

Minutes for the Pacific Scientific Review Group Meeting Monterey, California, 9-10 January 2008

The eighteenth meeting of the Pacific Scientific Review Group (SRG) was held at the Embassy Suites Hotel in Monterey, CA from 9-10 January 2008, following a joint meeting of all the SRGs from 8-9 January 2008. All SRG members were present except for John Calambokidis and Chuck Janisse. Jim Carretta and Karin Forney served as rapporteurs. Michael Scott served as chairman of the SRG. The SRG members and other participants are listed in Appendix 1, review documents are listed in Appendix 2, and the agenda of the meeting is in Appendix 3.

General Topics

MMPA updates. Tom Eagle reviewed potential amendments to the MMPA, including incorporation of recreational fisheries, pinniped interactions, treaty rights, and prohibitions on states from passing legislation dealing with federal marine mammal protection issues. There is not currently strong interest in moving new MMPA bills through Congress.

List of Fisheries (LOF). Melissa Andersen provided an overview of the 2008 LOF. There were no category changes for 2008 and no fishery additions. NMFS proposed to elevate the California yellowtail, barracuda, and white sea bass, small mesh (≥ 3.5 in and < 14 in.) drift gillnet fishery from a Category II to a Category I. However, after re-analysis of the data, NMFS did not make this change in the final rule because the bycatch was $< 50\%$ of PBR. The OR blue shark and OR swordfish floating longline fisheries were removed from the LOF. Tina Fahy said that all Category III pot/trap fisheries will be examined to see if they are appropriately categorized based on humpback and gray whale interactions.

GAO review of Take Reduction Team process. GAO has attended recent TRT meetings to evaluate the TRT process/implementation. Its focus is on statutory deadlines, and compliance with and enforcement of TRT requirements. A report will be completed this year.

CA/OR/WA Fisheries and Management

TRT Update. Tina Fahy summarized the recent Take Reduction Team meeting, the first since 2003. There was consensus that the Take Reduction Plan (TRP) was working. Beaked whale entanglements have been reduced to zero. Short-finned pilot whales and long-beaked common dolphins remain above PBR in the 2007 SARs. California sea lion takes have increased since the use of pingers began. TRT recommendations included a continuation of the 36' extender length, mandatory pinger use, exploration of other pinger frequencies that might improve performance, alternative methods of vessel observation (such as electronic monitoring), and higher observer coverage. Small-scale strategic stock surveys (*e.g.*, long-beak common dolphins) were also recommended to obtain better abundance estimates. The next TRT meeting is scheduled for April 2008.

Other Management Issues. Monica DeAngelis reviewed a variety of additional management-related issues. A Federal Register notice was published in Oct. 2007 for the endangered species incidental take permit in the swordfish drift gillnet fishery and NMFS has considered issuing a national permit to cover all U.S. fisheries. Draft recovery plans for fin and sperm whales were made available for public review in July 2006, and final recovery plans are due out in 2008. New liquid natural gas ports have been proposed that would result in increased ship traffic and potentially increased ship strikes. Several whales (blue, humpback, and gray) were struck by vessels last year and the Channel Islands National Marine Sanctuary is considering a monitoring program to address ship strikes. The Navy approached NMFS in 2006 for consultation for 14 “range events” from 2007-2009. A Biological Opinion was published in 2007 detailing mitigation measures required by Navy to proceed with a variety of activities, including US Navy sonar, underwater detonation, torpedo, and countermeasure activities in Southern California waters.

Robin Brown reviewed Rogue River and Bonneville Dam pinniped interaction and deterrence issues. The sport fishery in the Rogue River was losing a large percentage of hooked fish to Steller and California sea lions, but acoustic harassment with seal bombs proved effective at deterring the sea lions. At Bonneville Dam, CA sea lions ate mainly salmon, estimated to be 1-4% of the total salmonid run, while Steller sea lions ate mostly sturgeon. A variety of gates, seal bombs, cracker shell, rubber buckshot, boat hazing techniques, and acoustic devices have been tested here.

Brown concluded that the MMPA does not effectively deal with problems of abundant pinniped predation on depleted salmonid stocks. It was not developed to allow for lethal removal of identifiable individuals that are documented to have a significant negative impact on threatened and endangered salmonids. In nearly all cases, this precludes a timely and effective resolution of problems with a minimal impact on the pinnipeds and salmonids involved. This delay may result in the need to remove larger numbers of pinnipeds than if prompt action had been taken to remove the initially occurring predators. Given what is now known about the foraging behaviors of California sea lions on salmonid stocks in similar situations (*e.g.* Ballard Locks), a more rational and effective approach would be to have the option to remove the first predators involved in a developing situation in a timely manner.

