

NEWSLETTER OF THE PUGET SOUND CHAPTER
OF THE AMERICAN CETACEAN SOCIETY

VOLUME 4, ISSUE 1

SPRING 2003

Sound News

Chapter Currents

a letter from Uko Gorter, acting President

ACS/PS to receive award!

Don't miss the next general chapter meeting — Wednesday, **June 18th** in the Phinney Neighborhood Center. ACS will receive a plaque from NMFS for our participation with OOF (the Orphan Orca Fund) and for helping facilitate Springer's reintroduction to her pod. (see Letter on page two)

Elizabeth Petras will discuss transient killer whales and Steller sea lions in Western Alaska at the June 18th general meeting... see back cover for more details.

We start gathering for our chapter meetings at 7 pm; program starts at 7:30 pm. Admission is FREE. .

This is the last general meeting until the 3rd Wednesday in October. If you'd like to receive meeting notices via email, please email us at info@acspugetsound.org.

2003 OrcaSing

ACS-PS is delighted to be a co-sponsor of OrcaSing 2003. The City Cantabile Choir, directed by Fred West, will conduct their 5th annual OrcaSing on the summer solstice. (FREE)

Join us Saturday evening, **June 21st** in Lime Kiln Park, San Juan Island. Gathering starts at 7:30 pm. The orca samba starts at 8pm. Bring your own chair.

Afterwards, please join us at the Whale Museum (on Sunday) for an informative talk on underwater noise. (FREE)

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Dear Members and Friends,

We still have our first Seattle ACS conference—*The Culture of Whales*—fresh in our memory. It was this wonderful conference, however, that took so much of our time and energy that we neglected our newsletter *Whulj*. We are committed to continue this important publication, because this newsletter, as well as our website, are our only ways to let you know what we are up to.

There have been a number of changes since our conference in October 2002, particularly in our own chapter board. Six dedicated board members have stepped down or changed position, and I would like to take the opportunity to thank these
(Continued on page 5)

Mid-Frequency Sonar...

The passage of the Guided Missile Destroyer Shoup (86) through Haro Strait on May 5, 2003

by Dr. David Bain

The passage of the Guided Missile Destroyer Shoup (86) through Haro Strait while using mid-frequency sonar was observed by many people concerned about marine mammals. Observers included Ken Balcomb of the Center for Whale Research, David Bain and the Field Methods in Marine Mammalogy class at Friday Harbor Laboratories, Rich Osborne of The Whale Museum, Val Veirs of Colorado College, and many commercial whale watch operators.

Mid-frequency sonar differs from the Low Frequency Active sonar (LFA) that the courts recently limited the Navy's ability to use. It is better matched to the hearing of most marine mammals, so at close range it is likely to have more serious implications. However, at long range, mid to high frequencies are attenuated, so its effects are more localized.

The use of high intensity, mid-frequency sonar had been observed in the area previously. However, the sources appeared to be vessels in Juan de Fuca Strait. Ken Balcomb had reported large numbers of porpoises traveling northward through Haro Strait at high rates of speed away from the sonar in some of those cases. David Bain had observed these porpoises slowly moving back south along the Stuart Island shore after the sonar was no longer audible.

(Continued on page 3)



NMFS Thanks ACS/PS

October 17, 2002

Dear [ACS/PS]:

Please accept my personal thanks, along with the gratitude of my staff in the Office of Protected Resources, for the assistance you provided to the National Marine Fisheries Service (NOAA Fisheries) during the rescue of A73, the orphaned killer whale also known as "Springer." The unprecedented rescue of a killer whale calf and its reintroduction to the wild was a challenging and difficult project to undertake and was possible only through the contributions of the many individuals involved. The support of the American Cetacean Society and the Orphan Orca Fund was invaluable to NOAA Fisheries throughout the project. The generous donation of time, energy and supplies contributed significantly to the successful outcome of the rescue operation

Initial reports indicate that A73 has been doing well since she was released into her home waters in Canada. We are all hopeful that A73 will continue to interact with other killer whales and thrive in the wild. Again, we thank you for your important role in the rescue effort.

