



CONFERENCE PROGRAM



AMERICAN CETACEAN SOCIETY

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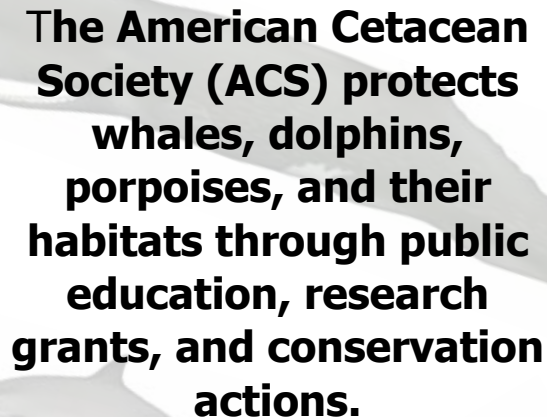
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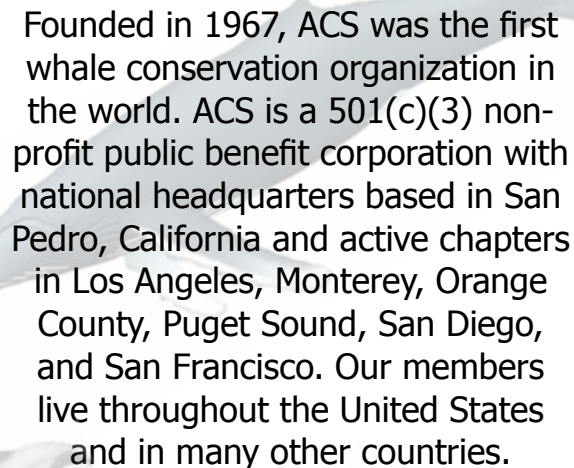
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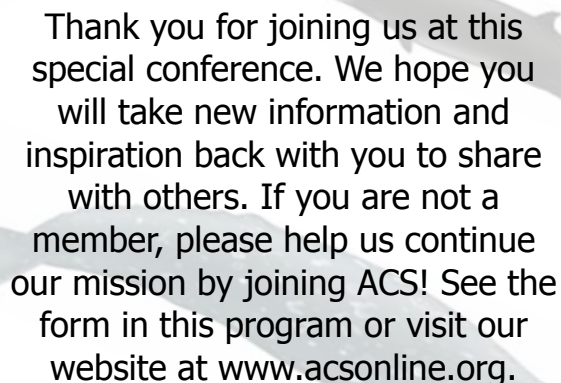
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The American Cetacean Society (ACS) protects whales, dolphins, porpoises, and their habitats through public education, research grants, and conservation actions.



Founded in 1967, ACS was the first whale conservation organization in the world. ACS is a 501(c)(3) non-profit public benefit corporation with national headquarters based in San Pedro, California and active chapters in Los Angeles, Monterey, Orange County, Puget Sound, San Diego, and San Francisco. Our members live throughout the United States and in many other countries.



Thank you for joining us at this special conference. We hope you will take new information and inspiration back with you to share with others. If you are not a member, please help us continue our mission by joining ACS! See the form in this program or visit our website at www.acsonline.org.



The Pacific Life Foundation is proud to support the American Cetacean Society.



The American Cetacean Society would like to thank our generous and dedicated sponsors (see full list on next page), the Monterey Bay chapter, our many wonderful volunteers, and the Embassy Suites Hotel accommodating us for this special event.

Please be sure to visit our artist, sponsor, and exhibitor booths located in the Seaside Ballroom north of the main ballroom where morning and afternoon break refreshments will also be served.



AMERICAN CETACEAN SOCIETY

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AMERICAN CETACEAN SOCIETY

Program Schedule

FRIDAY

- 5:30 - 6:30 pm Registration desk is open for check-in and those who have not yet registered
- 6:30 - 9:30 pm Welcome Reception, Embassy Suites Ballroom
- 7:30 - In the Eye of the Whale, featuring an exhibit his life-size, high-resolution photographs of whales - **Bryant Austin**, Artist
- 8:00 pm - The Adventures of a Whale Painter: 50 Years in Pursuit of Cetological Correctness - **Richard Ellis**, Artist/Writer

SATURDAY

- 7:00 - 8:15 am Registration desk is open for check-in and those who have not yet registered
- 8:15 - 8:30 Welcoming Remarks - **Kathy Zagzebski**, ACS President

Whales in 2010 – Where We Are

- 8:30 - 9:00 Whales of the World: New Developments in Whale Research in the North Pacific and Challenges Whales Face – **John Calambokidis**
- 9:00 - 9:30 Small Cetaceans of the World – **Tom Jefferson**
- 9:30 - 10:00 The Most Endangered Cetaceans – **Bernd Würsig**
- 10:00 - 10:15 Break

Large Whale “Hotspots” – 2010-2020

- 10:15 - 10:45 Right Whales: Surviving the Times? – **Brenda Rone**
- 10:45 - 11:15 Out of Sight But Not Out of Mind: Using tag technology to Understand Humpback Whale Foraging Behavior – **Ari Friedlaender**
- 11:15 - 11:45 Cetacean Cultures and Cetacean Rights – **Hal Whitehead**
- 11:45 Announcements
- 12:00 - 1:00 pm Lunch

Dolphins in Distress

- 1:00 - 1:30 Over-fished and Under-appreciated: Conservation and Management of Hawai'i's False Killer Whales - Our Next Endangered Species? – **Robin Baird**
- 1:30 - 2:00 The Status and Recent Trends of Cook Inlet Beluga Whales – **Rod Hobbs**
- 2:00 - 2:30 Biology and Status of the World's Freshwater Cetaceans – **Randy Reeves**
- 2:30 - 2:45 Break

Porpoises and Places in Peril

- 2:45 - 3:15 Effects of the BP Oil Spill on Marine Mammals of the Gulf of Mexico – **Teri Rowles**
- 3:15 - 3:45 End of the Line: The Recovery and Conservation of the Vaquita – **Lorenzo Rojas-Bracho**
- 3:45 - 4:15 Importance of Taxonomy for Conservation of Finless Porpoises – **John Wang**
- 4:30 - 5:30 Poster session, art show, book signings (Jim Darling, Elin Kelsey, Kathleen Dudzinski/Toni Frohoff, Carrie Newell)
- 6:00 - 7:00 Music/Socialize (Banquet Location)
- 7:00 - 9:00 Banquet and Awards Ceremony - Small Cetaceans in a Rapidly Changing World – **Randy Wells** (John Heyning Award Presentation, Photo Contest and Poster Contest Awards Announced)



Program Schedule

SUNDAY

- 8:00 - 9:00 am Registration desk is available
9:00 - 9:15 Opening Remarks
9:15 - 10:15 Keynote Speaker – Conservation, Crisis, and Human Perception – **Tim Ragen**
10:15 - 10:30 Break

The Next Decade of Cetacean Conservation

- 10:30 - 11:00 Worldwide Mass Strandings of Beaked Whales: Changing Patterns and Their Probable Causes – **Bob Brownell**
11:00 - 11:30 Politics: The Past, Present, and Future of the IWC – **Sue Fisher**
11:30 - 12:00 Cetaceans and Climate Change: What Can We Expect? – **Ian Dutton**
12:00 - 1:00 Lunch
1:00 - 1:30 Voices of the Great Whales, Drowning in a Sea of Noise – **Chris Clark**
1:30 - 2:00 Marine Spatial Planning and Cetacean Conservation – **Pat Halpin**
2:00 - 2:30 Whale Health and Conservation in an Urban Ocean – **Rosalind Rolland**
2:30 - 2:45 Break
2:45 - 4:00 “The Cove”– Screening Clip and Discussion with **Louie Psihoyos**, Film Director
4:00 - 4:30 What Can ACS Do? What Can We Do? – **Kathy Zagzebski** and **Cheryl McCormick**, ACS Executive Director
4:30 Formal Sessions Adjourn. Unmoderated Open Discussion Opportunity



About Our Speakers:

John Calambokidis

Whales of the World: New Developments in Whale Research in the North Pacific and Challenges Whales Face

The last few years have seen new discoveries and information on whales around the world. Studies in the North Pacific highlight some of these new findings. New data are available on trends in some of the large whale populations and these have shown large scale recovery of some of these species and populations. Large collaborative studies like SPLASH (Structure of Populations, Levels of Abundance and Status of Humpbacks) and YONAH (Years of the North Atlantic Humpback) have shown the benefits and value of these integrated large-scale efforts. Many photo-ID datasets are now providing long-term data on abundance, trends, and reproductive histories and these have revealed sometimes unexpected insights into changes in whale populations and movements. Blue whales in the eastern North Pacific have shifted distribution in apparent response to changing prey and oceanographic conditions. New data on larger humpback whale abundance and trends has prompted an evaluation of their status as endangered under the ESA, although this also requires a better consideration of population structure. Genetic studies have provided new insights into the complexity and detail of the population structure of a number of species. There is also new information on threats to whales both that have emerged in recent years or been revealed by new research methods. This has included new studies on potential impacts and interactions with ships and vulnerability to ship strikes. Several areas off the US West Coast have seen increases in ship strikes and studies have provided new insights into why this is occurring and ways to reduce it. Experiments off southern California have also started to look at behavioral responses of large whales to mid-frequency Navy sonar. Overall these new developments and findings provide exciting new insights into the lives of the whales of the world.



