+1.808.956.7345 szuster@hawaii.edu Department of Geography, University of Hawaii 2424 Maile Way, Saunders 445 Honolulu, Hawaii, USA 96822

# **SUMMARY**

Brian Szuster is an Associate Professor at the University of Hawai'i who blends research on aquaculture and marine tourism with a creative coastal management and environmental impact assessment practice.

### PROFESSIONAL CAREER HIGHLIGHTS

PROFESSIONAL CAREER HIGHLIGHTS			
2012 - current	Associate Professor: Department of Geography and Environment, University of Hawai'i at Mānoa ° leading a successful aquaculture management and marine tourism research program ° acting as Undergraduate Chair in the Department of Geography and Environment (2015 - 2019) ° supporting environmental impact assessment training for graduate and undergraduate students ° elected to the Board of Directors of University of Hawaii Professional Association (2016 - 2018)		
2004 - 2011	Assistant Professor: Department of Geography and Environment, University of Hawai'i at Mānoa  ° developed a suite of courses in geography, planning and natural resource management  ° completed multiple aquaculture and tourism research projects in Hawai'i and Southeast Asia  ° University of Hawai'i College of Social Sciences Award for Excellence in Teaching (2010)		
2001 - 2003	CIDA UPCD Project Manager: Burapha University, Bang Saen, Thailand  one managed a \$1.5 million Canadian International Development Agency university partnership project  one enhanced aquaculture planning and management at Burapha University in eastern Thailand  one developed human resources, management and infrastructure capacity at the host institution		
1995 -2001	Director: Terran Environmental Services, Victoria, BC  ofounder and director of a Victoria-based environmental consulting firm  led multi-disciplinary teams on complex planning and impact assessment projects  focus on environmental impact assessment, strategic planning, natural resources management  responsible for proposal development, project management and fiscal control		
1993 - 1995	Senior Environmental Planner: Westland Resource Group, Victoria, BC  ° acted as project manager of multi-disciplinary planning and impact assessment teams  ° responsible for project development, staffing, oversight and fiscal control  ° led corporate planning efforts and evaluation of new business opportunities		
1991 - 1993	<b>Environmental Planner:</b> Spencer Environmental Services, Edmonton, AB ° participated in the preparation of environmental and social impact assessments ° facilitated public consultation on natural resource development projects		

# **EDUCATION**

2001	<b>Doctor of Philosophy:</b> Geography, University of Victoria  Dissertation: Cumulative Environmental Effects of Shrimp Farming in Thailand
1992	<b>Master of Arts:</b> Geography, Simon Fraser University Thesis: Resident Perception of Place: The Case of Tsawwassen, B.C.
1986	Bachelor of Science (Honors): Geography, University of Alberta  Honors Thesis: Glacial Sedimentology of a Small Raised Delta: Ellesmere Island. NWT

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#### REFEREED JOURNAL ARTICLES AND EDITED VOLUMES

Needham, M., **B.W. Szuster,** C. Mora, L. Lesar & D. Knecht. (*in review*). Manta ray tourism: Interpersonal and social values conflicts, sanctions, and management. *Human Dimensions of Wildlife*.

Bernstein, J.M, & **B.W. Szuster**. (*in revision*). Contemporary environmental typologies: The case for a renewed environmental paradigm scale. *International Journal of Environmental Communication*.

Bernstein, J.M, & **B.W. Szuster**. (*in revision*). A renewed environmental paradigm: Toward a new definition of contemporary environmentalism. *Journal of Environmental Education*.

Monnereau<sup>1</sup>, I., D.J. Welch, P. McConney, **B.W. Szuster**, & M.A. Gasalla. (*in press*). Climate change adaptation: Vulnerability and challenges facing small-scale fisheries in small islands. *FishAdapt: Proceedings of a global conference on climate change adaptation for fisheries and aquaculture.* Rome: Fisheries and Agriculture Organization of the United Nations. pp. xx-xx.

