Brenda A. Jensen

Hawai'i Pacific University
College of Natural and Computational Sciences
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EDUCATION

1994-2000 Doctoral Program: Massachusetts Institute of Technology/ Woods Hole Oceanographic Institution Joint Program in Biological Oceanography
Cambridge/ Woods Hole, MA
Thesis advisor: Dr. Mark. E. Hahn, Woods Hole Oceanographic Institution
Doctoral Thesis "*Characterization of an Aryl Hydrocarbon Receptor from a Cetacean: an Approach for Assessing Contaminant Susceptibility in Protected Species"*

2003-2004 Masters of Science in Education: Secondary Education
Teaching Licensure/Endorsement: Secondary Biology
Old Dominion University, Norfolk, VA

1990-1994 Undergraduate program: Eckerd College, St. Petersburg, FL
Bachelor of Science, Marine Science, Biology track, chemistry minor.
Thesis Mentors: Dr. John Reynolds, Eckerd College, Dr. John Stegeman, Woods Hole Oceanographic Inst., Dr. Michael Moore, Woods Hole Oceanographic Institution.
Undergraduate thesis: *Hepatic cytochrome P4501A induction in marine vertebrates of Massachusetts Bay*

PROFESSIONAL EXPERIENCE

2016-present Dean, College of Natural Sciences, Hawai'i Pacific University, Honolulu, HI
2016-present Professor of Biology, Hawai'i Pacific University, Honolulu, HI
2008-2016 Associate Dean, College of Natural Sciences, Hawai'i Pacific University, Honolulu, HI
2012-2016 Associate Professor of Biology, Hawai'i Pacific University, Honolulu, HI
2005-2012 Assistant Professor of Biology, Hawai'i Pacific University, Honolulu, HI
2009-2013 Program Chair, MS Marine Science, Hawai'i Pacific University, Honolulu, HI
2005-2007 Curriculum Area Liaison, Natural Sciences, Military Campus Programs, Hawai'i Pacific University, Honolulu, HI
2006-2007 Program Chair, Military Campus Programs, Hawai'i Pacific University, Honolulu, HI
2000-2002 Post-doctoral investigator: National Institutes of Health Immunology Training Program, Dept. of Environmental Health, Boston University School of Public Health, Boston, MA
Research Advisor: Dr. David H. Sherr, Department of Environmental Health,

TEACHING EXPERIENCE

2005-present Hawai'i Pacific University- Biology, Marine and Environmental Science
Courses: BIOL 3170, MARS 6010, MARS 6910, NSCI 7000, NSCI 6900, MARS 2100/4100, MARS, BIOL, CHEM 4950, BIOL 4030, BIOL 4031, BIOL 2050, BIOL 1000, BIOL 1500, MARS 3070, MARS 2063, ENVS 6070, ENVS 3000, ENVS 1030, ED 6450

2004 Teaching Internship at Central Kitsap High School, Silverdale, WA.
Biology and Chemistry

2001-2002 Marine Studies Consortium (at Brandeis University)
Adjunct faculty, Course coordinator and co-instructor
Course title: Cetacean Biology and Conservation (Biol30B)

2002 Boston University School of Public Health, Dept. Environmental Health
Guest lecturer

	Course title: Molecular Biology and Public Health (EH 713)
2000	Boston College, Guest lecturer
	Course title: Marine Biology (BI 446)
1999	Boston University Marine Program, Guest lecturer
	Course title: Marine Mammals I (BI 461/661)
1996	Massachusetts Maritime Academy, Guest lecturer
	Course title: Marine Environmental Pollution Monitoring
1995	Massachusetts Institute of Technology, Graduate TA,
	Introduction to Biology (Course 7.014)

PEER-REVIEWED PUBLICATIONS (Underline indicates graduate student advisee)

Jacob JM, West KL, Levine G, Sanchez S, and **Jensen BA**. (2016) Initial characterization of the novel Beaked Whale Morbillivirus in Hawaiian cetaceans. *Diseases of Aquatic Organisms 117:215-217* doi:10.3354/dao02941.

