Bradley P. Harris

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EDUCATION

Ph.D.	*Fisheries Oceanography.* University of Massachusetts - School of Marine Sciences. 2011
M.Sc.	*Fisheries Oceanography.* University of Massachusetts - School of Marine Sciences. 2006
B.Sc.	*Wildlife and Fisheries Science.* Texas A&M University. 1999

PROFESSIONAL EMPLOYMENT

2011 - Present	*Director*: Fisheries, Aquatic Science & Technology (FAST) Lab, Alaska Pacific University
2022 – Present	*Full Professor*: Alaska Pacific University
2016 – 2022	*Associate Professor*: Alaska Pacific University
2011 - 2015	*Assistant Professor*: Alaska Pacific University
2016 - Present	*Honorary Fellow*: Ulster University, Northern Ireland, UK
2012 - Present	*Adjunct Professor*: School of Marine Sciences, University of Massachusetts
2007 - 2011	*Research Associate*, Dept. Fisheries Oceanography, University of Massachusetts - Dartmouth
2001 - 2007	*Program Manager,* Dept. Fisheries Oceanography, University of Massachusetts - Dartmouth
2000	*Master*, USCG 200GT Lic., Oil Spill Response Vessel *Harrison Bay*, Alaska Clean Seas
1995 - 2000	*Boat Officer*, Research Vessel *Pandalus*, Alaska Department of Fish and Game
1991 - 1995	*Commercial Fisherman*, Pink Salmon Purse Seine Fishery, Prince William Sound, Alaska; Sockeye Salmon Set Net Fishery, Upper Cook Inlet, Alaska

PROFESSIONAL SERVICE

2022 – Present	*Review Editor* Frontiers in Ecology and Evolution - Ecophysiology
2022 – Present	*Vice President* Science Pacific Research and Education Organization
2021 – Present	*Member* Working group on Fisheries Benthic Impact and Trade-offs, International Council for Exploration of the Sea
2019 - Present	*Chair*: North Pacific Research Board – Science Panel
2014 - Present	*Member*: Scientific and Statistical Committee, North Pacific Fisheries Management Council
2013 - Present	*Member*: Working Group on Fishing Technology and Fish Behavior, International Council for Exploration of the Sea / Food and Agriculture Organization
2017 - 2019	*Member*: North Pacific Research Board – Science Panel
2016 - 2022	*Member*: Bering Sea Fishery Ecosystem Plan Team, North Pacific Fisheries Management Council
2013 - 2018	*Member*: Working Group on Scallop Assessment, International Council for Exploration of the Sea

PEER-REVIEWED PUBLICATIONS (*denotes student author**)**

Sethi, S.A., Carey, M.P., Gerken, J., **Harris, B.P**., Wolf, N., Cunningham, C., Restrepo, F., and *Ashline, J. 2022. "Juvenile Salmon Habitat Use Drives Variation in Growth and Highlights Vulnerability to River Fragmentation." Ecosphere 13(8): e4192. https://doi.org/10.1002/ecs2.4192

*Fish T.M., Wolf N., Smeltz T.S., **Harris B.P.**, Planas J.V. 2022. Reproductive biology of female Pacific halibut (Hippoglossus stenolepis) in the Gulf of Alaska. Frontiers in Marine Science. *In Press*

Murphy Jr. R., Downs M., Wolf N., and **Harris B.P.** 2022. Guiding principles for integrating stakeholder-based data into marine fisheries decision-making with a focus on USA fisheries management. Fish and Fisheries, 00, 1– 9. https://doi.org/10.1111/faf.12656.

