### Marine Heatwaves in the NW Atlantic

### Andrew J. Pershing @sci\_officer, apershing@climatecentral.org

### CLIMATE



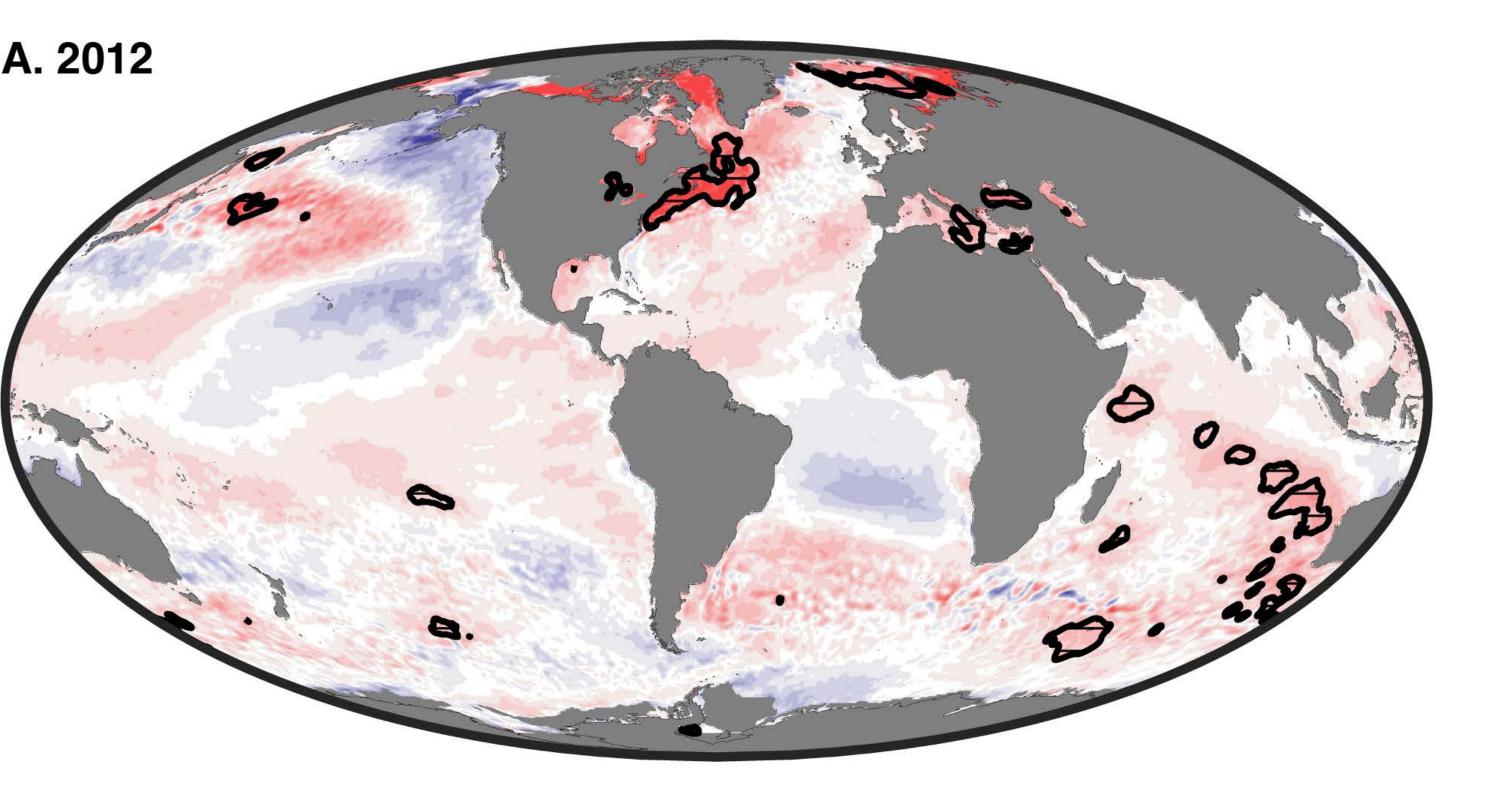
# Climate Central

- 2008
- 30 staff, most @ Princeton, NJ
- Non-partisan, policy/technology neutral, non-advocacy
- Catalyzing media, NGOs, government, educators, businesses
- Practitioners of climate science, climate journalism, and climate communications

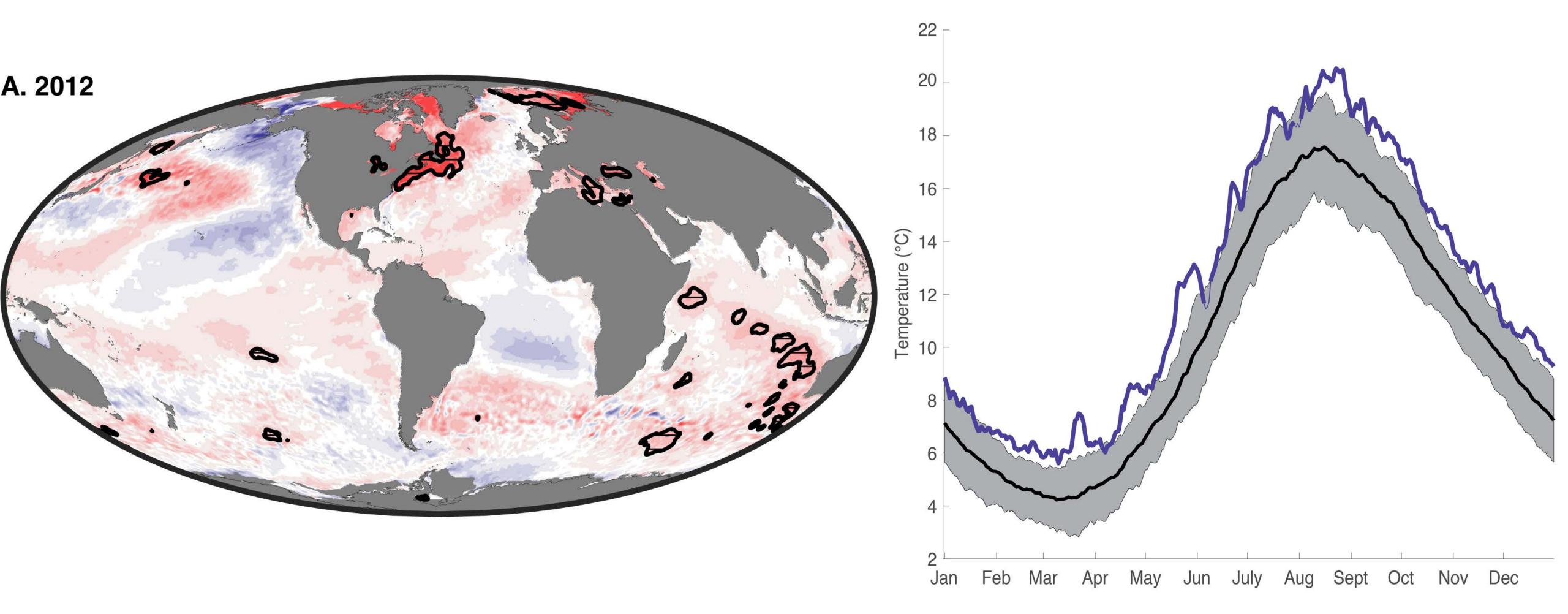
### • Climate science research and communications NGO, founded

















squid, National Undersea Research Center, U. Connecticut https://www.fisheries.noaa.gov/species/longfin-squid