Hansen, AMK, Bryan, CE, West KL and **Jensen BA**. (2016) Trace element concentrations in liver of 16 species of cetaceans stranded on U.S. Pacific islands from 1997 to 2013 *Archives of Environmental Toxicology and Chemistry 70(1):75-95* doi:10.1007/s00244-015-0204-1.

Bachman MJ, Foltz KM, Lynch JM, West KL, and **Jensen BA** (2015), Using cytochrome P4501A1 expression in liver and blubber to understand effects of persistent organic pollutant exposure in stranded Pacific Island cetaceans. *Environmental Toxicology and Chemistry 34(9):1989-1995*. DOI 10.1002/etc.3018.

West KL, Levine, G. Jacob JM, **Jensen BA**, Sanchez S, Colegrove K, and Rotstein D (2015) Co-infection and vertical transmission of *Brucella* and morbillivirus in a neonatal sperm whale. *J Wildlife Dis* 51:227-232. DOI: 10.7589/2014-04-092.

Van Bressem MF, Duignan PJ, Banyard A, Barbieri M, Colegrove KM, De Guise S, Di Guardo G, Dobson A, Domingo M, Fauquier D, Fernandez A, Goldstein T, Grenfell B, Groch KR, Gulland F, **Jensen BA**, Jepson PD, Hall A, Kuiken T, Mazzariol S, Morris SE, Nielsen O, Raga JA, Rowles TK, Saliki J, Sierra E, Stephens N, Stone B, Tomo I, Wang J, Waltzek T, Wellehan JF (2014) Cetacean Morbillivirus: Current Knowledge and Future Directions. *Viruses* 6: 5145-5181. DOI: 10.3390/v6125145.

Duignan PJ, Van Bressem MF, Baker JD, Barbieri M, Colegrove KM, De Guise S, de Swart RL, Di Guardo G, Dobson A, Paul Duprex W, Early G, Fauquier D, Goldstein T, Goodman SJ, Grenfell B, Groch KR, Gulland F, Hall A, **Jensen BA**, Lamy K (2014) Phocine Distemper Virus: Current Knowledge and Future Directions. Viruses 6(12):5093-5134. DOI: 10.3390/v6125093.

Foltz KM, Baird RW, Ylitalo GM, and **Jensen BA** (2014) Cytochrome P4501A1 expression in blubber biopsies of endangered false killer whales (*Pseudorca crassidens*) and nine other odontocete species in Hawaiian waters. *Ecotoxicology* 23(9): 1607-1618, DOI 10.1007/s10646-014-1300-0.

Nilsen FM, Hyrenbach KD, Fang J, and **Jensen BA** (2014). Use of indicator chemicals to characterize the plastic fragments ingested by Laysan albatross. *Marine Pollution Bulletin* 87:230-236. DOI 10.1016/j.marpolbul.2014.07.055.

Keller J, Balazs G, Nilsen F, Rice M, Work T, **Jensen BA** (2014) Investigating the potential role of persistent organic pollutants in Hawaiian green sea turtle fibropapillomatosis. *Environmental Science and Technology 48*(14):7807–7816, DOI 10.1021/es5014054.

Bachman, MJ, Keller, JM, West, KL, and **Jensen BA** (2014) Persistent organic pollutant concentrations in blubber of 16 species of cetaceans stranded in the Pacific Islands from 1997 through 2011. *Science of the Total Environment* 488-489:115-123. DOI 10.1016/j.scitotenv.2014.04.073.

