Evaluate Steller Sea Lion Recovery Program (Physiology), U.S. National Marine Fisheries Service, NOAA, 1999
- Scientific Program Committee (Mating Behavior and Reproduction Subcommittee Chair), 13th Biennial International Marine Mammal Conference, 1999
- Associate Editor, Marine Mammal Science, 2000 to 2005
- Member, Selection Committee to Recommend Hiring a Scientific Program Director, U.S. Marine Mammal Commission, 2000
- Ad Hoc Selection Committee for American Association for the Advancement of Science, Diplomacy Fellowship Program, 2001
- Invited participant for workshop on Implementation of Education Reform in Conservation Biology sponsored by George Mason University and funded by the U.S. Department of Education, 2001
- Abstract Review Committee, International Marine Mammal Conference, Vancouver, BC, 2001
- Review Panel to Evaluate Research and Management Program for Hawaiian Monk Seals, Marine Mammal Commission and National Marine Fisheries Service, Honolulu, 2002
- Consulted for Marine Mammal Commission and Fish and Wildlife Service to evaluate captive polar bears in a circus in Puerto Rico, November 2002
- Rapporteur for a section of a working group to develop a plan to manage the potential conflicts associated with the increase in Hawaiian monk seals at the main Hawaiian Islands, December 2002
- Invited participant for Consultation on Future Directions in Marine Mammal Research, co-convened by the Marine Mammal Commission and the National Fish and Wildlife Foundation, Portland, OR, August 2003
- Participated in review of science synthesis document and advised on animal welfare issues in research for a federal advisory panel to the Marine Mammal Commission on Effects of Ocean Noise on Marine Mammals, 2004 to 2005
- Review Panel to Evaluate the Effectiveness of the North Atlantic Right Whale Recovery Program, March 2006
- NOAA Fisheries Pinniped-Fishery Interaction Task Force to advise Secretary of Commerce on lethal take option for California sea lions preying on ESA listed salmon at the Bonneville Dam, September 2007 to 2013

- Board of Governors of the Society for Marine Mammalogy, December 2007 to present

REVIEWER FOR JOURNALS AND GRANTS

Journals:

American Naturalist
 Animal Conservation
 Animal Behaviour
 Aquatic Mammals
 Behaviour

Behavioral Ecology
 Behavioral Ecology and Sociobiology
 Biological Conservation
 Biological Journal of the Linnaean Society
 Bioacoustics
 Brazilian Archives Biology and Technology
 Canadian Journal of Zoology

Comparative Biochemistry and Physiology
 Ecological Applications
 Ethology
 Journal of Animal Ecology
 Journal of Mammalogy
 Journal Marine Biological Association, UK
 Journal of Wildlife Management
 Marine Ecology Progress Series
 Marine Mammal Science
 Nature
 Proceedings of the Royal Society
 Wildlife Research

Granting Agencies:

Center for Field Studies
 Florida Sea Grant Program
 National Geographic Society
 National Institutes of Health
 National Science and Engineering Research
 Council, Canada
 National Science Foundation

Natural Environment Research Council, UK
 Inter-American Foundation
 Institute of Museum Service, Conservation
 Whitehall Foundation
 Australian Research Council
 American Philosophical Society
 North Pacific Research Board

GRANTS RECEIVED

Walrus behavior (with E.H. Miller)

- National Geographic Society, World Wildlife Fund Canada, Smithsonian Institution Research Opportunities Fund, (1980) \$21,500

Resident microflora of grey seals

- Friends of the National Zoo, Okeanos Foundation (1981) \$13,800

Maternal strategy of the California sea lion (with O.T. Oftedal and K.A. Ono)

- Friends of the National Zoo (1981 to 1986) \$110,430
- American Museum of Natural History, Lerner-Grey Fund (1983) \$1,000
- Center for Environmental Education, (1984) \$1,000

Lactation in hooded and harp seals (with O.T. Oftedal and W.D. Bowen)

- Smithsonian Institution Research Opportunities Fund (1984) \$4,700

- Department of Fisheries and Oceans Canada (in-kind ship and helicopter support) \$300,000

Hawaiian monk seal fostering behavior

- Smithsonian Institution Research Opportunities Fund (1986) \$4,000
- Friends of the National Zoo (1987 to 1989) \$43,000
- National Marine Fisheries Service (1987 to 1989) (in-kind ship and field support through W. Gilmartin) \$39,000

Lactation and maternal care in harbor seals (with O.T. Oftedal)

- Friends of the National Zoo (1988 to 1992) \$99,700
- Smithsonian Institution Research Opportunities Fund (1987) \$3,200

Mating and lactation strategies of the Juan Fernandez fur seal (with J.M. Francis)

- Friends of the National Zoo (1988 to 1991) \$70,000
- National Geographic Society (1990) \$8,300
- Smithsonian International Exchange Program (1990) \$8,500
- Smithsonian Scholarly Studies Grant (1990 to 1991) \$76,230

Long-term studies of life history and reproductive success of female harbor and grey seals on Sable Island, Nova Scotia (with W.D. Bowen and S.J. Iverson)

- Department of Fisheries and Oceans, Canada (1988 to 2003) (in-kind field support, through W.D.B.) \$120,000
- Friends of the National Zoo (1988 to 2003) \$75,000
- National Science and Engineering Research Council of Canada (1993 to 2003) (in-kind field and lab support, through W.D.B. and S.J.I.) \$35,000
- Christensen Fund (2002 to 2003) \$94,000

How prevalent is fostering behavior in the harbor seal?

