

## Curriculum vitae

### Jeffrey S. Shima

---

School of Biological Sciences  
P.O. Box 600  
Victoria University of Wellington  
Wellington, New Zealand

Phone: +64 4 463 6494  
Fax: +64 4 463 5331  
E-mail: [jeffrey.shima@vuw.ac.nz](mailto:jeffrey.shima@vuw.ac.nz)  
Web: [http://personal.victoria.ac.nz/jeffrey\\_shima/](http://personal.victoria.ac.nz/jeffrey_shima/)

Born, March 28, 1972, Omaha, Nebraska (U.S. citizen, N.Z. citizen)

#### EDUCATION:

- 1999 **PhD** Ecology, Evolution, and Marine Biology, University of California, Santa Barbara, USA  
*Doctoral Thesis:* An evaluation of processes that influence variability in abundance of a coral reef fish
- 1994 **AB (honors)** Integrative Biology, University of California, Berkeley, USA.  
*Honor's Thesis:* Territorial behavior and ecology of the damselfish *Stegastes nigricans* on Moorea, FP

#### GRANTS, AWARDS, AND FELLOWSHIPS:

##### *External:*

National Science Challenge (*Sustainable Seas*) Project (4.1.1 Ecosystem Connectivity) \$1,055,000 (Co-investigator with 6 others)  
Royal Society of New Zealand Marsden Grant, 2016-2020, NZ\$966,000  
National Science Challenge '*Sustainable Seas*', Facilitation Group member, 2014-2019, Ministry of Business, Innovation, and Employment, \$31.5M  
'A Grade' Researcher, Performance-Based Research Assessment Period 2013-2018, NZ Tertiary Education Commission  
'A Grade' Researcher, Performance-Based Research Assessment Period 2006-2012, NZ Tertiary Education Commission  
Royal Society of New Zealand Marsden Grant, 2013-2016, NZ\$920,000  
US National Science Foundation Grant (Co-PI w/ Drs C. Osenberg, and T Frazer), 2011-2015, US\$800,000  
Australia and Pacific Science Foundation Grant (AI), 2009-2010, AU\$28,000  
Royal Society of New Zealand International Science and Technology Linkage Grant, 2007-08, NZ\$3,210  
Royal Society of New Zealand Marsden Grant, 2007-2010, NZ\$794,388  
New Zealand Foundation for Research, Science and Technology (Partner Investigator w/ NIWA), 2005-2017, NZ\$60million  
US National Science Foundation Grant (Co-PI w/ Drs C. Osenberg, C. St Mary, and B. Bolker), 2003-2007, US\$697,000  
Royal Society of New Zealand International Science and Technology Linkage Grant, 2004-2006, NZ\$15,500  
Royal Society of New Zealand Marsden Grant, 2003-2005, NZ\$100,000  
New Zealand Ministry of Fisheries Grant (Co-PI w/ Dr N. Phillips), 2003-2004, NZ\$38,000  
Partnership for the Interdisciplinary Study of Coastal Oceans Postdoctoral Fellowship, 2000-2002  
National Science Foundation R.T.G. Spatial Ecology Fellowship, U.C.S.B., 1995-1999  
Best Student Paper Award, Annual Meeting of the Western Society of Naturalists, 1998  
Raney Fund Award, American Society of Ichthyologists and Herpetologists, 1996  
Sigma Xi Scientific Research Society Grant-in-Aid of Research, 1996  
National Science Foundation Graduate Research Fellowship Honorable Mention, 1995  
Raney Fund Award, American Society of Ichthyologists and Herpetologists, 1995  
Lerner Gray Award for Marine Research, American Museum of Natural History, 1995

##### *Internal:*

Victoria University of Wellington University Research & Study Leave Grant, 2019-2020 NZ\$10,598  
Victoria University of Wellington Teaching Excellence Award, 2018, NZ\$5000  
Victoria University of Wellington University Research Fund Grant, 2017-2018, NZ\$36,104  
Victoria University of Wellington University Conference Leave, 2017, NZ\$3225  
Victoria University of Wellington University Research & Study Leave Grant, 2014-2015, NZ\$18,000  
Victoria University of Wellington University Research Fund Grant, 2013-2015, NZ\$32,500  
Victoria University of Wellington University Research Fund Grant, 2011-2012, NZ\$22,300  
Victoria University of Wellington Marsden Development Fund Grant, 2011-2012. NZ\$10,000  
Victoria University of Wellington Faculty of Science Research O/S Conf Leave Grant,, 2011-2012. NZ\$4000  
Victoria University of Wellington Research Excellence Award, 2011, 5% of salary  
Victoria University of Wellington VUCEL Vehicle replacement CAPEX Grants, 2010, NZ\$50,000  
Victoria University of Wellington Faculty of Science Research Grant, 2010-2011. NZ\$3000  
Victoria University of Wellington Faculty of Science Research Grant, 2009-2010. NZ\$3500  
Victoria University of Wellington NZ Conference Award, 2008-2009. NZ\$4200.

Victoria University of Wellington University Research Fund Grant (Co-PI w/ Dr N. Phillips), 2007-2008, NZ\$18,000  
 Victoria University of Wellington Faculty of Science Research Grant, 2008-2009. NZ\$7000  
 Victoria University of Wellington University Research Fund Grant, 2007-2008, (Co-PI w/ Dr N. Phillips), NZ\$15,000  
 Victoria University of Wellington Marine Lab Refurbishment CAPEX Grant, 2007-2008, NZ\$5,600,000  
 Victoria University of Wellington CAPEX Grant, 2005, NZ\$418,000  
 Victoria University of Wellington Faculty of Science Research Grant, 2004-2005. NZ\$3000  
 Victoria University of Wellington Faculty of Science Research Grant, 2003-2004. NZ\$3000  
 Victoria University of Wellington International Conference Award, 2003. NZ\$4400.  
 Victoria University of Wellington NZ Conference Award, 2003. NZ\$774.  
 Victoria University of Wellington Faculty of Science Research Grant, 2002-2003. NZ\$3000  
 Victoria University of Wellington Faculty of Science Research Grant (Co-PI w/ Dr N. Phillips), 2002-2003, NZ\$15,500  
 Victoria University of Wellington CAPEX Grant, 2002, NZ\$15,000  
 University of California Special Regents Fellowship, 1997-1998  
 University of California President's Fellowship, 1993-1994

### **PROFESSIONAL EXPERIENCE:**

2016-present *Professor of Ecology*. Victoria University of Wellington, NZ  
 2019-2020 *Visiting Researcher*, Institut des Sciences de l'Evolution de Montpellier (ISEM), Université de Montpellier, France  
 2011-2015 *Associate Professor* (equivalent to US Professor), *Marine Ecology*. Victoria University of Wellington, NZ  
 2006-present *Affiliate Faculty Member*, University of California at Berkeley Gump Research Station, Moorea, French Polynesia  
 2005-2010 *Senior Lecturer* (equivalent to US Associate Professor), *Marine Ecology*. Victoria University of Wellington, NZ  
 2004-present *Director*. Victoria University Coastal Ecology Laboratory, Island Bay, Wellington NZ  
 2014-2015 *Visiting Researcher*, Centre de Recherches Insulaires et Observatoire de l'Environnement, Université de Perpignan, France  
 2003-2015 *Assistant/Associate Professor, Adjunct Appointment*. Department of Zoology, University of Florida, USA  
 2002-2004 *Lecturer* (equivalent to US Assistant Professor), *Marine Ecology*. Victoria University of Wellington, NZ  
 2002-2003 *Assistant Research Biologist, Adjunct Appointment*, Marine Science Institute. UC Santa Barbara, USA  
 2001-2002 *Assistant Research Biologist*, Marine Science Institute, Research and Outreach Coordinator for the Santa Barbara Coastal Long-Term Ecological Research (LTER) Program. UC Santa Barbara, USA  
 2000-2002 *Postdoctoral Researcher* with the Partnership for the Interdisciplinary Study of Coastal Oceans (PISCO): coastal processes and population dynamics. UC Santa Barbara, USA  
 2000-2001 *Postdoctoral Researcher* with Dr. Carlos Robles: long-term datasets, predator-prey dynamics, and regulation of intertidal communities. CSU Los Angeles, USA  
 1994 *Research Assistant* with Dr. Russell J. Schmitt: population dynamics and larval life-histories of marine organisms. UC Santa Barbara, USA  
 1993-1994 *Research Assistant* with Dr. George W. Barlow: mate choice and sexual selection in Cichlid fishes. UC Berkeley Behavioral Field Station, Berkeley, California, USA  
 1993 *Research Assistant* with Dr. Donald C. Erman, Dr. Alexander J. Horne, and Stuart Siegel: wetland restoration, San Francisco Bay. UC Berkeley, USA  
 1993 *Research Assistant* with Dr. Ramona Swenson and Dr. George W. Barlow: mating systems and ecology of endangered tide-water gobies. UC Berkeley, USA  
 1992-1993 *Research Assistant* with Dr. Mary G. Gleason and Dr. Wayne P. Sousa: disturbance and recovery of coral communities in French Polynesia. UC Berkeley, Gump Research Station, Moorea, FP  
 1992 *Research Assistant* with Dr. Eric W. Vetter and Dr. Paul K. Dayton: population dynamics of amphipods and leptostracan crustaceans southern California submarine canyons. Scripps Institute of Oceanography, USA  
 1991-1993 *Research Assistant* with Dr. Marshall Weisler and Dr. Pat V. Kirch: archaeology and historical ecology of Pitcairn and Henderson Island. UC Berkeley, USA

