

TARA SAYURI WHITTY, PhD

Social-ecological conservation research • Project evaluation • Research training

Freelance consultant (Keiruna Inc.)
Engagement & Social-Ecological Expert at MarFishEco
Research Advisor for Myanmar Coastal Conservation Lab

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Based in San Diego, California, USA

ABOUT ME I am a social-ecological researcher and aspiring writer who has been profoundly influenced – professionally and personally – by the pursuit of meaningful conservation insights. I work to apply these insights to inform creative, locally-driven, and socially ethical conservation solutions.

My extensive experience with coastal conservation's complex human-natural systems and my vision for more inclusive and effective approaches inform my current work as a researcher, conservation advisor, and trainer. I am truly eager to explore the world of nonfiction writing to further delve into and share important and fascinating stories, issues, and lessons from conservation with diverse audiences.

EDUCATION

Ph.D. 2014 | M.Sc. 2009
Scripps Institution of Oceanography
University of California San Diego

B.A. 2005
Ecology & Evolutionary Biology
Environmental Studies Certificate
Princeton University

AREAS OF WORK

- Conservation systems, particularly the interface between conservation & communities
- Strengthening local skills and access to tools for conservation research and action in developing countries
- Application of innovative approaches, including Design Thinking, to conservation
- Conservation processes, including concepts of conflict, inclusion, communication, and collaboration
- Participatory, qualitative, social-ecological evaluation of conservation projects
- Assessment and mitigation of marine megafauna accidental capture (bycatch) in small-scale fisheries

CURRENT WORK

Developing a Transdisciplinary Conservation Training Program | Oregon State University's Marine Mammal Institute | *Jan 2020-present*
Designing a truly transdisciplinary, inclusive, and applied program for OSU students and young conservation professionals from developing countries; based on interviews of graduates and coordinators of interdisciplinary conservation training programs and NGOs in developing countries

Conservation & Research Advisor, Myanmar Coastal Conservation Lab (MCCL) @ Point B Design + Training, Myanmar | *Jan 2020 – present*
Advising conservation research & strategy for MCCL, a Myanmar youth group based at Point B, a Design Thinking research and training lab; developing trainings for their internship program; building skills in communities research, marine megafauna, mangroves, plastic waste, and qualitative project evaluation, as well as awareness campaigns and community collaboration.

Rapid assessment of marine megafauna bycatch in the Philippines | Pacific Island Fisheries Science Center, Large Marine Vertebrate Research Institute of the Philippines (LAMAVE) | *2017-present*

Developing and guiding implementation of a toolkit to assess sea turtle and other marine megafauna bycatch in the Philippines; including development of field team training program, training for the primary research team, and guidance on project implementation

Conservation & Communities Research and Training Consultant, Helvetas Myanmar | *Jan 2020 – present*. Coordinating and providing strategic input for the Gulf of Mottama Project (GoMP), a multi-sector effort for biodiversity conservation, natural resource management, and resilient communities; organizing and training local university research teams in conservation research; overseeing Most Significant Change evaluations in selected project villages.

PREVIOUS CONSULTANCIES

Human Communities Technical Advisor | CMS Dugong MOU Project | *2016-2017*
Part of the Technical Advisor group that developed the *Dugong & Seagrass Research Toolkit*; developed the Human Communities stream and delivered orientation to users.

Consultant for Gulf of Mottama Project | IUCN, Myanmar | *May to Nov 2017*. Supported IUCN's activities in the GoMP, including: representing IUCN in planning Phase 2 of the GoMP, including drafting workplan and logframe; providing technical support to Mawlamyine University students and staff.

WORK & RESEARCH EXPERIENCE

Gulf of Mottama International Advisor

International Union for Conservation of Nature | Nov 2017 – Dec 2019

Managed and implemented IUCN's research- and governance-related activities for the Gulf of Mottama Project (GoMP), a large-scale, multi-sector project on integrated coastal management

- Developed GoMP's Research Strategy, covering fisheries, habitats, species conservation, and communities;
- Completed the drafting of the stakeholder-driven Gulf of Mottama Management Plan
- Designed and implemented multi-stakeholder research meetings and a Research Symposium for Stakeholders
- Collaborated with/mentored MCCL at **Point B Design + Training** on conservation research and action, including developing a conservation internship program for recent graduates and university students
- Skills-building for research and conservation:
 - * Developed & implemented a conservation research training program for students & faculty at two local universities
 - * Supervised 9 faculty & graduate student research teams at two local universities, as well as MCCL
 - * Developed & led trainings on proposal writing and gender issues for local Civil Society Organizations through the Shared Resources-Joint Solutions project, and Critical Ecosystem Partnership Fund
- Conducted research with local research teams on marine megafauna (including bycatch), mangroves, fisheries, and social aspects of management and conservation; includes the first scientific confirmation of 3 coastal small cetacean species in the Gulf of Mottama
- Established participatory evaluation of project impacts in communities using "Most Significant Change" approach
- Communicated research and conservation concepts & findings to diverse stakeholders, including state and national government bodies