- Friends of the National Zoo (1991 to 1992) \$21,800

Male copulatory success in three species of fur seals interbreeding on Macquarie Island (with S. Goldsworthy)

- Australian Antarctic Science Advisory Committee (1992 to 1993) \$208,636
- Friends of the National Zoo (1994) \$21,000

Do inclusive fitness benefits contribute to fostering in colonially breeding phocid seals? (with E. Perry and R. Fleischer)

- Smithsonian Scholarly Studies Grant (1993 to 1994) \$42,500

An underwater video system to investigate the aquatic mating system of the harbor seal

- National Geographic Television (with G. Marshall) (1994 to 1995) \$12,000
- Smithsonian Institution Restricted Endowment Funds (1994 to 1996) \$17,100

International symposium on the reproductive strategies and conservation biology of otariid seals (April 1996)

- Wildlife Conservation Society (with P. Majluf) (1995) \$8,000
- Office of Naval Research (with P.Majluf) (1995) \$7,500
- Smithsonian Institution (Office of Fellowships and Grants, 150th Anniversary) \$10,000
- QANTAS Airways Ltd. (1996) \$10,400 (in-kind support)

The effects of sonic booms on the behavior and physiology of grey and harbor seals

- National Atmospheric and Space Administration (1996 to 1998) \$254,754

Bringing biological sciences to the Latino community: the Latino initiative at the National Zoological Park (an educational outreach and training grant) (with D. Jenkins, M. Roberts, C. Ruiz, and A. Cerezo)

- Office of the Provost, Smithsonian Institution (1997 to 1998) \$90,000

A natural experiment on the effect of environmental changes on mating systems (with P. Majluf)

- Smithsonian Research Opportunities Funds , \$1,500
- Smithsonian Scholarly Studies Grant (1997 to 1998) \$67,570

Foraging and attendance patterns in Humboldt penguins (with S. Taylor, M. Leonard, and P. Majluf)

- Friends of the National Zoological Park (1998) \$6,000
- George S. Sisley Endowment Fund (1998) \$5,400
- Oregon Zoo Foundation (1998 to 1999) \$6,738

An investigation of mate choice in South American fur seals using GPS technology (with S. Insley)

- Smithsonian Restricted Endowment Grant (1998) \$10,000
- Smithsonian Scholarly Studies Grant (1998 to 1999) \$24,000

Variation in pup survival in heat-stressed populations of South American fur seals: Effects of habitat features, social environment and behavior

- Abbott Restricted Endowment Fund (2000) \$3,000
- George S. Sisley Endowment Grant (2001) \$5,340

Alternative male reproductive tactics in the grey seal: a new approach

- Friends of the National Zoo (1997 to 2003) \$41,000
- Abbott Restricted Endowment Fund (2000 to 2001) \$14,300
- Smithsonian Scholarly Studies Grant (2002 to 2003) \$68,912

Sustaining conservation programs at the Smithsonian Conservation and Research Center (with C. Wemmer and S. Derrickson), supports multiple projects of Center scientists

- Christensen Fund (2002 to 2003) \$1,200,000

Sex differences in foraging behavior of thick-billed murres (with R. Paredes)

- Abbott Restricted Endowment Fund (2002) \$9,500

Longitudinal study of male mating tactics in grey seals of varying ages

- Friends of the National Zoo (2003) \$5,000
- Abbott Restricted Endowment Fund (2004) \$8,000

Post-weaning fast and physiological development in juvenile and yearling grey seals (with S. Noren-Kramer)

- Friends of the National Zoo (2003) \$4,000

Capital expenditure, lactation energetics and the importance to Weddell seals and their pups (with O. Oftedal and R. Eisert)

- National Science Foundation, Office of Polar Programs (2006 to 2008) \$393,887

TALKS AND POSTERS AT PROFESSIONAL MEETINGS

Iowa Academy of Science Meeting, Cedar Falls, IA, 1970

Midwestern Psychological Association Meeting, Detroit, MI, 1971
Iowa Academy of Science Meeting, Iowa City, IA, 1972
Pavlovian Society Meeting, Sarasota, FL, 1974
Second Biennial Conference on the Biology of Marine Mammals, San Diego, CA, 1977
Fourth Biennial Conference on the Biology of Marine Mammals, San Francisco, CA, 1981
Twelfth Annual Conference, International Association of Aquatic Animal Medicine, Mystic, CT, 1981
Annual Meeting of the American Association of Zoo Veterinarians, Tampa, FL, 1983
Third Annual Dr. Scholl Conference on the Nutrition of Captive Wild Animals, Chicago, IL, 1983
Fifth Biennial Conference on the Biology of Marine Mammals, Boston, MA, 1983
Sixth Biennial Conference on the Biology of Marine Mammals, Vancouver, BC, 1985
Annual Meeting of the American Association of Zoo Veterinarians, Scottsdale, AZ, 1985
Animal Behavior Society Annual Meeting, Tucson, AZ, 1986
Third California Islands Symposium, Santa Barbara, CA, 1987
Animal Behavior Society Annual Meeting, Williamstown, 1987
Seventh Biennial Conference on the Biology of Marine Mammals, Miami, FL, 1987
Animal Behavior Society Meeting, Missoula, MT, 1988
XXI International Ethological Conference, Utrecht, The Netherlands, 1989
Eighth Biennial Conference on the Biology of Marine Mammals, Pacific Grove, CA, 1989
Fourth European Conference on Wildlife Telemetry, Aberdeen, Scotland, 1991
Ninth Biennial Conference on the Biology of Marine Mammals, Chicago, IL, 1991
XXIII International Ethological Conference, Torremolinos, Spain, 1993
Tenth Biennial Conference on the Biology of Marine Mammals, Galveston, TX, 1993
International Symposium on Marine Mammal Genetics, La Jolla, CA, 1994
Smithsonian Dialogues Symposium. What about increase? Washington, DC, 1995
Eleventh International Conference on the Biology of Marine Mammals, Orlando, FL, 1995
International Behavioral Ecology Congress, Canberra, Australia, 1996
Smithsonian Dialogues II Symposium. What about diffusion? Washington, DC, 1997
American Society of Mammalogists, Stillwater, OK, 1997
Animal Behavior Society, College Park, MD, 1997
International Marine Mammal Science Conference, Monaco, 1998
Thirteenth International Conference on the Biology of Marine Mammals, Maui, HI, 1999
American Society of Mammalogists, Durham, NC, 2000
Animal Behavior Society, Atlanta, GA, 2000
South American Marine Mammal Conference, Buenos Aires, Argentina, 2000
Fourteenth International Conference on the Biology of Marine Mammals, Vancouver, BC, 2001
American Society of Mammalogists, Missoula, MT, 2001
American Society of Mammalogists, Lake Charles, LA, 2002
Society for the Study of Evolution, Chicago, IL, 2003
Fifteenth International Conference on the Biology of Marine Mammals, Greensboro, NC, 2003
Sixteenth International Conference on the Biology of Marine Mammals, San Diego, CA, 2005

