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COMMENTARY

People, Places, and Plastic: Environmental Justice and Local Action

by Vincent Leggett, M. DeLois (Dee) Strum, Trisha Kehaulani Watson, Rep. Glenda Simmons Jenkins, Caitlin McKinstry, Veronica Padula, Lauren Divine, Mikayla Spencer, Dafina Matiku, Eleanor Pierel, and Henry P. Huntington

Fish and plastic pollution in sea. Microplastics contaminate seafood.

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Marine plastic pollution is a global scourge, one among many signs of the declining health of our planet. Globally, some five million tons of plastic currently float in our oceans. Our group of coastal and ocean community leaders, activists, and conservationists—from Maryland, Florida, Hawaiʻi, and Alaska—first convened to discuss the effects of this pollution on people and ecosystems. Initial conversations about the impacts of this problem quickly moved to the many different ways our connections to the sea are being harmed, and also to the ways local communities are working to restore both cultures and ecosystems.

The connections between our oceans and the local communities of these coastal regions are multifaceted and critical to the well-being of the people that reside there. Their reliance on our marine environment is greater than other landlocked places, and as such, the impacts of marine plastic pollution are also higher in these communities. By recognizing and addressing historic inequities, our group is building a knowledge hub for the broader coastal and conservation communities to coordinate and collectively address the global plastic pollution issue.

Working with local communities is crucial in addressing marine pollution, due to their direct interaction with marine environments and their vested interest in maintaining the health of these ecosystems. Local communities, particularly those located on coastlines, are often the first to experience the adverse effects of marine pollution, such as declining fish stocks, reduced water quality, and impacts on health and livelihood. As such, they are uniquely positioned to notice changes, identify sources of pollution, and respond swiftly. Our groups, further described below, are some of the places and peoples facing these direct effects, but they are also some of the organizations leading the efforts to respond to marine plastic pollution and stop it at its source.

Involving those who deal with the plastic pollution crisis every day in efforts to combat marine pollution ensures that the solutions are practical, culturally appropriate, and sustainable. These communities possess invaluable local or traditional knowledge and practices that can complement scientific research and innovative technologies in addressing environmental issues.

Photo courtesy of Blacks of the Chesapeake Foundation

Admiral of the Chesapeake Vincent Leggett, founder and president of Blacks of the Chesapeake Foundation, narrating Black history on a boat tour on the Chesapeake.

Chesapeake Bay was once home to abundant fish and shellfish. Black watermen and waterwomen were for generations a central part of fisheries and maritime commerce throughout the region. Today, land pollution that makes its way to the bay, overharvesting, and coastal development have reduced the bay's ecosystem productivity and forced many Black families away from the coast and out of maritime livelihoods. Only 2% of Chesapeake Bay's 12,000 miles of coastline is publicly accessible, though some Black-owned properties once created opportunities for leisure, entertainment, and recreation in the era of segregation.

In the waters around Jacksonville, Florida, a similar pattern of dispossession has disrupted the long-standing ties between the Gullah/Geechee people and their rivers, estuaries, and coasts. On the Ribault River, marine debris adds another impediment to subsistence fisheries where flooding and a toxic dump site have already hampered fishing traditions. Green infrastructure solutions, while desirable, could actually trigger gentrification and land displacement.

In Hawaiʻi, Native Hawaiians live in close kinship with the ocean. Marine resources are critical to their livelihoods and sustainability. Coastal development for tourism and wealthy settlers has resulted in significant levels of diaspora, with many Native Hawaiians being forced from their homeland. Away from the islands, Hawaiians[1] are unable to perpetuate their practices of marine stewardship and sustenance. Polluted runoff further imperils coral reefs and coastal biota. Here, too, coastal cleanups can help address the symptoms, but not the causes, of society's disregard for the ocean and for the cultures that depend on it.

