



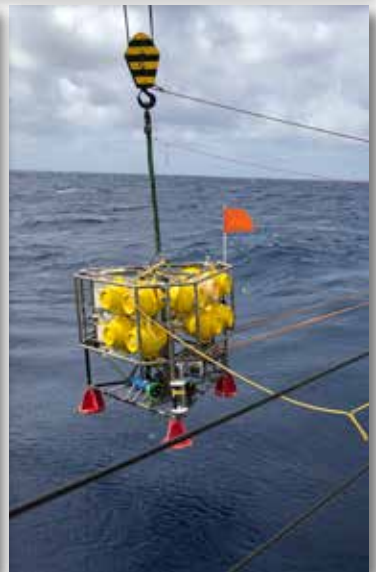
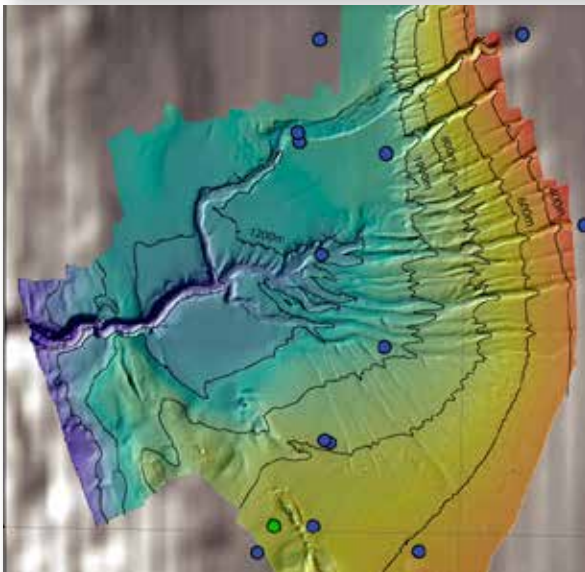
SPECIAL
PHOTO
ISSUE

NEWSWAVE

FROM THE U.S. DEPARTMENT OF THE INTERIOR:
OCEAN, GREAT LAKES, and COASTAL PROGRAM

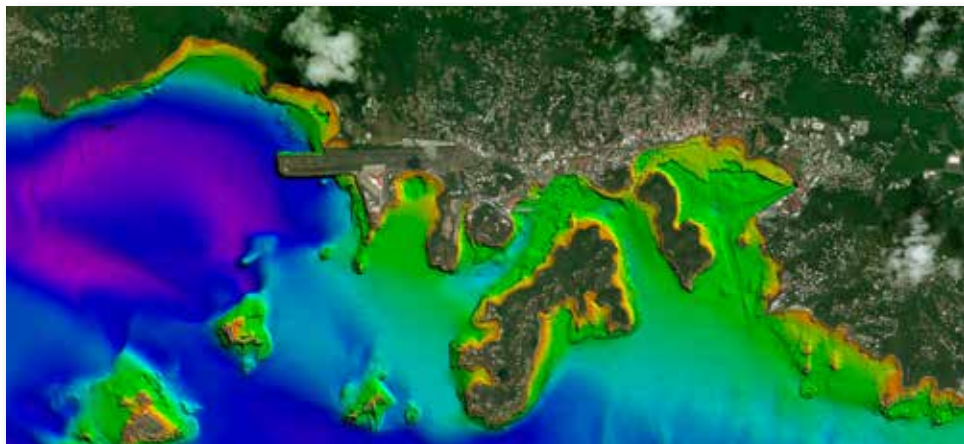
Explore With Us—

Summer 2020





As stewards of DOI's "Blue Portfolio," we have broad and diverse responsibilities for managing offshore energy, the revenue it generates, and maintaining healthy coastal and ocean ecosystems and the invaluable services they provide.



