

# New tool aids US conservation and management of whales, dolphins and porpoises

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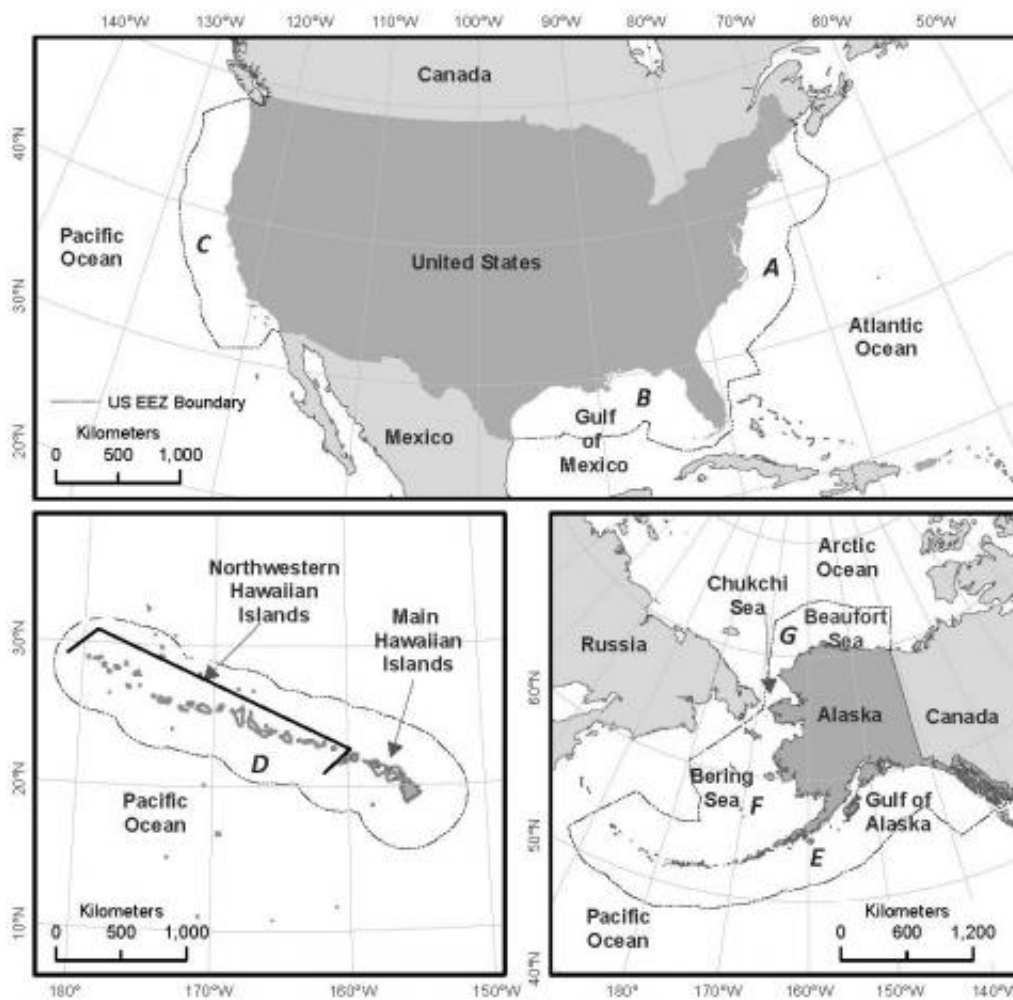


Figure 1 | Overview of study area, showing the seven regions within which Biologically Important Areas (BIAs) were identified within U.S. waters.