John Calambokidis is a Research Biologist and a founder of Cascadia Research, a non-profit research organization formed in 1979 based in Olympia, Washington. He periodically (1991-2010) serves as an Adjunct Faculty at the Evergreen State College teaching a course on marine mammals. His primary interests are the biology of marine mammals and human impacts. As a Senior Research Biologist at Cascadia Research, he has served as Project Director of over 100 projects. He has authored two books on marine mammals (the award-winning "Guide to Marine Mammals of Greater Puget Sound" from Island Publishers, with R. Osborne and E.M. Dorsey and "Blue Whales" from Voyageur Press, with G.H. Steiger) as well as more than 150 publications in scientific journals and technical reports. John has conducted studies on a variety of marine mammals in the North Pacific from Central America to Alaska. He has directed long-term research on the status, movements, and underwater behavior of blue, humpback, and gray whales. His work has been covered on shows by Discovery Channel and others and is featured in a National Geographic TV special and magazine article in 2009.

Tom Jefferson



Small Cetaceans of the World: An Overview

The majority of living cetacean species are small cetaceans (dolphins, porpoises, and small whales). They are a highly diverse group of animals, with some having very ancient divergence times and long evolutionary histories. They comprise species that live in freshwater rivers and lakes, estuaries, coastal waters, and deep oceanic regions. They range from the tiny vaquita and *Cephalorhynchus* dolphins to the large killer whale and beaked whales. Some have massive dorsal fins, and others have none at all. There are long-beaked members and others that have blunt, beakless heads. They include both the most well-studied/best known (bottlenose dolphin), as well as some of the most poorly-known cetacean species (some beaked whales, Atlantic humpback dolphin, spectacled porpoise). Although traditionally they received much less attention than their larger cousins, the great whales, that is beginning to change. Recent events and newly-recognized threats have spurred a flurry of research on many members of this group, and we now are beginning to reap the benefits of several long-term (decades-long) studies of the behavioral ecology of some delphinid species (particularly bottlenose dolphins and killer whales). Even some beaked whales are starting to give up their mysteries, as new technologies and more-frequent research expeditions into deep, offshore waters provide interesting glimpses into their fascinating lives.

Dr. Jefferson has been studying marine mammals since 1983. His main interests focus on the development of marine mammal identification aids, and the systematics and population ecology of the more poorly-known species of dolphins and porpoises. Essentially all of his work for the past 22 years has been related to conservation and management of marine mammals threatened by human activities. With co-authors, Marc Webber and Robert Pitman, Tom recently published "Marine Mammals of the World: A Comprehensive Guide to Their Identification" (Academic Press, 2008).





Bernd Würsig

The Most Endangered Cetaceans

A handful of cetacean species/sub-species and hundreds of populations are endangered. In the species/sub-species categories are northern right whales, vaquita, Antarctic blue whale, and Maui's (Hector's) dolphin. Among populations are western gray, killer and bowhead whales, bottlenose, Ganges, and Irrawaddy dolphins, belugas, and harbour porpoises. Reasons for low numbers range from past overhunting to present-day ongoing concerns: overfishing of primary food supplies (Gibraltar killer whales), ship strikes and probably noise (North Atlantic right whales), bycatch mortality in net and other fisheries (vaquita), habitat degradation (river dolphins and some near-shore dolphins and whales), and many unknowns, including effects of climate change. Some problems are widespread and systemic, but others are direct or acute and thus perhaps solvable. Some species and populations are well-studied and have effective advocates; most are languishing for lack of substantive population data, local and international conservation interest, and funds. Potential ways forward are: a) improved science coupled with publicity campaigns, b) true government buy-in (instead of lip service), c) threats of economic sanctions where governments could do more but hesitate, and d) help with funding to re-direct harmful human activities. While good information is vital, there are many situations where rapid action is warranted based on available data, and adaptive management, with set goals and timelines, is better than comprehensive-sounding protection "on paper only." Besides paying attention to what has and is going wrong, we encourage colleagues to also highlight what is going right, so that we may learn from our mistakes and successes.

Dr. Bernd Würsig is Regents Professor at Texas A&M University, and Chair of the Marine Biology Graduate Program, an interdisciplinary entity among three campuses. He has published about 150 peer review papers and six books. Recent books are "The Encyclopedia of Marine Mammals" (with Bill Perrin and Hans Thewissen, 2009), and "Dusky Dolphins; Master Acrobats off Different Shores" (with Melany Würsig, 2010), both Academic/Elsevier. He and Melany enjoy their gardens in New Zealand, the Arizona desert, and coastal south Texas.



Brenda Rone



Right Whales: Surviving the Times?

Northern right whales are arguably the world's most endangered large cetaceans as a result of commercial and illegal whaling. In 2008, the northern right whale (*Eubalaena glacialis*) was listed as two separate species, the North Atlantic (*E. glacialis*, NARW) and the North Pacific (*E. japonica*, NPRW). This new designation allowed researchers to focus conservation efforts on two ecologically disparate species. Growth in NARW research over the past two decades has provided a wealth of information about the distribution, life history, population genetics and basic biology of this species. A stymied recovery of this population can be attributed to prey availability, reproductive success, ship strikes, entanglements, habitat degradation and climate change, among other causes. A population estimate for the NARW is < 400 individuals (mean growth rate = 1.8%). In stark contrast, little is known about the distribution, migration, reproduction and habitat use of the NPRW. Existing data suggest that it now occupies a reduced range compared to historical times when right whales were widely distributed across the Gulf of Alaska and Bering Sea. An abundance estimate of approximately 30 animals for the eastern NPRW raises concern about the long-term persistence of this population. It is not clear what factors affect the NPRW; however, threats from anthropogenic impacts may increase with the likely future of an ice-free Northwest Passage and increased oil exploration. Research, management and industry must continue to take an ecosystem approach to right whale conservation in order to understand these diverse populations and provide effective mitigation strategies.

*Brenda Rone is a survey coordinator for the North Pacific right whale project for the Cetacean Assessment and Ecology Program (CAEP) at the National Marine Mammal Lab. Her research interests pertain to conservation and management issues with particular focus on anthropogenic impacts. Since 1998, Brenda has been participating in marine mammal studies including both aerial and shipboard surveys, with particular expertise in right, humpback and pilot whales. Brenda completed her MS in biology at the University of Massachusetts Boston. Her thesis was titled "Discriminating between free-ranging long-finned (*Globicephala melas*) and short-finned (*Globicephala macrorhynchus*) pilot whales off the east coast of the United States."*



Ari Friedlaender

Out of Sight But Not Out of Mind: Using Tag Technology to Understand Humpback Whale Foraging Behavior

Humpback whales are widespread throughout the world's oceans and inhabit a variety of habitats. They are morphologically distinct from other baleen whales having evolved large flukes and long oar-like pectoral flippers. As a result, humpback whales are able to move their bodies in ways that would be difficult for other whale species. Throughout their range, humpbacks are also known to employ a variety of complex feeding strategies, such as bubble net and lobtail feeding. Other types of sub-surface feeding have been hypothesized from body scarring. Using non-invasive suction cup tags that measure the animals pitch, roll, heading, depth, and acceleration placed on whales in several widely separated geographic areas (e.g. New England and the Antarctic Peninsula), combined with novel visualization and analytical tools, we are able to recreate and measure the myriad of behaviors that humpback whales use to capture their prey. Many of these behaviors are specific to both individuals and locations. The synthesis of tagging and visualization technology now allows us to see below the surface and better understand the complex feeding strategies of humpback whales.



Ari S. Friedlaender, Ph.D., is a research scientist at Duke University studying the foraging behavior of cetaceans and the impacts of climate change on marine mammals in polar regions.

Ari is most at home in a small boat on the water either deploying suction cup tags or following whales and studying their behavior. Among the necessities Ari requires in the field are a life jacket, his trusty 300mm lens, and dried mangos. Ari's partner is a jammer on the Sac City Rollers Women's roller derby team. For Halloween this year, Ari and his dog Luna were jailbirds.