CA/OR/WA Research and SARs

Cetacean Genetic Studies. Susan Chivers summarized mitochondrial DNA results for West Coast harbor porpoise, which support moving the Cape Blanco boundary to just south of the Columbia River, near Lincoln City, OR. The SRG agreed that NMFS adopt the proposed revised stock boundary. Chivers also reported that a limited number of genetic samples show possibly three CA populations of long-beaked common dolphins off San Diego, Santa Barbara, and central California. In addition to incidental fishery mortalities, long-beaked common dolphins are vulnerable to domoic acid outbreaks. There have been several outbreaks observed that have resulted in record numbers of strandings in the Southern California Bight since 2000. Record numbers of long-beaked

common dolphin stranded in San Diego County during 2007 with deaths attributable to human interactions and domoic acid.

Southern Resident killer whales. Brad Hanson reported that the maximum net productivity rates were 3.6% during 2001-2005, but there have been 2 births and 5 deaths since 2006, and the population has declined from 89 to 86 animals.

Satellite transmitters are being developed, using pilot whales as proxy test animals. It is likely that only adult male SRKW would be targeted for satellite tagging, but there are relatively few males, so risks to individuals are a concern. Given the limited lifespan of each tag, it was suggested that animals could be serially tagged (multiple, staggered tagging of the same individual) to collect longer-term data. Acoustic recorders will also be deployed around the Farallon Islands and Ft. Bragg, CA, where sightings have occurred in recent years. Contaminant results from biopsy work by Krahn *et al.* indicate extremely high PBDE levels in whale J39 and that DDT/PCB ratios differ between J and L pods – probably related to differences in prey sources. Proposed rulemaking is underway on the effects of vessel interactions with SRKW.

Southern sea otter SAR. Lilian Carswell gave an update on this stock. The spring count was the highest observed: 3,026, yielding a 3-year average of 2,818 (+2.4%). The San Nicolas Island population was estimated to be about 37 animals. The southern distribution of animals has spread further south to Santa Barbara region as prey abundance has become limited in the central part of range. Animals have responded by targeting a wider diversity of prey species, resulting in a decline in body condition. No incidental take of otters in commercial fisheries has been reported. The FWS is being sued for failure to publish its sea otter SARs.

WA sea otter SAR. Deanna Lynch reported that the 2006 count was 790 animals. The population is increasing at about 8% annually, with the southern end of range having a higher growth rate, and the northern part of range experiencing a slowdown in growth. Based on the 2006 count, N_{\min} is 790; R_{\max} is 20%, the F_R is 0.1 (minimum population size <1,500 and <60% K, restricted geographical range), and the PBR is 8. Annual human-caused mortality and serious injury is a minimum of 2 for marine set gillnets. The FWS has requested information from the NMFS and tribal fisheries for any fishery-related sea otter mortality data for WA. Updated stranding information indicates an average of 18 otters annually over the period 2000-2007. Known causes of death include parasites, leptospirosis, and canine morbillivirus. Steve Jeffries added that the WA 2007 survey yielded a count of 1121 otters.

Long-beaked common dolphin SAR. Jim Carretta reviewed changes in CA/OR/WA SARs. For long-beaked common dolphins, the current abundance estimate is based on the original analysis of the 2001 survey, and the recent 2005 survey, however a revised analysis of all survey years (Barlow and Forney 2007) yielded an improved estimate of about 20,000 long-beaked common dolphins for 2001, instead of the original estimate of about 300. The revised average 2001-2005 abundance is about 15,000 animals, PBR is >80, and the stock is no longer strategic. Discussion about the merits of which 2001

estimate to use for long-beaked common dolphins and other species concluded that the Barlow and Forney (2007) estimates for 2001 and the Forney (2007) estimates for 2005 would be appropriate for all stocks.

Large whale SARs. The SRG noted that the F_r for sperm whales should be increased to 0.2, given that N_{\min} is now >1,500 whales and the population appears to be increasing. The SRG raised the issue that a majority of SARs lack information on trends in abundance. Jay Barlow replied that there is a NMFS proposal to perform a Bayesian trend analysis on all stocks to determine population trends. Terry Wright proposed removing the historic whaling sections from SARs for large whales, but Jay Barlow responded that these sections are integral to explaining the depleted status of these populations. After a brief discussion, it was agreed that this section could be shortened and moved to the status section.

