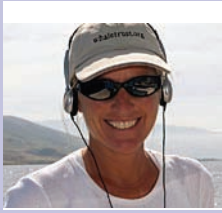


WHALE TALES

Vol.2 issue 1



News
from
Meagan

Dear Friends,

Welcome to the second issue of *Whale Tales* – our annual newsletter designed to keep you - our valuable supporters updated with all of the exciting news happening around Whale Trust.

We make every effort to share our research and knowledge about whales and the ocean through a variety of different outlets – through television, film, radio, popular and scientific publications, events and outreach programs for young and old alike. By the end of 2007, I am proud to say that we will have used all of these different mediums to fulfill our mission of bridging research with education programs. Some of the highlights of 2007 are featured within this newsletter.

The year started out with a 22-page article in *National Geographic* magazine, and was followed up by a 7-minute piece on *The Today Show* with Matt Lauer. Both of these stories gave Whale Trust international recognition for our research into the social behavior of humpback whales in Hawaii; but most importantly, it provided us with a means to reach millions of people to increase awareness about whales and to promote Maui as a unique living laboratory for whale research and the marine environment.

On a local scale, the second annual Whale Quest Kapalua was another success – drawing over 4,000 people and raising over \$65,000 for whale research on Maui. Over 500 schoolchildren from 20 different classrooms on Maui participated in school outreach programs designed and coordinated by Whale Trust – an area we hope to expand significantly in the next several years.

Our research efforts have continued down a similar path. In the past two years, we have begun to support other individuals and projects, encouraging and fostering collaboration between researchers from other parts of the world (see research update).

Many of you have made multi-year commitments to Whale Trust. Your investment has helped us move from a relatively small research organization with a modest budget to a dynamic organization that continues to expand in new directions. With your help we are growing into an organization, still small by most standards, but with the capability of reaching millions of people.

2007 has been an exceptional year for Whale Trust, but we couldn't have done it without your help. We hope you are as excited about our growth as we are and will continue to support us in 2008. Until next time, our best wishes for a peaceful and happy holiday season.

Meagan Jones

Executive Director

MARK YOUR CALENDARS FOR NEXT YEAR'S

WHALE QUEST KAPALUA 2008

February 15-17, 2008

With over 4,000 people participating and over \$65,000 raised for whale research in Hawaii, the 2007 Second Annual Whale Quest Kapalua was a tremendous success. Whale Trust shared all contributions received during the event with two other non-profit organiza-

tions, Hawaii Whale Research Foundation and Center for Whale Studies.

Over 200 students from 10 different classrooms on Maui kicked off the event (see education update for more details) that included outstanding presentations from renowned researchers (Jim Darling, Jonathan Stern, Randy Wells, Adam Pack), award-winning photographers (Flip Nicklin, Chris Johns) and underwater cinematographers (Koji Nakamura and Chuck Nicklin).

Kapalua Land Company will again host this free public event from February 15-17th,



Students painting markings used by researchers to identify whales on life-sized replicas of humpback whale tails.

2008 at the Ritz-Carlton Kapalua Resort. The event truly has something for everyone – educational seminars, naturalist workshops, a charity golf tournament, evening events, an outreach program for Maui's schools, and interactive education and art expo, and daily whale watches

led by Whale Quest Kapalua representatives and presenters.

In partnership with Kapalua Land Company, Whale Trust is responsible for developing and coordinating the program, which includes the presenters, school outreach programs, and workshops. For more information on Whale Quest 2008, please visit our website at:

www.whaletrust.org/education_whale_quest.html

We would like to thank all of the many people involved in making Whale Quest Kapalua 2007 a great success!

People Who Made a Difference in 2007

Whale Trust was founded by three individuals with over 50 years of collective experience in marine research and education. However, without the help and support of numerous volunteers, research assistants, and supporters, our vision would not be realized. In this section, we celebrate some of the people that have made all the difference in helping us to carry out the mission and purpose of Whale Trust.

Donor Spotlight - Jeff and Darlene Anderson

We would like to say a special thank you to Darlene and Jeff Anderson, two supporters who, from the beginning, have made a significant difference in Whale Trust. Darlene and Jeff have helped Whale Trust tremendously with their great ideas, contacts at *National Geographic* and consistent and pledged support throughout the years. For this and so much more, we say thank you.