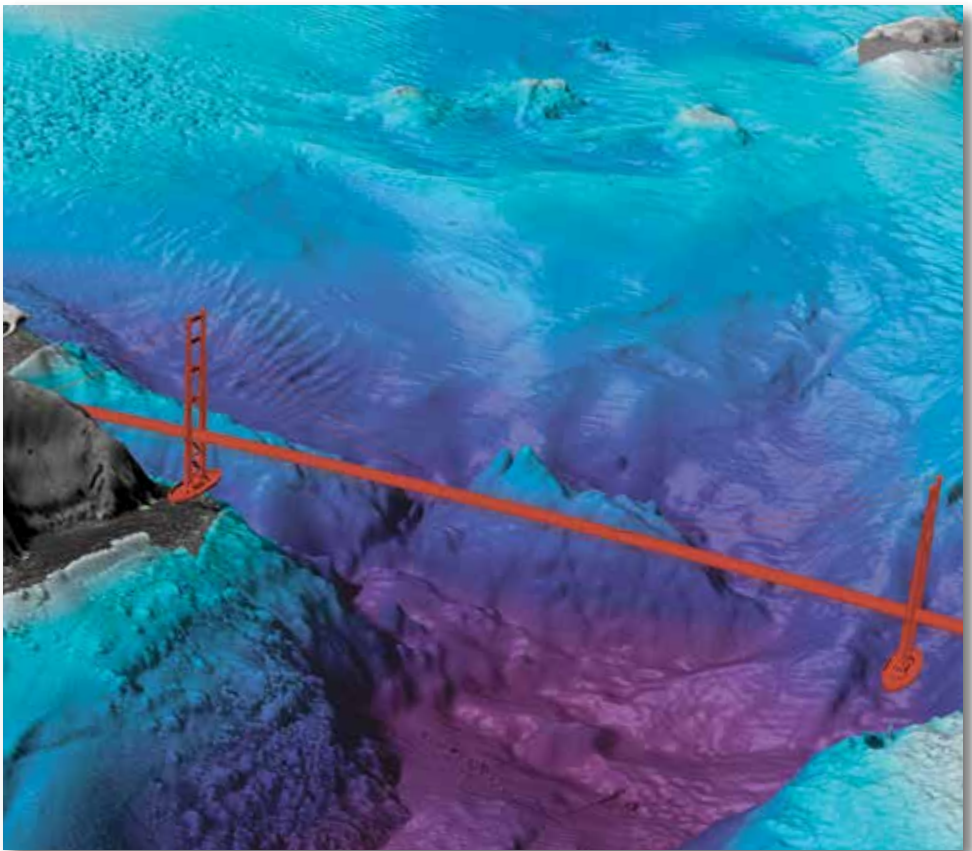
Front cover: top: A pink coral (*Corallium sp.*) on a rock outcropping in Retriever Canyon in the northeast Atlantic Ocean. Photo credit: NOAA Office of Ocean Exploration and Research, Deep Connections 2019; **bottom left:** Colored, shaded-relief bathymetry of Trinidad Submarine Canyon northwest of Humboldt Bay in northern California. Image credit: USGS; **bottom right:** The Deep SEARCH mission's benthic lander ready for deployment from R/V *Okeanos*. Photo credit: NOAA; **This page: top left:** USGS Jennifer O'Keefe Suttles is dwarfed by an invasive stand of grass (*Phragmites*) within the Herring River Estuary, part of the Cape Cod National Seashore. Photo credit: Sandra Brosnahan, USGS; **top right:** The R/V *Alaskan Gyre* with a glacier in the background in Harriman Fjord in Prince William Sound, AK. Photo credit: Sarah Schoen, USGS; **bottom:** Coastal bathymetry, St. Thomas, US Virgin Islands, mapped using lidar and depicted with false-color (purple is deep, orange is shallow). Land areas are depicted with satellite imagery. Image credit: USGS



We manage conservation, recreation, and Outer Continental Shelf leasing. We identify, conduct and support a wide range of the foundational science and new technology needed to support the wise management and use of these resources for future generations.



Top left: While resting, this nurse shark allowed for close-up photo of its eye. Photo taken in Aguadilla, Puerto Rico. Photo credit: JP Zegarra; **top right:** Sandhill cranes (*Grus canadensis*), Snow geese (*Chen caerulescens*), and Ross's geese (*Chen rossii*) rely on important wintering grounds at Bosque del Apache National Wildlife Refuge in New Mexico. Photo credit: Celestyn Brozek, USFWS; **bottom:** These bay grasses, known as subaquatic vegetation or SAV, provide important habitat on the Miles and Wye rivers in the Chesapeake Bay estuary, MD. Photo credit: Brooke Landry, MD Resource Assessment Service



Top: Bathymetric view of the seafloor at the entrance of San Francisco Bay under the Golden Gate Bridge created using a multibeam echosounder. Image credit: Peter Dartnell, USGS (<https://pubs.usgs.gov/sim/2006/2917/>);
bottom: A lush thicket of staghorn coral in the Dry Tortugas National Park, FL. Photo credit: Ilsa Kuffner, USGS



The Outer Continental Shelf (OCS) of the U.S. roughly doubles the size of our country. Exploring it is like discovering a new continent. It is an enormous task. DOI works across the federal family and relies on many partners, proudly supporting advancements in our knowledge of remote and unexplored coastal and submerged areas of the U.S.



Top: The USGS core sample repository at Woods Hole Coastal and Marine Science Center, MA. Photo credit: Brian Buczkowski, USGS; **bottom:** Far on the horizon, researchers from NPS, NOAA, and Cook Inlet Regional Citizen's Advisory Council work out biological sampling methods on the Douglas Reef Complex's immense intertidal benches before the tide comes in. The Douglas Reef Complex is off the coast of Katmai National Park and Preserve, AK. Photo credit: Mandy Lindeberg, NOAA

