

LAUREN S. MULLINEAUX

Senior Scientist, Biology Department and Doherty Faculty DEI Advisor
Woods Hole Oceanographic Institution
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RESEARCH INTERESTS

Benthic community ecology; Larval dispersal and settlement; Population connectivity; Deep-sea biology

PROFESSIONAL PREPARATION

B.A., summa cum laude, Biology, Pomona College, 1980
M.Sc., Earth Sciences, University of California, San Diego, 1984
Ph.D., Oceanography, U.C. San Diego, Scripps Institution of Oceanography, 1987

APPOINTMENTS

Chair, Biology Department, Woods Hole Oceanographic Institution, 2016 – 2020
Senior Scientist, Biology Department, Woods Hole Oceanographic Institution, 2001- present
Associate Scientist (tenured 1996), Biology Department, WHOI, 1992 -2001
Assistant Scientist, Biology Department, WHOI, 1988 - 1992
Postdoctoral Investigator, Ocean Engineering Department, WHOI, 1987 - 1988

AWARDS AND HONORS

Doherty Chair Diversity Equity & Inclusion Faculty Advisor, 2020-2022
Illg Distinguished Lecturer, UW Friday Harbor Laboratories, 2017
WHOI Ocean Life Fellow, 2011-2015
Henry L. and Grace Doherty Chair in Oceanography, 2008-2010
Arnold B. Arons Award for Excellence in Teaching, Advising, and Mentoring, 2004
Holger W. Jannasch Chair for Excellence in Oceanography, 2002-2007
Antarctic Service Award, 1981

CRUISE EXPERIENCE

Chief Scientist on 13 blue-water cruises (Atlantis /DSV Alvin, Atlantis II, Kila/DSV Pisces V)
Principal Investigator or participant in a total of 34 cruises since 1979.

EDUCATIONAL ACTIVITIES

Chair, JCBO, MIT/WHOI Joint Program in Oceanography, 2015 - 2016
Coordinator WHOI Summer Student Fellow Program, 2014 - 2016
Education Coordinator (J. Seward Johnson Chair), Biology Dept., WHOI, 1997-2002
Instructor for MIT/WHOI courses in Biol Oce, Communicating Ocean Sci, Topics in Mar Ecol
Graduate Advisor for 12 MIT/WHOI Joint Program students
Postdoctoral Advisor for 13 WHOI Scholars and Investigators
Undergraduate Research Advisor for 40 students including 13 under-represented minorities

OTHER SELECTED PROFESSIONAL ACTIVITIES

EPSCoR Advisory Board Member for University of Virgin Islands, 2014 - present
Associate Editor, Deep-Sea Research, 2015 – 2016
Executive Committee Member, NSF Ridge2000, 2007-2008
Associate Editor, Limnology and Oceanography, 2000-2006
Visiting Professor, Université Pierre & Marie CURIE, Paris France, 2003
Member, National Research Council Panel on Seafloor Observatories, 1999-2000
Chair, InterRidge Biology Committee (International), 1996-2000

PUBLICATIONS, REFEREED (*designates student or postdoc in my lab)

