## Sarah Gaichas

## Research Fishery Biologist

## Education

2000 - 2006 PhD, University of Washington, Seattle.

1994 - 1997 M.S., College of William and Mary, School of Marine Science, Gloucester Point.

1986 - 1991 **B.A.**, Swarthmore College, Swarthmore.

## Publications

- 1. Weiskopf, S, M Rubenstein, L Crozier, S Gaichas, R Griffis, and ... (2020). Climate change effects on biodiversity, ecosystems, ecosystem services, and natural resource management in the United States. *Science of The Total Environment*.
- 2. Link, J, G Huse, S Gaichas, and A Marshak (2020). Changing how we approach fisheries: A first attempt at an operational framework for ecosystem approaches to fisheries management. Fish and Fisheries.
- 3. Karp, M, J Peterson, P Lynch, R Griffis, C Adams, W Arnold, and ... (2019). Accounting for shifting distributions and changing productivity in the development of scientific advice for fishery management. *ICES Journal of Marine Science*.
- 4. Deroba, J, S Gaichas, M Lee, R Feeney, D Boelke, and B Irwin (2019). The dream and the reality: meeting decision-making time frames while incorporating ecosystem and economic models into management strategy evaluation, *Canadian Journal of Fisheries and Aquatic Sciences*.
- 5. Feeney, R, D Boelke, J Deroba, S Gaichas, B Irwin, and M Lee (2019). Integrating management strategy evaluation into fisheries management: advancing best practices for stakeholder inclusion based on an MSE for Northeast US Atlantic herring. *Canadian Journal of Fisheries and Aquatic Sciences*.
- Goethel, D, S Lucey, A Berger, S Gaichas, M Karp, P Lynch, and ... (2019). Closing the feedback loop: on stakeholder participation in management strategy evaluation. Canadian Journal of Fisheries and Aquatic Sciences.
- 7. Townsend, H, C Harvey, Y deReynier, D Davis, S Zador, S Gaichas, and ... (2019). Progress on Implementing Ecosystem-Based Fisheries Management in the US Through the Use of Ecosystem Models and Analysis. Frontiers in Marine Science.
- 8. Goethel, D, S Lucey, A Berger, S Gaichas, M Karp, P Lynch, and ... (2019). Recent advances in management strategy evaluation: introduction to the special issue "Under pressure: addressing fisheries challenges with Management Strategy Evaluation". Canadian Journal of Fisheries and Aquatic Sciences.
- Gaichas, S, G DePiper, R Seagraves, B Muffley, M Colburn, and A Loftus (2019). Addendum: Implementing Ecosystem Approaches to Fishery Management: Risk Assessment in the US Mid-Atlantic. Frontiers in Marine Science.

- 10. Olsen, E, I Kaplan, C Ainsworth, G Fay, S Gaichas, R Gamble, R Girardin, and ... (2018). Ocean futures under ocean acidification, marine protection, and changing fishing pressures explored using a worldwide suite of ecosystem models. *Frontiers in Marine Science*.
- 11. Gaichas, S, G DePiper, R Seagraves, B Muffley, M Sabo, and ... (2018). Implementing ecosystem approaches to fishery management: risk assessment in the US Mid-Atlantic. *Frontiers in Marine Science*.
- 12. Wildermuth, R, G Fay, and S Gaichas (2018). Structural uncertainty in qualitative models for ecosystem-based management of Georges Bank. Canadian Journal of Fisheries and Aquatic Sciences.
- 13. Tommasi, D, C Stock, A Hobday, R Methot, I Kaplan, J Eveson, and ... (2017). Managing living marine resources in a dynamic environment: the role of seasonal to decadal climate forecasts. *Progress in Oceanography*.
- 14. Zador, S, K Holsman, K Aydin, and S Gaichas (2017). Ecosystem considerations in Alaska: the value of qualitative assessments. *ICES Journal of Marine Science*.
- 15. Holsman, K, J Samhouri, G Cook, E Hazen, E Olsen, M Dillard, and ... (2017). An ecosystem-based approach to marine risk assessment. *Ecosystem Health and Sustainability*.
- 16. DePiper, G, S Gaichas, S Lucey, PP da Silva, M Anderson, and ... (2017). Operationalizing integrated ecosystem assessments within a multidisciplinary team: lessons learned from a worked example. *ICES Journal of Marine Science*.
- 17. Gaichas, S, M Fogarty, G Fay, R Gamble, S Lucey, and L Smith (2017). Combining stock, multispecies, and ecosystem level fishery objectives within an operational management procedure: simulations to start the conversation. *ICES Journal of Marine Science*.
- 18. Zador, S, S Gaichas, S Kasperski, C Ward, R Blake, N Ban, and ... (2017). Linking ecosystem processes to communities of practice through commercially fished species in the Gulf of Alaska. *ICES Journal of Marine Science*.
- 19. Olsen, E, G Fay, S Gaichas, R Gamble, S Lucey, and J Link (2016). Ecosystem model skill assessment. Yes we can! *PloS one*.
- 20. Gaichas, S, R Seagraves, J Coakley, G DePiper, V Guida, J Hare, and ... (2016). A framework for incorporating species, fleet, habitat, and climate interactions into fishery management. Frontiers in Marine Science.
- 21. Weijerman, M, J Link, E Fulton, E Olsen, H Townsend, S Gaichas, and ... (2016). Atlantis ecosystem model summit: report from a workshop. *Ecological Modelling*.
- 22. Smith, L, R Gamble, S Gaichas, and J Link (2015). Simulations to evaluate management trade-offs among marine mammal consumption needs, commercial fishing fleets and finfish biomass. *Marine Ecology Progress Series*.
- 23. Gaichas, S, K Aydin, and R Francis (2015). Wasp waist or beer belly? Modeling food web structure and energetic control in Alaskan marine ecosystems, with implications for fishing and environmental forcing. *Progress in oceanography*.