Miller, M.L., J. Auyong, **B.W. Szuster**, M. Needham, M.B. Orams, J. Wilks, & M. Lück. eds. (2017). Special issue featuring papers from the 8th-International Congress on Coastal and Marine Tourism. Waikoloa, Hawaii, 10-13 November, 2015. *Tourism in Marine Environments* 12 (3/4).

Miller, M.L., J. Auyong, **B.W. Szuster**, M. Needham, M.B. Orams, J. Wilks, and M. Lück. (2017). A Field Takes Stock: Papers from the 8th-International Congress on Coastal and Marine Tourism. *Tourism in Marine Environments* 12 (3/4). pp. 139-154.

Bernstein, J.M, **B.W. Szuster** & L. Phillips. (2017). Assessing the diversity of contemporary environmentalism: Time for a new paradigm. *International Journal of Environmental Research*. 11(5), pp. 641-652.

Needham, M., **B.W. Szuster**, C. Mora, L. Lesar & A. Anders. (2017). Manta ray tourism: Interpersonal and social values conflicts, sanctions, and management. *Journal of Sustainable Tourism* 25(10), pp. 1367-1384.

Littlejohn, K, M.D. Needham, **B.W. Szuster**, & E.J. Jordan. (2016). Pre-trip expectations and post-trip satisfaction with interpretation information on marine tours in Hawaii. *Journal of Environmental Education 47(3), pp. 202-212.* 

Mcleod, E., **B.W. Szuster**, J. Hinkel, E.L. Tompkins, N. Marshall, T. Downing, S. Wongbusarakum, A. Patwardhan, M. Hamza, C. Anderson, S. Bharwani, L. Hansen, & P. Rubinoff. (2016). Identification and prioritization of determinants of adaptive capacity of tropical island communities. *Conservation Letters* 9(5), pp. 351–360.

McLeod, E., S. Margles & **B.W. Szuster**. eds. (2015). Special issue on community-based climate vulnerability and adaptation tools. Coastal Management Journal 43(4).

Mcleod, E., **B.W. Szuster**, E.L. Tompkins, N. Marshall, T. Downing, S. Wongbusarakum, A. Patwardhan, M. Hamza, C. Anderson, S. Bharwani, L. Hansen, & P. Rubinoff. (*2015*). Using expert knowledge to develop a vulnerability and adaptation framework and methodology for application in tropical island communities. *Coastal Management Journal* 43(4), pp. 365-382.

**Szuster, B.W.** & J. Dietrich. (2014). "Small island tourism development plan implementation: The case of Koh Tao, Thailand. *EnvironmentAsia* 7(2), 124-132.

Needham, M., **B.W. Szuster**. eds. (2013). Special issue on crowding, use levels, and social capacity issues in coastal and marine environments. *Tourism in Marine Environments* 9(1/2).

**Szuster, B.W.,** M. Needham & B. McClure. (2011). Scuba diver perceptions and evaluations of underwater crowding. *Tourism in Marine Environments* 7 (3/4). pp. 153-165.

Needham, M.D., B.W., **Szuster**, & C.M. Bell. (2011). Encounter norms, social carrying capacity indicators, and standards of quality at a marine protected area. *Ocean and Coastal Management*, *54*(8), 633-641.

Bell, C.M., M.D. Needham & **B.W. Szuster.** (2011). Congruence among encounters, norms, crowding, and management in a marine protected area. *Environmental Management*, 48(3), 499-513.

**Szuster, B.W.,** Q. Chen & M. Borger. (2011). A comparison of classification techniques to support coastal land cover change analysis. *Applied Geography 31* (2), pp. 525-532.

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### REFEREED JOURNAL ARTICLES AND EDITED VOLUMES (continued)

Needham, M.D., & **B.W. Szuster.** (2011). Situational influences on normative evaluations of coastal tourism and recreation management strategies in Hawaii. *Tourism Management*, 32(4), 732-740.