INVITED SYMPOSIA

- Third Annual Maine Biomedical Science Symposium, Orono, 1977, D.J. Boness, Social organization of the grey seal, *Halichoerus grypus*. Abstract published in Journal of the Maine Medical Association, 68:245.
- XXII International Congress of Psychology, Leipzig, DDR, 1980, D.J. Boness and H. James, Sexual organization in the grey seal: An ice breeding strategy?
- Symposium on Conservation of Endangered Species in Zoos and Aquariums, Baltimore, 1982 D.J. Boness and O.T. Oftedal, Collection and composition of milk in pinnipeds, with comments on handrearing formulas.
- Symposium on Endangered Marine Animals and Marine Parks, Cochin, India, 1985. D.J. Boness, The role of zoos in conservation of marine mammals.
- Symposium on Science and the Environment, Dartmouth University, 1991, D.J. Boness, The probable importance of body size in the evolution of lactation and maternal patterns in seals.
- Symposium on Recent Advances in Marine Mammal Science, Zoological Society London, 1992, D.J. Boness, W.D. Bowen, and J.M. Francis, Implications of DNA fingerprinting for understanding pinniped mating systems and reproductive strategies.
- Symposium on Mating Systems in Marine Mammals, Tenth Biennial Conference of the Biology of Marine Mammals, 1993, Galveston, TX, D.J. Boness, Marine mammal mating systems: a framework and overview.
- International Symposium on the Reproductive Strategies and Conservation of Otariids, Washington, DC, 1996 I co-convended this symposium with Dr. Patricia Majluf of the Wildlife Conservation Society. The symposium had 82 invited participants from 16 countries and consisted of two days of invited talks and one and a half days of workshops.
- Sonic Boom Symposium, Acoustical Society of America, Norfolk, VA, 1998, E.A. Perry, D.J. Boness, and S.J. Insley, Do sonic booms affect the reproductive behavior of grey seals and harbor seals?
- Symposium on Mammalian Reproductive Strategies, 3rd European Mammalogy Congress, Jyväskylä, Finland, 1999, D.J. Boness and W.D. Bowen, At-sea mating strategies of harbor seal males.
- Symposium on Marine Mammals of the Holarctic, Baikal, Russia, 2002, D.J. Boness, W.D. Bowen, G. Marshal, and B. Buhleier, The aquatic mating system of harbor seals: is it lekking?
- Mini-Symposium on Biology and Conservation of Marine Vertebrates, Smithsonian National Zoological Park, 2002, D.J. Boness, A lek mating system in a marine mammal.
- Animal-Borne Imaging Symposium, National Geographic Society, Washington, DC, 2007

INVITED SEMINARS, LECTURES, AND WORKSHOPS

- March 1984, Department of Psychobiology, Memorial University and Department of Fisheries and Oceans Canada, St. John's, Newfoundland
- February 1985, Audubon Naturalist Society, Bethesda, MD
- March 1988, National Marine Fisheries Service, Honolulu, HI
- March 1990, Department of Zoology, University of Maryland, College Park

May 1990, Department of Vertebrate Zoology, National Museum of Natural History, Washington, DC

December 1990, Department of Conservation, National Zoological Park, Front Royal, VA

June 1991, Special Faculty of Science Lecture, Memorial University, St. John's, Newfoundland

October 1991, U.S. Information Agency, Washington, DC

March 1992, Department of Biology, George Washington University, Washington, DC

December 1992, Department of Zoology, University of Maryland, College Park

May 1993, Department of Biology, Dalhousie University, Halifax Nova Scotia

February 1994, Department of Biology, American University, Washington, DC

April 1994, Department of Conservation, National Zoological Park, Front Royal, VA

April 1994, Virginia Military Institute, Lexington, VA

November 1994, Department of Zoological Research, National Zoological Park, Washington, DC

November 1994, University Lecture Series, Lethbridge University, Lethbridge, Alberta

November 1994, Marine Mammal Commission meeting, Woods Hole, MA

December 1994, Hawaiian monk seal recovery team meeting, National Marine Fisheries Service, Honolulu, HI

April 1995, Department of Zoology, University of Hawaii, Honolulu, HI

November 1995, Alaska harbor seal workshop, National Marine Fisheries Service and Alaska Fish and Game Department, Fairbanks, AK

December 1995, Workshop on translocating Hawaiian monk seals to Midway Island, Honolulu, HI

July 1996, Smithsonian Resident Associates Lecture, Washington, DC

November 1996, Marine Mammal Commission meeting, Amelia Island, FL

February 1997, National Ocean and Atmospheric Administration, Strategic Planning Workshop, Washington, DC

November 1997, Marine Mammal Commission meeting, Fairbanks, AK

December 1997, Hawaiian monk seal recovery team meeting, National Marine Fisheries Service, Honolulu, HI

December 1997, Workshop to evaluate past behavioral research on Steller sea lions and recommend future directions, National Marine Fisheries Service, Seattle, WA

February 1998, Workshop on effects of manmade sound on the marine environment, Office of Naval Research, Washington, DC

June 1998, Marine Mammal Committee meeting, American Society of Mammalogists, Blacksburg, VA

