

RESEARCH CONNECTION

Perception of fishing conditions and attitudes toward fisheries management of Mexican artisanal fishers

By Christopher D. Malcolm, Ph.D., Rosa Maria Chavez Dagostino, Ph.D., & Myrna Letitia Bravo Olivas, Ph.D.



Why this research is important

Small-scale, artisanal fisheries are closely tied to local communities and are often a critical contribution to food security and poverty alleviation. Artisanal fishers are considered a vulnerable society, often marginalized and threatened by commercial fisheries and tourism. Previous work in our study area found that many fishers operate without permits, within a poor management infrastructure—including a low reliability of catch data due to undeclared and illegal catches and variable monitoring methods between states—and that forced sales of communal land for tourism infrastructure have resulted in the displacement of fishers. With this research, we tried to find out how the fishers feel about the fishing conditions and management of fishing in the area to contribute to an understanding of this group.

What you need to know

Artisanal fishers in this study are concerned about the sustainability of fish stocks, although they focus primarily on one family of fish. They are critical of how fish are caught and do not think fisheries managers are doing their job effectively. This research illuminates some environmental and management concerns to add to the regional and global socio-economic understanding of small-scale, artisanal fishers.

How the research was conducted

In 2018, we administered 99 questionnaires to small-scale, artisanal fishers, representing 12 different regional fishing collectives. Answers to the questions were collected using an interview-style in Spanish, with the help of Centro Universitario de la Costa undergraduate students.

What the researchers found

Sixty-six percent of the catch was *Lutjanidae* (snappers), and 43% were *Lutjanus peru* (red snappers). This may be problematic as the IUCN Red List of Threatened Species indicates that population size and trends, distribution, harvest, and threats for these species are “unknown.” The majority of respondents fish year-long, but half of them supplement fishing with a second form of income.

Half of the participants indicated that fishing was currently average while reporting that it was better in the past and predicting it will be poorer in the future. Almost all fishers were concerned about the health of fish populations, offering statements such as “little by little fish populations are disappearing” and “no more big schools of fish,” although some indicated this because the fish are moving to other areas (due to climate change?). This is still problematic as the fish are not present to catch. The perception of an unsustainable fishery led to concerns for personal economic and food security, including comments such as “food support for my family” and “important for income.”

Specific fishing practices were identified as problems facing fishing: the use of “chinchorros” (set gillnets) and “simbras” (set, baited longlines)—the two most commonly used types of capture gear—were singled out as unsustainable fishing methods. Many respondents indicated that fishery managers need to “do their job” and “apply the laws” in order to help improve regional fisheries. The fishers also expressed frustration that lucrative species such as dorado and marlin are legally restricted to commercial sport fishers—another form of marginalization by the government.

How this research can be used

This research identifies environmental and management concerns of artisanal fishers in the region. It will, hopefully, encourage NGOs such as the United Nations Food and Agriculture Organization, as well as Mexican federal and state fisheries managers, to address these issues.

About the researchers

Dr. Malcolm is an Associate Professor in the Department of Geography and Environment. His research focuses on the human dimensions of environmental management, including wildlife ecotourism and conservation, protected areas, and education tourism. He has conducted research in various locations in B.C., Manitoba, and Mexico. He is

currently the Coordinator of the Environmental Science Degree and teaches courses such as Environment & Society, Biogeography & Wildlife Management, and Wilderness & Protected Areas Management.

Malcolmc@brandonu.ca

Dr. Rosa Maria Chavez Dagostino and Dr. Myrna Letitia Bravo Olivas are both in the Departamento de Ciencias Biológicas at the Centro Universitario de la Costa (CUC), Universidad de Guadalajara, Puerto Vallarta.

Keywords

Artisanal fisheries; Mexico, sustainability; fisheries management

Publications based on this research

Bravo-Olivas, M. L., Chávez-Dagostino, R. M., Malcolm, C. D., & Espinoza-Sánchez, R. (2015). Notes on the quality of life of artisanal small-scale fishermen along the Pacific coast of Jalisco, Mexico. *Sustainability*, 7, 6046–6068.

Acknowledgements

This joint research between BU and the CUC was facilitated through the Agreement for International Cooperation between BU and the Universidad de Guadalajara. Funding for this project was received from the Brandon University Research Committee and CUC. The project would not have been possible without the participation of the artisanal fishers.

Research Connection is a periodical publication intended to provide information about the impact of Brandon University’s academic research and expertise on public policy, social programming, and professional practice. This summary is supported by the Office of Research Services and by the Centre for Aboriginal and Rural Education Studies, Faculty of Education.

Editor: Christiane Ramsey Ramseyc@brandonu.ca
<http://www.brandonu.ca/research-connection>

BRANDON UNIVERSITY

Brandon University, founded in 1899, promotes excellence in teaching, research, and scholarship, and educates students so that they can make a meaningful difference as engaged citizens and leaders. This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License. Thank you to ResearchImpact-RéseauImpactRecherche (researchimpact.ca) for their permission to adapt the ResearchSnapshot clear language research summary format.