Sincerely,

William T. Hogarth, Ph.D.

Penn Cove Water Festival 2003

by Uko Gorter

Saturday, May 10th, our chapter participated in the Penn Cove Water Festival in Coupeville on Whidbey Island. As was the case last year, we set up an information booth stacked with brochures and sales items. Also back this time, was the sunny weather which made for a wonderful festival.

Unlike the previous year we were assigned to the wharf instead of the Recreation Hall. Nestled underneath "Rosie", the gray whale skeleton, we set up our table inside the wharf building. Trying to view the Native American canoe races in Penn Cove resulted in more foot traffic coming through the wharf and better attendance at our booth. Together with "Rosie's" presence, the view of Penn Cove, and humpback whale sounds piped through our cd player, made for a great ambiance.

The Water Festival is a small but delightful intimate fest, highlighting Native American heritage with water themed environmental displays. In addition there are arts and crafts as well the obligatory food stands.

Please, mark your calendar for next year's Penn Cove Water Festival. It is the perfect festival to bring the entire family to. A great way to learn about our own Puget Sound as well as its first inhabitants. We hope to see you there next year.

Whulj

"the saltwater that we know"

The Newsletter of
the Puget Sound Chapter
of the American Cetacean Society



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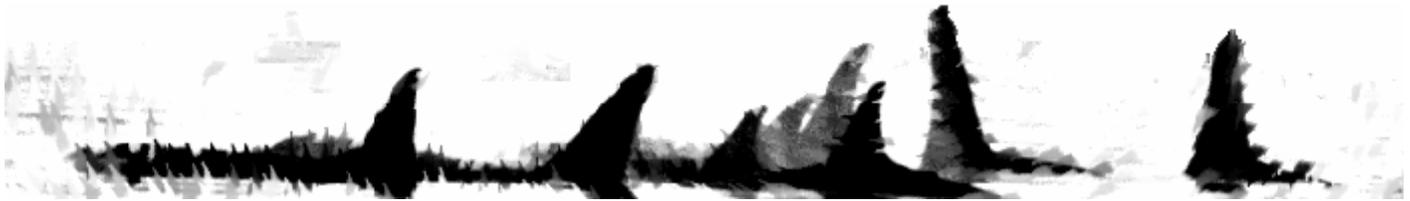
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Whulj publication schedule: February, May, August, November

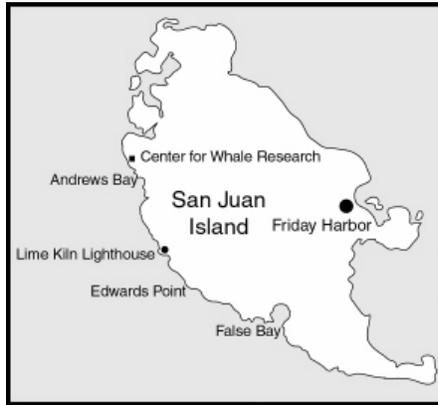
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Mid-Frequency Sonar...

(Continued from page 1)

When sonar was first noted on the morning of May 5, 2003, J Pod was scattered off the southern part of San Juan Island. Sonar pings became audible in air without the use of hydrophones. While some present speculated that a submarine was the source, the superstructure of a Naval vessel was visible over the horizon, although the hull was not. The J's moved inshore, formed a tight group, and "inconspicuously" traveled away. As the J's moved inshore, the Naval vessel disappeared over the horizon completely, although its sonar was still audible.



cial whale watch operator), the northern portion of the pod continued north, and began to move offshore. We did not see the southern portion of the pod rejoin them, although Ken Balcomb reported they were later seen traveling north at a high rate of speed to catch up with the rest of the pod.

