GULF OF MAINE AREA PROGRAM — UNIVERSITY OF SOUTHERN MAINE

Evan D. Richert, Program Director
MUSKIE SCHOOL OF PUBLIC SERVICE
96 Falmouth Street
Portland, ME 04104-9300
(207) 780-4824
FAX (207) 780-4593
erichert@usm.maine.edu

Lewis S. Incze, Chief Scientist
BIOSCIENCE RESEARCH INSTITUTE
350 Commercial Street
Portland, ME 04104-9300
(207) 228-1676
FAX (207) 228-1689
lincze@usm.maine.edu

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Outreach Coordinator: Suzy Ryan, 207-780-4826, sryan@usm.maine.edu

3,317 AND COUNTING
(THE NUMBER OF MARINE SPECIES IN THE GULF OF MAINE)

The diversity of marine life in the Gulf of Maine region is much greater than previously thought

PORTLAND, ME. The Gulf of Maine Program of the Census of Marine Life, with the Huntsman Marine Science Center of St. Andrews, New Brunswick, announced today the first count of known marine species in the Gulf of Maine region -- more than 50% larger than previous estimates. The count is 3,317 species and includes both year-round species and those that migrate to the region seasonally. The Canadian-US project is part of the international Census of Marine Life.

The count comes from the new Gulf of Maine Register of Marine Species, the first register of its kind for the region. According to Evan Richert, project director for the Gulf of Maine Census, "The register serves as a baseline for understanding the biodiversity of this renowned and heavily exploited region of the Atlantic Ocean."

Among the species are 652 kinds of fish, 184 species of birds, and 32 species of mammals. Microscopic plants, including the algaes, alone account for an impressive 733 different species, or more than one of every five species in the Gulf of Maine region.

"This register is the first, essential step toward understanding the Gulf of Maine as a whole ecosystem," said Lewis Incze, chief scientist of the Gulf of Maine Census, which is based at the University of Southern Maine. "This lays the foundation for the next step, which is to understand how these species interact with each other and their surroundings to make the ecosystem work."

The searchable register for the Gulf of Maine and neighboring deep sea waters was prepared by the Huntsman Marine Science Centre as part of a larger register covering the northwest Atlantic, from the Arctic to Cape Hatteras (North Carolina). The scope of life forms ranges from microscopic plants to marine mammals in waters from the lower intertidal to the deep sea. Researchers at the Huntsman, led by curators Lou Van Guelpen and Gerhard Pohle, mined literature dating back 100 years for species records and assured that the list is presented using standard species classifications. Though still in preliminary form, the register is a tremendously useful resource to investigators of biodiversity in the Gulf of Maine.

For example, it provides a baseline against which scientists can monitor future losses or introductions of species in the region as a result of climate change or other events, whether natural or induced by humans. Because the Gulf of Maine lies in an area that transitions from subpolar to temperate conditions, it and its creatures may serve as a sentinel for climate change. And, by providing a more complete picture of the marine web of life, it is another step toward managing the Gulf of Maine as an ecosystem – one of the primary goals of fisheries laws in the U.S. and Canada and of recent ocean commissions.

"Though the Gulf of Maine is one of the most intensively studied bodies of water in the world, there has never been an undertaking to compile all species living there. This register is the first comprehensive list of organisms living in the Gulf of Maine, and the count clearly exceeds the commonly bandied projection of approximately 2000 species" according to Van Guelpen.