Hoanh, C.T., **B.W. Szuster**, K.S. Pheng, A. Noble & A. Ismail. *eds.* (2010). *Tropical Deltas and Coastal Zones: Community, Environment and Food Production at the Land-Water Interface*. Comprehensive Assessment of Water Management in Agriculture Series No. 9. July 2010. Oxfordshire, UK: CABI Publishing. 496 p.

**Szuster, B.W.** & H. Albasri. (2010). Mariculture and marine spatial planning: Integrating local ecological knowledge at Kaledupa Island, Indonesia. *Island Studies Journal* 5 (2), pp. 237-250.

Albasri, H. & **B.W. Szuster**. (2010). Expert and local knowledge in mariculture suitability analysis. *EnvironmentAsia* 3(2), pp. 109-114.

**Szuster, B.W.** & H. Albasri. (2010). Site selection for grouper mariculture in Indonesia. *International Journal of Fisheries and Aquaculture*, 2 (3), pp. 87-92.

**Szuster, B.W.,** C.T. Hoanh, K.S. Pheng, A. Ismail, A. Noble, & M. Borger. (2010). Policy, planning and management at the land-water interface. In: *Tropical Deltas and Coastal Zones: Community, Environment and Food Production at the Land-Water Interface*. Hoanh, C.T., B. Szuster, K.S. Pheng, A. Noble and A. Ismail (eds). Comprehensive Assessment of Water Management in Agriculture Series No. 9. July 2010. Oxfordshire, UK: CABI Publishing. pp. 1-12.

McLeod, E., **B.W. Szuster**, & R. Salm. (2009). Sasi and marine conservation in Raja Ampat, Indonesia. *Coastal Management Journal* 37(6), p. 656-676.

**Szuster, B.W.**, B.P. McClure & M.D. Needham. (2009). Dimensionality of scuba diver perceptions of crowding. In A. Albers & P. B. Myles (eds.). *Proceedings of the Sixth International Congress on Coastal and Marine Tourism (CMT)*. Port Elizabeth, Nelson Mandela Bay, South Africa: Kyle Business Projects. pp. 285-289.

Needham, M.D., & **Szuster, B.W.** (2009). A conjoint analysis of situational influences on acceptance of coastal recreation management strategies in Hawaii. In A. Albers & P. B. Myles (eds.). *Proceedings of the 6th International Congress on Coastal and Marine Tourism*. Port Elizabeth, Nelson Mandela Bay, South Africa: Kyle Business Projects. pp. 152-164.

**Szuster, B.W.,** K. Chalermwat, M. Flaherty & P. Intacharoen. (2008). Peri-urban oyster farming in the Upper Gulf of Thailand. *Aquaculture Economics and Management 12 (4),* pp. 268-288.

**Szuster, B.W.,** Steckler, C. & B. Kullavanijaya. (2008). Detecting and managing coastal fisheries and aquaculture gear using satellite radar imagery. *Coastal Management Journal 36 (3)*, pp. 318-329.

**Szuster, B.W.** (2006). Coastal shrimp farming in Thailand: Searching for sustainability. In: *Environment and Livelihoods in Tropical Coastal Zones: Managing Agriculture - Fishery - Aquaculture Conflicts.* Hoanh, C.T., T.P. Tuong, J.W. Gowing and B. Hardy (eds.). Comprehensive Assessment of Water Management in Agriculture Series, No. 2. July 2006. Oxfordshire, UK: CABI Publishing. pp. 86-98.

**Szuster, B.W.** (2006). A review of shrimp farming in central Thailand and its environmental implications. In: *Shrimp Culture: Economics, Markets, and Trade.* P.S. Leung and C. Engle (eds.). Ames: Blackwell Publishing. pp 155-164.

Szuster, B.W., & M. Flaherty (2005). Women oyster vendors in Thailand. Aquaculture Asia 10(1), pp. 21-24.

Chalermwat, K., **Szuster, B.W.** & M. Flaherty (2003). Shellfish aquaculture in Thailand. *Aquaculture Economics and Management* 7 (3/4), pp. 249 - 261.