- 2021 Carrier, T.J., S.E. Beaulieu, S.W. Mills, **L.S. Mullineaux**, A.M. Reitzel, Larvae of deep-sea invertebrates harbor low-diversity bacterial communities. *Biological Bulletin*, in press
- 2021 *Dykman, L.N. S.E. Beaulieu, S.W. Mills, A.R. Solow, **L.S. Mullineaux**. Functional traits provide new insight into recovery and succession at deep-sea hydrothermal vents. *Ecology*, in press
- 2021 *DiBenedetto, M., K.S. *Meyer-Kaiser, B. *Torjman, J.D. Wheeler, **L.S. Mullineaux**. 2021. Departures from isotropy: the kinematics of larval snail behavioral response to food. *Journal of Experimental Biology* 224: jeb239178 doi: 10.1242/jeb.239178
- 2020 **Mullineaux, L.S.**, S. W. Mills, N. Le Bris, S.E. Beaulieu, S.M. Sievert, L.N. *Dykman. 2020. Prolonged recovery time after eruptive disturbance of a deep-sea hydrothermal vent community. *Proceedings Royal Society B* 287:20202070. <https://doi.org/10.1098/rspb.2020.2070>
- 2020 Claudet, J., L. Bopp, W.W.L. Cheung, R. Devillers, E. Escobar-Briones, P. Haugan, J.J. Heymans, V. Masson-Delmotte, Nele Matz-Luck, P. Miloslavich, **L. Mullineaux**, M. Visbeck, R. Watson, A. M. Xivian, I. Ansong, M. Araujo, S. Arico, D. Bailly, J. Barbieri, C. Barnerias, C. Bowler, V. Brun, A. Cazenave, C. Diver, A. Euzen, A.T. Gave, N. Hilmi, F. Menard, C. Moulin, N.P. Munoz, R. Parmentier, A. Pebayle, H-O Portner, S. Osvaldina, P. Ricard, R.S. Santos, M-S. Sicre, S. Thiebault, T. Thiele, R. Trouble, A. Turra, J. Uki, F. Gaill. 2020. A Roadmap for Using the UN Decade of Ocean Science for Sustainable Development in Support of Science, Policy, and Action. *One Earth* 2: 34-42. DOI:<https://doi.org/10.1016/j.oneear.2019.10.012>
- 2020 Gollner, S., B. Govenar, P.M. Arbizu, **L.S. Mullineaux**, S.W. Mills, N. Le Bris, M. Weinbauer, T.M. Shank, M. Bright. 2020. Animal community dynamics at active and senescent vents at the 9°N East Pacific Rise after a volcanic eruption. *Frontiers in Marine Science* doi.org/10.3389/fmars.2019.00832
- 2019 *Meyer-Kaiser, K.S., E. *Houlihan, J. D. Wheeler, D. C. McCorkle, **L.S. Mullineaux** 2019. Behavioral response of eastern oyster *Crassostrea virginica* larvae to a chemical settlement cue is not impaired by low pH. *Marine Ecology Progress Series* 623:13-24, doi.org/10.3354/meps13014
- 2019 Chapman, S.A; S.E. Beaulieu; A. Colaço, A.V. Gebruk, A. Hilario, T. Kihara, E. Ramirez-Llodra, J. Sarrazin, V. Tunnicliffe, D.J. Amon, M.C. Baker, R.E. Boschen-Rose, C. Chen, I.J. Cooper, J.T. Copley, L. Corbari, E. Cordes, D. Cuvelier, S. Duperron, C. Du Preez, S. Gollner, T. Horton, S. Hourdez, E.M. Krylova, K. Linse, P.A. LokaBharathi, L. Marsh, M. Matabos, S.W. Mills, **L.S. Mullineaux**, H.T. Rapp, W.D.K. Reid, E. Rybakova (Goroslavskaya), T.R.A. Thomas, S.J. Southgate, S. Stöhr, P.J. Turner, H.K. Watanabe, M. Yasuhara, A.E. Bates. 2019. sFDvent: a global trait database for deep-sea hydrothermal vent fauna. *Global Ecology and Biogeography* (GEB-2018-0294) doi.org/10.1111/geb.12975
- 2019 Maciejewski, M., Meyer, K.S., Wheeler, J.D., Anderson, E.J., Pittoors, N., Mullineaux, L.S. 2019. Helical swimming as an exploratory behavior in competent larvae of the eastern oyster (*Crassostrea virginica*). *J Exp Mar Biol Ecol* 510:86-94. doi: 10.1016/j.jembe.2018.10.007
- 2018 Xu, G., McGillicuddy, D.J., Mills, S.W., Mullineaux, L.S., 2018. Dispersal of Hydrothermal Vent Larvae at East Pacific Rise 9-10°N Segment. *Journal of Geophysical Research – Oceans* JGRC23170, DOI: 10.1029/2018JC014290
- 2018 Meyer K.S, Wheeler J.D., Houlihan E., Mullineaux L.S. 2018. Desperate planktotrophs: decreased settlement selectivity with age in competent eastern oyster (*Crassostrea virginica*) larvae. *Marine Ecology Progress Series* 599: 93-106. DOI [10.3354/meps12653](https://doi.org/10.3354/meps12653)

