

Curriculum Vitae - Luis Malpica-Cruz

November 2018

I. - Personal Information

1. - Name: **Luis Malpica-Cruz**
2. - Nationality: **Mexican**
3. - Languages: **Spanish, English, French (50%)**
4. - E-mail: **lmalpica@uabc.edu.mx**
5. - Web/social media: **malpicacruzlab.com, @luismalpicaC, ecocimati.org**
6. - Current Position: **Professor, Instituto de Investigaciones Oceanológicas, UABC
Scientific advisor, ECOCIMATI, A.C.**

II. - Education

Graduate: PhD (Biology with focus on Marine Ecology and Conservation)
Simon Fraser University, Department of Biological Sciences
Burnaby, BC, Canada. September 2012 – September 2017

Master of Science (Marine Ecology)
Center for Scientific Research and Higher Education of Ensenada (CICESE)
Ensenada, BC, Mexico. September 2007 – December 2009

Undergraduate: Bachelor of Science (Oceanography)
Autonomous University of Baja California (UABC)
Ensenada, BC, Mexico. August 2000 – December 2004

III. – Teaching and supervision

- Teaching Assistant, Introduction to Biology, Simon Fraser University – Spring 2018
- Teaching Assistant, Introduction to Biology, Simon Fraser University – Fall 2017
- Instructor, Basic Stats in R workshop, SFU/Bamfield Marine Science Center – Summer 2017
- Instructor, Intro to R workshop, SFU/Bamfield Marine Science Center – Summer 2017
- Teaching Assistant, Marine Behavioral Ecology, Bamfield Marine Science Center – Summer 2017
- Supervisor, Undergraduate Honours Thesis, Dalhousie University – Summer 2013-2014
- Supervisor, NSERC Undergraduate Student Research Award – Summer 2013
- Teaching Assistant, Scientific Diving – Simon Fraser University – Fall 2012

IV. – Peer Reviewed Publications

Christopher Bird, Clive Trueman, Ana Verissimo, ... **Malpica-Cruz, L.**, ... Tak-Cheung Wai, David Wells, Alex Wyatt. 2018. Sharks connect food webs across the global ocean. *Nature Ecology & Evolution*. doi:10.1038/s41559-017-0432-z

Smith, N.S., Côté, I.M., Martínez-Estévez, L., Hind-Ozan, E.J., T.E. Angela L. Quiros, Johnson, N., Green, S.J., Cornick, L., Shiffman, D., **Malpica-Cruz, L.**, Besch, A.G., Shiel-Rolle, N., 2017. Diversity and Inclusion in Conservation: A Proposal for a Marine Diversity Network. *Frontiers in Marine Science*. 4:234.

Malpica-Cruz, L., Haider, W., Smith, N.S., Fernández-Lozada, S., Côté, I.M. 2017. Heterogeneous attitudes of tourists towards lionfish in the Mexican Caribbean: Implications for invasive species management. *Frontiers in Marine Science*. 4:138.

Godwin, S.C., Francis F.T.-Y., Howard, B.R., **Malpica-Cruz, L.**, Witter, A.L. 2017. Towards the economic viability of local seafood programs: Key features for the financial performance of community supported fisheries. *Marine Policy*. 81:375-380.

Malpica-Cruz, L., Chaves, L.C.T., Côté, I.M. 2016. Managing marine invasive species through public participation: Lionfish derbies as a case study. *Marine Policy*. 74:158-164.

Côté, I.M., Darling, E.S., **Malpica-Cruz, L.**, Smith, N.S., and Green S.J. 2014. What doesn't kill you makes you wary? Effect of repeated culling on the behaviour of invasive lionfish. *PLoS ONE* 9(4): e94248.

Malpica-Cruz, L., Herzka, S.Z., Sosa-Nishizaki, O., and Escobedo-Olvera M.A. 2013. Size-based feeding of mako and white sharks based on tissue-specific stable isotope ratios and modeled turnover rates. *Fisheries Oceanography*. 22(6): 429-445.

