

Frequently asked questions

Can the same person submit more than one proposal, either as principal investigator or as an investigator/partner?

There is no rule as to how many project proposals can be submitted by one person. However, given the limited amount of funding currently available and the expected high number of projects proposed, it seems likely that the Review Group will decide to incorporate geographical spread as one of the criteria for projects that have the required scientific quality.

Key stakeholders: Please explain what is being sought here.

We are seeking evidence that project is practical conservation research by showing reference to co-operation with relevant interested authorities/experts/NGOs at a local, regional or international level, as appropriate. 'Stakeholders' are not meant to be simply theoretically interested authorities/experts/NGOs. Rather, proponents should try to list those that will actually benefit from the project because either they are already interested in its outputs or will be able to continue relevant work in the future. 'Stakeholders' are meant to be interested authorities/experts/NGOs that officially support the project proposal – either morally or financially – but are not included as partners.

Description of project: Does the 2500 word limit include references?

You can exclude references from the 2500 word limit and you must use references only where they are directly relevant.

Proposal details: Please explain the difference between "scientific methodology and approach" and "programme and plan of research".

The first represents details of the practical scientific and analytical methods ('how'), the second refers to the practical programme for collection and analyses of data ('where', 'when' and 'who' along with an associated timeline).

Will a proposal be considered if the funding amount requested from IWC is only part of the overall project budget?

Proposals that include collaborative/joint/matching funds is encouraged and will be considered, however, the additional source(s) of funding must be in place or committed prior to contract signing and release of funds from IWC.

Will multiple-year projects be considered?

Yes, multiple-year projects are acceptable, noting again that projects cannot commence until January 2022 at the earliest, given the funding and approval procedures detailed herein and on the IWC website.

Table 1: Priority topics of the Scientific Committee Sub-committee on Small cetaceans (1979-2020) and its main recommendations (2002-2020)

*[Please note that this table represents **only a guidance** to the main recommendations of the Sub-committee on Small cetaceans, and it was made to help proponents. This **table is a work in progress**, and it might exclude by mistake some recommendations. **For exact wording and full details, you must refer to the published Annual Reports of the IWC Scientific Committee.***

Year	SC Meeting venue	Priority topic discussed
2020	Virtual	Priority Topic Updates and Emerging Issues
<p><u>Phocoena phocoena (Iberian)</u> The Committee recommends the following actions:</p> <ul style="list-style-type: none"> • Reduce bycatch throughout Iberian Peninsula waters, using a range of approaches including protected areas, pingers and other mitigation measures; • Initiate a long-term monitoring programme focused on porpoise that is designed and implemented in the Iberian Peninsula, including: • Monitor the effectiveness of mitigation measures to reduce porpoise bycatch; • Obtain seasonal estimates of abundance through dedicated survey work; • Implement nationally funded/coordinated programmes to monitor strandings along the Iberian Atlantic coastline <p><u>Tursiops truncatus gephyreus (Lahille's dolphin)</u> The Committee reiterates its previous recommendations to;</p> <ul style="list-style-type: none"> • assess the conservation status of the Argentina population; • reduce bycatch particularly in the southern Brazil Mus; • increase knowledge of life history parameters, assess trends in abundance and document the prevalence and aetiology of chronic skin disease. • a Lahille's dolphin health assessment programme is implemented, including use of the Committee's contaminants mapping tools. <p><u>Sousa plumbea (India Ocean)</u> With reference to an automated photo-ID matching package, the Committee recommends that:</p> <ul style="list-style-type: none"> • collaboration continues in the western Indian Ocean and Arabian Seas to facilitate the development of matching algorithms for Sousa plumbea in Flukebook and continue effort to match catalogues of Sousa plumbea from throughout the range of the species • test the newly developed Sousa plumbea algorithms on photographs of additional Sousa species <p><u>Sousa teuszii</u> The committee reiterates all previous recommendations (see below) and further recommends that;</p> <ul style="list-style-type: none"> • a field survey is conducted in Senegal/Gambia led by an experienced local team of conservation scientists <p><u>Inia/Sotalia</u> The Committee recommends that;</p> <ul style="list-style-type: none"> • alternative sources of income for local communities are developed in areas where the use of dolphins as bait in the piracatinga fishery is prevalent; • research efforts are enhanced in areas where threats have been highlighted; • use of alternative baits (e.g. slaughterhouse or pirarucu fishery waste products) is promoted and encouraged for the piracatinga fishery. <p><u>Platanista, Orcaella (freshwater) Neophocaena</u> The Committee reiterates all previous recommendations for Platanista gangetica, Orcaella brevirostris (freshwater populations) and Neophocaena asiaeorientalis asiaeorientalis. The Committee agrees that:</p> <ul style="list-style-type: none"> • these species remain on its agenda as priority species; • range states should strive to coordinate research and management actions across the species' ranges, whenever appropriate; and <p><u>Platanista gangetica</u> The Committee recommends that:</p> <ul style="list-style-type: none"> • by 2022, all range states identify key sections of national habitat that should be surveyed every five years • all existing survey methods in use for population estimation are reviewed, and a decision system prepared 		

