

7-11-2022

The Impact of Human Activity on Coastal Zones with Elise Granek

Elise F. Granek
Portland State University, graneke@pdx.edu

Follow this and additional works at: <https://pdxscholar.library.pdx.edu/pdxplores>



Part of the [Environmental Sciences Commons](#)

Let us know how access to this document benefits you.

Repository Citation

Granek, Elise F., "The Impact of Human Activity on Coastal Zones with Elise Granek" (2022). *PDXPLORES Podcast*. 14.

<https://pdxscholar.library.pdx.edu/pdxplores/14>

This Podcast is brought to you for free and open access. It has been accepted for inclusion in PDXPLORES Podcast by an authorized administrator of PDXScholar. Please contact us if we can make this document more accessible: pdxscholar@pdx.edu.

Welcome to PDXPLORES a Portland state research podcast, featuring scholarship innovations and discoveries, pushing the boundaries of knowledge, practice and what is possible for the benefit of our communities and the world.

The coastal zone. Transition zones between land, sea, and atmosphere, provides vital ecological, cultural, and commercial benefits. Around the world, these ecosystems are home to a vast number of species, support critical industries, and sustain the cultural heritage of the people who have called them home. As with all ecosystems, they are vulnerable.

Near-shore waters, estuaries, tidal flats, and the species they support are on the front lines of human activities. Coastal zones are among the most rapidly growing areas, increasing both the human dependence on them and the human pressures they face from habitat modification, non-native species introductions, and pollutant runoff. All of which disrupt these ecosystems, harm native plants and animals that inhabit their waters, and threaten their ecological, cultural and economic vitality.

Critical marine organisms including clams, oysters, crabs, and fish ingest microplastics, pharmaceuticals, and forestry-associated pesticides originating primarily from upstream. These contaminants make their way into the food web. Ecologists are only beginning to explore the long-term implications of these pollutants for marine animals, plants, and ecosystems. We partner with communities, tribes, governmental and non-governmental organizations to identify contaminant concentrations, hotspots, sources, and effects on animals to provide the resources necessary to inform action.

Given the intense human dependence on the continued viability of these coastal ecosystems, understanding the impact of human activity on the species that inhabit them is essential to identifying solutions to address the suite of impacts. What are the sources of contamination? What are the potential outcomes for the species impacted by pollutant exposure? And what can be done at the individual, community, and policy levels to mitigate the adverse effects of human activities on these ecosystems?