

Curriculum Vitae

MARIA DEL MAR MANCHA-CISNEROS, PhD

Sustainable Seafood Project Manager | Center for Marine Biodiversity and Conservation | Scripps Institution of Oceanography | University of California San Diego

Consultant | Food and Agriculture Organization of the United Nations

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Education

ARIZONA STATE UNIVERSITY, Tempe, AZ (2017)

PhD, Environmental Life Sciences; *Advisor*: Dr. Leah R. Gerber (ASU); *Doctoral Committee*: Dr. John Marty Anderies (ASU), Dr. Joshua K. Abbott (ASU), Dr. Jorge Torre (COBI-Mexico)

- *Dissertation*: Going beyond paper parks in marine conservation: The role of institutions and governance of marine reserves in the Gulf of California

EUROPEAN DUAL MASTER IN APPLIED ECOLOGY (2011)

- MSc, Environmental Management; Christian-Albrechts-Universität zu Kiel (Germany)
- MSc, Biology, Ecology and Evolution; University of Poitiers (France); *Co-supervisors*: Dr. Catherine Souty-Grosset (University of Poitiers) and Dr. Francois Pinet (Parc Regional de La Brenne)
 - *Thesis*: Assessment of burrowing activity and diet composition of the Red swamp crayfish, *Procambarus clarkii*, in fish-ponds of La Brenne

UNIVERSITY OF TEXAS AT AUSTIN, Austin, TX (2008)

BSc, Marine and Freshwater Biology

Academic Appointments

Sustainable Seafood Project Manager, *Center for Marine Biodiversity and Conservation, Scripps Institution of Oceanography at the University of California San Diego*, San Diego, CA (October 2021- present).

Research Consultant, *Equitable Livelihoods Team (NFIFL) - Fisheries Division - Food and Agriculture Organization of the United Nations*, Rome, Italy (August 2020 – present).

- Technical Lead for the “[Illuminating Hidden Harvests: The Contributions of Small-scale Fisheries to Sustainable Development](#)” project, in partnership with Duke University and WorldFish. Expected March 2023.

Postdoctoral Associate, *Nicholas School of the Environment, Duke University Marine Laboratory*, Beaufort, NC (February 2018 – 2021). Funded by the Oak Foundation.

Consultant/Scientific Advisor, *The Nature Conservancy-Mexico*, Tempe, AZ (Summer 2016 – 2018)

- Project: “Regional profile and case studies for the development and adaptation of socio-economic and governance principles for fish replenishment zones (marine reserves) in the Gulf of California, Mexico”.

Consultant/Research Associate, *Comunidad y Biodiversidad A.C.*, Guaymas, Sonora, Mexico (2013 – 2017).

- Project: “[Network of Marine Reserves in the Midriff Islands Region in the Gulf of California, México](#)”, Funded by WWF-Mexico.

Coupled Infrastructure Systems Analyst, [Center for Behavior, Institutions, and the Environment](#), *Arizona State University*, Tempe, AZ (Summer 2015 and Summer 2016); *Supervisor*: Dr. John M. Anderies (ASU)

- Project: “CNH: When Strengths Can Become Weaknesses: Emerging Vulnerabilities in Coupled Natural Human Systems under Globalization and Climate Change”; Funded by NSF.

Peer Reviewed Publications

2022 Robinson, J.P.W., Mills, D.J., Asiedu, G.A., Byrd, K., **Mancha Cisneros, M.M.**, Cohen, P.J., Fiorella, K.J., Graham, N.A.J., MacNeil, M.A., Maire, E., Mbaru, E.K., Nico, G., Omukoto, J.O., Simmance, F. and Hicks, C.C. Small pelagic fish supply abundant and affordable micronutrients to low- and middle-income countries. *Nature Food*, <https://doi.org/10.1038/s43016-022-00643-3>