	<ul style="list-style-type: none"> surveys to establish population size are initiated as early as possible in the Padma, Jamuna and Meghna mainstems and tributary networks and the Budhi Gandak, Baghmati, Rapti and Mahananda, India; studies are conducted to better understand movements of dolphins across barrages and the extent of population connectivity and impacts on dolphin populations in fragmented riverine habitats are quantified; pingers are assessed as an effective tool a feasibility study be conducted to assess areas and methods to translocate Indus River dolphins (WWF-Pakistan) assess the level of dolphin bycatch throughout the species' range assess the extent of targeted take and the use of dolphins for oil or fishbait (particularly India/ Bangladesh) <p><u>Sotalia guianensis</u> The Committee endorses all recommendations from the 2018 and 2019 Sotalia guianensis workshops (SC/68B/Rep05) and further recommends that;</p> <p>genomic analyses to adequately define management units (MU) throughout the species range be conducted actions are urgently and immediately implemented to reduce bycatch throughout the species range and in particular highlights the need for actions/initiatives to reduce the cumulative impacts and threats pressures on (a) the population from Guanabara Bay and similar vulnerable populations found in in estuaries and bays along the south and southeast of Brazil</p> <p>The Committee reiterates its previous concerns for the species in Lake Maracaibo, Venezuela, and stresses the need for all (including NGOs researchers and authorities) to focus on documenting the threats and working with local communities to mitigate these.</p> <p><u>Phoca sinus</u> The committee reiterates all previous recommendations (see below)</p>
2019	<p>Nairobi, Kenya A Review of Small Cetaceans of Africa</p>
	<p><u>Sousa</u> The Committee reiterates its previous concerns over the status of the genus Sousa and stresses the need to identify high priority areas and populations of Sousa in Africa ... and to assist in this:</p> <ul style="list-style-type: none"> encourages a wider collaboration among researchers who work on the genus Sousa, which include international collaboration for funding and capacity building, the development of regional and sub-regional research projects and co-ordination of data collection; recommends the establishment of an Africa focused 'Sousa Task Team' to: (a) facilitate and co-ordinate work in response to IWC recommendations; (b) start working towards developing a comprehensive framework of conservation actions; and (c) to report back to the SM convenors by September 2019; and recommends that South Africa develops a mitigation strategy to: (a) reduce bycatch of Sousa in shark nets; (b) establish multiple-use management areas; and (c) design and implement strategies to reduce the impacts of noise. <p><u>Madagascar</u> The Committee draws attention to: the large-scale hunting of small cetaceans in southwest Madagascar ...and encourages efforts to establish effective community engagement with the aim of reducing hunting (noting previous effort in Anakao and Befandefa), along with efforts to monitor catches and abundance of the affected populations.</p> <p><u>Globicephala macrorhynchus and Orcinus orca, St. Vincent and the Grenadines/Orcinus orca (Okhotsk Sea) and Delphinapterus leucas (Sakhalin Bay-Amur River)</u> The Committee raises concerns that;</p> <ul style="list-style-type: none"> current levels of hunting of short-finned pilot and killer whale in the waters of St. Vincent and The Grenadines are unsustainable and there is an urgent need for research into the status of these species. <p>The Committee reiterates its concern and over-arching recommendation that;</p> <ul style="list-style-type: none"> no small cetacean removals (live capture or directed harvest) should be authorised until a full assessment has been made of population status and the sustainability of takes <p><u>Phocoena phocoena, North Atlantic</u> The Committee endorses all recommendations presented in the report of the International Workshop on the Status of Harbour Porpoises in the North Atlantic (IMR/NAMMCO, 2018), and further recommends that it is imperative to:</p> <ul style="list-style-type: none"> construct more reliable time series of bycatch data for the different fisheries in the different areas; modify the fishing effort database in such a way that the data is consistent and reliable;

	<ul style="list-style-type: none"> include by-catch data from small vessels in reporting; and conduct more reporting of by-catch by different types of gear. <p><u>Phoca sinus</u> The committee reiterates all previous recommendations (see below)</p>		
2018	<table border="1"> <tr> <td>Bled, Slovenia</td> <td>A Review of Small Cetaceans in Rivers and Estuaries in South America</td> </tr> </table> <p><u>The sub-committee recommended:</u> <u>Sotalia, Lake Maracaibo in Venezuela</u></p> <ul style="list-style-type: none"> NGOs and researchers focus on documenting the threats to Sotalia and work with local communities to mitigate the impacts on these dolphin populations <u>Lahille's bottlenose dolphins</u> immediate action be taken to reduce the level of bycatch in the southern Brazil populations; monitoring and photo-identification work continues on the populations throughout the subspecies' range to refine survival estimates and to assess trends in abundance and the prevalence and etiology of the chronic skin infections; the conservation status of the subspecies be prioritized for assessment in the future <p><u>Amazon River Dolphin and Coastal South American Species</u></p> <ul style="list-style-type: none"> that Government of Brazil maintain the moratorium on the piracatinga fishery to allow sufficient time to evaluate the effectiveness of protective measures and continue the necessary protection of river dolphins that potential divisions within the genus Inia are evaluated, and genetic conservation units are established that abundance and distribution surveys, in tandem with investigation into the magnitude of aquatic wildmeat use, be conducted on these species. Appropriate survey designs should be implemented that consider the statistical power required to detect trends and the resultant data should then be used to estimate the impact of deliberate take for wildmeat on the following populations: <ul style="list-style-type: none"> Boto (Inia geoffrensis) in Purus and Japurá rivers, Brazil, and Içá/Putumayo river in both Brazil and Colombia, utilising previously established standardised methods. Also, studies should be expanded into other areas where take for bait may be a cause for concern. Chilean dolphin (Cephalorhynchus eutropia) in Chile, Burmeister's porpoise (Phocoena spinipinnis) in both Chile and Peru, Burmeister's porpoise (Phocoena spinipinnis) in Peru, noting that current evidence suggests that the Peruvian population is distinct, Dusky dolphin (Lagenorhynchus obscurus) in Peru, noting that evidence shows that landings of this species has decreased and populations may have been heavily impacted, Guiana dolphin (Sotalia guianensis) and other small cetaceans in Amapá, Pará, Maranhão, Piauí, Ceará, Espírito Santo, São Paulo and Paraná, in Brazil, as there is a documented use of bycatch for wildmeat purposes, Bottlenose dolphins (Tursiops truncatus) and pantropical spotted dolphins (Stenella attenuata) in Bahia Solano, Colombia, noting that deliberate take for a long line fishery is ongoing, Tucuxi (Sotalia fluviatilis) throughout its range, in Brazil, Colombia, Ecuador, as it shares most of the same threats as Inia geoffrensis, and may also be used as bait in the piracatinga fishery, Guiana dolphin (Sotalia guianensis) in Lake Maracaibo in Venezuela, noting that deliberate take for food is ongoing. <p><u>Boto, of the Tocantins and Maderia Rivers, Brazil</u></p> <ul style="list-style-type: none"> that the status of these dolphins be evaluated, to include abundance, genetic, habitat, prey availability assessments, with a view to developing a translocation protocol, including under what circumstances such a protocol should be enacted. <p><u>Inia and Sotalia, Orinoco River</u></p> <ul style="list-style-type: none"> population sizes and trends of both Inia geoffrensis and Sotalia guianensis, in the Orinoco River basin, be monitored before and during the Mega Project "Arco Minero del Orinoco" <p><u>Vaquita</u></p> <ul style="list-style-type: none"> endorses and adopts the recommendations made in the CIRVA-10 report 	Bled, Slovenia	A Review of Small Cetaceans in Rivers and Estuaries in South America
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2017	<table border="1"> <tr> <td>Bled, Slovenia</td> <td>A Review of Small Cetaceans in Rivers, Estuaries and Restricted Coastal Habitats in Asia, Platanista Spp., Orcaella Spp. and Neophocaena Spp.</td> </tr> </table> <p><u>The sub-committee recommended:</u> <u>Taxonomy Bottlenose Dolphins</u></p>	Bled, Slovenia	A Review of Small Cetaceans in Rivers, Estuaries and Restricted Coastal Habitats in Asia, Platanista Spp., Orcaella Spp. and Neophocaena Spp.
Bled, Slovenia	A Review of Small Cetaceans in Rivers, Estuaries and Restricted Coastal Habitats in Asia, Platanista Spp., Orcaella Spp. and Neophocaena Spp.		