- 2018 Mullineaux, L.S. A. Metaxas, S.E. Beaulieu, M. Bright, S. Gollner, B. Grupe, S. Herrera, J. Kellner, L. Levin, S. Mitarai, M. Neubert, A. Thurnherr, V. Tunnicliffe, H.K. Watanabe, Y-J Won, 2018. Exploring the ecology of deep-sea hydrothermal vents in a metacommunity framework. *Frontiers in Marine Science* 5:49. doi: 10.3389/fmars.2018.00049
- 2017 Wheeler, J.D., E.Y. Luo, K.R. Helfrich, E.J. Anderson, L.S. Mullineaux (2017). Light stimulates swimming behavior of larval eastern oysters (*Crassostrea virginica*) in turbulent flow. *Mar Ecol Prog Ser* 571: 109-120, doi:10.3354/meps12106
- 2016 Wheeler, JD & KYK Chan (co-first authors), EJ Anderson, LS Mullineaux (2016). Effects of turbulence on larval swimming and orientation of the sea urchin *Arbacia punctulata*. *J Exp Biol* 219: 1303-1310 doi: [10.1242/jeb.129502](https://doi.org/10.1242/jeb.129502)
- 2015 Nedoncelle, K., Lartaud, F., Pereira, L. C., Yucecel, M., Thurnherr, A. M., Mullineaux, L., & Le Bris, N. (2015). Bathymodiolus growth dynamics in relation to environmental fluctuations in vent habitats. *Deep-Sea Res I*, 106: 183-193. doi: [10.1016/j.dsr.2015.10.003](https://doi.org/10.1016/j.dsr.2015.10.003)
- 2015 Wheeler, J.D., K.R. Helfrich, E.J. Anderson, L.S. Mullineaux. Isolating the hydrodynamic triggers of the dive response in eastern oyster larvae. *Limnol & Oceanogr* 60: 1332-1343
- 2014 Mullineaux, L.S., Deep Sea Hydrothermal Vent Communities. Ch. 17 in: Bertness, M., Bruno, M., Silliman, B, Stachowicz, J. (Eds.), *Marine Community Ecology and Conservation*. Sinauer, Sunderland, Massachusetts.
- 2014 White, M.M., L.S. Mullineaux, D.C. McCorkle, A.L. Cohen. Elevated pCO₂ during fertilization of the bay scallop *Argopecten irradians* reduces larval survival but not shell size. *Mar Ecol Prog Ser* 498: 173-186
- 2013 Mills, S.W., Mullineaux, L.S., Beaulieu, S.E., Adams, D.K. Persistent effects of disturbance on larval patterns in the plankton after an eruption on the East Pacific Rise. *Mar. Ecol. Prog. Ser.* 491:67-76
- 2013 Mullineaux, L.S., McGillicuddy, D.J., Mills, S.W., Kosnyrev, V.K., Thurnherr, A.M., Ledwell, J.R., Lavelle, J.W. Active positioning of vent larvae at a mid-ocean ridge. *Deep Sea Research II* 92: 46-57
- 2013 Wheeler, J.D., Anderson, E.J., Helfrich, K.R., McGann, B., Staats, P., Wargula, A.E., Wilt, K., Mullineaux, L.S. 2013. Upward swimming of competent oyster larvae (*Crassostrea virginica*) persists in highly turbulent flow as detected by PIV flow subtraction. *Mar. Ecol. Prog. Ser.* 488: 171-185.
- 2013 White, M.M., McCorkle, D.C., Mullineaux, L.S., Cohen, A.L. Early Exposure of Bay Scallops (*Argopecten irradians*) to High CO₂ Causes a Decrease in Larval Shell Growth *Plos One* 8 (4), e61065.
- 2012 Mullineaux LS, Le Bris N, Mills SW, Henri P, Bayer SR, Secrist RG, Siu N. Detecting the influence of initial pioneers on succession at deep-sea vents. *PLoS ONE* 7: e50015. doi:10.1371/journal.pone.0050015
- 2012 Fornari DJ, Von Damm KL, Bryce JG, Cowen JP, Ferrini V, Fundis A, Lilley MD, Luther GW, Mullineaux LS, Perfit MR, Meana-Prado MF, Rubin KH, Seyfried WE, Shank TM, Soule SA, Tolstoy M, White SM (2012) The East Pacific Rise between 9°N and 10°N: Twenty-five years of integrated, multidisciplinary oceanic spreading center studies. *Oceanography* 25:18-43
- 2012 Lavelle JW, Thurnherr AM, Mullineaux LS, McGillicuddy DJ, Ledwell JR. The prediction, verification and significance of flank jets at mid-ocean ridges. *Oceanography* 25:277-283.