Pacific Islands Fisheries and Management

Hawaii management issues. Lisa Van Atta reviewed several management issues. There is no false killer whale Take Reduction Team due to budget problems, but a Marine Mammal Advisory Committee met with the Western Pacific Fishery Management Council and made 12 recommendations for reducing false killer whale takes. The Hawaii superferry operators have been required by the legislature to apply for an incidental take permit from NOAA, which they have done and a Biological Opinion will be prepared. The Navy has drafted a programmatic impact statement to cover RIMPAC 2008 and other activities nationally and has applied for a Letter of Authorization to incidentally harass marine mammals. Michelle Yuen reported that a draft EIS is being prepared for human interaction impacts on Hawaiian spinner dolphins, and it is expected out in early 2009. The Monk seal recovery plan was finalized in 2007. Two monk seals drowned in recreational gillnets in 2006-2007, and there were also two hookings during this period, considered non-serious injuries. PIRO is preparing to hire a person to monitor and/or conduct surveys of nearshore fishery interactions.

Hawaii longline bycatch analyses. Karin Forney reviewed preliminary results of an analysis of Hawaii longline observer data, conducted in collaboration with Donald Kobayashi and Dave Johnston to examine depredation and bycatch rates relative to environmental variables and gear factors. About 16,000 sets were available for analysis, including a subset of 868 sets (~5%) during which cetaceans interacted with catch or gear. Depredation was slightly more common within 500 nm of Hawaii, at lower latitudes, and in the deep-set fishery, but overall it appeared to be a rare and random event. When animals were documented interacting with gear (868 sets), they were 80% less likely to become entangled or hooked with circle hooks vs. J-hooks. However, there are some analytical caveats that must be investigated further. In particular, the impact of mixed-hook sets may confound results and requires additional analyses.

Overall cetacean bycatch for 2002-2006 was estimated using two methods (PSRG-2008-16): those previously applied by Forney and Kobayashi (2007), and those developed by Marti McCracken (PIFSC) for other protected species. The two methods yielded similar results, with 5-year average false killer whale mortality and serious injury estimates of

6.5 and 7.6, respectively for the area outside the EEZ, and 5.9 and 5.6, respectively, for the Hawaiian Islands EEZ. Using either method, the PBR is exceeded. The methods of McCracken are based on the current sampling protocol for observed trips, and plans are to continue with this in the future.

Pacific Islands Research and SARs

PIFSC review. Dave Johnston reported that humpback whales were found in warm shallow regions of the NWHI during a 2007 cruise. Spinner dolphin photo-ID research was completed around the main Hawaiian Islands, and the American Samoa spinner dolphin results were published. Spinner dolphins in Samoa may be a different stock than Hawaiian animals. Passive acoustic studies conducted at Palmyra Atoll, Cross Seamount, and Ladd Seamount produced recordings of minke whales, and nighttime detection of beaked whales at Cross Seamount, suggesting that deep scattering layer advection over the seamounts facilitates foraging. Data loggers were also experimentally deployed on active longline gear to detect cetacean echolocation.

Hawaiian odontocetes photo identification and satellite telemetry. Robin Baird has continued photo-identification studies around the main Hawaiian Islands. False killer whales show the broadest use of depth strata among the odontocetes studied in this region, with a preference for deep (>3000 m) waters, and a maximum distance offshore of 31 km. Some animals have been documented in the area over a 20-yr period. Satellite telemetry results show that animals use the (non-surveyed) windward sides of islands as well as the surveyed leeward side. One animal stayed close to the main Hawaiian Islands for the entire 30-day track. The maximum observed linear movement was >400 km, and the maximum distance offshore was 96 km, indicating overlap with putative offshore population. Robin Baird also reported photo-identification based mark-recapture estimates for Blainville's beaked whales (125) and Cuvier's beaked whales (55) over a 4-yr period. Satellite tag results from Blainville's beaked whales show site fidelity to the nearshore area of the Big Island and the Alenuihaha Channel.