In Alaska, marine debris is found in astonishing quantities, even on shorelines far away from population centers and without access to a road system to aid in removal efforts. On the Pribilof Islands in the center of the Bering Sea, abandoned, lost, and derelict gear from large-scale fisheries in the region accounts for most of the marine debris. This debris is responsible for entanglements of marine

Photo by Rep. Glenda Simmons Jenkins, Gullah/Geechee Nation

Capt. Sam Baker, founder of Solmargin Fishing and Conservation Foundation in St. Johns County, Florida, displays a redfish from the Ribault River. Baker's fishing tournament, Bigg Sam Slam, educates the public about ocean debris and contaminants in the waterways, and teaches the fishing tradition to Gullah/Geechee youth.

iStock/richcarey

Plastic bags, bottles, cups and straws pollute the ocean. Turtles can mistake these for jellyfish and accidentally eat them.

mammals and seabirds that Unangax̂[2] rely on for subsistence, exacerbating already declining populations of northern fur seals and seabirds.

Similar trends to those in the Pribilofs are seen in the Northern Gulf of Alaska, with additional plastic pollution coming from Asia. On the shores of Prince William Sound, the dAXunhyuu (Eyak people)[3] have had their traditional way of life disrupted by the oil industry, from the 1989 *Exxon Valdez* oil spill, to anthropogenically caused climate change stemming from the fossil fuel industry, and now from the marine debris crisis primarily consisting of petroleum-based plastics. The Eyak people's direct contribution to creating these challenges is negligible, but they continue to be affected. The tribe assumes a disproportionate amount of risk for continued widescale use of petroleum products while receiving no economic benefit.

These examples, from throughout the United States, suffer from a pattern of widespread societal neglect for our ocean and a habit of marginalizing and dismissing those most closely connected to local ecosystems. The two trends are not a coincidence. People care about what they are connected to. A society disconnected from the sea does not hold accountable those who produce plastic products in vast quantities that overwhelm the ability to dispose of them properly. That society invests little in alternatives, sad though some individuals may be at the sight of a sea turtle choked by a shopping bag.

At a local level, however, the link between community stewardship and coastal cultures is also an opportunity to change course. Those who are intimately connected to their waters and coasts can show the rest of us what is at stake. A deep relationship between people and the environment is a powerful source of well-being, identity, and purpose. Sustaining the health of our oceans and waterways helps the planet and us. An approach based on Indigenous and community rights makes us hopeful that local action can be connected across many waters to achieve large-scale gains.

Blacks of the Chesapeake Foundation (BoCF) is dedicated to documenting and sustaining the history and culture of the connections of Africans and their descendants in the Chesapeake Bay watershed to the maritime and seafood industries that fuel the region's economies. This history includes the story of Harriet Tubman, who used the waterways of the Chesapeake to bring herself and others to freedom. BoCF is best known for its 17-year battle, successfully completed in February 2024, to preserve Elktonia-Carr's Beach, formerly Black owned, to create the New Elktonia Heritage Park, owned by the city of Annapolis and accessible to all. BoCF is now working to create a center focused on environmental justice and community

Photo courtesy of Native Village of Eyak

Marine debris carried to the shore of Kayak Island, near the Cape St. Elias Lighthouse. Currents that create productive habitat for many fishes, marine mammals, and seabirds also bring marine debris from across the Pacific Ocean to Kayak Island, which juts out from Alaska's southern coast.

Photo courtesy of Blacks of the Chesapeake Foundation

The winning poster in a contest at the Edmund Burke School in Washington, DC, sponsored by Blacks of the Chesapeake Foundation and Ocean Conservancy.

education on climate change and extreme weather, with opportunities for citizen participation in the area's resiliency planning. In addition, BoCF is working with high schools in the area to inspire the next generation of environmental justice champions through activism, research, and education.

The Gullah/Geechee people recognize land retention as critical to securing their traditions that are inextricably connected to nature. Their support for environmentally friendly local land use policies, such as the Cultural Protection Overlay (CPO), a zoning ordinance enacted in Beaufort County, South Carolina, that prohibits intense development, also demonstrates their stewardship of marshes that stabilize shorelines and marine habitats during intense storms. In addition, the Gullah/Geechee Nation has joined a regional campaign, the South Atlantic Salt Marsh Initiative, to engage the public and local governments in implementing environmental policy and nature-based solutions. The initiative's goal is to save one million acres of salt marsh because the marsh contributes to coastal resilience and defends against storm surge, while using carbon sequestration to buffer and mitigate against ocean acidification.