Hal Whitehead

Cetacean Cultures And Cetacean Rights

Culture is often presented as the defining difference between humans and other animals. It can then be argued that species that also have advanced cultures should be included with humans in an extended moral community. Key factors which have led culture to be so essential to the modern human are technology, cumulative change, moral systems, ethnic markers, and that culture affects biological fitness. While (depending on definitions) many species possess culture, these key factors of human culture are generally absent. Evidence is growing that for at least some cetacean species, culture is both sophisticated and important, and that cetacean cultures possess the all the key factors of human culture except a sophisticated technology. These key cultural factors promote evolutionary processes which are important, but rare or absent in the standard genetically-evolved species: cultural group selection, conformism, cultural ethnicity with symbolic markers, and so on. These processes change the nature of society, individual roles within societies, as well as the ecology of the species. There is strong selection within such species to use this culture effectively. Perhaps this “cultural-drive” is a principal or contributing cause as to why cetaceans and humans have evolved self-awareness, large brains, and astute intelligences. Thus there are good reasons to give highly cultural species special considerations. They are “more like us” not only because of the culture itself, but also because the advanced culture is at least a marker, and perhaps a cause, of other attributes that we consider particularly human.



Hal Whitehead is a University Research Professor in the Department of Biology at Dalhousie University. He holds a Ph.D. in Zoology from Cambridge University in England. His research focuses on social organization and cultural transmission in the deep-water whales, but he also works on their ecology, population biology and conservation. Field work is mainly carried out in the North Atlantic and South Pacific Oceans from a 12-m sailing boat. He has developed statistical tools and software for analyzing vertebrate social systems. He uses individual-based stochastic computer models to study cultural evolution, gene-culture coevolution and mating strategies. Hal coedited “Cetacean Societies: Field Studies of Whales and Dolphins” (University of Chicago Press; 2000) and has written “Sperm Whales; Social Evolution in the Ocean” (University of Chicago Press, 2003) and “Analyzing Animal Societies: Quantitative Methods for Vertebrate Social Analysis” (University of Chicago Press, 2008).

Robin Baird

Over-fished and Under-appreciated: Conservation and Management of Hawai'i's False Killer Whales - Our Next Endangered Species?

Of all species of whales and dolphins in Hawaiian waters, false killer whales (*Pseudorca crassidens*) face the greatest conservation risks. They have the smallest population size of any cetacean species in Hawaiian waters, are long-lived and feed high on the food web, accumulating high levels of persistent organic pollutants. They feed primarily on large game fish that are commercially and recreationally harvested, thus competing directly with humans. They regularly take fish off lines and are the most commonly documented species killed or seriously injured in Hawaiian longline fisheries. There are two populations in Hawaiian waters; the genetically-isolated island-associated population (estimated with 120-150 individuals) has declined substantially over the last 20 years and is currently being considered for listing under the Endangered Species Act. A Take Reduction Team has released a draft plan to reduce bycatch of false killer whales in the offshore longline fisheries, but other fisheries that may take this species are not monitored or regulated. Mortality of false killer whales from ingestion of free-swimming fish containing hooks, and deliberate shooting by fishermen to deter them from depredating fish, may also be threats. The problems facing these populations are insidious and require both national and international solutions – they will not be solved simply with an ESA listing and new regulations to reduce bycatch. Action needed to conserve these populations will require broad public support, but false killer whales in Hawai'i lack a constituency. This may be one of the greatest impediments to their long-term conservation.



Dr. Robin Baird is a research biologist with Cascadia Research in Olympia, WA. Robin received his Ph.D. at Simon Fraser University, Burnaby (BC, Canada) in 1994. For many years his research focused on marine mammals in British Columbia. His current research interests focus on the biology and behavior of killer whales, cetacean diving behavior, and population assessment of Hawaiian odontocetes.

Robin has authored numerous research papers and publications, as well as a popular book on killer whales (Voyageur Press, 2002). More information on his research in Hawai'i can be found at www.cascadiaresearch.org/robin/hawaii.htm.

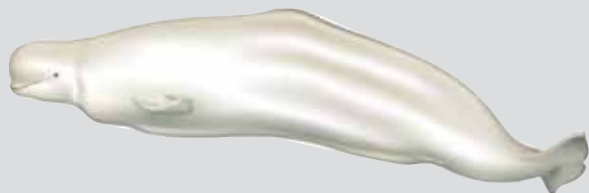
Rod Hobbs

The Status and Recent Trends of Cook Inlet Beluga Whales

The Cook Inlet stock of beluga whales is genetically distinct and geographically isolated from beluga populations around Alaska and the Arctic. In 1999 this population was determined to be depleted under the Marine Mammal Protection Act (MMPA), and in 2008 it was listed as endangered under the US Endangered Species Act. Efforts are underway to develop recovery criteria for this population. Each year 1994-2010, National Marine Mammal Laboratory (NMML) has conducted an aerial survey to estimate the abundance and assess the distribution of the Cook Inlet beluga. During that time the population has declined from an estimate of 653 in 1994 to the current estimate of 340 animals. In addition the range has contracted to half of its size in the late 70's with most beluga found within 10's of miles of the city of Anchorage. Tidal areas and large streams that support salmon runs are key features of the belugas habitat. The extreme tidal range (30+ft. at Anchorage) creates strong tidal currents and regularly floods and drains the tidal areas. During the summer the belugas follow these tidal cycles to move in and out of feeding areas. During the winter months the belugas range throughout the upper inlet remaining primarily in ice covered areas. The National Marine Fisheries Service is working to identify key habitat areas to designate as critical habitat for this population.



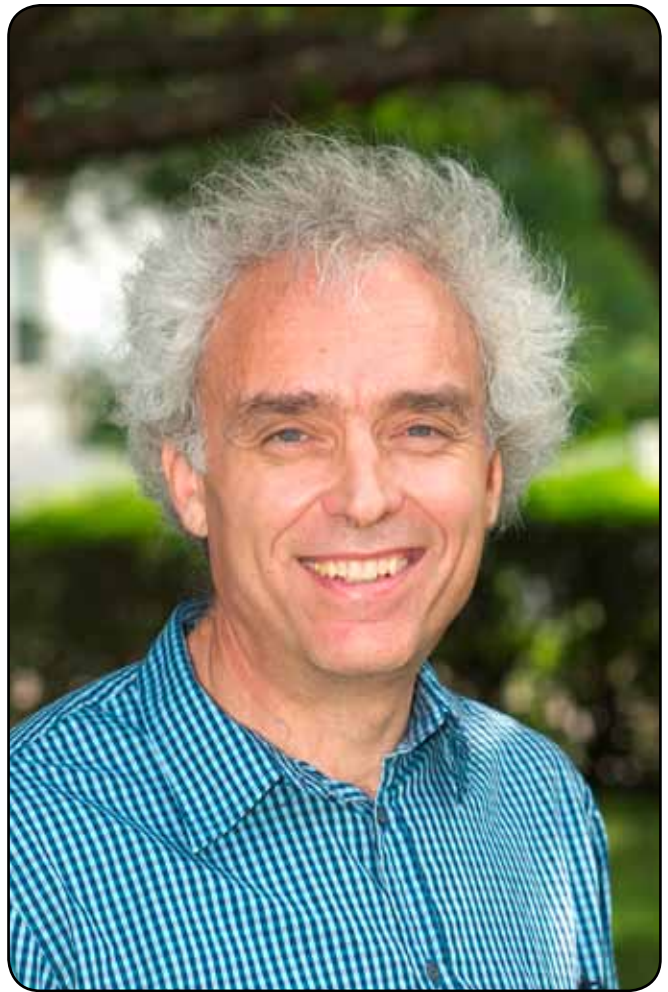
Dr. Rod Hobbs received both his bachelor and Ph.D. degrees from the University of California at Davis. Dr. Hobbs expertise is in population modeling and his dissertation work was on the California, Oregon and Washington, Dungeness crab population. Since 1991, Dr. Hobbs has been employed at the National Marine Mammal Laboratory of the Alaska Fisheries Science Center. From 1994 Dr. Hobbs has lead the beluga project at the NMML his work has included estimating population size and trends, use of satellite transmitters to determine movements and dive behavior and development of field protocols for assessing population health. Dr. Hobbs has also worked on populations of belugas in western Alaska and far eastern Russia, dolphins and porpoise of the north Pacific as well as the California gray whale.