West KL, Sanchez S, Rotstein D, Robertson KM, Dennison S, Levine G, Davis N, Schofield D, Potter C and **Jensen BA** (2013). First U.S. Longman's Beaked Whale (*Indopacetus pacificus*) strands in Maui, Hawaii with first Central Pacific case of morbillivirus *Marine Mammal Science* 29(4): 767–776. DOI: 10.1111/j.1748-7692.2012.00616.x

Jensen BA, Reddy CM, Nelson RK, and Hahn ME (2010) Developing tools for risk assessment in protected species: Relative potencies inferred from competitive binding of halogenated aromatic hydrocarbons to aryl hydrocarbon receptors from beluga (*Delphinapterus leucas*) and mouse" *Aquatic Toxicology* 100:238–245.

Jensen BA, Leeman RJ, Schlezinger JJ, Ryu HY, and Sherr DH (2003) Aryl hydrocarbon receptor (AhR) agonists suppress interleukin-6 expression by bone marrow stromal cells: an immunotoxicology study. *Environmental Health: A Global Access Science Source* **2**:16.

Ryu, HY, Mann KK, Schlezinger JJ, **Jensen BA**, and Sherr DH (2003) Environmental chemical-induced pro/pre B cell apoptosis: analysis of c-myc, p27Kip1, and p21WAF1 reveals a death pathway distinct from clonal deletion. *J Immunol*. **170**(10):4897-904.

Schlezinger JJ, **Jensen BA**, Mann KK, Ryu HY, and Sherr DH (2002) Peroxisome Proliferator-Activated Receptor ϒ-Mediated NF-kB Activation and Apoptosis in Pre-B Cells. *J. Immunology* **169**:6831-6841.

Jensen BA and Hahn ME (2001) cDNA cloning and characterization of a high affinity aryl hydrocarbon receptor in a cetacean, the beluga, *Delphinapterus leucas*. *Toxicological Sciences* **64**: 41-56.

Moore MJ, Berrow SD, **Jensen BA**, Carr P, Sears R, Rowntree VJ, Payne R, Hamilton PK (1999) Relative abundance of large whales around South Georgia (1979-1998). *Marine Mammal Science*: Vol. 15, No. 4, pp. 1287-1302.

Hahn ME, and **Jensen BA** (1998) Mouse to Marine Mammal: new approaches in comparative toxicology in Environmental contaminants and marine mammal health: Research applications. Ross PS and De Guise S (Eds). *Can. Tech. Rep. Fish. Aquat. Sci* 2255: v+29p.

ABSTRACTS AND PRESENTATIONS (Underlined names indicates graduate student advisee)

Smith JL, **Jensen BA**, Jones CM, Campbell M, and Bryan CE (2015) *The Influence of Life History and Diet on Bioaccumulation and Biomagnification of Mercury in Blood of Bottlenose Dolphins,* Tursiops truncatus. Presentated at 21st Biennial Meeting on the Biology of Marine Mammals, San Francisco, CA, December 2015.

Lynch JM, Balazs GH, Allen C, Arengo F, Benson S, Brooker J, Eguchi T, Harris H, Jensen BA, LeRoux R, Pugh RS, Rice MR, Seminoff J, Sterling E, Summers T, Work TM, Becker PR (2015) *Cryo-Repository and Persistent Organic Pollutant Monitoring of Sea Turtle Tissues from the U.S. Pacific Islands Region* Presentated at Pacific Chem 2015, The International Chemical Congress of Pacific Basin Societies, Honolulu, Hawaii, USA, December 15 - 20, 2015

Keller JM, Balazs GH, Nilsen FM, Rice, M, Work TM, Brooker J, and **Jensen BA** (2014) *Investigating the potential role of persistent organic pollutants in Hawaiian green sea turtle fibropapillomatosis.* Presented at Society of Environmental Toxicology and Chemistry (SETAC) Australasia, August 2014.

Kurtz A, Reiner J, West K, and **Jensen B**. (2014) *An initial survey of perfluorinated compounds in Hawaiian cetaceans.* Presented at Ocean Sciences Meeting Honolulu, HI 23-28 February, 2014.