- So that the taxonomic status of the different bottlenose dolphin morphotypes in the eastern Pacific can be better resolved, the Committee recommended that a wide range of data (morphological, genetic and other) from the northern and southern regions be compared so that the ranges of any potential taxonomic units in the eastern Pacific can be fully explored.

The Indo-Pacific finless porpoise

- surveys for (relative) abundance, habitat use and distribution of Indo-Pacific finless porpoise be carried out with emphasis on areas where the least is known (e.g. India, Indo-Malay Archipelago, Arabian/Persian Gulf)
- efforts be made to improve bycatch monitoring (ideally with onboard observer programmes, and at a minimum with stranding notification, investigation, sampling and reporting) in all areas of known overlap between finless porpoise occurrence and fishing activity (especially gillnetting)

Mekong Irrawaddy Dolphin

- recommends that the IWC Secretariat write to the Cambodian Council of Ministers and relevant Cambodian Ministries expressing the Committee's grave concerns regarding the impacts on Mekong dolphins of the proposed multiple dam construction
- any effort to assess the conservation value and feasibility of translocating these individuals to another social group of dolphins downstream in Cambodia include consideration of the likely social and genetic consequences of such a move for the overall population (this includes determination of the age and sex of each dolphin in the transboundary pool through available information and tools, e.g. analysis of existing photo-id data, genetic analyses of skin samples collected by biopsy, and photogrammetry)

Indus River Dolphin

- the Pakistan Government and NGOs that are involved in Indus River dolphin monitoring, research and conservation in Pakistan to strengthen and scale-up the dolphin monitoring and rescue network with the involvement of local communities and local authorities so that it covers the entire range of the subspecies;
- the aims of this work should be to collect information on habitat loss, fishing-induced mortality, illegal hunting, and strandings and to support the program of rescuing dolphins that have become trapped in canals;
- a programme of focussed research should be developed on dolphin movements through barrages including collection of tissue samples from canal-entrapped animals to assess population structure and genetic connectivity of Indus dolphin subpopulations.

Ganges River Dolphin (Nepal)

- urgent action and communication of recent research findings to the Government of Nepal, mainly to prioritize maintenance of ecological flow regimes, river restoration and community-based fishery regulations to prevent further habitat degradation and bycatch of the remaining small populations upstream of river barrages on and near the India-Nepal border
- trans-boundary surveys by India and Nepal to assess threats to the meta-populations of which Nepal's sub-populations are a part

Coastal Irrawaddy Dolphin

- continued dedicated surveys to monitor distribution, habitat use, threats and population trends in areas such as Sarawak and Chilika lagoon - survey effort should be extended to cover gap areas, such as other coastlines in the Indo-Malay Archipelago, the Sunderbans of West Bengal, and the coast of Orissa and West Bengal in India. Passive acoustics and or photo-identification should be used where feasible; and
- heightened cooperation between local authorities, researchers, and the tourist industry at Chilika lagoon, India, - dolphin protection should be strengthened through better documentation of dolphin occurrence and movements, training of dolphin watch operators on dolphin watch guidelines, as well as management efforts to address the impact of fishing on the dolphins.

Australian Snub-fins

- baseline surveys be conducted of specific areas (judged to be ecologically similar to areas known to be inhabited by the species in Australia and southern PNG) around New Guinea and the eastern Indonesian Archipelago (particularly Sulawesi, Maluku and Nusa Tenggara) and northern Timor-Leste to determine the extent of occurrence of snubfin dolphins.

Freshwater and Estuarine Cetaceans of Asia

- recommends that targeted conservation actions be directed toward reducing the impact of fisheries bycatch and water development projects on Asian freshwater, estuarine, and coastal cetaceans to ensure their long-term survival.

Killer Whales (Russia)

- future steps with regard to killer whales in Russia consist of (a) recognising the two ecotypes of killer whales and (b) managing them as distinct units.

Vaquita

- endorses and adopts the recommendations made in the CIRVA-8 and CIRVA-9 reports (see SC/67A/SM/11 and SC/67A/SM/14).
- the Government of Mexico ensure that the current ban on gillnets in the northern Gulf of California does not lapse, is effectively enforced and is made permanent, and that this ban is extended to include the possession and sale of gillnets throughout the immediate area.
- the appropriate authority in Mexico further develop and permit the use of 'vaquita safe' fishing gears as a matter of urgency, and provide incentives for their immediate and full uptake.