- 2022 Kjellevold, M., Kuhnle, G.A., Iversen, S.A. Markhus, M.W., **Mancha-Cisneros, M.M.**, Gorelli, G., and Nedreaas, K. [Small-scale fisheries contribution to food and nutrition security—a case study from Norway](#). *npj Ocean Sustainability* 1, 5 <https://doi.org/10.1038/s44183-022-00005-3>
- 2022 Senko, J. F., Burgher, K. M., **del Mar Mancha-Cisneros, M.**, Godley, B. J., Kinan-Kelly, I., Fox, T., Humber, F., Koch, V., Smith, A. T., & Wallace, B. P. Global patterns of illegal marine turtle exploitation. *Global Change Biology*, 28, 6509–6523. <https://doi.org/10.1111/gcb.16378>
- 2021 Précoma-de la Mora M, Bennett NJ, Fulton S, Munguia-Vega A, Lasch-Thaler C, Walther-Mendoza M, Zepeda-Domínguez JA, Finkbeiner EM, Green AL, Suárez A, Weaver AH, Figueroa Carranza ALR, Vega Velázquez A, Zepeda C, Montes C, Fuentes Montalvo DA, Micheli F, Reyes-Bonilla H, Chollett I, Lopez-Ercilla I, Torres Origel JF, Vázquez-Vera L, García-Rivas MC, **Mancha-Cisneros MM**, Espinosa-Romero MJ, Martín Ruíz M, Arafeh-Dalmau N, González-Cuellar OT, Huchim O and Rodríguez Van Dyck S (2021) [Integrating Biophysical, Socio-Economic and Governance Principles Into Marine Reserve Design and Management in Mexico: From Theory to Practice](#). *Frontiers in Marine Science* 8:778980. doi: 10.3389/fmars.2021.778980.
- 2020 Barnett, A.J., Partelow, S., Frey, U., Garzia-Lozano, A., **Mancha-Cisneros, M.M.**, Oberlack, C., Ratajczyk, E., Smith, H., Villamayor-Tomas, S., and Whitney, C.K. 2020. Defining success in the commons: addressing problem orientations, multidimensionality, norms, and tradeoffs. *International Journal of the Commons* 14(1): 366 - 387.
- 2019 Bernstein M.J*, **Mancha-Cisneros M.M.***, Tyson M.*, Brady U., Rubiños C.A., Shin H., Vallury S., Smith-Heisters S., and Ratajczyk E. 2019. Mapping Ostrom’s common-pool resource systems coding handbook to the coupled infrastructure systems framework to enable comparative research. *International Journal of the Commons* 13(1): 238-552. [Open Access](#) (* = equal contribution)
- 2018 Munguia-Vega, A., Green, A.L., Suarez-Castillo, A.N., Espinosa-Romero, M.J., Aburto-Oropeza, O., Cisneros-Montemayor, A.M., Cruz-Piñón, G., Danemann, G., Giron-Nava, A., Gonzalez-Cuellar, O., Lasch, C., **Mancha-Cisneros, M.M.**, Marinone, A.G., Moreno-Baez, M., Morzaria-Luna, H.N., Reyes-Bonilla, H., Torre, J., Turk-Boyer, P., Walther, M., Hudson Weaver, A. 2018. Ecological guidelines for designing marine reserves in the unique biophysical environment of the Gulf of California. *Reviews in Fish Biology and Fisheries* 28: 749. [Open Access](#)
- Mancha-Cisneros, M.M.**, Suarez-Castillo, A.N., Torre, J., Anderies, J.M., Gerber, L.R. 2018. The role of stakeholder perceptions and institutions for marine reserve efficacy in the Midriff Islands Region, Gulf of California, Mexico. *Ocean and Coastal Management* 162: 181 – 192. [Link](#).
- Villaseñor-Derbez, J.C., Faro, C., Wright, M., Martínez, J., Fitzgerald, S., Fulton, S., **Mancha-Cisneros, M.M.**, McDonald, G., Micheli, F., Suárez, A., Torre, J., Costello, C. 2018. A User-Friendly Tool to Evaluate the Effectiveness of No-Take Marine Reserves. *PLOS ONE* 13(1): e0191821. [Open Access](#)
- 2017 Álvarez-Romero, J.G., Munguia-Vega, A., Beger, M., **Mancha-Cisneros, M.M.**, Suárez-Castillo, A.N., Gurney, G.G., Pressey, R.L., Gerber, Morzaria-Luna, H.N., L.R., Reyes-Bonilla, H., Adams, V.M., Kolb, M., Graham, E.M., VanDerWal, J., Castillo-Lopez, A., Hinojosa-Arango, G., Petatán-Ramírez, D., Moreno-Baez, M., Godínez-Reyes, C.R., Torre, J. 2017. Designing connected marine reserves in the face of global warming. *Global Change Biology*: 24, e671-e691. [Open Access](#)
- 2016 Suárez-Castillo, A.N., Torre, J., **Mancha-Cisneros, M.M.**, Álvarez-Romero, J.G., Espinosa-Romero, M.J. 2016. Ruta de sociabilización para integrar al sector productivo en el diseño de una red de zonas de recuperación pesquera en la Región de las Grandes Islas, Golfo de California. *Ciencia Pesquera* 24(2): 65 – 79. [Link](#).
- 2015 **Mancha-Cisneros, M. M.** and L. R. Gerber. 2015. Guiding principles for green economic development in the marine environment: Insights from small-scale fisheries and marine protected areas. *In Biodiversity and the Green Economy*, London: Routledge. DOI: [10.4324/9781315857763](https://doi.org/10.4324/9781315857763)

