

SEBASTIAN TAPIA LEWIN

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PhD Candidate

Bren School of Environmental Science & Management
University of California, Santa Barbara

EDUCATION

PhD in Environmental Science and Management (09/2015-Expected 09/2020)

Bren School of Environmental Science & Management

University of California, Santa Barbara (UCSB)

Dissertation Title: Small-scale fishers' adaptations to climate change: a hybrid empirical/modelling approach

Committee: Ben Halpern (chair); Steve Gaines and Matto Mildenerger (co-advisors)

Professional Degree in Marine Biology with Honors (03/2006-04/2013)

Degree between US bachelor and master's-level

Austral University of Chile, Valdivia, Chile

HONORS, AWARDS, AND FELLOWSHIPS

Best Student Presentation —3rd World Small-Scale Fisheries Congress, Thailand (Oct. 2018)

Student Recruitment Award – Bren School, UCSB / Catena Foundation (2018-2019)

Latin American Fisheries Fellowship—Bren School, UCSB (2016-2018)

International PhD Student Fellowship—CONICYT Chile (2015-2019)

Student of the Year Academic Merit—Austral University of Chile (2009)

Invited Honors Program Course Attendant — “From multi to trans: savoring serendipity”, Austral University of Chile (2009)

RESEARCH EXPERIENCE

Principal Investigator – Kuni Fellowship Project (7/17-Present)

Bren School of Environmental Science & Management, UCSB, Santa Barbara, CA

Project: “Do TURFs confer socioecological resilience to Climate Change?”

Co-Principal Investigator: Benjamin S. Halpern

- Leading 5-member team in researching the resilience of Territorial Use Right in Fisheries in Chile and Mexico. Advised by Ben Halpern

Data Intern – California Seagrant (9/19-02/20)

Ecology, Evolution, & Marine Biology, UCSB, Santa Barbara, CA

Project: “Assessing policy barriers for mariculture in the United States while accounting for fisheries context”

Principal Investigator: Halley Froehlich

- Obtained 30 timeseries of fisheries and aquaculture in the US from federal and state agencies
- Wrangled timeseries to a format ready to be analyzed

RESEARCH EXPERIENCE (continued)

Visiting Researcher – JSPS Research-aid grant #16H03519 (October 2019)

Department of Social Science Studies, Yokohama National University, Japan

Project: “Geography and adaptive governance of small-scale coastal fisheries”

- Participated in research meetings in Yokohama National, Rissho and Rikkyo Universities
- Gave a guest 1 hour lecture in Yokohama National and Rikkyo University, titled: “*Small Scale Fisheries in Chile from a community-based management perspective*”
- Performed field interviews to fishers and exploratory field visits for 3 weeks in rural Japan

Research Assistant – Project Funded by Pew Charitable Trusts (11/14-7/15)

Biological Sciences Faculty, Pontificia Universidad Católica de Chile, Santiago, Chile

Project: “No-take reserves in Territorial User Right for Fisheries”

Principal Investigator: Stefan Gelcich

- Conducted 3 pilot studies aiming to explore the effectiveness of no-take reserves in TURFs in Central Chile.
- Collaborated with 3 fishing organizations to do underwater surveys and yearly follow-up studies measuring species abundance and diversity in their TURFs, in the no-take reserve inside their TURFs and neighboring open access areas for 3 years.

Research Assistant – Project Funded by CONICYT, Chile Grant (8/13-10/14)

Biological Sciences Faculty, Pontificia Universidad Católica de Chile, Santiago, Chile

Project: “Biological, attitudinal and financial potential of Territorial User Rights Fisheries policies as ancillary conservation measures in Chile”

Principal Investigator: Stefan Gelcich

- Performed underwater field surveys to explore the effectiveness of 6 TURFs in Central Chile. Measured species abundance and diversity in 6 TURFs, 1 MPA and their neighboring Open Access Areas.
- Interviewed 600 fishers engaged in the TURF management scheme, exploring their perceptions about the policy and their adaptive capacity.
- Co-authored a research paper about fishers’ perception on the Chilean TURF policy

Research Assistant – Project Funded by Ministry of Economy, Chile Grant (4/12-6/13)

Biological Sciences Faculty, Pontificia Universidad Católica de Chile, Santiago, Chile

Project: Millenium Scientific Initiative P10-033FF “Marine Conservation Center”.