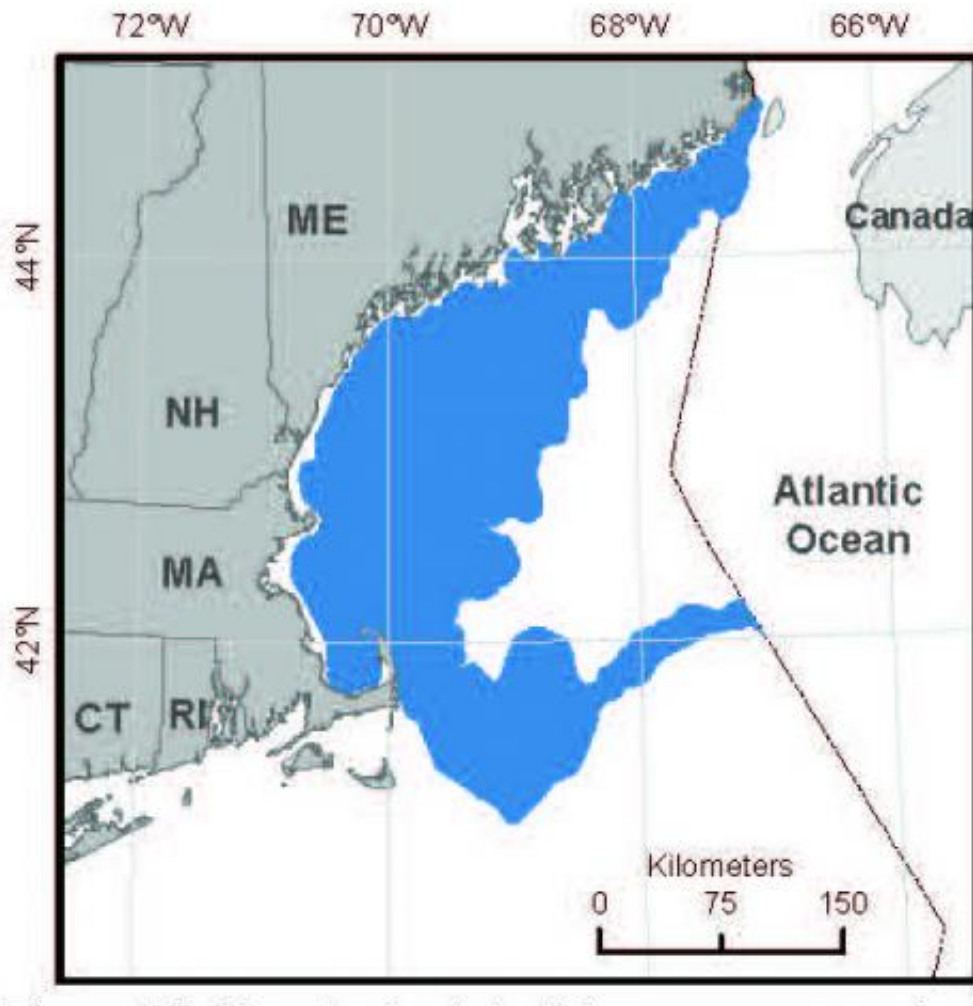
Maps showing the seven regions where Biologically Important Areas (BIAs) were identified within U.S. waters. Credit: Ferguson et al.

Researchers have identified more than 100 areas within U.S. waters that should be considered biologically important when making management and regulatory decisions about human activities that could affect whales, dolphins and porpoises.

The creation of Biologically Important Areas (BIAs) are described in a special issue of the journal *Aquatic Mammals*. Expert judgment was combined with published and unpublished data to identify 131 BIAs covering 24 species, stocks or populations in seven regions of the U.S. It is the first time so much information has been brought together for these species in one place and made available to scientists, managers, policymakers and the general public.

"The goal was to identify when and where cetaceans - whales, dolphins and porpoises - engage in activities that are important to the animal's physical health and fitness, reproduction and ability to survive as a population," said Sofie Van Parijs, who heads the passive acoustics group at NOAA's Northeast Fisheries Science Center (NEFSC) and is guest editor of the special issue. "Scientists and managers can use the information provided about BIAs to help with planning, analyses and decisions regarding how to reduce adverse impacts on cetaceans resulting from human activities."

BIAs are region, species and time specific and include reproductive and feeding areas, migratory corridors, and areas in which small and resident populations are concentrated. Each BIA includes a written narrative, a map, a list of references, and a table of data that details the type and quantity of information used to define the BIA.



Humpback whale feeding BIA, March through December, in the Gulf of Maine, Stellwagen Bank, and the Great South Channel. Credit: LaBrecque et al. (2015)