## INVITED WORKSHOPS/WORKING GROUPS:

- 2014-2019 *Invited Member*, National Science Challenge Award, Sustainable Seas (Member of the Facilitation Group, total new funding \$31.5M)
- 2013-2014 *Invited Member*, EEB Panel, Marsden Fund, *Royal Society of New Zealand*
- 2013-2014 *Invited Member*, National Sciences Challenges 'Sustainable Seas' Panel. Hosted by the *New Zealand Ministry of Business, Innovation and Employment*.
- 2009-present *Invited Member*, Biodiversity Research Advisory Group: planning and implementation of a national long-term marine monitoring program for New Zealand. Hosted by the *New Zealand Ministry of Fisheries*.
- 2002-2014 *Invited Member*, Marine Reserves Working Group, Moorea, French Polynesia: planning and implementation of long-term assessments of MPA networks in French Polynesia.
- 2002 *Invited member* of an international working group of ~20 scientists, formed to review the state of coral reef fish ecology, and to design and facilitate a marine reserve network for French Polynesia. Hosted jointly by the *Richard Gump South Pacific Research Station* and the *Centre de Recherches Insulaires et Observatoire de l'Environnement (CRIOBE)*, Moorea, French Polynesia
- 2001 *Invited member* of an international working group of ~35 scientists, formed to synthesize the state of knowledge of relationships between fisheries and global climate change. Hosted jointly by the *International Pacific Research Center*, and the *International Research Institute for Climate Prediction*, Honolulu, HI, USA
- 2000-2001 *Invited member* of a working group of 7 scientists, integrating field data with models to understand spatially structured dynamics of benthic marine populations. *NSF National Center for Ecological Analysis and Synthesis*, Santa Barbara, California, USA
- 1999-2000 *Invited member* of an international working group of 32 scientists that synthesized evidence for self-recruitment of marine populations with planktonic larvae. *NSF National Center for Ecological Analysis and Synthesis*, Santa Barbara, California, USA

## TEACHING:

- 2002-present *Instructor/Coordinator* for undergraduate and graduate courses in: Fisheries Ecology, Marine Biology, Marine Ecology Conservation Biology, Population Ecology, and Animal Diversity. Victoria University of Wellington, NZ
- 2000-2001 *Instructor* for Applied Marine Ecology, an upper-level undergraduate course on the design, implementation, and interpretation of ecological experiments and impact assessments. UC Santa Barbara, USA
- 1999 *Instructor* for Biology of Fishes, an upper-level undergraduate course on the evolution, behavior, physiology, and ecology of fishes. UC Santa Barbara, USA
- 1996-1998 *Teaching Assistant* for upper-level courses Biology of Fishes and Applied Marine Ecology. UC Santa Barbara, USA
- 1995-1996 *Instructional Improvement* for Applied Marine Ecology, for development of lab exercises, course curriculum, and computer-based models and simulations. UC Santa Barbara, USA

## PUBLICATIONS:

- Mitterwallner, P. and **J.S. Shima**. (2022) The relative influence of environmental cues on reproductive allocation of a highly iteroparous coral reef fish. *Coral Reefs* DOI: 10.1007/s00338-022-02239-6
- Perez-Matus, A. P. Neubauer, **J.S. Shima**, and M.M. Rivadeneira. (2022) Reef fish diversity across the temperate South Pacific ocean. *Frontiers in Ecology and Evolution* **10**: 768707.
- Durante, L., S. Wing, T. Ingram, A. Sabadel, and **J. Shima**. (2022) Changes in trophic structure of an exploited fish community at the centennial scale are linked to fisheries and climate forces. *Scientific Reports* **12**:4309
- Shima, J.S.**, C.W. Osenberg, S.H. Alonzo, E.G. Noonburg, and S.E. Swearer. (2022) How moonlight shapes environments, life histories, and ecological interactions on coral reefs. *Emerging Topics in Life Sciences* DOI 10.1042/ETLS20210237
- Shima, J.S.**, C.W. Osenberg, E.G. Noonburg, S.H. Alonzo, and S.E. Swearer. (2021) Lunar rhythms in growth of larval fish. *Proceedings of the Royal Society B-Biological Sciences* **288**: 20202609.
- Hillyer, K.E., Beale, D.J., and **Shima, J.S.** (2021) Artificial light at night interacts with predatory threat to alter reef fish metabolite profiles. *Sci. Total Environ.* **769**: 144482.

- Brown A.L., E.A. Hamman, **J.S. Shima**, J.P. Wares and C.W. Osenberg. (2021) Extended phenotypes on coral reefs: cryptic phenotypes modulate coral-vermetid interactions. *Ecology* **102**, e03215.
- Shima, J. S.**, C.W. Osenberg, S.H. Alonzo, E.G. Noonburg, P. Mitterwallner, and S.E. Swearer, S. E. (2020) Reproductive phenology across the lunar cycle: parental decisions, offspring responses, and consequences for reef fish. *Ecology* **101**, e03086.
- Focht, R , and **J.S. Shima**. (2020) Acceleration loggers reveal fine-scale heterogeneity in wave exposure along an open coast. *Estuarine, Coastal and Shelf Science* **233**: 106507
- Kaemingk, M.A., S.E. Swearer, S.J. Bury, and J.S. Shima. (2019) Landscape edges shape dispersal and population structure of a migratory fish. *Oecologia* **190**: 579-588.
- McEwan A.J., A.R. Dobson-Waitere, and **J.S. Shima**. (2019) Comparing traditional and modern methods of kakahi translocation: implications for ecological restoration. *New Zealand Journal of Marine and Freshwater Research* **54**: 102-114.
- Brown A.L., T.K Frazer, G. Li, J.R. Hilsenroth, **J.S. Shima**, and C.W. Osenberg. (2019) Hidden predators on coral reefs: muricid consumption of vermetids. *Marine Ecology Progress Series* **615**: 121-131.
- Swearer S.E., E.A. Trembl, and **J.S. Shima** (2019) A review of biophysical models of marine larval dispersal. *Oceanography and Marine Biology: An Annual Review* **57**: 325-356.
- Shima, J.S.** and S.E. Swearer (2019) Moonlight enhances growth in larval fish. *Ecology* **100**: e02563
- Caie P. and **J. S. Shima** (2019) Patterns of selective predation change with ontogeny but not density in a marine fish. *Oecologia* **189**: 123–132.
- Michael, K. and **J. Shima** (2018) Four-year decline in *Ostrea chilensis* recruits per spawner in Foveaux Strait, New Zealand, suggests a diminishing stock-recruitment relationship. *Marine Ecology Progress Series* **600**: 85-98
- Moginie, B. and **J. Shima** (2018) Hatch date and growth rate drives reproductive success in nest-guarding males of a temperate reef fish. *Marine Ecology Progress Series* **592**: 197-206
- Shima, J.S.**, E.G. Noonburg, S.E. Swearer, S.A. Alonzo, and C.W. Osenberg (2018) Born at the right time? A conceptual framework linking reproduction, development, and settlement in reef fish. *Ecology* **99**: 116-126.
- Ford, J.R., **J.S. Shima** and S.E. Swearer (2016) Interactive effects of shelter and conspecific density shape mortality, growth, and condition in juvenile reef fish. *Ecology* **97**: 1373–1380.
- Brown, A.L., T.K. Frazer, **J.S. Shima**, and C.W. Osenberg (2016) Mass mortality of the vermetid gastropod *Ceraesignum maximum*. *Coral Reefs* (DOI 10.1007/s00338-016-1438-8)
- Shima, J.S.**, N.E. Phillips and C.W. Osenberg (2016) Variation in the growth and survival of the tropical vermetid gastropod *Ceraesignum maximum* is driven by size, habitat and density. *Marine Biology* **163**:84.
- Shima, J.S.** and S.E. Swearer (2016) Evidence and population consequences of shared larval dispersal histories in a marine fish. *Ecology* **97**: 25-31.
- Mensink, P.J. and **J.S. Shima** (2015) Home range size in juveniles of the temperate reef fish, the common triplefin (*Forsterygion lapillum*). *Marine and Freshwater Research* <http://dx.doi.org/10.1071/MF14414>.
- Shima, J.S.**, D. McNaughtan, and A.T. Strong. (2015) Vermetid gastropods mediate within-colony variation in coral growth to induce a flattened colony morphology. *Marine Biology* **162**:1523–1530.
- Noonburg, E.G., A. Chen, **J.S. Shima**, and S.E. Swearer (2015) Demographic heterogeneity and the dynamics of open populations. *Ecology* **96**:1159-1165.
- Shima, J.S.**, and C.W. Osenberg (2015). Cryptic density dependence: integrating supply side ecology with population regulation. In: *The Ecology of Fishes on Coral Reefs*, C Mora (Ed). Cambridge University Press.
- Shima, J.S.**, E.G. Noonburg, and S.E. Swearer (2015) Consequences of variable larval dispersal pathways and resulting phenotypic mixtures to the dynamics of marine metapopulations. *Biology Letters* **11**:20140778.
- Mensink, P.J., S.W. Geange, and **J.S. Shima** (2014) Reproductive success of parasitized males in a marine reef fish. *Marine Biology* **161**:1285–1298.
- Phillips, N.E., **J.S. Shima**, and C.W. Osenberg (2014) Live coral cover may provide resilience to damage from the vermetid gastropod *Dendropoma maximum* by preventing larval settlement. *Coral Reefs* **33**:1137–1144.
- Mensink, P.J. and **J.S. Shima** (2014) Patterns of co-occurrence and interactions between age classes of the common triplefin, *Forsterygion lapillum*. *Marine Biology* **161**:1285-1298.