J Pod may have taken advantage of acoustic shadow zones to reduce its exposure to the sonar. Sound does not propagate as efficiently into shallow water as it does through deep water, so traveling in a tight group near shore probably helped them. Hiding behind the reef at Andrews Bay may also have reduced their exposure relative to what the minke whale experienced as it and the Shoup passed by J Pod. However, the sound was so intense that even with this shadowing, they probably received levels far higher than they normally experience.

Once the J's rounded Edwards Point, they picked up speed and split up a little bit, although they remained near shore. After they passed Lime Kiln Lighthouse, they bunched up again, and remained tight until reaching the Center for Whale Research, where they stopped. They then made a quick move to the south as the vessel moved north past them. They stopped before leaving Andrews Bay, and turned north toward the vessel, but didn't move back toward it very far. They then turned south. Part of the pod continued south, but the remainder stayed in Andrews Bay. After the sonar was turned off (probably in response to a complaint initiated by a commer-



Dall's porpoises were observed in a bay north of Lime Kiln Lighthouse as the ship approached. After the ship passed, they were observed traveling away from the ship at high speed. This is similar to the behavior of Dall's porpoises in the presence of other loud sounds, such as air gun blasts.

A minke whale was observed porpoising as it passed Lime Kiln Lighthouse going north ahead of the vessel. A whale watch operator reported a porpoising minke whale north of Lime Kiln Lighthouse. David Bain observed a porpoising minke whale just
(Continued on page 4)

ACS/PS Grants for 2003

Request for Research Proposals
Stephanie Norman, Research Grants Chair

The American Cetacean Society (ACS), the oldest whale and dolphin conservation organization (est. 1967) protects whales, dolphins, porpoises, and their habitats and ecosystems through public education, research grants, and conservation actions. ACS has supported worthwhile research projects in past years and continues to do so today.

The Puget Sound Chapter of ACS (ACS/PS) was re-established in the summer of 1999 and already has 79 members. Despite being a newer chapter, we awarded one grant in 2000, two grants in 2001, and one grant in 2002. Our chapter is committed to furthering research and conservation of all cetacean species within Puget Sound. We are offering two \$500 grants in 2003. One grant will be limited to river dolphin research in South Asia and the other will be open to research of any cetacean species within Puget Sound.

The awards are available to undergraduate students currently enrolled in a college or university and graduate students currently enrolled in, or accepted to, a masters or doctorate program who meet the evaluation criteria. The individual conducting the research must submit the application. Project Managers or Principal Investigators will oversee all fieldwork. Applicants must have obtained any necessary permits or authorizations for conducting the proposed research prior to any awards being disbursed.

Status reports will be featured in future issues of *Whulj* and grant recipients will be invited to present a talk at a chapter general meeting. For proposal format requirements, submission deadlines, and other details, please see our chapter website (www.acspugetsound.org) or contact Stephanie (email: grants@acspugetsound.org).



Low Frequency Sonar (LFA) Stop the Noise!

by Laurie Mollo-McLain

The marine mammals of our oceans are facing dire consequences due to human influences, including the serious and increased threat of noise pollution.

On July 16, 2002, the United States Navy was granted a five-year authorization by the NOAA-Fisheries permitting the deployment of SURTASS -LFA Sonar (Surveillance Towed Array Sensor System -Low Frequency Active Sonar).

Fortunately, in October 2002, the 9th Circuit Court issued a temporary injunction against the Navy for full deployment and restricted its operational area (for testing only) to an area in the northwest Pacific Ocean around the Mariana Islands pending further deliberations. One basis for this injunction was conflict with the Marine Mammal Protection Act. Passed by Congress in 1972, the Marine Mammal Protection Act was established to enforce policies intended toward management, conservation and protection of our marine mammals including protection from assault and acoustic harassment.

