# 2010 Morris Katz Memorial Lecture in Environmental Research

## Dr. Ronald Keith O'Dor

Consortium for Ocean Leadership, Washington, DC., USA and Dalhousie University, Halifax, Nova Scotia, Canada

Changing Life in a Changing Ocean

Monday, May 10, 2010 2:30 p.m.

York University Senate Chamber, N940 Ross Bldg. 4700 Keele Street, Toronto

Centre for Atmospheric Chemistry



Bellot Strait current meter

#### Abstract

New technologies demonstrated by Census of Marine Life projects have transformed the ocean from dark and mysterious to transparent and understandable. The Canadian led Ocean Tracking Network is one example that allows us to know when commercial fish and conservation icons go where and records the conditions they experience. Changes in atmospheric chemistry are warming and acidifying the ocean. Where life has to go to survive is still open to debate. Corals can't move and perhaps even coral sands will dissolve! Traditional knowledge about fish distributions will change dramatically with warming. Why subsidize fuel burning vessels to search the ocean for fish when we could subsidize the tagging of fish so that they tell us where they can be caught cheaply with minimum impact on the environment?

#### **Biographical Sketch**

Ron is Senior Scientist for the Census of Marine Life – Over 2000 researchers from 82 nations in a 10-year initiative to assess and explain diversity, distribution, and abundance of marine life - top to bottom, microbes to whales, past, present and future. After degrees in biochemistry at UC Berkeley and physiology at U British Columbia, a post-doc at Cambridge U and Stazione Zoologica, Naples, turned him to cephalopods and marine biology. Studying cephalopod behavior and physiology in nature with acoustic telemetry led to large-scale tracking arrays. Dalhousie U is developing the CoML Ocean Tracking Network (OTN) to monitor marine animals from 20 g salmon to 20 MT whales with globally unique codes. Longlived tags give new time-series perspectives on changes in individual movements with climate change, and acoustic downloading tags will provide records of the oceanography experienced by, and interactions among, tagged species. He is Canadian Geographic's Environmental Scientist of the Year for 2009.

### The Lectureship Fund

The Morris Katz Lectureship was made possible by the establishment of an Endowment Fund created through contributions from his family, his friends, his colleagues, private companies, universities and government. It is intended that this lectureship become self sustaining. Major contributions in support of this year's lecture have been made by:

The Centre for Atmospheric Chemistry and The Ontario Ministry of the Environment

If you share in Morris Katz' enthusiasm and commitment to having a cleaner environment, please make a contribution to support this ongoing educational activity. Send your contribution in care of: The Morris Katz Memorial Lectureship, Centre for Atmospheric Chemistry, York University, 4700 Keele Street, Toronto, Ontario, M3J 1P3 Canada.

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