Malpica-Cruz, L., Herzka, S.Z., Sosa-Nishizaki, O., and Lazo, J.P. 2012. Tissue-specific isotope trophic discrimination factors and turnover rates in a marine elasmobranch: empirical and modeling results. *Can J Fish Aqua Sci*. 69: 1-14.

V. – Book chapters

Oñate-González, E.C., Guerrero-Ávila, C. y **Malpica-Cruz, L.**, Chapter 6: White shark, *Carcharodon carcharias* (Linnaeus, 1758). In: O. Sosa-Nishizaki, L. Castillo Geniz, H. Benítez Díaz (eds). “Mexican sharks under CITES regulation: State of their knowledge”. CONABIO (National Commission of Biodiversity, Mexico) (In spanish). *In press*.

Santana-Morales O. and **Malpica-Cruz, L.** 2016. The return of the white shark. In: J.A. Brandi Herrera, and V. Martínez Valdés, (eds). “Science towards the future”. CONACyT (National Commission of Science and Technology, Mexico) (In Spanish). 161-164. ISBN 978-607-725-294-8.

Malpica-Cruz, L. 2016. Lionfish, anecdote of an invasion. In: J.A. Brandi Herrera, and V. Martínez Valdés, (eds). “Science towards the future”. CONACyT (National Commission of Science and Technology, Mexico) (In Spanish). 165-168. ISBN 978-607-725-294-8

VI. – Non-Peer Reviewed Publications

Malpica-Cruz L. 2017. Assessing the ecological and socioeconomic impacts of the lionfish invasion in the Wider Caribbean Region. Ph.D. Thesis. Department of Biological Sciences. Simon Fraser University.

Santana-Morales O., **Malpica-Cruz L.**, Sosa-Nishizaki O. 2014. White Shark (*Carcharodon carcharias*) Biological Monitoring Program (PROMOBI). ECOCIMATI. Technical Report to the National Commission for Natural Protected Areas, Guadalupe Island Biosphere Reserve, Mexico. (In Spanish)

Santana-Morales O., **Malpica-Cruz L.**, Sosa-Nishizaki O. 2014. Whale Shark (*Rhincodon Typus*) Biological Monitoring Program (PROMOBI). ECOCIMATI. Technical Report to the National Commission for Natural Protected Areas, Bahía de Los Angeles and Salsipuedes Biosphere Reserve, Mexico. (In Spanish)

Prieto-Valles L. E., Guerrero-Ávila C., Santana-Morales O., and **Malpica-Cruz L.** 2011. Golden eagle (*Aquila chrysaetos*) survey in the San Pedro Martir National Park. ECOCIMATI. Technical Report to the National Commission for Natural Protected Areas, San Pedro Martir National Park, Mexico. (In Spanish)

Sosa-Nishizaki O., Guerrero-Ávila C., **Malpica-Cruz L.**, Escobedo-Olvera M.A., Santana-Morales O., Oñate-González, E.C., and Morales-Bojórquez, E. 2010. Establishing the baseline for the monitoring of distribution and abundance of white sharks (*Carcharodon carcharias*) in the marine area of the Guadalupe Island

Biosphere Reserve. Fisheries Ecology Laboratory. Department of Biological Oceanography. CICESE. Technical Report to the National Commission for Natural Protected Areas, Guadalupe Island Biosphere Reserve, Mexico. (In Spanish)

Malpica-Cruz L. 2009. Evaluation of Trophic Levels and Feeding Grounds of Northeastern Pacific Sharks as a Function of Ontogeny Based on Stable Isotope Analysis. M.Sc. Thesis. Centro de Investigación Científica y de Educación Superior de Ensenada, Baja California.

VII. - Presentations

Departmental seminar cycle “Les Ecologistes” – Talk

“Trophic impacts of lionfish on coral reefs”

Simon Fraser University – Biological Sciences. Burnaby, BC, Canada. October 2016.

4th International Marine Conservation Congress 2016 – Talk

“Wanted or not? Attitudes towards invasive lionfish in the Mexican Caribbean.”

St. John’s, NL, Canada. August 2016.

8th Inter-Departmental Ecology of Aquatic Species (IDEAS) Symposium 2016 – Talk

“What drives the success of lionfish derbies? A regional analysis.”