Studies are currently underway to determine the effects of intense sonorous sound on Cetaceans. They are suspected to be extremely damaging, leading to severe distress and suffering, such as temporary hearing loss, damage to the heart, lungs and nervous system, and internal hemorrhaging, in addition to having adverse effects on behaviors associated with foraging, migrating, locating, breeding, calving, and death.

Luna (L98) to be Left Alone...

U.S. and Canadian scientists have decided not to attempt to reunite the solitary young male orca who has been surviving alone in Nootka Sound (on the west coast of Vancouver Island,) for almost two years, with his pod in the Southern Resident killer whale community.

"We believe that interfering in what may be a natural and potentially important process is not in the best interest of this whale," Marilyn Joyce, a spokeswoman with the Fisheries Department, said in a statement.

Unlike Springer (A73) Luna appears to be thriving in his unusual environment.

WA reviewing status of SRKWs

On May 22nd, the Washington Department of Fish & Wildlife released a notice that it has initiated the classification review process to consider the southern resident killer whales as endangered, threatened, or sensitive on the state level. Interested Parties have until July 1st to provide information to the agency.

Mid-Frequency Sonar...

(Continued from page 3)

south of the Center for Whale Research. Another whale watch operator reported a porpoising minke whale north of the Center for Whale Research. Porpoising is an extremely rare behavior for minke whales. Reports of a minke whale in the vicinity of False Bay were common in the weeks before the Shoup went through, so it is likely that the reports of the porpoising minke are probably of a single individual, that this individual initiated its escape behavior in the vicinity of False Bay, and that it traveled for 5-10 miles at a high rate of speed. Subsequent to the passage of the Shoup, a minke whale was observed in Boundary Pass, although none had been reported there in the previous month. If this is the same minke that was in the False Bay area, it would represent a significant range shift.

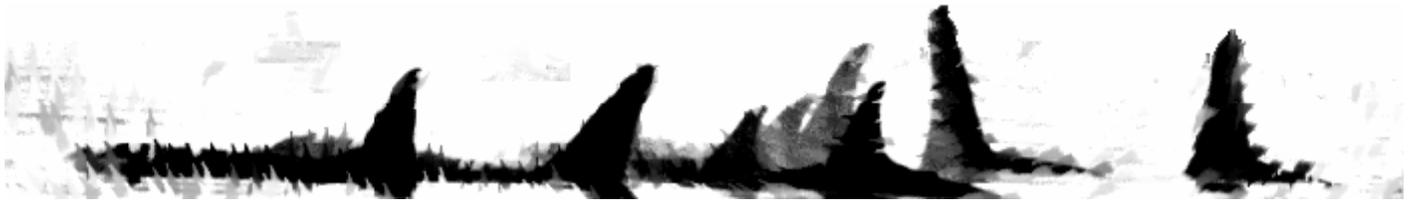
A large number of porpoise strandings have occurred recently in the inshore waters of Washington and British Columbia. Some of these pre-date the passage of the Shoup through Haro Strait, although they are subsequent to the use of mid-frequency sonar in Juan de Fuca Strait. Thus these earlier strandings were potentially related to other sonar activity. NMFs is planning through necropsies to determine whether there was any involvement of sonar in their deaths, or other factors were responsible. Either way, the elevated rate of porpoise strandings is grounds for concern.

This incident comes on the heels of the work by Ken Balcomb and colleagues linking the deaths of many whales in the Bahamas to Navy sonar. The potential for sonar to have lethal consequences had been suspected previously based on correlations between naval exercises and multiple stranding events, but the Bahamas case was the first where fresh specimens were collected to allow pathologists to identify noise related injuries. It is clear that this type of sonar produces significant behavioral changes in cetaceans, and that there is potential for serious injury or death when they are unable to move away to a safe distance. Use of this sonar in constricted areas over marine canyons, in narrow passages between islands or other nearshore waters, or on high-speed vessels, precludes escape. Severe consequences are unavoidable when this type of sonar is used in such settings.