2014 Gerber, L. R., **M. M. Mancha-Cisneros**, M. I. O'Connor and E. R. Selig. 2014. A framework for assessing climate change impacts on connectivity in the ocean: Implications for conservation. *Ecosphere* 5:33. [Open Access](#)

Souty-Grosset, C., Reynolds, J., Gherardi, F., Aquiloni, F., Coignet, A., Pinet, F., and **Mancha-Cisneros, M.M.** 2014. Burrowing activity of the invasive red swamp crayfish, *Procambarus clarkii*, in fishponds of La Brenne (France). *Ethology Ecology & Evolution* 26(2-3): 263-276). [Link](#).

2013 Anadon, J. D., **M. M. Mancha-Cisneros**, B. D. Best and L. R. Gerber. 2013. Habitat-specific larval dispersal and marine connectivity: Implications for spatial conservation planning. *Ecosphere* 4(7): 82. [Open Access](#)

In Advanced Preparation

Mancha-Cisneros M.M., Gorelli, G., Aguion-Tarrio, A., Nico, G., Basurto, X., Gutierrez, N., Funge-Smith, S., Mills, D., Viridin, J., Vanuccini, S., Franz, N., Westlund, L., Thilsted, S., Simmance, F., Harper, S., et al. *In prep.*

Not all that counts is counted: Developing a boundary-spanning approach to understand the diverse contributions of small-scale fisheries to sustainable development.

Mancha-Cisneros, M.M., Deeg, C., Viridin, J., Gorelli, G., et al. *In prep.* Illuminating Hidden Harvests: Data Compilation on the Contributions of Small-Scale Fisheries to Sustainable Development. FAO Technical Report.

Basurto, X., Gutierrez, N., Funge-Smith, S., Mills, D., Viridin, J., Vanuccini, S., **Mancha-Cisneros, M.M.**, Gorelli, G., Franz, N., Westlund, L., Thilsted, S., Nico, G., Simmance, F., Harper, S., et al. *In prep.* Illuminating the global contributions of small-scale fisheries to sustainable development (FAO Report and peer reviewed publication).

Viridin, J., Basurto, X., Nico, G., Anderson, C., Funge-Smith, S., **Mancha-Cisneros, M.M.**, Gorelli, G., Vanuccini, S., Franz, N., Westlund, L., et al. *In prep.* Small-scale fisheries provide livelihood safety nets for aquatic-dependent populations around the world.

Gutierrez, N., Bianchi, P., Gorelli, G., **Mancha-Cisneros, M.M.**, et al. *In prep.* The unspoken threats of small-scale fisheries to biodiversity (Impact of SSF on vulnerable species)

Mancha-Cisneros, M.M., Torre, J., Anderies, J.M., Gerber, L.R. *In prep.* Governance of no-take areas for fisheries management: Lessons learned from the Gulf of California, Mexico.