June 1998, GulfCet program review, Galveston, TX

November 1998, Marine Mammal Commission meeting, Portland, ME

May 1999, Talk at Smithsonian Conservation and Research Center, Front Royal, VA

May 1999, Seminar at Zoology Department, Cork University, Cork, Ireland

April 2000, Lecture at Biology Department, American University, Washington, DC

July 2000, Seminar, Department of Zoological Research, National Zoological Park, Washington, DC

May 2002, Seminar Zoology Department, University of New Hampshire, Durham, NH

October 2002, Marine Mammal Commission meeting, San Diego, CA

June 2003, Seminar at Biology Department, University of New England, Biddeford, ME

June 2003, Seminar at Bigelow Laboratory for Ocean Sciences, West Boothbay Harbor, ME
October 2003, Marine Mammal Commission meeting, Newport, RI
November 2003, Seminar at Conservation and Research Center, Smithsonian Institution, Front Royal, VA
October 2004, Marine Mammal Commission meeting, Kona, HI
April 2005, Seminar at Biology Department, Colby College, Waterville, ME
April 2005 Workshop on the Ecological Role of Killer Whales in the North Pacific Ecosystem
May 2005, Seminar at Wildlife Ecology Department, University of Maine, Orono, ME
August 2005, Workshop on Implementing a Research Plan to Understand the Role of Killer Whales in the North Pacific Ocean Ecosystem, Seattle, WA
September 2005, Workshop on Assessing the Population Viability of Endangered Marine Mammals, Savannah, GA
October 2005, Marine Mammal Commission meeting, Anchorage, AK
June 2006, Seminar at Brackett Environmental Center, Auburn, ME
May 2008, 2009, Lecture at Buckfield High School, Buckfield, ME
May 2009, Seminar at Western Maine Audubon Society, Farmington, ME
September 2009, Lecture at Waterberg Academy, Vaalwater, South Africa

PEER-REVIEWED PUBLICATIONS IN JOURNALS AND BOOKS

1. Boness, D.J., and Wylie, N.R. 1971. Experiential factors affect red and blue color preferences in neonatal chickens, *Gallus gallus*. Proceedings of the Iowa Academy of Sciences 77:271–275.
2. McGuigan, F.J., and Boness, D.J. 1975. What happens between an external stimulus and an overt response? A study of covert behavior. Pavlovian Journal of Biological Science 10:112–118.
3. Miller, E.H., and Boness, D.J. 1979. Remarks on the display function of the snout of the grey seal, *Halichoerus grypus* (Fab.), with comparative notes. Canadian Journal of Zoology 57:140–148.
4. Boness, D.J., and James, H. 1979. The reproductive behavior of the grey seal (*Halichoerus grypus*) on Sable Island, Nova Scotia. Journal of Zoology (London) 188:477–500.
5. Montali, R., Bush, M., Strandberg, J., Janssen, D.L., Boness, D.J., and Whitla, J.C. 1981. A cyclic dermatitis in pinnipeds associated with *Fusarium solani*. Journal of the American Veterinary Medical Association 179:1198–1203.
6. Boness, D.J., Anderson, S.S., and Cox, C.R. 1982. Functions of female aggression during the pupping and mating season of grey seals (*Halichoerus grypus* Fabricius). Canadian Journal of Zoology 60:2270–2278.
7. Miller, E.H., and Boness, D.J. 1983. Summer behavior of Atlantic walruses, *Odobenus rosmarus rosmarus* at Coats Island, N.W.T. (Canada). Zietschrift fur Saugertierkunde 48:298–313.
8. Boness, D.J. 1984. Activity budget of male grey seals, *Halichoerus grypus*. Journal of Mammalogy 65:291–297.

9. Bowen, W.D., Oftedal, O.T., and Boness, D.J. 1985. Birth to weaning in four days: Remarkable growth in the hooded seal, *Cystophora cristata*. *Canadian Journal of Zoology* 63:2841–2846.
10. Boness, D.J. 1985. The role of zoos in the conservation of marine mammals. *Proceedings of the Symposium on Endangered Marine Animals and Marine Parks* 1:429–439.
11. Bowen, W.D., Boness, D.J., and Oftedal, O.T. 1987. Mass transfer from mother to pup and subsequent mass loss by the weaned pup in the hooded seal, *Cystophora cristata*. *Canadian Journal of Zoology* 65:1–8.
12. Oftedal, O.T., Boness, D.J., and Tedman, R. 1987. The behavior, physiology and anatomy of lactation in the Pinnipedia, *Current Mammalogy* 1:175–245.
13. Ono, K.A., Boness, D.J., and Oftedal, O.T. 1987. The effect of a natural environmental disturbance on maternal investment and pup behavior in the California sea lion. *Behavioral Ecology and Sociobiology* 21:109–118.
14. Oftedal, O.T., Iverson, S.J., and Boness, D.J. 1987. Milk and energy intakes of suckling California sea lion (*Zalophus californianus*) pups in relation to sex, growth and predicted maintenance requirements. *Physiological Zoology* 60:560–575.
15. Thompson, S.D., Ono, K.A., Oftedal, O.T., and Boness, D.J. 1987. Thermoregulation and resting metabolic rates in the California sea lion, *Zalophus californianus*. *Physiological Zoology* 60:730–736.
16. Boness, D.J., Bowen, W.D., and Oftedal, O.T. 1988. Evidence of polygyny from spatial patterns in the hooded seal (*Cystophora cristata*). *Canadian Journal of Zoology* 66:703–706.
17. Oftedal, O.T., Boness, D.J., and Bowen, W.D. 1988. The composition of hooded seal (*Cystophora cristata*) milk: An adaptation for postnatal fattening. *Canadian Journal of Zoology* 66:318–322.
18. Oftedal, O.T., Bowen, W.D., Widdowson, E., and Boness, D.J. 1989. Effects of suckling and the postsuckling fast on weights of the body and internal organs of harp and hooded seal pups. *Biology of the Neonate* 56:283–300.
19. Boness, D.J. 1990. Fostering in Hawaiian monk seals: is there a reproductive cost? *Behavioral Ecology and Sociobiology* 27:113–122.
20. Boness, D.J. 1991. The determinants of mating systems in the Otariidae (Pinnipedia). In: *Behaviour of Pinnipeds*, D. Renouf (ed.). Chapman: London, Pp. 1–44.
21. Boness, D.J., Oftedal, O.T., and Ono, K.A. 1991. The effects of El Niño on pup development in the California sea lion. 1. Early postnatal growth. In: *Pinnipeds and El Niño: Responses to Environmental Stress*, F. Trillmich and K.A. Ono (eds.), Springer-Verlag: Hiedelberg. Pp. 173–179.
22. Iverson, S.J., Oftedal, O.T., and Boness, D.J. 1991. The effects of El Niño on pup development in the California sea lion. 2. Milk and energy intake. In: *Pinnipeds and El Niño: Responses to Environmental Stress*, F. Trillmich and K.A. Ono (eds.), Springer-Verlag: Hiedelberg. Pp. 180–184.
23. Ono, K.A., and Boness, D.J. 1991. The influence El Niño on mother-pup behavior, pup ontogeny and sex ratios in the California sea lion. In: *Pinnipeds and El Niño: Responses to Environmental Stress*, F. Trillmich and K.A. Ono (eds.), Springer-Verlag: Hiedelberg. Pp. 185–192.

