

W. WALDO WAKEFIELD -- CURRICULUM VITAE

Oregon State University
Cooperative Institute for Marine Ecosystem
and Resources Studies (CIMERS)
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EDUCATION

Ph.D. Oceanography, Scripps Institution of Oceanography
M.S. Oceanography, Oregon State University
B.S. Biology, Pennsylvania State University

POSITIONS HELD

***Oregon State University College of Earth, Ocean, and Atmospheric Sciences (CEOAS) and
Cooperative Institute for Marine Ecosystem and Resources Studies (CIMERS)***

2021-present: Adjunct Professor, Marine Resource Management Program CEOAS/CIMERS

2018-2021: Courtesy Associate Professor, Marine Resource Management Program
CEOAS/CIMERS

2002-2018: Courtesy Associate Professor, CEOAS

NOAA / NMFS Northwest Fisheries Science Center

1999-2018: Fisheries Research Biologist, Fishery Resource Analysis and Monitoring Division

Rutgers University Institute of Marine and Coastal Sciences

1998-1999: Assistant Research Professor

1993-1998: Assistant Research Professor and Science Director for Mid-Atlantic Bight National
Undersea Research Center (NOAA's National Undersea Research Program)

University of Alaska Fairbanks

1991-1993: Affiliate Assistant Professor and Science Director for West Coast National
Undersea Research Center (NOAA's National Undersea Research Program)

NOAA/NMFS Southwest Fisheries Science Center

1990-1991: National Research Council, Research Associateship postdoc

Scripps Institution of Oceanography

1982-90: Graduate Research Assistant

Oregon State University, School of Oceanography

1981-1982: Research Assistant; 1978-81: Graduate Research Assistant; 1977-78: Teaching
Assistant

Academy of Natural Sciences of Philadelphia, Division of Limnology and Ecology

1975-1977: Biologist/Principal Investigator, Benedict Estuarine Research Laboratory, Maryland

1973-1975: Research Assistant, stream survey team, ANSP Museum in Philadelphia

AWARDS

- Scripps Institution of Oceanography, Institute of Marine Resources Fellow, 1982-1983
- Fager Memorial Award, Scripps Institution of Oceanography, 1985
- National Research Council, Research Associateship, 1990-1991

- Rutgers University, Faculty Academic Service Increment Program Award for 1994, 1997, 1998
- NOAA NMFS Northwest Fisheries Science Center Certificate of Recognition for Heceta Bank Research Project 1999/2000
- NOAA NMFS Northwest Fisheries Science Center Certificate of Recognition for Ocean Exploration Project off Oregon, 2001
- NOAA 2008 Bronze Medal Award for protecting U.S. west coast essential groundfish habitats via regulations to restrict fishing, buy-out trawlers, and create marine protected areas.

RECENT EXPERIENCE

Research and teaching related to marine habitat ecology and fish habitat assessment, fisheries oceanography, fisheries conservation engineering, and the application of advanced technologies.

AFFILIATIONS WITH PROFESSIONAL SOCIETIES

American Geophysical Union, The Oceanography Society, American Fisheries Society, American Society of Ichthyologists and Herpetologists, American Institute of Fishery Research Biologists, Gilbert Ichthyological Society, Marine Technology Society

PUBLICATIONS

- Shenker, J. M., D. J. Hepner, P.E. Frere, L.E. Currence, and **W.W. Wakefield**. 1983. Upriver migration and abundance of naked goby (*Gobiosoma boscii*) larvae in the Patuxent River, Maryland. *Estuaries* 6: 36-42.
- Wakefield, W.W.** 1984. Feeding relationships within an assemblage of benthic fishes on the Oregon continental shelf. Masters Thesis, Oregon State University.
<https://ir.library.oregonstate.edu/?locale=en>
- Wakefield, W.W.**, and A. Genin. 1987. The use of a Canadian (perspective) grid in deep-sea photography. *Deep-Sea Research* 34:469-478. [https://doi.org/10.1016/0198-0149\(87\)90148-8](https://doi.org/10.1016/0198-0149(87)90148-8)
- Kaufmann, R.S., **W.W. Wakefield**, and A. Genin. 1989. Distribution of epibenthic megafauna and lebensspuren on two Central North Pacific seamounts. *Deep-Sea Research* 36:1863-1896. [https://doi.org/10.1016/0198-0149\(89\)90116-7](https://doi.org/10.1016/0198-0149(89)90116-7)
- Reimers, C.E., and **W.W. Wakefield**. 1989. Flocculation of siliceous detritus on the sea floor of a deep Pacific seamount. *Deep-Sea Research* 36:841-1862. [https://doi.org/10.1016/0198-0149\(89\)90115-5](https://doi.org/10.1016/0198-0149(89)90115-5)
- Wakefield, W.W.**, 1990. Patterns in the distribution of demersal fishes on the upper-continental slope off central California with studies on the role of ontogenetic vertical migration in particle flux. Ph.D. Thesis, Scripps Institution of Oceanography.
- Wakefield, W.W.**, and K.L. Smith, Jr. 1990. Ontogenetic vertical migration in *Sebastolobus altivelis* as a mechanism for transport of particulate organic matter at continental slope depths. *Limnology. Oceanography* 35:1314-1328. <https://doi.org/10.4319/lo.1990.35.6.1314>
- Smith, K.L. Jr., R. S. Kaufmann, and **W. W. Wakefield**. 1993. Mobile megafauna activity monitored with a time-lapse camera in the abyssal North Pacific. *Deep-Sea Research* 40: 2307-2324. [https://doi.org/10.1016/0967-0637\(93\)90106-D](https://doi.org/10.1016/0967-0637(93)90106-D)
- Adams, P.B., J.L. Butler, C.H. Baxter, T. E. Laidig, K. A. Dahlin, and **W. W. Wakefield** 1995. Population estimates of Pacific Coast groundfishes from video transects and swept-area trawls. *Fishery Bulletin* 93:446-455.