Randy Reeves

Biology and Status of the World's Freshwater Cetaceans

On the basis of where they live, geographical populations of six species are here considered freshwater cetaceans – finless porpoise (*Neophocaena phocaenoides*), Yangtze dolphin (*Lipotes vexillifer*), tucuxi (*Sotalia fluviatilis*), Amazon dolphin (*Inia geoffrensis*), Irrawaddy dolphin (*Orcaella brevirostris*), and Ganges and Indus dolphin (*Platanista gangetica*). Finless porpoises have a ribbon-like distribution along the rim of the Indo-Pacific. The lone freshwater population, numbering c. 1,800 in 2006 (but thought to be declining), inhabits (or did inhabit until recently) the entire Yangtze River below Three Gorges, including Dongting and Poyang lakes. The sympatric Yangtze dolphin (also known as baiji) apparently went extinct in the first years of this century. The tucuxi is common in much of the Amazon basin, where it is sympatric with the Amazon dolphin (also known as boto), also common. Irrawaddy dolphins are principally coastal marine and estuarine. They are fairly widespread and locally common in southeast Asia, but extant freshwater populations (Ayeyarwady, Mekong and Mahakam rivers) are small (each ≤ 100) and seriously endangered. The Indus and Ganges subspecies of *Platanista* inhabit portions of large river systems in Pakistan, India, Nepal, and Bangladesh. Both subspecies exist as metapopulations (Indus: c. 1,600-1,800, Ganges: low thousands), with subpopulations fragmented by dams. All freshwater populations of cetaceans are threatened by fishery interactions and by degradation and loss of habitat.



Randy Reeves chairs the IUCN Cetacean Specialist Group and has been involved for the last 30 years in the work of the International Whaling Commission Subcommittee on Small Cetaceans. His main field experience with river dolphins has been in Pakistan, Peru, and China.





Lorenzo Rojas-Bracho

End of the Line: The Recovery and Conservation of the Vaquita

The vaquita (*Phocoena sinus*) is the smallest of the true porpoises (1.5m, 50kg) and is endemic to the northern most part of the Gulf of California, Mexico. It is the most critically endangered marine mammal species in the world. The vaquita has the smallest geographical range of any marine mammal. Its 'core area' consists of about 2235 km² and nearly the entire population lives within a 4000 sq-km (1519 sq-mile) area. The range of the vaquita falls within most of the Upper Gulf of California and Delta of the Colorado River Biosphere Reserve. Its habitat

coincides with the main fishing grounds in this area of the Sea of Cortez. The only quantitative estimates of bycatch are from 1993-94 and refer to only one of the three main fishing ports: at least 39 individuals were killed per year (95% CI 14–93).

The vaquita population size in 1997 was estimated in 567 individuals and in 2008 in 245 animals. This represents a 57% decline at an average rate of 7.6%/year in only 11 years. Is incidental mortality in gillnets for fish and shrimp the only immediate threat to the survival of the species? What has been done and what are the current strategies implemented by the Mexican Government to recover this species? This presentation will review the conservation history of vaquita, its current status and research programs.

Dr. Rojas-Bracho heads the Coordination for Marine Mammal Research and Conservation, National Institute of Ecology, in Mexico. He has promoted the integration of researchers from different countries into joint researches focused on understanding better the marine mammals of Mexico. He has combined demographic and genetic aspects to evaluate the vaquita risk factors, as well as to estimate the population size and habitat use. These works have been done jointly with researchers from USA, Canada and Europe. He was one of the two cruise leaders in the joint cruise with the Southwest Fisheries Science Center (SWFSC) de La Jolla, California, EUA, to estimate the vaquita population size. Dr. Rojas-Bracho established and Chairs the vaquita recovery team (International Committee for the Recovery of Vaquita/Comité Internacional para la Recuperación de la Vaquita; CIRVA). He has authored or co-authored over 40 scholarly articles, book chapters and technical reports on marine mammals. He has been invited to chair, participate and be part of different international committees, workshops and working groups, among them the International Whaling Commission (IWC)'s Scientific Committee Environmental Concerns Standing Working Group; he is a member of IUCN's Cetacean Specialist Group, The Red List Authority, and the Committee of Scientific Advisors and Nominations and Elections Committee from the Society for Marine Mammalogy (SMM). He is currently Mexico's Commissioner to the International Whaling Commission.

John Wang

Importance of Taxonomy for Conservation of Finless Porpoises

The finless porpoise (genus *Neophocaena*) is a cryptic species and difficult to study in situ but is known or suspected to be killed incidentally by fisheries in relatively large numbers throughout its distribution. Wherever finless porpoises have been studied fairly well, populations appear to be declining or relatively small. Even though many are taken in fishing nets relatively little attention has been given to their conservation and plight. Some of the diminished attention may be due to a confused or incorrect taxonomy. For decades, finless porpoises were believed to be comprised of a single global species with three subspecies (some people may still subscribe to this view) so mortality levels caused by fisheries may not have been perceived as being too serious (for a global species) even though some populations were clearly in trouble (e.g., populations of the Yangtze River and Inland Sea of Japan). However, recent taxonomic studies demonstrated that at least two species exist with no recent genetic exchange between them even in areas where they coexist. These new findings have important implications for how we estimate abundance, determine mortality level within, and assess the conservation status of each species. However, our knowledge of the taxonomy within *Neophocaena* is far from being adequate. Much more research is still needed for better understanding the relationships amongst the various forms of finless porpoises so that accurate assessments of the state of each species and populations within each species can be obtained.



John Y. Wang is the principal biologist of the FormosaCetus Research and Conservation Group and holds adjunct positions at Trent University (Peterborough, ON, Canada), George Mason University (Fairfax, VA, USA) and the National Museum of Marine Biology and Aquarium (Pingtung County, Taiwan). He received his Ph.D. at McMaster University (Hamilton, ON, Canada) in 1999 and is a leading expert on the biology and conservation of cetaceans in Asia. His early research focused on population genetics and fisheries by-catch of harbor porpoises in the Bay of Fundy but his recent interests have been with biology and conservation of cetaceans in Asia. He has authored key papers on the taxonomy of bottlenose dolphins and finless porpoises and conservation biology of Indo-Pacific humpback dolphins. He is a member of the Cetacean Specialist Group of the International Union for the Conservation of Nature (IUCN) and has contributed to the development of the IUCN Red List criteria. He also serves on the Committee of Taxonomy of the Society for Marine Mammalogy.

Banquet Speaker - Randy Wells

Small Cetaceans in a Rapidly Changing World

The world is a rapidly changing place for small cetaceans, especially those residing in coastal waters where these animals come into increasingly frequent contact with human activities. Findings from a number of coastal research sites around the world have demonstrated long-term residency by various species of dolphins. Such localized residency facilitates investigation of threats to dolphins, their responses, and possible mitigation measures. Within the 60-year lifetime of some of the resident bottlenose dolphins of Sarasota Bay, Florida, these animals have experienced dramatic changes in threats from boat traffic, recreational and commercial fishing practices, water pollution levels and environmental contaminant exposure, habitat alteration and loss, and human interactions such as provisioning. These threats of human origin are in addition to ongoing natural threats such as shark attacks, harmful algal blooms, stingray barb punctures, hurricanes, and disease. In spite of these threats, the Sarasota Bay resident dolphin community has demonstrated a high level of stability and resilience over at least the 40 year period of our research. The current residents span five generations, and most have been in the area for all of their lives. How adaptable are these animals? What will happen to their health, reproductive success, stable society, and long-term residency as they face increasing cumulative impacts of localized human activities, as well as large-scale threats such as oil spills or climate change? What can we do to facilitate their transition to life in a rapidly changing world?