24. Heath, C.B., Ono, K.A., Boness, D.J., and Francis, J.M. 1991. The influence of El Niño on female attendance patterns in the California sea lion. In: *Pinnipeds and El Niño: Responses to Environmental Stress*, F. Trillmich and K.A. Ono (eds.), Springer-Verlag: Hiedelberg. Pp. 138–145.
25. Oftedal, O.T., Bowen, W.D., Widdowson, E., and Boness, D.J. 1991. The prenatal molt and its ecological significance in hooded and harbor seals. *Canadian Journal of Zoology* 69:2489–2493.
26. Francis, J.F., and Boness, D.J. 1991. The effect of thermoregulatory behaviour on the mating system of the Juan Fernandez fur seal, *Arctocephalus phillippii*. *Behaviour* 119:104–127.
27. Boness, D.J., Bowen, W.D., Iverson, S.J., and Oftedal, O.T. 1992. Influence of storms and maternal size on mother-pup separations and fostering in the harbor seal, *Phoca vitulina*. *Canadian Journal of Zoology* 70:1640–1644.
28. Bowen, W.D., Oftedal, O.T., and Boness, D.J. 1992. Mass and energy transfer during lactation in a small phocid, the harbor seal, *Phoca vitulina*. *Physiological Zoology* 65(4):844–866.
29. Boness, D.J., Bowen, W.D., and Francis, J.M. 1993. Implication of DNA fingerprinting for understanding mating systems and reproductive strategies of pinnipeds. *Symposia of the Zoological Society of London* 66:61–93.
30. Iverson, S.J., Bowen, W.D., Boness, D.J., and Oftedal, O.T. 1993. The effect of maternal size and milk energy output on pup growth in the grey seal, *Halichoerus grypus*. *Physiological Zoology* 66:61–88.
31. Oftedal, O.T., Bowen, W.D., and Boness, D.J. 1993. Energy transfer in lactating hooded seals and nutrient deposition in their pups during the four days from birth to weaning. *Physiological Zoology* 66:412–436.
32. Ono, K.A., Boness, D.J., Oftedal, O.T., and Iverson, S.J. 1993. The effects of El Niño on mother-pup biology in the California sea lion. In: *Third California Islands Symposium: Recent Advances in Research on the California Islands*, F.G. Hochberg (ed.). Santa Barbara Museum of Natural History: Santa Barbara, Pp. 495–499.
33. Boness, D.J., Bowen, W.D., and Oftedal, O.T. 1994. Evidence of a maternal foraging cycle resembling that of otariid seals in a small phocid, the harbor seal. *Behavioral Ecology and Sociobiology* 34:95–104.
34. Bowen, W.D., Oftedal, O.T., Boness, D.J., and Iverson, S.J. 1994. The effect of maternal age and other factors on birth mass in the harbour seal. *Canadian Journal of Zoology* 72:8–14.
35. Boness, D.J., Bowen, W.D., and Iverson, S.J. 1995. Does male harassment of females contribute to reproductive synchrony in the grey seal by affecting maternal performance? *Behavioral Ecology and Sociobiology* 36:1–10.
36. Job, D.A., Boness, D.J. and Francis, J.M. 1995. Individual variation in vocalizations of Hawaiian monk seal, *Monachus schauinslandi*, pups and lack of maternal recognition. *Canadian Journal of Zoology* 73:975–983
37. Iverson, S.J., Oftedal, O.T., Bowen, W.D. Boness, D.J. and Sampugna, J. 1995. Prenatal and postnatal transfer of fatty acids from mother to pup in the hooded seal (*Cystophora cristata*). *Journal of Comparative Physiology*, 165:1-12.
38. Boness, D.J. 1996. Water quality management in aquatic mammal exhibits. In: *Wild Mammals in Captivity*, D.G. Kleiman, M.E. Allen S. Lumpkin, and H. Harris (eds.), Chicago: University of Chicago Press, Pp. 231–242.