- 2011 Adams* DK, McGillicuddy DJ, Zamudio L, Thurnherr AM, Liang X, Rouxel O, German CR, Mullineaux LS. Surface-generated mesoscale eddies transport deep-sea products from hydrothermal vents. *Science* 332:580-583
- 2011 Thurnherr, A. M., J. R. Ledwell, J. W. Lavelle, L. S. Mullineaux. Circulation near the crest of the East Pacific Rise between 9° and 10°N. *Deep-Sea Res. I* 58: 365-376.
- 2011 Bayer SR, Mullineaux LS, Waller RG, Solow AR (2011) Reproductive traits of pioneer gastropod species colonizing deep-sea hydrothermal vents after an eruption. *Marine Biology* 158:181-192
- 2010 Lavelle, J.W., A.M. Thurnherr, J. R. Ledwell, D.J. McGillicuddy, Jr., L.S. Mullineaux. Deep ocean circulation and transport where the East Pacific Rise at 9–10°N meets the Lamont Seamount chain. *Journal of Geophysical Research – Oceans* 115:C12073
- 2010 Fuchs, H. L., A. R. Solow, and L. S. Mullineaux. Larvae from different adult habitats have genus-specific responses to turbulence in a tidal channel. *Journal of Marine Research* 68:153-188
- 2010 Adams, D.K., S.W. Mills, T.M. Shank, L.S. Mullineaux. Expanding dispersal studies at hydrothermal vents through species identification of cryptic larval forms. *Marine Biology* 157:1049-1062
- 2010 McGillicuddy DJ, Lavelle W, Thurnherr AM, Kosnyrev VK, Mullineaux LS. Larval dispersion along an axially symmetric mid-ocean ridge. *Deep Sea Res I* 57:880-892
- 2010 Mullineaux LS, Adams DK, Mills SW, Beaulieu SE. Larvae from afar colonize deep-sea hydrothermal vents after a catastrophic eruption. *PNAS* 107:7829–7834
- 2009 Mullineaux, L.S., F. Micheli, C.H. Peterson, H.S. Lenihan, N. Markus. Historical effects on succession: imprint of past conditions on structure of a deep-sea hydrothermal vent community. *Oecologia* 161:387-400.
- 2009 Rona, P. A., A. Seilacher, C. de Vargas, A. J. Gooday, J. M. Bernhard, S. Bowser, C. Vetriani, C. O. Wirsen, L. Mullineaux, R. Sherrell, J. F. Grassle, S. Low, R. A. Lutz. *Paleodictyon nodosum*: A living fossil on the deep-sea floor. *Deep-Sea Research II* 56: 1700-1712
- 2009 Beaulieu, S.E., Mullineaux, L.S., Adams, D.K., and Mills, S.W. Comparison of a sediment trap and plankton pump for time-series sampling of larvae near deep-sea hydrothermal vents. *Limnology and Oceanography: Methods* 7:235-248
- 2009 Metaxas, A., L.S. Mullineaux and J. Sisson. Distribution of echinoderm larvae relative to the halocline of a salt wedge. *Mar. Ecol. Prog. Ser.* 377: 157-168
- 2009 Jennings, R.M., T. M. Shank, L. S. Mullineaux, and K. M. Halanych. Assessment of the Cape Cod phylogeographic break using the bamboo worm *Clymenellatorquata* reveals the role of regional water masses and dispersal. *J. Heredity* 100:86-96
- 2009 Lenihan, H.S., S.W. Mills, L.S. Mullineaux, C.H. Peterson, C.R. Fisher, F. Micheli. Biotic interactions at hydrothermal vents: recruitment inhibition by the mussel *Bathymodiolus thermophilus*. *Deep-Sea Research* 155:1707-1717.
- 2008 Strasser, C.A., L. S. Mullineaux, S. R. Thorrold. Temperature and salinity effects on elemental uptake in the shells of larval and juvenile softshell clams (*Mya arenaria*). *Mar. Ecol. Prog. Ser.* 370- 155-169.
- 2008 Tyler, P.A., S. Pendlebury, S.W. Mills, L.S. Mullineaux, K.J. Eckelbarger, M. Baker and C.M. Young. Reproduction of gastropods from vents on the East Pacific Rise and the Mid-Atlantic Ridge. *J. Shellfish Res.* 27: 107–118
- 2008 Strasser, C.A., L.S. Mullineaux and B.D. Walther. Growth rate and ontogeny effects on *Mya arenaria* shell chemistry: implications for biogeochemical studies. *J. Exp. Mar. Biol. Ecol.*, 355:

