

Lewis A.K. Barnett, PhD

EDUCATION

- 2015 *PhD in Ecology*, University of California- Davis, Advisors: Marissa Baskett, Louis Botsford
2008 *MS in Marine Science*, Moss Landing Marine Laboratories; Advisors: Gregor Cailliet, David Ebert
2003 *BS in Fisheries and Wildlife Science*, statistics minor, Oregon State University, Summa Cum Laude

PUBLICATIONS

- In prep [Barnett, LAK](#), Botsford, LW, Baskett, ML & JC Field. Ecological sensitivity to environmental variation depends on the trophic distribution of fishing and climate impacts.
[Barnett, LAK](#), Hennessey, SM, Essington, TE, Shelton, AO, Feist, BE, Branch, TA & MM McClure. Getting to the bottom of fishery interactions with living habitats: spatiotemporal trends in disturbance of corals and sponges on the US West Coast.
- In press Thorson, JT & [LAK Barnett](#). Comparing estimates of abundance trends and distribution shifts using single- and multi-species models of fishes and biogenic habitat. *ICES Journal of Marine Science*.
- 2015 [Barnett, LAK](#) & ML Baskett. Marine reserves can enhance ecological resilience. *Ecology Letters* 18(12):1301–1310. * **Recommended on [Faculty of 1000 Prime](#)**
[Barnett, LAK](#), Baskett, ML & LW Botsford. Quantifying the potential for marine reserves or harvest reductions to buffer temporal mismatches caused by climate change. *Canadian Journal of Fisheries and Aquatic Sciences* 72(3):376–389.
- 2014 Burgess, SC, Nickols, KJ, Griesemer, CD, [Barnett, LAK](#), Dedrick, AG, Satterthwaite, EV, Yamane, L, Morgan, SG, White, JW & LW Botsford. Beyond connectivity: how empirical methods can quantify population persistence to improve marine protected area design. *Ecological Applications* 24:257–270.
- 2013 [Barnett, LAK](#), Winton, MV, Ainsley, SM, Cailliet, GM & DA Ebert. Comparative demography of skates: life-history correlates of productivity and implications for management. *PLOS ONE* 8(5):e65000.
White, JW, Botsford, LW, Hastings, A, Baskett, ML, Kaplan, DM & [LAK Barnett](#). Transient responses of fished populations to marine reserve establishment. *Conservation Letters* 6:180–191.
- 2012 [Barnett, LAK](#), Ebert, DA & GM Cailliet. Evidence of stability in a chondrichthyan population: case study of the spotted ratfish *Hydrolagus collii* (Chondrichthyes: Chimaeridae). *Journal of Fish Biology* 80:1765–1788.
- 2011 White, JW, Botsford, LW, Baskett, ML, [Barnett, LAK](#), Barr, RJ & A Hastings. Linking models with monitoring data for assessing performance of no-take marine reserves. *Frontiers in Ecology and the Environment* 9(7):390–399.
[Barnett, LAK](#) & BC Spence. Freshwater survival of stranded steelhead kelts in coastal Central California streams. *North American Journal of Fisheries Management* 31:757–764.
- 2009 [Barnett, LAK](#), Earley, RL, Ebert, DA & GM Cailliet. Maturity, fecundity, and reproductive cycle of the spotted ratfish, *Hydrolagus collii*. *Marine Biology* 156:301–316.
[Barnett, LAK](#), Ebert, DA & GM Cailliet. Assessment of the dorsal fin spine for chimaeroid (Holocephali: Chimaeriformes) age estimation. *Journal of Fish Biology* 75:1258–1270.
- 2006 [Barnett, LAK](#), Didier, DA, Long, DJ & DA Ebert. *Hydrolagus mcoskeri* sp. nov., a new species of chimaeroid fish from the Galápagos Islands (Holocephali: Chimaeriformes: Chimaeridae). *Zootaxa* 1328:27–38.
Ryer, CH & [LAK Barnett](#). Influence of illumination and temperature upon flatfish reactivity and herding behavior: Potential implications for trawl capture efficiency. *Fisheries Research* 81:242– 250.

Invited submissions

- 2015 Baskett, ML & [LAK Barnett](#). Ecological and evolutionary consequences of marine reserves. *Annual Reviews in Ecology, Evolution, and Systematics* 46:49–73. * **Featured in popular articles by [Sea Grant](#), [Hakai Magazine](#)**

Peer-reviewed reports and short articles

- In review Barnett, LAK. *Carcharhinus longimanus*. The IUCN Red List of Threatened Species.
Barnett, LAK & C Pien. *Prionace glauca*. The IUCN Red List of Threatened Species..
- 2015 Barnett, LAK, Ebert, DA & DD Dagit. *Hydrolagus colliiei*. The IUCN Red List of Threatened Species. e.T60191A80678052.
- 2009 Ebert, DA, Maurer, JR, Ainsley, SM, Barnett, LAK & GM Cailliet. Life history and population dynamics of four endemic Alaskan skates: determining essential biological information for effective management of bycatch and target species. North Pacific Research Board Final Report 715.
Barnett, LAK, Ebert, DA & A Henderson. *Glaucostegus halavi*. The IUCN Red List of Threatened Species. e.T161408A5417342.
Barnett, LAK, Quaranta, KL, Ebert DA, White, WT & LJV Compagno. *Glyptocheilus siamensis*. The IUCN Red List of Threatened Species. e.T161611A5464198.
- 2007 Kyne, PM, Valenti, SV & LAK Barnett. *Hydrolagus mcvoskeri*. The IUCN Red List of Threatened Species. e.T63164A12625223.