Proposed false killer whale stock boundary changes. Susan Chivers reviewed PSRG-2008-15, which proposes to revise the Hawaii false killer whale stock boundary to include only waters out to about 75 nm around the Main Hawaiian Islands. The revised false killer whale stock complex would include 3 stocks: Hawaiian Insular Stock, Hawaiian Pelagic Stock, and Palmyra Stock. The rationale for the 75 nm boundary proposal is linked to the exclusion zone of the longline fishery in this region, which varies seasonally but is about 75nmi for part of the year. Support for the insular stock designation includes long-term residency and movements of animals around the MHI (Robin Baird studies) and genetic evidence indicating MHI false killer whales are reproductively isolated. Thus, there are at least two stocks within the Hawaiian EEZ. Evidence to support maintaining a Palmyra stock includes different oceanographic conditions in this region, higher animal densities, concentrated fishing effort within the EEZ, and consistency with GAMMS II guidelines. Svein Fougner noted that fishing effort is not necessarily concentrated around Palmyra, but extends over a large area.

Karin Forney reviewed abundance, mortality and PBR information for each proposed stock, and confirmed that management of false killer whales within the EEZ is consistent with management guidelines. The abundance of the Hawaii Insular stock is 123 (CV=0.72) based on photo-ID surveys (Baird), the Hawaii Pelagic Stock abundance estimate is 484 (CV=0.93) (Barlow and Rankin 2007), and the Palmyra Atoll Stock abundance is 1,329 (CV=0.65) (Barlow and Rankin 2007). The estimated abundance of false killer whales in international waters of the 2005 surveys study area is 906 (CV=0.68). The Hawaii Pelagic stock is strategic, the Palmyra and Hawaii Insular stocks are not strategic. If the animals in international waters were considered separately, the US mortality and serious injury would exceed the calculated PBR. The SRG supported the proposed revised false killer whales stock boundaries. One error was noted in the text of the revised SAR: the Insular stock should be non-strategic. This will be corrected in the final Draft 2008 SAR.

False killer whale SAR. Dave Johnston reviewed changes to the draft 2008 SAR to include the Hawaii Insular Stock Abundance and mortality levels as presented earlier by Forney. The SRG suggested adding the Hawaiian Insular Stock to Table 1, and noted that the CV is lacking for the 2006 bycatch estimates. Karin Forney explained that Marti McCracken is still working out some technical details of the CV estimation and that these estimates will be added prior to release for public review.

Monk Seal SAR. Jason Baker described a shift in research priority to reduce juvenile mortality, such as treating juveniles for worm infestation. The Draft 2008 SAR reports a population size decline from 1247 to 1208 seals. The SRG suggested adding a sentence to the SAR to clarify that 'undetermined PBR' does not mean we do not know what PBR is but rather that it cannot mathematically be calculated according to the current PBR guidelines because of a negative population growth rate. There are no 'allowable' takes for this stock, which functionally equates to zero, but PBR cannot be calculated given the available data.

Topics, Timing and Location for Next Meeting

It was decided that the focus of the next meeting would be on Hawaiian issues, including updates on the HI longline fishery, monk seals, and small-scale studies of cetacean populations.

Review of Previous Research and Management Recommendations

The SRG recognizes that the Pacific Islands Fisheries Science Center (PIFSC) Protected Species program has focused largely on monk seals and sea turtles. The SRG recommends that additional focus be placed on developing a full cetacean research program to address pressing questions of abundance, stock structure, and fishery interactions of cetaceans in the Pacific Islands region.

This program has conducted an impressive amount of research on cetaceans, particularly given the limited staff available.

With the increased concern about marine mammal populations in U.S. jurisdictions throughout the Central Pacific, it is important to continue expanding the stranding program to other islands such as American Samoa and Guam. This will help define stock structure and monitor for potential interactions with fisheries, naval sonar operations in the area, and other anthropogenic activities.

A John H. Prescott Marine Mammal Rescue Assistance Grant award was made to the Northern Marianas College (Oct 2007-Sept 2008) for stranding response in the Northern Marianas Islands, Guam and American Samoa.

The recent entanglement of a Hawaiian monk seal in a “recreational” set net illustrates the increased potential for fishery mortality in the main Hawaiian Islands. The State of Hawaii is proposing to regulate this fishery and the SRG recommends that the NMFS work with the State to better manage the fishery to minimize the entanglement of Hawaiian monk seals and other marine mammals.

NMFS has funded a State of Hawaii Fisheries Interactions position to deal with this issue.

It has been a number of years since the last pup survey of Hawaiian monk seals in the main Hawaiian Islands. The SRG recommends a new survey be conducted, particularly on the island of Niihau, to update abundance estimates.

This project has not been done yet, but it is part of the newly completed Recovery Plan and is the number one priority of the Monk Seal program. Funding is required however.

