

Supplementary Information

Indicator F: Invasive Species

State of Casco Bay 6th Edition

References

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<https://www.mass.gov/files/documents/2020/07/22/ras-2018-report-final.pdf>

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<https://www.mass.gov/files/documents/2016/08/ta/ras-2010-final.pdf>

Further Reading

Massachusetts Office of Coastal Zone Management (n.d.). Marine Invasive Species Monitoring (MIMIC) in New England Storymap. <https://mass-eoeea.maps.arcgis.com/apps/MapSeries/index.html?appid=1b522cbd55c24d4f850693f07cc50577>

A Storymap with photos and descriptions of common invasives found in New England. MIMIC compiled an interactive map of where invasive species have been found at MIMIC monitoring sites since 2008.

Miller, J. (2010, May 25). *MIMIC: Marine Invader Monitoring and Information Collaborative*. Wells Reserve at Laudholm. Retrieved from <https://www.wellsreserve.org/blog/mimic-marine-invader-monitoring-and-information-collaborative>.

Information about the MIMIC program and how you can get involved.

Maine.gov. (n.d.). *Invasive species*. About Maine: Invasive Species. Retrieved from https://www.maine.gov/portal/about_me/invasives.html.

A resource compiled by the state with lists of invasive plants, fish, insects, and shellfish in Maine.

Methods and Data Sources

Data was provided by Jeremy Miller, of the Wells Estuarine Research Reserve, who manages the MIMIC program in Maine. MIMIC is a collaboration between Casco Bay Estuary Partnership, Wells National Estuarine Reserve, Massachusetts Office of Coastal Zone Management, and data collection partners throughout New England. The program trains community scientists, who are primarily volunteers, to identify (currently) 23 species of invasives, including tunicates, bryozoans, algae, and crustaceans. Scientists visit sites monthly between May and October and document the abundance of these non-native species.

Data from the Regional "Rapid Assessment Surveys" (RAS) is available in periodic reports on rapid assessment surveys available from the Massachusetts Office of Coastal Zone Management. Those reports were cited above. The RAS reports are based on structured site visits by taxonomic experts, so they include many more species. The MIMIC program was created, in part, to provide data continuity between successive RAS surveys.

Data analysis evaluated trends in abundance of species, using multinomial (proportional odds) and binomial models, but results were not presented as part of the State of Casco Bay report. Graphics provide visual summaries of available data.

Access to data and summary of data analysis can be found at <https://github.com/CBEP-SoCB>. For a full archive of data and all analyses steps head to <https://github.com/CBEP-SoCB-Details>.