- O'Connell, V.M., **W.W. Wakefield**, and H.G. Greene. 1998. The use of a no-take marine reserve in the Eastern Gulf of Alaska to protect essential fish habitat, pp 127-134, *In* M.M. Yoklavich (ed.), Marine harvest refugia for the west coast rockfish: A workshop. NOAA Technical Memorandum NMFS-SWFSC-255. 159 p.
- Greene, H.G. M.M. Yoklavich, R.M. Starr, V.M. O'Connell, **W.W. Wakefield**, D.E. Sullivan, J.E. McCrea, and G.M. Cailliet. 1999. A classification scheme for deep seafloor habitats. *Oceanologica Acta* 22:663-678. [https://doi.org/10.1016/S0399-1784\(00\)88957-4](https://doi.org/10.1016/S0399-1784(00)88957-4)
- Cailliet, G.M., A.H. Andrews, **W.W. Wakefield**, G. Moreno, and K.L. Rhodes. 1999. A comparison of the fish fauna from beam trawl samples, camera sled photographs and submersible observations in benthic deep-sea habitats off central California. *Oceanologica Acta* 22:579-592. [https://doi.org/10.1016/S0399-1784\(00\)88949-5](https://doi.org/10.1016/S0399-1784(00)88949-5)
- McRea Jr, J.E., H.G. Greene, V.M. O'Connell, and **W.W. Wakefield**. 1999. Mapping marine habitats with high resolution sidescan sonar. *Oceanologica Acta* 22(6):679-686.
- Weinberg, J.R., P.J. Rago, **W.W. Wakefield** and C. Keith. 2002. Estimation of tow distance and spatial heterogeneity using data from inclinometer sensors: an example using a clam survey dredge. *Fisheries Research* 55:49-61. [https://doi.org/10.1016/S0165-7836\(01\)00292-2](https://doi.org/10.1016/S0165-7836(01)00292-2)
- Yoklavich, M.M., C.B. Grimes, and **W.W. Wakefield**. 2003. Using laser line scan imaging technology to assess deepwater habitats in the Monterey Bay National Marine Sanctuary. *Marine Technology Society Journal* 37:18-26. <https://doi.org/10.1109/OCEANS.2003.178028>
- Bosley, K.L., W. Lavelle, R.D. Brodeur, **W.W. Wakefield**, R.L. Emmett, E.T. Baker, K.M. Rehmke. 2004. Feeding relationships among pelagic and benthic communities in relation to the hydrodynamics of Astoria Submarine Canyon, Oregon, USA. *Journal of Marine Systems* 50:21-37. <https://doi.org/10.1016/j.jmarsys.2003.06.006>
- Lauth, R.R., J. Ianelli, **W.W. Wakefield**. 2004. Estimating the size selectivity and catching efficiency of a survey bottom trawl for thornyheads, *Sebastolobus* spp., using a towed video camera sled. *Fisheries Research* 70:27-37. <https://doi.org/10.1016/j.fishres.2004.06.010>
- Lauth, R.R., **W.W. Wakefield**, and K. Smith. 2004. Estimating the density of thornyheads, *Sebastolobus* spp., using a towed video camera sled. *Fisheries Research* 70:39-48. <https://doi.org/10.1016/j.fishres.2004.06.009>
- Wakefield, W.W.**, C.E. Whitmire, J.E.R. Clemons, B.N. Tissot. 2005. Fish habitat studies: Combining high-resolution geological and biological data, pp 119-138. *In* P. W. Barnes and J. P. Thomas, editors. Benthic habitats and the effects of fishing. American Fisheries Society, Symposium 41, Bethesda, Maryland.
- Grimes, C.B., M. Yoklavich, **W. Wakefield**, and H.G. Greene. 2005. Using lasers to investigate deepwater habitats in the Monterey Bay National Marine Sanctuary off central California. p 204. *In* P.W. Barnes and J. P. Thomas, editors. Benthic habitats and the effects of fishing. American Fisheries Society, Symposium 41, Bethesda, Maryland.
- Romsos, C.G., C. Goldfinger, R. Robison, R.L. Milstein, J.D. Chaytor and **W.W. Wakefield**. 2007. Development of a regional seafloor surficial geologic habitat map for the continental margins of Oregon and Washington, USA. *In* B.J. Todd and H.G. Greene, eds., Mapping the Seafloor for Habitat Characterization. Geological Association of Canada, Special Paper 47, p. 219-243.
- Amend, M.R., M.M. Yoklavich, Y. Rzhhanov, C.B Grimes, and **W.W. Wakefield**. 2007. Mosaics of benthic habitats using laser line scan technology: it's in the details. *In* B.J. Todd and H.G.

- Greene, eds., Mapping the Seafloor for Habitat Characterization. Geological Association of Canada, Special Paper 47, 61-69.
- Whitmire, C.E., R.W. Embley, **W.W. Wakefield**, S.G. Merle, and B.N. Tissot. 2007. Characterizing benthic habitats at Heceta Bank, Oregon. In B.J. Todd and H.G. Greene, eds., Mapping the Seafloor for Habitat Characterization. Geological Association of Canada, Special Paper 47, 111-126.
- Copps, S., M.M. Yoklavich, G. Parkes, **W.W. Wakefield**, A. Bailey, H.G. Greene, C. Goldfinger, and R.W. Burn. 2007. Applying Habitat Data to Fishery Management on the US West Coast. In B.J. Todd and H.G. Greene, eds., Mapping the Seafloor for Habitat Characterization. Geological Association of Canada, Special Paper 47, 451-462.
- Greene, H. G., V.M. O'Connell, **W.W. Wakefield**, and C. Brylinsky. 2007. The offshore Edgecumbe Lava Field, southeastern Alaska: Geologic and habitat characterization of a commercial fishing ground. In B.J. Todd and H. G. Greene, eds., Mapping the Seafloor for Habitat Characterization. Geological Association of Canada, Special Paper 47, 277-296.
- Stoner, A.W., C.H. Ryer, S.J. Parker, P.J. Auster, and **W.W. Wakefield**. 2008. Evaluating the role of fish behavior in surveys conducted with underwater vehicles. Canadian Journal of Fisheries and Aquatic Sciences 65:1230-1243. <https://doi.org/10.1139/F08-032>
- Tissot, B.N., **W.W. Wakefield**, M.A. Hixon, and J.E.R. Clemons. 2008. Twenty years of fish-habitat studies on Heceta Bank, Oregon, pp 203-217. In J.R. Reynolds and H.G. Greene (eds), Marine Habitat Mapping Technology for Alaska, Alaska Sea Grant College Program, University of Alaska Fairbanks. <https://doi.org/10.4027/mhmta.2008>.
- Juan Jordá, M.J., J.A. Barth, M.E. Clarke and **W.W. Wakefield**. 2009. Groundfish species associations with distinct oceanographic habitats off the Pacific Northwest Coast. Fisheries Oceanography 18:1-19. <https://doi.org/10.1111/j.1365-2419.2008.00489.x>
- Keller, A.A., V.H. Simon, F. Chan, W.W. Wakefield, M.E. Clarke, D.J. Kamikawa, E.L. Fruh, and J. Barth. 2010. Demersal fish and invertebrate biomass in relation to an offshore hypoxic zone along the U.S. West Coast. Fisheries Oceanography 19:76-87. <https://doi.org/10.1111/j.1365-2419.2009.00529.x>
- Hart, T.D., J.E.R. Clemons, **W.W. Wakefield**, and S.S. Heppell. 2010. Day and night abundance, distribution, and activity patterns of demersal fishes on Heceta Bank, Oregon. Fishery Bulletin 108(4):466-477.
- Yoklavich, M., K. Blackhart, S.K. Brown, C. Greene, T. Minello, Tom Noji, M. Parke, F. Parrish, K. Smith, R. Stone, and **W.W. Wakefield**. 2010. Marine fisheries habitat assessment improvement plan. Report of the National Marine Fisheries Service Habitat Assessment Improvement Plan Team. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-F/SPO-108, 115 p. <https://repository.library.noaa.gov/view/noaa/3724>
- Hannah, R.W. S.A. Jones, M.J.M. Lomeli, and **W.W. Wakefield**. 2012. Trawl net modifications to reduce the bycatch of eulachon (*Thaleichthys pacificus*) in the ocean shrimp (*Pandalus jordani*) fishery. Fisheries Research 110:277-282. <https://doi.org/10.1016/j.fishres.2011.04.016>
- Getsiv-Clemons, J.E.R., **W.W. Wakefield**, C.E. Whitmire, and I.J. Stewart. 2012. Identifying potential habitats from multibeam echosounder imagery to estimate abundance of groundfish: a case study at Heceta Bank, Oregon, USA. In: P.T. Harris and E.K. Baker (Eds.), Seafloor Geomorphology as Benthic Habitat: GeoHab Atlas of Seafloor Geomorphic Features and Benthic Habitats, Elsevier, Amsterdam, 569-586.