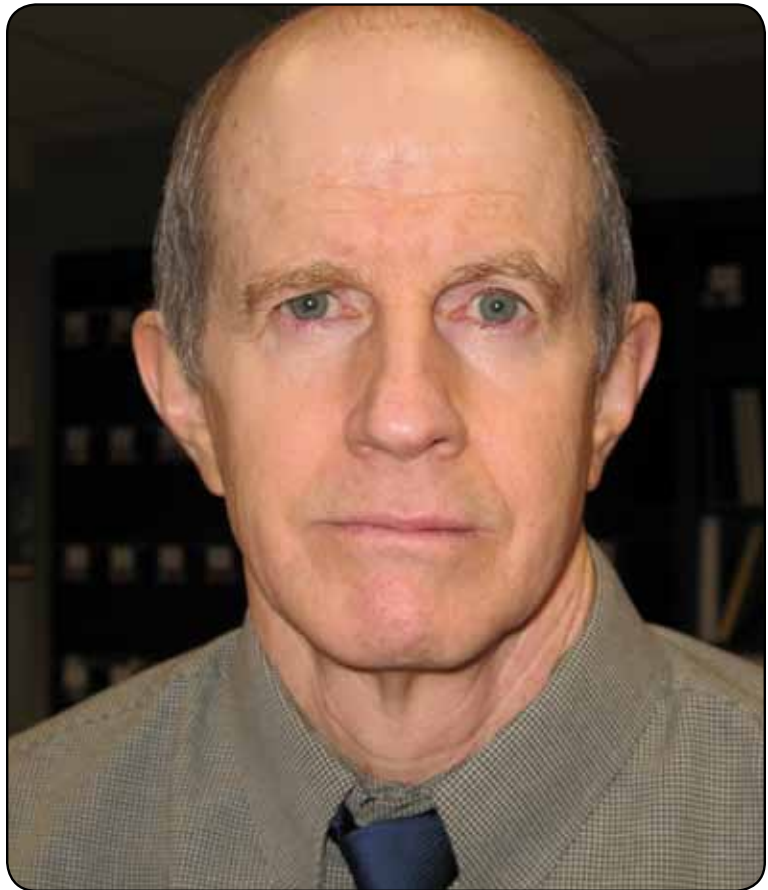


Randall Wells directs the Chicago Zoological Society's Sarasota Dolphin Research Program. Dr. Wells received his PhD in Biology from the University of California, Santa Cruz in 1986 under Dr. Ken Norris, and was awarded a post-doctoral fellowship from Woods Hole Oceanographic Institution. He has worked with the Chicago Zoological Society since 1989, currently as a Senior Conservation Scientist, and manages Mote Marine Laboratory's Dolphin Research Program. Wells is a Professor of Ocean Sciences (adjunct) at the University of California, Santa Cruz, and Professor of Marine Mammal Science (adjunct) at the University Florida. His current research program uses a collaborative approach to examine the behavior, social structure, life history, ecology, health, and population biology of bottlenose dolphins along the central west coast of Florida. Wells has served as principal or co-principal investigator for more than 150 funded marine mammal research projects. He has engaged in studies of the behavior of Hawaiian spinner dolphins, blue, gray, and humpback whales, ranging and dive patterns of franciscana dolphins off Argentina, the effects of industrial activities on bowhead whales, the impacts of boat traffic on manatees, and the reintroduction of captive and rehabilitated dolphins back into their native waters. Dr. Wells is President of the International Society for Marine Mammalogy, serves on the NOAA/USFWS Atlantic Scientific Review Group, and is chair of the NOAA/USFWS Working Group on Marine Mammal Unusual Mortality Events. He serves on IUCN's Cetacean Specialist Group and Reintroduction Specialist Group.

Keynote Speaker - Tim Ragen

Conservation, Crisis, and Human Perception

Dr. Ragen will describe the challenges of marine mammal conservation based on his experience as a marine mammal scientist and manager in the National Marine Fisheries Service and staff member, and most recently Executive Director, of the Marine Mammal Commission. He will review major risk factors affecting marine mammals and their habitats, trends in those factors, and the root causes driving them. His primary thesis will be that conservation is informed by science, but driven by human values. He will argue that conservation cannot be successful until we integrate a conservation ethic into all aspects of our life styles and cultures, and until we are able to remain true to that ethic even in the face of other crises. He also will argue that doing so will become more difficult and less likely unless we are able to revise our perception of the human species and its place in nature and on earth, and create and pursue a vision of our future world that does not depend on continued growth in human population numbers and consumption of finite resources.



Tim Ragen earned a Ph.D. in oceanography in 1990 from Scripps Institution of Oceanography, University of California, San Diego, CA. His dissertation focused on both field and modeling studies of the northern or Alaska fur seal. After completing his dissertation, he completed a National Research Council Associateship at the U.S. National Marine Mammal Laboratory, modeling studies of the northern fur seal. In 1991 he joined the Honolulu Laboratory of the U.S. National Marine Fisheries Service, serving as program analyst for the Hawaiian monk seal recovery program. In 1997 he left that position to serve as the Steller sea lion recovery coordinator for the Alaska Region, National Marine Fisheries. This work focused primarily on the potential for indirect interactions between the endangered Steller sea lion and the Alaska groundfish fisheries. At the end of 2000 he moved to Washington, D.C., to work with the U.S. Marine Mammal Commission.

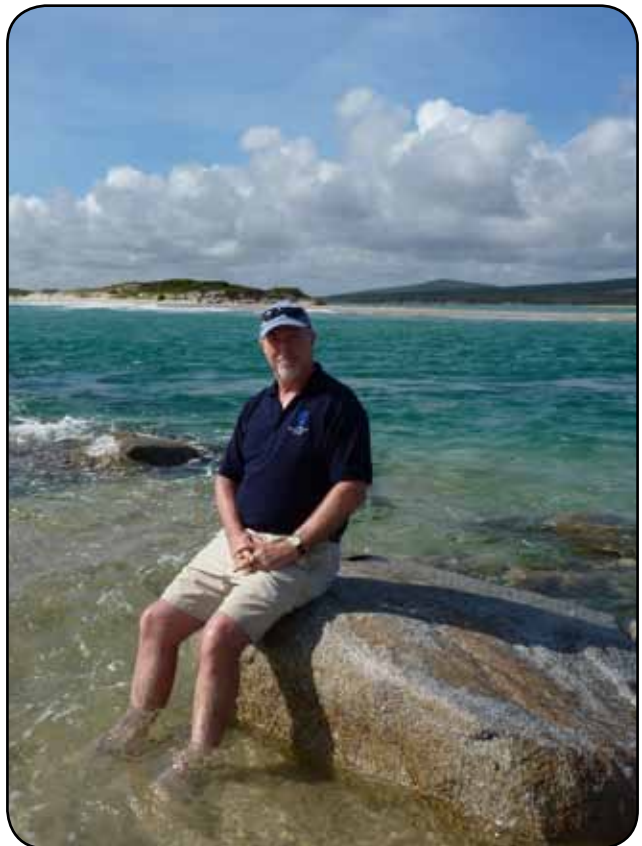
Ian Dutton

Cetaceans and Climate Change: What Can We Expect?

A climate is one of the most fundamental forces shaping the abundance, distribution and diversity of life on earth. Recent analyses have demonstrated the close correlation between the range and diversity of cetaceans and ocean temperature. But just what are the limits of a cetacean's comfort? How does a warming world affect individual whales and dolphin species and how are those interactions affected by other environmental changes?

Sadly, we have limited answers to these pressing questions. Not only is our understanding of cetacean biology incomplete, our understanding of cetacean habitat requirements is equally sketchy. When we couple our limited data on species and habitats with general climate models, our predictive capacity is thus relatively limited. However, inadequate data should not be a reason for inaction. Within broad boundaries we can project that we are likely to lose up to 20% of whale and dolphin species within the next century. The rate of loss will likely increase further unless action is taken in the very near term to reduce global greenhouse gas emissions. This presentation will review the causes and consequences of climate change for cetaceans and put forward some adaptation options that we might pursue to reduce the rate and scale of loss as well as practical ways to immediately reduce greenhouse gas emissions.

Dr. Ian Dutton was appointed President and CEO of the Alaska SeaLife Center in November 2008. The Alaska SeaLife Center generates and shares scientific knowledge to promote understanding and stewardship of Alaska's marine ecosystems. For the previous eight years, Ian worked in a variety of roles with The Nature Conservancy, most recently as the Deputy Director of the Asia-Pacific program where he led conservation programs employing 400 staff in nine countries. Ian joined the Nature Conservancy from the University of Rhode Island where he was their Asia Manager, based in Jakarta, Indonesia and responsible for USAID's largest global coastal and marine management program. He previously worked throughout Asia, the United States and in Australia as an academic, in the private sector, and in the Federal government on a wide range of coastal and marine research, education and natural resources management initiatives.





Sue Fisher

Politics: The Past, Present and Future of the IWC

Despite the success of the International Whaling Commission (IWC) in dramatically reducing whaling from a peak of 70,000 whales a year in the 1960s to around 1,500 in 1986/87 when it implemented a moratorium on commercial whaling, the IWC is described today as being in crisis, having reached an impasse between pro- and anti-whaling interests. Three nations (Japan, Iceland and Norway) defied the moratorium and continue to kill whales for sale of their meat (and increasingly other commercially valuable products) using legal loopholes in the IWC's founding convention that have proven impossible to plug (although Australia is challenging Japan's so-called scientific research whaling in the international courts). The self-allocated quotas of the three remaining commercial whaling nations have topped 3,000, although they took just over 1,600 whales in 2009. Concerned that unregulated hunting will spiral further out of control, several solutions have been proposed in recent years by a series of IWC Chairs seeking to curtail, but not stop, commercial whaling. None have succeeded in striking a politically palatable balance between countries that are implacably opposed to commercial whaling on welfare, conservation, and increasingly ethical, grounds and the whaling nations who insist on their right to continue "harvesting" marine resources. The IWC's last compromise initiative was rejected by both 'sides' in June 2010 and both sides are now considering their options. Some commentators predict the collapse of the IWC, and the departure of the whaling nations to hunt outside any international control, if a compromise cannot soon be found. But is this really likely? Legal, political and economic factors, including the poor economic status of whaling operations and declining markets for whale meat, suggest that the end of commercial whaling may yet be achievable, but not through the limited tool kit of the IWC; only if the key international players can muster enough political will.

Sue Fisher is a UK-trained attorney who left commercial litigation for whale conservation and wildlife trade issues in 1994 when voluntary work for the Environmental Investigation Agency took her to meetings of the International Whaling Commission meetings and CITES. She has attended almost every meeting of both agreements since then and has led the Whale and Dolphin Conservation Society's whaling and trade programs since 1998. Sue now lives in Oregon and juggles work with raising two small boys.