Murphy Jr. R., Yochum N., Wolf N., Kroska A., **Harris B.P.** 2022. Barriers to achieving conservation engineering goals in commercial trawl fisheries. Frontiers in Marine Science. 9:800176. doi: 10.3389/fmars.2022.800176

Loher T., *Dykstra C.L., Hicks A.C., Stewart I.J., Wolf N., **Harris B.P.**, Planas J.V. 2021. Estimation of Post-release Longline Mortality in Pacific Halibut (Hippoglossus stenolepis) Using Acceleration-logging Tags. North American Journal of Fisheries Management, 42:37–49. 10.1002/nafm.10711

Murphy R., Estabrooks A., Gauvin J., Gray S., Kroska A., Wolf N., **Harris B.P.** 2021. Using mental models to quantify linear and non-linear relationships in complex fishery systems. Marine Policy, 132, https://doi.org/10.1016/j.marpol.2021.104695

*Vidal M., Wolf N., *Rosenberg B., **Harris B.P.**, Mathis A. 2021. Perspectives on individual animal identification from biology and computer vision. Integrative and Comparative Biology. icab107, https://doi.org/10.1093/icb/icab107

*Lescher C., Yochum N., **Harris B.P.**, Nathan Wolf N., John Gauvin J. 2021. Selecting Species Specific Vitality Metrics to Predict Red King Crab (Paralithodes camtschaticus) Discard Survival, Fisheries Research, 240(s), https://doi.org/10.1016/j.fishres.2021.105964.

*Kroska A.C., Wolf N., Planas J.V., Baker M.R., Smeltz T.S., **Harris B.P.** 2021. Controlled experiments to explore the use of a multi-tissue approach to characterizing stress in wild-caught Pacific halibut (Hippoglossus stenolepis). Conservation Physiology, 9(1), coab001, https://doi.org/10.1093/conphys/coab001

*Batter V.M., Smeltz T.S., Wolf N., Rosenkranz G.E., Siddon C., **Harris B.P.** 2021. An Optical Assessment of Weathervane Scallop Density and Abundance off Kodiak Island, AK. Journal of Shellfish Research, 40(1):19-25. https://doi.org/10.2983/35.040.0103

Murphy R.D. Jr, *Hagan J.A., **Harris B.P.**, Sethi S.A., Smeltz T.S., Restrepo F. 2021. Can Landsat thermal imagery and environmental data accurately estimate water temperatures in small streams? Journal of Fish and Wildlife Management 12(1):12–26; e1944-687X. https://doi.org/10.3996/JFWM-2020-048

Sethi S.A., *Ashline J., **Harris B.P.**, Gerken J. and Restrepo F. 2021. Connectivity between lentic and lotic freshwater habitats identified as a conservation priority for coho salmon. Aquatic Conservation: Marine and Freshwater Ecosystems. https://doi.org/10.1002/aqc.3504

Murphy R., Cunningham C., **Harris B.P.**, Brown C., 2020. Qualitative and quantitative fisher perceptions to complement natural science data for managing fisheries. Fisheries, 46(5), https://doi.org/10.1002/fsh.10568

*Christie A., Abecasis D., Adjeroud M., Alonso J.C., Amano T., Anton A., Baldigo B.P., Barrientos R., Bicknell J.E., Buhl D.A., Cebrian J., Ceia R.S., Cibils-Martina L., Clarke S., Claudet J., Craig M.D., Davoult D., De Backer A., Donovan M.K., Eddy T.D., França F.M., Gardner J.P.A., **Harris B.P.**, Huusko A., Jones I.L., Kelaher B.P., Kotiaho J.S., López-Baucells A., Major H.L., Mäki-Petäys A., Martín B., Martín C.A., Martin P.A., Mateos-Molina D., McConnaughey R.A., Meroni M., Meyer C.F.J., Mills K., Montefalcone M., Noreika N., Palacín C., Pande A., Pitcher C.R., Ponce C., Rinella M., Rocha R., Ruiz-Delgado M.C., Schmitter-Soto J.J., Shaffer J.A., Sharma S., Sher A.A., Stagnol D., Stanley T.R., Stokesbury K.D.E., Torres A., Tully O., Vehanen T., Watts C., Zhao Q. and Sutherland W.J. 2020. Quantifying and addressing the prevalence and bias of study designs in the environmental and social sciences. Nature Communications. 11, 6377. https://doi.org/10.1038/s41467-020-20142-y

*Fish T., Wolf N., **Harris B.P.**, and Planas J.V. 2020. A comprehensive description of oocyte developmental stages in Pacific halibut, Hippoglossus stenolepis. Journal of Fish Biology, 10.1111/jfb.14551

Murphy R.D., **Harris B.P.**, Estabrooks A., and Wolf N. 2020. Capturing stakeholder perspectives through a collaboration with a commercial fishing cooperative. Marine Policy. 117. https://doi.org/10.1016/j.marpol.2020.103948.

