# Scott Isaac Large

#### HIFE ECOSYSTEM DYNAMICS AND ASSESSMENT BRANCH

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# **Education**

2011 Ph.D. Marine Biology Texas A&M University

2008 M.S. Biology Texas A&M University – Corpus Christi

2006 B.A. Biology Hendrix College

# Employment history \_\_\_\_

2018–present Chief, Ecosystem Dynamics and Assessment Branch – Northeast Fisheries Science Center

2014–2018 **Professional Officer**, Advice Department – International Council for the Exploration of the Sea (ICES)

2011–2014 **Post doctoral Researcher**, Integrated Statistics, Inc & Northeast Fisheries Science Center

### OTHER POSITIONS

2019-present **Associate Editor**. Frontiers in Marine Science

2017–2017 **Stock Assessment Consultant**, United Nations Food and Agriculture Organization (FAO)

# **Publications**

## PhD thesis

1. Large, SI (2011). "Biogeographic patterns, predator identity, and chemical signals influence the occurrence and magnitude of non-lethal predator effects". PhD thesis. Texas A&M University.

#### REFEREED RESEARCH PAPERS

- 1. Large, SI and DL Smee (2010). Type and nature of cues used by Nucella lapillus to evaluate predation risk. *Journal of Experimental Marine Biology and Ecology* **396**(1), 10–17.
- 2. Large, SI, DL Smee, and GC Trussell (2011). Environmental conditions influence the frequency of prey responses to predation risk. *Marine Ecology Progress Series* **422**, 41–49.
- 3. Large, SI, P Torres, and DL Smee (2012). Behavior and morphology of Nucella lapillus influenced by predator type and predator diet. *Aquatic Biology* **16**(2), 189–196.
- 4. Fay, G, SI Large, JS Link, and RJ Gamble (2013). Testing systemic fishing responses with ecosystem indicators. *Ecological Modelling* **265**, 45–55.
- 5. Large, SI and DL Smee (2013). Biogeographic variation in behavioral and morphological responses to predation risk. *Oecologia* **171**(4), 961–969.
- 6. Large, SI, G Fay, KD Friedland, and JS Link (2013). Defining trends and thresholds in responses of ecological indicators to fishing and environmental pressures. *ICES Journal of Marine Science* **70**(4), 755–767.
- 7. Fay, G, JS Link, SI Large, and RJ Gamble (2014). Management performance of ecological indicators in the Georges Bank finfish fishery. *ICES Journal of Marine Science* **72**(5), 1285–1296.
- 8. Fu, C, S Large, B Knight, AJ Richardson, A Bundy, G Reygondeau, J Boldt, GI van der Meeren, MA Torres, I Sobrino, et al. (2015). Relationships among fisheries exploitation, environmental conditions, and ecological indicators across a series of marine ecosystems. *Journal of Marine Systems* **148**, 101–111.
- 9. Friedland, KD, RT Leaf, J Kane, D Tommasi, RG Asch, N Rebuck, R Ji, SI Large, C Stock, and VS Saba (2015). Spring bloom dynamics and zooplankton biomass response on the US Northeast Continental Shelf. *Continental Shelf Research* **102**, 47–61.
- 10. Friedland, KD, RT Leaf, T Kristiansen, and SI Large (2015). Layered effects of parental condition and larval survival on the recruitment of neighboring haddock stocks. *Canadian journal of fisheries and aquatic sciences* **72**(11), 1672–1681.
- 11. Kleisner, KM, M Coll, CP Lynam, A Bundy, L Shannon, YJ Shin, JL Boldt, I Diallo, C Fox, D Gascuel, et al. (2015). Evaluating changes in marine communities that provide ecosystem services through comparative assessments of community indicators. *Ecosystem services* **16**, 413–429.
- 12. Large, SI, G Fay, KD Friedland, and JS Link (2015). Critical points in ecosystem responses to fishing and environmental pressures. *Marine Ecology Progress Series* **521**, 1–17.
- 13. Large, SI, G Fay, KD Friedland, and JS Link (2015). Quantifying Patterns of Change in Marine Ecosystem Response to Multiple Pressures. *PLoS One*.

- 14. Coro, G, S Large, C Magliozzi, and P Pagano (2016). Analysing and forecasting fisheries time series: purse seine in Indian Ocean as a case study. *ICES Journal of Marine Science* **73**(10), 2552–2571.
- 15. Tam, J, J Link, S Large, B Bogstad, A Bundy, A Cook, G Dingsør, A Dolgov, D Howell, A Kempf, et al. (2016). A trans-Atlantic examination of haddock Melanogrammus aeglefinus food habits. *Journal of fish biology* **88**(6), 2203–2218.
- 16. Friedland, KD, NR Record, RG Asch, T Kristiansen, VS Saba, KF Drinkwater, S Henson, RT Leaf, RE Morse, DG Johns, et al. (2016). Seasonal phytoplankton blooms in the North Atlantic linked to the overwintering strategies of copepods. *Elem Sci Anth* **4**.
- 17. Coll, M, L Shannon, K Kleisner, M Juan-Jordá, A Bundy, A Akoglu, D Banaru, J Boldt, M Borges, A Cook, et al. (2016). Ecological indicators to capture the effects of fishing on biodiversity and conservation status of marine ecosystems. *Ecological Indicators* **60**, 947–962.
- 18. Samhouri, JF, KS Andrews, G Fay, CJ Harvey, EL Hazen, SM Hennessey, K Holsman, ME Hunsicker, SI Large, KN Marshall, et al. (2017). Defining ecosystem thresholds for human activities and environmental pressures in the California Current. *Ecosphere* **8**(6), e01860.
- 19. Tam, JC, JS Link, AG Rossberg, SI Rogers, PS Levin, MJ Rochet, A Bundy, A Belgrano, S Libralato, M Tomczak, et al. (2017). Towards ecosystem-based management: identifying operational food-web indicators for marine ecosystems. *ICES Journal of Marine Science* **74**(7), 2040–2052.
- 20. Tam, JC, JS Link, SI Large, K Andrews, KD Friedland, J Gove, E Hazen, K Holsman, M Karnauskas, JF Samhouri, et al. (2017). Comparing apples to oranges: common trends and thresholds in anthropogenic and environmental pressures across multiple marine ecosystems. *Frontiers in Marine Science* **4**, 282.

## SOFTWARE (R PACKAGES)

1. Large, S (2019). fedregs: Text Analysis of the US Code of Federal Regulations. Version 0.1.1. https://CRAN.R-project.org/package=fedregs.

# Presentations

#### INVITED TALKS

- Workshop leader, Delineating the Issues of Climate Change and Impacts to Marine Ecosystems: Bridging the Gap Between Research, Assessment, Policy and Management IMBER-ClimEco4, Shanghai, June 2017.
- Workshop leader, *Introduction to Generalized Additive Modeling*, RARGOM–Community Learning Series, Woods Hole, April 2013
- Invited speaker, *Quantifying trends and thresholds in responses of ecological indicators to the combined effects of fishing and environmental pressures*, Colorado State University, Fort Collins, March 2013
- Invited speaker, *Delineating ecosystem overfishing via analysis of ecosystem indicator inflection points*, 2nd ICES/PICES conference for early career scientists. Mallorca, April 2012

## SELECTED CONTRIBUTED TALKS

Awards

2007-2010	Addison E. Verril Award for Marine Biology	\$13,600
2009-2009	TAMU-CC Parents Council Travel Grant	\$1,000
2011–2011	TAMU-CC ELITE Travel Grant	\$2,000
2012-2012	ICES/PICES Early Career Scientist Travel Award	\$500

## Grants