- Lomeli, M.J.M., and **W.W. Wakefield**. 2012. Efforts to reduce Chinook salmon (*Oncorhynchus tshawytscha*) and rockfish (*Sebastes* spp.) bycatch in the U.S. west coast Pacific hake (*Merluccius productus*) fishery using an open escape window bycatch reduction device. *Fisheries Research* 119-120:128-132. <https://doi.org/10.1016/j.fishres.2011.11.003>
- Jech, J.M., K.M. Boswell, T. Barao, J. Condiotty, G.D. Melvin, J.C. Taylor, and **W.W. Wakefield**, and T.C. Weber. 2012. Calibration of two orthogonal dual-frequency identification sonars (DIDSONs). *In* Proceedings of the 11th European Community on Underwater Acoustics (ECUA), Edinburgh, Scotland, Vol. 34, Pt. 3. pp. 480-487.
- Lomeli, M.J.M., and **W.W. Wakefield**. 2013. A flexible sorting grid to reduce Pacific halibut (*Hippoglossus stenolepis*) bycatch in the U.S. west coast groundfish bottom trawl fishery. *Fisheries Research* 143:102-108. <https://doi.org/10.1016/j.fishres.2013.01.017>
- Bryan, D.R., K.L. Bosley, A.C. Hicks, M.A. Haltuch, and **W.W. Wakefield**. 2014. Quantitative video analysis of flatfish herding behavior and impact on effective area swept of a survey trawl. *Fisheries Research* 154:120–126. <https://doi.org/10.1016/j.fishres.2014.02.007>
- Keller, A. A., **W.W. Wakefield**, C. Whitmire, B.H. Horness, M.A. Bellman, and K.L. Bosley. 2014. Distribution of demersal fishes along the U.S. west coast (Canada to Mexico) in relation to spatial fishing closures (2003-2011). *Marine Ecology Progress Series* 501:169–190. <https://doi.org/10.3354/meps10674>
- Stinton, A., L. Ciannelli, D.C. Reese, and **W.W. Wakefield**. 2014. Using in situ video analysis to assess juvenile flatfish behavior along the Oregon central coast. *CalCOFI Reports* 55:158-168.
- Blackhart (editor), K. 2014. Northwest Regional Habitat Assessment Working Group Members: Barnas, K., R. Brodeur, R. Emmett, C. Greene, P. Lawson, M. McClure, J. Stadler, J. Thorson, and **W. Wakefield** (Chair, Northwest Regional Habitat Assessment Working Group). 2014. Habitat assessment prioritization for West Coast stocks. Report of the Northwest and Southwest Regional Habitat Assessment Prioritization Working Groups. Internal report, NMFS White Paper. Office of Science and Technology, NMFS, NOAA. Silver Spring, MD. 199 p. Corrected edition, December 2014.
- Yoklavich, M. and **W.W. Wakefield**. 2015. Pacific Coast Region. In: NMFS. Our living oceans: habitat. Status of the habitat of U.S. living marine resources. U.S. Dep. Commerce, NOAA Tech. Memo. NMFS-F/SPO-75, 327 p. doi: 10.7755/TMSPO.75
- Keller, A.A., L. Ciannelli, **W.W. Wakefield**, V. Simon, J.A. Barth, and S.D. Pierce. 2015. Occurrence of demersal fishes in relation to near-bottom oxygen levels within the California Current large marine ecosystem. *Fisheries Oceanography* 24:162-176. <https://doi.org/10.1111/fog.12100>
- Lomeli, M.J.M., and **W.W. Wakefield**. 2015. Testing of Pacific halibut bycatch reduction devices in two US West Coast bottom trawl fisheries. In: G.H. Kruse, H.C. An, J. DiCosimo, C.A. Eischens, G.S. Gislason, D.N. McBride, C.S. Rose, and C.E. Siddon (eds.), *Fisheries Bycatch: Global Issues and Creative Solutions*. Alaska Sea Grant, University of Alaska Fairbanks. <http://doi.org/10.4027/fbgics.2015.01>
- Boehm, A.B., M.Z. Jacobson, M.J. O'Donnell, M. Sutula, **W.W. Wakefield**, S.B. Weisberg, and E. Whiteman. 2015. Ocean acidification science needs for natural resource managers of the North American west coast. *Oceanography* 28:170-181. <https://doi.org/10.5670/oceanog.2015.40>
- Lomeli, M.J.M., and **W.W. Wakefield**. 2016. Evaluation of a selective flatfish sorting grid