URGENT ACTION NEEDED—both U.S. House and Senate committees have passed differing legislation which exempts the Navy from many provisions of the Marine Mammal Protection Act (and from several other important environmental protections)... *please* contact your representatives to ask for policy changes to prevent such an incident from happening again, and to maintain the applicability of environmental protection legislation to the military so that civilian objections to such activity will be legally binding. It is expected that the committees will resolve their differences by July 4th, so time is of the essence— **please make your voice heard now!**

US Navy Blasts Pacific Northwest Killer Whales

Ken Balcomb has posted an article on the "Shoup incident" at <http://www.whaleresearch.com/usnavysonar.html>



Chapter Currents...

(continued from page 1)

extraordinary individuals for their commitment and dedication.

Joe Olson, founder of our Puget Sound Chapter, stepped down (as president) after four years of hard work and devotion. His energy and tireless commitment has brought our chapter to where it is today. Under his watch, ACS/PS has steadily grown, and he has inspired all of us to get involved. We are fortunate that Joe will continue to be active on the board as our general meetings and technology chair.

Elizabeth Petras stepped down as vice-president. It was Elizabeth who has guided and motivated us to become a more organized and efficient board. We are lucky that she will continue to be involved as our conservation chair.

Julie Anderson-Moore, our reliable treasurer, will surely be missed. She has meticulously kept our books in order like a Swiss banker.

Kristin Elko has been in charge of our sales and the editing and publishing of our newsletter *Whulj*. Her enthusiasm and drive will be missed by all.

Bob Wood, a major contributor of our chapter, will spend more time with Project Sea Wolf. We wish him all the best with his endeavors.

Susan Alter has been a devoted board member for years and has promised to lend a hand whenever she can.

These are days of belt tightening, economic gloom, and global anxiety. We feel the pinch as well, but it is precisely in times like these that we have to double our efforts.

Now more than ever do our beloved southern resident killer whales, playful Dall's, shy harbor porpoise, and Minkes and gray whales need our help.

I am looking forward to a bright future of ACS—and hope that we can count on you for your continued support and active involvement.

Sincerely,

Uko Gorter,
Vice-President ACS/PS



Orca Conservation Plan

NMFS Convenes Kickoff Meeting to Discuss Puget Sound Killer Whale Conservation Strategy

by Joe Olson

On May 29th, the National Marine Fisheries Service (NMFS) made the following statement in the Federal Register:

"Following a review of the status of the eastern North Pacific Southern Resident stock of killer whales (*Orcinus orca*), NMFS has determined that the stock is below its Optimal Sustainable Population (OSP) and, therefore, is depleted as defined in the Marine Mammal Protection Act (MMPA). This action is a step in the process to address the decline in the number of Southern Resident killer whales. NMFS also announces the preparation of a Conservation Plan to reverse the decline and to promote recovery of the stock to OSP."

Although the ruling to declare the Southern Resident orcas as depleted doesn't take effect until 30 June 2003, NMFS wasted no time in starting the process to develop a conservation plan. The agency convened a Conservation Strategy Kickoff meeting at the Seattle Aquarium on Saturday, 31 May. Presentations were made by representatives from NMFS, Department of Fisheries and Oceans Canada (DFO), and Washington Department of Fish and Wildlife (WDFW). In attendance at the meeting were members from several environmental and whale conservation organizations, including four ACS/PS board members. The purpose of the meeting was to explain the process by which NMFS will be crafting the Conservation Plan and to solicit ideas from attendees. Your Puget Sound chapter board members and many other attendees signed up to collaborate in committees that will focus on specific areas of concern to the Southern Resident orcas. These committees will begin meeting this summer.

At the same time, Congress has given NMFS \$750,000 for research on the Southern Resident killer whales. Requests for research proposals will be sent out very soon. However, this money could be taken back at any time. Please contact your senators and congressional representatives and ask them to make sure the money stays in place for this critical work.

