

# Giancarlo Helar Morón Correa

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## Research interests

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Fish stock assessment models, fish spatial dynamics, fisheries management, individual-based models, fish community ecology

## Education

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### Oregon State University, United States

*Ph.D. in Ocean, Earth, and Atmospheric Sciences. Minor in Statistics.* 2018–2022

*Thesis: Incorporating the impacts of Climate Variability on Growth in Fish Population Dynamics Models.*

### National University of San Marcos, Peru

*M.S. (c) in Applied Mathematics.* 2015–2017

*Thesis: A functional approach to study cohort spatial distribution of the Peruvian anchovy (Engraulis ringens).*

### National University of San Marcos, Peru

*B.S. in Biological Sciences. Major in Fisheries.* 2009–2013

*Honors Thesis: Spatio-temporal analysis of the epipelagic biodiversity in the Peruvian sea.*

## Professional Experience

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### Postdoctoral Fellow

*University of Washington* 2022–present

Research in state-space assessment models (Woods Hole Assessment Model)

### Scientific Member

*Cousteau Consultant Group* 2020–present

Research projects in fisheries sciences in Latin-america. Instructor.

### Graduate Research Assistant

*Oregon State University* 2018–2022

Population dynamics of the Pacific cod in the eastern Bering Sea.

### Researcher

*Marine Institute of Peru* 2014–2018

Population dynamics and stock assessment of small pelagic fishes.

## Oral presentations

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### ESSAS Annual Meeting

*United States* 2022

Modeling the multiple action pathways of projected climate change on the Pacific cod (*Gadus macrocephalus*) early life stages.

### Ocean Sciences Meeting

*United States* 2022

Modeling the Multiple Action Pathways of the effects of climate change on the Pacific cod (*Gadus macrocephalus*) larval growth and survival.

### World Fisheries Congress

*Australia* 2021

Accounting for spatial and temporal variability in somatic growth improves age composition and stock assessment estimates.

**UW: Quantitative Seminar Series**

*United States*

2020

Impacts of temporal and spatial variability in somatic growth on fish stock assessment models.

**Ocean Sciences Meeting**

*United States*

2020

Accounting for spatiotemporal variability in somatic growth in age composition data estimation for stock assessment models.

**PICES International Symposium: Understanding changes in transitional areas of the Pacific**

*Mexico*

2018

Identifying biogeographical transition zones and nekton assemblages in the northern Humboldt Current System.

**ICES/PICES International Symposium: Drivers of dynamics of small pelagic fish resources**

*Canada*

2017

Effects of ENSO phases on Peruvian anchovy aggregation patterns.

## Teaching Experience

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**Cousteau Consultant Group, Perú**

*Several courses in quantitative ecology.*

2020-2022

*Main instructor*

**Oregon State University, US**

*OC549: Data Fisheries Oceanography*

2020

*Teaching Assistant*

**National University of San Marcos, Peru**

*B01316: Biomathematics*

2017-2018

*Guest lecturer: An introduction to species competition models.*

## Publications (peer-reviewed)

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**The influence of age and cohort on the distribution of walleye pollock (*Gadus chalcogrammus*) in the eastern Bering Sea**

*Stevenson, D., Kotwicki, S., Thorson, J.T., Correa GM., Buckley TTW.*

2022

*Canadian Journal of Fisheries and Aquatic Sciences*

<https://doi.org/10.1139/cjfas-2021-0300>

**Spatial and temporal variability in somatic growth in fisheries stock assessment models: evaluating the consequences of misspecification**

*Correa GM., McGilliard C., Ciannelli L., y Fuentes C.*

2021

*ICES Journal of Marine Sciences. Volume 78. Issue 5. pp 1900-1908.*

<https://doi.org/10.1093/icesjms/fsab096>

**Improved estimation of age composition by accounting for spatiotemporal variability in somatic growth**

*Correa GM., Ciannelli L., Kotwicki S., Barnett L. y Fuentes C.*

2020

*Canadian Journal of Fisheries and Aquatic Sciences. Volume 77. Number 11. pp 1810-1821.*

<https://doi.org/10.1139/cjfas-2020-0166>

**Temporal changes in mesoscale aggregations and spatial distribution scenarios of the Peruvian anchovy (*Engraulis ringens*)**

*Morón G., Galloso P., Gutierrez D. y Torrejon-Magallanes J.*

2019

*Deep Sea Research Part II: Topical Studies in Oceanography. Volume 159. pp 75-83.*

## Publications (in preparation)

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### **Spatial and temporal variability of food-limited growth and survival of Pacific cod (*Gadus macrocephalus*) early life stages**

*Correa GM., Hurst T., Stockhausen W., Kristiansen T., Ciannelli L., Pilcher D.* 2022

### **Modeling the multiple action pathways of projected climate change on the Pacific cod (*Gadus macrocephalus*) early life stages**

*Correa GM., Hurst T., Stockhausen W., Kristiansen T., Ciannelli L., Pilcher D.* 2022

### **A general simulation framework to evaluate data quality collected by onboard observers: the case of the mahi-mahi (*Coryphaena hippurus*) fishery off Peru**

*Correa GM., Torrejón-Magallanes J., Lau W., Ramos E.* 2022

### **El Niño Southern Oscillation impacts on the biodiversity of pelagic fishes in the northern Humboldt Current System**

*Galloso P., Legendre P., Correa GM.* 2022

## Reports

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### **DRAFT Status of Sablefish (*Anoplopoma fimbria*) along the US West coast in 2021**

*Kapur MS., Lee Q., Correa GM., Haltuch MA., Gertseva V. and Hamel OS.* 2021

Pacific Fisheries Management Council. Portland, OR. 136 p.

### **Catch Only Projection for Canary Rockfish (*Sebastes pinniger*) in 2021**

*Correa GM. and Wetzel CR.* 2021

Pacific Fisheries Management Council. Portland, OR.

### **Catch Only Projection for Arrowtooth Flounder (*Atheresthes stomias*) in 2021**

*Correa GM., Wetzel CR. and Hamel O.* 2021

Pacific Fisheries Management Council. Portland, OR.

## Other publications

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### **Incorporating the Impacts of Climate Variability on Growth in Fish Population Dynamics Models**

*Correa GM.* 2022

Oregon State University

### **Análisis espacio temporal de la biodiversidad en el ambiente epipelágico del mar peruano**

*Correa GM.* 2017

Universidad Nacional Mayor de San Marcos

## Awards

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### **Butler Family Scholarship**

*Oregon State University* 2021

## Computer Skills

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**Basic:** Java, ADMB

**Intermediate:** TMB, MATLAB, Microsoft Office

**Advanced:** R,  $\text{\LaTeX}$ , Markdown

## Languages

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**Spanish:** Native speaker

**English:** Advanced

**Italian:** Intermediate