*Moriarty M., Sethi, S.A., Pedreschi D., Smeltz T.S., McGonigle C., **Harris B.P.**, Wolf N., Greenstreet S.P.R. 2020. Combining Fisheries Surveys to Inform Marine Species Distribution Modelling. ICES Journal of Marine Science. 77(2) 539–552. https://doi.org/10.1093/icesjms/fsz254

*Kroska A.C., Wolf N., Dial R., **Harris B.P.** 2019. Exploring sample cross-contamination in fish epidermal mucus. Journal of Fish Biology. https://doi.org/10.1111/jfb.13979.

Wolf N., *Webster S.R., Welker J.M., **Harris B.P.** 2019. Assessing the Relationship between Diet and Size-At-Age in Pacific Halibut (Hippoglossus stenolepis) using d13C and d15N Analysis. Canadian Journal of Fisheries and Aquatic Sciences. https://doi.org/10.1139/cjfas-2018-0380.

*Smeltz T.S., **Harris B.P.**, *Olson J., Sethi S.A. 2019. A seascape scale habitat model to support management of fishing impacts on benthic ecosystems. Canadian Journal of Fisheries and Aquatic Sciences. https://doi.org/10.1139/cjfas-2018-0243.

Pendleton R., Standley C.R., Higgs A.L., Kenney G.H., Sullivan P.J., Sethi S.A., **Harris B.P.** 2019. Acoustic telemetry and benthic habitat mapping informs the spatial ecology of Shortnose Sturgeon in the Hudson River, NY, USA. Transactions of the American Fisheries Society. 148(1) 35-47. https://doi.org/10.1002/tafs.10114

Wolf N., **Harris B.P.**, Richard N., Sethi S.A., *Lomac-MacNair K., Parker L. 2018. Seasonal distribution of Cook Inlet Beluga whales from high frequency aerial survey data. Wildlife Society Bulletin. 42 (4): 577-586. https://doi.org/10.1002/wsb.922

*Calvert J., McGonigle C., Sethi S.A., **Harris B.P.**, Quinn R., Grabowski J. 2018. Dynamic occupancy modelling of temperate marine fish in area-based closures. Ecology and Evolution. 10.1002/ece3.4493

Harris B.P., Webster S.R., Wolf N., Gregg J.L., Hershberger P.K. 2018. Ichthyophonus in sport-caught groundfishes from southcentral Alaska. Diseases of Aquatic Organisms. 128: 169–173.

Harris B.P., Adams C.F. and Stokesbury K.D.E. 2018. Sea scallops exhibit strong local spatiotemporal structure associated with seabed stability and high flows. Ecosphere. 9(3):e02133. 10.1002/ecs2.213

*Neises V., Cornick L., **Harris B.P.**, Zeligs J. 2017. Examining the Metabolic Cost of Otariid Foraging Under Varying Conditions. Journal of Experimental Marine Biology and Ecology. 486: 352–357

*Nimick A.M., **Harris B.P.** 2016. Essential Fish Habitat Regulation in the United States: Lessons for High Latitudes? In: Alfredsson G. et al. eds. The Yearbook of Polar Law Vol. 8. Brill Nijhoff. Pp. 266-278

Stokesbury K.D.E., O'Keefe C.E. and **Harris B.P.** 2016. Fisheries - sea scallop (Placopecten magellanicus). In: Shumway, S., ed. Scallops: Biology, Ecology and Aquaculture. Elsevier Press. 3rd Edition

*Verna D.E., **Harris B.P.** 2016. Review of United States ballast water management policy and associated implications for Alaska. Marine Policy. 70: 13-21