2016	Bled, Slovenia	Review of taxonomy and population structure of bottlenose dolphins (<i>Tursiops</i> spp.) in the wider Atlantic region
	<p><u>The sub-committee recommended:</u></p> <p><u>Vaquita</u></p> <ul style="list-style-type: none"> • as a matter of utmost urgency that enforcement efforts be strengthened, against both illegal fishing in Mexico and totoaba smuggling out of Mexico and into transit and destination countries. Furthermore there is an urgent need to remove active and ghost gillnets from the range of the vaquita; this is an insidious, invisible and existing threat • that the Governments of Mexico and the United States consult closely on the continuing illegal international trade with CITES authorities <p><u>Franciscana</u></p> <ul style="list-style-type: none"> • that monitoring of bycatch and assessment of the extent and other characteristics of fisheries in the franciscana's range be considered as high priorities <p><u>Humpback Dolphins</u></p> <ul style="list-style-type: none"> • an urgent focus on its previous recommendations which pertain to understanding the conservation status of <i>Sousa teuszii</i> throughout its known, and suspected, range so that protection measures can be implemented • that more effort be placed throughout the range of the genus <i>Sousa</i> on estimating mortality from by-catch and other anthropogenic sources, and designing and implementing effective mitigation of these sources of mortality • the expansion of the existing network of researchers and NGOs working with <i>Sousa</i> spp. to include all such entities who might be able to archive samples for genetic analyses and prioritise dedicated research studies in areas at the edges of suspected population ranges to better define population boundaries, structure and connectivity <p><u>Harbour Porpoise Baltic Sea</u></p> <ul style="list-style-type: none"> • as a matter of urgency that all countries adjoining the Baltic Proper assess and mitigate bycatch and other anthropogenic mortality, including consideration of cumulative effects throughout the range of the population • that follow up research on this population be funded <p><u>Task Team and Conservation Management Plan</u></p> <ul style="list-style-type: none"> • supporting the fishery characterization and bycatch monitoring and estimation work identified by the Franciscan task Team (FTT) • The South East Asian River Dolphin should be a candidate for the for development of a task team. 	
2015	San Diego (USA)	Review of taxonomy and population structure of bottlenose dolphins (<i>Tursiops</i> spp.) in the wider Indo-Pacific region
	<p><u>The sub-committee recommended:</u></p> <p><u>Bottlenose dolphins</u></p> <ul style="list-style-type: none"> • that a workshop be held to assess the distribution and abundance of, and threats to <i>Tursiops aduncus</i> around Australia. • that efforts be made throughout Australia to improve the consistency and transparency of entanglement monitoring (i.e. detection, investigation and reporting). This would require that the fishing and aquaculture industries cooperate in securing and delivering carcasses of animals taken incidentally and that funding is made available to perform necropsies. <p><u>Yangtze finless porpoise</u></p> <ul style="list-style-type: none"> • that river and lake segments are identified that have the highest porpoise concentrations. <p><u>Indo-Pacific humpback dolphins</u></p> <ul style="list-style-type: none"> • that further investigation of the genetic identity of humpback dolphins in Asia be made to test the hypothesis of a clinal progression from Bangladesh into the range of <i>Sousa sahalensis</i>. • that continued monitoring and further photo-identification work be conducted to refine the survival estimate of the Bangladesh humpback dolphin population <p><u>Baltic harbour porpoise</u></p> <ul style="list-style-type: none"> • that Poland adopt the Static Acoustic Monitoring of the Baltic Sea Harbour Porpoise (SAMBAH) conservation programme and that the Baltic countries maintain efforts to monitor abundance and bycatch levels 	
2014	Bled (Slovenia)	Review of status of small cetaceans in the eastern Mediterranean and Red Seas
	<p><u>The sub-committee recommended:</u></p> <p><u>Adriatic Sea</u></p> <ul style="list-style-type: none"> • that monitoring programmes should be coordinated among neighbouring countries to enable regular basin-wide surveys of populations and monitoring of threats and thus strengthen ongoing studies in the region <p><u>Aegean Sea</u></p> <ul style="list-style-type: none"> • that Turkey develop a Conservation Action Plan for small cetacean species in its waters which incorporate public awareness as well as research elements <p><u>Levantine Basin</u></p>	