**Szuster, B.W.,** F. Molle, M. Flaherty & T. Srijantr. (2003). Socio-economic and environmental implications of inland shrimp farming in the Chao Phraya Delta. In: *Perspectives on Social and Agricultural Change in the Chao Phraya Delta*. F. Molle and T. Srijantr (eds.). Bangkok: White Lotus Press. pp. 177-194.

**Szuster, B.W.**, & M. Flaherty (2002). Cumulative environmental effects of low salinity shrimp farming in Thailand. *Impact Assessment and Project Appraisal* 20 (2), pp. 189-200.

**Szuster, B.W.**, & M. Flaherty (2002). A regional approach to assessing organic waste production by low salinity shrimp farms. *Aquaculture Asia* 7(2), pp. 48-52.

Flaherty, M., B.W. Szuster & P. Miller. (2000). Low salinity shrimp farming in Thailand. Ambio 29 (3), pp. 174-179.

Miller, P., M. Flaherty, and B.W. Szuster (1999). Inland shrimp farming in Thailand. Aquaculture Asia. 4(1), pp. 27-32.,

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### **CONFERENCES**

#### **Conference Organization**

**Szuster, B.W.** (2015). Co-Chair of the 8th International Congress on Coastal and Marine Tourism (CMT 2015). Sponsored by the International Coastal and Marine Tourism Society. 10-13 November 2015. Waikoloa, Hawaii.

**Szuster, B.W.** (2007). Co-Chair for Delta 2007: Managing The Coastal Land-Water Interface in Tropical Delta Systems. Sponsored by the International Water Management Institute and International Rice Research Institute. 07-09 November 2007. Bang Sean, Thailand.

#### **Recent Conference Presentations**

**Szuster, B.W**. (2017). Community Supported Fisheries and Aquaculture Supporting Seafood Tourism. Presented at the 4-Business Management International Conference: Challenges of Creative and Innovative Management 1-2 November 2017, Pattaya, Thailand.

**Szuster, B.W.**, M. Needham, C. Mora, E. Anders, L. Lesar, and L. Philips. (2015). *Perceived Crowding and Support for Management Action at a Manta Ray Viewing Site in Hawaii*. 8th International Congress on Coastal and Marine Tourism (CMT 2015). 10-13 November 2015, Waikoloa, Hawaii.

Needham, M.D. & **B.W. Szuster**. (2015). Swimming With Manta Rays in Hawaii: Interpersonal and Social Values Conflicts, Sanctions, and Management. 8th International Congress on Coastal and Marine Tourism (CMT 2015). 10-13 November 2015, Waikoloa, Hawaii.

Needham, M.D. & **B.W. Szuster.** (2015). *Interpersonal and Social Values Conflict among Recreationists Swimming with Manta Rays in Hawaii.* Paper presented at Northeastern Recreation Research Symposium (NERR). April 12-16, Annapolis, Maryland.

**Szuster, B.W.** & J. Dietrich. (2014). *Small Island Tourism Development Plan Implementation in Thailand*. Paper presented at the Contemporary Research in Tourism and Hospitality Conference (CRTH14). February 18-21, Pondicherry, India.

Needham, M.D., **B.W. Szuster**, C. Mora, A. Anders & L. Lesar. (2014). Interpersonal and social values conflict among tourists swimming with manta rays in Hawaii. Paper presented at the International Conference on Contemporary Research in Tourism and Hospitality (CRTH). February 17-22, Pondicherry, India.

Needham, M.D. & **B.W. Szuster.** (2013). Chaos on the Coast: Resident Attitudes About Protected Area Management at Kealakekua Bay, Hawaii. Paper presented at George Wright Society Conference on Parks, Protected Areas, and Cultural Sites. March 11-15, Denver, Colorado.

**Szuster, B.W.** (2011). Encounters, Norms and Crowding in Marine Recreation: Applications at Molokini MLCD. Presentation at UH Sea Grant Hanauma Bay Education Program. February 17, 2010, Honolulu, Hawaii.