39. Boness, D.J. and Bowen, W.D. 1996. The evolution of maternal care in pinnipeds. *Bioscience* 46:1–10.
40. Ono, K.A., and Boness, D.J. 1996. Sexual dimorphism in sea lion pups, *Zalophus californianus*: differential maternal expenditure or sex-specific differences in energy use by the pup. *Behavioral Ecology and Sociobiology* 38:31–41.
41. Oftedal, O.T., Bowen, W.D., and Boness, D.J. 1996. Lactation performance and nutrient deposition in pups of the harp seal, *Phoca groenlandica*, on the ice floes off southeast Labrador. *Physiological Zoology* 69:635–657.
42. Coltman, D.W., Bowen, W.D., Boness, D.J., and Iverson, S.J. 1997. Striking a balance between foraging and reproduction in the male harbour seal: an aquatically mating pinniped. *Animal Behaviour* 54:663–678.
43. Perry, E.A., Boness, D.J., and Fleischer, R.C. 1998. DNA fingerprinting evidence of non-kin nursing in grey seals. *Molecular Ecology* 7:81–85.
44. Boness, D.J., Craig, M.P., Honigman, L., and Austin, S. 1998. Fostering behavior in Hawaiian monk seals, *Monachus schauinslandi*, at Laysan Island, with comparative evidence on the effect of female density. *Journal of Mammalogy* 79:1060–1069.
45. Coltman, D.W., Bowen, W.D., Iverson, S.J. and Boness, D.J. 1998. The energetics of male reproduction in an aquatically mating pinniped, the harbour seal. *Physiological Zoology* 71(4):387–399.
46. Francis, J.M., Boness, D.J., and Ochoa-Acuña, H. 1998. A protracted foraging and attendance cycle in female Juan Fernandez fur seals. *Marine Mammal Science* 14:552–574.
47. Bowen, W.D., Boness, D.J., and Iverson, S.J. 1998. Estimation of total body water in harbour seals: How useful is bioelectric impedance analysis? *Marine Mammal Science* 14:765–777.
48. Ochoa-Acuña, H., Francis, J.M., and Boness, D.J. 1998. Interannual variation in birth mass and postnatal growth of Juan Fernandez fur seals. *Canadian Journal of Zoology* 76:978–983.
49. Schaeff, C.M., Boness, D.J., and Bowen, W.D. 1999. Female distribution, genetic relatedness, and fostering behaviour in harbour seals (*Phoca vitulina*). *Animal Behaviour* 57:427–434.
50. Boness, D.J. 1999. The grey seal, *Halichoerus grypus*. In: *The Complete Book of North American Mammals*, D.E. Wilson (ed.), Smithsonian Institution Press: Washington, DC, Pp. 211–213.
51. Boness, D.J. 1999. The ribbon seal, *Phoca fasciata*. In: *The Complete Book of North American Mammals*. D.E. Wilson (ed.), Smithsonian Institution Press: Washington, DC, Pp. 203–204.
52. Boness, D.J. 1999. The hooded seal, *Cystophora cristata*. In: *The Complete Book of North American Mammals*. D.E. Wilson (ed.), Smithsonian Institution Press: Washington, DC, Pp. 215–216.
53. Wells, R.S., Boness, D.J., and Rathbun, G. 1999. Behavior. In: *The Biology of Marine Mammals*, J.E. Reynolds, III and S.A. Rommel (eds.). Smithsonian Institution Press: Washington, DC, Pp. 324–422.
54. Goldsworthy, S., Boness, D.J., and Fleischer, R.C. 1999. Mate choice in sympatric fur seals: female preference for conphenotypic males. *Behavioral Ecology and Sociobiology* 45:253–267.

55. Schwartz, M.K., Boness, D.J., Schaeff, C.M., Majluf, P.M., Perry, E.A., and Fleischer, R.C. 1999. Female solicited extra-pair matings in Humboldt penguins fail to produce extra-pair fertilizations. *Behavioral Ecology* 10:242–250.
56. Ambs, S., Boness, D.J., Bowen, W.D., and Fleischer, R.C. 1999. Proximate factors associated with high levels of extra-consort fertilizations in polygynous grey seals. *Animal Behaviour* 58:527–535.
57. Bowen, W.D., Boness, D.J., and Iverson, S.J. 1999. Diving of lactating harbour seals and their pups during maternal foraging trips. *Canadian Journal of Zoology* 77:978–988.
58. McCulloch, S., and Boness, D.J. 2000. Mother-pup vocal recognition in the grey seal (*Halichoerus grypus*) of Sable Island, Nova Scotia, Canada. *Journal of Zoology* 253:449–455.
59. Goldsworthy, S. Francis, J.M., Boness, D.J., and Fleischer, R.C. 2000. Variation in the mitochondrial control region in the Juan Fernandez fur seal (*Arctocephalus philippii*). *Journal of Heredity* 91:371–377.
60. Ellis, S.L., Bowen, W.D. Boness, D.J., and Iverson, S.J. 2000. Maternal effects on offspring mass and stage of development at birth in the harbour seal, *Phoca vitulina*. *Journal of Mammalogy* 81:1143–1156.
61. Taylor, S.S., Leonard, M.L., and Boness, D.J. 2001. Aggressive nest intrusions by single male Humboldt penguins. *Condor* 103:162–165.
62. Bowen, W.D., Iverson, S.J., Boness, D.J., and Oftedal, O.T. 2001. Energetics of lactation in harbour seals: Effect of body mass on sources and level of energy allocated to offspring. *Functional Ecology* 15:325–334.
63. Lidgard, D.C., Boness, D.J., and Bowen, W.D. 2001. A novel mobile approach to investigating grey seal male mating tactics. *Journal of Zoology* 255:313–320.
64. Ellis, S.L., Bowen, W.D. Iverson, S.J., and Boness, D.J. 2001. Maternal effects on growth rate and weaning mass of harbor seal offspring. *Canadian Journal of Zoology* 79:1088–1101.
65. Taylor, S.S., Leonard, M.L., Boness, D.J., and Majluf, P. 2001. Foraging trip duration increases for Humboldt penguins tagged with time-depth recorders. *Journal of Avian Biology* 32(4):369–372.
66. Paredes, R., Zavalaga, C.B. and Boness, D.J. 2002. Patterns of egg laying and breeding success in relation to number of broods and timing of laying in Humboldt penguins (*Spheniscus humboldti*) in Peru. *Auk* 119:244–250.
67. Boness, D.J. Estrus and estrus behavior. 2002. In: *The Encyclopedia of Marine Mammals*, Perrin, W.F., Wursig, B. and Thewissen, H.G.M. (eds.). Academic Press, San Diego, CA, Pp. 395–398.
68. Boness, D.J. Sea lions, overview. 2002. In: *The Encyclopedia of Marine Mammals*, Perrin, W.F., Wursig, B. and Thewissen, H.G.M. (eds.). Academic Press, San Diego, CA, Pp. 1066–1068.
69. Boness, D.J., Clapham, P.J., and Mesnick, S.L. 2002. Life history and reproductive strategies of marine mammals. In: *Marine Mammal Biology: An Evolutionary Approach*. R. Hoelzel (ed.). Blackwell Science, Oxford, U.K., Pp. 278–324.
70. Perry, E.A., Boness, D.J., and Insley, S.J. 2002. Do sonic booms affect the reproductive behavior of grey seals and harbor seals? *Journal of the Acoustical Society of America* 111:599–609.