		<ul style="list-style-type: none"> •that Israel develop a Conservation Action Plans for small cetacean species in its waters which incorporate public awareness as well as research elements, in particular conduct a preliminary analysis to define the amount of effort needed to obtain meaningful abundance and distribution data. <p><u>Eastern Mediterranean</u></p> <ul style="list-style-type: none"> •that the large-scale survey known as the 'ACCOBAMS Survey Initiative' be carried out as soon as possible in order to obtain information on cetacean distribution and abundance for the whole Mediterranean, including the eastern sub-region. •that systematic sub-regional surveys be implemented. •that research be undertaken to define management units, at least for the most common species (e.g. the common bottlenose dolphin and the striped dolphin), through multidisciplinary approaches (including genetics, isotopes, biomarkers and photo-identification) to evaluate the effects of anthropogenic mortality (e.g. bycatch) at population level. •that the nature and extent of cetacean-fisheries interactions be investigated more intensively and extensively. •that research be conducted on the extent and effects of oil and gas-related activities and co-operate with these industries with a view to sharing data. •that research is conducted on the effects of boat traffic on local populations of small cetacean local populations, especially in harbours and other areas of high activity and potential overlap. •that research project be developed in the eastern Mediterranean Sea to gather data on rough-toothed dolphins in order to assess their degree of isolation and their conservation status under IUCN criteria. •that regional cooperation for science and management for conserving/managing shared populations/species should be implemented •that capacity building actions be implemented (university, local authorities) throughout the region. <p><u>White whales of the Sea of Okhotsk</u></p> <ul style="list-style-type: none"> •that research efforts be expanded into all areas of potential beluga removals. <p><u>Killer whales Russian far East</u></p> <ul style="list-style-type: none"> •that transient and resident killer whales be managed as distinct units and that study in the western Okhotsk Sea be continued and expanded <p><u>Yangtze River porpoise</u></p> <ul style="list-style-type: none"> •that every possible effort be made to protect Yangtze finless porpoises in their natural habitat, including research which contributes to identifying river and lake segments with the highest porpoise concentrations. <p><u>Franciscana</u></p> <ul style="list-style-type: none"> •that the impacts of bycatch and other potential threat factors on franciscanas be assessed and that measures to reduce bycatch be adopted. •that the assessment of finer-scale management area boundaries and that FMA definitions be supported to the greatest extent possible by analyses of both nuclear and mitochondrial markers. •Regional collaboration between Argentina, Uruguay and Brazil be strengthened to implement conservation management actions that address franciscana bycatch as well as other threat factors.
2013	<i>Jeju (South Korea)</i>	Review current status of selected populations of small cetaceans in east Asian waters (China [including Taiwan], South Korea, Japan and Russia [white whales only])
		<p><u>The sub-committee recommended:</u></p> <p><u>Finless porpoise Korea</u></p> <ul style="list-style-type: none"> •that an analysis be conducted to estimate past bycatches of finless porpoises using data on historical and recent fishing effort together with recently documented bycatch levels. <p><u>Bottlenose dolphin Japan</u></p> <ul style="list-style-type: none"> •that bycatch around Amakusa-Shimoshima Island be monitored closely and that efforts are made to reduce bycatches. <p><u>White whales of the Sea of Okhotsk</u></p> <ul style="list-style-type: none"> •that research efforts be expanded into all areas of potential beluga removals.
2012 (64°)	<i>Panama City (Panama)</i>	Beaked whales of the North Pacific and Northern Indian Ocean
		<p><u>The sub-committee recommended:</u></p> <p><u>Baird's beaked whale:</u></p> <ul style="list-style-type: none"> • to clarify population structure and geographical boundaries of the stocks off Japan, particularly as long as hunting continues there. • Improved and updated abundance estimates are needed for each population, and trends in abundance should be assessed. These needs particularly apply to exploited stocks. • Better understanding is needed of the movements of animals from the respective stocks into and out of the three sea areas of Japan (Sea of Japan, Sea of Okhotsk, Pacific coast).

	<ul style="list-style-type: none"> • The study in the Commander Islands (SC/64/SM5) should not only continue but also be expanded to include biopsy sampling for determination of sex and paternity and maternity in order to support studies of social and population structure, as well as satellite tagging to learn about movements and stock relations. • The limited available information suggests a peculiar life history and social structure of this species. It is uncertain whether the characteristics of Baird's beaked whales are common, rare or even unique among the Ziphiidae, but further studies such as those recently initiated in the Commander and Aleutian Islands are encouraged to continue. <p><u>Stejneger's beaked whale (<i>Mesoplodon stejnegeri</i>):</u></p> <ul style="list-style-type: none"> • regular and extensive sample collection from stranded or bycaught Stejneger's beaked whales in order to better understand the species' ecology, life history and vulnerability to threats. <p><u>All North Pacific and northern Indian Ocean ziphiid species:</u></p> <ul style="list-style-type: none"> • The continuation and expansion of studies of how anthropogenic noise, especially from naval sonar and seismic survey airguns, affects ziphiids. These should include efforts to determine if and how vulnerability differs between species, habitat types, animal activities (e.g. travelling, foraging) etc. • Collaborative arrangements with military and industry authorities to ensure researchers have advance notice of sonar exercises, seismic surveys and other activities so that the possibility of beaked whale stranding events can be anticipated with enhanced beach surveillance etc. • [marine debris] is further investigated via the collection, collation and analyses of relevant data from around the world concerning ingestion rates, debris types and associated pathology and that standardised protocols are developed for pathology investigations. • efforts should be made to define population structure, delineate population boundaries, obtain estimates of abundance and identify (and rank) threats. Particular attention should be given to populations known or suspected to be small and/or exploited. • more effort be made to investigate and validate methods of estimating population size for ziphiids, including those that incorporate passive acoustics for application in areas where the local species are acoustically distinguishable. Among other things, more data are needed to adjust density estimates from line transect surveys to account for visibility bias (given that these deep-diving whales spend relatively little time at the surface and species are difficult to distinguish) and for responsive movement. Consideration should also be given to interrupting line transect surveys (closing mode) in order to obtain photographs and biopsies as a way of reducing the 'unidentified ziphiid' component of abundance estimates. • Collaborative efforts similar to those described last year in SC/63/SM10 [map high-use areas for ziphiids on a global with the objective of providing guidance for mitigation measures specifically to reduce the recognised risks to these whales from naval sonar and seismic survey operations] be made by the relevant scientists and research groups in the North Pacific and northern Indian Ocean where anthropogenic sound is considered a problem. • that methods be developed and applied to estimate fishery-related mortality, giving special attention to areas where there is direct evidence of incidental mortality as well as to areas where driftnetting and longlining operations overlap known concentrations of ziphiids. • efforts be devoted to understanding impacts of changes in habitat on the distribution and abundance of beaked whales. This could involve pursuing an improved understanding of beaked whale feeding ecology and deep-water oceanographic as well as prey-community dynamics. • researchers and research groups establish broad-scale collaborations to generate synthetic results from analyses of genetic material, photograph collections and survey data. Particularly in the case • of <i>Mesoplodon</i> species, biopsies should be obtained from live animals in order to verify species identification. Collection of such material is especially important in the case of of females and young males. Efforts are also needed to validate acoustic signatures of <i>Mesoplodon</i> species by collecting biopsies (and good photographs) along with acoustic recordings at sea. 	
2011 (63°)	Tromsø (Norway)	Beaked whales of the North Atlantic and Mediterranean Sea
	<p><u>The sub-committee recommended:</u></p> <p><u>All North Atlantic ziphiid species:</u></p> <ul style="list-style-type: none"> • efforts be made to define population structure, obtain estimates of abundance and identify (and prioritise) threats. Particular attention should be given to populations known or suspected to be small. more effort be made to investigate and validate methods of estimating population size for ziphiids, including those that incorporate passive acoustics for application in areas where the local species are acoustically distinguishable. Among other things, more data are needed to adjust density estimates from line transect surveys to account for availability and visibility bias (given that these deep-diving whales spend relatively little time at the surface and species are difficult to distinguish) and for responsive movement, with special attention to the possible bias caused by ship attraction in bottlenose whales. Consideration should also be given to interrupting line-transect surveys (closing mode) in order to obtain photographs and biopsies as a way of reducing the 'unidentified ziphiid' component of abundance estimates. • that collaborative efforts [map high-use areas for ziphiids on a global scale with the objective of providing guidance for mitigation measures specifically to reduce the recognised risks to these whales from naval sonar and seismic survey operations] (c.f. SC/63/SM10) be made by the relevant scientists and research groups in other parts of the North Atlantic. 	