- bycatch reduction device in a U.S. west coast bottom trawl fishery. *Fisheries Research* 183:294-303. <https://doi.org/10.1016/j.fishres.2016.06.011>
- Bizzarro, J.J., M.M. Yoklavich, and **W.W. Wakefield**. 2017. Diet composition and foraging ecology of U.S. Pacific Coast groundfishes with applications for fisheries management. *Environmental Biology of Fishes* 100:375–393. <https://doi.org/10.1007/s10641-016-0529-2>
- Keller, A.A., L. Ciannelli, **W.W. Wakefield**, V. Simon, J.A. Barth, and S.D. Pierce. 2017. Species-specific responses of demersal fishes to near-bottom oxygen levels within the California Current large marine ecosystem. *Marine Ecology Progress Series* 568:151-173. <https://doi.org/10.3354/meps12066>
- Lomeli, M.J.M., O.S. Hamel, **W.W. Wakefield**, and D.L. Erickson. 2017. Improving catch utilization in the U.S. West Coast groundfish bottom trawl fishery: An evaluation of T90-mesh and diamond-mesh cod ends, *Marine and Coastal Fisheries*, 9:149-160. <https://doi.org/10.1080/19425120.2016.1274697>
- Klinger, T., E.A. Chornesky, E.A. Whiteman, F. Chan, J.L. Largier, and **W.W. Wakefield**. 2017. Using integrated, ecosystem-level management to address intensifying ocean acidification and hypoxia in the California Current Large Marine Ecosystem. *Elementa: Science of the Anthropocene*, 5:16. <https://doi.org/10.1525/elementa.198>
- Lomeli, M.J.M., and **W.W. Wakefield**, and B. Herrmann. 2017. Testing of two selective flatfish sorting-grid bycatch reduction devices in the U.S. West Coast groundfish bottom trawl fishery, *Marine and Coastal Fisheries*, 9:597-611. <https://doi.org/10.1080/19425120.2017.1388888>
- Lomeli, M.J.M., **W.W. Wakefield**, and Herrmann. 2018. Illuminating the headrope of a selective flatfish trawl: effect on catches of groundfishes, including Pacific halibut. *Marine and Coastal Fisheries: Dynamics, Management, and Ecosystem Science* 10:118–131. <https://doi.org/10.1002/mcf2.10003>
- Sobocinski, K.L., L. Ciannelli, **W.W. Wakefield**, M.E. Yergey, A. Johnson-Colegrove. 2018. Distribution and abundance of juvenile demersal fishes in nearshore habitats of the Oregon coast in relation to summer hypoxia and other environmental variables. *Estuarine, Coastal and Shelf Science* 205:75-90. <https://doi.org/10.1016/j.ecss.2018.03.002>
- Peters, R., Marshak, M.M. Brady, S.K. Brown, K. Osgood, C. Greene, V. Guida, M. Johnson, T. Kellison, R. McConnaughey, T. Noji, M. Parke, C. Rooper, **W. Wakefield**, and M. Yoklavich. 2018. Habitat Science is a Fundamental Element in an Ecosystem-Based Fisheries Management Framework: An Update to the Marine Fisheries Habitat Assessment Improvement Plan, U.S. Dept. of Commerce, NOAA Tech. Memo. F/SPO-181, 29 p. <http://spo.nmfs.noaa.gov/tech-memos/>
- Lomeli, M.J., S.D. Groth, M.T. Blume, B. Herrmann, and **W.W. Wakefield**. 2018. Effects on the bycatch of eulachon and juvenile groundfishes by altering the level of artificial illumination along an ocean shrimp trawl fishing line. *ICES Journal of Marine Science* 75: 2224-2234. <https://doi.org/10.1093/icesjms/fsy105>
- Lomeli, M.J., **W.W. Wakefield**, and B. Herrmann. 2019. Evaluating off-bottom sweeps of a U.S. West Coast groundfish bottom trawl: Effects on catch efficiency and seafloor interactions. *Fisheries Research* 213:204-211. <https://doi.org/10.1016/j.fishres.2019.01.016>
- Lomeli, M.J.M., and **W.W. Wakefield**. 2019. The effect of artificial illumination on Chinook salmon behavior and their escapement out of a midwater trawl bycatch reduction device. *Fisheries Research*. Volume 218:112-119. <https://doi.org/10.1016/j.fishres.2019.04.013>

- Stimpert, A.K., B.C. Madrigal, **W.W. Wakefield**, and M.M. Yoklavich. 2019. Acoustic characterization of underwater mobile survey vehicles and their contribution to the soundscape habitat of Pacific rockfishes. *Journal of the Acoustical Society of America Express Letters*, 146, EL45. <https://doi.org/10.1121/1.5109914>
- Lomeli, M.J.M., S.D. Groth, M.T.O. Blume, B. Herrmann, and **W.W. Wakefield**. 2020. The efficacy of illumination to reduce bycatch of eulachon and groundfishes before trawl capture in the eastern North Pacific Ocean shrimp fishery. *Canadian Journal of Fisheries and Aquatic Sciences*, 77: 44–54. <https://dx.doi.org/10.1139/cjfas-2018-0497>
- Tolimieri, N., M.E. Clarke, J. Clemens, **W. Wakefield**, and A. Powell. 2020. The abundance and habitat use of demersal fishes on a rocky offshore bank using the ROPOS remotely operated vehicle. *Deep-Sea Research Part I* 157, <https://doi.org/10.1016/j.dsr.2019.103193>.
- Lomeli, M.J.M., **W.W. Wakefield**, B. Herrmann, C. Dykstra, A. Simeon, D. Rudy, J.V. Planas. 2021. Use of artificial illumination to reduce Pacific halibut bycatch in a U.S. West Coast groundfish bottom trawl. In: G.H. Kruse, C. Rooper, R. Novikov, and J. Planas (eds.), *Integrating biological research, fisheries science and management of Pacific halibut (*Hippoglossus stenolepis*) across the North Pacific*. *Fisheries Research*, 223, 105737. <https://doi.org/10.1016/j.fishres.2020.105737>
- Sjostroma, A.J.C., L. Ciannelli, F. Conway, and **W.W. Wakefield**. 2021. Gathering local ecological knowledge to augment scientific and management understanding of a living coastal resource: The case of Oregon's nearshore groundfish trawl fishery. *Marine Policy*, 131, 104617. <https://doi.org/10.1016/j.marpol.2021.104617>
- Howard, R.A., L. Ciannelli, **W.W. Wakefield**, and M.R. Fewings. 2021. The effects of climate, oceanography, and habitat on the distribution and abundance of northern California Current continental shelf groundfishes. *Fisheries Oceanography*, 30, 707-725. <https://doi.org/10.1111/fog.12553>
- Campbell, M.D., A. Huddleston, D. Somerton, M.E. Clarke, **W. Wakefield**, S. Murawski, C. Taylor, H. Singh, Y. Girdhar, and M. Yoklavich. 2021. Assessment of attraction and avoidance behaviors of fish in response to the proximity of transiting underwater vehicles. *Fishery Bulletin* 119:216-230. <https://doi.org/10.7755/FB.119.4.2>
- Howard, R.A., L. Ciannelli, **W.W. Wakefield**, and M.A. Haltuch. 2023. Comparing fishery-independent and fishery-dependent data for analysis of the distributions of Oregon shelf groundfishes. *Fisheries Research* 258, 106553. <https://doi.org/10.1016/j.fishres.2022.106553>
- Lockhart, K., L. Ciannelli, **W.W. Wakefield**. 2023. Comparative analysis of sampling methodologies for assessing abundance and distribution of young-of-the-year groundfishes in nearshore soft-sediment habitats. *Fisheries Research* 264, 106734. <https://doi.org/10.1016/j.fishres.2023.106734>
- Lomeli, M.J.M., **W.W. Wakefield**, M. Abele, C.L. Dykstra, B. Herrmann, I.J. Stewart, G.C. Christie. 2023. Testing of hook sizes and appendages to reduce yelloweye rockfish bycatch in a Pacific halibut longline fishery. *Ocean and Coastal Management*, Volume 241, 106664. <https://doi.org/10.1016/j.ocecoaman.2023.106664>
- Abele, M. M.J.M. Lomeli, **W.W. Wakefield**, and B. Herrmann. In Prep. Evaluation of a sorting grid system designed to enhance the catch composition of sablefish in the U.S. West Coast groundfish bottom trawl fishery.