It could take up to 18 months before a draft conservation plan is ready, but attendees were nearly unanimous in their concern that some regulatory actions be implemented much sooner. Such actions are already authorized under the MMPA, but NMFS doesn't have the resources to enforce the regulations. In fact, there are only three enforcement officers for the entire Northwest region, and they are busy enforcing regulations that protect salmon, which take precedence because they are listed under the Endangered Species Act (ESA). If NMFS is to enforce existing regulations, they need funding for enforcement and that means citizens must tell their representatives to allocate the funding for such purposes. **Again, please contact your senators and representatives and urge them to provide NMFS with the funding they need to protect our marine resources.**



Cetacean Fun Facts

by Laurie Mollo-McLain

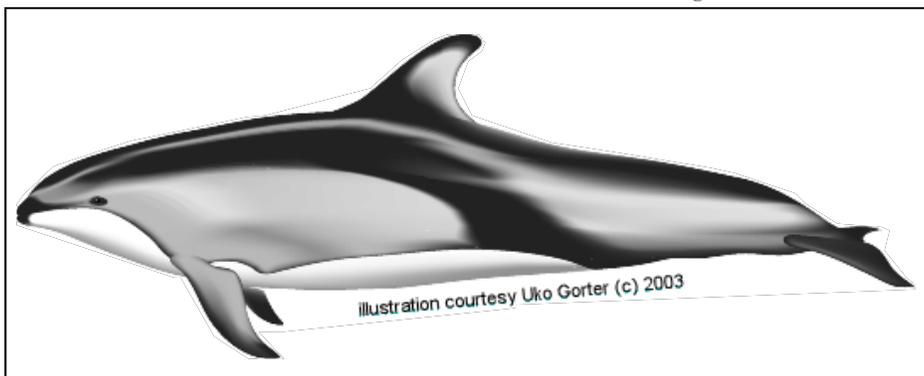
The Pacific White-Sided Dolphin

CLASSIFICATION AND NAME ORIGINS

The Pacific white-sided dolphin was named *Lagenorhynchus obliquidens* by Theodore Gill, an accomplished professor of ichthyology and zoology, and long time librarian of the Smithsonian Institution.

Lagenorhynchus in Latin translates to “flask-beaked” and *obliquidens* translates to ‘slanting tooth’. In Greek terminology lagenos means “bottle” and rhynchus means “snout”.

A member of the suborder odontoceti, this cetacean is classified into the family Delphinidae. It is one of six members of the genus *Lagenorhynchus*, also referred to as “lags”.



Pacific white-sided dolphins swim along the continental shelf and sometimes enter the inshore areas of British Columbia, Alaska and Washington State with sightings becoming increasingly common in Georgia Strait.

According to scientist and Canadian Field Naturalist Robin W. Baird, "the Pacific white-sided dolphin appears to be an abundant permanent resident of the pelagic waters off the west coast of Canada and a regular visitor to inshore waters".

During the 1999/2000 Gray Whale Census, Project Director, Alisa Schulman-Janiger of ACS/LA, reported sightings of 34 Pacific white sided dolphins in California between the months of December and May.

PHYSICAL FEATURES

These stout dolphins are 7-8 feet long with curved dorsal fins.

With only slight variance in their tri-colored appearance, they have a white underside, light gray sweeping across the sides, flippers, and on the a majority of the dorsal fin. Dark gray extends from the blunt nose (rostrum) to the fluke with a darker section folding down the middle.

DIET

Fish and squid make up a majority of their diet, but they also feed on small schooling fish of anchovies, herrings, sardines, and hakes.

DISTRIBUTION

Pacific white sided dolphins can mostly be found within the deep temperate sea of the North Pacific, in temperatures between 6 - 17 degrees.

Common to British Columbia, they range from the California coast to Japan with migrations to the south in the fall and to the north in the spring.