Dr. Robert L. Brownell, Jr. is a Senior Scientist for International Protected Resources with NOAA Fisheries at the Southwest Fisheries Science Center (SWFAC). He has conducted research on the biology and conservation of whales, dolphins and porpoises throughout the world. Dr. Brownell has published over 200 papers, book chapters, and documents on various aspects of whale, dolphin, and porpoise biology, conservation, and management. Bob has been a member of the US delegation to the International Whaling Commission since 1975 and served as Vice-Chair and Chair of the IWC's Scientific Committee from 1985 to 1991. He also served as President of The Society for Marine Mammalogy from 1987 to 1989, and Chief of Marine Mammal Research for the US Fish and Wildlife Service from the late 1970s to 1991. Between 1991 and 1993, he was the Science Advisor to the Assistant Secretary for Oceans at the US Department of State. In 1993, he became the Director of the Marine Mammal Division at the SWFSC in La Jolla, California, and then took up his present position two years ago. He has served three terms as a Scientific Advisor to the US Marine Mammal Commission.

Bob Brownell

Worldwide Mass Strandings of Beaked Whales: Changing Patterns and Their Probable Causes

Mass strandings of beaked whales (three or more whales) were rare prior to 1960. However, in the early 1960s, the frequency of such strandings markedly increased, as did the number of species involved. We documented beaked whale mass stranding events (MSEs). Nine occurred before 1960 and over 100 between 1961 and 2009. Prior to 1961, only three of the 21 currently recognized species of beaked whales were involved in MSEs. After 1961, another nine species of beaked whales began to mass strand. All MSEs before 1960 were typical MSEs in which the whales all stranded together in one location. After 1961, many of the MSEs were atypical strandings in which all the whales did not strand in the same location. Some of these atypical strandings involved more than one species. Over 30 typical MSEs involved Gray's beaked whales, *Mesoplodon grayi*. The mass strandings of Gray's beaked whales are not associated with mid-frequency sonar but their cause is currently unknown. Over forty of the 100+ MSEs involved Cuvier's beaked whales, *Ziphius cavirostris*. Atypical MSEs of Cuvier's beaked whales were strongly correlated with naval activities off the Bahamas, Canary Islands, Greece, or occurred in areas where the U.S. naval vessels were deployed in Japan, Puerto Rico and Italy. There are no known MSEs of Cuvier's beaked whales in other parts of the world. The beginning of atypical MSEs coincided with the start of wide-scale use of tactical mid-frequency sonar by the U.S. Navy in the early 1960s. The U.S. navy is exploring mitigation measures. Studies are still needed to better understand beaked whale population sizes. Studies are critical in areas where local resident populations are subject to repeated naval operations, as shown by repeated MSEs, as well as impacts from bycatch. The impacts of human-related deaths are compounded by the very low reproductive rate in beaked whales and possible sonar-related disruption of social behavior that might reduce their survival.

Chris Clark

Voices of the Great Whales: Drowning in a Sea of Noise

Whales produce and listen to sounds for mating, feeding, navigating, and detecting predators. The US Navy's anti-submarine listening system has revealed the immense scales over which singing and calling whales can be detected and tracked. Over the last 60 years, the level of low-frequency ocean noise has been steadily rising as a result of commercial shipping, and energy exploration and operational activities. Such activities can have both acute, short-term impacts and chronic, long-term influences on individuals and on populations. One of the most pernicious, yet nearly invisible influences of this man-made noise is acoustic masking. This masking makes it difficult for whales to communicate. Ocean acoustic monitoring systems that sample the ocean for periods of months to years are used to map, quantify, and describe the variability of marine acoustic habitats. Results reveal that in some habitats with high levels of vessel traffic and vessel noise, the predicted area over which whales can communicate is routinely reduced to < 10-20% of what it would be under normally quiet conditions. When considered from a large-scale and behavioral ecology perspective, reduction in acoustic habitat likely represents a significant cost for species in which acoustic communication is biologically critical. Government agencies, ocean users, industries, NGOs and scientists now recognize that ocean noise is one in a suite of ocean stressors, and they are working together to find ways to make a difference. It will take a village, and we're all part of that village.



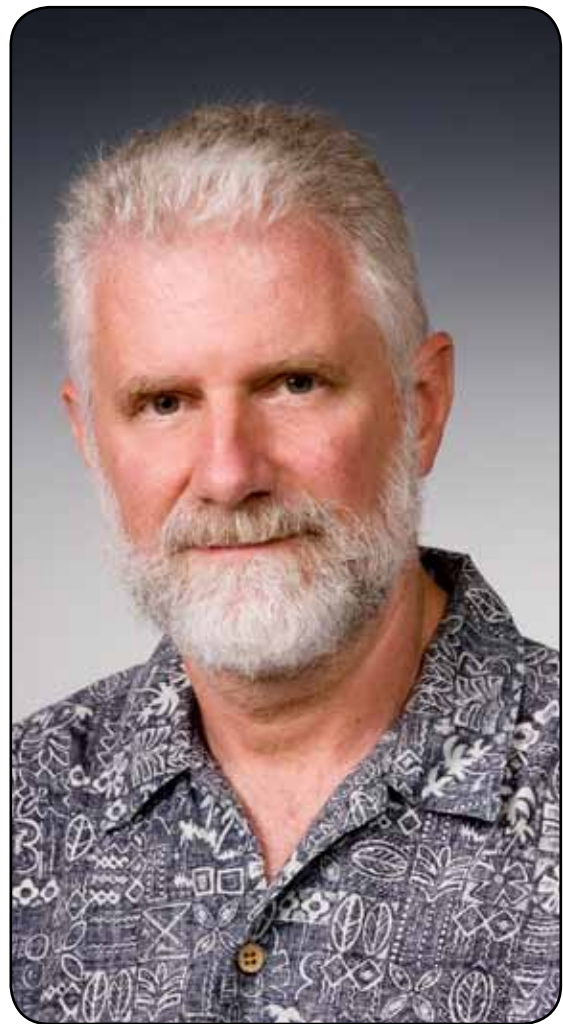
Dr. Christopher W. Clark is the Imogene P. Johnson Director of the Bioacoustics Research Program at the Cornell Lab and Senior Scientist in the Department of Neurobiology & Behavior at Cornell University. He holds advanced degrees in electrical engineering and biology. Research interests concentrate on animal acoustic communication, with a particular focus on the development and application of advanced acoustic methods for scientific conservation of marine mammals. He leads the Bioacoustics Research Program in the design, development and application of computer-based systems for quantitative analysis of animal vocalizations, and acoustic techniques to detect, locate, track and census free-ranging animals. Scientists and engineers in the Bioacoustics Research Program conduct a multitude of basic scientific and applied research projects around the globe on a diversity of species and taxonomic groups to understand the hows and whys of animal acoustic communication, often with a special focus on determining the impacts of human sound-generating activities on individuals and populations over a wide variety of spatial, spectral and temporal scales. These efforts have led to the synthesis of acoustic ecology and acoustic habitat concepts - especially applicable to marine organism, which have evolved and live in a habitat dominated by sound, and require a healthy acoustic habitat for survival.

Pat Halpin

Marine Spatial Planning and Cetacean Conservation

Coastal and Marine Spatial Planning (CMSP) provides a new and more comprehensive context for marine resources management and conservation. Past conservation approaches have focused on species specific and often reactive measures identifying potential risks and areas of restricted use. A fundamental premise of CMSP reverses this focus on restricted areas and refocuses marine management towards proactively defining where activities and ocean resource uses should be allowed. The CMSP approach is based on a multi-sectoral approach to ocean management and will require significantly more detailed and varied information to be implemented. This new management paradigm will require new approaches to cetacean conservation including new monitoring, forecasting and analysis methods to support CMSP into the future. Definition of these new data and analysis needs is a high priority at this time. This overview provides an assessment of new trends and challenges for cetacean species management and conservation under CMSP and the potential implications these trends will have on research, governmental and non-governmental organizations into the future.

Dr. Patrick Halpin is an Associate Professor of Marine Geospatial Ecology and Director of the Geospatial Analysis Program at the Nicholas School of the Environment, Duke University Marine Lab. He received his Ph.D. in Environmental Sciences from the University of Virginia in 1995. Dr. Halpin's research focuses on marine geospatial analysis, ecological applications of geographic information systems and remote sensing; and marine conservation and ecosystem-based management. Dr. Halpin leads the Marine Geospatial Ecology Lab at Duke University and sits on a number of international scientific and conservation program steering committees; including the US National Committee of the Census of Marine Life, the international Scientific Steering Committee of the Census of Marine Life; the Ocean Biogeographic Information Systems international committee and the Google Oceans Advisory Council. He is heading the Mapping & Visualization Team responsible for assisting with the final synthesis and production of the "First Census of Marine Life." Dr. Halpin has also been recently conducting field research on the spatial and temporal relationships of large ocean predators and prey in the Western Antarctic Peninsula.