OTHER PUBLICATIONS / REPORTS / ETC. (1994 TO PRESENT):

- O'Connell, V.M., and **W.W. Wakefield**. 1994. Applications of Side Scan Sonar and Laser Line Systems in Fisheries Research. Special Publication no. 9 (<http://www.sf.adfg.state.ak.us/fedaidpdfs/cfsp.09.pdf>).
- Gann, J.T., V.M. O'Connell, H.G. Greene, **W. Wakefield**, and T.R. Bruns. 1994. Characterization of rockfish habitats of the offshore Mt. Edgecumbe lava field and Fairweather Ground, Southeast Alaska, using side scan sonar. Eos Trans. AGU, 75(44):319, Suppl., Abstract O12D-4.
- Starr, R., and **W.W. Wakefield**. 1996. GIS, GPS, and underwater positioning: a workshop on assessing spatial characteristics of marine habitats. A special session and workshop at the Ninth Western Groundfish Conference, Newport, Oregon, January 23 25, 1996.
- Hughes Clarke, J.E., L.A. Mayer, J.A. Goff, H. Lee, and **W. Wakefield**. 1996. Regional seabed characterization through analysis of the angular response of seabed backscatter strength: application to STRATAFORM East and West Coast surveys. Eos Trans. AGU.
- Wakefield, W.W.**, V. M. O'Connell, H.G. Greene, D.W. Carlile, and J.E. McRea. 1998. The role of sidescan sonar in seafloor classification with a direct application to commercial fisheries management. International Council for the Exploration of the Sea (ICES) CM1998/O:36.
- O'Connell, V.M., D.W. Carlile, and **W.W. Wakefield**. 1998. Using line transects and habitat-based assessment techniques to estimate the density of yelloweye rockfish (*Scorpaenidae: Sebastes*) in the eastern Gulf of Alaska. International Council for the Exploration of the Sea (ICES) CM1998/O:56.
- Greene, H.G., M.M. Yoklavich, V.M. O'Connell, R.M. Starr, **W.W. Wakefield**, C.K. Brylinski, J.J. Bizzarro, and G.M. Cailliet. 2000. Mapping and classification of deep seafloor habitats. International Council for the Exploration of the Sea (ICES) CM2000/T:08
- Wakefield, W.**, M. Fogarty, I. Butler, and J. Ianelli. 2000. Secondary effects of fishing, pp 63-66, *In* P.M. Mace ed., Incorporating ecosystem considerations into stock assessments and management advice: What are the pros and cons of going beyond single species? Proceedings of the 6th NMFS National Stock Assessment Workshop (NSAW), 83 pp (https://www.st.nmfs.noaa.gov/StockAssessment/workshop_documents/NSAW7.pdf).
- Turk, T.A., T.L. Builder, C.W. West, D. J. Kamikawa, J.R. Wallace, R.D. Methot, A.R. Bailey, K.L. Bosley, A.J. Cook, E.L. Fruh, B.H. Horness, K.Piner, H.R. Sanborn, and **W.W. Wakefield**. 2001. The 1998 Northwest Fisheries Science Center Pacific West Coast Upper Continental Slope Trawl Survey of Groundfish Resources off Washington, Oregon, and California: Estimates of Distribution, Abundance, and Length Composition. U.S. Dept. of Commerce, NOAA Tech. Memo., NMFS-NWFSC-50, 122 p.
- O'Connell, V., **W. Wakefield**, and H.G. Greene. 2002. Edgecumbe Pinnacles Marine Reserve. Alaska Department of Fish and Game, Commercial Fisheries, Southeast Region. (<http://www.cf.adfg.state.ak.us/region1/finfish/grndfish/pinnacles/pinnacles.php>)
- Tissot, B.N., **W.W. Wakefield**, N.P.F. Puniwai, J. Pirtle., K. York, and J.E.R. Clemons. 2004. Abundance and distribution of structure-forming megafaunal invertebrates, including cold-water corals, on Heceta Bank, Oregon, 2000-2002. Report submitted to the Northwest Fisheries Science Center, Fishery Resource Analysis and Monitoring Division, Seattle, Washington, May 2004. Washington State University Vancouver, Vancouver, Washington.
- Wakefield, W.W.**, S. Copps, M. Yoklavich, G. Parks, and A. Bailey. 2004. Data gaps in the risk assessment for West Coast groundfish EFH. Prepared for a workshop, GIS Tools Supporting

- Ecosystem Approaches to Management NOAA Fisheries, NOS/NCCOS Center for Coastal Monitoring and Assessment, Charleston, South Carolina, September 8-10, 2004.
- Lauth, R., **W. Wakefield**, and K. Smith. 2005. Estimating the density of thornyheads, *Sebastolobus* spp. Using a towed video camera sled, p. 16-17. In D.A. Somerton and C.T. Gledhill (eds.), Report of the National Marine Fisheries Service Workshop on Underwater Video Analysis, U.S. Dep. Commerce, NOAA Tech. Memo. NMFS-F/SPO-68, 69 p.
- Wakefield, W.W.** 2005. Optical Imaging and analysis at the Northwest Fisheries Science Center, p. 18. In D.A. Somerton and C.T. Gledhill (eds.), Report of the National Marine Fisheries Service Workshop on Underwater Video Analysis, U.S. Dep. Commerce, NOAA Tech. Memo. NMFS-F/SPO-68, 69 p.
- Ferrini, V.L., H. Singh, M.E. Clarke, **W. Wakefield**, and K. York. 2006. Computer-assisted analysis of near-bottom photos for benthic habitat studies. Proceedings of the MTS/IEEE OCEANS 2006, Boston Conference and Exhibition, September 15-21, 2006, 1-4244-0115, 4p.
- Clarke, M.E., H. Singh, C. Goldfinger, K. Andrews, G.W. Fleischer, L.C. Hufnagle, S.D. Pierce, C. Roman, C. Romsos, N. Tolimieri, **W. Wakefield**, and K. York. 2006. Integrated Mapping of West Coast Groundfish and Their Habitat Using the Seabed AUV and the ROPOS ROV, Eos Trans. AGU, 87(36), Ocean Sci. Meet. Suppl., Abstract OS46G-12.
- Wakefield et al.** 2008. Receptor Breakout Group Report: Fish and Fisheries; Stressor Breakout Group Report: Acoustics. In G.W. Boehlert, G.W., G.R. McMurray, and C.E. Tortorici (eds.) 2008. Ecological effects of wave energy in the Pacific Northwest. U.S. Department of Commerce, NOAA Tech. Memo. NMFS-F/SPO-92, 174p.
- Goldfinger, C., **W.W. Wakefield**, and C. Romsos. 2009. Oregon Seafloor Mapping Workshop. Proceedings of a Workshop Convened March 18-19, 2008, Oregon State University, LaSells Stewart Center, Corvallis, Oregon.
- Hornung, J. P., A.C. Mix, F.J. Tepley, A.J. Kent, and **W.W. Wakefield**, 2009. Trace metal record of a 200-year-old deep-sea bamboo coral (*Isidella* sp.). American Geophysical Union, Fall Meeting 2009, abstract #PP11A-1294.
- Churnside, J., A Fjälling, J.S. Jaffe, M. Jech, B. Lundgren, T.E. Ryan, and **W.W. Wakefield**. 2012. Optical technologies, Chapter 3, pp. 6-28. In J. Churnside, M. Jech, and E. Tenningen (eds.) Fishery applications of optical technologies, ICES Cooperative Research Report, No. 312. 91p.
- Lomeli, M.J.M., and **W.W. Wakefield**. 2013. A Pilot Study Testing the Efficacy of a Flexible Sorting Grid Rockfish Excluder in the U.S. Pacific Hake Fishery: Outcome of a Collaborative Workshop. NOAA Fisheries, Northwest Fisheries Science Center Report. 23p.
- Parke, M., and **W. Wakefield**. 2013. Rethinking Essential Fish Habitat. In Clarke, L.M. (ed.) Proceedings of the 2nd National Habitat Assessment Workshop: Habitat Science to Support NOAA's Habitat Blueprint. U.S. Dept. of Commer., NOAA Technical Memorandum NMFS-F/SPO-132, 89 p.
- Wakefield, W.**, J. Daly, and K. Clements. 2013. Rethinking Essential Fish Habitat with a Focus on Habitat and Stock Variability. In Clarke, L.M. (ed.) Proceedings of the 2nd National Habitat Assessment Workshop: Habitat Science to Support NOAA's Habitat Blueprint. U.S. Dept. of Commer., NOAA Technical Memorandum NMFS-F/SPO-132, 89 p.
- NMFS. 2013. Groundfish Essential Fish Habitat Synthesis: A Report to the Pacific Fishery Management Council. NOAA NMFS Northwest Fisheries Science Center, Seattle,