Conservation Assessment Scholar & National Science Foundation (NSF) Science, Engineering, and Education for Sustainability (SEES) Postdoctoral Fellow

Center for Marine Biodiversity and Conservation (CMBC), Scripps Institution of Oceanography (SIO), UCSD; Gulf of California Marine Program; Too Big To Ignore network for small-scale fisheries research | 2014-2017

Focused on how we evaluate "success in conservation," as applied to the concept of stewardship in coastal communities. Theoretical work on stewardship plus fieldwork in Mexico and Myanmar:

- **Stewardship framework:** Co-developed a framework and definition for environmental stewardship; research group co-coordinator for Too Big To Ignore's Stewardship & Small-scale Fisheries research cluster
- **Stakeholder perspectives on the future of conservation in the Upper Gulf of California, with a focus on the Critically Endangered Vaquita** with San Diego Zoo Institute for Conservation Research | Interviewed diverse stakeholders about vaquita (*Phocoena sinus*) conservation, including its impacts and possible outlook for the future. Developed concept of counterproductive conservation pathways. Trained 2 young researchers.
- **Exploring potential modes of coastal stewardship in Myanmar** with Point B Design + Training, IUCN, Fauna & Flora International | Human-centered research on communities and conservation/fisheries management in the context of Myanmar's changing policies (increased decentralization). Trained 3 young researchers

Conservationscapes of Marine Mammal Bycatch: Dissertation Project

Center for Marine Biodiversity and Conservation, SIO, UCSD | 2009-2014

Advisors: Lisa T. Ballance, Paul Dayton | Collaborators: WWF-Philippines; Yayasan Konservasi Rare and Aquatic Species of Indonesia; Guimaras State College; University of St. La Salle-Bacolod; Silliman Institute for Environmental and Marine Science; Thai Department of Marine and Coastal Resources; San Francisco State Uni.; Tropical Marine Research for Conservation

Developed a novel social-ecological approach ("conservationscape") to evaluate bycatch of marine megafauna in small-scale fisheries, as applied to Irrawaddy dolphin (*Orcaella brevirostris*) bycatch in Thailand (Trat Province), the Philippines (Malampaya Sound; Guimaras Strait), and Indonesia (Mahakam River), using boat-based line transect surveys, photo-ID, and community interviews; developed extensive network of local collaborators (NGOs, government agencies, universities). Trained local field teams (24 field assistants).

Small-scale & Artisanal Fisheries Research

Network (SAFRN): Founder & co-chair | 2010-2017
Student-led research group at CMBC-SIO.

Tropical Marine Research for Conservation: Visiting researcher | 2009 | Joined the first survey to confirmed the presence of Irrawaddy dolphins in Iloilo Strait, Philippines

Community-Centred Conservation (C3)

Madagascar: Research associate | 2009 | Developed interview-based assessment of marine megafauna bycatch; trained local research team.

Pro Delphinus: Visiting researcher | 2008

Conducted fieldwork on marine otters (*Lontra felina*) in Peru; data management, analysis, writing up previous research

RESEARCH OUTPUTS

Peer-Reviewed Publications

- Bennett, N.J., **Whitty, T.S.**, Finkbeiner, E., Pittman, J., Bassett, H., Gelcich, S., Allison, E.H. 2018. Environmental stewardship: A conceptual review and analytical framework. *Environmental Management*, 61(4).
- Bennett, N.J., et al. (**Whitty T.S.** author 15 out of 25) 2017. An appeal for a code of conduct for marine conservation. *Marine Policy*, 81
- Whitty, T.S. 2018. *Conservationscape: An interdisciplinary framework for linking species-focused conservation to human systems.* *Frontiers in Ecology and Environment*, 16(1).
- Whitty, T.S. 2016. Multi-methods approach to characterizing the magnitude, impact, and spatial risk of Irrawaddy dolphin (*Orcaella brevirostris*) bycatch in small-scale fisheries in Malampaya Sound, Philippines. *Marine Mammal Science*, 32(3).
- Whitty, T.S. 2015. Governance potential for cetacean bycatch mitigation in small-scale fisheries: A comparative assessment of four sites in Southeast Asia. *Applied Geography*.
- Whitty, T.S. 2014. *Conservationscapes: An interdisciplinary approach to assessing cetacean bycatch in small-scale fisheries.* Dissertation
- In prep: Whitty, T.S., Young, S., Martinez, A.H., Varga, V. Counterproductive conservation pathways: Lessons from vaquita conservation.