Mancha-Cisneros, M.M., Suarez-Castillo, A.N., Álvarez-Romero, J.G., Munguia-Vega, A., Beger, M., Espinosa-Romero, M.J., Torre, J., Gerber, L.R. *In prep.* Integrating stakeholder and science-based approaches to no-take area design in the Gulf of California.

Additional Research Employment/Experience

Graduate Research Associate, *Center for Biodiversity Outcomes, Arizona State University*, Tempe, AZ (Summer 2017 – December 2017); *Supervisors*: Dr. Leah R. Gerber (ASU).

- Research broadly focused on international funding for conservation of biodiversity.

Co-organizer, *National Socio-Environmental Synthesis Center Graduate (SESYNC) Student Pursuit Program*: “Breaking the Code”, Annapolis, MD; (2016).

- Identifying a common understanding of case study coding schemes, protocols, structures, and variables for engaging in longer-term collaborations, unified approaches, increased access to data, and practical applications within ‘commons’ research.

Laboratory Research Assistant, *Matthew Leibold Laboratory, University of Texas at Austin*, Austin, TX (Spring 2009); *Supervisor*: Dr. Matthew Leibold

- Research broadly focused on Freshwater zooplankton metacommunities (preliminary analysis of zooplankton community samples from ponds in north Texas)

Undergraduate Research Intern, *University of Texas at Austin*, Austin, TX:

- Freshwater fish biology and ecology, invasive aquatic species: Temperature tolerance experiments in cichlid fish *Hemichromis guttatus* of the Cuatrociénegas Valley in Coahuila, Mexico; *Supervisor*: Dr. Camille Parmesan (2007-2008).
- Analysis of oceanographic data: Sub-water masses in the Caribbean Sea and Gulf of Mexico; *Supervisor*: Dr. Dong-Ha Min (UT Marine Science Institute); (Summer 2006).

Teaching Experience

Faculty Associate, *School of Life Sciences, Arizona State University, Tempe, AZ* (Fall 2017) • •
Quantitative Methods in Conservation and Ecology (undergraduate / graduate course)

Co-Instructor, *Arizona State University, Tempe, AZ* (2014 – 2016)

- *Quantitative Methods in Conservation and Ecology* (undergraduate / graduate course)

Online Course Development

- Collecting secondary data on small-scale fisheries to measure the contributions and impacts to sustainable development – FAO E-Learning Academy (2021 - present)

Guest Lecturer

- 2022 – Global small-scale fisheries: Governance, policy, and importance to sustainable development (Masters course taught by Allison Rowe), University of California San Diego
- 2020 – Theory and methods for policy analysis of the commons (graduate course taught by Dr. Xavier Basurto), Duke University
- 2019 - Theory and methods for policy analysis of the commons (graduate course taught by Dr. Anastasia Quintana), Duke University
- 2016 - 2022 – Marine Ecology (undergraduate course taught by Dr. Dong-Ha Min), The University of Texas at Austin
- 2017 - Should I eat fish? Economics, Ecology and Policy of Seafood (graduate course taught by Dr. Josh Abbott), Arizona State University
- 2016 - Population and Community Ecology (undergraduate course taught by Dr. John Sabo), Arizona State University
- 2015 - Ecosystem Restoration and Management (undergraduate course taught by Dr. Juliet Stromberg), Arizona State University
- 2014 - Marine Biology (undergraduate course taught by Dr. Susanne Neuer), Arizona State University

Capacity Building Workshops

- *Promoting the implementation of the Voluntary Guidelines for Securing Sustainable Small-scale Fisheries in the Context of Food Security and Poverty Eradication – Key Thematic Areas*. International Ocean Institute Southern Africa, FAO Staff and Partners in Latin America – (Fall 2022)
- *Sustainable Seafood Procurement Workshop Series for Seafood Buying Industry Representatives from Central and South America and the Caribbean* – (2021 – present).