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### Mills et al. (2013) Oceanography 26:191-195

black sea bass, Gulf of Maine Research Institute







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butterfish, NOAA https://www.greateratlantic.fisheries.noaa.gov/sustainable/index.html









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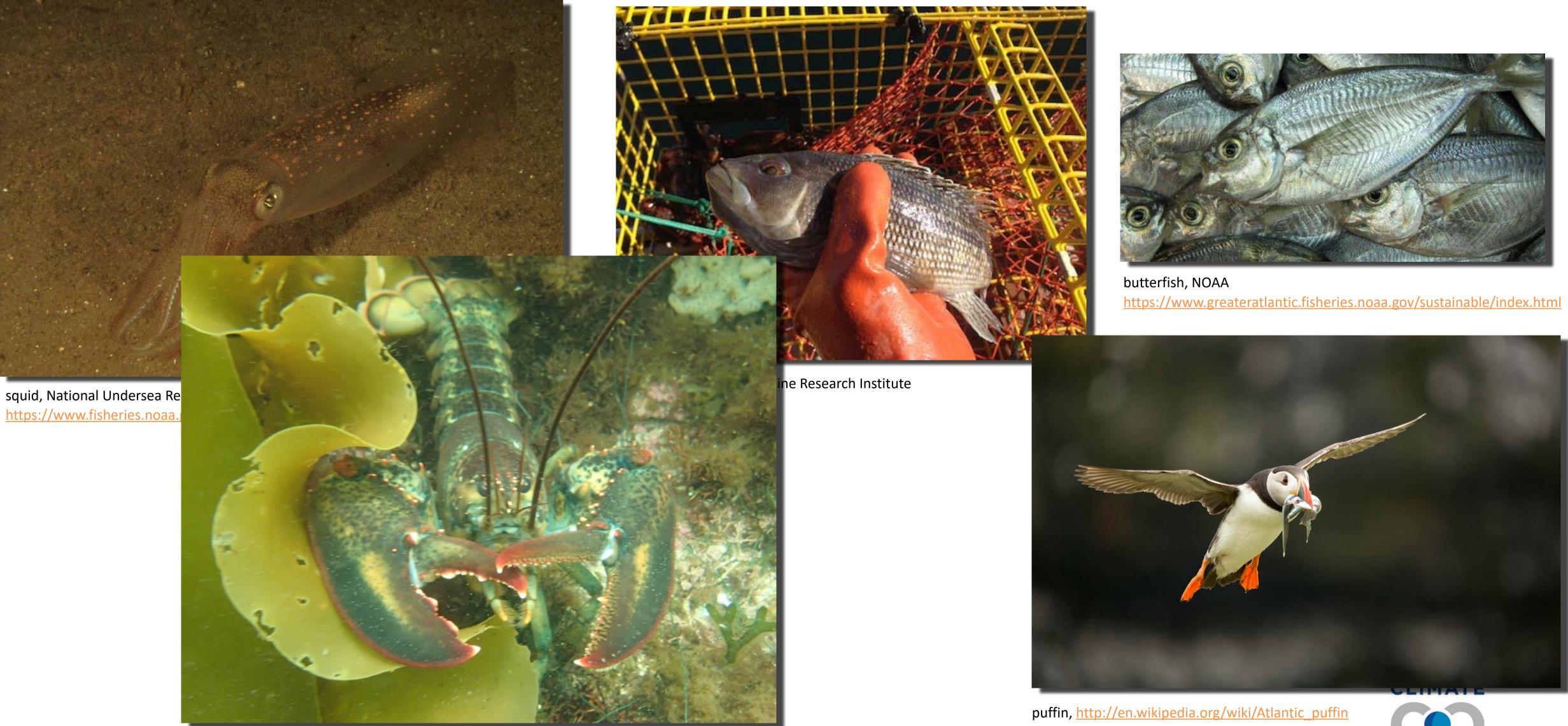
black sea bass, Gulf of Maine Research Institute



puffin, <a href="http://en.wikipedia.org/wiki/Atlantic\_puffin">http://en.wikipedia.org/wiki/Atlantic\_puffin</a>