Jensen B, Bachman M, Foltz K, Keller J, Baird R, Ylitalo G, and West K (2013) *Can biomarkers help elucidate the impacts of persistent pollutants in Hawaiian cetaceans?* Presented at the Hawaiian Cetacean Workshop at the 20th Biennial Meeting on the Biology of Marine Mammals, Dunedin, New Zealand, December 2013.

Hansen AMK, Bryan CE, West KL, and Jensen BA. (2013) *Hepatic trace element levels in 16 Pacific cetacean species stranded mainly in the Hawaiian Islands and examination of*

metallothionein and thioredoxin reductase as biomarkers of trace element exposure Presented at the 20th Biennial Conference on the Biology of Marine Mammals in Dunedin, New Zealand, Dec. 9-13, 2013

Bachman MJ, Keller JM, West KL, and **Jensen BA**. (2013) *Examining persistent organic pollutant concentrations and expression of a biomarker (CYP1A1) in stranded cetaceans from the Pacific Islands region.* Presented at the 20th Biennial Meeting on the Biology of Marine Mammals, Dunedin, New Zealand, December 2013.

Jensen, B. (2012) *Persistent Pollutants in Paradise: What stranded Hawaiian cetaceans can tell us about biomarkers in the context of multiple stressors and disease.* To be presented at the Society of Environmental Toxicology and Chemistry (SETAC) North America Meeting, Long Beach, CA Nov. 11-15, 2012

Bachman MJ, Keller JM, West K and **Jensen B**. (2012) *Persistent organic pollutant concentrations in cetaceans stranded in the Hawaiian Islands, 1997 – 2011* To be presented at the Society of Environmental Toxicology and Chemistry (SETAC) North America Meeting, Long Beach, CA Nov. 11-15, 2012

Hansen, AMK, **Jensen BA**, West K, and Bryan CE (2012) *Current levels of trace elements in Pacific cetaceans stranded in Hawaii and examination of metallothionein as a biomarker of trace element exposure.* Presented at the Society of Environmental Toxicology and Chemistry (SETAC) North America Meeting, Long Beach, CA Nov. 11-15, 2012

Foltz KM, Baird RW, Ylitalo GM, **Jensen BA**. *Cytochrome P4501A1 (CYP1A1) as a Biomarker of Contaminant Exposure in Stranded and Free-ranging Hawaiian Odontocetes*. Presented at the Society of Environmental Toxicology and Chemistry (SETAC) North America Meeting, Long Beach, CA Nov. 11-15, 2012

Jensen BA, Saliki JT, Sanchez S, Rotstein DS, Levine GA, Schofield TD, and West KL (2011) *First central Pacific cases of morbillivirus in Hawaiian cetaceans* Presented at the Hawaiian Cetacean Workshop at the 19th Biennial Meeting on the Biology of Marine Mammals, Tampa Florida, November 29-Dec 3, 2011

Urekew EK, West KL, and **Jensen BA** (2011) *Molecular characterization of the ligand binding domain of the aryl hydrocarbon receptor in Hawaiian odontocetes: a biomarker of contaminant susceptibility* Presented at the Hawaiian Cetacean Workshop at the 19th Biennial Meeting on the Biology of Marine Mammals, Tampa Florida, November 29-Dec 3, 2011

Nilsen F, and **Jensen** B (2011) *Characterization of Tracer Chemicals to Describe Marine Debris Ingested by Hawaiian Seabirds*. Presented at the Society of Environmental Toxicology and Chemistry (SETAC) North America Meeting, Boston, MA Nov. 13-17, 2011

Fertall SC, West KL, and **Jensen BA** (2011). Establishing a biomarker for contaminant exposure in Hawaiian Cetaceans: Cytochrome P4501A1 expression. 19th Biennial Conference on the Biology of Marine Mammals, Tampa, Florida, November 2011.