- 2008 Adams, D.K. and L.S. Mullineaux. Supply of gastropod larvae to hydrothermal vents reflects transport from local larval sources. *Limnology and Oceanography* 53: 1945 – 1955.
- 2007 Strasser, C.A., S.R. Thorrold, V.R. Starczak, and L.S. Mullineaux. Laser ablation ICP-MS analysis of larval shell in softshell clams (*Mya arenaria*) poses challenges for natural tag studies. *Limnology and Oceanography Methods* 5: 241-249
- 2007 Fuchs, H., M. Neubert and L.S. Mullineaux. Effects of turbulence-mediated larval behavior on larval supply and settlement in tidal currents. *Limnol Oceanogr* 52:1156-1165
- 2007 Mills, S.W., L.S. Mullineaux and P.A. Tyler. Habitat associations in gastropod species at East Pacific Rise hydrothermal vents (9°50'N). *Biological Bulletin* 212: 185-194
- 2006 Neubert, M., L.S. Mullineaux and M.F. Hill. A metapopulation approach to interpreting diversity at deep-sea hydrothermal vents. In 'Marine Metapopulations', J. Kritzer and P. Sale, eds., Elsevier Academic Press, pp. 321-350.
- 2005 Pradillon, F., M. Zbinden, L.S. Mullineaux and F. Gaill. Effects of patch dynamics on size-structure and reproductive maturity of *Alvinellapompejana* (Polychaeta: Alvinellidae) populations. *Marine Ecology Progress Series* 302:147-157
- 2005 Mullineaux, L.S., S.W. Mills, A. K. Sweetman, A.H. Beaudreau, A. Metaxas, H.L. Hunt. Spatial structure and temporal variation in larval abundance at hydrothermal vents on the East Pacific Rise. *Marine Ecology Progress Series* 293:1-16
- 2005 Sancho, G., Fisher, C.R., Mills, S. Micheli, F., Johnson, G.A., Lenihan, H.S., Peterson, C.H and Mullineaux, L.S. Selective predation by the zoarcid fish *Thermarcescerberus* at hydrothermal vents. *Deep-Sea Research* 152: 837-844
- 2004 Fuchs, H.L., L. S. Mullineaux, and A. R. Solow. Sinking behavior of gastropod larvae (*Ilyanassa obsoleta*) in turbulence. *Limnology and Oceanography* 49: 1937-1948
- 2004 Hunt, H.L., A. Metaxas, R.M. Jennings, K. Halanych and L.S. Mullineaux. Testing biological control of colonization by vestimentiferan tubeworms at deep-sea hydrothermal vents (East Pacific Rise, 9°50'N). *Deep-Sea Research* 51: 225-234
- 2003 Mullineaux, L.S., C.H. Peterson, F. Micheli and S.W. Mills. Successional mechanism varies along a gradient in hydrothermal fluid flux at deep-sea vents. *Ecological Monographs* 73: 523-542.
- 2002 Mullineaux, L.S., K.G. Speer, A.M. Thurnherr, M.E. Maltrud, A. Vangriesheim. Implications of cross-axis flow for larval dispersal along mid-ocean ridges. *Cahiers de Biologie Marine* 43: 281-284.
- 2002 Hunt, H.L., D.A. McLean and L.S. Mullineaux. Alteration of spatial settlement patterns of the soft shell clam *Mya arenaria* by post-settlement events. *Estuaries* 26: 72-81.
- 2002 Podar, M, Mullineaux, L.S., Huang, H.-R., Perlman, P.S. and Sogin, M.L. Bacterial group II introns in a deep sea hydrothermal vent environment. *Applied and Environmental Microbiology* 68:6392-6398.
- 2002 Hunt, H.L. and L.S. Mullineaux. The roles of predation and postlarval transport in recruitment of the soft shell clam *Mya arenaria*. *Limnology & Oceanography* 47:151-164.
- 2002 Micheli, F., C.H. Peterson, L.S. Mullineaux, C. Fisher, S.W. Mills, G. Sancho, G.A. Johnson and H.S. Lenihan. Predation structures communities at deep-sea hydrothermal vents. *Ecological Monographs* 72:365-382.
- 2001 Gulmann, L.K., L.S. Mullineaux and H.L. Hunt. Effects of caging on retention of postlarval soft-

