

Giancarlo Helar Morón Correa, Ph.D.

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Research interests

Stock assessment models, community ecology, statistical modeling, fisheries management
spatial ecology, individual-based models.

Education

- 2018 – 2022 **Ph.D., Ocean, Earth, and Atmospheric Sciences.** Oregon State University.
Thesis title: *Incorporating the impacts of Climate Variability on Growth in Fish Population Dynamics Models*
Minor: *Statistics*
- 2015 – 2017 **M.Sc. (c) Applied Mathematics.** San Marcos National University.
Thesis title: *A functional approach to study cohort spatial distribution of the Peruvian anchovy (Engraulis ringens)*
- 2009 – 2013 **B.Sc. Biological Sciences.** San Marcos National University.
Thesis title: *Spatio-temporal analysis of the epipelagic biodiversity in the Peruvian sea*

Employment History

- 2022 – present **Postdoctoral Fellow.** University of Washington.
Research in state-space assessment models (Woods Hole Assessment Model)
- 2018 – 2022 **Graduate Research Assistant.** Oregon State University.
Population dynamics of the Pacific cod in the eastern Bering Sea
- 2014 – 2018 **Researcher.** Marine Institute of Peru.
Population dynamics and stock assessment of small pelagic fishes




Teaching Experience

- 2020 – 2022 **Quantitative ecology.** Cousteau Consultant Group.
Main instructor in several courses in statistical modeling applied to marine ecology. Population dynamics models.
- 2020 **Data Fisheries Oceanography.** Oregon State University.
Teaching Assistant. Statistical methods using oceanographic data.
- 2017 – 2018 **Biomathematics.** San Marcos National University.
Lectures on species competition and predator-prey dynamics

Publications

Journal Articles

- 1 Stevenson, D., Kotwicki, S., Thorson, J. T., **Correa, G. M.**, & Buckley, T. T. (2022). The influence of age and cohort on the distribution of walleye pollock (*Gadus chalcogrammus*) in the eastern bering sea. *Canadian Journal of Fisheries and Aquatic Sciences*. [doi:10.1139/cjfas-2021-0300](https://doi.org/10.1139/cjfas-2021-0300)

- 2 **Correa, G. M.**, McGilliard, C., Lorenzo, C., & Claudio, F. (2021). Spatial and temporal variability in somatic growth in fisheries stock assessment models: Evaluating the consequences of misspecification. *ICES Journal of Marine Sciences*, 78(5), 1900–1908.  doi:10.1093/icesjms/fsab096
- 3 **Correa, G. M.**, Ciannelli, L., Kotwicki, S., Barnett, L., & Fuentes, C. (2020). Improved estimation of age composition by accounting for spatiotemporal variability in somatic growth. *Canadian Journal of Fisheries and Aquatic Sciences*, 77(11), 1810–1821.  doi:10.1139/cjfas-2020-0166
- 4 **Correa, G. M.**, Galloso, P., Gutierrez, D., & Torrejón-Magallanes, J. (2019). Temporal changes in mesoscale aggregations and spatial distribution scenarios of the peruvian anchovy (*Engraulis ringens*). *Deep Sea Research Part II: Topical Studies in Oceanography*, 159, 75–83.  doi:10.1016/j.dsr2.2018.11.009

Thesis

- 1 Correa, G. M. (2022). *Incorporating the impacts of climate variability on growth in fish population dynamics models* (Doctoral dissertation, College of Earth, Ocean, and Atmospheric Sciences, Oregon State University, Corvallis, OR, USA).
- 2 Correa, G. M. (2017). *Análisis espacio temporal de la biodiversidad en el ambiente epipelágico del mar peruano* (BSc thesis, School of Biological Sciences, San Marcos National University, Lima, Peru).