- Morton, D.N. and **J.S. Shima** (2013) Habitat configuration and availability influences the settlement of temperate reef fishes (Trypetergiidae). *Journal of Experimental Marine Biology and Ecology* **449**: 215-220.
- Neubauer, P., **J.S. Shima**, and S.E. Swearer (2013) Inferring dispersal and migrations from incomplete geochemical baselines: analysis of population structure using Bayesian infinite mixture models. *Methods in Ecology and Evolution* **4**: 836-845.
- Geange, S.W., A.C. Stier, and **J.S. Shima** (2013). Competitive hierarchies among three species of juvenile coral reef fishes. *Marine Ecology Progress Series* **472**: 239–248.
- Shima, J.S.**, N.E. Phillips, and C.W. Osenberg. (2013). Consistent deleterious effects of vermetid gastropods on coral performance *Journal of Experimental Marine Biology and Ecology* **439**:1-6.
- Shima, J.S.**, D. McNaughtan, S.W. Geange, S. Wilkinson. (2012) Ontogenetic variation in site fidelity and homing behaviour of a temperate reef fish. *Journal of Experimental Marine Biology and Ecology* **416-417**:162-167.
- Miller, S.J., **J.S. Shima**, and N.E. Phillips (2012) Effects of microhabitat availability on estimates of density of a reef fish: implications for assessments of marine protected areas. *Hydrobiologia* 685: 173-190.
- Osenberg, C.W., **J.S. Shima**, S.L. Miller, and A.C. Stier (2011) Assessing effects of marine protected areas: confounding in space and possible solutions. In *Marine Protected Areas: Effects, networks and monitoring – A multidisciplinary approach*, J. Claudet. Ed. Cambridge University Press - Ecology, Biodiversity and Conservation Series.
- Smith, A and **J.S. Shima**. (2011) Variation in the effects of larval history on juvenile performance of a temperate reef fish . *Austral Ecology* **36**:830-838.
- Geange, S.W., S. Pledger, K.C. Burns and **J.S. Shima**. (2011) A unified analysis of niche overlap incorporating data of different types. *Methods in Ecology and Evolution* **2**:175-184.
- Perez-Matus, A. and **J.S. Shima**. (2010) Density and trait-mediated effects of fish predators on amphipod grazers: indirect benefits for the giant kelp, *Macrocystis pyrifera*. *Marine Ecology Progress Series* **417**:151-158.
- Swearer, S.E. and **J.S. Shima**. (2010) Regional variation in larval retention and dispersal drives recruitment patterns in a temperate reef fish. *Marine Ecology Progress Series* **417**:229-236.
- Stier, A.C., C.S. McKeon, C.W. Osenberg, and **J.S. Shima**. (2010) Guard crabs alleviate deleterious effects of vermetid snails on a branching coral. *Coral Reefs* **29**:1019-1022.
- Shima, J.S.** and S.E. Swearer (2010) The legacy of dispersal: larval experience shapes persistence later in the life of a reef fish. *Journal of Animal Ecology* **79**:1308-1314.
- Shima, J.S.**, C.W. Osenberg, A.C. Stier. (2010) The vermetid gastropod *Dendropoma maximum* reduces coral growth and survival. *Biology Letters* **6**:815-818.
- Neubauer, P., **J.S. Shima**, S.E. Swearer. (2010) Scale-dependent variability in *Forsterygion lapillum* hatchling otolith chemistry: implications and solutions for studies of population connectivity. *Marine Ecology Progress Series* **415**:263-274.
- Shima, J.S.**, E.G. Noonburg, and N.E. Phillips. (2010) Larval dispersal in spatially structured coastal environments; life history and matrix heterogeneity interact to shape connectivity in marine metapopulations. *Ecology* **91**:1215-1224
- Perez-Matus, A. and **J.S. Shima** (2010) Disentangling the effects of macroalgae on the abundance of temperate reef fishes. *Journal of Experimental Marine Biology and Ecology* **388**:1-10.
- Dudley, B., N. Barr, **J.S. Shima** (2010) The influence of light intensity and nutrient source on  $\delta^{13}\text{C}$  and  $\delta^{15}\text{N}$  signatures in *Ulva pertusa*. *Aquatic Biology* 9:85-93.
- Dudley B.D. and **J.S. Shima** (2010) Algal and invertebrate bioindicators detect sewage effluent along the coast of Titahi Bay, Wellington, New Zealand. *New Zealand Journal of Marine and Freshwater Research* 44:39-51.
- Phillips, N.E. and **J.S. Shima**.(2010). Reproduction of the vermetid gastropod *Dendropoma maximum* (Sowerby 1825) in Moorea, French Polynesia. *Journal of Molluscan Studies* **76**:133-137.
- Shima, J.S.** and S.E. Swearer (2009). Spatially variable larval histories may shape recruitment rates of a temperate reef fish. *Marine Ecology Progress Series* **394**:223-229.
- Shima, J.S.** and S.E. Swearer (2009) Larval quality is shaped by matrix effects: implications for connectivity in a marine metapopulation. *Ecology* **90**:1255-1267.
- Shima, J.S.**, C.W. Osenberg and C.M. St. Mary. (2008). Quantifying site quality in a heterogeneous landscape: recruitment of a reef fish. *Ecology* **89**:86-94.