SFU, Burnaby, BC, Canada. January 2016.

8th Inter-Departmental Ecology of Aquatic Species (IDEAS) Symposium 2016 – Talk (coauthor)

“Sink or swim: the economic viability of community supported fisheries.”

SFU, Burnaby, BC, Canada. January 2016.

68th Gulf and Caribbean Fisheries Institute Meeting 2015 – Lionfish Symposium – Poster

“What drives the success of lionfish derbies? A regional analysis.”

Panama City, Panama. November 2015.

Rufford Small Grants Mexico Conference 2015 – Talk

“The Socioeconomic Impacts of a Marine Invader”

San José del Cabo, BCS, Mexico. February 2015.

7th Inter-Departmental Ecology of Aquatic Species (IDEAS) Symposium 2015 – Talk

“Impacts of a stressor on Ecosystem Processes and Services”

SFU, Burnaby, BC, Canada. January 2015.

95th Western Society of Naturalist Annual Meeting 2014 – Talk

“The Changing Trophic Impacts of a Marine Invader”

Tacoma, WA, USA. November 2014.

Departmental seminar cycle “Les Ecologistes” – Talk

“What doesn’t kill you makes you wary? Effect of culling on the behavior of lionfish”

Simon Fraser University – Biological Sciences. Burnaby, BC, Canada. April 2014.

35th Pacific Ecology and Evolution Conference 2014 – Talk

“What doesn’t kill you makes you wary? Effect of culling on the behavior of lionfish”

Bamfield Science Centre. Bamfield, BC, Canada. February 2014.

Departmental seminar cycle “Les Ecologistes” – Talk

“Evaluation of Trophic Levels and Feeding Grounds of Northeastern Pacific Sharks as a Function of Ontogeny Based on Stable Isotope Analysis”

Simon Fraser University – Biological Sciences. Burnaby, BC, Canada. November 2012.

IV National Symposium of Sharks and Rays – Talk

“Evaluating the use of stable isotopes analysis to study shark's trophic ecology, a laboratory approach”

Mexican Society of Cartilaginous Fishes (SOMEPEC)

UNAM. Mexico City, Mexico. October 2010.

Meeting of the Mexican Fisheries Society/Mexican Chapter of the American Fisheries Society – Talk

“Evaluation of Trophic Levels and Feeding Grounds of Northeastern Pacific Sharks as a Function of Ontogeny Based on Stable Isotope Analysis”

CICESE. Ensenada, B.C., Mexico. May 2010.

International White Shark Symposium – Talk

"Evaluation of Trophic Levels and Feeding Habitat of White Sharks as a Function of Ontogeny Based on Carbon and Nitrogen Stable Isotope Analysis of Blood and Muscle"

Honolulu, HI, USA. February 2010.

VIII. - Participation in Projects and Projects Developed

“Ecological and Socioeconomic Impacts of the Lionfish Invasion in the Gulf of Mexico and Caribbean”.

Simon Fraser University and ECOCIMATI, A.C. Veracruz and Cozumel, Mexico, 2014 to present.

“Biological Monitoring of White Shark (*Carcharodon carcharias*) at the Guadalupe Island Biosphere Reserve”. ECOCIMATI, A.C. Ensenada, BC, Mexico, 2014 to present.

“Ecological effects of the invasion of predatory lionfish (*Pterois volitans* and *P. miles*) in The Bahamas”.

Simon Fraser University, Cape Eluthera Institute, Reef Environmental Education Foundation.

Eleuthera Island, The Bahamas, January 2013 – 2016.

“Biological Monitoring of Whale Shark (*Rhynchodon typus*) at the Bahía de los Angeles and Salsipuedes Biosphere Reserve”. ECOCIMATI, A.C. Bahía de los Angeles, BC, Mexico, 2014.

“California Condor (*Gymnogyps californianus*) survey in San Pedro Martir National Park”. ECOCIMATI, AC.

San Pedro Martir, B.C., Mexico. February 2012 – 2014.

“Mammals survey in San Pedro Martir National Park”. ECOCIMATI, AC.

