



Study assesses scope of plastic pollution in waters of British Columbia, Canada

For immediate release: March 21, 2011

Sidney BC - Researchers from the University of St Andrews, Raincoast Conservation Foundation, Oceans Initiative and Environment Canada teamed up to assess the presence and potential threats from floating plastics and other debris to BC's marine animals.

The study, part of a larger effort to survey marine mammals, estimated that the inshore waters of coastal British Columbia are filled with approximately 36,000 pieces of garbage with the most common form being Styrofoam, followed by plastic bottles and plastic bags.

Marine debris can pose a threat to birds and mammals that accidentally consume garbage, thinking that it is food or become entangled in lines or mesh. A third, but little studied area of concern, is the sublethal effect from plastic's toxic properties.

"While there is evidence to suggest that the problem of marine pollution is pervasive, most animals that die from consumption or entanglement do so at sea, and their carcasses are rarely found or analyzed," explained the study's lead scientist Dr. Rob Williams. "There have been few attempts to quantify the scale of the marine garbage problem."

This study was intended to further awareness and understanding of BC's marine debris problem by first surveying floating garbage at sea, then mapping areas where marine mammals and garbage are likely to overlap, and finally identifying higher-risk areas.

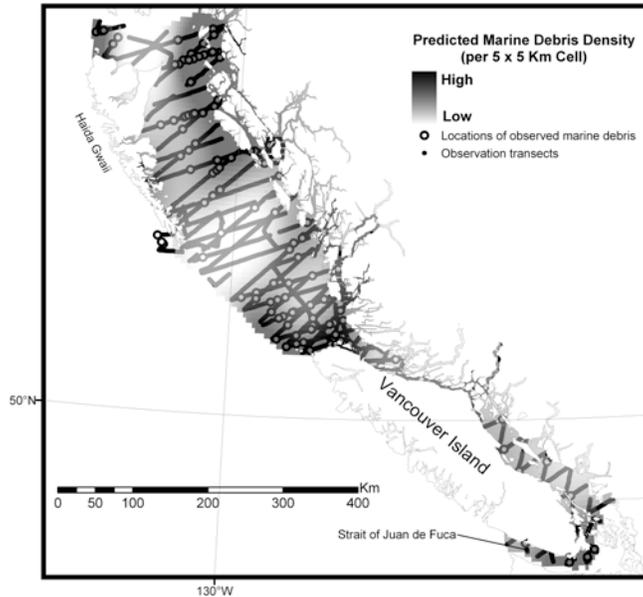
"Surprisingly, marine plastic density was greatest in remote coastal waters such as those off Prince Rupert, Langara Island and Cape Scott rather than urban areas such as Vancouver," said study co author Erin Ashe. These areas are habitat for Pacific white-sided dolphins, humpback whales and elephant seals, among others. One of the highest risk areas for BC's endangered fin whales was off Gwaii Haanas National Park Reserve."

The study also makes recommendations for better evaluation of debris risks to BC's marine mammals. "BC elephant seals have been recovered with Styrofoam in their stomachs and a grey whale recently recovered in Washington State had gallons of marine debris in its stomach," said Raincoast researcher Misty MacDuffee, "Are animals in BC dying from ingestion or entanglement, and if so, on what scale? We need a better handle on the threat that marine debris is posing to our marine wildlife."

Estimates from California suggest that 60-80% of marine debris has its origin on land. So it is far easier and cheaper to reduce input of garbage than to do clean-up after the plastic has reached the ocean. Allocating funds for volunteer groups to strategically target beach clean-

ups in these remote, higher-risk areas is one way to reduce the scale of the problem. The article will be published in Marine Pollution Bulletin and available online as of March 30.

-30-



Attached Figure: Density of marine garbage in the waters of coastal BC. Darker areas contain higher density of debris. Waters off Prince Rupert, Langara Island, Cape Scott and Victoria show highest garbage concentrations. Zigzag lines are ship transects, and dots are sightings.

Attached Photo: Cascadia Research (credit)

Caption: In 2010, researchers performing a necropsy on a stranded grey whale in Washington State found gallons of marine debris in the whale's stomach. Plastic bags, a golf ball and a pair of sweat pants were among the items recovered.

Contacts

Dr. Rob Williams, University of St Andrews Email: rmcw@st-andrews.ac.uk or rob@oceansinitiative.org Tel: +1 (44) 01334 467201 Skype: pearseisland
Available: 08:00-21:00 (GMT) or 07:00-14:00 (PST)

Misty MacDuffee, Raincoast Conservation Foundation
Email: misty@raincoast.org Cell: 250-818-2136

Web references:

<http://www.raincoast.org/>
<http://www.oceansinitiative.org>