Principal Investigator: Miriam Fernandez

- Performed underwater field surveys to explore the effectiveness of TURFs and Marine Protected Areas in Central Chile
- Co-wrote a review paper on the importance of TURFs as ancillary tools for scaling-up marine conservation in Chile.

TEACHING EXPERIENCE

Teaching Assistant (2 quarters; 9/16-12/16 and 1/17-4/17)

Bren School of Environmental Science & Management, UCSB, Santa Barbara, CA

- Led laboratory sessions for two master's-level environmental science and management courses with 82 students (courses: Statistics and Data Analysis; Advanced Data Analyses).
- Taught students to use R software from scratch.
- Graded assignments and exams.
- Held weekly 1.5 hour office hours for questions regarding the material taught and assignments.

Teaching Assistant (4 semesters from 6/08-12/10)

Biological Sciences Faculty, Austral University of Chile, Valdivia, Chile

- Led laboratory and discussion sessions on basic zoology and biodiversity to 80 undergraduate Biological Sciences students for 1 semester.
- Directed laboratory and discussion sessions on “Renewable Marine Resources Management” course to 45 undergraduate Marine Biology for 2 semesters.
- Guided laboratory and discussion sessions on “Marine Birds and Mammals Biology” course to 45 undergraduate students for 1 semester.

PUBLICATIONS

2020 Friedman W.R., Halpern, B.S., McLeod E., [and 17 others, including **Tapia-Lewin S.**]. Research priorities for achieving healthy marine ecosystems and human communities in a changing climate. *Frontiers in Marine Science*. 7:5

2019 Thiault L., Gelcich S., Cinner J., **Tapia-Lewin S.**, Chlous, F., Claudet J. Linking generic and specific facets of vulnerability as a means to navigate multiple drivers of change. *People and Nature*. In press. DOI:10.1002/pan3.10056.

Gelcich S., Martínez Harms M.J., **Tapia-Lewin S.**, Vasquez-Lavin F., Ruano-Chamorro C. Co-management of small-scale fisheries and ecosystem services. *Conservation Letters* 12(2): e12637. DOI: 10.1111/conl.12637.

2017 **Tapia-Lewin S.**, Vergara K., Godoy N. De la Barra C., Castilla J.C. & Gelcich S. Distal impacts of Aquarium trade: Exploring the emerging sandhopper (*Orchestoidea tuberculata*) artisanal shore gathering fishery in Chile. *AMBIO* 46(6): 706-716. DOI: 10.1007/s13280-017-0906-x

Gelcich S., Cinner J., Donlan C. J., **Tapia-Lewin S.**, Godoy N. & Castilla J. C. Fishers' perceptions on the Chilean coastal TURF system after two decades: problems, benefits, and emerging needs. *Bulletin of Marine Science* 93(1): 53-67. DOI: 10.5343/bms.2015.1082.

PUBLICATIONS (continued)

- 2015 Gelcich S, Peralta L, Donlan JC, Godoy N, Ortiz V, **Tapia-Lewin S**, Vargas C, Kein A, Fernandez M, Castilla JC & Godoy F. Alternative Strategies for Scaling-up Marine Coastal Biodiversity Conservation in Chile. *Maritime Studies* 14:5. DOI: 10.1186/s40152-015-0022-0.
- 2014 **Tapia-Lewin S.** & Pardo LM. 2014. Field assessment of the predation risk - food availability tradeoff in crab megalopae settlement. *PLoS ONE* 9(4): e95335. DOI:10.1371/journal.pone.0095335.

ACADEMIC JOURNAL AND APPLICATION REFEREEING

- Reviewer**— *Regional Studies in Marine Science*, ISSN: 2352-4855. 2019
- Reviewer**— *Ambio: A Journal of the Human Environment*, ISSN: 0044-7447. 2018-2019
- Reviewer**— *Ecology & Society*, ISSN: 1708-3087. 2017
- Referee**— FONDECYT Research Grant Application. CONICYT Chile. 2016
- Referee**— Bren School Quantitative Tutor Application. UCSB. 2016

WORKSHOP PARTICIPATION

- Attended *Latin American Fisheries Fellows & Alumni Reunion Workshop: Creating Impactful Theories of Change & Stories that Influence*. December 2018.
- Attended *SNAPP Horizon working group: Depicting a bright future for our world's oceans*. NCEAS. July 2018
- Attended *Software Carpentry Workshop*. UCSB. April 2016
- Attended *Eco-data-science group workshops*. UCSB. 2015-2018
- Attended *Systems Thinking Workshop*. UCSB. 2016
- Attended *Barefoot Thinking Effective Leadership Workshop*. UCSB. 2015