Rosalind Rolland

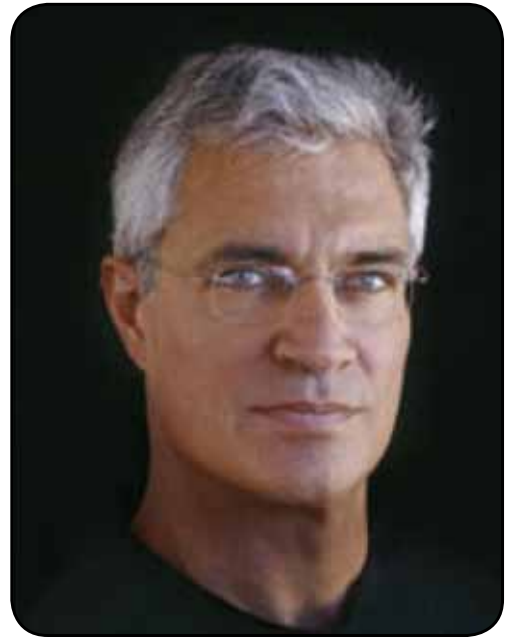
Whale Health and Conservation in an Urban Ocean

The cumulative impacts of human activities on land and at sea have created an “Urban Ocean” in the industrialized coastal zones of the world. Large whales whose habitat includes near-shore areas are frequently injured or killed by vessel collisions and fishing gear entanglements. Far less obvious are the sub-lethal impacts on health and reproduction resulting from habitat degradation due to emerging diseases, red tides, underwater noise, sewage outfalls, chemical pollution, and the looming effects of climate change and ocean acidification. Studying the relative importance of these environmental factors to cetacean fitness and fecundity is extremely challenging, especially in free-swimming large whales, and requires novel approaches to evaluate the health of both individuals and populations. Using the North Atlantic right whale as a case study, new and innovative techniques have been brought to bear to explore the effects of natural and anthropogenic stressors on health, reproduction and mortality. Successful conservation of endangered cetacean populations like right whales necessitates better characterization and management of the threats to species recovery and survival from these less visible environmental threats.

*Dr. Rosalind Rolland (Roz) is a Senior Scientist in Marine Conservation Medicine and Ocean Health at the New England Aquarium. Dr. Rolland holds a doctorate in Veterinary Medicine from Tufts Veterinary School, and a Bachelor of Science from the University of Wisconsin-Madison. Prior to joining the New England Aquarium 10 years ago, Roz worked as a Conservation Scientist at the World Wildlife Fund-U.S. and as Science Director of the Center for Conservation Medicine at Tufts Veterinary School. Dr. Rolland has pioneered the development of non-invasive methods to study health and reproduction in North Atlantic right whales, to better understand the risks posed to these highly endangered whales by human impacts on their marine habitat. Roz and her colleagues were the first to use scent detection dogs working on a boat to locate scat samples from free-swimming whales. These samples have been analyzed for hormones, toxins, and diseases, providing a wealth of information about the health of these whales that was previously unobtainable. Roz’s work has resulted in numerous scientific publications and she is the co-editor of the definitive book on right whales, *The Urban Whale: North Atlantic Right Whales at the Crossroads* published by Harvard University Press in 2007. Dr. Rolland’s research program has received widespread international attention in the popular press including: *Science Magazine*, *the Boston Globe*, *National Wildlife*, *National Public Radio*, *the Globe and Mail*, and *New Scientist Magazines*.*

Louie Psihoyos

Join us for a personal conversation with Louis Psihoyos, Director of “The Cove,” the Academy Award-winning film for Best Documentary in 2009. Louis will discuss how the original idea for the film evolved, the unique challenges associated with collecting footage and interviews, and how his experiences in revealing the secrets of Taiji’s dolphin slaughter has changed his life, including founding of The Oceanic Preservation Society (OPS) in 2005 with Jim Clark. Participants will be treated to a 15-minute subtitled trailer of “The Cove” followed by a unique opportunity to directly engage Louis with your questions and comments from the audience. The discussion will be moderated by Cheryl McCormick, Executive Director of the American Cetacean Society.



The Executive Director of Oceanic Preservation Society (OPS), Louie Psihoyos, is widely regarded as one of the world’s most prominent still photographers. He has circled the globe dozens of times for National Geographic and has shot hundreds of covers for other magazines including Fortune Magazine, Smithsonian, Discover, GEO, Time, Newsweek, The New York Times Magazine, New York Magazine, Sports Illustrated, and Rock and Ice. His work has also been seen on the Discovery Channel, National Geographic Television and the History Channel.

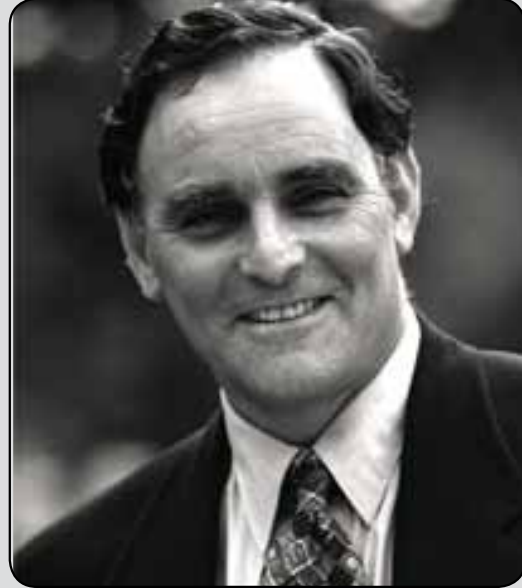
His imagination, wit, and iconic imagery have helped illustrate a wide array of complex subjects and is carried over to his filmmaking. Psihoyos’ first documentary film, “The Cove,” has garnered over 70 awards globally, including the Oscar® for Best Documentary Feature in 2009. “The Cove” touches many with its unflinching examination of a dark subject and its ability to reveal the humanity and compassion in each of us. Its underlying themes transcend the slaughter of dolphins in Taiji to address the larger picture of the threat our entire world faces due to human impacts.



Ric O'Barry

Ric O'Barry is on his way to Indonesia to rescue 16 captive dolphins being kept for a traveling circus under inhumane conditions. The dolphins are carted in a flat-bed truck and set up to perform in inflatable swimming pools. The Earth Island Institute has sent money for construction of sea pens and is requesting that the Indonesian government seize the dolphins and give them to Ric and his son, Lincoln, for rehabilitation and release, if possible. Ric sends his deepest regrets that he will not be able to address our conference, but knows our membership well enough to know that he is where we would want him to be!

ACS is Proud to Honor Steve Katona



The American Cetacean Society National Board of Directors is pleased to announce that Dr. Steven Katona will be presented with the inaugural *John Heyning Award for Lifetime Achievement in Marine Mammalogy* at this 12th Biennial International Conference during our banquet ceremony on Saturday evening, November 13th.

Throughout his career, Dr. Katona has distinguished himself as one of marine mammalogy's finest scientists, teachers, and administrators, inspiring countless students, faculty, and field biologists. Among his many achievements, Dr. Katona co-authored *A Guide to the Photographic Identification of Individual Whales: Based on their Natural & Acquired Markings* (1990), a seminal field guide used worldwide. He developed the *North Atlantic Humpback Whale Catalogue*, the first effort to combine photographic analysis, database management, and analysis from many researchers to determine movements, residency patterns, and structure of large, migratory whale populations.

As founder and director of Allied Whale, the College of the Atlantic's marine mammal research group, he led studies concentrating on photo-identification of humpback and fin whales. Dr. Katona was honored with the Steven K. Katona Chair in Marine Studies at COA in 2006 and served as President of COA from 1993-2006. Dr. Katona was Principal Investigator for *Years of the North Atlantic Humpback* (YONAH), a collaborative research project utilizing photo-identification techniques and molecular genetics to conduct intensive surveys of humpback whales throughout their entire known North Atlantic range. He is a member of the Humpback Whale Recovery Team and major contributing author of the *Final Recovery Plan for the Humpback Whale (Megaptera novaeangliae)* (1991).

Dr. Katona has served as scientific advisor to the Marine Mammal Commission, international scientific advisor for the Bermuda Underwater Exploration Institute, and Chairman of the Acadia National Park Advisory Commission. We are pleased and honored to recognize Dr. Katona and his unparalleled influence in the field of marine mammalogy.