San Pedro Martir, B.C., Mexico. August 2011 – to 2012.

“Golden eagle (*Aquila chrysaetos*) survey in San Pedro Martir National Park”. ECOCIMATI, AC.

San Pedro Martir, B.C., Mexico. February 2011 – to 2013.

“Establishing the baseline for the monitoring of distribution and abundance of white sharks (*Carcharodon carcharias*) in Guadalupe Island Biosphere Reserve”. CICESE.

Isla Guadalupe, Mexico. September 2009 - March 2010.

IX. – Peer Review Activities (Journal Referee)

Plos ONE – Environment, Development and Sustainability – Ambio – PeerJ – Fisheries – Aquatic Biology – Latin American Journal of Aquatic Research – Biological Conservation – Marine Ecology Progress Series – Journal of Experimental Marine Biology and Ecology (x2) – Aquatic Invasions – Canadian Journal of Fisheries and Aquatic Sciences – Simon Fraser University Science Undergraduate Research Journal – Biological Invasions

X. - Professional Experience

President/Research Coordinator: Chair of directive board, proposals, manuscripts and technical reports. ECOCIMATI, AC. (Environmental research and conservation oriented NGO; www.ecocimati.org) Ensenada, B.C. Mexico, January 2012 – present.

Research Assistant: Data collection and analysis, grant proposal preparation, research papers preparation. The Marine Ecology Laboratory/Earth to Ocean Research Group at Simon Fraser University Burnaby, BC, Canada, September 2012 – 2017.

General Coordinator: Coordinate project leaders, data analysis, preparation of proposals and technical reports. ECOCIMATI, AC. Ensenada, B.C., Mexico. January 2011 – December 2012.

Field technician

Guadalupe Island Biosphere Reserve – National Commission of Natural Protected Areas (CONANP) Ensenada, B.C., Mexico. July – December 2010.

Field/Research assistant

Fisheries Ecology Laboratory - Biological Oceanography Department - CICESE Ensenada, B.C., Mexico. September 2009 – June 2010.

XI. – Volunteering and Internships

Organizing committee member: “Special Topics in Statistical Analysis Using R - SFU workshops” Department of Biological Sciences, Simon Fraser University Burnaby, BC, Canada. 2016.

Biology Graduate Caucus/Departmental Scholarship Committee Graduate Student Rep Department of Biological Sciences, Simon Fraser University Burnaby, BC, Canada. May 2014 – May 2016.

Volunteer in program: "Annual pelagic shark survey and tagging program in the Southern California Bight" Northwest Fisheries Science Center - National Oceanic and Atmospheric Administration (NOAA) Southern California Bight, CA, USA. June 2008.

Volunteer in program: "White shark observer in Guadalupe Island Biosphere Reserve" CONANP - SEMARNAT Isla Guadalupe, Mexico. September 2007, October 2008.

XII. - Grants/Awards

- Graduate Fellowship – Biological Sciences Dept., SFU. Fall 2016.
- Travel Research Award – Biological Sciences Dept., SFU
Travel grant to attend International Conference. August 2016.
- Travel Research Award – Biological Sciences Dept., SFU
Travel grant to attend International Conference. November 2015.
- Doctoral Research Award – International Development Research Center (IDRC)
Research grant for PhD project. March 2014 - March 2015.
- Research Grant – Rufford Small Grants Foundation
Research grant for PhD project. May 2014 - June 2015.

- Graduate International Research/Travel Award - Biological Sciences Dept., SFU
Research grant for PhD project. April 2014 - July 2014.
- Provost International Fellowship – SFU
Fellowship towards a PhD in Biology at SFU
Burnaby, BC. Canada September 2012 - August 2016.
- Graduate studies scholarship recipient – National Council for Research and Technology (CONACyT)
Scholarship towards a PhD in Biology – Simon Fraser University
Burnaby, BC. Canada September 2012 - August 2016.
- 1st Place “Shelly Applegate Award”, best graduate thesis on elasmobranch research. Mexican Society of Cartilaginous Fishes (SOMEPEC) and National Autonomous University of Mexico (UNAM)
Ciudad Universitaria, Mexico, D.F. October 2010.
- Graduate studies scholarship recipient – CONACyT
Scholarship towards a MSc in Marine Ecology - CICESE
Ensenada, B.C., Mexico, September 2007 - August 2009.