- shelled clams (*Mya arenaria*). *Journal of Shellfish Research*. 20: 135-142.
- 2001 Marsh, A. G., L. S. Mullineaux, C. M. Young and D. T. Manahan. 2001. Larval dispersal potential of the tubeworm *Riftia pachyptila* at deep-sea hydrothermal vents. *Nature* 411: 77-80.
- 2001 Etter, R. and L.S. Mullineaux. Deep-Sea Communities. In, Bertness, M.D., S.D. Gaines and M.E. Hay, eds., *Marine Community Ecology*, p. 367-394, Sinauer Associates Inc. Sunderland, MA.
- 2000 Mullineaux, L. S., C. R. Fisher, C. H. Peterson and S. W. Schaeffer. Vestimentiferan tubeworm succession at hydrothermal vents: use of biogenic cues to reduce habitat selection error? *Oecologia* 123:275-284.
- 1999 Berntson, E. A., S. C. France and L. S. Mullineaux. Phylogenetic relationships within the Class Anthozoa (Phylum Cnidaria) based on 18S ribosomal DNA sequence information. *Molecular Phylogenetics and Evolution* 13(2): 417-433.
- 1999 Dunn, R., L. S. Mullineaux and S. W. Mills. Resuspension of postlarval soft-shell clams *Mya arenaria* through disturbance by the mud snail *Ilyanassa obsoleta*. *Marine Ecology Progress Series* 180:223-232.
- 1998 Kim, S.L. and L.S. Mullineaux. Distribution and near-bottom transport of larvae and other plankton at hydrothermal vents. *Deep-Sea Research II* 45: 423-440.
- 1998 Mullineaux, L.S., S.W. Mills and E. Goldman. Recruitment variation during a pilot colonization study of hydrothermal vents (9°50'N, East Pacific Rise). *Deep-Sea Research II* 45:441-464.
- 1997 Mullineaux, L.S. and S.W. Mills. A test of the larval retention hypothesis in seamount-generated flows. *Deep-Sea Research* 44: 745-770.
- 1996 France, S.C., P.E. Rosel, J. E. Agenbroad, L.S. Mullineaux, T.D. Kocher. DNA sequence variation of mitochondrial large-subunit rRNA provides support for a two subclass organization of the Anthozoa (Cnidaria). *Molecular Marine Biology and Biotechnology* 5:15-28.
- 1996 Mullineaux, L.S., S. Kim, A. Pooley and R. Lutz. Identification of Archaeogastropod larvae from a hydrothermal vent community. *Marine Biology* 124: 551-560.
- 1995 Haney, J.C., L.R. Haury, L.S. Mullineaux, C.L. Fey. Seabird aggregation at a deep North Pacific seamount. *Marine Biology* 123:1-9.
- 1995 Mullineaux, L.S. and S.C. France. Dispersal of deep-sea hydrothermal vent fauna, in S.E. Humphris, R.A. Zierenberg, L.S. Mullineaux, and R.E. Thomson, eds., *Seafloor hydrothermal systems: physical, chemical, biological, and geochemical interactions*, Geophysical Monograph Series volume 91, p. 408-424.
- 1995 Mullineaux, L.S. P.H. Wiebe and E.T. Baker. Larvae of benthic invertebrates in hydrothermal vent plumes over Juan de Fuca Ridge. *Marine Biology* 122: 585-596.
- 1995 Wishner, K.F, C.J. Ashjian, C. Gelfman, M.M. Gowing, L. Kann, L.A. Levin, L.S. Mullineaux and J. Saltzman. The lower interface of the eastern tropical pacific oxygen minimum zone. *Deep-Sea Research* 42:93-115.
- 1994 Rankin, K., L.S. Mullineaux and W.R. Geyer. Transport and deposition of juvenile gem clams (*Gemma gemma*) in a headland wake. *Estuaries* 17:655-667.
- 1994 Kim, S.L., L.S. Mullineaux and K.R. Helfrich. Larval dispersal via entrainment into hydrothermal vent plumes. *Journal of Geophysical Research* 99: 12,655-12,665.
- 1994 Mullineaux, L.S. Implications of mesoscale flows for dispersal and retention of larvae in deep-sea habitats. In: C.M. Young and K.J. Eckelbarger, eds. "Reproduction, larval biology and recruitment of the deep-sea benthos". Columbia University Press, p. 201-222.