BEHAVIOR

Acrobatic and energetic, Pacific white-sided dolphins are powerful swimmers often porpoising at high speeds then disappearing within their cascades of mist. Their curious and playful nature leads them to the bows of boats where they leap with energy and ride the wakes.

As social animals, they swim in groups of hundreds to thousands with family units consisting of approximately 30 individuals.

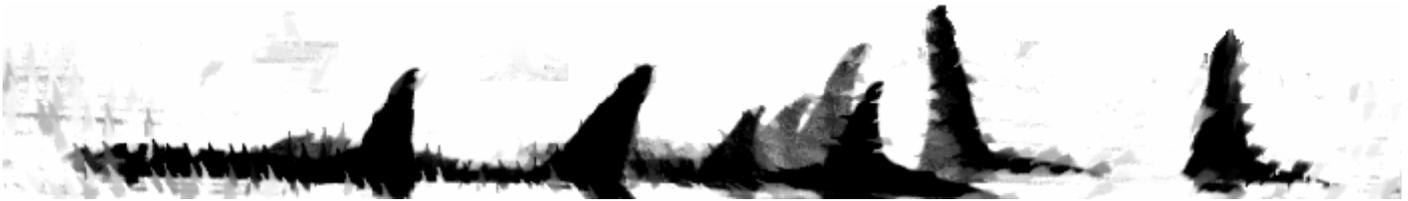
Pacific White-sided dolphins have been observed associating with other species of marine mammals such as Northern Right Whale dolphins, baby grays, humpbacks, seals and sea lions.

THREATS

Fishing nets, Japanese hunters and capture for public display.

Comments or questions?

You may contact the author— Laurie@ProtectWhales.com



KID'S QUEST

How do whales and dolphins hear?

Hearing is one of the most important senses in cetaceans. Whales, dolphins, and porpoises use hearing to locate food, detect enemies, other species, or individuals of their group, and to also navigate their way throughout the darkness of the oceans.

Cetacean ears are internal, highly developed and very sensitive. Whales, dolphins and porpoises hear by receiving sound waves in the water. Sound travels much faster and longer distances in the water than in air.

Toothed cetaceans, Odontocetes, produce sounds which are high in frequency, and also have the ability to echolocate.

Echolocation is produced by a series of clicks and whistles which is emitted as sound waves from the rounded part of their foreheads, called the melon. The sound travels through the water, hits an object and bounces back to the cetacean's lower jaw, then passes to the inner ear.

Large whales, such as the mysticetes, or baleen whales, produce sound which is low in frequency. Although they do not echolocate, they communicate by grunts and moans. Humpback whales are popular for producing songs, which are long lasting series of notes.

INTERACTIVE EDUCATION

Okay kids, it is time to use those computer skills! Visit the links below to hear sounds that cetaceans make, and to also see some diagrams of where the sounds come from!

To hear sounds produced by whales and dolphins:

Joe Olson, our very own founder and past-president of the American Cetacean Society/Puget Sound Chapter, recorded orca whale sounds here in Washington! Go to the following site to hear them!

<http://www.cetaceanresearch.com/sounds.html>

Also visit

Sounds of the Sea

<http://www.whaleclub.com/multimedia/oceansounds/oceansounds.html>

Whale Songs

<http://www.lhs.berkeley.edu/whale/>

To see diagrams on sound production:

<http://www.dolphins.org/learn/lmm-snd.htm>

<http://curry.edschool.virginia.edu/go/Whales/LessonPlans/Diagram.html>

To see diagrams on the morphology (physical structure and form) of the head and ears:

