



ARTICLE

Climate Corner, November 2017

New Tool Models Uneven Effects of Melting Sea Ice on World's Ports

NASA has released a new, user-friendly [sea level rise modeling tool \(https://vesl.jpl.nasa.gov/research/sea-level/slr-gfm/\)](https://vesl.jpl.nasa.gov/research/sea-level/slr-gfm/) that specifically shows the predicted effects of melting ice sheets on the world's port cities. Thanks to interactions between melting ice and the effects of gravity, the spatial patterns of sea level rise are not evenly distributed across the globe. Understanding these patterns, known as "sea-level fingerprints," is critical to planning for future sea level rise scenarios. To aid in these planning efforts, this tool requires no special software or modeling expertise, and can be run on a regular personal computer.

Read more on the [NASA website \(https://climate.nasa.gov/news/2658/nasa-links-port-city-sea-levels-to-regional-ice-melt/\)](https://climate.nasa.gov/news/2658/nasa-links-port-city-sea-levels-to-regional-ice-melt/) or in the original [Science Advances article \(http://advances.sciencemag.org/content/3/11/e1700537.full\)](http://advances.sciencemag.org/content/3/11/e1700537.full).

National Parks and Human Sustainability

Over 15,000 scientists have signed on to a new report entitled "[World Scientists' Warning to Humanity: A Second Notice \(http://scientistswarning.forestry.oregonstate.edu/sites/sw/files/Warning_article_with_supp_11-13-17.pdf\)](http://scientistswarning.forestry.oregonstate.edu/sites/sw/files/Warning_article_with_supp_11-13-17.pdf)", which is an update to a 1992 paper that predicted the consequences of a range of human activities on the natural world. The report's authors looked at time-series data from the twenty-five years since the original paper was published to see how we have done in addressing issues such as ozone layer depletion, freshwater resource and biodiversity protection, climate change, and population growth. Unfortunately, they found little progress on many of these parameters, specifically calling out climate change and an increase in the rate of extinctions. However, among the steps listed to help humanity reverse these trends are several that can be supported by national parks and other natural areas, including:

- (a) prioritizing the enactment of connected well-funded and well-managed reserves for a significant proportion of the world's terrestrial, marine, freshwater, and aerial habitats
- (b) maintaining nature's ecosystem services by halting the conversion of forests, grasslands, and other native habitats
- (c) restoring native plant communities at large scales, particularly forest landscapes
- (d) rewilding regions with native species, especially apex predators, to restore ecological processes and dynamics
- (e) developing and adopting adequate policy instruments to remedy defaunation, the poaching crisis, and the exploitation and trade of threatened species

Learn more on the [Alliance of World Scientists website \(http://scientistswarning.forestry.oregonstate.edu/\)](http://scientistswarning.forestry.oregonstate.edu/).



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