



PRESS RELEASE

Tuesday 22nd June 2010 – for immediate release

Commercial Aquaculture can gain from Scientific Arctic Ocean Survey

Fisheries and other marine industries could benefit from the results of Catlin Arctic Survey's research into ocean acidification and carbon dioxide absorption in the Arctic Ocean.

Catlin Arctic Survey's Head of Science Dr. Tim Cullingford said the findings from a 2-month survey and field research expedition may provide insight into the marine ecosystem which could be of significance to sustainable fish farming (aquaculture), especially offshore (mariculture).

"By studying how atmospheric carbon dioxide is impacting on the biochemistry and ecosystems of the ocean there will be useful insight for the aquaculture business, especially relating to how salinity, oxygen and nutrients are changing in the Arctic Ocean. The research may help determine how the chemistry of ocean water could change in future, and clearly offshore aquaculture depends on ocean water quality."

Study of ocean acidification in the Arctic has always been limited by the difficulty of researching there in the Winter and Spring. Catlin Arctic Survey provided an Ice Base for marine scientists to undertake research in March and April this year and deployed a long range team to take samples over a 310 mile (795 kilometre) transect of the Arctic Ocean, ending at the North Geographic Pole.

"The data we captured is unique and we believe the findings will have wide applications. The various research projects are looking at how increased carbon dioxide absorption may affect the health of the marine food chain. Changes could have consequences for shellfish, crustaceans and finfish in the region. Our science partners are currently analysing the data collected and we expect to have preliminary results later this year." Dr Cullingford reported.

Worldwide the industry is worth about \$79 billion (FAO, 2006). Catlin Arctic Survey is sponsored by the international specialty insurer and reinsurer, Catlin Group.

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NOTES TO EDITORS

ABOUT THE EXPEDITION

- The expedition's Ice Base was located off Ellef Ringnes Island at 78° 43'N, 104° 48'W
- The Explorer Team set out on 14 March 2010 from 85°32'N, 77°45'W
- The Explorer Team travelled 430 nautical miles (796 kilometres) in 60 days
- The samples collected by the Explorer Team and Ice Base scientists are to be analysed at Plymouth Marine Laboratory and the Institute of Ocean Sciences, British Columbia. Other academic partners who will be involved at later stages include: Universities of Exeter, Bangor, Edinburgh, Cambridge and Laboratoire d'Océanographie de Villefranche.

CATLIN ARCTIC SURVEY

The 2010 Catlin Arctic Survey connects scientists and explorers in the quest to advance scientific understanding of the world we live in. Bringing together marine biologists, oceanographers and polar explorers, it aims to study the impact of increased carbon dioxide absorption by our seas. This is changing the chemistry of the water, leading to 'ocean acidification'. Within only a few decades, an increase in ocean acidity may cause seawater to become corrosive to the shells, skeletons and armour-plating of many marine life forms, and could seriously undermine the growth of coral reefs.

ABOUT CATLIN GROUP LIMITED

Catlin is the title sponsor for Catlin Arctic Survey. Catlin Group Limited is an international speciality insurers and reinsurer. Catlin operates six underwriting hubs -- London, Bermuda, US, Asia-Pacific, Europe and Canada -- which allows it to provide innovative risk management solutions and superior levels of service to clients and their brokers worldwide. Catlin is the principal sponsor of the Catlin Arctic Survey, which aims to produce scientific data to increase our knowledge about the impact of climate change and other changes to the environment.

ABOUT GEO MISSION LTD

Geo Mission Ltd manages and delivers the Catlin Arctic Survey. Founded in 2009 by explorer Pen Hadow, Geo Mission's objective is to advance scientific and public understanding of the natural world. It achieves this by bringing together scientists, explorers and academics to collaborate on pioneering research programmes which are communicated to specialist and global audiences.

\$78.8 billion in 2006