Graduate Teaching Assistant, *Arizona State University, Tempe, AZ* (2011 – 2016)

- *Developmental Biology* (Lecture TA; undergraduate course, Fall 2016)
- *Introduction to General Biology I Lab* (Laboratory instructor, undergraduate course, Fall 2013)
- *Introduction to General Biology II Lab* (Laboratory instructor, undergraduate course, Fall 2011 – 2012)

Students Mentored

Master - External Advisor to four students on the Master of Environmental Science and Management (MESM), Bren School of Environmental Science and Management, University of California Santa Barbara; Project: “Evaluation of TURF-reserve effectiveness in Mexico” (2016 – 2017)

- Caio Faro, Jael Martinez, Juan Carlos Villaseñor, Melaina Wright

Undergraduate

- Roberto Torres (ASU) “Governance of no-take areas for fisheries management: Lessons learned from the Gulf of California, Mexico” (Fall 2016 – Spring 2017)
- Thomas Jan (ASU) “Integrating stakeholder and science-based approaches to no-take area design in the Gulf of California” (Fall 2015 – Fall 2016)

- Manuel Valtierra (ASU) “Integrating stakeholder and science-based approaches to no-take area design in the Gulf of California” (Fall 2015 – Summer 2016)

Fellowships and Awards

- CONACYT Fellowship - \$163,000 USD (Fall 2011 – Spring 2016)
- European Commission Erasmus Mundus Scholarship - \$42,000 EUR (2009 – 2011)
- Arizona State University School of Life Sciences Completion Award – \$12,000 (Spring 2016)
- RTI Field Work Fellowship - \$1,500 USD (Fall 2015 – Spring 2016)
- Arizona State University Travel Awards – \$3,950 USD (Summer 2013 – Summer 2017)

Selected Conference Presentations

- 2022 **Mancha-Cisneros, M.M.** Introduction to the Illuminating Hidden Harvests study and key findings for Africa: The contributions of small-scale fisheries to sustainable development. 4th World Small-scale Fisheries Congress Series, Africa, Too Big Too Ignore Network.
- 2022 **Mancha-Cisneros, M.M.** Illuminating Hidden Harvests: A snapshot of key findings into the contribution of small-scale fisheries to sustainable development in North America. 4th World Small-scale Fisheries Congress Series, North America, Too Big Too Ignore Network.
- 2022 **Mancha-Cisneros, M.M.** Illuminating Hidden Harvests: A snapshot of key findings into the contribution of small-scale fisheries to sustainable development in the Asia-Pacific region. 4th World Small-scale Fisheries Congress Series, Asia-Pacific, Too Big Too Ignore Network.
- 2020 **Mancha-Cisneros, M.M.** and Giulia Gorelli. Illuminating Hidden Harvests: The Contributions of Small-Scale Fisheries to Sustainable Development. Virtual dialogues examining fisheries and aquaculture governance and development, Committee on Fisheries of the Food and Agriculture Organization, U.N.
- 2019 **Mancha-Cisneros, M.M.**, Xavier Basurto, Nicole Franz, David Mills, Simon Funge-Smith, Nicolas Gutierrez, John Virdin, Lena Westlund, Stefania Vanuccini, Giulia Gorelli, Benjamin Siegelman, Fiona Simmance-Armstrong. Illuminating Hidden Harvests: The Contributions of Small-Scale Fisheries to Sustainable Development. 6th Workshop on the Ostrom Workshop Conference, Bloomington, Indiana, USA (oral presentation, panel: Rescaling the commons: reflecting on the past, present and future engagement with the concept of scale).
- 2019 **Mancha-Cisneros, M.M.**, Xavier Basurto, Nicole Franz, David Mills, Simon Funge-Smith, Nicolas Gutierrez, John Virdin, Lena Westlund, Stefania Vanuccini, Giulia Gorelli, Benjamin Siegelman, Fiona Simmance-Armstrong. Methodological process and challenges to documenting the contributions and impacts of small-scale fisheries at global and local scales. 10th People and the Sea MARE Conference, Amsterdam, THE NETHERLANDS (oral presentation, panel: Illuminating Hidden Harvests: The Contributions of Small-scale Fisheries to Sustainable Development).
- 2017 **Mancha-Cisneros, M.M.**, Suarez-Castillo, A.N., Torre, J., Gerber, L.R. Governance of no-take areas for fisheries management: Lessons learned from the Gulf of California, Mexico. 16th Biennial Conference of the International Association for the Study of the Commons, Utrecht, THE NETHERLANDS (oral presentation).
- 2016 **Mancha-Cisneros, M.M.**, Suarez-Castillo, A.N., Álvarez-Romero, J.G., Munguia-Vega, A., Beger, M., Espinosa-Romero, M.J., Torre, J., Gerber, L.R. An integrated approach to design a network of marine reserves in the Midriff Islands (Gulf of California) considering stakeholder preferences. International Marine Conservation Congress of the Society for Conservation Biology, St. John’s, Newfoundland and Labrador, CANADA (poster).
- 2015 **Mancha-Cisneros, M. M.**, Suarez-Castillo, A. N., Torre, J. T., and Gerber, L. R. Marine reserves are no panacea: institutional scale and cooperative management for reserve efficacy under multi-scale governance. 15th Biennial Conference of the International Association for the Study of the Commons, Edmonton, Alberta, CANADA (oral presentation).
- 2014 Peterson, C.L., Shockey, D.I., Koch, V., Wallace, B.P., **Mancha-Cisneros, M. M.**, Fox, T., Senko, J. Global Patterns of Marine Turtle Consumption. 34th Annual Symposium on Sea Turtle Biology and Conservation, New Orleans, LA, USA (poster).
- 2013 **Mancha-Cisneros, M. M.**, J. D. Anadon, B. D. Best and L. R. Gerber. Habitat-specific larval dispersal and marine connectivity: Implications for spatial conservation planning. 26th International Congress of the Society for Conservation Biology, Baltimore, MD, USA (oral presentation).