Instructional texts

- 2012 Botsford, LW, Holland, MD, Moffitt, EA, Teo, SLH, Barnett, LAK & DP Kilduff. Laboratory manual: WFC 122 Population dynamics and estimation.

RESEARCH EXPERIENCE

- 2015 – present *Research Associate*, University of Washington, School of Aquatic and Fisheries Sciences and NOAA Fisheries, Northwest Fisheries Science Center
- 2012 – 2015 *NMFS/Sea Grant Fellow in Population Dynamics*, University of California Davis, Department of Environmental Science and Policy / Department of Wildlife, Fisheries, and Conservation Biology
- 2009 – 2013 *California Sea Grant Trainee*, University of California Davis, Department of Environmental Science and Policy / Department of Wildlife, Fisheries, and Conservation Biology
- 2008 – 2009 *Staff Research Associate*, University of California Santa Cruz and NOAA Fisheries, Southwest Fisheries Science Center, Fisheries Ecology Division
- 2007 *Geophysicist/GIS Technician*, AOA Geophysics Inc.
- 2005 – 2007 *California Sea Grant Trainee*, Pacific Shark Research Center
- 2004 – 2005 *Biological Technician*, Moss Landing Marine Laboratories, Benthic Ecology Laboratory
- 2003 – 2004 *Biological Technician*, NOAA Fisheries, Southeast Fisheries Science Center
- 2003 *Sea Turtle Nesting Survey Technician*, St. Andrew Bay Resource Management Association
- 2002 *Marine Biological Technician*, DYNAMAC (EPA Contractor)
- 2002 *Biological Science Technician*, NOAA Fisheries, Alaska Fisheries Science Center

PROFESSIONAL PRESENTATIONS

- 2014 Quantifying the potential for marine reserves to enhance ecological resilience. Oral presentation, Western Society of Naturalists, Seattle, WA.
Comparative demography of skates: life-history correlates of productivity and implications for management. Oral presentation, Northeast Pacific Shark Symposium, Seattle, WA.
Quantifying the potential for marine reserves to enhance ecological resilience. Oral presentation, NMFS/Sea Grant Graduate Fellowship Program in Population Dynamics and Marine Resource Economics 2014 Annual Meeting, Seattle, WA.
- 2013 Marine reserves can buffer mismatches caused by climate change and fishing. Oral presentation, Ecological Society of America Annual Meeting, Minneapolis, MN.
Propagation of variability across trophic levels: sensitivity of ecological communities to climate and fishing. Oral presentation, NMFS/Sea Grant Graduate Fellowship Program in Population Dynamics and Marine Resource Economics 2013 Annual Meeting, Woods Hole, MA.
MPAs may buffer climate change impacts through the preservation of phenological breadth. Oral presentation, American Fisheries Society, California–Nevada Chapter, Davis, CA.
- 2012 Interactive effects of climate change and MPA management on population persistence and fishery yield: the role of maternal–age–dependent offspring traits. Oral presentation, Western Society of Naturalists Conference, Monterey, CA.

- 2011 Interactive influences of maternal effects, fishing, and climate change on population persistence. Poster presentation, American Fisheries Society Annual Meeting, Seattle, WA.
- 2008 Maturity, fecundity, and the reproductive cycle of the spotted ratfish, *Hydrolagus collicii* (Lay and Bennett, 1839). Oral presentation, American Elasmobranch Society Conference, Montreal, Canada.
Maturity, fecundity, and the reproductive cycle of the white-spotted ratfish, *Hydrolagus collicii* (Lay and Bennett, 1839). Oral presentation, Western Groundfish Conference, Santa Cruz, CA.
- 2006 Deep-water submersible sampling for taxonomic research: discovery of *Hydrolagus* from the Galápagos Islands (Chimaeriformes: Chimaeridae). Oral presentation, American Elasmobranch Society Conference, New Orleans, LA.
Life history studies of California chondrichthyans: determining essential biological information for effective management of bycatch. Poster presentation, Western Groundfish Conference, Newport, OR.
- 2004 Recruitment indices for the shallow water grouper complex: effective or not? Oral presentation, Annual meeting of the American Fisheries Society, Florida Chapter, Brooksville, FL.

Invited oral presentations

- 2016 The potential for ecosystem-based management to maintain and restore ecological stability in a changing climate. Smithsonian Environmental Research Center, Edgewater, MD.
- 2015 Ecological sensitivity to environmental variation depends on the trophic distribution of fishing and climate impacts. University of Washington, School of Aquatic and Fisheries Sciences, Seattle, WA.
Adaptive management of MPAs: predicted population recovery and mitigation of interactions between fishing and climate. Oral presentation, Coastal and Marine Sciences Institute Symposium, Davis, CA.
- 2014 Assessing the potential of marine reserves as a tool for fisheries management in a changing climate. NOAA Fisheries, Southwest Fisheries Science Center, Santa Cruz, CA.