	<ul style="list-style-type: none"> • methods be developed and applied to estimate fishery-related mortality, giving special attention to areas where direct evidence of incidental mortality exists (e.g. Labrador for northern bottlenose whales, Mediterranean for Cuvier's beaked whales) as well as to areas where driftnetting and longlining operations overlap known concentrations of ziphiids (e.g. driftnetting in the Alborán Sea) • the continuation and expansion of studies of how anthropogenic noise, especially that from naval sonar and seismic survey airguns, affects ziphiids. These should include efforts to determine if and how vulnerability differs among species, habitat types, animal activities (e.g. travelling, foraging) etc. The Committee further recommends that collaborative arrangements be made with military and industry authorities to ensure researchers have advance notice of sonar exercises, seismic surveys and other activities so that the possibility of beaked whale stranding events can be anticipated with enhanced beach surveillance etc. • researchers and research groups establish broad-scale collaborations to allow integrated analyses of genetic material, photograph collections and survey data. <p><u>Northern bottlenose whales:</u></p> <ul style="list-style-type: none"> • focus field efforts on the populations off Baffin-Labrador and mainland Norway; • use a suite of data (genetic, contaminant etc.) to describe population structure and examine potential links between bottlenose whale population centres; • collect and analyse data on seasonal migration, especially in the northeastern Atlantic and the Baffin- Labrador area; and • develop a comprehensive model of how whaling affected the populations. <p><u>Cuvier's beaked whales in the northeastern Atlantic and the Mediterranean Sea:</u></p> <ul style="list-style-type: none"> • use existing (in museums and tissue banks) and new genetic samples (from strandings and biopsies) to examine population structure, including connectivity or lack thereof between putative populations; • review and/or collect data on habitat use, with an emphasis on site fidelity and movements of the animals that may be resident to specific areas; • refine or obtain abundance estimates for the Bay of Biscay and key areas in the Mediterranean such as the Ionian Sea (especially off the western coast of Greece; SC/63/SM10) and around the Macaronesian islands; • review and try to quantify known and possible threats for putative populations; and • use the above information to determine the status of populations. <p><u>Mesoplodon species and Cuvier's beaked whales:</u></p> <p>that field researchers collect voucher material (skin or other tissue sample, skull) whenever possible from stranded or bycaught animals; biopsies should be obtained from live animals in order to verify species identification.</p>
2010 (62 ^o)	<p>Agadir (Morocco) Small cetaceans of NW Africa and E tropical Atlantic</p>
	<p>The sub-committee recommended:</p> <p>All small cetacean species in the west and north-western Africa:</p> <ul style="list-style-type: none"> • the tallying of cetacean landings be implemented as a standard procedure for fisheries observers at the national level, including the collection of photographic material, recognising that small cetaceans are a de facto exploited marine living resource and therefore need to be monitored on a permanent basis. • The implementation of an intensive biological sampling programme based on fresh carcasses, collecting data on morphological variation, reproduction, growth, feeding, stock identification, genetics, migratory habits, etc. of cetacean species. • The use of platforms of opportunity to collect data on distribution, relative abundance and behaviour of cetaceans. • Further assessment of the links between declining fish catches and increasing takes of small cetaceans in West Africa. • international collaboration for funding and capacity building to support programmes for monitoring, management and conservation of coastal marine living resources in this region. <p>Atlantic humpback dolphin (<i>S. teuszii</i>):</p> <ul style="list-style-type: none"> • that research, monitoring, and conservation efforts for humpback dolphins along the coast of Gabon and Congo continue. • that efforts be made to provide any samples from <i>S. teuszii</i> as soon as possible so that they can be included in the ongoing efforts described above which are essential for resolving species questions in the genus <i>Sousa</i> and population variation questions for <i>S. teuszii</i>. • due consideration of recommendations provided by the sub-committee at the 54th meeting of the IWC (2002) and the CMS regional action plan for the conservation of West African small cetaceans. • Coordinated data collection should be facilitated in order to improve knowledge of the abundance, distribution and conservation status of <i>S. teuszii</i> throughout its known range. Specifically: <ul style="list-style-type: none"> o Estimates of abundance and distribution are urgently required (including where feasible photo-identification). o Tissue samples should be obtained at every opportunity from stranded or bycaught Atlantic humpback dolphins. These need to be appropriately preserved and provided to scientists for genetic analyses investigating population structure. o Critical habitats should be identified, including areas of high density and regular occurrence ('hotspots') and migratory pathways (if such exist), as candidates for focused conservation effort.