XIII. - Associations

- Society for Conservation Biology (SCB) - Affiliate member
International. February 2011 to present.
- Sociedad de Peces Cartilagosos (Mexican Society of Cartilaginous Fishes) - Affiliate member
Mexico. September 2010 to present.
- ECOCIMATI, A.C (Environmental research and conservation oriented NGO) - Co-founder member
Mexico, May 2010 to present.
- Sociedad Mexicana de Arrecifes Coralinos (Mexican Society of Coral Reefs) - Affiliate member
Mexico, March 2006 to 2007.

XIV. - Professional qualifications/Complementary studies/Skills

Teaching

- Certificate Program in University Teaching and Learning – SFU, Burnaby, Fall 2016
- Instructional Skills Workshop – SFU, Burnaby, August 2016

Languages

- English: Professional Level - 104 TOEFL Internet-based test 2010
- French: Level I-VI - Alliance Française and Language faculty at UABC
Ensenada, B.C. and Xalapa, Ver., Mexico 2005-2010

SCUBA Diving

- CMAS Scientific Diving Instructor – World Underwater Federation (CMAS). Quintay, Chile,
October 2018
- Dive Instructor 1* – Federación Mexicana de Actividades Subacuáticas (FMAS). October 2018
- Scientific diver CAUS 1 – Canadian Association of Underwater Science
Vancouver, BC, Canada. April 2013
- Open Water Dive Instructor – Open Water Scuba Instructor #211736 - PADI
Rancho Sta. Margarita CA. USA July 2010

Boating

- Small Vessel Operator Proficiency (SVOP) – Vancouver, BC, Transport Canada, April 2017
- Marine Emergencies Duties (MED A3) – Vancouver, BC, Transport Canada, April 2017
- VHF with DCS restricted operator – Vancouver, BC, Transport Canada, April 2017

Rescue and First Aid

- Emergency First Response Instructor – #211736 - CPR/First Aid/AED – EFR – PADI
La Paz, B.C.S., Mexico. June 2010
- Emergency Management System – Forestry National Commission (CONAFOR-Mexico).
Ensenada B.C. Mexico. June 2010
- 6th Border Wildfire Protection Course – Forestry National Commission (CONAFOR-Mexico),
California Department of Forestry and Fire Protection, US Forest Service.
Tecate B.C., Mexico. April 2010
- State Park Lifeguard Training - State of California, Department of Parks and Recreation.
Huntington Beach, CA. USA. June 2005

Photography

- Photography I-III - School of Arts at Baja California Autonomous University (UABC)
Ensenada, B.C., Mexico. June 2001 - June 2003.
- Underwater photography – PADI, Mahahual, Q.Roo, October 2006

Software

Microsoft Office – R (plyr, dplyr, reshape2, tidyr, vegan, SIAR, MixSIAR, RGIS, ggplot, lme4) –
GitHub version control – LaTeX – QGIS – Adobe Illustrator – Adobe Photoshop

Laboratory skills and training

- Sample processing for stable isotope analysis
- Molecular biology techniques (DNA extraction and purification, PCR, RAPD-PCR, RFLPs)
- Marine microbiology techniques (Cultures, Colonies counting, Gram staining, microscopy)
- Acclimation and spawn induction of marine invertebrates
- Closed circulation aquaculture systems

XV. – Science Communication/outreach

- Panel moderator: “Chasing Coral”, Hot Docs + VIFF – July 2017
- Doctoral research project featured in Hakai Magazine, “Money Might Not Be Enough to Stop the
Lionfish Invasion” by Matt Blois – July 2017
<https://www.hakaimagazine.com/article-short/money-might-not-be-enough-stop-lionfish-invasion>
- Organizing team: “Young Researchers Open Letter” – Fall 2016
<https://www.youngresearchersopenletter.org/>
- Onboard scientist: “Shark Men Season 1”, National Geographic – Fall 2010