ʻĀina Momona recognizes social justice and Native Hawaiian sovereignty as the foundation for environmental health and sustainability. At their projects on Molokaʻi and Oʻahu, the organization works with schools and other groups to restore their traditional land system and help sustain intergenerational cultural practices and values, which then guide and inspire further work and emphasis of local Native Hawaiian ownership throughout Hawaiʻi. As climate events continue to batter these islands, residents and elected officials are recognizing that groups like ʻĀina Momona, which strive to restore environmental systems by using both traditional practices and modern science, are critical to addressing environmental crises.

The Native Village of Eyak (NVE) in Cordova, Alaska, also recognizes Tribal sovereignty as the basis for cultural vitality and continuity. Through research and monitoring of the Tribe's natural resources, NVE stands as a leader in the sustainable management of the region's ecosystems. NVE's work with the National Oceanic and Atmospheric Administration (NOAA) to document hotspots of marine debris has also shined a light on the types of plastics inundating their shores. About 90 to 96% of marine debris along beaches surveyed was in the form of plastics. Chief among them were plastic bottles and fishing gear. This means that the waste from multi-million- and billion-dollar extractive industries is

Photo courtesy of Native Village of Eyak

Using Indigenous knowledge, Eyak residents collect glaucous-winged gull eggs in the traditional way that does not impact the population of these birds. Seabirds are threatened by marine debris, through entanglement or ingestion, which in turn threatens cultural traditions such as egg gathering.

washing up on the shorelines of small remote villages where few people are shouldering the massive burden of cleanups. Cleanups can be logistically challenging in a place where the nearest roads are 30 to 60 miles away by boat or plane and are not connected to the Alaska highway system. Landfill capacity in this community is limited. However, encouraging projects are underway across Alaska, including recycling the collected plastics into cement aggregate and plastic lumber, which could provide solutions for NVE.

The Aleut Community of St. Paul Island (ACSPI) in the Pribilofs similarly works with NOAA and other public and private partners to tackle the overwhelming marine debris issue. ACSPI has invested in building and documenting its extensive knowledge about its waters as a firm basis for Tribally led stewardship. For both communities, marine mammal hunting, fishing, and mariculture provide traditional and economic opportunity and depend on ensuring Tribal rights.

Supporting these efforts is a moral imperative and also a matter of global self-interest. Self-determination is a basic human right of Indigenous cultures, and these cultures need both the place and the freedom to manage their own affairs, in accordance with their own traditions, knowledge, and values. Indeed, the U.S. federal government has legal obligations to recognize, respect, and uphold Tribal sovereignty. By centering local ownership, we can address the multifaceted needs of these communities in ways that are context specific and locally relevant. Impoverished ecosystems and marginalized communities provide far less than their potential to their own members and to the wider world. Engaging local communities recognizes their ownership, stewardship, and responsibility toward the natural resources they depend on. This not only increases the effectiveness of conservation efforts but also promotes long-term commitment to maintaining the health of marine environments. Community involvement enhances the transparency and accountability of environmental initiatives, leading to more robust and effective governance of marine resources.

The inequitable burden of marine plastic pollution indicates that mainstream society has a long way to go to create a sustainable, healthy ocean. The examples of locally led community conservation show how we can start that journey together, as collaborations with

Photo by Hilary Burgess

Employees of the Ecosystem Conservation Office of the Aleut Community of St. Paul Island Tribal Government conducting a beach survey for seabirds and marine debris.

Photo by Patricia Chambers

A May 2022 cleanup event on St. Paul involved community members and volunteers and removed more than 25,000 pounds of debris, mainly derelict fishing gear.

and among local communities are essential for creating holistic, inclusive, and effective strategies to mitigate marine pollution, ensuring the health and sustainability of marine ecosystems for future generations.

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NOTES

1. The term "Hawaiian" is synonymous with "Native Hawaiians" or Kanaka Maoli, the Indigenous Hawaiian people who trace their genealogy to the islands prior to the arrival of westerners. It does not mean residents of Hawaiʻi, as is common in other locales. These individuals are locally known as "Hawaiʻi residents."
2. Unangax̂, meaning "The People of the Sea" in Unangam Tunuu, refers to the Indigenous peoples of the Aleutian and Pribilof Islands of Alaska. The term "Aleut" or "Aleut people" is also used, and is a Russian term used historically to refer to the Indigenous peoples of this region.
3. Coastal neighbors to the Prince William Sound Sugpiaq and the Yaakwdáat (Yakutat) Lingít.

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