UNIVERSITY AND PROFESSIONAL SERVICE

- 2016 *Guest Subject Editor*, Ecological Applications
- 2015 *NSF GRFP Mentor*, School of Aquatic and Fisheries Sciences, University of Washington
Contributing Member, National Marine Fisheries Service, Climate Vulnerability Assessment Team
- 2014 *Associate, invited presenter*, Coastal and Marine Sciences Institute, University of California Davis
- 2013 – present *Contributing Member*, International Union for Conservation of Nature (IUCN)/Species Survival Commission (SSC) Shark Specialist Group (SSG)
- 2012 – 2015 *Affiliate*, Center for Population Biology, University of California Davis
- 2012 – 2013 *Treasurer*, American Fisheries Society, Sacramento-Davis student subunit
- 2005 *Student Body Officer*, Moss Landing Marine Laboratories
- 2002 – 2003 *Founding Member*, Marine Team, Oregon State University

MENTORSHIP AND TEACHING EXPERIENCE

- Mentor*, NOAA Hollings Scholar internship program; high school internship programs (2006, Spring/Summer 2016)
- Associate Instructor*, Population Dynamics and Estimation, University of California Davis, Department of Wildlife, Fisheries, and Conservation Biology (Spring 2015)
- Teaching Assistant and Guest Lecturer*, Population Dynamics and Estimation, University of California Davis, Department of Wildlife, Fisheries, and Conservation Biology (Spring 2010, 2011, 2012)
- Guest Lecturer*, Ecology, Cabrillo Community College (Fall 2008)
- Teaching Assistant*, Population Biology, Moss Landing Marine Laboratories (Fall 2006, 2007)

REFeree ACTIVITIES

Ecological Applications, Marine Biology, Canadian Journal of Fisheries and Aquatic Sciences (2), Journal of Theoretical Biology, Theoretical Population Biology (3), Fish and Fisheries, Bulletin of Marine Science, Evolution, Bulletin of Mathematical Biology, Environmental Biology of Fishes, Journal of Fish Biology (4), Deep Sea Research II, Endangered Species Research, North Pacific Research Board (grant proposal review), International Union for Conservation of Nature, Zootaxa, Aqua - International Journal of Ichthyology, Cybium, Gulf and Caribbean Research, New Zealand Journal of Marine and Freshwater Research, Pan-American Journal of Aquatic Sciences, African Journal of Marine Science

PROFESSIONAL AND HONORARY SOCIETY MEMBERSHIPS

Ecological Society of America (ESA)
American Fisheries Society (AFS)
Western Society of Naturalists (WSN)
Golden Key International Honor Society

GRANTS AND AWARDS

2013	University of California Davis Open Access Publication Fund Award	\$1,000
2012	NMFS–Sea Grant Fellowship in Population Dynamics	\$77,000
2011	American Fisheries Society Cal–Neva Chapter Award	\$800
	American Fisheries Society Steven Berkeley Marine Conservation Fellowship	\$1,000
2010	Ernest E. Hill Fellowship	\$2,500
	California Sea Grant Graduate Traineeship Award	\$43,200
2009 – 2014	University of California Davis Block Grant	\$65,800
2008	American Fisheries Society Eugene Maughan Graduate Student Scholarship	\$1,500
	David and Lucile Packard Research and Travel Award	\$1,000
2007	John H. Martin Scholarship for innovation in marine research	\$500
2006 – 2007	San Jose State University Professional Development Award	\$800
2006	Myers Oceanographic and Marine Biology Trust Scholarship	\$1,500
	Kim Peppard Memorial Scholarship	\$1,000
	PADI Foundation Grant	\$5,795
2005	California Sea Grant Graduate Traineeship Award	\$36,000
2003	Golden Key International Honor Society Scholarship for top senior initiate	\$500
	Oregon State University College of Agriculture Distinguished Graduate	–
2002	American Fisheries Society Oregon Chapter Undergraduate Scholarship Award	\$1,250
	Bob McGary Memorial Scholarship	\$500
2001	Ursula Bolt Knaus Scholarship Award	\$1,000
	Marin Education Fund Scholarship Award	\$2,000
	The Honor Society of Phi Kappa Phi High Scholastic Achievement Award	–
2000 – 2001	Inverness Garden Club Scholarship Award	\$1,750
2000	Jernstedt/College of Agriculture Honors Scholarship Award	\$1,000
	Point Reyes National Seashore Safety Award	–
1999 – 2003	Dean’s List every term of undergraduate study	–
1999 – 2003	Oregon State University Provost Scholarship Award	\$14,666
1999	Henry E. Mastin Scholarship Award	\$1,200
1999	Marin Garden Club Scholarship Award	\$1,000
1999	Northern California Laborer’s Scholarship Foundation Educational Scholarship	\$1,200
	Total	\$265,461