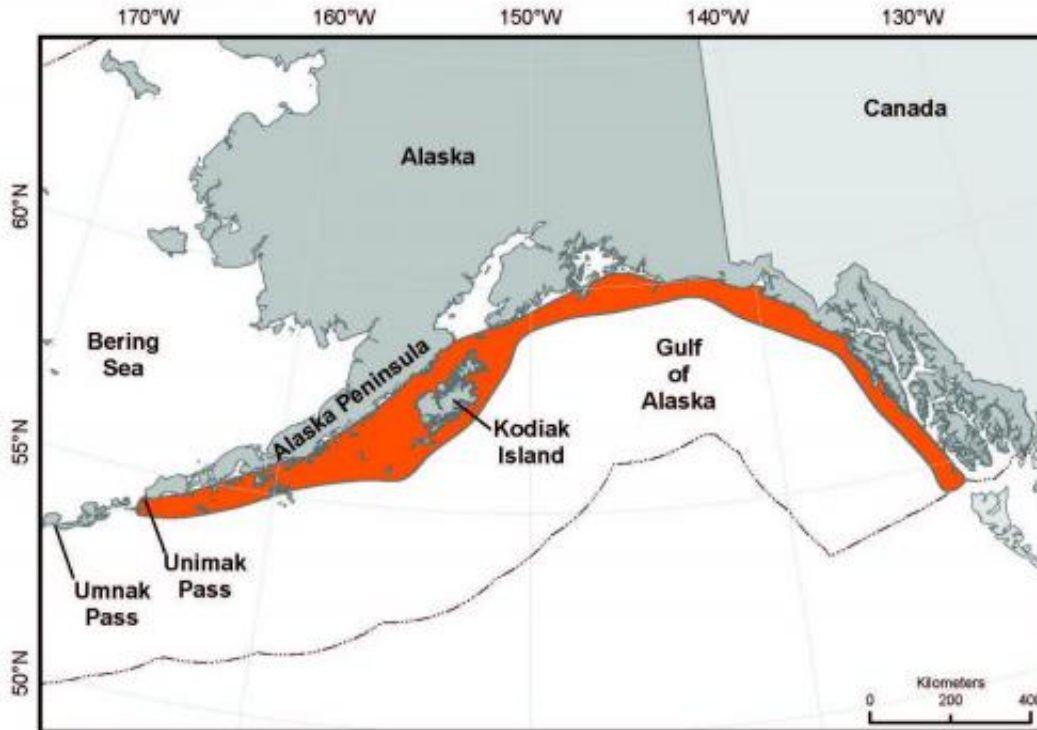
Biologically Important Areas can also be used to identify information gaps and prioritize future research to better understand cetaceans, their habitats and ecosystems. The use of BIAs could also aid conservation and management efforts.

Offshore energy development, military testing and training, shipping, fishing, tourism, and coastal construction are among the human activities of concern for the conservation and management of marine species,

especially cetaceans. For example, underwater noise, present at some level in almost every marine activity, can affect large areas over long periods of time.

"The BIAs are meant to be living documents that should be reviewed, revised and expanded as new information becomes available," said Van Parijs, who is also an author on several regional sections. "They are not marine protected areas, and have no direct or immediate regulatory consequences. They represent the best available information about the times and areas in which species are likely to be engaged in biologically important activities. We encourage anyone planning an activity in the ocean to look at this information and take it into consideration to understand and reduce adverse impacts on marine species."

The special issue includes an introduction and articles covering seven regions: the U.S. East Coast, Gulf of Mexico, West Coast, Hawaii, Gulf of Alaska, Aleutian Islands and Bering Sea, and the Arctic. BIAs were delineated for 24 cetacean species in these regions. The authors note that additional BIAs could not be identified at this time for many species because of insufficient, limited or conflicting information.



Gray whale migratory corridor BIA. The U.S. Exclusive Economic Zone (EEZ) is shown as a dashed line. Credit: Ferguson et al. (2015)

On the East Coast, for example, 18 BIAs were identified for seven species: minke whales, sei whales, fin whales, North Atlantic right whales, humpback whales, harbor porpoises and bottlenose dolphins. Feeding BIAs were identified for humpback, minke, sei, fin and North Atlantic right whales; migratory and reproductive BIAs for North Atlantic right whales; and small and resident population BIAs for harbor porpoise and several stocks of bottlenose dolphins. Areas ranged in size from 152 to 270,000 square kilometers (roughly 59 to 104,248 square miles).

The special issue originated in 2011 when the Cetacean Density and Distribution Mapping (CetMap) Working Group was convened within NOAA's Cetacean and Sound Mapping (CetSound) program to map

cetacean density and distribution within U.S. waters. Van Parijs co-chaired the working group, which included representatives from government agencies, nongovernmental organizations, academic institutions, and private research or environmental consulting firms.

Danielle Cholewiak of the NEFSC's Passive Acoustics Group, located at the Center's Woods Hole Laboratory, was also an author of one of the regional chapters. She worked on the Hawaii region, and was also a member of the CetMap Working Group.

Provided by NOAA Headquarters

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