**Szuster, B.W.** & M.D. Needham. (2010). *Marine Recreation Management at the Molokini Shoal and Kealakekua Bay MLCD*. Presentation at Recreation Impacts to Reefs Local Action Strategy Forum. Honolulu, Hawaii. June 23, 2010.

Needham, M.D. & **B.W. Szuster.** (2010). *Validity of a Self-Classification Measure of Recreation Specialization Among Snorkelers and Scuba Divers.* Paper presented at Northeastern Recreation Research Symposium (NERR). April 11-13, Bolton Landing, Lake George, New York.

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### **SELECTED PROJECT EXPERIENCE**

#### **Coastal Planning and Management**

International Oceans Institute - Acted as Coastal Management Instructor for Training Programme on Regional Ocean Governance Framework, Implementation of the United Nations Convention on the Law of the Sea (UNCLOS) and its Related Instruments in the Southeast Asian Seas and the Indian Ocean in Phuket, Thailand.

The Nature Conservancy - Acted as marine recreation planning expert during the preparation of a *Conservation Action Plan (CAP) for the Molokini Shoal Marine Life Conservation District*.

State of Hawai'i Division of Aquatic Resources – Acted as principal investigator of the *Recreation Planning and Management at Molokini Shoal MLCD* project for the Hawai'i Department of Land and Natural Resources.

State of Hawai'i Office of Planning – Acted as principal investigator of the *Hawai'i Coastal and Estuarine Land Conservation Plan* prepared for Hawai'i Department of Business, Economic Development.

International Water Management Institute - Prepared a report titled Shrimp Farming in Thailand's Chao Phraya River Delta as part of the IWMI Comprehensive Assessment of Water Management in Agriculture.

University of Victoria. - Acted as project manager for the *Thailand Aquaculture Management Project*, a \$1.25 million CIDA UPCD initiative that developed aquaculture management capacity at Burapha University in eastern Thailand.

#### **Environmental Assessment**

United States Department of Defense - Organized training sessions on environmental assessment for senior Peoples Liberation Army officers and staff at the Chongqing Campus for Logistics and Engineering as part of the the US-China Military to Military Environmental Cooperation Program.

Office of Environmental Quality Control - Participated in a review of Hawai'i Revised Statutes 343 that provides the administrative framework for conducting environmental assessment in the State of Hawai'i.

District of Saanich - Contracted to assess and revise the district's environmental and social impact assessment process.

Capital Regional District - Assessed the social and environmental impacts of the Saanich Peninsula Sewage Treatment Plant on Vancouver Island and associated sewer trunk lines during site selection and permitting phases.

BC Hydro – Assessed stakeholders perceptions of social and environmental impacts associated with hydroelectric operations in the Vancouver Island and Peace River regions as part of a provincial Electrical System Operations Review.

Canadian Coast Guard - Prepared a detailed environmental screening of Canadian Coast Guard's annual dredging program on the Lower Athabasca River and Athabasca Delta.

Centra Gas – Assessed the potential environmental impacts of the Wonowon natural gas pipeline in northeastern British Columbia. This included providing an assessment of socio-environmental impacts, describing potential mitigation strategies, and liaising with regulatory agencies.

#### **First Nations**

Ohiat, Uchucklesaht and Ehattesaht First Nations - Developed three separate First Nations aquaculture development strategies in association with Aquametrix Research Ltd.

BC Rail and the Squamish Nation - Assessed land use and community impacts of a proposed deep-sea port and rail facility located near Squamish, British Columbia.

Wet'suwet'en First Nation and the British Columbia Land Use Coordination Office – Identified data, infrastructure, and staffing requirements for a Wet'suwet'en land and resources information system.