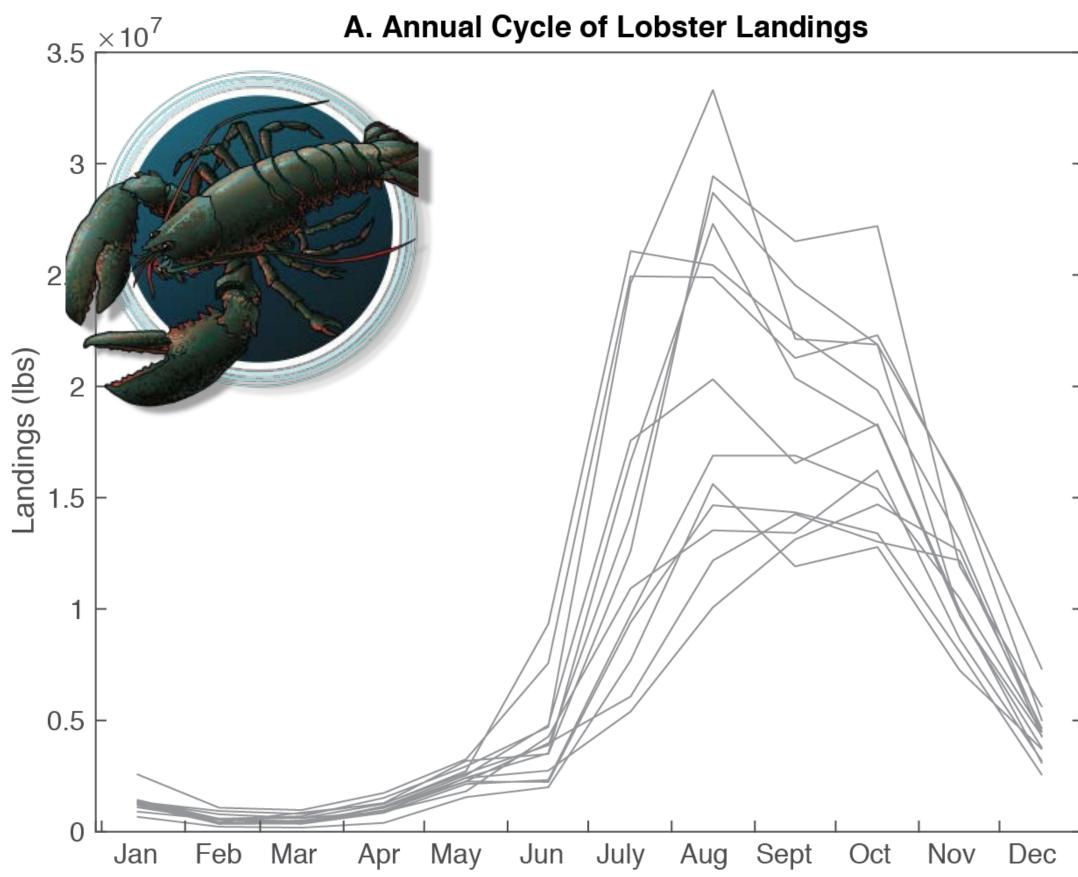




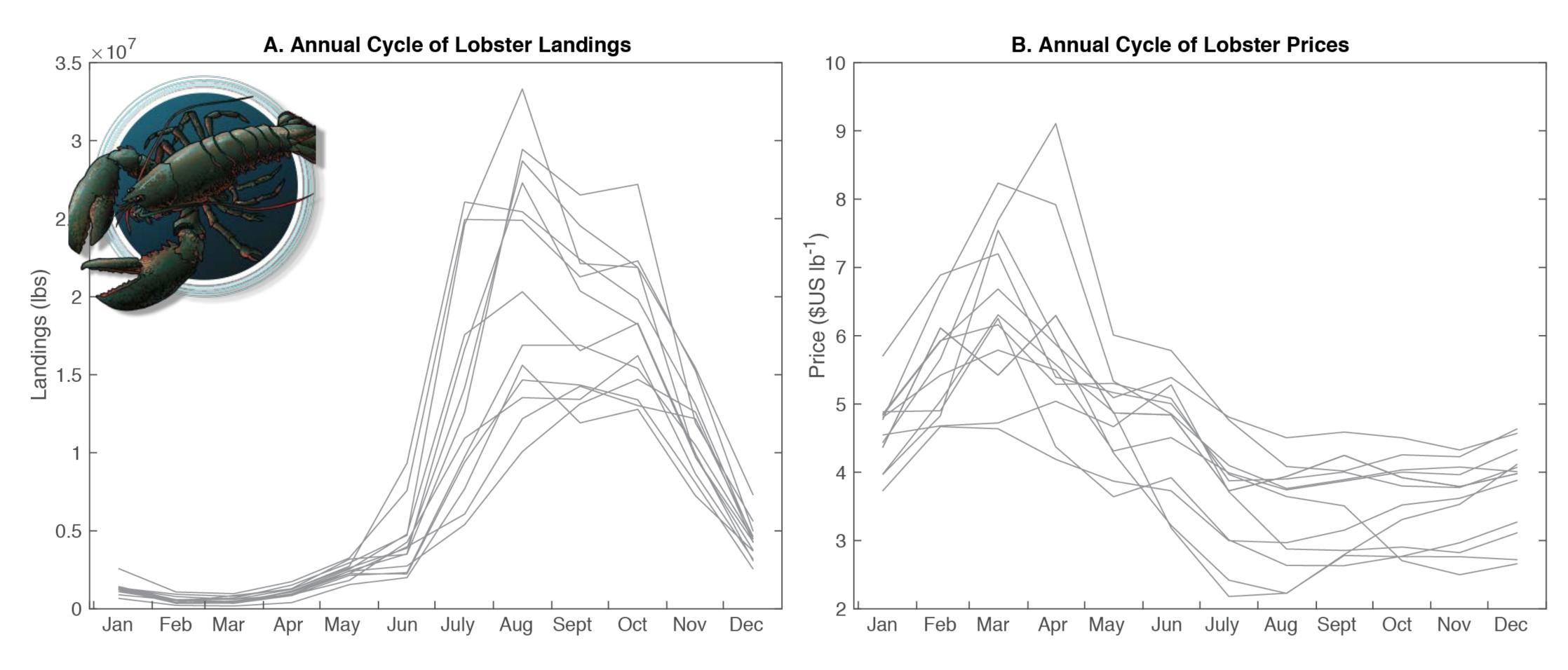








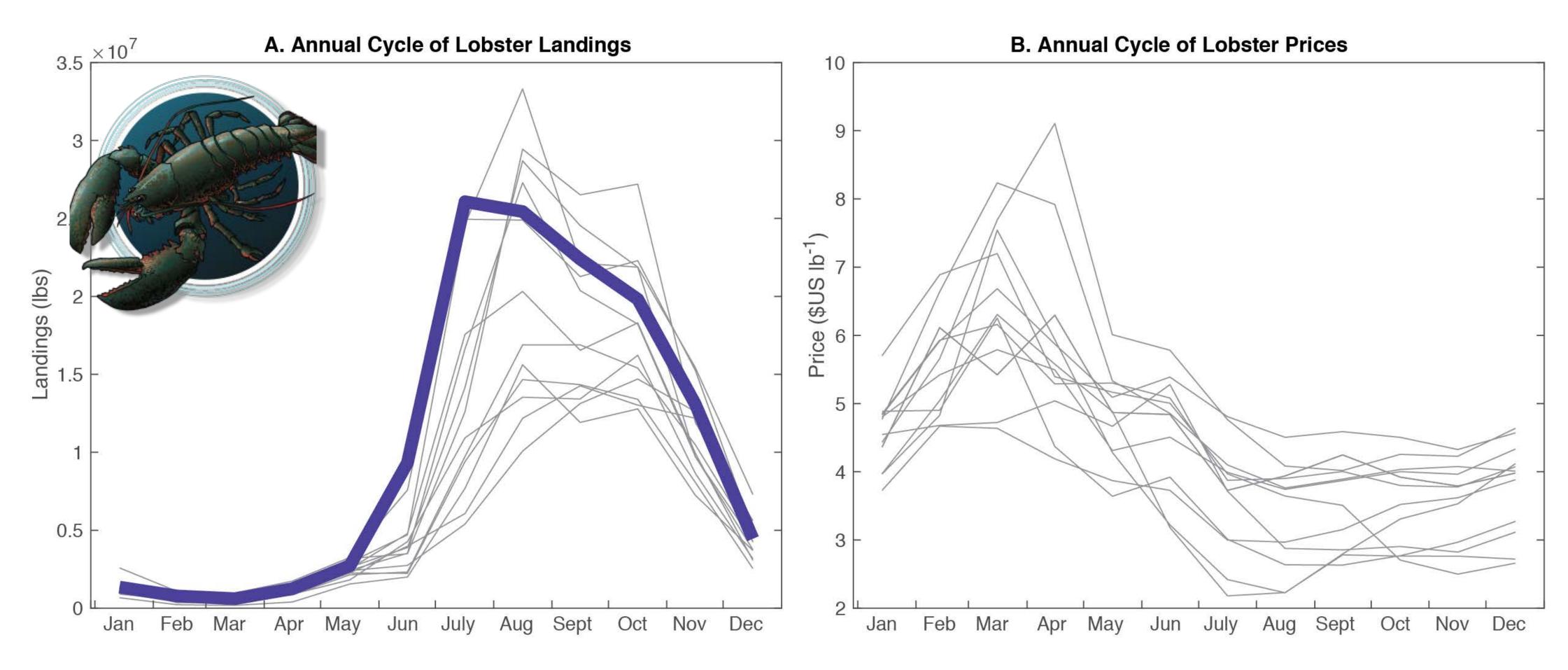




Mills et al. (2013) Oceanography 26:191-195

Lobster price is seasonal