Selected Technical Reports

- 2020. "GoMP Phase 2: Report on research, training, and linking research to action." Report to GoMP.
- 2019. "Most Significant Change evaluation for GoMP." With Yin Yin Htay. Report to GoMP.
- 2018. "A tangled net: Stakeholder perspectives on vaquita conservation." With Young, S., Martinez, A.H., Varga, V.
- 2018. "Evaluating perspectives on the Locally Managed Marine Area process in Don Pale and Lin Long." Report to FFI*
- 2017. "Social potential for mud crab co-management in the Gulf of Mottama." Report for Gulf of Mottama Project*
- 2017. "Fisher experiences in the market chain in Daminseik, Setse Beach." Report for Point B, Mawlamyine Uni., Thanbuzayat Dept of Fisheries
- 2014. Technical reports on Irrawaddy dolphin bycatch for four sites, shared with collaborators and government agencies
- 2013. Contributing editor: Hines, E., Ponnampalam, L.S., Hisne, F.I.J., Whitty, T.S., Jackson-Ricketts, J., Kuit, S.H., Acebes, J. (Eds.) Report of the Third Southeast Asian Marine Mammal Symposium (SEAMAM III). UNEP/CMS Secretariat, Bonn, Germany. 643 pp. CMS Technical Series No. 32.

*Co-authors: Wint Hte, Yin Yin Htay, Aung Naing Soe

Invited Presentations

- "Systems thinking for marine conservation: With a focus on the DPSIR framework" for ASEAN Workshop on the Conservation of Migratory Marine Mammals and Other Endangered Marine Organisms. Putrajaya, 2019.
- "Integrated Coastal Management: An Introduction" for Workshop on Development of the National Integrated Coastal Resources Management Program. Presented to national and state/regional Coastal Resource Management Committees. Nay Pyi Taw, 2018.
- Seminars on conservationscapes for San Diego State University Marine Ecology and Biology Student Association, 2013; Western Philippines University, Palawan, Philippines, 2011

Selected Conference Presentations

- "Porpoises versus people? Mental models, conflict, and conservation pathways in the case of vaquita (*Phocoena sinus*) conservation." Talk: World Marine Mammal Conference. Barcelona, Spain. 2020.
- Yin Yin Htay, Wint Hte, Aung Naing Soe, et al. (**Whitty T.S. final author**). "It started with a fisher's tale: Interdisciplinary research on marine mammals, their history, and threats in the Gulf of Mottama, Myanmar." Poster presentation. World Marine Mammal Conference. Barcelona, Spain. 2020.
- "A tangled net: Counterproductive conservation pathways in the case of vaquita conservation." Talk. International Marine Conservation Congress 5. Kuching, Malaysia. 2018.
- Wint Hte, Whitty, T.S. 2018. Applying Design Thinking in Co-creating Marine Conservation with Communities. Poster presentation. International Marine Conservation Congress 5. Kuching, Malaysia. 2018.
- "Stewardship and small-scale fisheries: Promoting active leadership and participation in conservation." Talk. International Marine Conservation Congress 4, St. John's, CA. 2016.
- "How can fishers help 'save the dolphins'? Moving toward community stewardship of marine mammals." Talk. Association for Tropical Biology and Conservation. Honolulu. 2015.
- "Conservationscapes of marine mammal bycatch: An interdisciplinary study of the interface between small-scale fisheries and conservation." Talk. 2nd World Small-scale Fisheries Congress, Merida, Mexico. 2014.
- "Using conservationscapes to understand management outlooks: A comparative study of Irrawaddy dolphin bycatch in small-scale fisheries." Talk. International Marine Conservation Congress 3. Glasgow, Scotland. 2014.
- "Local-level governance of small-scale fisheries: Variations on a theme across four sites in Southeast Asia." Talk. Cultural Geography of Marine Resource Management Special Session. Association of American Geographers Annual Meeting. Los Angeles. 2013