The SRG is concerned about the lack of meetings of the California driftnet TRT, and recommends that it meet soon to review the fishery.

The TRT met in April 2007 and is scheduled to meet again in April 2008.

The SRG recommends that the NMFS initiate a status review of large whales. Increasing trends in humpback and blue whale abundances indicate that these species are recovering sufficiently well that downlisting under the ESA may be warranted.

Data have been collected (e.g., SPLASH) that would be required for such a review. A Status Review is required under the ESA every five years, but it is overdue.

The SRG continues to recommend that the USFWS publish its Stock Assessment Report on Washington and southern sea otters so that the USFWS can meet its statutory responsibilities under the MMPA.

SARs have been updated and reviewed by the SRG annually. Progress has been made in overcoming the internal FWS barriers to publication of the sea otter SARs. A draft SAR for the southern sea otter was published in the Federal Register in June 2008 for public comment.

The SRG recommends continued studies of harbor porpoise movements and genetics to better understand the stock structure and identify stock boundaries.

Genetics research has continued to examine harbor porpoise stock structure.

The SRG supports continued studies of movements and genetics of false killer whales and other cetaceans around Hawaii and in the Central Pacific to better understand stock structure.

Both satellite tracking and genetics research on false killer whales have been conducted.

RESEARCH AND MANAGEMENT RECOMMENDATIONS
Pacific Scientific Review Group – 9-10 January, 2008

The SRG recommends the Pacific Islands Fisheries Science Center (PIFSC) Protected Species program continue to build its small cetacean research program. The SRG notes that a cetacean survey should be conducted in Hawaiian waters by 2010, and that planning for such a survey should be initiated soon, given the complex planning and extensive resources required for such a survey.

The SRG continues to recommend that the USFWS publish its Stock Assessment Report on Washington and southern sea otters so that the USFWS can meet its statutory responsibilities under the MMPA.

The SRG supports continued studies of movements and genetics of false killer whales and other cetaceans around Hawaii and in the Central Pacific to better understand stock structure.

Beaked whales are notoriously difficult to study and census, but small-scale studies in favorable localities have been successful. The SRG recommends that studies utilizing photo-identification, radio- and satellite tracking, and biopsies for genetic analysis be conducted where possible on beaked whales.

Appendix 1

Attendees at the 18th Meeting of the Pacific Scientific Review Group

Scientific Review Group - Pacific Region:

Hannah Bernard	Hawai'i Wildlife Fund
Robin Brown	Oregon Department of Fish and Wildlife
John Calambokidis	Cascadia Research (<i>Not attending</i>)
Mark Fraker	Terramar Environmental Research
Doyle Hanan	Hanan & Associates, Inc.
Jim Harvey	Moss Landing Marine Laboratories
Chuck Janisse	Federated Independent Seafood Harvesters (<i>Not attending</i>)
Steve Jeffries	Washington Department of Fish and Wildlife
Katherine Ralls	Smithsonian Institution
Michael Scott	Inter-American Tropical Tuna Commission
Terry Wright	Northwest Indian Fisheries Commission

Invited Participants and Observers:

<i>NMFS Southwest Fisheries Science Center</i>	<i>NMFS Northwest Fisheries Science Center</i>
Jay Barlow	Brad Hanson
Bob Brownell	
Jim Carretta	<i>NMFS National Marine Mammal Laboratory</i>
Susan Chivers	Marcia Muto
Karin Forney	
Karen Martien	<i>NMFS Office of Protected Resources</i>
	Melissa Andersen
<i>NMFS Southwest Region</i>	Tom Eagle
Monica DeAngelis	
Tina Fahy	<i>USFWS</i>
	Deanna Lynch
<i>NMFS Pacific Islands Fisheries Science Center</i>	Lilian Carswell
Jason Baker	<i>Marine Mammal Commission</i>
David Johnston	Bob Gisiner
Charles Littnan	
	<i>Cascadia Research</i>
<i>NMFS Pacific Islands Region</i>	Robin Baird
Adam Bailey	
Lisa Van Atta	<i>Hawaii Longline Association</i>
Michelle Yuen	Svein Fougner
	<i>National Resource Defense Council</i>
	Liz Alter