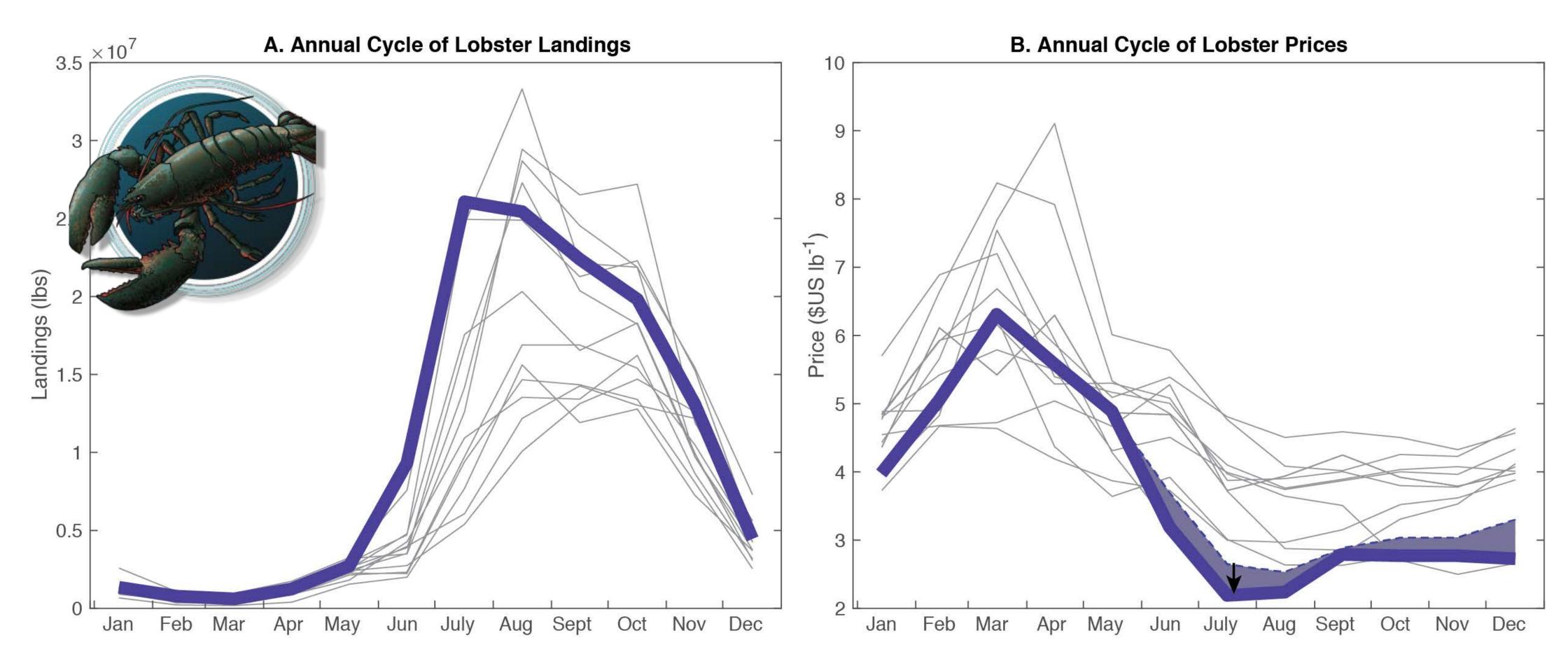




Mills et al. (2013) Oceanography 26:191-195

Lobster price is seasonal

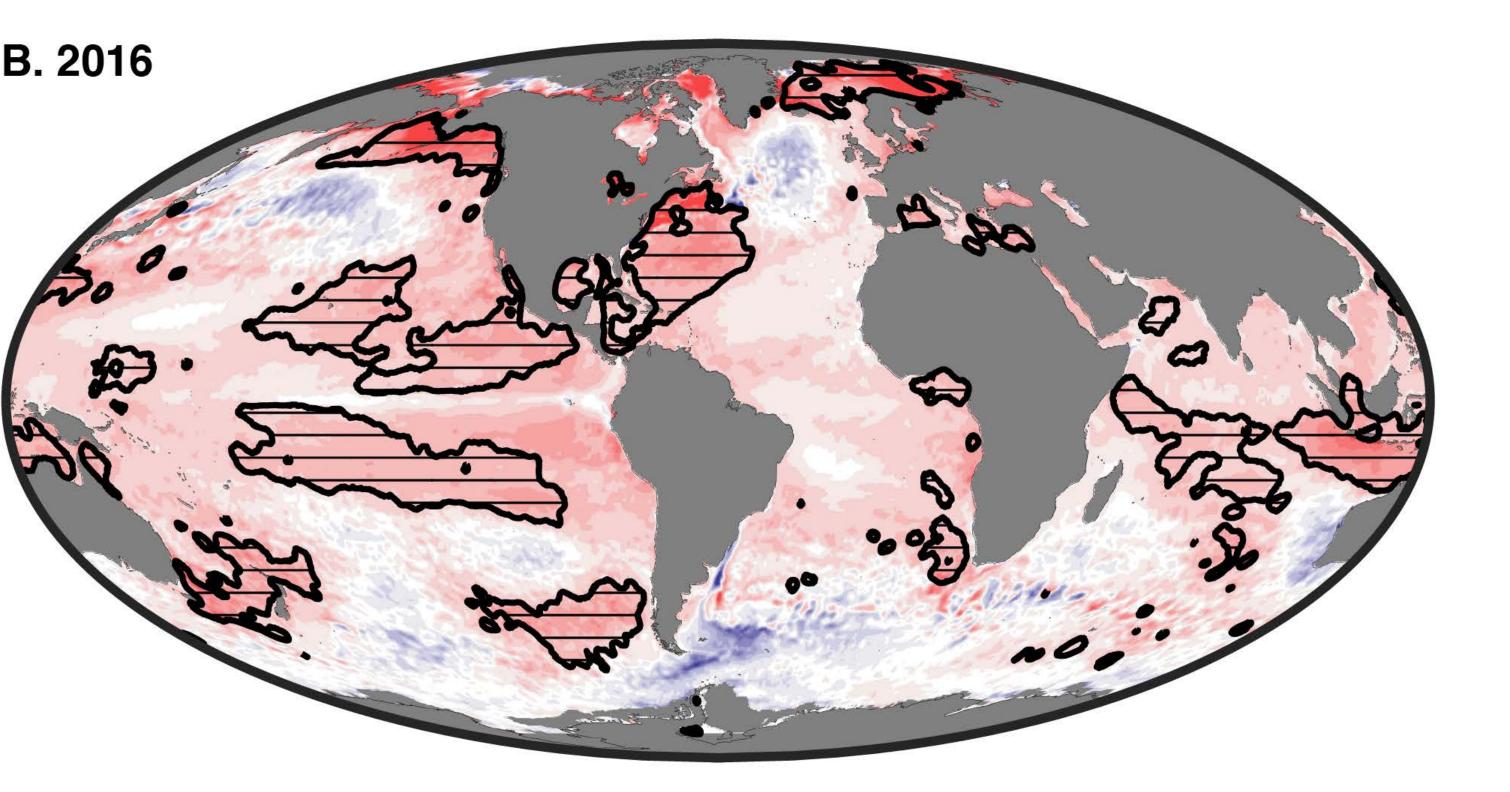




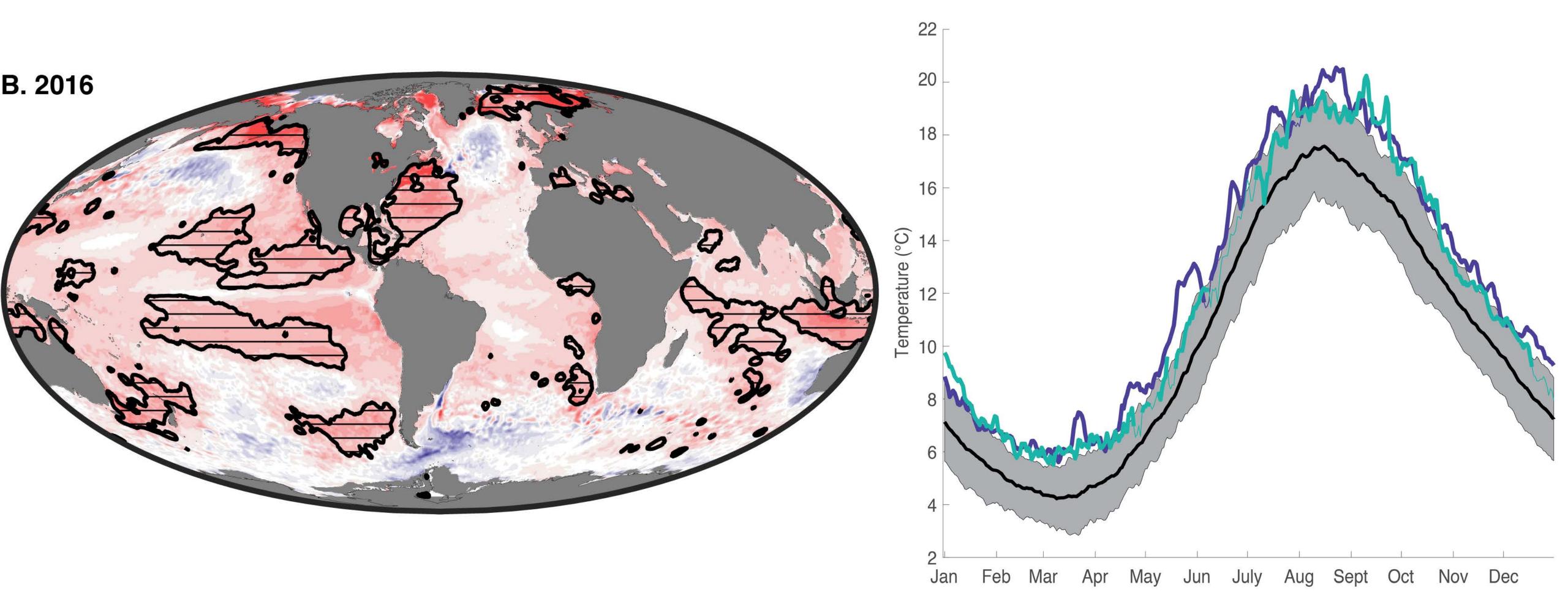