- Washington, April 2013. 107 p. (M. McClure, J. Anderson, K. Andrews, M. Bellman, R. Bjorkland, B. Feist, C. Greene, P. Levin, J. Samhour, A. Shelton, N. Tolimieri, **W. Wakefield**, C. Whitmire, S. Winter).
- NMFS. 2013. Appendix to Groundfish Essential Fish Habitat Synthesis: A Report to the Pacific Fishery Management Council. NOAA NMFS Northwest Fisheries Science Center, Seattle, Washington, April 2013. 378 p. (M. McClure, J. Anderson, K. Andrews, M. Bellman, R. Bjorkland, B. Feist, C. Greene, P. Levin, J. Samhour, A. Shelton, N. Tolimieri, **W. Wakefield**, C. Whitmire, S. Winter).
- Greene, C., K. Andrews, T. Beechie, D. Bottom, R. Brodeur, L. Crozier, A. Fullerton, L. Johnson, E. Hazen, N. Mantua, C. Menza, M. Sheer, **W. Wakefield**, C. Whitmire, M. Yoklavich, and J. Zwolinski. 2013. Selecting and evaluating indicators for habitats within the California Current Large Marine Ecosystem. In California Current Integrated Ecosystem Assessment Phase III Report 2013.
http://www.noaa.gov/iea/Assets/iea/california/Report/pdf/9.Habitat_2013.pdf
- Lomeli, M.J.M., and **W.W. Wakefield**. 2014. Examining the potential use of artificial illumination to enhance Chinook salmon escapement out a bycatch reduction device in a Pacific hake midwater trawl. Northwest Fisheries Science Center Report, 15p.
- Lomeli, M.J.M., and **W.W. Wakefield**. 2014. Testing of an industry-designed bycatch reduction device to reduce the incidental catch of Pacific halibut in a groundfish bottom trawl fishery. NMFS Northwest Fisheries Science Center Report, 23 pp.
- Anonymous. Undersea Imaging Workshop. New Jersey Sea Grant Report from workshop held January 14-15 in Red Bank, New Jersey, New Jersey Sea Grant Consortium, Fort Hancock, New Jersey. (<http://njseagrant.org/undersea-imaging-workshop-report-now-available/>)
- Wakefield, W.**, R. Hannah, and M. Blume. 2014. Video lander: a drop camera system developed for sampling rocky reef habitat by the Oregon Department of Fish and Wildlife. In Undersea Imaging Workshop, New Jersey Sea Grant Consortium, Fort Hancock, New Jersey.
- Wakefield, W.**, K. Shepherd, R. Morgan G. Proskurowski, and D. Kelly. 2014. Canadian Remotely Operated Platform for Ocean Science (ROPOS). In Undersea Imaging Workshop, New Jersey Sea Grant Consortium, Fort Hancock, New Jersey.
- Chan, F., E.A. Chornesky, T. Klinger, J.L. Largier, **W.W. Wakefield**, W.W., Whiteman, E.A. 2016. Supporting ecological resilience to address ocean acidification and hypoxia. California Ocean Science Trust, Oakland, California, USA.
- Chan, F., A.B. Boehm, J.A. Barth, E.A. Chornesky, A.G. Dickson, R.A. Feely, B. Hales, T.M. Hill, G. Hofmann, D. Ianson, T. Klinger, J. Largier, J. Newton, T.F. Pedersen, G.N. Somero, M., Sutula, **W.W. Wakefield**, G.G. Waldbusser, S.B. Weisberg, and E.A. Whiteman 2016. The West Coast Ocean Acidification and Hypoxia Science Panel: Major Findings, Recommendations, and Actions. California Ocean Science Trust, Oakland, California, USA.
- Hales, B., F. Chan, A.B. Boehm, J.A. Barth, E.A. Chornesky, A.G. Dickson, R.A. Feely, T.M. Hill, G. Hofmann, D. Ianson, T. Klinger, J. Largier, J. Newton, T.F. Pedersen, G.N. Somero, M. Sutula, **W.W. Wakefield**, G.G. Waldbusser, S.B. Weisberg, and E.A. Whiteman 2016. Multiple stressor considerations: ocean acidification in a deoxygenating ocean and warming climate. West Coast Ocean Acidification and Hypoxia Science Panel, California Ocean Science Trust, Oakland, California, USA.
- Klinger, T., S.B. Weisberg, J.A. Barth, A.B. Boehm, F. Chan, E.A. Chornesky, A.G. Dickson, R.A. Feely, B. Hales, T.M. Hill, G. Hofmann, D. Ianson, J. Largier, J., Newton, T.F.