Reports

- 1 Monnahan, C., Dorn, M., **Correa, G. M.**, Deary, A., Ferriss, B., Levine, M., ... Zador, S. (2022). *Assessment of the walleye pollock in the Gulf of Alaska*. NOAA Fisheries. Seattle, WA, USA.
- 2 **Correa, G. M.**, & Wetzel, C. (2021). *Catch only projection for canary rockfish (*Sebastes pinniger*) in 2021*. Pacific Fisheries Management Council. Portland, OR, USA.
- 3 **Correa, G. M.**, Wetzel, C., & Hamel, O. (2021). *Catch only projection for arrowtooth flounder (*Atheresthes stomias*) in 2021*. Pacific Fisheries Management Council. Portland, OR, USA.
- 4 Kapur, M., Qi, L., **Correa, G. M.**, Haltuch, M., Gertseva, V., & Hamel, O. (2021). *Draft: Status of sablefish (*Anoplopoma fimbria*) along the us west coast in 2021*. Pacific Fisheries Management Council. Portland, OR, USA.

Journal Articles (in preparation)

- 1 **Correa, G. M.**, Hurst, T., Stockhausen, W., Ciannelli, L., Kristiansen, T., & Pilcher, D. (n.d.[a]). *Modeling the multiple action pathways of projected climate change on the Pacific cod (*Gadus macrocephalus*) early life stages*.
- 2 **Correa, G. M.**, Hurst, T., Stockhausen, W., Ciannelli, L., Kristiansen, T., & Pilcher, D. (n.d.[b]). *Spatial and temporal variability of food-limited growth and survival of Pacific cod (*Gadus macrocephalus*) early life stages*.
- 3 **Correa, G. M.**, & Torrejón-Magallanes, J. (n.d.). *A general simulation framework to evaluate data quality collected by onboard observers: The case of the dolphinfish (*Coryphaena hippurus*) fishery off Peru*.
- 4 Galloso, P., Legendre, P., & **Correa, G. M.** (n.d.). *El niño southern oscillation impacts on the biodiversity of pelagic fishes in the northern Humboldt current system*.

Oral Presentations

- 2022 **Think Tank - University of Washington**
Responding to climate-driven changes in growth in the modern stock assessment models.

Oral Presentations (continued)

- Good Practices in Stock Assessment Modeling - CAPAM**
Accounting for temporal variability in somatic growth improves state-space assessment model for walleye pollock in the Gulf of Alaska.
- 5th International Symposium on the Ocean in a High CO₂ World.**
Modeling the multiple action pathways of projected climate change on the Pacific cod (*Gadus macrocephalus*) early life stages.
- ESSAS Annual Meeting.**
Modeling the multiple action pathways of projected climate change on the Pacific cod (*Gadus macrocephalus*) early life stages.
- Ocean Sciences Meeting.**
Modeling the Multiple Action Pathways of the effects of climate change on the Pacific cod (*Gadus macrocephalus*) larval growth and survival.
- 2021 **World Fisheries Congress.**
Accounting for spatial and temporal variability in somatic growth improves age composition and stock assessment estimates.
- 2020 **UW: Quantitative Seminar Series.**
Impacts of temporal and spatial variability in somatic growth on fish stock assessment models.
- Ocean Sciences Meeting.**
Accounting for spatiotemporal variability in somatic growth in age composition data estimation for stock assessment models.
- 2018 **PICES International Symposium: Understanding changes in transitional areas of the Pacific.**
Identifying biogeographical transition zones and nekton assemblages in the northern Humboldt Current System.
- 2017 **ICES/PICES International Symposium: Drivers of dynamics of small pelagic fish resources.**
Effects of ENSO phases on Peruvian anchovy aggregation patterns.

Skills

Languages	Spanish (native), English (advanced), Italian (intermediate)
Coding	R, Rmarkdown, L ^A T _E X, TMB, Java, ADMB
Web Dev	Shiny, Quarto, Markdown

Awards

- 2021 **Butler Family Scholarship**, Oregon State University.

References

Available on request