- Lobster price is seasonal
- 2012: low



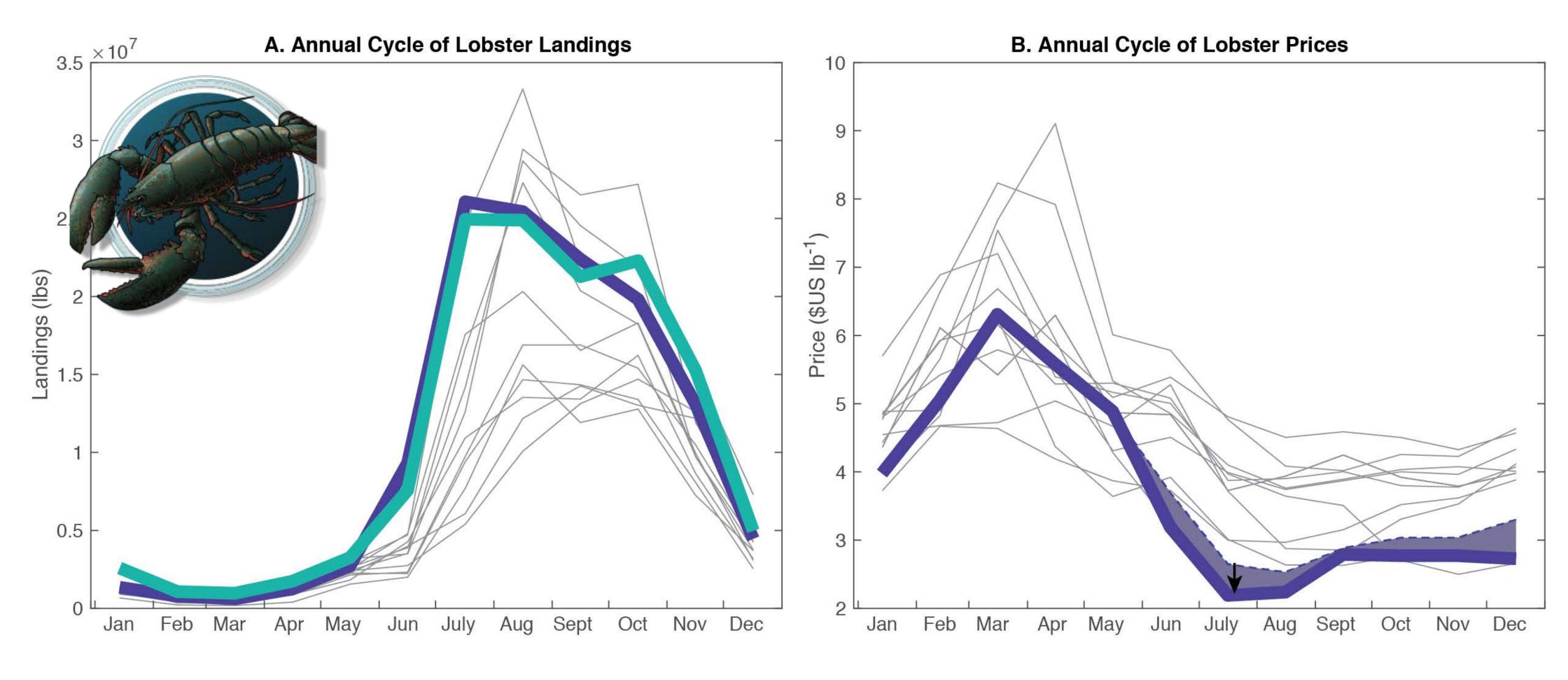








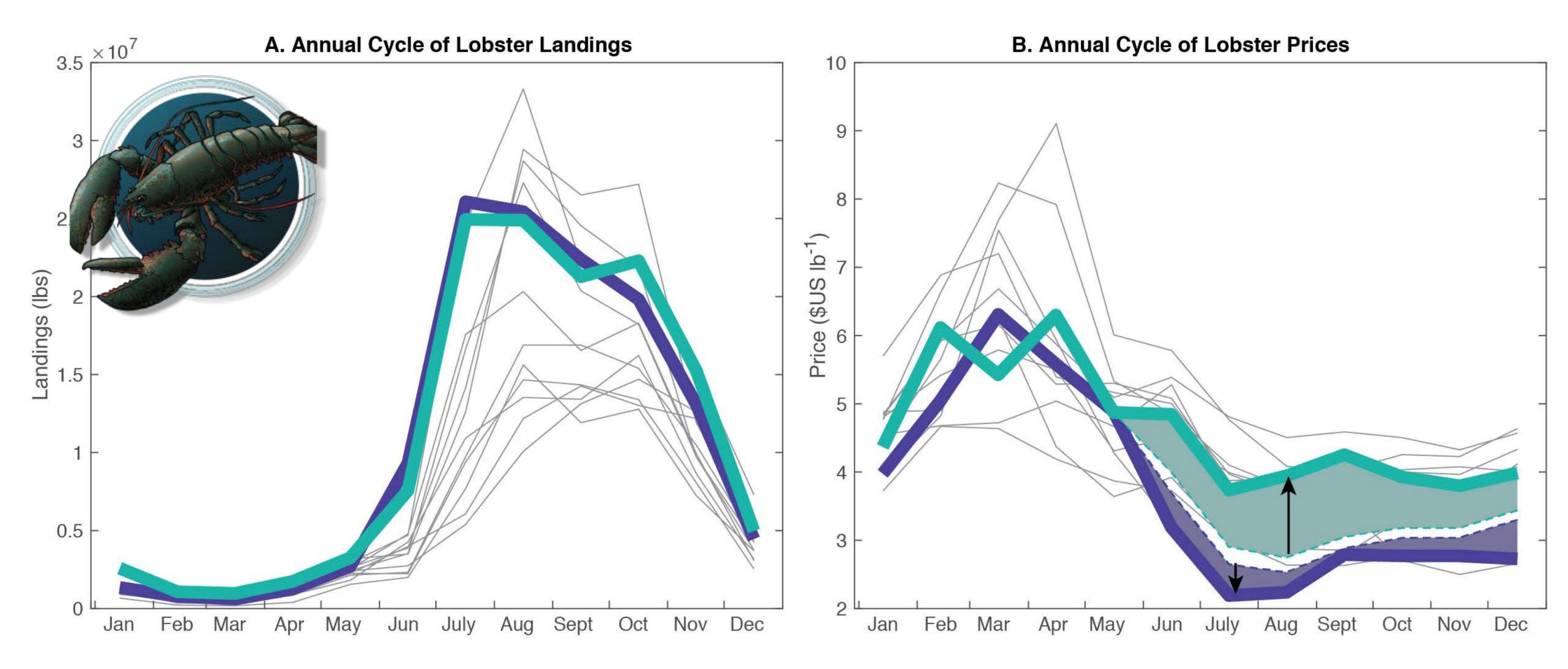




Pershing et al. (2018) Oceanography 31:152–161

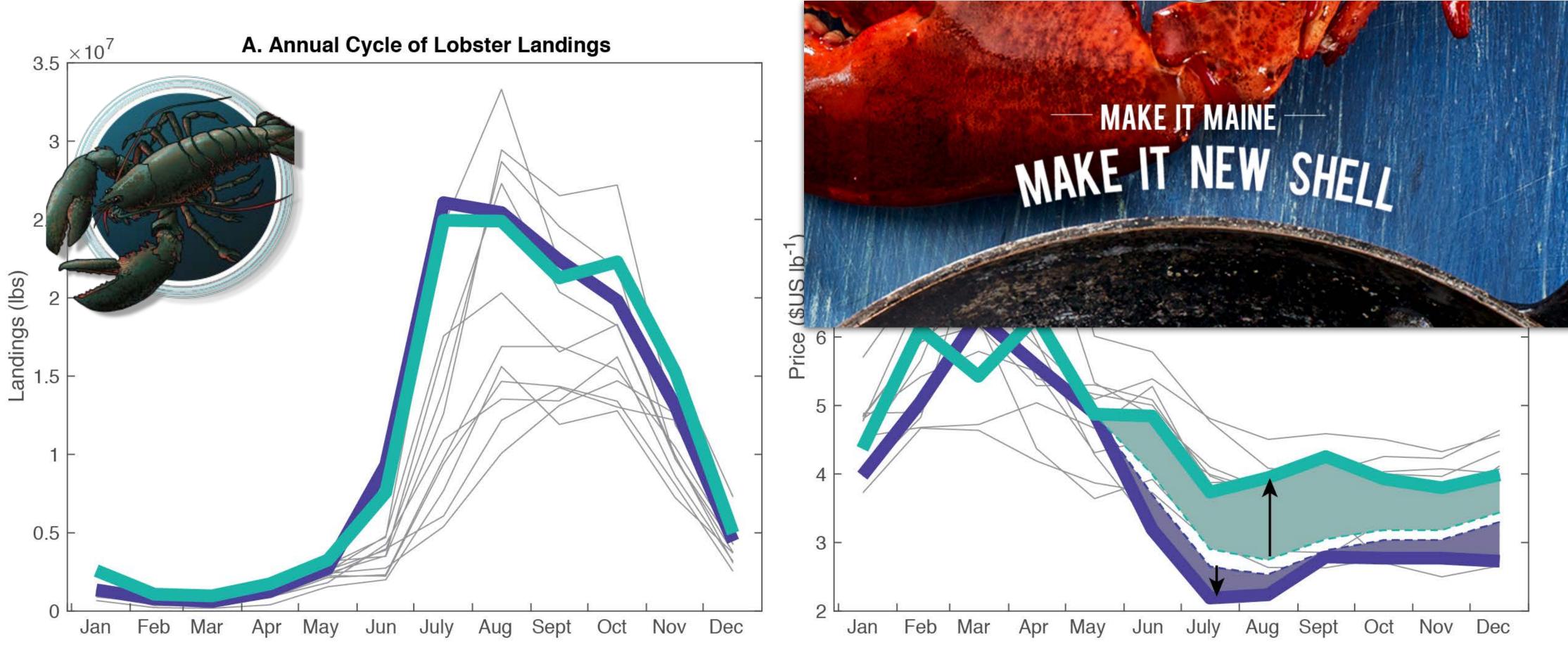