*Verna D.E., **Harris B.P.**, Holzer K.K., Minton M.S. 2016. Ballast-borne marine invasive species: exploring the risk to coastal Alaska, USA. Management of Biological Invasions. 7(2): 199–211

Kaiser M.J., Hilborn R., Jennings S., Amaroso R., Andersen M., Balliet K., Barratt E., Bergstad O.A., Bishop S., Bostrom J.L., Boyd C., Bruce E.A., Burden M., Carey C., Clermont J., Collie J.S., Delahunty A., Dixon J., Eayrs S., Edwards N., Fujita R., Gauvin J., Gleason M., **Harris B.P.**, He P., Hiddink J.G., Hughes K.M., Inostroza M., Kenny A., Kritzer J., Kuntzsch V., Lasta M., Lopez I., Loveridge C., Lynch D., Masters J., Mazor T., McConnaughey R.A., Moenne M., Neat F., *Nimick A.M., Olsen A., Parker D., Parma A., Penney C., Pierce D., Pitcher R., Pol M., Richardson E., Rijnsdorp A.D., Rilatt S., Rodmell D.P., Rose C., Sethi S.A., Short K., Suuronen P., Taylor E., Wallace S., Webb L., Wickham E., Wilding S.R., Wilson A.,

Winger P., and Sutherland W.J. 2015. Prioritisation of knowledge needs to achieve best practices for bottom-trawling in relation to seabed habitats. Fish and Fisheries. 17(3): 637–663

Stokesbury K.D.E., Bethoney N.D., Carey J.D., **Harris B.P.** 2015. Patterns in epibenthic communities exposed to varying levels of fishing pressure on Georges Bank, USA. Journal of Shellfish Research 34(2): 682-682.

Grabowski J. H., Bachman M., Demarest C., Eayrs S., **Harris B.P.**, Malkoski V., Packer D., Stevenson D. 2014. Assessing the vulnerability of marine benthos to fishing gear impacts. Reviews in Fisheries Science. 22(2): 142–155

Harris B.P., Cowles G. W., Stokesbury K.D.E. 2012. Surficial sediment stability on Georges Bank in the Great South Channel and on eastern Nantucket Shoals. Continental Shelf Research 49(2012): 65–72

McGuire C.J., **Harris B.P.** 2012. Systems thinking applied to U.S. federal fisheries management: Law and policy considerations. Natural Resources & Environment, 26(3): 3 – 6

Stokesbury K.D.E., Baker E.P., **Harris B.P.**, Rheault R.B. 2011. Environmental impacts related to mechanical harvest of cultured shellfish. In: Shumway, S., ed. Shellfish Aquaculture and the Environment. Wiley-Blackwell. Pp. 247 – 263

Stokesbury K.D.E., Carey J.D., **Harris B.P.**, O'Keefe C.E. 2011. Discard mortality played a major role in the loss of 10 billion juvenile scallops in the Mid-Atlantic Bight: Reply to Hart & Shank (2011). Marine Ecology Progress Series. 43: 299-302

Stokesbury K.D.E., Carey J.D., **Harris B.P.**, O'Keefe C.E. 2011. Incidental fishing mortality may be responsible for the death of ten billion juvenile sea scallops in the mid-Atlantic. Marine Ecology Progress Series. 425: 167-173

Adams C.F., **Harris B.P.**, Marino II M.C., Stokesbury K.D.E. 2010. Quantifying sea scallop bed diameter on Georges Bank with geostatistics. Fisheries Research 106(3): 460–467

Harris B.P., Stokesbury K.D.E. 2010. The spatial structure of local surficial sediment characteristics on Georges Bank, USA. Continental Shelf Research 30(17): 1840–1853

McGuire C.J., **Harris B.P.** 2010. Some back-ended legal and political issues in United States fisheries management. Journal of Politics and Law. 3(2): 52-62

Stokesbury K.D.E., **Harris B.P.**, Carey J.D., O'Keefe C.E. 2010. High juvenile sea scallop (Placopecten magellanicus) densities on banks and ledges in the Central Gulf of Maine. Journal of Shellfish Research. 29(2): 369-372