71. Taylor, S.S., Leonard, M.L., Boness, D.J., and Majluf, P. 2002. Foraging in Humboldt penguins during the chick-rearing period: general patterns, sex differences, and recommendations to reduce incidental catches in fishing nets. *Canadian Journal of Zoology* 80:700–707.
72. Bowen, W.D., Tully, D., Boness, D.J., Bulhier, B., and Marshall, G. 2002. Prey-dependent foraging tactics and prey profitability in a marine mammal. *Marine Ecology Progress Series* 244:235–245.
73. Stevens, M.A., and Boness, D. J. 2003. Influences of habitat features and human disturbance on use of breeding sites by a declining population of South American fur seals. *Journal of Zoology* 260:145–152.
74. Bowen, W.D., Ellis, S., Iverson, S.J., and Boness, D.J. 2003. Maternal and newborn life-history traits during periods of contrasting population trends: implications for explaining the decline of harbor seals, *Phoca vitulina*, on Sable Island. *Journal of Zoology* 261:155–163.
75. Lidgard, D.C., Boness, D.J., Bowen, W.D., and McMillan, J.I. 2003. Diving behaviour during the breeding season in the terrestrial breeding male grey seal: implications for alternative mating tactics. *Canadian Journal of Zoology* 81:1025–1033.
76. Taylor, S.S., Leonard, M.L., Boness, D.J., and Majluf, P. 2004. Foraging patterns in non-breeding Humboldt Penguins (*Spheniscus humboldti*). *Marine Ornithology* 32:63–67.
77. Lidgard, D.C., Boness, D.J., McMillan, J.I., Fleischer, R.C., and Bowen, W.D. 2004. Reproductive success of male mating tactics in the polygynous grey seal. *Molecular Ecology* 13:3543–3548.
78. Paredes, R., Jones, I.L. and Boness, D.J. 2005. Reduced parental care, compensatory behaviour and reproductive costs experienced by female and male thick-billed murre equipped with data loggers. *Animal Behaviour* 69:197–208.
79. Noren, S.R., Iverson, S.J. and Boness, D.J. 2005. Development of the blood and muscle oxygen stores in gray seals (*Halichoerus grypus*): Implications for juvenile diving and the necessity of a postweaning fast. *Physiological and Biochemical Zoology* 78(4):482–490.
80. Lidgard, D.C., Boness, D.J., Bowen, W.D., and McMillan, J.I. 2005. State-dependent male mating tactics in the grey seal: the importance of body size and body composition. *Behavioral Ecology* 16(3):541–549.
81. Austin, D., Bowen, W.D., McMillan, J.I., and Boness, D.J. 2006. Stomach temperature telemetry reveals temporal patterns of foraging success in a free-ranging marine mammal. *Journal of Animal Ecology* 75:408–420.
82. Paredes, R., Jones, I.L., and Boness, D.J. 2006. Parental roles of male and female thick-billed murre and razorbills at Gannet Island, Labrador. *Behaviour* 143:451–481.
83. Boness, D.J., Bowen, W.D., Buhleier, B.M., and Marshall, G.J. 2006. Male mating tactics and mating system of an aquatic-mating pinniped: the harbor seal, *Phoca vitulina*. *Behavioral Ecology and Sociobiology* 61(1):119–130.
84. Bowen, W.D., Iverson, S.J., McMillan, J.I., and Boness, D.J. 2006. Reproductive performance in grey seals: age-related improvement and senescence in a capital breeder. *Journal of Animal Ecology* 75(6):1340–1351.
85. Paredes, R., Jones, I.L. and Boness, D.J., Tremblay, Y., and Renner, M. 2008. Sex-specific differences in diving behaviour of two sympatric Alcini species: thick-billed murre and razorbills. *Canadian Journal of Zoology* 86(7):610–622.

86. Noren, S.R., Boness, D.J., Iverson, S.J., McMillan, J., and Bowen, W.D. 2008. Body condition at weaning affects the duration of the postweaning fast in gray seal pups (*Halichoerus grypus*). *Physiological and Biochemical Zoology* 81(1):269–277.
87. Lidgard, D.C., Boness, D.J., Bowen, W.D., and McMillan, J.I. 2008. The implications of stress on male mating behavior and success in a sexually dimorphic polygynous mammal, the grey seal. *Hormones and Behavior* 53(1):241–248.
88. Boness, D.J. Estrus and estrus behavior. 2009. In: *The Encyclopedia of Marine Mammals*, 2nd Edition, Perrin, W.F., Wursig, B., and Thewissen, H.G.M. (eds.). Academic Press, San Diego, CA, Pp. 384–388.
89. Boness, D.J. Sea lions, overview. 2009. In: *The Encyclopedia of Marine Mammals*, 2nd Edition, Perrin, W.F., Wursig, B. and Thewissen, H.G.M. (eds.). Academic Press, San Diego, CA, Pp. 331–334.
90. Lang, S.L.C., Boness, D.J., Bowen, W.D., and Iverson, S.J. 2011. Primiparous females do not exhibit reduced maternal care in gray seals (*Halichoerus grypus*). *Marine Mammal Science* 27: E153-164.
91. Lidgard, D.C., Boness, D.J., and Bowen, W.D. 2012. Longitudinal changes and consistency in male physical and behaviour traits have implications for mating success in the grey seal, *Halichoerus grypus*. *Canadian Journal of Zoology* 90: 849-860.