• 2012: low





- 2012: low
- 2016: high



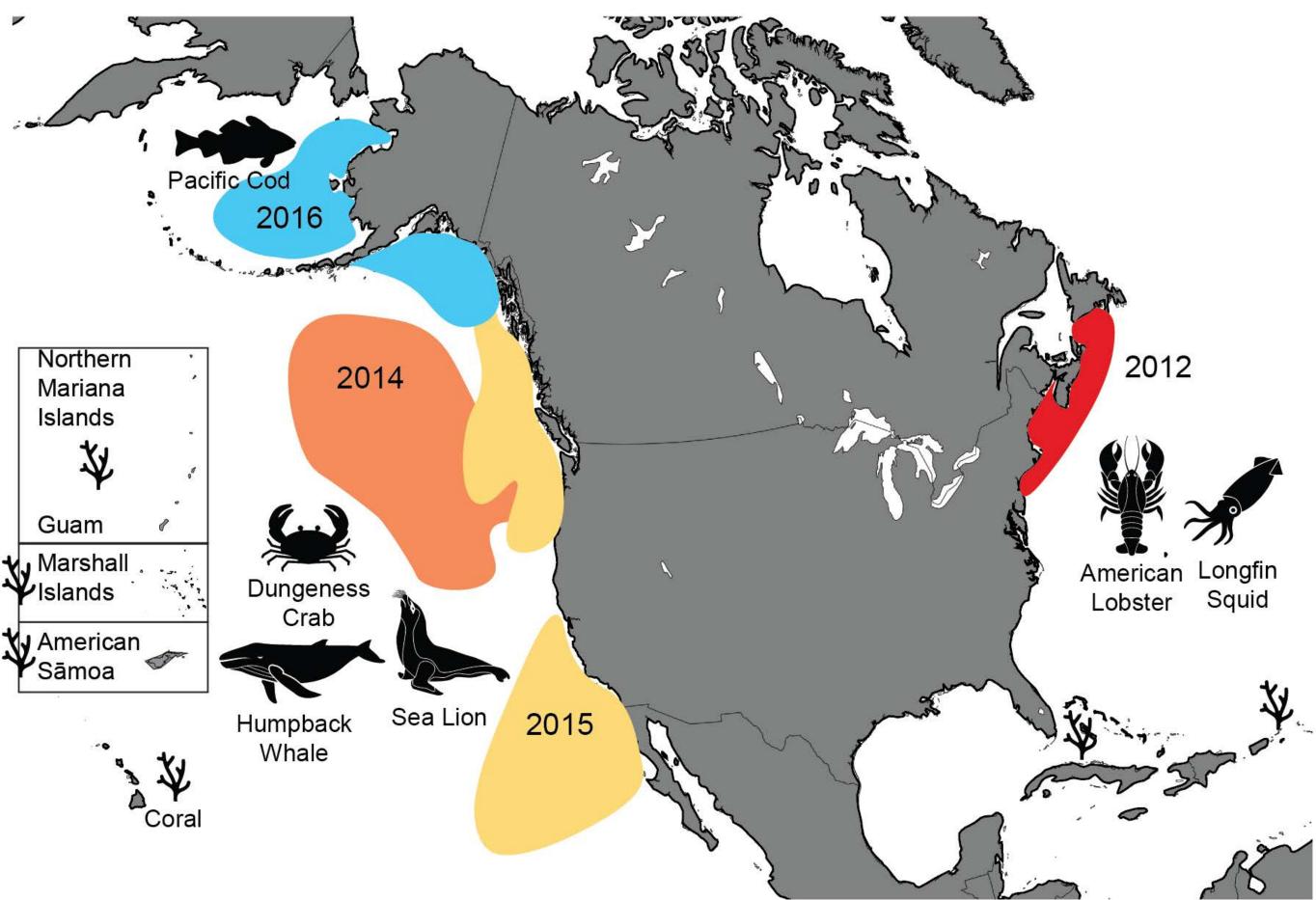


- 2012: low
- 2016: high

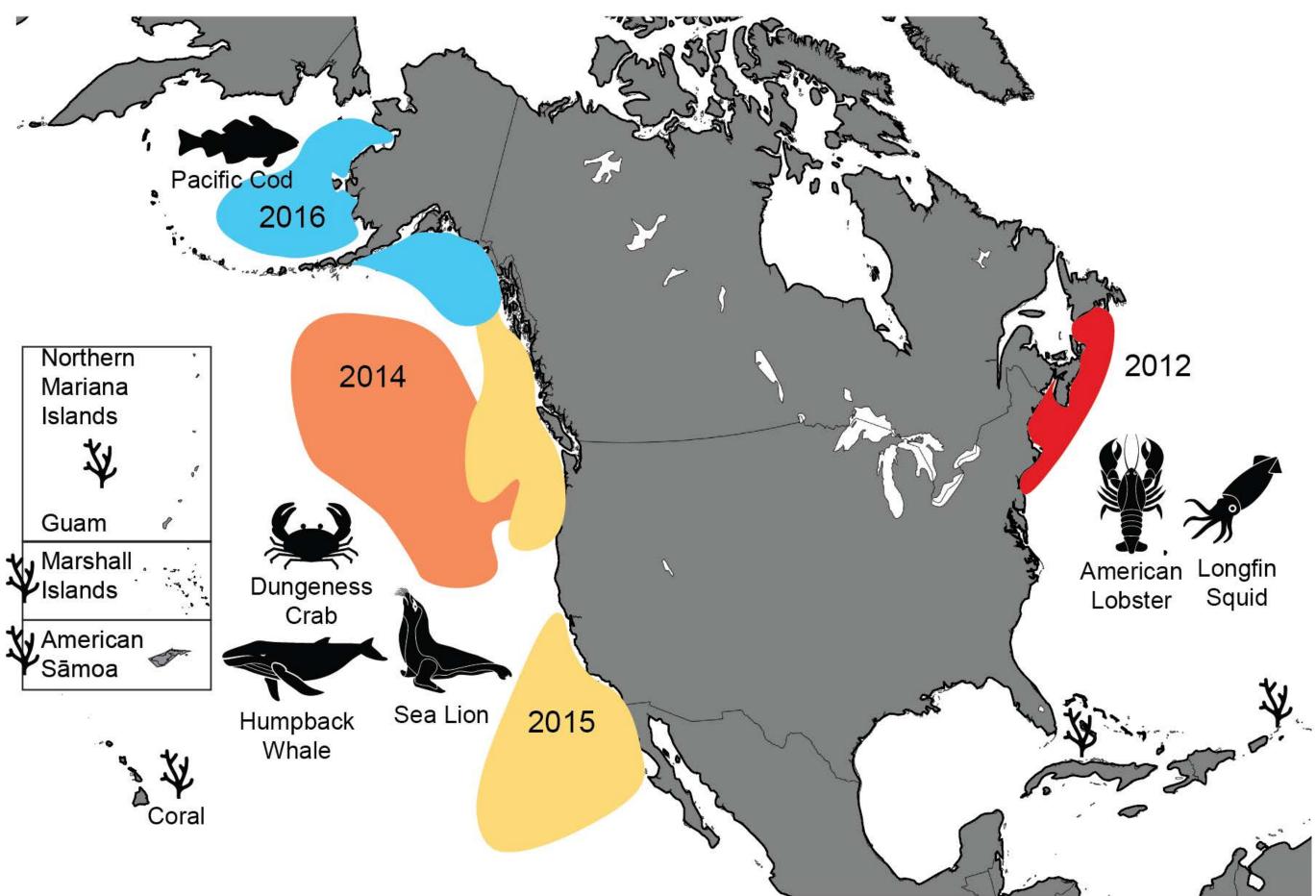






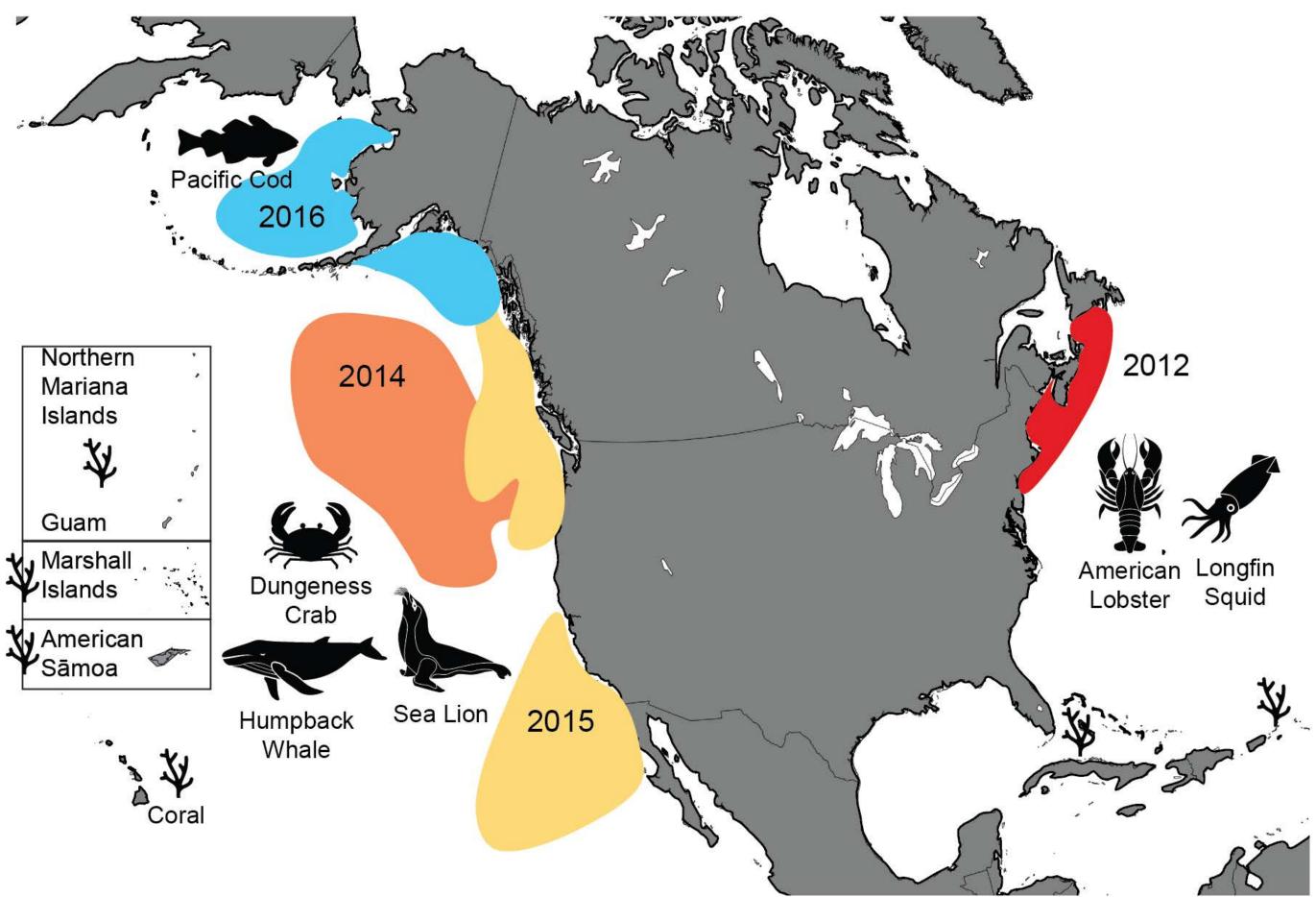