- 2012 Souty-Grosset, C., **Mancha Cisneros, M.M.**, Coignet, A., Pinet, F., and Gherardi, F. Assessment of burrowing activity of the red swamp crayfish, *Procambarus clarkii*, in fish-ponds of La Brenne. 19th International Association of Astacology Symposium, Innsbruck, Austria (poster).

Service and Leadership Activities

- Peer-reviewed for: *Aquatic Conservation, Hydrobiologia, Tropical Conservation Science, Ecosystem Services, World Development Perspectives*, and *Book chapter review on Ocean Governance*.
- School of Life Sciences Graduate Executive Board (SOLS E-Board), Arizona State University
 - President 2016-2017
 - Secretary 2015-2016
- Mentor for ASU School of Life Sciences Graduate Students; 2012 – 2017

Outreach

- Volunteer, Duke University Marine Lab Open House: Small-scale fisheries around the world; 2019.
- Volunteer, Girls Exploring Science and Technology (GEST) program at Duke University; 2019.
- Volunteer, ASU “Ask A Biologist” program; 2011 – 2017
- Invited speaker for the Graduate Women’s Association panel “Leadership in the Classroom”; Arizona State University; Spring 2014
- Society for Conservation Biology; Publicity Director, Central Arizona Chapter for the Society of Conservation Biology (CACSCB); 2013 – 2014

Languages

- Spanish (native speaker)
- English (fluent)
- French (advanced)
- German (basic)

Areas of Professional Expertise

Marine and inland small-scale fisheries; coastal and inland fisheries; SSF Guidelines; applied conservation science; social-ecological systems; coupled infrastructure systems; common pool resource governance; coupled natural-human systems frameworks; marine spatial planning; design and implementation of marine reserves; socioeconomic impacts into marine spatial planning; human dimensions of conservation; conservation policy; resource management policy.

Special Skills and Certifications

- Computer skills: R, SPSS, SAS, Stata, Matlab, LaTeX, ArcGIS, QGIS, Marxan, Marxan with Zones, Zonae Cogito, Zonation.
- Certifications: Marxan Introductory Level, 2012; Marxan with Zones, 2016; ArcGIS Level 1, 2011.

Other Activities

- Barre Certifications
 - IBBFA Master Barre Instructor – 2016 (5 years teaching experience)
 - Master Ballerobica Instructor - 2015 (6 years teaching experience)
- Informal Dance Experience (Classical Ballet, Contemporary, Modern, Jazz, Lyrical)
- Tennis: Collegiate Athletics Div. II, Clayton State University, 2005