Voyage of the Turtle

Dr. Carl Safina
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Fresh Inspiration for Ocean Conservation

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Dr. Carl Safina
VOYAGE OF THE TURTLE
IN PURSUIT OF THE EARTH'S LAST DINOSAUR

CARL SAFINA
AUTHOR OF SONG FOR THE BLUE OCEAN
Archelon, largest turtle that ever lived
Bahrain sealing stamps
4,000 years before present
Travels of turtles, My travels
In the years between hatchling and breeding, a lot can happen…
A world of people...
A world of people…
some, well-meaning…
Climate Data Hint at Irreversible Rise in Seas
By ANDREW C. REVKIN
Within the next 100 years, the growing human influence on Earth's climate could lead to a long and irreversible rise in sea levels by eroding the planet's vast polar ice sheets, according to new observations and analysis by several teams of scientists.

One team, using computer models of climate and ice, found that by about 2100, average temperatures could be four degrees higher than today and that over the coming centuries, the oceans could rise 13 to 20 feet — conditions last seen 129,000 years ago, between the last two ice ages.

The findings, being reported today in the journal Science, are consistent with other recent studies of melting and erosion at the poles. Many experts say there are still uncertainties about timing, extent and causes.

But Jonathan T. Overpeck of the University of Arizona, a lead author of one of the studies, said the new findings made a strong case for the danger of failing to curb emissions of dioxide and other gases that trap heat in a greenhouselike effect.

"If we don't like the idea of flooding out New Orleans, major portions of South Florida, and many other valued parts of the coastal U.S.," Dr. Overpeck said, "we will have to commit soon to a major effort to stop most emissions of carbon to the atmosphere."
Drift Longlines

**Swordfish Set**

- 1000 Feet Between Floats
- (Depth From Float to Mainline is Between 30-40 Feet)
- Length of Branchlines: 72-90 Feet
- Hooks: Depth of 70’ to 100’; 4-5 Hooks Between Floats

**Tuna Set**

- 1/2 Mile Between Floats
- Hooks: Depth of 300’ to 1200’; 20-40 Hooks Between Floats

Source: Hawaii Longline Association

Source: Honolulu Advertiser

Not To Scale
U.S. Atlantic longline sets

- 3,826 Observed Sets
- 115,330 Logbok Sets

Most sets occur outside of the U.S. federal waters (Drawn as red lines)

U.S. Hawaii longline sets

- 3,610 Observed Sets

Most sets occur outside of the U.S. federal waters (Drawn as red lines)
Circle Hooks
(the two on right)

North Atlantic Research:
Turtle Mortality decreased by as much as 90%

J-Hooks
Trawls and TEDs
WHAT WENT RIGHT?

1. Endangered Species Act
   - Ended killing
   - Protected Nests
   - Enabled TEDs
   - Enabled Longline changes
   - Enabled conservationists

2. WIDECAST Network
Into the Pacific
Leatherbacks declined 95% since 1980s

Costa Rica
Into the Pacific
Leatherbacks declined 95% since 1980s

Costa Rica
Main nesting beaches in México

courtesy Raquel Briseño y Laura Sarti
2003 Turtle Tracks
Jamursba Medi, Papua & Monterey Bay, USA
2003 Turtle Tracks
Jamursba Medi, Papua to West Coast USA
Recovering Sea Turtle Populations

- Kemp’s Ridley
- Olive Ridley in Mexico
- Green Turtle in Eastern Pacific
- Leatherbacks in South Africa, Caribbean & Florida
- Loggerheads, Greens in Caribbean & Florida
- Greens in Hawaii

St. Croix Leatherbacks: Exponential Increase
The Voyage Begins
Carl Safina grew up by the sea and learned from an early age to love the ocean and its creatures. His scientific study of seabirds and fish led to a doctorate of Ecology from Rutgers University and a life dedicated to saving the oceans.

Dr. Safina's books include Song for the Blue Ocean and Eye of the Albatross. His conservation work has been profiled in The New York Times, on Nightline and in the Bill Moyer's television special Earth on Edge. A recipient of the Lannan Literary Award, the John Burroughs Writers Medal and fellowships from the Pew and MacArthur foundations and the World Wildlife Fund, he is founding president of Blue Ocean Institute, which seeks to inspire a closer relationship with the