- Lison de Loma, T., C.W. Osenberg, , **J.S. Shima**, Y. Chancerelle, N. Davies, A.J. Brooks, and R. Galzin. (2008). A Framework for assessing the impacts of marine protected areas in Moorea (French Polynesia). *Pacific Science* **62**:431-441.
- Lecchini, D., C.W. Osenberg, **J.S. Shima**, C.M. St. Mary and R. Galzin. (2007). Ontogenetic changes in habitat selection during settlement in a coral reef fish: ecological determinants and sensory mechanisms. *Coral Reefs* **26**:423-432.
- McDermott, C.M. and **J.S. Shima**. (2006). Ontogenetic shifts in microhabitat preference of the temperate reef fish *Forsterygion lapillum*: implications for population limitation. *Marine Ecology Progress Series* **320**:259-266.
- Phillips, N.E. and **J.S. Shima**. (2006). Differential effects of suspended sediments on larval survival and settlement of New Zealand urchins (*Evechinus chloroticus*) and abalone (*Haliotis iris*). *Marine Ecology Progress Series* **314**:149-158.
- Osenberg, C.W., B.M. Bolker, J.S. White, C.M. St. Mary, and **J.S. Shima**. (2006). Statistical issues and study design in ecological restorations: lessons learned from marine reserves. In Foundations of Restoration Ecology, D.A. Falk, M.A. Palmer, and J.B. Zedler, Eds. Island Press.
- Shima, J.S.**, C.W. Osenberg, , C.M. St. Mary, and L Rogers. (2006). Implication of changing coral communities: do larval traits or habitat features drive variation in density-dependent mortality and recruitment of juvenile reef fish? *Proceedings of the 10th International Coral Reef Symposium, Okinawa, JP*. p 226-231.
- Schwartz, A-M., R. Taylor, J. Hewitt, N. Phillips, **J.S. Shima**, R. Cole, and R. Budd. (2006). Impacts of terrestrial runoff on the biodiversity of rocky reefs. Ministry of Fisheries, *New Zealand Aquatic Environment and Biodiversity Report* no. 7.
- Osenberg, C.W., **J.S. Shima**, and C.M. St. Mary. (2006). Habitat degradation and settlement behavior: effects on fish settlement, survival, and recruitment. *Proceedings of the 10th International Coral Reef Symposium, Okinawa, JP*. p 257-263.
- Lecchini, D., **J. Shima**, B. Banaigs and R. Galzin. (2005). Larval sensory abilities and mechanisms of habitat selection of a coral reef fish during settlement. *Oecologia* **143**:326-334.
- Curtis T.D. and **J.S. Shima**. (2005). Geographic and sex-specific variation in growth of Yellow-eyed mullet, *Aldrichetta forsteri*, from estuaries around New Zealand. *New Zealand Journal of Marine and Freshwater Research* **39**:1277-1285.
- Phillips, N.E. and **J.S. Shima**. (2005). Recruitment of marine organisms around Wellington, New Zealand: A model natural system to examine causes and consequences of variability in larval quality in mussels and reef fish. *Integrative and Comparative Biology* **45**: 1056.
- Vieux, C., A. Aubanel, J. Axford, Y. Chancerelle, D. Fisk, P. Holland, M. Juncker, T. Kirata, M. Kronen, C. Osenberg, B. Pasisi, M. Power, B. Salvat, **J. Shima** and V. Vavia. (2004). A century of change in coral reef status in Southeast and Central Pacific: Polynesia Mana Node, Cook Islands, French Polynesia, Kiribati, Niue, Tokelau, Tonga, Wallis and Futuna. In Status of coral reefs of the world: 2004. Volume 2, C. Wilkinson (Ed.). Australian Institute of Marine Science, Townsville, Qld, AU. p 363-380.
- Shima, J.S.** and C.W. Osenberg. (2003). Cryptic density dependence: effects of covariation between density and site quality in reef fish. *Ecology* **84**:46-52.
- Swearer, S. E., **J.S. Shima**, M.E. Hellberg, S.R. Thorrold, G.P. Jones, D.R. Robertson, S.G. Morgan, K.A. Selkoe, G.M. Ruiz, R.R. Warner. (2002). Evidence of self-recruitment in demersal marine populations. *Bulletin of Marine Science* **70**:251-271.
- Shima, J.S.** and A.M. Findlay. (2002). Pelagic larval growth rate impacts benthic settlement and survival of a temperate reef fish. *Marine Ecology Progress Series* **235**:303-309.
- Shima, J.S.** (2002). Mechanisms of density- and number-dependent population regulation of a coral-reef fish. *Journal of Marine and Freshwater Research* **53**:175-179.
- Shima, J.S.**, R. Cowen, S. Kim, S. Thorrold, I. Perry, and M.-E. Carr. (2002). "Population Connectivity". In Climate and Fisheries: interacting paradigms, scales and policy approaches, A. Bakun and K. Broad, Eds. International Research Institute for Climate Prediction, Columbia Earth Science Institute, New York. p. 23-25.
- Shima, J. S.** (2001a). Recruitment of a coral reef fish: roles of settlement, habitat, and postsettlement losses. *Ecology* **82**:2190-2199.
- Shima, J.S.** (2001b). Regulation of local populations of a coral reef fish via joint effects of density- and number-dependent mortality. *Oecologia* **126**:58-65.
- Shima, J. S.** (1999). Variability in relative importance of determinants of reef fish recruitment. *Ecology Letters* **2**:304-310.

## **INVITED SEMINARS, PRESENTATIONS AND CONTRIBUTED PAPERS:**

- Shima J.S., S.E. Swearer, C.W. Osenberg, S.H. Alonzo, E.G. Noonburg. (2021) Reproductive phenology and its implications for larval growth, survival, dispersal, and connectivity –OR- What doesn't kill you makes you stronger. *International Coral Reef Symposium*, in Bremen, Germany (virtual participation), July 2021.
- Chang, A., Rogers, A., Shima J.S. and Morrison, M.. (2021) What are the best nursery habitats for blue cod? *New Zealand Marine Science Society Conference*, Tauranga, NZ July 2021
- McNaughtan, D., and Shima J.S. (2021) Using light trap arrays and otolith microchemistry to reveal temporal movement patterns for larval reef fish.. *New Zealand Marine Science Society Conference*, Tauranga, NZ July 2021
- Shima J.S., C.W. Osenberg, S.H. Alonzo, E.G. Noonburg, and S.E. Swearer. (2021) Reproductive phenology and lunar rhythms in larval growth: why the night matters. *New Zealand Marine Science Society Conference*, Tauranga, NZ July 2021
- Shima JS. (2020) Lunar rhythms in the sea and why they matter. *Centre for Biodiversity and Restoration Ecology Annual Conference*; Wellington, New Zealand, November 2020).
- Shima JS. (2020) Dispersal in space and time: Consequences for phenotypes, fitness, and eco-evolutionary dynamics in marine systems. *IFREMER's Marbec Labs* (MARine Biodiversity, Exploitation and Conservation; Sete, France, January 2020). **(Invited Speaker)**
- Shima J.S., S.E. Swearer, C.W. Osenberg, S.H. Alonzo, E.G. Noonburg. (2019) Reproductive phenology, moonlight and the consequences for larval dispersal and realised connectivity. *iMarCo2019*, in Aveiro, Portugal, September 2019. **(Invited Symposium Speaker)**
- Shima J.S. (2019) Dispersal in space and time: Consequences for phenotypes, fitness, and eco-evolutionary dynamics in marine systems. *Centre d'Ecologie Fonctionnelle & Evolutive Seminar Series* (Montpellier, France, September 2019) **(Invited Speaker)**
- Shima, J.S. and S.E. Swearer (2018) Moonlight enhances growth in larval fish. *New Zealand Marine Science Society Conference*, Napier, NZ July 2018
- Shima, J.S., E.G. Noonburg, S.E. Swearer, S.H. Alonzo, and C.W. Osenberg (2017) Born at the right time: can reef fish larvae compensate for an inauspicious birthdate? *Western Society of Naturalists*, Pasadena, CA, USA, Nov 2017.
- Shima, J.S. and S.E. Swearer (2017) There and back again: patterns and consequences of larval dispersal. *10<sup>th</sup> Indo-Pacific Fish Conference* Papeete, Tahiti, French Polynesia, Oct. 2017. **(Invited Symposium Speaker)**
- Shima, J.S. and S.E. Swearer (2017) Evidence and population consequences of shared larval dispersal histories in a temperate reef fish. *11<sup>th</sup> International Larval Biology Symposium* Honolulu, HI, USA, Aug. 2017. **(Invited Plenary Address)**
- Shima, J.S., E.G. Noonburg, S.E. Swearer, S.H. Alonzo, and C.W. Osenberg (2017) Born at the right time: can coral reef fish larvae compensate for an inauspicious birthdate? *Joint meeting of the 35<sup>th</sup> International Ethological Conference (IEC) and the 2017 Summer Meeting of the Association for the Study of Animal Behaviour*, Lisbon, Portugal, Aug 2017.
- Focht B. and J.S. Shima 2016. Evaluation of patterns and consequences of disturbance events for marine reef fish. *97<sup>th</sup> Annual Meeting of the Western Society of Naturalists*, Monterey, CA USA, Nov. 2016.
- Shima J.S. and S.E. Swearer 2016. Evidence and population consequences of shared larval dispersal histories in a temperate reef fish. *11th International Temperate Reefs Symposium*, Pisa Italy July 2016.
- Shima J.S., C.W. Osenberg, S.E. Swearer, E.G., Noonburg, and S.H. Alonzo 2016. Are successful reef fish simply born 'lucky' or do they 'play their cards well'? *13th International Coral Reef Symposium*, Honolulu HI USA June 2016.
- McDowall C. and J.S. Shima. 2016. Marooned dwarves: demographic consequences of landlocking in New Zealand smelt (*Retropinna retropinna*). *New Zealand Marine Science Society Conference*, Wellington, New Zealand, July 2016.
- McNaughtan D., J.S. Shima, and S.E. Swearer 2016. Selective mortality on early life-history traits of a temperate reef fish. *New Zealand Marine Science Society Conference*, Wellington, New Zealand, July 2016.