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CONFERENCE AND SEMINAR PRESENTATIONS

Guest lecturer: *Small Scale Fisheries in Chile from a community-based management perspective (and under civil unrest)*. Department of Geography, Yokohama National University, Japan. November 2019

Guest lecturer: *Small Scale Fisheries in Chile from a community-based management perspective (and under civil unrest)*. Department of History, Rikkyo University University, Japan. November 2019

Oral presentation: *Distal impacts of aquarium trade: Exploring the emerging sandhopper (*Orchestoidea tuberculata*) artisanal shore gathering fishery in Chile*. 3rd World Small-scale Fisheries Congress 2018. Chiang Mai, Thailand. October 2018

Oral presentation: *Cope or adapt? How multiple dimensions of Adaptive Capacity affect fishers' strategies to climate change scenarios*. 3rd World Small-scale Fisheries Congress 2018. Chiang Mai, Thailand. October 2018

Oral presentation: *Do TURFs confer resilience to climate change? (Kuni Project)*. Bren PhD Symposium 2018. UC Santa Barbara, USA. February 2018

Poster presentation: *Applying an adaptive capacity framework to predict fishers' responses to climate change*. Bren PhD Symposium 2018. UC Santa Barbara, USA. February 2018

Poster presentation: *Applying an adaptive capacity framework to predict fishers' responses to climate change*. Resilience Meeting 2017, Stockholm, Sweden. August 2017.

Oral presentation: *Fishers' perceptions on the Chilean coastal TURF system after two decades: problems, benefits, and emerging needs*. Western Society of Naturalists 100th Meeting, Monterey, CA. November, 2016.

Oral presentation: *Fishers' perceptions on the Chilean coastal TURF system after two decades: problems, benefits, and emerging needs*. Bren School PhD Symposium, UCSB. February, 2016.

Oral presentation: *Field experimental testing of the trade-off between food and predation cues for settlement in two cancrid crabs*. Crustacean Summer Meeting, San José, Costa Rica. July, 2013.

Oral presentation: *To eat or to be eaten: is that the dilemma crabs face when settling?* XX Chilean Marine Sciences Conference, Concepción, Chile. October, 2010. (In Spanish)

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ADVISORY EXPERIENCE AND COMMUNITY INVOLVEMENT

Research Mentor—Dept of Social Sciences Yokohama National University (10-19-Present)

Mentor 2 master students working on Japanese Small-scale fisheries. First in person, now remotely

Council Member, PhD Dean’s Advisory Council—Bren School, UCSB (1/17-10/19)

Represent PhD student body’s interests and concerns to Bren School’s Deans Advisory Council.

Research Mentor – Research Mentorship Program, UCSB (06/18-08/18).

Mentored high achieving high school student through a research proposal that aimed to model the feedbacks to the ecosystems of small-scale fishers’ adaptations to climate change.

External PhD Mentor, Master’s Group Project—Bren School, UCSB (4/16-4/17)

Mentored and advised 4 master’s students collaborating on a master’s thesis group project that aimed to inform small-scale fisheries management for Nicoya Fisheries in Costa Rica.

Independent Volunteer—Self-initiative (2/10-3/10)

Formed a group of friends to help for 2 weeks in removing wreckage and rebuilding after the 2010 tsunami event in Pelluhue, Chile.

Campus Tour Guide—Biological Sciences Faculty, Universidad Austral de Chile (3/07-12/07)

Led weekly campus tours to groups of 20-30 prospective students.

Volunteer—Winter Works, Saint George’s College, Chile. (7/03-7/05)

Built and repaired 10 social emergency houses to aid vulnerable households coping with the hard winter.

SKILLS AND CERTIFICATIONS

Skills

Technical: RStudio (proficient); Github (proficient); Rmarkdown (proficient); Mendeley (proficient); Matlab (intermediate); Stata (intermediate); Scientific diver (specialist: +200 hours of field experience)

Languages: Spanish (native), English (fluent)

Certifications

International Scientific Diver (Forschungstaucher). Bundesverband der Unfalckassen, Germany. 2010.

Specialist Diver. Chile Navy. 2010

Advanced Open Water Diver. PADI. 2001