

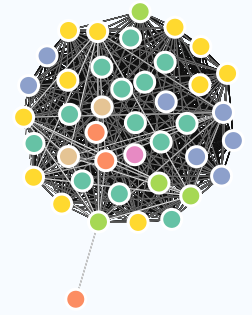
EDGAR JOSYMAR TORREJON

MAGALLANES

My research is focus on Fish Populations Dynamics, Stock Assessment, Species Distribution Models, Fishery Bioeconomics, Programming and development of R-packages.


Strong interpersonal skills and enthusiasm for teaching/learning.

Experience working eith interdisciplinary groups.




EDUCATION


2022
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2018

- **PhD. Fisheries and Aquaculture Bioeconomics**
Centro Interdisciplinario de Ciencias Marinas  La Paz, B.C.S. Mexico
 - Researching on the Bioeconomic impact assessment of different management strategy evaluations (MSE) in the Peruvian industrial fisheries focus on (*Scomber japonicus*).
 - University Graduate Fellowship (CONACYT) , 2018-2022





2014
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2012

- **M.Sc. Marine Ecology**
Centro de Investigación Científica y Educación Superior de Ensenada (CICESE)  Ensenada, B.C. Mexico
 - Thesis: Discard and incidental catch estimation in the industrial purse seine fisheries of the North-Center Stock of the peruvian anchovy (*Engraulis ringens*).
 - University Graduate Fellowship (CONACYT) , 2012-2014
 - Ranked 1st over 21 students.

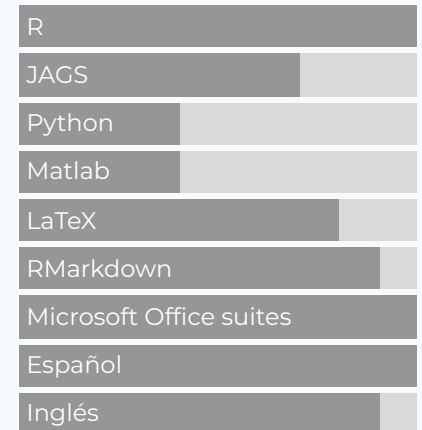
2009
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2005

- **BSc in Biology, Hidrobiology and Fishery Science**
Universidad Nacional Mayor de San Marcos  Lima, Peru
 - Thesis: Stock assessment of the purple crab *Platyxanthus orbigny* applying Biomass Dynamic Models.

CONTACT

-  ejosymart@gmail.com
-  [@Josymar07](https://twitter.com/Josymar07)
-  github.com/ejosymart
-  linkedin.com/in/edjotoma

SKILLS



Last updated on 2022-12-15.

PROFESSIONAL EXPERIENCE

2018
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2014

● **Researcher**

Straddling and Highly Migratory Species Lab

📍 Instituto del Mar del Perú

- Scientist researching and working in population dynamics and stock assessment models for straddling and highly migratory species as Dorado (*Coryphaena hippurus*), jack mackerel (*Trachurus murphyi*), chub mackerel (*Scomber japonicus*).
- Develop and improve software tools for stock assessments analysis and technical reports.
- Part of the stock assessment group of peruvian anchovy (*Engraulis ringens*).

2012
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2011

● **Investigador**

Population Dynamics and Stock Assessment of Pelagic Stocks Lab

📍 Instituto del Mar del Perú

- Use of models to estimate the direct impact of the fisheries on individual stocks (focus on anchovy - *Engraulis ringens*) and indirect impact on the surrounding ecosystem
- My research was focus on the bycatch in the industrial purse seine fishery of the North-Center Stock of the Peruvian anchovy .

RESEARCH EXPERIENCE

2019

● **AZTI - Tecnalía**

Sustainable Fisheries Management

📍 Basque Country, España

- Working on the development of bio-economic impact assessments of fisheries management strategies of Pacific chub mackerel (*Scomber japonicus*) using FLEBIA R package
- Adviser: Dra. Dorleta Garcia
- Funded by Mexican National Council for Science and Technology.

2016

● **Inter American Tropical Tunna Commision (IATTC)**

Stock Assessment Program

📍 La Jolla, California, EE.UU.

- Invited to work in the stock assessment of dorado (*Coryphaena hippurus*) in the Eastern Pacific Ocean using Stocks Synthesis (SS3).
- Adviser: Dr. Alexandre Aires Da-Silva
- Funded by IATTC and IMARPE.

2010

● **Instituto del Mar del Peru (IMARPE)**

Marine Invertebrates Lab

📍 Callao, Perú

- Invited to work in the populations dynamics and stock assessment of purple crab (*Platyxanthus orbigny*).
- Advisers: MSc. Juan Arguelles, MSc.Carmen Yamashiro

Always improving my skills

2009



Instituto del Mar del Peru (IMARPE)

Marine Invertebrates Lab

📍 Callao, Perú

- Trabajando sobre la dinámica de poblaciones y pesquería de chanque (*Concholepas concholepas*).
- Adviser: MSc.Carmen Yamashiro
- Funded by IMARPE.