THESES, NON-PEER-REVIEWED AND POPULAR PUBLICATIONS

1. Boness, D.J. 1973. What happens between an external stimulus and an overt response? A study of covert behavior. M.A. Thesis, Hollins College.
2. Boness, D.J. 1979. The social system of the grey seal on Sable Island, Nova Scotia, Canada. Ph.D. Thesis, Dalhousie University
3. Boness, D.J. 1979. Busy as a beaver. *Zoogoer* 8:27–31.
4. Boness, D.J. 1980. Harp seals. *Smithsonian* 10:14–15.
5. Boness, D.J., Oftedal, O.T., Ono, K.A., and Iverson, S. 1983. Maternal investment, lactation and pup development in California sea lions on San Nicolas Island, California: Some preliminary results. *Proceedings Biennial Mugu Lagoon/San Nicolas Island Ecological Research Symposium* 3:151–169.
6. Oftedal, O.T., and Boness, D. J. 1983. Fish quality: The net result. *Proceedings of the American Association of Zoo Veterinarians* 47–51.
7. Oftedal, O.T., and Boness, D.J. 1983. Considerations in the use of fish as food. *Proceedings of the Dr. Scholl Conference on the Nutrition of Captive Wild Animals* 3:149–161.
8. Oftedal, O.T., and Boness, D.J. 1986. The period of nursing: a tough time for seals and sea lions. *Zoogoer Special Issue* 6:9–11
9. Boness, D.J. 1990. Who's the mother? Fostering behavior in endangered Hawaiian monk seals. *Zoogoer* 19:10–13.
10. Boness, D.J. 2003. Walruses (Odobenidae). *Grizmek's Animal Life Encyclopedia*. 2nd Edition, Thompson Gale, MI, Vol. 14:409–416.
11. Boness, D.J. 2003. True seals (Phocidae). *Grizmek's Animal Life Encyclopedia*. 2nd Edition, Thompson Gale, MI, Vol. 14:417–436.

12. Boness, Daryl. 2008. Investigating the aquatic mating system of harbor seals using Crittercam. In *Proceedings of the Animal-Borne Imaging Symposium*, G. Marshall (ed.). National Geographic Society, Washington, DC, Pp. 75–79.

INVITED BOOK REVIEWS

1. Boness, D.J. 1981. *Cetacean Behavior: Mechanisms and Functions*, edited by L.M. Herman. *Animal Behaviour* 29:969–970.
2. Boness, D.J. 1986. *Fur Seals: Maternal Strategies on Land and at Sea*, edited by R.L. Gentry and G. L. Kooyman. *Marine Mammal Science* 2:329–330.
3. Boness, D.J. 1989. *American Fur Seal Diplomacy: the Alaskan Fur Seal Controversy*, by J.T. Gay. *Journal of Wildlife Management* 53(1):272–273.
4. Boness, D.J. 1991. *The Pinnipeds: Seals, Sea Lions and Walruses*, by M. Riedman. Berkeley, University Press. *Animal Behaviour* 42:698.
5. Boness, D.J. 1995. *Antarctic Seals. Methods and Techniques*, edited by R.M. Laws. *Journal of Animal Ecology* 64:424–425.
6. Boness, D.J. 1998. *Behavior and Ecology of the Northern Fur Seal*, by R.L. Gentry. *Ecology* 79:2972–2973.
7. Boness, D.J. 2001. *Cetacean Societies*, edited by J. Mann, R.C. Connor, P. Tyack, and H. Whitehead. *Marine Mammal Science* 17:962–964.

MAJOR REPORTS

1. Boness, D.J., and Majluf, P. 1996. Report on the priorities for studies of otariid reproductive strategies, population biology and conservation. Smithsonian, Office of Naval Research, National Marine Fisheries Service; Washington, DC, 44 pp.
2. Heath, C., Boness, D.J., Bowen, W.D., Gilmartin, W., Gisiner, R., Ralls, K., Siniff, D., Zabel, C., and Didier, A. 1997. Steller sea lion behavior review. National Marine Fisheries Service; Seattle, WA, 26 pp.
3. Gentry, R.L., Boness, D.J., Bowles, A.E., Insley, S.J., Payne, R. Schusterman, R. Tyack, P., Thomas, J., and Gisiner, R. 1998. Behavioral effects of anthropogenic noise in the marine environment. Office of Naval Research; Washington, DC, 22 pp.
4. Williams, T.M., Boness, D.J., Bowen, W.D., Boyd, I., Croll, D., Hornig, M. Iverson, S.J., Calkins, D., and Didier, A. 1999. Steller sea lion physiology review. National Marine Fisheries Service; Seattle, WA, 34 pp.
5. Laist, D., Reynolds, J.E. III, Boness, D.J., Gale, N., Gerrodette, T., Lowry, L.F., and Ragen, T.J. 2002. Hawaii monk seal program review. A report to the Marine Mammal Commission, 33 pp.
6. Reeves, R.R., Read, A., Lowry, L., Katona, S.K., and Boness, D.J. 2006. Report of the North Atlantic right whale program review, 13–17 March 2006, Woods Hole, MA, Marine Mammal Commission. Bethesda, MD.

7. Bowen, W.D., Boness, D.J., and Lowry, L.L. 2007. Review of the 2007 Draft Steller Sea Lion Recovery Plan. Prepared for the North Pacific Fishery Management Council, contracted by the North Pacific Research Board.