- 1994 Kaartvedt, S., C.L. Van Dover, L.S. Mullineaux, P.H. Wiebe and S. Bollens. Deep-sea amphipods on a hydrothermal treadmill. *Deep-Sea Research* 41: 179-195.
- 1993 Mullineaux, L. S. and E. D. Garland. Larval recruitment in response to manipulated field flows. *Marine Biology* 116:667-683.
- 1991 Mullineaux, L. S. and C. A. Butman. Initial contact, exploration, and attachment of barnacle (*Balanus amphitrite*) cyprids settling in flow. *Marine Biology* 110: 93-103.
- 1990 Wishner, K., L. Levin, M. Gowing and L. Mullineaux. Involvement of the oxygen minimum in benthic zonation of a deep seamount. *Nature* 346: 57-59.
- 1990 Mullineaux, L. S. and C. A. Butman. Recruitment of benthic invertebrates in boundary-layer flows: a deep water experiment on Cross Seamount. *Limnol. Oceanogr.* 35: 409-423.
- 1989 Noble, M. and L. S. Mullineaux. Internal tidal currents over the summit of Cross Seamount. *Deep-Sea Research* 36:1791-1802.
- 1989 Mullineaux, L. S. Vertical distributions of the epifauna on manganese nodules: implications for feeding and settlement in flow. *Limnol. Oceanogr.* 34(7): 1247-1262.
- 1988 Mullineaux, L. S. The role of initial settlement in structuring a hard-substratum community in the deep sea. *J. Exp. Mar. Biol. Ecol.* 120: 247-261.
- 1988 Mullineaux, L. S. Taxonomic notes on large, mat-like foraminifers encrusting manganese nodules, including the description of a new genus, *Chondrodapis* (Komokiacea). *J. Foram. Res.* 18: 46-53.
- 1987 Mullineaux, L. S. Organisms encrusting manganese nodules and crusts: distribution and abundance at three North Pacific sites. *Deep-Sea Res.* 34: 165-184.
- 1986 Mullineaux, L. S. and M. J. Westberg-Smith. Radiolarians as paleoceanographic indicators in the Miocene Monterey Formation, Newport Beach, California. *Micropaleontology* 32: 48-71.
- 1984 Mullineaux, L. S. and T. E. DeLaca. Distribution of Antarctic benthic foraminifers settling on the pecten *Adamusium colbeckii*. *Polar Biol.* 3: 185-189.
- 1981 Mullineaux, L. S. and G. P. Lohmann. Late Quaternary stagnations and recirculation of the eastern Mediterranean: changes in the deep water recorded by fossil benthic foraminifers. *Jour. Foram. Res.* 11: 20-39.