TEACHING EXPERIENCE

2019



Introduction to R Programming

Asociación de Científicos del Mar

📍 Universidad Autonoma de Baja California Sur

- Course for researchers and students. 11-15 March, 2019.
- Covered basic topic in R from reading data to produce figures and basic statistics analysis.

2019



Frequentist or Bayesian. Confronting approaches using simple models in Ecology

CICESE

📍 Ensenada, B.C. México

- Course for researchers and students at CICESE. 18-19 September, 2019.
- Graduate level class.

2018



Data Analysis and R Programming

Sociedad Nacional de Pesquerías (SNP)

📍 Lima, Perú

- Course for researchers at SNP. July, 2018.
- Covered introduction to R language for statistics applications and graphics.

2015



Statistics using R and JAGS software

CICESE

📍 Ensenada, B.C. México

- Course for researchers and students at CICESE. 23-26 November, 2015.
- Link R and JAGS; Prepared lectures in basic Bayesian analysis: t-test, ANOVA, linear and nonlinear regression; Comparison between Bayesian and Frequentist statistics; Programming in R and JAGS using the package "R2jags".
- Graduate level class.

2015









Population Dynamics and Stock Assessment

Ministry of Production

📍 Lima, Perú

- Course for researchers and managers in the Ministry of Production. 9-13 March, 2015.
- Covered basic concepts on Population Dynamics, Stock Assessment and Statistic Applied to Fisheries Using R.

- 2015 ● **Introduction to R for Data Analysis and Graphic**
Instituto del Mar del Perú  Callao, Perú
- Designed from bottom up course to teach best practices for scientific data analysis and visualizations. 24-27 March, 2015.
- 2014 ● **Multivariate Statistics**
CICESE  Ensenada, B.C. México
- Teaching Assistant. Prepared lectures and homework focusing in using R software and Statistica.
 - Graduate level class.
- 2014 ● **Basic Statistics I and II using R**
CICESE  Ensenada, B.C. México
- Teaching Assistant. Prepared lectures and homework focusing in using R.
 - Graduate level class.
- 2011 ● **Population Dynamics and Stock Assessment**
Universidad Nacional Mayor de San Marcos  Lima, Perú
- Covered basic concepts on Population Dynamics, Stock Assessment and Statistic Applied to Fisheries Using R. 8-12 August, 2011.
 - Undergraduate level class.
- 2011 ● **Fisheries Management**
Universidad Nacional Mayor de San Marcos  Lima, Perú
- Teaching Assistant. Guiding the students in preparation and presentation of lectures.
 - Undergraduate level class.
- 2010 ● **Population Dynamics and Stock Assessment**
Universidad Nacional Mayor de San Marcos  Lima, Perú
- Teaching Assistant. Guiding the students in preparation and presentation of lectures
 - Undergraduate level class.



SELECTED PUBLICATIONS

- **Details on scientific articles, visit:**
<https://scholar.google.com/citations?user=0o91Xa4AAAAJ&hl=es>

- 2022 ● **Black tide in Peru: Comments on an oil spill in the South American Pacific**
Héctor Aponte, Torrejón-Magallanes, J, Alexander Pérez. *South Sustainability*, 3(1), e44.
- 2022 ● **Effects of age-specific natural mortality in sequential fisheries: management implications**
Torrejón Magallanes, J, F. Aranceta-Garza. *Ciencia Pesquera*
- 2022 ● **Climate change effect on Octopus maya (Voss and Solís-Ramírez, 1966) suitability and distribution in the Yucatan Peninsula, Gulf of Mexico: A correlative and mechanistic approach**
Angeles-González, L.E., Martinez-Meyer, E., Yáñez-Arenas, C., Velazquez-Abunader, I. López Rocha, J., Torrejón-Magallanes, J., Rosas, C. *Estuarine Coastal and Shelf Science*, 260 (5), e107502. <https://doi.org/10.1016/j.ecss.2021.107502>
- 2021 ● **gnomonicM: Estimate Natural Mortality for Different Life Stages**
Torrejón-Magallanes, J. CRAN. R package version 1.0.1 <https://CRAN.R-project.org/package=gnomonicM>
- 2021 ● **Improving the gnomonic approach with the *gnomonicM* R-package to estimate natural mortality throughout different life stages**
Torrejón-Magallanes, J., E. Morales-Bojórquez, F. Arreguín-Sánchez. *PeerJ* 9:e11229 <https://doi.org/10.7717/peerj.11229>
- 2021 ● **Modeling the Pacific chub mackerel (*Scomber japonicus*) ecological niche and future scenarios in the northern Peruvian Current System**
Torrejón-Magallanes, J, L.E. Ángeles-González, J. Csirke, M. Bouchon, E. Morales-Bojórquez, F. Arreguín-Sánchez. *Progress in Oceanography* 197:102672. <https://doi.org/10.1016/j.pcean.2021.102672>
- 2020 ● **sizeMat: Estimate Size at Sexual Maturity.**
Torrejón-Magallanes, J. CRAN. R package version 1.1.2. <https://CRAN.R-project.org/package=sizeMat>
- 2019 ● **Spatio-temporal distribution modeling of dolphinfish (*Coryphaena hippurus*) in the Pacific Ocean off Peru using artisanal longline fishery data**
Torrejón-Magallanes, J., Grados, D., Lau-Medrano, W. *Deep. Res. Part II Top. Stud. Oceanogr.* 169–170, 104665. <https://doi.org/10.1016/j.dsr2.2019.104665>
- 2019 ● **Temporal changes in mesoscale aggregations and spatial distribution scenarios of the Peruvian anchovy (*Engraulis ringens*)**
Moron, G., Galloso, P., Gutierrez, D., Torrejón-Magallanes, J. *Deep. Res. Part II Top. Stud. Oceanogr.* 159, 75–83. <https://doi.org/10.1016/j.dsr2.2018.11.009>