Appendix 2

Final Document List Pacific SRG Meeting 8-10 January 2008

Review Papers

- PSRG-2008-01 CA/OR/WA cetacean SARs
- PSRG-2008-02 Pacific Islands False Killer Whale SAR
- PSRG-2008-03 Southern Resident Killer Whale SAR
- PSRG-2008-04 HI Monk Seal SAR
- PSRG-2008-05 Southern Sea Otter SAR
- PSRG-2008-06 WA Sea Otter SAR
- PSRG-2008-07 CA/OR Marine mammal and sea turtle bycatch for 2006
- PSRG-2008-08 Rogue River Pinniped Non-lethal deterrence report
- PSRG-2008-09 Columbia River Pinniped-Interaction Task Force report
- PSRG-2008-10 LOF 2008
- PSRG-2008-11 GAO - TRT Notification Letter
- PSRG-2008-12 FR Notice - 101a5E Incidental Take Permit
- PSRG-2008-13 Draft document on HI tag development work
- PSRG-2008-14 *Delphinus capensis* genetics and fishery interaction summary
- PSRG-2008-15 Pacific Islands false killer whale stock structure proposal
- PSRG-2008-16 HI longline bycatch estimates, 2002-2006
- PSRG-2008-17 MMAC draft recommendations from Feb 2007 meeting

Background Papers

- PSRG-2008-B1 Temporal and spatial variation in age-specific survival rates of a long-lived mammal, the Hawaiian monk seal
- PSRG-2008-B2 Effect of variable oceanic productivity on the survival of an upper trophic predator, the Hawaiian monk seal *Monachus schauinslandi*
- PSRG-2008-B3 Baird *et al.* - Hawaii *Steno* paper (in press)
- PSRG-2008-B4 SRKW Contaminant paper (Marine Pollution Bulletin)
- PSRG-2008-B5 U.S. West Coast harbor porpoise genetics
- PSRG-2008-B6 U.S. West Coast harbor porpoise stock structure proposal
- PSRG-2008-B7 Chivers *et al.* 2007 CJZ paper
- PSRG-2008-B8 Baird & Gorgone 2005 Pacific Science paper
- PSRG-2008-B9 Baird *et al.* 2005 FKW photo-id contract report
- PSRG-2008-B10 Baird *et al.* - FKW photo-id manuscript submitted to MMS
- PSRG-2008-B11 Barlow and Forney 2007 - Fish. Bull. West Coast abundance paper

Appendix 3

Agenda - Pacific SRG Meeting Embassy Suites Hotel, Monterey, CA 9-10 January 2008

JANUARY 9, 2008 1300 - 1730

Introduction - *Scott*

General Management Updates

- MMPA updates - *Eagle*
- List of Fisheries - *Andersen*
- GAO Review of Take Reduction Team Process - *Cottingham*

CA/OR/WA Fishery and Management Updates

- FR Notice for the 101(a)(5)(E) permit, TRT updates, Recovery Plans - *DeAngelis*
- LNG ports along the west coast - *DeAngelis*
- Navy exercises (COMPTUEX/JTFEX) - *DeAngelis*
- Overview of human-related marine mammal takes and observer programs - *DeAngelis/Fahy*
- Updates on exempted fishing permits (longline and drift gillnet) - *Fahy*
- 2006 marine mammal mortality estimates for gillnet fisheries - *Carretta*
- OR/WA/ID application for lethal removal authority of sea lions - *Brown*
- Successful non-lethal sea lion hazing program in Oregon - *Brown*

CA/OR/WA Research & SARs

- Harbor porpoise stock revisions - *Chivers*
- Long-beaked common dolphin research updates - *Chivers*
- Southern resident killer whale updates - *Hanson*
- Sea otter updates and SARs - *Carswell & Lynch*
- CA/OR/WA Cetacean SARs - *Carretta*

JANUARY 10, 2008, 0830 - 1730

Pacific Islands Protected Species Management Issues

- Hawaii Superferry issue - *Van Atta/Yuen*
- Navy's Hawaii Range Complex EIS (Navy sonar issue) - *Van Atta/Yuen*
- Potential new Hawaiian spinner dolphin regulations - *Van Atta/Yuen*
- Review false killer whale take reduction progress in longline fishery - *Van Atta/Yuen*

Pacific Islands Research and SARs

- Humpbacks in NWHI - *Johnston*
- American Samoa research updates - *Johnston*
- Hawaii research updates - *Johnston*
- Cetacean bycatch analyses - *Forney*
- False killer whale stock updates - *Chivers*
- Hawaii cetacean telemetry research updates - *Baird*
- Monk seal research updates & SAR - *Baker*
- Pacific Islands False Killer Whale SAR - *Johnston*

Discuss recommendations

Topics, timing, and location for next meeting

Adjourn