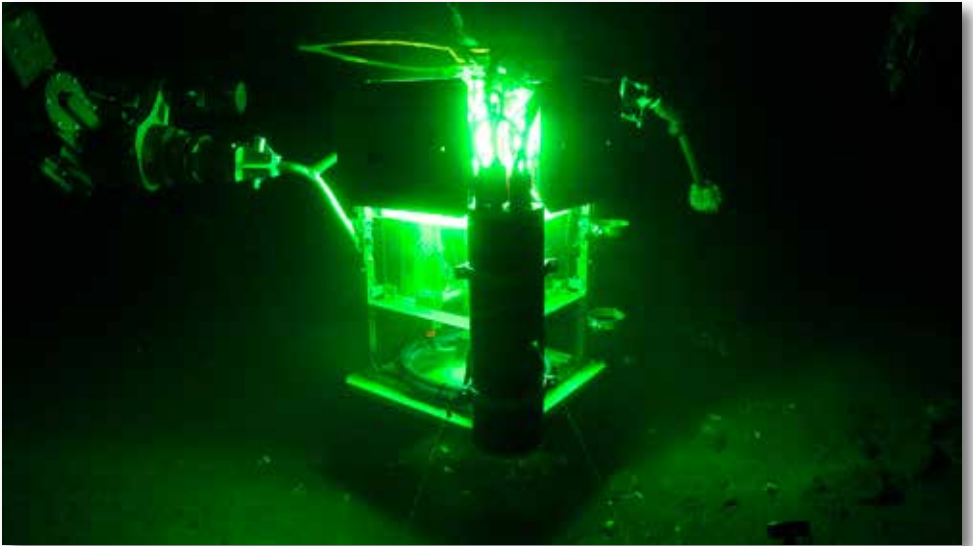


We work to understand and maintain connectedness among wetlands,





watersheds, coastal salt marshes, sea grass meadows and the deep sea.



Opposite page, top: A National Association of Geoscience Teachers intern participates in the USGS Cooperative Summer Field Training Program studying an invasive species in the Great Lakes. Photo credit: Danielle Snow, USGS; **bottom:** Restored coastal prairie habitat in Oregon include violets, an important host plant and food source for the caterpillar larvae of the threatened Oregon Silverspot Butterfly, in Nestucca Bay National Wildlife Refuge. Photo credit: Lila Bowen, USFWS
This page: top: Green sea turtles (*Chelonia mydas*) love to feed on the tender leaves of the paddle sea grass. Photo taken at Crash Boat beach in Aguadilla, Puerto Rico. Photo credit: JP Zegarra; **bottom:** ROV *SuBastian's* manipulator jaw stabilizes GEOMAR's glowing bubble box that is capturing high-resolution images of methane bubbles rising from the U.S. seafloor in 2019. Photo credit: ROV *SuBastian*/Schmidt Ocean Institute



Wildflowers bloom on the Mori Point headlands, Golden Gate National Recreation Area, CA. Photo credit: NPS



Top: A cruise ship in the Johns Hopkins Inlet with a June 28, 2016 rock-avalanche deposit on the Lamplugh Glacier, Glacier Bay, AK. Photo credit: USGS; **bottom:** A Yellow-billed loon (*Gavia adamsii*) sitting on a nest along a lakeshore in the Bering Land Bridge National Preserve, AK. Photo credit: Stacia Backensto, NPS



Top: With the volcano Mt. Augustine in the background, Sue Saupe of Cook Inlet Regional Citizen's Advisory Council counts algae and invertebrates at Contact Point in western Cook Inlet, AK. Photo Credit: Mandy Lindeberg, NOAA; **bottom:** New land created by lava flows forms cliffs along the coast in Hawai'i Volcanoes National Park. Photo credit: NPS.
Opposite page: top: Photographers attend a workshop at Acadia National Park, ME. Photo credit: Kent Miller, NPS; **bottom:** Oyster reef built by the USFWS South Carolina Coastal Program and Bears Bluff National Fish Hatchery at Seabrook Island, SC. Photo credit: Christopher Hernandez, USFWS





Always exploring, always maintaining respect and a sense of wonder.



Top: A shallow fire coral reef on Mona Island, Puerto Rico, beneath the setting sun. Photo credit: JP Zegarra; **bottom:** US Army Deep Sea Divers - 7th Engineer Dive Detachment - prepare to inter USS Arizona Survivor Lauren Bruner within the WWII battleship during the December 7th ceremony in Hawai'i. Photo credit: Brett Seymour, NPS

Opposite page top: Coral reefs below and the Loggerhead Lighthouse in the distance at Dry Tortugas National Park, FL. Photo credit: Miranda @saltyseabum; **bottom:** Hikers in Acadia National Park challenge themselves on Precipice Trail where they are rewarded with a stunning vista of the Maine coast. Photo credit: NPS





Meeting challenges—

By advancing our knowledge and capabilities and staying informed, we are prepared to manage the storms and other hazards.





Opposite page top: USGS scientists tending acoustic telemetry fish-tracking equipment in the Straits of Mackinac, Lake Michigan. Photo credit: Brad Buechel, USGS; **bottom:** A storm rolls in over Lake Erie. Photo credit: Ginger Carter, USGS
This page: A mid-summer harmful algal bloom in Lake Erie during a USGS water chemistry survey. Photo credit: Ginger Carter, USGS



DOI staff across the nation are fully immersed in fulfilling our mission of stewardship for ocean, Great Lakes and coastal resources!

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Top: USGS coastal researcher collects data in the surf zone. Photo credit: USGS; **middle:** USGS coral reef researcher diving in the field. Photo credit: USGS; **bottom:** USGS seafloor mapping team poses with SEABed Observation and Sampling System (SEABOSS). Photo credit: Dann Blackwood, USGS