- 2018 ● **Biology, population structure and fishery of jumbo flying squid (*Dosidicus gigas*) in Peru**
Csirke J, Arguelles J, Alegre A, Ayón P, Bouchón M, Castillo G, Castillo R, Cisneros R, Guevara-Carrasco R, Lau L, Mariátegui L, Salazar C, Tafur R, Torrejón J, Yamashiro C. Bol Inst Mar Peru. 33(2): 302-364. ISSN 0458-7766.
- 2017 ● **Estimation and variability in size at gonad maturity of chub mackerel (*Scomber japonicus peruanus*, Jordán & Hubb, 1925) in peruvian waters**
Torrejón-Magallanes J., J. Sánchez, J. Mori, M. Bouchon, M. Niquen. Revista Peruana de Biología, 24(4): 391-400. <http://dx.doi.org/10.15381/rpb.v24i4.13741>
- 2016 ● **Estimating discard excess catch in the industrial purse seine fisheries of the North-Center stock of the Peruvian anchoveta (*Engraulis ringens*) from an on-board observer program**
Torrejón-Magallanes J, E. Solana-Arellano, M. Dreyfus León. Revista Peruana de Biología, 23(2), 183-194. <http://dx.doi.org/10.15381/rpb.v23i2.12435>



PRESENTATIONS AT MEETINGS

- 2022 ● **El enfoque state-space en un modelo estructurado por edades: el caso de la caballa (*Scomber japonicus*)**
Torrejón-Magallanes, J., Morales-Bojorquez E., Bouchon M., Arreguín-Sánchez, F. XXX Taller del comité técnico de pelágicos menores. Guaymas, Sonora, Mexico, 14-16 junio, 2022.
- 2019 ● **Distribution modeling of dolphinfish (*Coryphaena hippurus*) in the Pacific Ocean off Peru: Evidence of seasonal migratory patterns**
Torrejón-Magallanes, J. The 70th Tuna Conference. Lake Arrowhead, California, USA. 20-23 May, 2019.
- 2018 ● **Spatio-temporal distribution modeling and abundance index of Dorado (*Coryphaena hippurus*) in the Pacific Ocean off Peru**
Torrejón-Magallanes E.J., Grados D., Lau-Medrano W. PICES - ICES: Understanding Changes in Transitional Areas of the Pacific.
- 2018 ● **CPUE standardization and distribution modeling of Dorado (*Coryphaena hippurus*) from the Peruvian artisanal longline fishery**
Torrejón-Magallanes E.J., Grados D. & Lau-Medrano W. Center for the Advancement of Population Assessment Methodology (CAPAM): Development of spatio-temporal models of fishery catch per-unit-effort data to derive indices of relative abundance. February 2018 - La Jolla, California, EE.UU.

- 2016 ● **Automatización de procesos para la estimación de talla de madurez morfológica y gonadal: Una aplicación a especies de importancia comercial**
Torrejón-Magallanes E.J. & Sanjinez M. V Congreso de Ciencias del Mar del Perú (V CONCIMAR), Universidad Pedro Ruiz Gallo, 21 – 25 November 2016 - Chiclayo, Peru.
- 2015 ● **A first look to Dorado (*Coryphaena hippurus*) population dynamics and stock assessment from Peruvian data**
Torrejón-Magallanes E.J. & Oliveros-Ramos R. 2nd Technical Meeting on Dorado. 27 – 29 October 2015. - Lima, Peru.
- 2012 ● **Discard excess catches in the industrial purse seine fisheries of the North-Center stock of the Peruvian anchoveta (*Engraulis ringens*) in the period 2005 – 2011**
Torrejón-Magallanes E.J., E. Díaz, E. Ramos. III Congreso de Ciencias del Mar del Perú (III CONCIMAR). Universidad Científica del Sur, 2 – 6 September 2012 - Lima, Peru.