- Caie P. and J.S. Shima. 2016. Using otolith microchemistry to infer movement patterns of larval reef shore in the nearshore coastal environment. *New Zealand Marine Science Society Conference*, Wellington, New Zealand, July 2016.
- Focht B. and J.S. Shima. 2016. Evaluating the consequences of disturbance on the functional response of a marine reef fish. *New Zealand Marine Science Society Conference*, Wellington, New Zealand, July 2016.
- Neilson C., M.A. Kaemingk., and J.S. Shima. 2015. Does the larval rearing environment matter? Using otolith microstructure to evaluate spatial variation in growth rates in larval Inanga. *New Zealand Marine Science Society Conference*, Auckland, New Zealand, July 2015.
- Shima J.S. and S.E. Swearer. 2015. Otolith microchemistry reveals evidence of shared larval dispersal histories. *New Zealand Marine Science Society Conference*, Auckland, New Zealand, July 2015.
- Wood, V., M.A. Kaemingk., and J.S. Shima. 2015. Spatial variation in population attributes of juvenile inanga recruiting from the sea: evaluating the role of embayments versus open coasts. *New Zealand Marine Science Society Conference*, Auckland, New Zealand, July 2015.
- McDowall, C., M.A. Kaemingk., and J.S. Shima. 2015. Desperate measures for desperate larvae: what are the limits to developmental delays and salinity tolerance in *Galaxias maculatus*. *New Zealand Marine Science Society Conference*, Auckland, New Zealand, July 2015.
- Bottcher, J., M.A. Kaemingk., and J.S. Shima. 2015. Patterns and consequences of spatially variable phenotypic phenotypes plasticity in an amphidromous fish?. *New Zealand Marine Science Society Conference*, Auckland, New Zealand, July 2015.
- Focht, B. J.S. Shima, D. McNaughtan, and A. Powell. 2015. Impacts of a major storm event on substrate, macroalgal cover and fish phenotypes in Wellington Harbour. *New Zealand Marine Science Society Conference*, Auckland, New Zealand, July 2015.
- Caie, P. and J.S. Shima. 2015. Is bigger always better? An experimental evaluation of size-selective predation on juvenile reef fish. *New Zealand Marine Science Society Conference*, Auckland, New Zealand, July 2015.
- McNaughtan, D. and J.S. Shima. 2015. Using light trap arrays to characterise the distribution and on-shore movement of larval reef fish in the lead-up to settlement. *New Zealand Marine Science Society Conference*, Auckland, New Zealand, July 2015.
- Moginie, B. and J.S. Shima. 2015. Effects of recent growth history on social dominance and resource acquisition by temperate reef fish. *New Zealand Marine Science Society Conference*, Auckland, New Zealand, July 2015.
- Shima J.S. and S.E. Swearer. 2014. Are larval reef fish travelling in packs? - Using otoliths to evaluate evidence for shared dispersal histories. *5th International Otolith Symposium*, Palma, Mallorca, Oct 2014.
- Smith A.C., and J.S. Shima. 2014. Interactive effects of larval history, location and habitat on juvenile performance in a temperate reef fish. *International Temperate Reef Symposium*, Perth, Australia.
- Kaemingk M.A. and J.S. Shima. 2014. What can behaviour tell us about the marine life stage of inanga? *New Zealand Freshwater Sciences Society Conference*. Marlborough, New Zealand.
- Kaemingk M.A. and J.S. Shima. 2014. Going with the flow, or battling against the current?: Do larval Inanga prefer to remain in freshwater or travel out to sea? *New Zealand Marine Science Society Conference*, Nelson, New Zealand, August 2014.
- Perez-Matus A. and J.S. Shima. 2013. Temperate reef fish diversity associated with large brown macroalgae: ecological and evolutionary explanations of a longitudinal trend in the South Pacific Ocean. *9th Indo-Pacific Fish Conference*, Okinawa, Japan.
- Shima J.S., S.E. Swearer, E.G. Noonburg. 2013. Winners and Losers: Effects of dispersal on larval fish phenotypes and stability of a reef fish metapopulation. *9th Indo-Pacific Fish Conference*, Okinawa, Japan.
- Shima, J.S., S.E. Swearer, and E.G. Noonburg. 2013. 'The secret life of zombies: consequences of co-habitation and dispersal with the living dead'. *Joint Meeting of NZ Freshwater Science Society, NZ Marine Science Society, and Australian Society for Fish Biology*. Hamilton, NZ.
- Morton, D.N. and J.S. Shima. 2012. 'Habitat configuration and availability influences settlement of temperate reef fishes (Tripterygiidae)'. *Annual Meeting of the Western Society of Naturalists*, Monterey, CA, USA.



- Mensink, P. and J.S. Shima. 2012. Intercohort interactions and settler mortality in the New Zealand temperate reef fish, *Forsterygion lapillum*. *97<sup>th</sup> Annual Meeting of the Ecological Society of America*, Portland, Oregon, USA.
- Osenberg, C., J.S. Shima, S.J. Miller, and A.C. Stier. 2011. Assessing effects of marine protected areas: confounding in space and possible solutions. *2<sup>nd</sup> International Marine Conservation Congress*, Victoria, B.C. Canada. (invited talk)
- Shima, JS and SE Swearer. 2011. Legacies of natal sources and dispersal histories: implications for connectivity in a reef fish metapopulation. *96<sup>th</sup> Annual Meeting of the Ecological Society of America*, Austin, Texas USA.
- Neubauer, P., J.S. Shima, and S.E. Swearer. 2010. Combining otolith measures to estimate dispersal patterns. *9<sup>th</sup> International Larval Biology Symposium*, Wellington, New Zealand.
- Shima, JS and SE Swearer. 2010. Larval developmental histories shape recruitment patterns of a temperate reef fish. *9<sup>th</sup> International Larval Biology Symposium*, Wellington, New Zealand.
- SE Swearer and J.S. Shima. 2010. Shedding light on larval dispersal environments using reconstructed environmental chronologies from otoliths. *9<sup>th</sup> International Larval Biology Symposium*, Wellington, New Zealand.
- Shima, JS and SE Swearer. 2010. Effects of larval developmental histories, retention, and dispersal dynamics on recruitment patterns of a temperate reef fish. *Annual Meeting of the New Zealand Marine Sciences Society*, Wellington, New Zealand.
- Perez-Matus, A., P. Neubauer, and J.S. Shima. 2010. Geographic changes in reef fish diversity: a comparison of temperate reef fish faunas. *Annual Meeting of the New Zealand Marine Sciences Society*, Wellington, New Zealand.
- Shima, J.S. 2010. Fish “flight recorders” to unlock legacies of larval dispersal. Coastal Waters Laboratory, California State University, San Diego, USA. (**Invited Seminar**)
- Shima, J.S. 2010. Fish “flight recorders” to unlock legacies of larval dispersal. Department of Marine Sciences, University of Otago, Dunedin, New Zealand. (**Invited Seminar**)
- Phillips N.E., J.S. Shima, and C.W. Osenberg. 2010. Reproduction and larval ecology of the tropical vermetid gastropod, *Dendropoma maximum*. *Society of Integrative and Comparative Biology Annual Meeting*, Seattle, WA, USA.
- Perez-Matus, A. and J.S. Shima. 2009. Indirect effects of fish on kelp beds. *Annual Meeting of the New Zealand Marine Sciences Society*, Auckland, New Zealand.
- Neubauer, P., J.S. Shima, and S.E. Swearer. 2009. Statistical considerations for inference of demographic connectivity from natal otolith microchemistry - optimal scaling and improved allocation. *4<sup>th</sup> International Otolith Symposium*, Monterey, CA, USA
- Smith, A., J. Shima and R. Cole. 2009. Variation in the Impact of Larval History on Survival. *33<sup>rd</sup> Annual Larval Fish Conference and the Joint Meeting of Ichthyologists and Herpetologists*, Portland, OR, USA
- Neubauer, P., J.S. Shima, and S.E. Swearer. 2009. Sources and Patterns of Variation in Natal Otolith Trace Element Signatures: Experimental Insights and Statistical Considerations. *33<sup>rd</sup> Annual Larval Fish Conference and the Joint Meeting of Ichthyologists and Herpetologists*, Portland, OR, USA
- Shima, J.S. and S.E. Swearer. 2009. Demographic Connectivity in a Temperate Reef Fish Metapopulation: The Critical Role of the Dispersal Matrix. *33<sup>rd</sup> Annual Larval Fish Conference and the Joint Meeting of Ichthyologists and Herpetologists*, Portland, OR, USA
- Shima, J.S. and S.E. Swearer. 2009. Matrix effects, larval quality, and connectivity in temperate reef fish metapopulation. *8<sup>th</sup> Indo-Pacific Fish Conference*, Perth, AUS.
- Swearer, S.E., and J.S. Shima. 2009. Maelstrom in the matrix: characterizing effects of environmental heterogeneity on larval dispersal and retention in a temperate reef fish metapopulation. *8<sup>th</sup> Indo-Pacific Fish Conference*, Perth, AUS.
- Neubauer, P. and J.S. Shima. 2009. Optimal scaling of natal otolith microchemistry in coastal environments: implications for inference of demographic dispersal of reef fish. *8<sup>th</sup> Indo-Pacific Fish Conference*, Perth, AUS.
- Perez-Matus, A. and J.S. Shima. 2009. Local, regional, and geographic changes in reef fish diversity: a comparison of temperate reef fish faunas. *8<sup>th</sup> Indo-Pacific Fish Conference*, Perth, AUS.
- Shima, J.S. and S.E. Swearer. 2009. Larval quality is shaped by matrix effects: implications for connectivity in a marine metapopulation. *8<sup>th</sup> International Temperate Reef Symposium*, Adelaide, AUS.
- Bolker, B., C.W. Osenberg, and J.S. Shima. 2008. A Markov chain Monte Carlo technique to analyze the growth, recruitment, and survivorship of unmarked individuals. *Annual Meeting of the Ecological Society of America*, Milwaukee, WI, USA.
- Shima, J.S. and S.E. Swearer. 2008. Larval quality is a function of dispersal history and not source populations: implications for connectivity in a marine metapopulation. *8<sup>th</sup> International Larval Biology Symposium*, Lisbon, Portugal.