Garry Weber

Even before Whale Trust was formed, Garry Weber was supporting our research into humpback behavior in Hawaii. Garry's involvement and commitment to Whale Trust goes beyond his annual donation to participating in many different aspects of the organization, from his annual participation in the research to his ongoing recruitment of new donors and supporters to the organization. Thank you, Garry, for all that you have done and continue to do on our behalf.



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Research Update



In 2007 Whale Trust supported studies on humpback whale song (PI Jim Darling) and female mating strategy and behavior (PI Meagan Jones) in Hawaii, and provided a second year of assistance to a study of humpback whales on a breeding ground in the northern Philippine Islands (PI Jo Marie Acabas) and to graduate student, Elisa Girola.

FUNCTION OF THE HUMPBACK WHALE SONG

This study, underway since 1996, has investigated the attributes, behavior and interactions of singers leading to proposals of the role of song in humpback breeding behavior. This research has included genetic determination of the sex of whales that joined singers (males), measuring the relative size of singers for correlation with their song composition, and a study of the interactions of neighboring singers. The 2007 field effort focused on completion of song playback experiments started in 2005. This playback work, where a song (chosen by the researcher) is played back to a singer with an underwater speaker and reactions measured is one test of the hypothesis that the song plays a role in organizing male relations on the breeding ground.

This playback study arose from observations of the variability in natural interactions between neighboring singers on the breeding ground. At times one singer stopped singing and joined its neighbor, at other times they apparently ignored each other, or increased distance between each other. The playback study was set to determine if the factor that determined the type of interaction (or lack of one) was the similarity or difference of the two songs. Therefore, either a similar or different song was played-back to a singer and the singer's reaction measured.

Over three seasons a total of 23 playback trials were conducted, leading to a range of reactions that mirrored the observations of natural behavior. Some singers immediately stopped singing and joined the playback boat, others appeared to ignore the playback entirely and still others increased their distance. The analysis of the reactions is currently underway; preliminary indications were that the whales were more likely to join the playback boat when a similar song is played – this result is a compelling reason for further, more detailed study.

This phase of the playback study will be presented at the Biennial Conference for the Biology of Marine Mammals in South Africa in November 2007. The plan for the 2008 season is to continue working on isolating which factor in the song determines how males interact with each other.

DOES SONG VARY WITH SIZE (AGE) OF SINGER?

One of the primary hypotheses on song function over the last two decades is that it is a male display to establish or maintain dominance order between competing males. If this is correct, the prediction is that there should be differences in the song that reflect individual male status. To test this idea, several years were spent estimating the relative size of individual singers by measuring the size of their tail flukes, and recording the song of each.

The result would allow comparison of the songs of smaller singers versus larger singers to test this hypothesis of dominance.

In 2005, Elisa Girola, a student from the University of Trieste, Italy, contacted us wishing to study humpback whale song as part of a graduate project. We suggested she compare the songs we had collected of larger and smaller whales. With a huge amount of detailed song analysis, looking at many different characteristics of the sounds themselves and composition of the songs, she essentially found no clear differences between the songs of smaller and larger singers. We must be cautious here and add that the sample sizes for comparison were small (as the field work of measuring singers led to a relatively small sample of clearly small and large animals). The results of this study are quite important in that they do *not* support the hypothesis that the song is a display of dominance or reflective of the size of the singer.

FEMALE MATING STRATEGY AND BEHAVIOR

The 2007 season was the fifth, and final year of fieldwork towards Meagan's Ph.D. dissertation investigating female behavior on the Hawaiian breeding grounds. Over the last few years this study has involved genetic sexing of adults in pairs to determine the presence of females, measurement of flukes of whales to estimate size and age of individuals in female/male pairs, random surveys to determine male-female association patterns, and extended follows of individual females to determine behavior patterns and interactions with males over time. The focus this year was on conducting playback experiments, which involved the playback of 'social' sounds (i.e., sounds made by multiple males while actively chasing a female) to females in different stages of the reproductive cycle (i.e., females with and without a calf).