	<ul style="list-style-type: none"> ○ Overviews of existing knowledge, national species lists, specimen collections, research centres and protected areas should be compiled. ● Identify and mitigate known and potential threats to <i>S. teuszii</i>, particularly entanglement in fishing gear, and directed take and anthropogenic noise. Specifically this should include: <ul style="list-style-type: none"> ○ Improving the understanding of the causes, levels and impacts of by-catch on <i>S. teuszii</i>. ○ Assessment of the causes, level and intensity of directed small cetacean takes. ○ Efforts should be made to minimise the ecological impacts of fisheries on, and direct takes of, <i>S. teuszii</i> through the implementation of explicit fisheries management measures. ○ Ensure that all littoral developments and activities take into account their potential for having negative effects on small cetaceans and the environment. ● The designation and management of national and transboundary marine protected areas that include <i>S. teuszii</i> habitat based on scientific data and broad stakeholder involvement should be encouraged. ● that regional or sub-regional research projects be conducted and management plans developed to conserve the populations of Atlantic humpback dolphins in particular areas. [e.g. off Flamingos, Angola; along the coasts of Gabon-Congo; Senegal-The Gambia-Guinea-Bissau-Guinea-Sierra Leone; Mauritania]. 	
2009 (61°)	Madeira (Portugal)	Review taxonomy, population structure and status of common dolphins
	<p>The sub-committee recommended:</p> <ul style="list-style-type: none"> ● that [ship-based] surveys should examine this [the bias in abundance associated with not correcting for responsive movement] where the data are available in previous surveys and in all areas where surveys are being routinely carried out. ● that a basin-wide synoptic survey be carried out in the Mediterranean as soon as feasible [to estimate abundance of common dolphins in this region]. ● that marine surveys being carried out in this region [western Atlantic Ocean] include small cetacean data collection, to better understand distribution and that attempts be made to obtain abundance estimates. ● that work to better inform our understanding of population structure be carried out in this large geographical region [Venezuela, northern South America], including southern Brazil. ● that further studies be conducted at regional and local scales to better quantify abundance and distribution [in general]. ● further collaboration in the establishment of new stranding programmes. ● a regional effort to compile [bycatch in NE Atlantic fisheries] data of all nations and to include the set net fisheries in the monitoring programme. ● that efforts continue in these regions to improve understanding of stock structure and obtain better estimates of bycatch, to better assess fisheries impact [given the ongoing fishery bycatch of common dolphins in the north-eastern Atlantic]. <p>2010 Recommendation:</p> <ul style="list-style-type: none"> ● that efforts should be made to obtain samples [for genetic analyses] from oceanic regions where both short-beaked and long-beaked forms occur, as is the case in West Africa and the SE Pacific. <p>Regarding the ACCOBAMS basin wide survey in Mediterranean and Black Sea, the Committee reiterated its recommendation that;</p> <ul style="list-style-type: none"> ● that the study should be carried out as soon as possible. ● planning and implementation proceed as quickly as possible 	
2008 (60°)	Santiago (Chile)	Small cetaceans in Southeast Pacific (conservation issues)
	<p>The sub-committee recommended:</p> <ul style="list-style-type: none"> ● that further surveys be conducted at regional and local scales to better quantify the abundance and distribution of small cetacean species in these areas [large parts of the southeast Pacific coast of South America have not been covered by surveys]. ● that surveys be conducted to obtain information on abundance, distribution and residency patterns of these species [Burmeister's porpoise, Peale's dolphin, bottlenose dolphin, and the Chilean dolphin]. ● that well-designed line transect surveys of the Chilean fjords and outer coast be conducted in order to estimate the species' [Chilean dolphin (<i>Cephalorhynchus eutropia</i>)] abundance and assess its conservation status. ● that morphometric and genetic analyses be extended to include data from as wide a study area as possible for all species in the Southeast Pacific region, but particularly for the more coastal species [Burmeister's porpoise, Peale's dolphin, bottlenose dolphin, and the Chilean dolphin]. ● that fresh specimens from strandings, direct and incidental catch events should be collected and sampled when possible for inter alia life history, genetic and contaminant studies. 	

	<ul style="list-style-type: none"> • that non-wildlife bait be made available as widely as possible and that there be further development of alternative long-lasting bait such as perforated plastic bottles containing fish offal. A bioeconomic model of the use of different baits in fisheries may provide useful insight. Improved education and awareness of conservation might also help to reduce directed takes. • focussed research on the effects of human activities on the spread of diseases in cetaceans, particularly in near-shore populations that utilise highly degraded coastal habitats. • that nations establish small cetacean by-catch monitoring programmes (on board monitoring) as part of their regular fisheries monitoring and that they report them to relevant regional and international agencies (e.g. IWC, CPPS). • continuation of existing bycatch monitoring programmes, particularly in relation to mitigation efforts. • that the impacts of such removals [on small coastal populations, including bottlenose dolphins, Peale's dolphins and pantropical spotted dolphins] be assessed and that the status of affected populations be documented. • scientists to collaborate in developing programmes to estimate cetacean abundance throughout the region. [...] Particular attention should be given to small vulnerable populations of coastally distributed cetaceans, including Chilean dolphins, Burmeister's porpoises, pantropical spotted dolphins, Peale's dolphins and bottlenose dolphins. • that samples (e.g. skin, bone) are collected from stranded and bycaught specimens and analysed to elucidate stock structure, life history parameters and feeding ecology for all species in the region, but particularly for endemic species such as Peale's dolphin, Burmeister's porpoise, Commerson's dolphin and the Chilean dolphin. • further collaboration in the establishment of new stranding programmes. • that whenever possible data are collected in ways that allow and facilitate investigation of the causes of morbidity and mortality. • that collaborative research projects with on-going or planned regional programmes consider the inclusion of small cetaceans as appropriate. <p>Regarding the ACCOBAMS basin wide survey in Mediterranean and Black Sea, the Committee reiterated its recommendation that;</p> <ul style="list-style-type: none"> • that the study should be carried out as soon as possible. • planning and implementation proceed as quickly as possible 	
2007 (59°)	Anchorage (USA)	Killer whales
	<p>The sub-committee recommended:</p> <ul style="list-style-type: none"> • CCAMLR compile data on killer whales from observer reports and supply those data for consideration by the IWC. • Additional morphological and genetic studies be carried out. • that a scientifically valid assessment be conducted before further captures off Kamchatka are authorised. • that every effort should be made to obtain information and samples from killer whales hunted in Greenland. • the relevant local and national agencies in Spain and Morocco cooperate to monitor [killer whale] status and assess the need for conservation action [in the Strait of Gibraltar]. It further recommended that population structure be investigated on an urgent basis to determine this small group of whales' degree of isolation. 	
2006 (58°)	St Kitts (St. Kitts & Nevis)	Small cetaceans of the Caribbean and Western tropical Atlantic
	<p>The sub-committee recommended:</p> <ul style="list-style-type: none"> • that biopsy sampling, in addition to photographs and careful field notes on observed characteristics, should be attempted routinely as a way of confirming species identifications, particularly for those species that are difficult to identify in the field (e.g. ziphiids, <i>Peponocephala</i> vs. <i>Feresa</i>). • that training programs be conducted to increase local capacity in cetacean field identification and biopsy sampling techniques. • that (a) more training programs be carried out, (b) more international collaborations be established to strengthen the analytical capacity of researchers within the region, (c) collection of effort data be incorporated routinely into surveys and (d) approaches to data collection and analysis be standardised to the greatest extent possible. • a wider participation in systematic cetacean research programmes and co-ordination among such programmes. • that further photoidentification studies [on <i>Tursiops truncatus</i>] should be encouraged and that some widespread surveys are needed. • that further work is needed to assess bycatch of bottlenose dolphins, especially in areas where resident populations may be under pressure. • that when studies were being established to monitor pollutant levels, cetaceans should be included in the assessments of impacts, and that biopsy sampling and sampling of stranded animals should be encouraged to shed more light on this issue in the region. • In addition to recommending genetic analyses of population structure for this species [<i>Pseudorca crassidens</i>], the sub-committee encouraged individual researchers and teams of researchers to coordinate and collaborate. 	