Stokesbury K.D.E., **Harris B.P.**, Marino II M.C. 2010. Using technology to forward fisheries science: the sea scallop example. In: Baxter, J.M., and Galbraith C.A., (Eds.), Species Management: Challenges and Solutions for the 21st Century. Scottish Natural Heritage

Jacobson L.D, Stokesbury K.D.E., Allard M.A., Chute A., **Harris B.P.**, Hart D., Jaffarian T., Marino II M.C., Nogueira J.I., Rago P. 2010. Quantification, effects and stock assessment modeling approaches for measurement errors in body size data from sea scallops (Placopecten magellanicus). Fishery Bulletin. 108(2): 233–247

Tian R.C., Chen C.S., Stokesbury K.D.E., Rothschild B.J., Cowles G., Xu Q.C., **Harris B.P.**, Marino M.C. 2009. Dispersal and settlement of sea scallop larvae spawned in the fishery closed areas on Georges Bank. ICES Journal of Marine Science. 66(10):2155-2164

Tian R.C., Chen C.S., Stokesbury K.D.E., Rothschild B.J., Cowles G., Xu Q.C., **Harris B.P.**, Marino M.C. 2009. Sensitivity analysis of sea scallop (Placopecten magellanicus) larvae trajectories to hydrodynamic model configuration on Georges Bank and adjacent coastal regions. Fisheries Oceanography. 18(3): 173–184

Stokesbury K.D.E., **Harris B.P.**, Marino II M.C. 2009. Astonishment, stupefaction, and a naturalist's approach to ecosystem-based fisheries studies. In R.J. Beamish and B.J. Rothschild (eds.), The Future of Fisheries Science in North America, Fish & Fisheries Series 31, Springer Science + Business Media B.V. 2009

Tian R.C., Chen C., Stokesbury K.D.E., Rothschild B.J., Cowles G.C., Xu Q., Hu S., **Harris B.P.**, Marino II M.C. 2009. Modeling the connectivity between sea scallop populations in the Middle Atlantic Bight and over Georges Bank. Marine Ecology Progress Series. 380: 147-160

McGuire C.J., **Harris B.P.** 2008. Rights-based fisheries and ecosystem-based management: Maybe scientists and fishermen know the way? American Bar Association - Marine Resources. 12(1):18 – 21

Harris B.P., McGuire C.J. 2008. Operational issues in U.S. fisheries management: What are some of the major scientific, political and legal hurdles to implementing ecosystem-based management? American Bar Association - Marine Resources. 11(2): 5 – 6

Adams C.F., **Harris B.P.**, Stokesbury K.D.E. 2008. Geostatistical comparison of two independent video surveys of sea scallop abundance in the Elephant Trunk Closed Area, USA. ICES Journal of Marine Science. 65(6): 995-1003

Stokesbury K.D.E., **Harris B.P.**, Marino II M.C., Nogueira J.I. 2007. Sea scallop mass mortality in a marine protected area. Marine Ecology Progress Series. 349: 151-158

Harris B.P., Stokesbury K.D.E. 2006. Shell growth of sea scallops (Placopecten magellanicus Gmelin, 1791) in the southern and northern Great South Channel, USA. ICES Journal of Marine Science. 63: 811-821

Stokesbury K.D.E., **Harris B.P.** 2006. Impact of a limited fishery for sea scallop (Placopecten magellanicus) on the epibenthic community of Georges Bank closed areas. Marine Ecology Progress Series. 307: 85-100

Stokesbury K.D.E., **Harris B.P.**, Marino II M.C. Nogueira J.I. 2004 Estimation of sea scallop abundance using a video survey in off-shore USA waters. Journal of Shellfish Research. 23:33-44

CURRENT GRADUATE STUDENTS (project details)