<http://library.thinkquest.org/17963/09-diagram.html>

<http://home.houston.rr.com/vnotes/notes/Cetacea.html>



Created by Laurie Mollo-McLain

Whales and Dolphins in Question

a book review by Uko Gorter

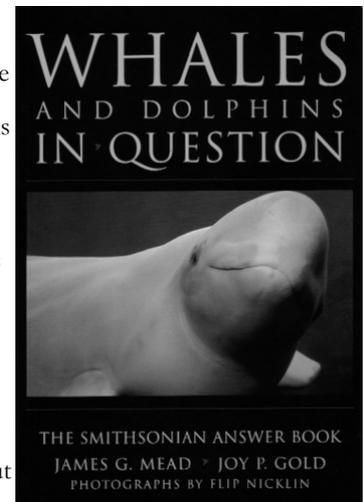
Spurred by thousands of letters and phone calls each year, the Smithsonian's Museum of Natural History conceived a series of books answering many of the questions that were asked. Fourth in this series of Smithsonian Answer Books is the *Whales and Dolphins in Question* by James G. Mead, curator of marine mammals, and Joy P. Gold, technical information specialist, both with the Museum of Natural History. The book is richly illustrated with photographs of none other than Flip Nicklin of National Geographic fame.

In a FAQ style, the book poses and answers the questions in short paragraphs. It also refers the reader to other related questions within the book for better insight. Well over a hundred intriguing questions are dealt with. Myths are dispelled and objectively looked at, and misinformation dissected in a responsible matter. Even the more knowledgeable among us may be surprised to find out some facts unknown to them. Questions like, What color are cetaceans eyes?, Do whales cry?, Do whales drink water?, and Do Whales and Dolphins Sleep?, makes one want to find out immediately. It also gives an overview of all cetacean families and introduces some selected species. At the end of the book, appendices show the classification of all living whales and dolphins, and a section dealing with careers in marine mammal science, based on the Society for Marine Mammalogy's Strategies

for Pursuing a Career in Marine Mammal Science. A list of sources on whales and dolphins includes our own American Cetacean Society. Also listed are periodicals dealing with cetaceans and other marine mammals. Lastly, an extensive glossary and helpful list of whale bibliographies round off this book.

This is a wonderful reference work perfect for educators, school libraries, and basically anyone interested in finding out more about our whales, dolphins, and porpoises.

Whales and Dolphins in Question: The Smithsonian Answer Book. James G. Mead, Joy P. Gold. Photographs by Flip Nicklin. Smithsonian Institution Press, Washington, DC. 20002. \$24.95 paperback — 200 p.p.



AMERICAN CETACEAN SOCIETY



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TO:

address correction requested

SAVE THE DATE!! — Wednesday June 18th, 7-9pm, Phinney Neighborhood Center — last meeting until October!

Killer whales and Steller sea lions in Western Alaska

The decline of Steller sea lions in Western Alaska remains one of the great mysteries of conservation biology. Despite years of research the cause remains elusive leading some to question the roll of killer whales in the decline. Elizabeth Petras will discuss various models of potential impacts as well as provide information, what little is known, about transient killer whales in Alaska.

Elizabeth Petras is a recent graduate of the School of Marine Affairs at the University of Washington. She has been involved with killer whale issues for more than a decade. Elizabeth is the conservation chair for the Puget Sound Chapter of ACS and former chapter vice president. See our chapter website (www.acspugetsound.org) for more info., including directions to the meeting location.

***YES!* — ENROLL ME AS A MEMBER OF THE PUGET SOUND CHAPTER OF THE AMERICAN CETACEAN SOCIETY!**

Name: _____	<input type="checkbox"/> \$500	Patron
Address: _____	<input type="checkbox"/> \$250	Contributing
City: _____	<input type="checkbox"/> \$75	Supporting
State: _____ Zip: _____ Phone: (____) _____	<input type="checkbox"/> \$45	Family
E-mail: _____	<input type="checkbox"/> \$35	Active
	<input type="checkbox"/> \$25	Student/Teacher/Senior

Please make check payable to ACS and mail to: ACS/Puget Sound Chapter, P.O. Box 17136, Seattle, WA 98127-0836