- Smith, A, J. Shima and R. Cole. 2008. Larval settlement and “carry-over effects” vary with macroalgal habitat composition for a temperate reef fish. *8<sup>th</sup> International Larval Biology Symposium*, Lisbon, Portugal.
- Osenberg, C.W., J.S. Shima, and A.C. Stier. 2008. Strong interactions from hidden species: Vermetid snails have large deleterious effects on corals. *11th International Coral Reef Symposium*, Ft Lauderdale, FL, USA.
- Perez-Matus, A. and J.S. Shima. 2008. Local, regional, and geographic changes in fish diversity: a comparison of temperate reef fish faunas. *Joint Meeting of the Australian Marine Science Association and the New Zealand Marine Sciences Society*, Christchurch, New Zealand.
- Perez-Matus, A., R. Cole, M. Francis and J.S. Shima. 2008. Disentangling the role of different macroalgal structures in the distribution and diversity of reef associated fishes. *Joint Meeting of the Australian Marine Science Association and the New Zealand Marine Sciences Society*, Christchurch, New Zealand.
- Neubauer, P., J.S. Shima, and S.E. Swearer. 2008. Sources and patterns of variation in natal otolith trace element signatures: from experiments to metapopulation connectivity. *Joint Meeting of the Australian Marine Science Association and the New Zealand Marine Sciences Society*, Christchurch, New Zealand.
- Miller, S.L, J.S. Shima, and N.E. Phillips. 2008. Staying close to home: the contribution of life-history characteristics to greater size of goatfish (*Mulloidichthys flavolineatus*) within the Ra'ui of Rarotonga, Cook Islands. *Joint Meeting of the Australian Marine Science Association and the New Zealand Marine Sciences Society*, Christchurch, New Zealand.
- Miller, S.L, J.S. Shima, and N.E. Phillips. 2007. The influence of substrate heterogeneity on reef fauna in the Ra'ui of Rarotonga. Cook Islands: A novel MPA assessment approach. *European Symposium on Marine Protected Areas as a Tool for Fisheries Management and Ecosystem Conservation*. Murcia, Spain.
- Shima, J.S. and S.E. Swearer. 2007. Recruitment and connectivity in a reef fish metapopulation: It's the journey that matters most. *Annual Meeting of the New Zealand Marine Sciences Society*, Hamilton, New Zealand.
- Shima, J.S., C.W. Osenberg, and A.C. Stier. 2007. The worm snail that ate the reef. *Annual Meeting of the New Zealand Marine Sciences Society*, Hamilton, New Zealand.
- Smith, A, J. Shima and R. Cole. 2007. The importance of macroalgal nursery habitats for recruitment of temperate reef fish. *Annual Meeting of the New Zealand Marine Sciences Society*, Hamilton, New Zealand.
- Miller, S.L, J.S. Shima, and N.E. Phillips. 2007. Fish taxa and functional group responses to Ra'ui (traditional marine managed areas) in Rarotonga. *Annual Meeting of the New Zealand Marine Sciences Society*, Hamilton, New Zealand.
- Shima, J.S., C.W. Osenberg, , C.M. St. Mary. 2007. Quantifying habitat quality in a heterogeneous landscape: recruitment of a reef fish. *Annual Meeting of the Ecological Society of America*, San Jose, CA, USA.
- Osenberg, C.W., J.S. Shima, and A.C. Stier. 2007. Vermetid snails reduce growth and survival of corals and shift coral species composition. *Annual Meeting of the Ecological Society of America*, San Jose, CA, USA.
- Shima, J.S. and S.E. Swearer. 2007. Maelstrom in the matrix: extreme environmental heterogeneity in marine metapopulations. Presented at the *American Society of Limnologists and Oceanographers*, Santa Fe, New Mexico, USA.
- Miller, S.L., J.S. Shima, and N.E. Phillips. 2006. Does substrate matter? A novel approach to assess the influence of substrate heterogeneity on abundance of the reef fish, Maito (*Ctenochaetus striatus*), in relation to the ra'ui of lagoon of Rarotonga. Implications for marine protected area assessment / monitoring. Presented at the *Annual Meeting of the Science Technology and Resources Network (STAR)*, Honiara, Solomon Islands.
- Shima, J.S., C.W. Osenberg, and C.M. St Mary. 2006. Assessing environmental quality in a heterogeneous landscape. Presented at the *Annual Meeting of the New Zealand Marine Sciences Society*, Nelson, New Zealand.
- Dudley, B.D. and J.S. Shima. 2006. Depth affects  $\delta^{15}\text{N}$  in macroalgae. Presented at the *Annual Meeting of the New Zealand Marine Sciences Society*, Nelson, New Zealand.
- Smith, A. and J.S. Shima. 2006. Relative importance of macroalgal nursery habitats for recruitment of the common triplefin (*Fosterygion lapillum*). Presented at the *Annual Meeting of the New Zealand Marine Sciences Society*, Nelson, New Zealand.
- Geange, S. and J.S. Shima. 2006. The effects of competitive interactions on community structure in a guild of coral reef fish. Presented at the *Annual Meeting of the New Zealand Marine Sciences Society*, Nelson, New Zealand.
- Geange, S. and J.S. Shima. 2006. The relationship between niche overlap and community assembly on a guild of coral reef fish. Presented at the *Annual Meeting of the New Zealand Marine Sciences Society*, Nelson, New Zealand.
- Shima, J.S. and S.E. Swearer. 2006. Demographic connectivity in marine metapopulations. Presented at the *Joint Conference of the New Zealand Ecological Society and the Ecological Society of Australia*, Wellington, New Zealand.