### risk of significant impacts from extreme events

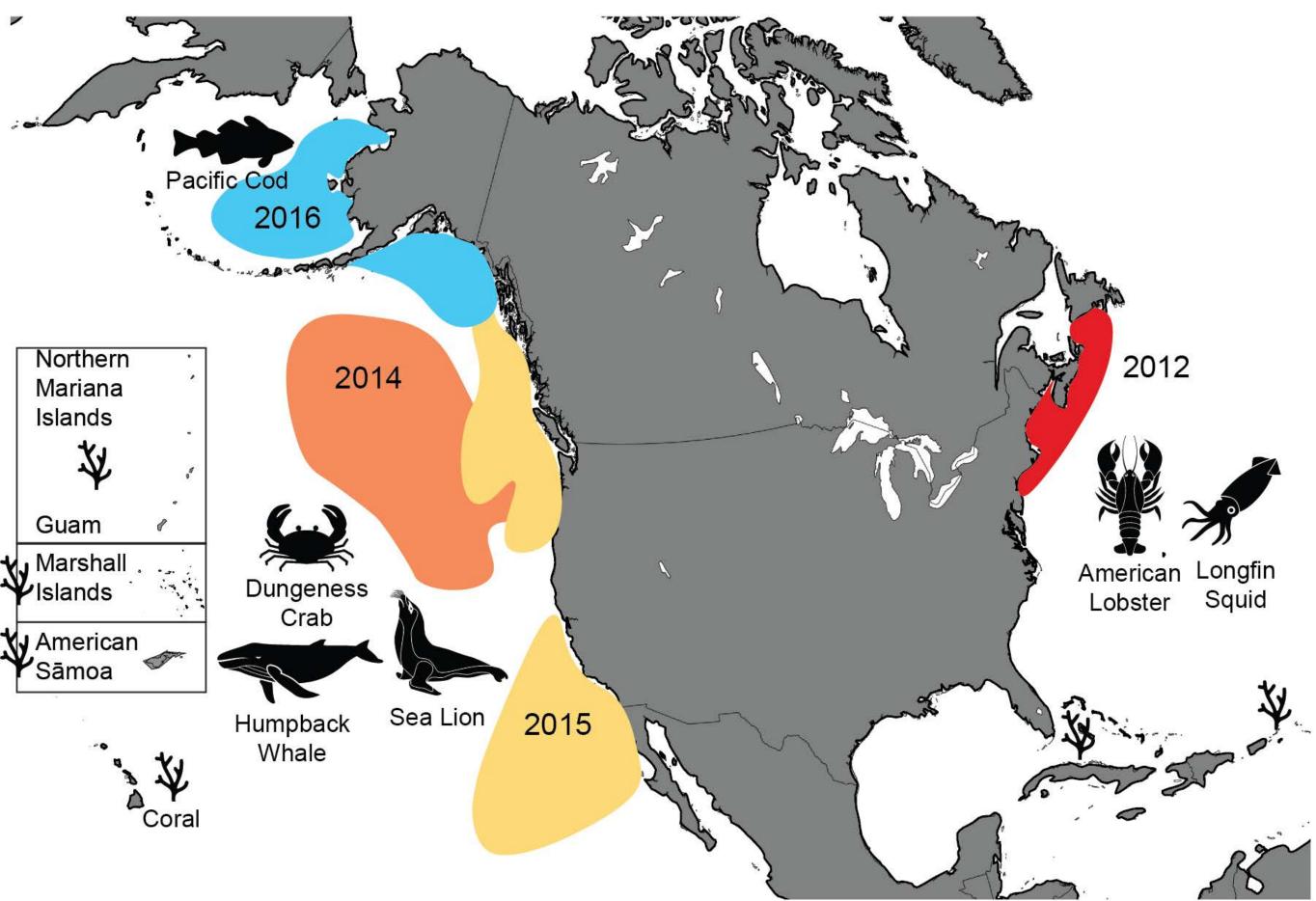




- risk of significant impacts from extreme events
- unusual events will become more common and more severe in the future







- risk of significant impacts from extreme events
- unusual events will become more common and more severe in the future
- they expose vulnerabilities that can motivate change