- Pedersen, G.N. Somero, M. Sutula, **W.W. Wakefield**, G.G. Waldbusser, and E.A. Whiteman. 2016 Research priorities to inform decisions and develop solutions. California Ocean Science Trust, Oakland, California, USA.
- Newton, J., T.M. Hill, R.A. Feely, J.A. Barth, A.B. Boehm, F. Chan, E.A. Chornesky, A.G. Dickson, B. Hales, G. Hofmann, D. Ianson, T. Klinger, J. Largier, T.F. Pedersen, M. Sutula, **W.W. Wakefield**, G.G. Waldbusser, S.B. Weisberg, and E.A. Whiteman. 2016. Ocean acidification and hypoxia monitoring network: tracking the impacts of changing ocean chemistry to inform decisions. California Ocean Science Trust, Oakland, California, USA.
- Sutula, M., J.A. Barth, J. Largier, A.B. Boehm, F. Chan, E.A. Chornesky, A.G. Dickson, R.A. Feely, B. Hales, T.M. Hill, G. Hofmann, D. Ianson, T. Klinger, J. Newton, T.F. Pedersen, G.N. Somero, **W.W. Wakefield**, G.G. Waldbusser, S.B. Weisberg, and E.A. Whiteman. 2016. Modeling tools: Summary of needs to enhance understanding of ocean acidification and hypoxia in coastal oceans. California Ocean Science Trust, Oakland, California, USA.
- Lomeli, M.J.M., and **W.W. Wakefield**. 2016. Artificial light: Its influence on Chinook salmon escapement out a bycatch reduction device in a Pacific hake midwater trawl. Pacific States Marine Fisheries Commission Report, 16 pp.
- Lomeli, M.J.M., O.S. Hamel, **W.W. Wakefield**, and D.L. Erickson. 2016. Examining the efficacy of T90 mesh codends to improve catch utilization in a multispecies bottom trawl fishery. Pacific States Marine Fisheries Commission Report, 24 pp.
- Lomeli, M.J.M., and **W.W. Wakefield**. 2017. Testing of two selective flatfish sorting grid bycatch reduction devices in the U.S. West Coast groundfish bottom trawl fishery. Pacific States Marine Fisheries Commission Report, 30 pp.
http://www.psmfc.org/bycatch/documents/Lomeli_&_Wakfield_2017_Flatfish_Report.pdf
- Lomeli, M.J.M., and **W.W. Wakefield**. 2017. Illuminating the headrope of a selective flatfish trawl: effect on catches of groundfishes and Pacific halibut. Pacific States Marine Fisheries Commission Report, 28 pp.
- Madrigal, B., A.K. Stimpert, M.M. Yoklavich, and **W.W. Wakefield**. 2017. Anthropogenic noise generated by mobile vehicles used to survey rockfishes in the Channel Islands, California. The Journal of the Acoustical Society of America 141, 3865 (2017); doi: <http://dx.doi.org/10.1121/1.4988639>.
- Whitmire, C.E. and **W.W. Wakefield**. 2019. The Effects of Fishing on Groundfish Habitat: West Coast Perspective, Revised for Amendment 28, Pacific Coast Groundfish Fishery Management Plan for the California, Oregon, and Washington Fishery, Appendix C Part 1, Pacific Fishery Management Council 7700 NE Ambassador Place, Suite 101, Portland, OR 97220; <https://www.pcouncil.org/documents/2019/06/revised-groundfish-fmp-appendix-c-part-1.pdf/>
- Lomeli, M.J.M. and **W.W. Wakefield**, 2020. Altering the level of illumination on a bycatch reduction device and its effect on the catch rates of Pacific hake and Chinook salmon. Pacific States Marine Fisheries Commission Report, 27 pp.
- Sjostrom, A., F. Conway, L. Ciannelli, and **W. Wakefield**. 2020. Lost in plain sight: The evolution of Oregon's nearshore groundfish trawl fleet. Oregon Sea Grant. ORESU-S-20-002; https://seagrant.oregonstate.edu/sites/seagrant.oregonstate.edu/files/groundfish_2020_conway_interactive_6.26.2020.pdf.

PRESENTATIONS (2015 – present)

- Jacques, D., C.J. Taylor, K. Boswell, **W. Wakefield**, and E. Ebert. 2015. Using imaging sonars

- to measure changes in the behavior and distribution of fishes in the presence of unmanned underwater vehicles. ICES Symposium on Marine Ecosystem Acoustics (Some Acoustics) – observing the ocean interior in support of integrated management, Nantes, France from Monday 25 to Thursday 28 of May 2015. (won best poster award)
- Taylor, C., E. Ebert, K. Boswell, D. Jacques, and **W. Wakefield**. 2015. Marine ecosystem acoustics in untrawlable habitats to support fishery and ecosystem management. ICES Symposium on Marine Ecosystem Acoustics (Some Acoustics) – observing the ocean interior in support of integrated management, Nantes, France from Monday 25 to Thursday 28 of May 2015.
- Wakefield, W.W.**, J.C. Taylor, K.M. Boswell, and D.A. Jacques. 2015. Fish avoidance of remote sampling methods in untrawlable habitats. American Fisheries Society Annual Meeting, Portland, Oregon, August 16-20, 2015.
- Campbell, M., A. Frappier, D. Somerton, M. E. Clarke, S. Murawski, J.C. Taylor, **W.W. Wakefield**, H. Singh, D.A. Jacques, E. Ebert, Y. Girdhar, E. Fruh, J. Taylor, and C. Lembke. 2015. Towards quantifying avoidance and attraction of reef fish to mobile. American Fisheries Society Annual Meeting, Portland, Oregon, August 16-20, 2015. (presented by Wakefield)
- Lomeli, M.J.M., and **W.W. Wakefield**. 2015. Evaluation of a selective flatfish sorting grid bycatch reduction device in the West Coast bottom trawl fishery. American Fisheries Society Annual Meeting, Portland, Oregon, August 16-20, 2015. (presented by Wakefield)
- Bizzarro, J.J., M.M. Yoklavich, and **W.W. Wakefield**. 2015. Prey composition and foraging ecology as components of essential fish habitat for West Coast groundfishes. American Fisheries Society Annual Meeting, Portland, Oregon, August 16-20, 2015.
- Wakefield, W.**, C. Harvey, P. Levin, and Y. de Reynier. 2015. Managing fisheries in the changing physical and chemical oceanographic environment of the California Current Ecosystem. 23rd Biennial Coastal and Estuarine Research Federation Conference, Portland, Oregon, 8-12, 2016.
- Lomeli, M.J.M., and **W.W. Wakefield**. 2016. Artificial light: Its influence on Chinook salmon escapement out a bycatch reduction device in a Pacific whiting midwater trawl. 19th Western Groundfish Conference, Newport, Oregon, February 8-12, 2016.
- Wakefield, W.W.**, D.A. Jacques, J.C. Taylor, K.M. Boswell, M.D. Campbell, and D.A. Somerton. 2016. Using imaging sonars to measure changes in fish behavior in response to mo-bile underwater vehicles used in direct count surveys. 19th Western Groundfish Conference, Newport, Oregon, February 8-12, 2016.
- Haven, K., **W. Wakefield**, R. Brodeur, M. Yergey, and L. Ciannelli. 2016. Analysis of habitat features and abundance of young-of-the-year fishes off of the central Oregon coast. 19th Western Groundfish Conference, Newport, Oregon, February 8-12, 2016.
- Yergey, M., K. Schaeffer, J. Stadler, C. Greene, P. Lawson, **W. Wakefield**, K. Griffin, M. Hilgart, T. Lederhouse, and L. Latchford. Fisheries specific habitat objectives pilot project: transitioning from Phase 1 to Phase 2. 19th Western Groundfish Conference, Newport, Oregon, February 8-12, 2016.
- Stadler, J., K.F. Griffin, K.L. Ames, **W.W. Wakefield**, S. Biegel, C. Brady, R. Couch, A. Harley, M. McCall, K. Palmigiano, B.S. Shorin, and B. Weidoff. 2016. Amending the essential fish habitat and rockfish conservation area provisions of the Pacific Coast Groundfish Fishery Management Plan. 19th Western Groundfish Conference, Newport,