- Geange, S. and J.S. Shima. 2006. The effects of competitive interactions on community structure in a guild of coral reef fish. Presented at the *Joint Conference of the New Zealand Ecological Society and the Ecological Society of Australia*, Wellington, New Zealand.
- Geange, S. and J.S. Shima. 2006. The effects of community assembly on recruitment success in a guild of coral reef fish. Presented at the *Joint Conference of the New Zealand Ecological Society and the Ecological Society of Australia*, Wellington, NZ.
- Shima, J.S. and S.E. Swearer. 2006. Demographic connectivity in marine environments: integrating larval condition, dispersal pathways and post-recruitment survival. Presented at the *7<sup>th</sup> International Temperate Reef Symposium*, Santa Barbara, CA, USA.
- Phillips, N.E. and J.S. Shima. 2006. Recruitment of marine organisms around Wellington, New Zealand: using a model natural system to examine causes and consequences of variability in larval quality and connectivity in mussels and reef fish. Presented at the *Annual Meeting of the Society for Integrative and Comparative Biology*, Orlando, FL, USA
- Shima, J.S. 2005. Unravelling complexities of recruitment in marine populations. Presented at the *National Institute of Water and Atmospheric Research*, Hamilton New Zealand (**Invited Seminar**)
- Shima, J.S. and S.E. Swearer. 2005. Demographic connectivity: integrating larval condition, dispersal pathways and post-recruitment survival. Presented at the *Joint Conference of the NZ Marine Science Society, 4<sup>th</sup> International Conference on Marine Bioinvasions and MARGINS*, Wellington, New Zealand.
- McDermott, C and J.S. Shima. 2005. An ontogenetic shift in micro-habitat preference of the temperate reef fish *Forsterygion lapillum*. Presented at the *Joint Conference of the NZ Marine Science Society, 4<sup>th</sup> International Conference on Marine Bioinvasions and MARGINS*, Wellington, New Zealand.
- Geange, S. and J.S. Shima. 2005. The effects of community assembly on competitive interactions and survival in a guild of coral reef fish. Presented at the *Joint Conference of the NZ Marine Science Society, 4<sup>th</sup> International Conference on Marine Bioinvasions and MARGINS*, Wellington, New Zealand.
- Miller, S., J.S. Shima, and N.E. Phillips. 2005. A preliminary ecological survey of the ra'ui on Rarotonga, Cook Islands. Presented at the *Joint Conference of the NZ Marine Science Society, 4<sup>th</sup> International Conference on Marine Bioinvasions and MARGINS*, Wellington, New Zealand.
- Curtis, T.D. and J.S. Shima. 2005. Geographic and sex-specific variation in growth of Yellow-eyed mullet, *Aldrichetta forsteri*, from estuaries around New Zealand. Presented at the *Joint Conference of the NZ Marine Science Society, 4<sup>th</sup> International Conference on Marine Bioinvasions and MARGINS*, Wellington, New Zealand.
- Shima, J.S. and S.E. Swearer. 2005. Demographic connectivity: integrating larval condition, dispersal pathways and post-recruitment survival. Presented at the *7<sup>th</sup> Indo-Pacific Fish Conference*, Taipei, Taiwan. (**Invited Symposium Contribution**)
- Shima, J.S. and C.W. Osenberg 2004. Changing coral communities: Mechanisms underlying demographic responses of reef fish populations. Presented at the *10<sup>th</sup> International Coral Reef Symposium*, Okinawa, Japan. (**Invited Symposium Contribution**)
- C.W. Osenberg and J.S. Shima. 2004. Changing coral communities: Implications for fate of reef fish populations. Presented at the *10<sup>th</sup> International Coral Reef Symposium*, Okinawa, Japan. (**Invited Symposium Contribution**)
- Shima, J.S. and C.W. Osenberg. 2004. Changing reef communities: Implications for density dependence and the fate of reef fish populations. Presented at the *New Zealand Marine Science Society*, Dunedin, New Zealand.
- McDermott, C. and J.S. Shima. 2004. Ontogenetic shifts in habitat use by reef fish: implications for population limitation? Presented at the *New Zealand Marine Science Society*, Dunedin, New Zealand.
- Dudley, B.D. and J.S. Shima. 2004. Impacts of sewage effluent on pelagic and benthic food webs associated with coastal reefs. Presented at the *New Zealand Marine Science Society*, Dunedin, New Zealand.
- Shima, J.S. and S.E. Swearer. 2004. A mechanistic understanding of larval connectivity in marine ecosystems. Presented at the *6<sup>th</sup> International Larval Biology Conference*, Hong Kong, China.
- Phillips, N.E. and J.S. Shima. 2004. Do larvae like getting down and dirty? Effects of suspended sediments on survival and settlement of larval urchins and abalone. Presented at the *6<sup>th</sup> International Larval Biology Conference*, Hong Kong, China.
- Shima, J.S. 2003. Demographic connectivity in marine environments: integrating larval condition, dispersal pathways and post-recruitment survival. Presented at the *Joint Conference of the New Zealand Marine Sciences Society and the Australasian Society of Phycology and Aquatic Botany*, Auckland, New Zealand. (**Invited Plenary Address**)
- Shima, J.S. 2003. Unravelling complexities of recruitment in marine populations. Presented at the *Department of Zoology, Melbourne University*, Australia. (**Invited Seminar**)

- Shima, J.S. 2003. Effects of spatio-temporal covariation in settlement intensity and quality. Presented at the *6<sup>th</sup> International Temperate Reef Symposium*, Christchurch, New Zealand.
- Robles, C. and J.S. Shima. 2003. Movements of a keystone predator *Pisaaster ochraceus* and implications for intertidal landscapes. Presented at the *6<sup>th</sup> International Temperate Reef Symposium*, Christchurch, New Zealand.
- Shima, J.S.. 2002. Cryptic density-dependence in Moorea, French Polynesia? Presented at the "*Conference on Restoring and sustaining diversity of tropical Pacific coral reef fish communities*", Moorea, French Polynesia.
- Shima, J.S. and C.W. Osenberg. 2001. Cryptic density-dependence in reef fish populations. Presented at the *82nd Annual Meeting of the Western Society of Naturalists*, Ventura, CA., USA
- Shima, J.S. and C.W. Osenberg. 2001 Cryptic variation in habitat quality modifies the strength of density-dependent mortality of a reef fish. Presented at the *Annual Meeting of the Ecological Society of America*, Madison, WI, USA.
- Shima, J.S. 2001. Mechanisms of density- and number-dependent population regulation of a coral reef fish. Presented at the *6th Indo-Pacific Fish Conference*, Durban, South Africa.
- Robles, C., R. Paillet, and J.S. Shima 2001. Movements of individuals of the keystone predator *Pisaaster ochraceus* over intertidal landscapes with varying wave exposures and prey distributions. *CEA-CREST 2nd Annual Conference on Environmental Science*, Los Angeles, CA, USA
- Shima, J.S. 2000. Population regulation without density dependence? Decoupling density- and number dependent sources of mortality for a coral reef fish. Presented at the *81st Annual Meeting of the Western Society of Naturalists*, Portland, OR, USA.
- Shima, J.S. 2000. Joint roles of larval settlement, reef resources, and post-settlement losses in the recruitment of a coral reef fish. Presented at the *9th International Coral Reef Symposium*, Bali, Indonesia.
- Shima, J.S. 2000. Population regulation without density dependence? Decoupling density- and number dependent sources of mortality for a coral reef fish. Presented at the *Annual Meeting of the Ecological Society of America*, Snowbird, UT, USA.
- Shima, J.S. 1998. Are spatial patterns of reef fish abundance determined by available habitat or larvae? Presented at the *79th Annual Meeting of the Western Society of Naturalists*, San Diego, CA., USA. (**Awarded Best Student Paper**)
- Shima, J.S. 1997. Assessing the processes that determine patterns of reef fish abundance. Presented at the *78th Annual Meeting of the Western Society of Naturalists*, Monterey, CA, USA.
- Shima, J.S. 1997. Processes regulating spatial and temporal variation in abundance of marine reef organisms. Presented at the *77th Annual Meeting of the Western Society of Naturalists*, La Paz, B.C.S. Mex.
- Shima, J.S. 1996. Interpreting spatial patterns of recruitment: Larval supply vs. post-settlement processes, and the role of spatial scale. Presented at the *8th International Coral Reef Symposium*, Panama City, Panama.
- Shima, J.S. 1994. Behavioral ecology of the damselfish *Stegastes nigricans* on Moorea, French Polynesia. Presented at the *31<sup>st</sup> Annual Meeting of the Animal Behavior Society*, Seattle, WA, USA.
- Shima, J.S. 1993. Territory structure and aggregated behavior of the damselfish *Stegastes nigricans* on Moorea, French Polynesia. Presented at the *18th Annual West Coast Undergraduate Research Conference in Biological Sciences*, San Francisco, CA, USA.