Over the season a total of 29 playback trials were conducted. The expectation was that females without a calf (i.e., those in Hawaii presumably to mate) would react differently than those nursing a newborn calf. Analysis is currently underway to determine if this prediction was correct, but initial observations suggest that reproductive status is a good predictor of how females respond and behave around males during the breeding season.

Meagan will be spending the next year or more completing analyses and writing her dissertation, which will both fulfill requirements of the Ph.D. program and lead to several scientific papers for Whale Trust.

PHILIPPINE HUMPBACK WHALES

Just a few years ago, no one had even heard of a humpback whale breeding assembly in the northern Philippine, Babuyan Islands. It had not been documented historically, in whaling records, or the scientific literature. Then, researchers in the region, with WWF – Philippines, discovered this breeding ground and set out on the task of defining it, determining abundance and behavior of population, and its relationship to humpback populations in other regions of the Pacific.

Whale Trust has been able to assist on the funding of the study

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— Whale Trust in the News —



“Humpback Whales: What are they doing down there?”

National Geographic Magazine, January 2007
January's *National Geographic* magazine featured a 22-page article by natural history writer, Doug Chadwick, and photographer, Flip Nicklin, focusing primarily on the research of Whale Trust.

The Today Show

The Whale Trust Research Team was featured on *The Today Show* with Matt Lauer, (NBC) on May 15, 2007. The show was a part of the *Today Goes Wild* series.



“Face to Face with Dolphins”

Flip and Linda Nicklin

Publisher: National Geographic

National Geographic photographer, Flip Nicklin, and his wife Linda, a naturalist and educator, share some of the amazing behaviors of dolphins in their new book for the younger generation.



Maui No Ka Oi Magazine 2007

Meagan Jones named one of Maui's Environmental Heroes

Every year, MNKO recognizes a few of Maui's "eco-heroes" – those who work hard at the grassroots level to restore and protect all things natural to the islands. This year, six individuals were selected including Whale Trust's, Meagan Jones, for her commitment to marine research and education.

Coming soon . . .

“Humpback Whales: Behavior on the Hawaiian Breeding Grounds”

Jim Darling, Photographs by Flip Nicklin, Illustrations by Susan Barnes
Release Date: 2007-2008



Whale watchers everywhere will find this an easy guide to the latest research findings on Hawaii's humpback whales. Graced with extraordinary photographs and illustrations, the book traces the history of whale research from its beginnings through the present to a look into the future, setting signs of humpback survival against the possible restart of whaling.

Third Annual Whale Quest Kapalua

February 15-17, 2008, Ritz-Carlton Resort, Kapalua

Don't miss the third annual Whale Quest Kapalua on Maui! This year promises to be something to remember with presenters such as Emmy award winning cinematographer, Al Giddings, and *National Geographic* photographer, David Doubilet, joining whale researchers, Kenneth Balcomb, Jan Straley, Michael Payne, Jim Darling, Meagan Jones, Alison Stimpert, Adam Pack, Mark Ferrari and Dan Salden.



“The Humpback Code”

The Humpback Code, a one-hour documentary by Daniel Opitz, featuring the research of Whale Trust, will air in Germany in December 2007. Stay tuned for it's debut in the United States.

WHALE TRUST IN THE SCHOOLS

Whale Trust is committed to inspiring the next generation by



A fifth-grade student pretends she is a researcher listening to whales underwater.

providing students with first-hand opportunities to learn about whales and the marine environment. This year, over 500 students from 20 different classrooms on Maui participated in programs designed and led by Whale Trust.

In February, Whale Trust educators, Renee Weber and Heather Hardcastle, and *National Geographic Explorer* magazine's photo editor, Miriam Stein, visit-

ed over 20 elementary and jr. high classrooms on Maui to introduce them to Hawaii's humpback whales and take them behind the scenes at *National Geographic Explorer*.

On February 16, 2007, over 200 students from 10 different elementary and jr. high school classrooms visited the Ritz-Carlton, Kapalua for a day of art, science and discovery. Highlights included painting individual markings on life-size whale tails, learning firsthand from Maui's researchers about *National Geographic's* Crittercam, using foam poles to disentangle a make believe humpback whale from a deadly fishing net, choosing a cover of *National Geographic* magazine with Editor in Chief, Chris Johns, and using balloons to create and learn how humpbacks make sounds!