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# **FUNDED PROJECTS**

2017 - 2018	The Outdoor Circle (\$35,695)
2015	International Coastal and Marine Tourism Congress (\$17,000)
2012	Social Carrying Capacity of Manta Ray Night Dive Sites in West Hawai'i (\$10,000)
2010 - 2012	Recreation Impacts to Reefs at Hawaii's Coral Program Priority Sites (\$29,000)
2008 - 2010	Recreation Planning and Management at the Molokini Shoal MLCD (\$134,000)
2008	Building Coastal Conservation Capacity in Hawaii (\$10,000)
2007	Building Integrated Coastal Management Capacity in Hawai'i (\$10,000)
2006	Hawai'i Coastal and Estuarine Land Conservation Plan (\$65,000)

### **AWARDS**

2010	University of Hawai'i College of Social Sciences Award for Excellence in Teaching
2000	Social Sciences and Humanities Research Council of Canada Doctoral Fellowship
2000	University of Victoria President's Research Scholarship
1999	International Development Research Centre Doctoral Research Award
1999	Celanese Canada Internationalist Fellowship
1999	Centre for Asia-Pacific Initiatives Graduate Student Research Fellowship
1998	Asia Pacific Foundation of Canada Southeast Asia Business Research Grant
1998	Edward Bassett Family Bursary for Environmental Research
1998	Derrick Sewell Graduate Award for Natural Resource Management Research

### **TEACHING EXPERIENCE**

### University of Hawai'i at Manoa

Geography 101 - The Natural Environment. An undergraduate course in physical geography that introduces the study of meteorology, climatology, hydrology, geology, geomorphology and biogeography.

Geography 324 - Geography of Global Tourism. An undergraduate course that explores tourism management issues, socio-environmental impacts, visitor management and destination planning.

Geography 356 - Geography of Southeast Asia. An undergraduate course in regional geography that surveys the landscape, resources, history, cultures and economy of Southeast Asia.

Geography 412 - Environmental Impact Assessment. An undergraduate course that surveys environmental impact assessment as conducted under the US National Environmental Policy Act.

Geography 413 - Resource Management. An undergraduate course that explores the management of land, water, forest fisheries, aquaculture and agriculture resources.

Geography 493 - Capstone Undergraduate Seminar. A culminating and integrative course taken by senior graduating undergraduate students in geography.

Geography 622 - Advanced Environmental Assessment. A graduate seminar that focuses on advanced topics in such as cumulative environmental effects, strategic environmental assessment, and environmental management systems.

Geography 728 - Resource Management in Asia-Pacific. A graduate seminar that resource management problems in Asia and the Pacific focusing of fisheries and aquaculture issues.

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### SERVICE (selected)

#### **Department of Geography**

Undergraduate Chair (2013, 2016-2019)

Chair, Geography Department Personnel Committee (2014-2015)

Chair, Graduate and Undergraduate Program Assessment Committees (2010-2012)

Chair, Faculty Search Committee (2008)

Graduate Admissions and Awards Committee (2004, 2005, 2006)

Graduate Program Committee (2004, 2005, 2006)

### University of Hawai'i at Manoa

Board of Directors, University of Hawai'i Professional Association (2015-2017)

Faculty Senate Executive Committee (2013)

Faculty Personnel Committee, School of Tourism Industry Management (2015, 2016)

International Exchange Agreement Coordinator for Burapha University, Thailand (2005 - 2010)

Center for Southeast Asian Studies Executive Committee Member (2006 - 2010, 2016 - 2018)

Foreign Language and Area Studies Fellowship Selection Committee (2006, 2007, 2009)

University of Hawai'i Manoa Campus Fulbright Committee (2004, 2005, 2017)

University of Hawaii Professional Assembly, Geography Department Representative (2007 - 2015)

College of Social Sciences Research Council (2004, 2005)

### **PROFESSIONAL AFFILIATIONS**

Department of Forest Ecosystems and Society, Oregon State University (Affiliate Professor)

Department of Aquatic Science, Burapha University, Thailand (Adjunct Professor)

International Coastal and Marine Tourism Society (International Steering Committee)

### **CERTIFICATIONS**

PADI Safety Diver and Nitrox Certifications