## **GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS:**

### ***Present Students and Post-docs:***

Laura Sterup, MSc Candidate (anticipated completion 11/2023), School of Biological Sciences, Victoria University  
 Jaye Barclay, MSc Candidate (anticipated completion 12/2022), School of Biological Sciences, Victoria University  
 Emma O'Malley, MSc Candidate (anticipated completion 12/2022), School of Biological Sciences, Victoria University  
 Alison Duncan, PhD Candidate (anticipated completion 10/2022), School of Biological Sciences, Victoria University

### ***Past Students***

Dr. Daniel McNaughtan, PhD (completed 2022), School of Biological Sciences, Victoria University  
 Dr. Amber McEwan, PhD (completed 2022), School of Biological Sciences, Victoria University  
 Andy Chang MSc Candidate (completed 2022), School of Biological Sciences, Victoria University  
 Dr. Phoebe Caie, PhD (completed 2021), School of Biological Sciences, Victoria University  
 Dr Stina Kolodzey, PhD (external advisor; completed 2021), Marine Sciences, U. Otago  
 Dr. Leonardo Durande, PhD (external advisor; completed 2020), Marine Sciences, U. Otago  
 McKenzie Tornquist MSc (completed 2020), School of Biological Sciences, Victoria University

Dr Pauline Mitterwallner, PhD (completed 2020), School of Biological Sciences, Victoria University  
Dr Becky Focht, PhD (completed 2019), School of Biological Sciences, Victoria University  
Dr. Keith Michael, PhD (completed 2019), School of Biological Sciences, Victoria University  
Dr Katie Hillyer, Postdoctoral Fellow (completed 6/2018), School of Biological Sciences, Victoria University  
Jessie Bottcher, MSc (completed 06/2017), School of Biological Sciences, Victoria University  
Conor Neilson, MSc (completed 04/2017), School of Biological Sciences, Victoria University  
Chris McDowall, MSc (completed 02/2017), School of Biological Sciences, Victoria University  
Vinnie Wood, MSc (completed 02/2017), School of Biological Sciences, Victoria University  
Ben Moginie, MSc (completed 6/2016), School of Biological Sciences, Victoria University  
Phoebe Caie, MSc (completed 3/2016), School of Biological Sciences, Victoria University  
Dr Mark Kaemingk, Postdoctoral Fellow (completed 10/2015), School of Biological Sciences, Victoria University  
Dr Paul Mensink, PhD (completed 6/2014), School of Biological Sciences, Victoria University  
Dr Shane Geange, Postdoctoral Fellow (completed 12/2013), School of Biological Sciences, Victoria University  
Maria Jennifer Oliver, MSc (completed 03/2013), School of Biological Sciences, Victoria University  
Dana Morton, Fulbright Fellow (completed 10/2012), School of Biological Sciences, Victoria University  
Dr Nicolai Treumper, PhD (completed 05/2011), School of Biological Sciences, Victoria University  
Dr Philipp Neubauer, PhD (completed 5/2011), School of Biological Sciences, Victoria University  
Dr Alejandro Perez Matus, PhD (completed 11/2010), School of Biological Sciences, Victoria University  
Dr Gareth Williams, PhD (completed 08/2010), School of Biological Sciences, Victoria University  
Dr Shane Geange, PhD (completed 1/2010), School of Biological Sciences, Victoria University  
Dr Anna Smith, PhD (completed 12/2009), School of Biological Sciences, Victoria University  
Rose TerBorg, Postgrad DipSci (completed 11/2009), School of Biological Sciences, Victoria University  
Dr Sonja Miller, PhD (completed 06/2008), School of Biological Sciences, Victoria University  
Dr Bruce Dudley, PhD (completed 4/2008), School of Biological Sciences, Victoria University  
Chris McDermott, MSc (completion 10/2005), School of Biological Sciences, Victoria University  
Matthew Forsyth, MSc Candidate, School of Biological Sciences, Victoria University  
Dr. Vanessa Hernaman, Postdoctoral Fellow (2003-2005), School of Biological Sciences, Victoria University  
Thomas Curtis, MSc. (completed 12/2003), School of Biological Sciences, Victoria University

### **PROFESSIONAL SERVICE:**

2016-2021 Editorial Board Member for *Ecology* and *Ecological Monographs*  
2007-2015 Editorial Board Member for *Oecologia*  
2014-2016 Review Editor for *Frontiers in Coral Reef Research*

### ***Invited Peer Reviewer for:***

#### Journals:

*Ecology, Oecologia, Ecology Letters, Proceedings B, Nature Communications, Marine and Freshwater Research, Marine Ecology Progress Series, Journal of Animal Ecology, Limnology and Oceanography Methods, Coral Reefs, Oikos Bulletin of Marine Science, Estuarine, Coastal, and Shelf Science, Reviews in Fish Biology and Fisheries Marine Biology, Journal of Experimental Marine Biology and Ecology, Limnology and Oceanography, Environmental Biology of Fishes, Aquatic Biology, and many others*

#### Funding Agencies:

US National Science Foundation, Agence Nationale de la Recherche (ANR, France), US Sea Grant Program, US National Geographic Society, Earth Watch Program, University of New Hampshire, Lizard Island Doctoral Dissertation Grants, Antarctica New Zealand,

### ***Invited Thesis Examiner/Post-graduate Program Reviewer***

University of Otago, NZ (3PhD Thesis, 12MSc Theses, Postgraduate program)  
James Cook University, AUS (7 PhD Theses)  
Griffiths University, AUS (1 PhD Thesis)  
University of Auckland, NZ (2PhD, 3 MSc Theses)  
University of Auckland, NZ (5 MSc Programs)  
University of Western Australia (1 PhD Thesis)  
University of Canterbury (1 MSc Thesis)  
Victoria University of Wellington (12 PhD Theses, 7 MSc Theses, 2 BSc Hon Thesis)

### ***Professional Memberships:***

Ecological Society of America, Royal Society of New Zealand, New Zealand Marine Science Society, New Zealand Association of Scientists, International Society for Reef Studies

***Service to Victoria University of Wellington:***

2022-present *Postgraduate Student Coordinator*, School of Biological Sciences  
2022-present *Chair, Research Committee*, School of Biological Sciences  
2018 *Professorial Appointment Committee Member* for the School of Biological Sciences  
2012-present *Chair*, University Diving and Boating Committee; Diving Control Board  
2012-2015 *Chair*, Marine Safety Committee, School of Biological Sciences  
2013 *Job Search Committee Member* for the position of ‘Marine Technician’  
2011-2012 *Committee Member*, University Research Fund, Victoria University of Wellington  
2010-2011 *Committee Member*, Research Establishment Grant Committee, Victoria University of Wellington  
2010 *Job Search Committee Member* for the position of ‘Professor of Fisheries Biology’  
2010 *Job Search Committee Member* for the position of ‘Marine Technician’  
2009-2012 *Deputy Chair*, Marine Safety Committee, School of Biological Sciences  
2004-2018 *Director*, Victoria University Coastal Ecology Lab  
2004-2018 *Health and Safety Committee Member*, School of Biological Sciences  
2002-present *Marine Biology Programmatic Development* (coordination and development of new undergraduate major and associated curriculum, development/implementation of new graduate degree programs, diving/boating safety/regulations, undergraduate/graduate student recruitment, community outreach activities)  
2002-2018 *Marine Biology Media Liaison Officer*  
2002-2003 *School of Biological Sciences ‘Performance-Based Research Fund’ Committee Member*  
2003 *Job Search Committee Member* for the position of ‘Pacific Biologist’  
2002 *Strategic Planning Committee Member*, School of Biological Sciences  
2002 *Job Search Committee Member* for two positions in ‘Marine Biology’  
2002 *Job Search Committee Member* for the position of ‘Phycologist’  
2002 *Job Search Committee Member* for the position of ‘Marine Technician’  
2002 *Job Search Committee Member* for the position of ‘General Technician’

**DOCTORAL DISSERTATION COMMITTEE:**

|                            |   |
|----------------------------|---|
| Steven D. Gaines           | Professor, Dept. of Ecology, Evolution, and Marine Biology, UC Santa Barbara. |
| Sally J. Holbrook          | Professor, Dept. of Ecology, Evolution, and Marine Biology, UC Santa Barbara. |
| Russell J. Schmitt (Chair) | Professor, Dept. of Ecology, Evolution, and Marine Biology, UC Santa Barbara  |