PINPOINTING VULNERABILITIES

PROTECTING REGIONS OF THE ARCTIC

Many governments, communities, and nongovernmental organizations are collaborating in an attempt to protect the marine ecosystems of the Arctic in the face of climate change and increasing pressure from industry. This task is complicated by the variety of designations and protections, as well as by the numerous authorities that have created these designations.

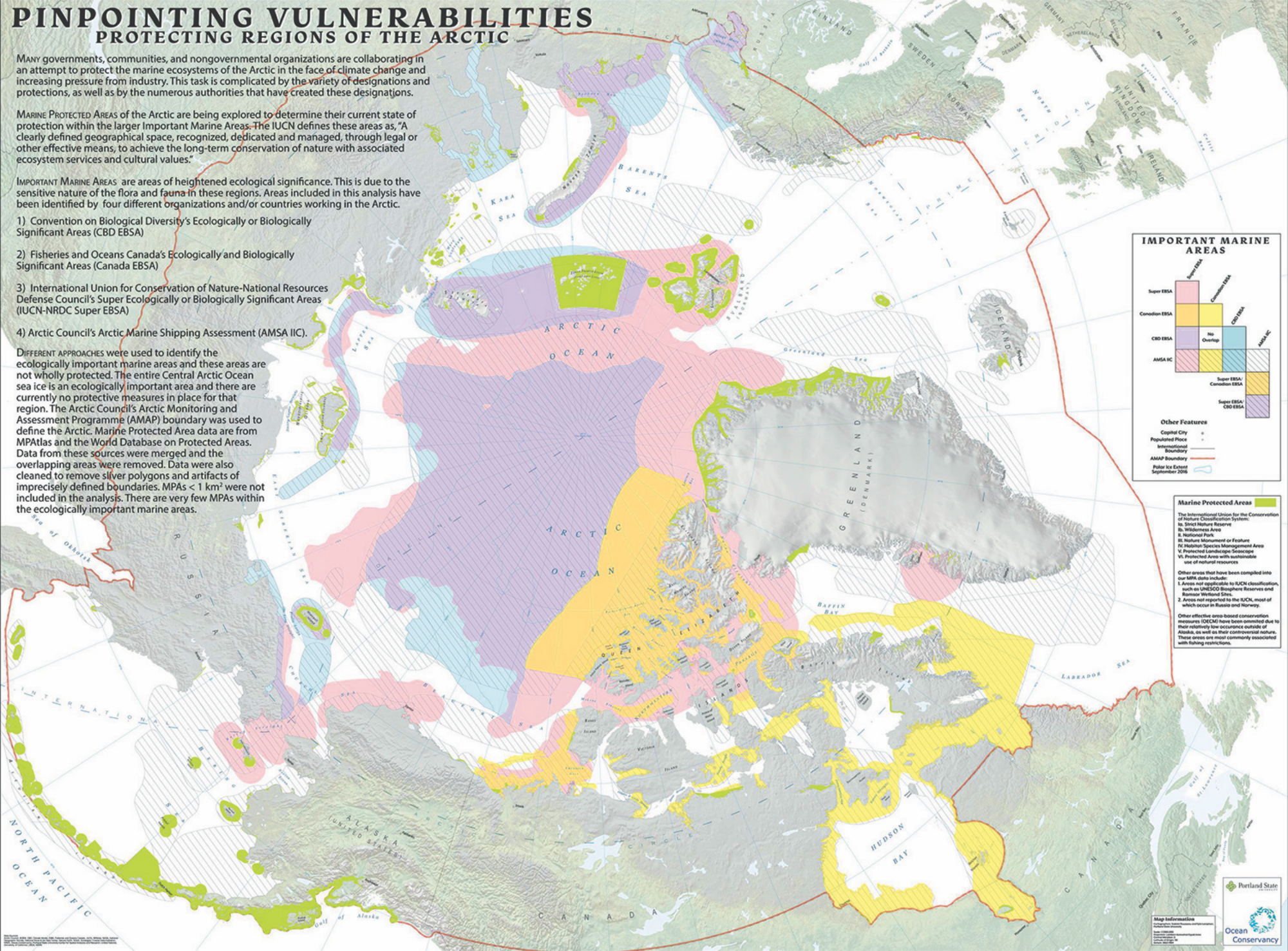
Marine Protected Areas of the Arctic are being explored to determine their current state of protection within the larger Important Marine Areas. The IUCN defines these areas as, "A clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values."

Important Marine Areas are areas of heightened ecological significance. This is due to the sensitive nature of the flora and fauna in these regions. Areas included in this analysis have been identified by four different organizations and/or countries working in the Arctic.

1) Convention on Biological Diversity's Ecologically or Biologically Significant Areas (CBD EBSA)

2) Fisheries and Oceans Canada's Ecologically and Biologically Significant Areas (Canada EBSA)

3) International Union for Conservation of Nature-National Resources Defense Council's Super Ecologically or Biologically Significant Areas (IUCN-NRDC Super EBSA)

4) Arctic Council's Arctic Marine Shipping Assessment (AMSA IIC).

Different approaches were used to identify the ecologically important marine areas and these areas are not wholly protected. The entire Central Arctic Ocean sea ice is an ecologically important area and there are currently no protective measures in place for that region. The Arctic Council's Arctic Monitoring and Assessment Programme (AMAP) boundary was used to define the Arctic. Marine Protected Area data are from MPAtlas and the World Database on Protected Areas. Data from these sources were merged and the overlapping areas were removed. Data were also cleaned to remove sliver polygons and artifacts of imprecisely defined boundaries. MPAs < 1 km² were not included in the analysis. There are very few MPAs within the ecologically important marine areas.