

Hawai'i Marine Mammal Consortium

PO Box 6107
Kamuela, HI 96743

www.hmmc.org

JULY 2004

HMMC makes a SPLASH!!!

HMMC's research this winter focused on humpback whale (*Megaptera novaeangliae*) photo-identification and biopsy surveys for SPLASH, under contract to the State of Hawai'i DLNR and the Hawaiian Islands Humpback Whale National Marine Sanctuary. SPLASH, which stands for **S**tructure of **P**opulations, **L**evels of **A**bundance and **S**tatus of **H**umpbacks, is an unprecedented international study spanning the North Pacific. Researchers on all the main Hawaiian islands, as well as the US West Coast, Japan, Mexico, Central America, the Philippines, Russia and Canada are simultaneously collecting humpback whale data in each area.

From January through March, HMMC conducted 29 SPLASH surveys off the Big Island, encountering approximately 170 groups with more than 350 whales.

HMMC and Cornell University Partnership

In March, HMMC board member Adam Frankel, Ph.D. (also a Senior Scientist for Marine Acoustics, Inc.) and two graduate students from the University of Hawai'i, taught a three-day HMMC mini-course on marine mammal passive acoustics for students involved in the Cornell University Hawai'i-based Marine Ecosystems Field Course. Graduate and undergraduate students studied marine mammal field recording and data collection techniques, marine mammal signal processing, localization

We photographed approximately 150 different flukes of individual whales, collected 126 tissue samples and made two recordings of 2004 humpback whale song. In addition, HMMC board member, Chris Gabriele, represents the National Park Service on the SPLASH steering committee and HMMC member Dr. Joe Mobley was in charge of Kaua'i SPLASH surveys.

Thanks again to Joe Mobley for making *Malolo* available and to Honda Motor Corporation for the good deal on our engine! Also, HMMC's participation in SPLASH was in collaboration with scientists at the NMFS Southwest Fisheries Science Center, who generously allowed us to work under their scientific research permit.

For more about SPLASH, check out: www.hawaiihumpbackwhale.noaa.gov

biology. Students also gained hands-on experience deploying and retrieving sonobuoy recording systems at sites off the coast of the Big Island.

www.eas.cornell.edu/eas/index.html

HMMC INTERNSHIP

Student intern Melissa Duhaime worked with Susan Rickards on SPLASH data entry and photo-analysis in April and May, as a student in the Cornell University field course in Earth and Environmental systems. Thanks for all your help, Melissa!

www.geo.cornell.edu/geology/classes/ha



Humpback whale fluke
HMMC Photo
SWFSC NOAA Fisheries
permit # 774-1437-06



HMMC research vessel,
Malolo, and her crew
going to work



Odontocete Summary

On the water during our humpback studies this winter we were pleased to document at least four species of toothed whales, or 'odontocetes'. Our opportunistic photographs allow us to identify individuals and study their movements, in collaboration with other researchers. During SPLASH surveys we collected data from one false killer whale (*Pseudorca crassidens*), four groups of spinner dolphins (*Stenella*

longirostris) and two spotted dolphins (*Stenella attenuata*).

We chose one very calm day, to venture about 6 miles offshore and found over 300 melonheaded whales (*Peponocephala electra*) associated with two humpback whales. We photographed the dorsal fins of several "marked" individuals in this group (left), and obtained tissue samples as well as acoustic recordings.



Individually-identifiable melonheaded whales

HMMC Photo

SWFSC NOAA Fisheries
permit # 774-1437-06

Shore Station Summary

2004 marks our fourth consecutive HMMC season of shore-based monitoring of humpback whales from the Old Ruins site. With a very dedicated crew of volunteers, we conducted 20 scans during February and March, and observed over 160 pods, with just under 150 whales. During our scan periods, we observed 6 mother/calf pods, spread fairly evenly over February and March. We are still in the process of analyzing the resulting data, but we hope to incorporate the 2004 work into our manuscript (see summer 2003 newsletter on our website, www.hmmc.org) on trends



in the relative distribution and abundance in Kawaihae Bay since 1988.

The most novel sighting of the year was --- a submarine! We actually only saw the periscope, but we tracked it from shore with the theodolite.

This was the second season that students from the West Hawai'i Explorations Academy (<http://www.whea.net/>) helped us collect scan data.

Thanks to all
for the help!



ReefTalks



HMMC members were pleased and honored to present three ReefTalks this winter, co-sponsored by the Hawaiian Islands Humpback Whale National Marine Sanctuary and the University of Hawai'i Sea Grant College Program, School of Ocean and Earth Science and Technology. In January, Chris Gabriele presented a talk entitled: The Not-So-Silent Underwater World of the Humpback Whale in Southeastern Alaska. Chris described and played examples of

whale and vessel noise from Glacier Bay, collected during the National Park Service's underwater acoustic monitoring study. In February, Suzanne Yin presented findings from the 2002 NOAA marine mammal survey around the Hawaiian island chain. In March, Dr. Paul Nachtigall returned to the Big Island to answer the question: What do Whales and Dolphins Hear? Many thanks to Sara Peck from Sea Grant for inviting us to be part of the ReefTalk family.



Humpback whale head
 HMMC Photo
 SWFSC NOAA Fisheries
 permit # 774-1437-06

SPECIAL THANKS TO ALL OUR DEDICATED VOLUNTEERS!!



Pictured clockwise from top left: Mike Hoffhines, Todd Buczyna, Billy Rickards, LJ Irwin, Melissa Duhaime, Paul Berry, Kim New, Mele Rickards, Greg Timmel, Emily Herb, Sara Peck, Holly Sargeant Green and Justin Viezbicke.

**NON-PROFIT MARINE
 RESEARCH AND
 EDUCATION**

HMMC

PO Box 6107
 KAMUELA, HI 96743

WWW.HMMC.ORG

E-MAIL:
HMMCORG@HOTMAIL.COM