OUTREACH

- Gulf of Mottama Project 2019 Research Symposium for Stakeholders: organizer and facilitator
- Public presentations on vaquita: “Las perspectivas de los actores sobre el futuro de la conservación en el Alto Golfo de California.” San Felipe, Mexico. 2016; “Tiny Porpoise, Big Mess: Perspectives on Vaquita Conservation” for Aquarium of the Pacific and American Cetacean Society-Los Angeles chapter. 2017
- “Small-scale fisheries and stewardship: Communities as leaders in conservation and management.” Public presentation. EcoAlianza Speaker Series. Loreto and Ensenada Blanca, Mexico. 2015.
- Blog posts for [Deep Sea News](#), [Salt Magazine](#) (Vaquita) 2016; [Deep Sea News](#) (Irrawaddy dolphins) 2014.
- Radio interview with [Sustainable Lens Radio](#). 2013.
- Information & Education campaign on Irrawaddy dolphin conservation for schools in 8 villages, Malampaya Sound, Philippines. 2011-2012.

TEACHING & MENTORING

- 2017-present: Training development & implementation for local universities, NGOs, and CSOs in Myanmar, including: introduction to Marine Conservation Science; proposal writing, research design, academic writing, communicating research to stakeholders, presentation skills; systems thinking, critical thinking, teamwork; gender issues in natural resource management, marine megafauna ecology and conservation; interview methodologies, Local Ecological Knowledge, Rapid Bycatch Assessment; academic reading groups, report and email writing practice; basic Excel skills, data entry and data management
- Short course: Approaches & tools for studying social-ecological systems. CMBC Master’s of Advanced Study Program. 2015.
- Training on Rapid Bycatch Assessment at the 3rd Southeast Asia Marine Mammal Symposium
- Committee Member for 3 CMBC-SIO Master’s of Advanced Study students
- Mentor for 2 CMBC-SIO Master’s of Advanced Study students
- Advisor: Scripps Undergraduate Research Fellow. Evaluating the comparative environmental perceptions and engagement of fishers based on residence time in Malampaya Sound, Philippines. 2016
- Teaching Assistant for Marine Mammal Biology undergraduate course, University of California San Diego

OTHER ACADEMIC ACTIVITIES

- **Reviewer for:** Conservation Biology; Frontiers in Marine Science; Maritime Studies; Canadian Journal of Fisheries and Aquatic Sciences; Natural Resources Forum; Aquatic Mammals; Applied Geography
- **Scientific Committee and Human Dimensions Session Chair:** 21st Biennial Conference for the Society of Marine Mammalogy. San Francisco, 2015.
- **Co-organizer:** Session on Stewardship & Small-scale Fisheries at 4th International Marine Conservation Congress, St. John’s, 2016; Too Big To Ignore Stewardship Research Workshop, St. John’s, 2016; Student Forum: 2nd World Small-scale Fisheries Congress, Merida, 2014; International workshop for the Small-scale and Artisanal Fisheries Research Network, San Diego, 2011

TECHNICAL SKILLS

Certifications, Trainings: AAUS Scientific Diver 2012; NAUI Rescue Diver; SIO Motorboat Operator Training Course

Research methods: Participatory, qualitative project evaluation; boat-based marine mammal surveys; small cetacean photo-identification; local ecological knowledge surveys; rapid bycatch assessment; various interview methodologies

Languages: English (native); Spanish (advanced); French (advanced); Tagalog (intermediate); Bahasa Indonesia (intermediate); Burmese (int. spoken/beg. written) Japanese (int. spoken/beg. written); Thai (beginner, written/spoken)

Computer skills: MS Office, QGIS, Distance 6.0, Basic R, video editing (Final Cut Pro)

FELLOWSHIPS & HONORS

- NSF SEES Postdoctoral fellowship (2014-2017)
- J. Stephen Leatherwood Award, 20th Biennial Conference on Marine Mammal Biology (2013)
- UCSD Graduate Student Association Interdisciplinary Research Award (2013)
- Fulbright U.S. Student Scholar, Philippines Program (2011)
- NSF Graduate Fellowship (2008-2011)
- NSF Interdisciplinary Graduate Education & Research Training Associate, Center for Marine Biodiversity and Conservation (2007-2008)
- San Diego Diversity Fellowship (2007-2008)

FUNDING PROCURED

- NSF SEES Postdoctoral fellowship: \$419,366 (2014)
- National Geographic Society-Waite Grant: \$13,600 (2011)
- U.S. Marine Mammal Commission: \$28,500 (2011)
- Waite Foundation for “Coordinating Research for Sustaining Artisanal Fisheries” (co-principal investigator): \$100,000 (2010)

OTHER INTERESTS *Ocean playtime (surfing, paddling, diving, swimming), yoga, traveling, photography, vegan concoctions; autism awareness & communication aids; feminism, immigrant & refugee rights, international development; dogs.*