PHOTOGRAPHY AND VIDEOGRAPHY UPDATE

In 2007, Flip and Jason's spectacular underwater footage of humpback whales was featured in *National Geographic* magazine and on the *National Geographic* website (www7.nationalgeographic.com/ngm/0701/feature2/index.html).

In December 2007, the research of Whale Trust and the underwater cinematography of Jason will be featured in a German television documentary entitled, *The Humpback Code*, written and directed by Daniel Opitz. The American premiere will be held at Whale Quest on Maui in 2008.



EXPEDITIONS

Join Flip and Linda Nicklin on one of three upcoming expeditions sponsored by National Geographic Society in the Pacific Northwest and Antarctica. For more information, please visit our website at www.whaletrust.org/education_expeditions.html



WEBSITE ANNOUNCEMENT

Whale Trust has a new look thanks to our new web manager, Heidi Hackler, from Dolphin Design! We update the website on a regular basis, so please use this resource as a way to stay in touch with us. If you haven't already, check out our new website at www.whaletrust.org.

ABOUT WHALE TRUST

The mission of Whale Trust is to promote, support, and conduct scientific research on whales and the marine environment, and develop public education programs based directly on results of scientific research. Whale Trust is committed to promoting and fostering Maui as a unique living laboratory for whale research and the marine environment. Thank you for helping us to achieve our vision.

led by Jo Marie Acebes for the past two years. During that time, individual identification and song recordings have, among other things, helped with the definition of the population – with numerous matches made to Japanese breeding areas (which in turn have matches to Hawaii), and comparison of song between Hawaii and Philippines indicating some degree of association between the regions. In addition this study supplied a sample of songs to Jim Darling for a three-way comparison between Philippines, Japan and Hawaii as part of the song function study.

The 2006 and 2007 season in the Philippines documented occurrence of dynamite blasts in the breeding area

and their potential impact on the humpback whales. The dynamite is used by fishermen on the nearby reefs and shipwrecks. The explosions are clearly heard on the song recordings, although at this time the sample is not sufficient to determine impact. Jo Marie, armed with recordings, attended an international conference on the effects of sound on aquatic life in August to ask for assistance with this issue.

The first paper describing the Philippine assembly of humpback whales will be published in the Journal of Cetacean Research and Management in the next few months.

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"People Who Made a Difference" continued from page 1

Zephyr Lacey

Rather than receiving gifts at his 9th birthday party last winter, this young whale enthusiast asked his friends to make donations to Whale Trust instead. The birthday party highlighted whales – in Colorado – with a whalewatching tour set-up for his friends complete with different species of whales displayed throughout the yard. We were so impressed by Zephyr's initiative and passion that we wanted to acknowledge him by sending our special thanks to Zephyr, his parents, and friends for supporting Whale Trust.



Randy and Gail Puckett

For the last two years, world-renown sculptor, Randy Puckett, has been an integral part of helping make Whale Quest Kapalua a giant success. A special part of this year's event was the unveiling of Randy's latest bronze sculpture entitled *The Breach*. With Randy and Gail's generous support, donations received from *The Breach* helped us to raise over \$40,000 to support whale research in Maui. Our heartfelt thanks go out to Randy and Gail Puckett for their continued support and generosity.



Patti Hackney

Volunteers are the heart of any non-profit organization, but Patti Hackney is one of a kind! She loves the ocean and whales as much as anyone on staff and spends much of her time working with and volunteering for organizations that share her passion. While on Maui, Patti spends much of her time helping Whale Trust on a myriad of jobs, ranging from data entry to digital processing of photographs of whale tails, to daily assistance on the research boat to teaching kids about whales in various Whale Trust venues, like Whale Quest.



Volunteer
of the
Year

Patti's energy for this work seems to be limitless, and her work and involvement at Whale Trust is deeply valued and appreciated. Of course, Patti is much more to us than a volunteer; she is a cherished friend. For all this and much more, we celebrate Patti as our first Whale Trust volunteer of the year.

— WHALE TRUST DONORS 2007 —

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