- Oregon, February 8-12, 2016.
- Bizzarro, J., M.M. Yoklavich, and **W.W. Wakefield**. 2016. Diet composition and foraging ecology of U.S. West Coast groundfishes with applications for fisheries management. 19th Western Groundfish Conference, Newport, Oregon, February 8-12, 2016.
- Keller, A., L. Ciannelli, **W. Wakefield**, V. Simon, J. Barth, and S. Pierce 2016. Species-specific responses of demersal fishes to near-bottom oxygen levels within the California Current Large Marine Ecosystem. 19th Western Groundfish Conference, Newport, Oregon, February 8-12, 2016.
- Madrigal, B., A.K. Stimpert, M.M. Yoklavich, and **W.W. Wakefield**. 2017. Anthropogenic noise generated by mobile vehicles used to survey rockfishes in the Channel Islands, California. 2017, No. 4pAO9, Joint Meeting of the Acoustical Society of America and the European Acoustics Association, Boston, Massachusetts, June 25-29, 2017.
- Lomeli, M.J.M., and **W.W. Wakefield**. 2017. Artificial light: Its effect on the overall escapement of Chinook salmon out a bycatch reduction device. Annual Meeting of the American Fisheries Society, Tampa, Florida, August 20-14, 2017.
- Campbell, M, D. Somerton, **W.W. Wakefield**, M.E. Clarke, S. Murawski, J.C. Taylor, M. Yoklavich, and H. Singh. 2017. Using test beds to conduct multitiered sampling and gear calibration experiments. Annual Meeting of the American Fisheries Society, Tampa, Florida, August 20-14, 2017.
- Wakefield, W.W.**, T. Laidig, E. Wilson, and M. Yoklavich. 2017. Using optical and acoustic cameras to quantify the response of Pacific coast rockfishes to survey vehicles. Annual Meeting of the American Fisheries Society, Tampa, Florida, August 20-14, 2017.
- Wilson, E.P., **W.W. Wakefield**, J.C. Taylor, and K.M. Boswell. 2017. Using DIDSON Imaging Sonars to Track North Pacific Rockfish Movements in Response to Underwater Survey Vehicles. Annual Meeting of the American Fisheries Society, Tampa, Florida, August 20-14, 2017.
- Lomeli, M.J.M., and **W.W. Wakefield**. 2018. Examining if artificial illumination can enhance Chinook salmon escapement out a Pacific hake midwater trawl. 20th Western Groundfish Conference, Newport, Oregon, February 12-16, 2018.
- Whitmire, C., A. Thomas-Smyth, K. Somers, **W. Wakefield**, J. Stadler, and A. Bailey. 2018. What's the point? Comparing geospatial methods for representing fishing effort. 20th Western Groundfish Conference, Newport, Oregon, February 12-16, 2018.
- Wakefield, W.W.**, and J.J. Bizzarro. 2018. Expansion of a groundfish habitat use database. NOAA Fisheries Groundfish Food Habits Workshop, Santa Cruz, California, September 24-25, 2018.
- Lomeli, M.J.M. **W.W. Wakefield**, B. Herrmann, J. Planas, C. Dykstra, D. Rudy, H. Rippman, J. Eibner, J. McVeigh, Foulweather Trawl, Dantrawl, FVs Last Straw, Miss Leone, Miss Sue. 2019. Reducing Pacific halibut bycatch in the West Coast groundfish bottom trawl fishery: A review of trawl modifications. IPHC PICES Workshop, 18 October 2019, Victoria, B.C. Canada. <https://meetings.pices.int/Publications/Presentations/PICES-2019/W2-Lomeli.pdf>
- Lomeli, M.J.M., **W.W. Wakefield**, B. Herrmann, S.D. Groth, M.T.O. Blume. 2019. Collaborative Conservation Engineering Research in Eastern North Pacific Trawl Fisheries. Wakefield Fisheries Symposium, Cooperative Research - strategies for integrating industry perspectives and insights in fisheries science, May 7-9, 2019, Anchorage, Alaska.
- Wakefield, W.** 2020. Assessing benthic habitat impacts and recovery processes in association

- with major changes in spatial management of fisheries off the Oregon coast. Oregon Sea Grant 2020 State of Coast Conference, Virtual. November 5 and 6.
- Marion, S. and **W. Wakefield**. 2020. Assessing changes in benthic habitats off Oregon in association with an 18-Year spatial management closure. Oregon Sea Grant 2020 State of Coast Conference, Virtual November 5 and 6.
- Lomeli, M.J.M. **W. Wakefield**, B. Herrmann, C.L. Dykstra, A. Simeon, D.M. Rudy, and J.V. Planas. 2021. The efficacy of illumination to reduce Pacific halibut bycatch in a U.S. West Coast groundfish bottom trawl. ICES-WGFTFB 2021, Bergen Meeting.
- Abele, M. M.J.M. Lomeli, **W.W. Wakefield**, and B. Herrmann. 2023. Bigger is better: Enhancing the catch composition of sablefish in the U.S. West Coast groundfish bottom trawl fishery. 2023 Western Groundfish Conference, Juneau, Alaska.
https://groundfish.psmfc.org/wp-content/uploads/2023/05/4_4_Abele_Apr25_1600.pdf (won best poster award)
- Lomeli, M., **W. Wakefield**, M. Abele, C. Dykstra, B. Herrmann, I. Stewart, G. Christie, and R/V Pacific Surveyor. 2023. Testing of Hook Sizes and Appendages to Reduce Yelloweye Rockfish Bycatch in a Pacific Halibut Longline Fishery. 2023 Western Groundfish Conference, Juneau, Alaska. https://groundfish.psmfc.org/wp-content/uploads/2023/05/4_1_Lomeli_et al_HLBT-YEYE_Talk.pdf
- Marion, S., A. Merems, C. Reimers, and **W. Wakefield**. 2023. Assessing impacts of trawling on seafloor habitats: A long-term study capitalizing on a natural experiment in the re-opened trawl Rockfish Conservation Area off Oregon. 2023 Western Groundfish Conference, Juneau, Alaska. https://groundfish.psmfc.org/wp-content/uploads/2023/05/7_2_Marion_4-26_1350.pdf
- Lockhart, K., L. Ciannelli, and **W. Wakefield**. A tale of two surveys: Comparing two bottom trawl surveys to assess the abundance and distribution of young-of-the-year groundfishes in nearshore soft-sediment habitats. 2023 Western Groundfish Conference, Juneau, Alaska.
https://groundfish.psmfc.org/wp-content/uploads/2023/05/7_1_Lockhart_Apr26_1330.pdf

Graduate Student Committees

Oregon State University: M Abele, M Agapito, R Carlile, G Christie, E. Conser, R Easton, T Hart, K Haven, R Howard, MJ Juan Jorda, A Lanier, M Mann, C Romsos, A Sjostrom, N Strom, C Vestfals, C Whitmire; Other Universities: L Ferry, S Hagan, D Haroski, B Holladay, G Levai, S O'Brien, J Pirtle, T Shank