Posters

- *An introduction to the diurnal behavioral patterns of the Gulf of Maine humpback whales.* Submitted by Jennifer Allen. Ocean Alliance, Gloucester, MA. j.allen9@umiami.edu
- *Establishing marine mammal courses on a 'non-traditional' university campus.* Submitted by Nesime Askin. Co-authors Luke Tan, Michael Belanger, Carin Wittnich. nesimeaskin@yahoo.ca.
- *Long-term marine mammal field studies - Assessing the population dynamics and habitat use of marine mammals in Magdalena Bay, BCS, México.* Submitted by Nicole E. Brandt., Co-author Dr. Eduardo Nájera-Hillman. ecologymarine@gmail.com
- *Influence of mercury and selenium chemistries on the progression of cardiomyopathy in pygmy sperm whales (*Kogia breviceps*): Impacts on oxidative stress and selenium protein profiles.* Submitted by Colleen E. Bryana. Co-authors Steven J. Christophera, W. Clay Davisa, Lisa E. Kilpatrick, Wayne E. McFeece, Carola Neumann, Gregory D. Bossarte. colleen.bryan@nist.gov
- *From wind to whales: Marine mammal response to ecosystem variability in Monterey Bay, California.* Submitted by Julia Burrows. Co-authors James Harvey, Donald Croll, Kelly Newton, Scott Benson, Baldo Marinovic, Francisco Chavez. julia.burrows@duke.edu
- *Frequency of body regions observed in Gray Whales (*Eschrichtius robustus*) in Magdalena Bay, Mexico, from 1998 to 2010.* Submitted by Laura Conner. Co-authors Dr. Eduardo Nájera-Hillman, Nicole E. Brandt. lauradconner@gmail.com
- *Porpicide: Coastal bottlenose dolphins kill harbor porpoises along the California coastline.* Submitted by M. Cotter. Co authors T. Jefferson, D. Maldini. markpocotter@hotmail.com
- *Social network analysis of Indo-Pacific humpback dolphin (*Sousa chinensis*) populations in Hong Kong and Taiwan.* Submitted by Sarah Dungan. Co-authors John Y. Wang, Samuel K. Hung, Shih-Chu Yang, and Bradley N. White. sarahdungan@trentu.ca
- *California coastal bottlenose dolphin population in Santa Barbara relative to Monterey Bay: Preliminary findings.* Submitted by T. Frohoff, T.. Co-authors L.D. Griffin, M. Cotter, D. Maldini. dolphinresearch@earthlink.net.
- *Towards a new ethical research paradigm on cetacean cognition.* Submitted by T. Frohoff. Co-author, L. Marino. dolphinresearch@earthlink.net
- *The social networks of bottlenose dolphins (*Tursiops truncatus*) in Cedar Key, Florida differ in relation to activity type.* Submitted by S.K. Gazda. Co-authors C.E. Ciarfella, S. Iyer, T. Killingback, R. Connor, and S. Brault. sgazda@umassd.edu
- *Spinner dolphin acoustics on the Big Island of Hawaii.* Submitted by Heather Heenehan. Co-authors David .W. Johnston, Andrew J. Read, Lars Bejder, Julian Tyne. hheenehan@gmail.com
- *Coastal dolphin survey project of Orange Coast College ongoing student summer iInternship program, with focus on the population dynamics of the coastal bottlenose dolphin (*Tursiops truncatus*).* Submitted by Lindsay S. King. Co-authors Velvet L. Park, Justin M. Stuart. Edited by Dennis L. Kelly. Marine Science Department, Orange Coast College, Costa Mesa, CA. lindsk001@hotmail.com
- *The correlation of breaching events and the presence of whale-watching boats.* Submitted by Jennifer L. Kinney. Co-author Robert E. Otis. jen.l.kinney@gmail.com
- *Aggression among coastal bottlenose dolphins: Evaluating tooth-rake marks and scars as indicators of intraspecific violence.* Velvet Park, CSUMB. velvet.park@hotmail.com



Posters

- *Interannual variation and potential effects of the North Atlantic oscillation in fin whale (*Balaenoptera physalus*). Relative abundance in the northeast gulf of Maine.* Submitted by Nadya C. Ramirez-Martinez. Co-authors Daniel M. Palacios, Sean Todd, Daniel DenDanto, Adolfo Sanjuan-Muñoz. **nadvacaro@gmail.com**
- *Skeletal abnormalities in coastal and offshore cetacean populations.* Submitted by Emily A. Olson. Co-authors Gretchen Lovewell, Ruth DeLynn. **emolson@udel.edu**
- *Results of aerial surveys conducted in conjunction with US Navy training exercises off Southern California 2008-2010.* Submitted by Mari Smultea. Co-authors Kate Lomac-MacNair I, Lori M. Mazucca, Cathy Bacon, Joseph R. Mobley, Jr., Roxann Merizan, and Jenelle Black. **msmultea@msn.com**
- *Habitat models for the Northeast Pacific blue whale from satellite tracking and remote sensing.* Submitted by D.M. Palacios. Co-authors B.R. Mate, H. Bailey, E.L. Hazen, L. Irvine, S.J. Bograd, D.P. Costa. **Daniel.Palacios@noaa.gov**
- *Investigating the validity of using DNA from sloughed skin for individual identification and kinship analysis in hump-back whales (*megaptera novaeangliae*).* Submitted by S.P. Pierszalowski. Co-authors M. Ferrari, D. Glockner-Ferrari, B.R. Dickerson, S. Mizroch and P. Clapham. National Marine Mammal Laboratory, AFSC, NMFS, NOAA, Seattle Wa. **soph.penny@hotmail.com**
- *The development and cultural transmission of depredation among sperm whales in the Gulf of Alaska.* Submitted by Zachary A. Schakner. Co-authors Sarah L. Mesnick, Chris Lunsford, Janice Straley. **zschakner@csu.fullerton.edu**
- *Testing the motivation-structural rules hypothesis in southern resident killr whales (*Orcinus orca*).* Submitted by Kathryn E. Scurci. Co-author Jason D. Wood. **kscurci@gmail.com**
- *Changes in boat traffic accompanying southern residents (*Orcinus orca*) in front of the Lime Kiln Lighthouse (San Juan Island, WA) over the past 20 years.* Submitted by Taylor G. Shedd. Co-author Robert E. Otis. **tshedd_09@hotmail.com**
- *Cetaceans in captivity: The education fallacy and the modern ark's voyage to apathetic attitudes concerning the conservation of wild cetaceans.* Submitted by Sabena Siddiqui. **siddiqis@uemail.iu.edu**
- *Observer networks: Orca (*Orcinus orca*) in the Galápagos Islands.* Submitted by Kerri J. Smith. Co-author Jane M. Packard. **KerriSmith@tamu.edu**
- *Assessing potential threats to gray whales (*Eschrichtius robustus*) along their migratory path.* Submitted by Lei Lani Stelle. Co-authors Laura Conner, Chandler Weeks, William M. Megill. **Leilani_Stelle@redlands.edu**
- *Harbor porpoises of San Francisco Bay: A report on research in progress.* Submitted by Isidore Szczepaniak. Co-authors William Keener, Jonathan Stern, and Marc Webber. **iszczepaniak@sbcglobal.net**
- *Estimating swimming paths of tagged baleen whales using an acoustic tracking system.* Submitted by Julie van der Hoop. Co-author Mark Baumgartner. **j.vanderhoop@dal.ca**
- *Oil fouling of baleen plates as a potential contributing factor to Mysticeti strandings.* Submitted by Natalie Yavorska. Co-authors Luke Tan, Michael Belanger, Carin Wittnich. **nat.yavorska@utoronto.ca**
- *The mechanical testing of whale satellite tag attachment.* Submitted by Scott Zenier. **zeniers@onid.orst.edu**



Membership

Membership in ACS Puts You in Good Company



Photo ©Michael Ho, <http://MichaelDanielHo.com>

The American Cetacean Society (ACS) protects whales, dolphins, porpoises, and their habitats through public education, research grants, and conservation actions. Founded in 1967, ACS is the oldest whale conservation organization in the world.

ACS is a 501(c)(3) non-profit public benefit corporation with national headquarters based in San Pedro, California and active chapters in Los Angeles, San Diego, Orange County, Monterey, San Francisco, and Puget Sound. Our members live throughout the United States and in more than 20 countries.

Join us in our mission, and help us spread the word! This upcoming year will bring many exciting opportunities for knowledge and involvement through ACS.

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| <input type="checkbox"/> Orange County | <input type="checkbox"/> Puget Sound | <input type="checkbox"/> San Diego | |

Name: _____

Street Address: _____

City: _____ State: _____

ZIP: _____

E-mail: _____

Payment:

- Check (payable to ACS enclosed)
- Visa, Mastercard, Discover, American Express
Card # _____
Expiration Date: _____

Mail To: ACS

P.O. Box 1391
San Pedro, CA.
90733-1391

Signature _____

If you have questions, please call our national office at 310-548-6279 or e-mail acsoffice@acsonline.org



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