B. Wilkins -	*Abundance, distribution and habitat associations of the giant red sea cucumber in Prince William Sound, AK.*
C. Hesselbach -	*Local knowledge to improve Black-spotted, rougheye rockfish stock assessments.*
B. Rosenberg -	*Photo-identification of Brown Bears.*
J. Olson -	*Refining Estimates of Impact to Sensitive Marine Habitats by Commercial Fishing Gears in the Aleutian Islands with Application to the Bering Sea and Gulf of Alaska.*
K. Yahnke -	*Assessment of pollock trawl –seabed interactions to inform fishery management*
E. Russ-	*Spot Shrimp (Pandalus platyceros) reproductive ecology*

PAST GRADUATE STUDENTS (project details)

C. Dykstra -	*Influence of physical, environmental, and physiological conditions on survival likelihood in commercially released Pacific halibut.*
T. Fish -	*Pacific Halibut reproductive biology.*
C. Lescher -	*Examination of Observer-subsampling and Viability Assessment Methods of Trawl-caught Red King Crabs in the Bering Sea.*
B. Richie -	*Impacts of diet on groundfish growth and fitness.*
T. Blackmon -	*A Habitat-based Pacific razor clam stock assessment.*
B. Jevons -	*Assessing the Diet of the Giant Pacific Octopus using Stable Isotopes*
K. Tyance -	*Nanwalek sockeye salmon partnership.*
K. Bockelman -	*Assessment of the benthic community inside and outside the Red King Crab Savings Area.*
B. King -	*Exploring methods to directly monitor trawl ground gear seabed contact.*
A. Kroska -	*Exploring the use of mucus to assess stress hormones in Pacific halibut (Hippoglossus stenolepis).*

V. Batter - An Optical Assessment of Scallop Density and Abundance, and the Effects of Fishing in Western Gulf of Alaska Scallop Beds.

L. Junge - Assessment of habitat information to improve the Aleutian Island Pacific cod stock assessment.

M. Baldwin-Schaeffer - Assessing the impacts of offshore mining on Norton Sound Red King Crab.

A. Nimick - Modeling fishing effects on EFH: What is more than minimal and not temporary?

S. Sitkiewicz - Impacts of the parasite Ichthyophonus on groundfish growth and fitness.

J. Stone - Assessment of Eastern Bering Sea juvenile Chinook salmon stock origin and the role of diet in growth and fitness.

J. Hagan - Assessing the accuracy and uncertainty of Landsat derived stream temperatures for use in Chinook salmon habitat assessments on the Anchor River, Alaska.

J. Ashline - Juvenile Coho Salmon overwintering habitat selection and dispersal strategies.

S. Zagorski - Benthic impacts of raised groundgear for the Eastern Bering Sea pollock fishery.

C. Provost - Deepsea skate (Bathyraja abyssicola) size at age and maturity.

C. Grenier - Quantifying Ichthyophonus hoferi prevalence and intensity in Pacific halibut (Hippoglossus stenolepis) in Cook Inlet, Alaska.

S. Larsen - Triploid Induction of Hatchery Chinook Salmon (Oncorhynchus tshawytscha).

J. Mumm - A bathymetry-based habitat model for predicting Yelloweye Rockfish (Sebastes ruberrimus) distributions on the Outer Coast of Alaska's Kenai Peninsula.

C. Simpson - "Smart Fishing in the Bering Sea" curriculum development and evaluation.

S. Simpson - Spatiotemporal assessment of Nushagak river salmon upstream migration with DIDSON sonar.

D. Verna - Ballast water management and associated risk of invasive species in coastal Alaska.

S. Webster - Size-at-age and diet composition of Pacific halibut (Hippoglossus stenolepis) in Cook Inlet, Alaska.

CURRENT POSTDOCTORAL RESEARCHERS

Dr. Keith Fuller - Improving Catch Estimation of Sharks Using Electronic Monitoring.

Dr. Madison Hall - Collaborating with the Alaska Commercial Rockfish Fishery: Using Fishery Dependent Catch and Effort Data to Inform Gulf of Alaska Stock Assessments.

CURRENT RESEARCH FACULTY SUPERVISED

Dr. Robert Murphy - Coupled Human Natural Systems: Quantitative Social Science to inform North Pacific Fisheries Management.