



Hawai'i Marine Mammal Consortium
Non-profit marine mammal research, education and conservation

FIELD REPORT – May 2005

The HMMC's 2005 winter field season, between 4 January and 1 April 2005, was among our most productive so far. We focused on humpback whale (*Megaptera novaeangliae*) photo-ID and biopsy data collection and continued with our shore-based scans. The purpose of this newsletter is to provide our supporters and interested friends with a summary of the winter 2005 season. It also gives us a chance to thank the many people who helped make it all possible.

Shore-based Scans

We conducted scan samples on 20 days from the "Old Ruins" shore observation site overlooking Kawaihae Bay. Although we do not have sufficient staffing to document the entire humpback whale season each year, we focus on the peak of the season between early February and early March. The goal of each scan session is to document the presence and relative position of all marine mammals, vessels and aircraft, contributing to a long-term database on the relative distribution, behavior and seasonal presence of humpback whales off the Kohala Coast. In 2005, we conducted 20 scans resulting in 23.5 hours of observations. In addition to numerous humpback whales, we also observed spinner dolphins (*Stenella longirostris*) from shore on three days and unidentified odontocetes on two additional days. We are also using our scan methodology to examine the relationship between the locations of whales generated by the theodolite versus reticle binoculars. We plan to prepare data from this comparative investigation of research tools as a poster for the 16th Biennial Conference on the Biology of Marine Mammals of the Society for Marine Mammalogy in San Diego in December 2005. We also think it would be interesting in the future to conduct scans for a month in the summer to document the presence of spinner dolphins and other marine mammals on a seasonal basis.



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SPLASH Studies of Humpback Whales

This was our second season conducting research in conjunction with the international collaborative SPLASH project. SPLASH stands for Structure of Populations, Levels of Abundance and Status of Humpbacks. HMMC's 2005 SPLASH effort consisted of 257 hours of effort during 41 days on the water, with our survey tracks covering more than 892 nautical miles. Our work resulted in good fluke identification photos of about 300 whales, 93 biopsy samples and 47 sloughed skin samples (collected when whales breach or exhibit other surface activity). We also recorded singing humpback whales on nine different days. This season's regular field crew consisted of Susan (and little Mele), Yin and Chris, with Adam only able to join us in the field for 10 days in March.



Sightings of Odontocetes

Bottlenose Dolphins: In addition to numerous humpback whales, we also observed toothed whales on several occasions. We were surprised to encounter a group of 10 to 15 bottlenose dolphins (*Tursiops truncatus*) in the study area on three occasions in February and March. In previous years we have rarely even sighted individual bottlenose dolphins, so a large group's presence in the area seemed unusual. We obtained biopsy samples of four individuals, including one that was photo-identified. Local boaters have told us about a pair of bottlenose dolphins that frequent the entrance to the south boat basin at Kawaihae Harbor, but we

never sighted any groups that small.



Spinner Dolphins: We sighted spinner dolphins with estimated group sizes ranging from 14 to 245 animals on 11 days between 8 January and 25 March. An entangled individual was observed with the group on our first few sightings. On 31 January we assisted State whale sanctuary office's West

Hawai'i Marine Conservation Coordinator, Justin Viezbicke, who attempted to disentangle the dolphin. But the attempt was unsuccessful. On 3 February we sighted the dolphin again and documented that it was no longer entangled, but that it had several lacerations on its left flank, suggesting that a shark had attacked it. Surmising that the shark attack was responsible for the disentanglement, we nicknamed this animal "Lucky" and were looking forward to documenting its return to good health. However, in six subsequent sightings over 56 days we never saw Lucky again, so his/her fate remains unknown.

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Sightings of Odontocetes, continued



Melonheaded Whales: On 24 February and 25 March we traveled 8 miles offshore of Kawaihae Harbor to the XX “fish aggregation” buoy to look for offshore humpbacks and other cetaceans. On 24 February we found a group of about 600 melonheaded whales (*Peponocephala electra*) and obtained numerous identification photos and an audio recording of their vocalizations, before the weather deteriorated and forced us to retreat back toward shore. The melonheaded whales were accompanied by two seven-foot oceanic white-tip sharks (*Carcharhinus longimanus*). On our 25 March offshore transit we sighted no cetaceans whatsoever, despite conditions that were

calm enough to allow us to go all the way to Upolu Point. Later that day we found a large group of humpback whales near shore off Mahukona Lighthouse, and a group of spinner dolphins also near shore.

Sharing the Results of the Research

A central goal of the HMMC research is to provide rigorous scientific information on marine mammals and their environment to educators, community members and resource managers. Since our last newsletter, we have made use of numerous opportunities to educate the public. As an active volunteer in the West Hawai'i chapter of HISRG (non-profit Hawaiian Islands Stranding Response Group, led by Marlee Breese, Bob Braun and HMMC advisor, Paul Nachtigall), Susan Rickards provided a thorough and interesting presentation to train HISRG volunteers on marine mammal species identification. In January, February and March, Yin,



Susan and Chris took turns providing “expert” whale naturalist commentary onboard all four of the non-profit Kona Outdoor Circle's benefit whale watch cruises. We also gave lectures for programs sponsored by non-profit Kohala Center and Brown University at their Ke'ei Beach field camp. We taught a class to college marine biology students from Brown in January and to 20 high school students in the Brown Environmental Leadership Lab (BELL) program in February. Also in February, Yin represented HMMC at the annual NMFS humpback researcher meeting in Maui. In March, Adam taught part of a three-day mini-course on marine mammal passive acoustics for Cornell University students in the Department of Earth and Atmospheric Sciences Hawai'i-based Marine Ecosystems Field Course. We never fail to learn a lot from these ventures to educate others!

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Mahalo to our loyal field volunteers: (Clockwise from top center): Mele Rickards, Justin Viezbicke, Mike Hoffhines, Todd Buczyna, Sarah Stienessen, Holly Sargeant-Green, Carla Buczyna, Lora Reeve, Kim New, Steve Lewis and Michael Smith.

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