West KL, Saliki JT, Sanchez S, Rotstein DS, Levine GA, Schofield TD, and **Jensen BA** (2011) First central Pacific cases of morbillivirus in two beaked whales from Hawaii. 42nd Annual International Association for Aquatic Animal Medicine. Las Vegas, Nevada, May 2011.

Jensen BA, and West KL (2010) Hawaii Pacific University (HPU) Marine Mammal Stranding Response Program: Case reports and research directions. 5th Annual Pacific Islands Region Hawaiian Monk Seal and Cetacean Responders Meeting Hilo, HI, May 1-3, 2010.

Jensen BA and West KL (2010) Paradise NOT Lost: Biological Insights from Cetacean Strandings in the Hawaiian Islands. National Marine Animal Health and Stranding Network Conference, Shepherdstown, WV, April 6-9, 2010.

Jensen BA and Hahn ME (2009) Developing tools for risk assessment in protected species: relative potencies inferred from competitive binding of halogenated aromatic

hydrocarbons to aryl hydrocarbon receptors from beluga (*Delphinapterus leucas*). Presented at Society of Toxicology 40th Annual meeting, Baltimore, MD, March 2009.

Jensen BA (2009) Toxicology and Health Screening of Stranded Cetaceans at National Marine Fisheries Service's Hawaiian Monk Seal and Cetacean Stranding Response Network Meeting, Maui, Hawaii, June 2009

MASTERS THESES MENTORED

Kautz K (in progress, anticipated graduation 2018) Protein biomarkers of perfluoroalkyl acid (PFAA) exposure in a dolphin kidney cell line

Vanderjagt J (in progress, anticipated graduation 2018) Transcriptional biomarkers of perfluoroalkyl acid (PFAA) exposure in a dolphin kidney cell line

Jung M (in progress, anticipated graduation 2017) Chemical characterization of ingested plastic in sea turtles of the Central Pacific

Shaw S (2017) Determining mercury concentrations and evaluating two biomarkers of exposure in two popular recreational fishes in Hawaiian waters

Smith J (2016) The influence of life history and diet on bioaccumulation and biomagnification of mercury in blood of bottlenose dolphins, *Tursiops truncatus*

Hansen AMKH (2014) Hepatic levels of trace elements in stranded Pacific cetaceans and examination of a biomarker of trace element exposure. M.S. Marine Science Thesis. Hawaii Pacific University.

Kurtz AE (2014) Perfluorinated compounds and potential biomarkers for exposure and effect in stranded cetaceans from the tropical North Pacific M.S. Marine Science Thesis. Hawaii Pacific University.

Bachman MJ (2013) Persistent organic pollutant concentrations and investigation of CYP1A1 as a biomarker in stranded cetaceans from the Pacific Islands. M.S. Marine Science Thesis. Hawaii Pacific University.

Foltz KM (2012). *Cytochrome P4501A1 (CYP1A1) in the blubber of free ranging and stranded Hawaiian odontocetes.* M.S. Marine Science Thesis. Hawaii Pacific University, Kaneohe, HI, USA.

Jacob JM (2012) *Screening and characterization of morbillivirus in Hawaiian cetaceans*. M.S. Marine Science Thesis. Hawaii Pacific University, Kaneohe, HI, USA.

Urekew E (2012) *The aryl hydrocarbon receptor: a biomarker for contaminant susceptibility to contaminant exposure in Hawaiian odontocetes* M.S. Marine Science Thesis. Hawaii Pacific University, Kaneohe, HI, USA.

Fertall SC (2010) *Establishing a biomarker for contaminant exposure in Hawaiian cetaceans: cytochrome P450 1A1 expression*. M.S. Marine Science Thesis. Hawaii Pacific University, Kaneohe, HI, USA.

Nilsen FM (2010) *The chemical signature analysis of plastic ingested by Laysan Albatross*. M.S. Marine Science Thesis. Hawaii Pacific University, Kaneohe, HI, USA.