		<ul style="list-style-type: none"> • increased effort to obtain tissue samples from stranded and bycaught tucuxis [<i>Sotalia flucialis</i>] throughout the region and that these samples be analysed collaboratively for evidence of population structure at various scales. • that whenever possible data collection be carried out to allow for causes of morbidity and mortality to be determined. • that collaborative research projects with on-going or planned regional programmes consider the inclusion of marine mammals as appropriate. • that such work [carried out to understand and document the impacts of fishery bycatch and directed catches on cetacean populations in Brazilian waters] should be promoted further north and west, especially along the continental coast of South America. • that particular attention should be given to <i>Sotalia</i> and other small vulnerable populations of coastally distributed cetaceans in this regard. • that a central database of animals held in captivity [of Tursiops] in the area should be established, together with a mechanism for recording live captures and their subsequent dispersal to dolphinarium. • that local researchers should collaborate to assess the impact of such removals [unregulated and undocumented live capture fisheries] and document the status of affected populations. • that pollutant levels should be examined in bottlenose dolphins and tucuxis in particular, and that whenever wide-scale environmental contaminant studies are being conducted, cetaceans should be included in such studies. • local scientists to continue to develop existing strandings schemes that incorporate standardised protocols and recommended further collaboration in the establishment of new stranding schemes. • the collection of tissue samples for life history parameters and feeding. • local scientists to collaborate in developing programmes to estimate cetacean abundance throughout the region. <p>Regarding the ACCOBAMS basin wide survey in Mediterranean and Black Sea, the Committee recommended that;</p> <ul style="list-style-type: none"> • that the study should be carried out as soon as possible. • planning and implementation proceed as quickly as possible.
2005 (57°)	Ulsan (south Korea)	Finless porpoise (marine populations)
	<p>The sub-committee recommended:</p> <ul style="list-style-type: none"> • that surveys be carried out with particular emphasis on targeting effort to areas where the least is known [e.g. India, Indo-Malay Archipelago, the Arabian/Persian Gulf]. • that genetic and morphometric studies of finless porpoises be conducted to assist in clarifying taxonomy and population structure in the genus <i>Neophocaena</i>. • that a workshop be carried out to try to develop and standardise survey methodology, including the use of passive acoustics. • inter-calibration exercises [in reading and interpreting GLGs] between the different researchers working on this species. • that genetic and morphometric studies of finless porpoises be conducted to assist in clarifying taxonomy and population structure in the genus <i>Neophocaena</i>. • that the magnitude and effects of such bycatches [in coastal gillnet fisheries] be investigated as a matter of priority. 	
2004 (56°)	Sorrento (Italy)	Franciscana
	<p>The sub-committee recommended:</p> <ul style="list-style-type: none"> • that the exact location of the current stock boundary separating areas II and III should be reviewed as more samples become available. • an evaluation of the hiatus in distribution in Area I, to determine whether or not a barrier exists to gene flow in this region. • that further work be done to examine population structure within Areas III and IV and that Bayesian, boundary rank, or other alternatives to pairwise comparison analyses, be conducted in this area. • that a phylogenetic tree be used to examine this possibility [the existence of franciscana sub-species]. • that line transect abundance surveys be conducted in areas for which estimates of density do not yet exist, particularly in Areas I and II. • that alternative approaches be explored to modelling survival rates and potential rates of increase of franciscana using observations of age-at-death (e.g. Udeviitz and Ballachey, 1998). • that data be collected to allow for estimation of life history parameters (age and size at sexual maturity, annual pregnancy rate), particularly in Areas II and IV. • that methods be standardised for estimating life history parameters among areas to allow for more rigorous comparisons. • that this fishery [set gillnets in Rio Negro] should be monitored for interactions with franciscana. • that estimates of franciscana bycatch be estimated for areas in which they do not currently exist, using observer programmes wherever possible. • that potential bias in bycatch estimates derived from interview or logbook data should be evaluated using on-board observer programmes. • that wherever possible, the age and sex composition of the bycatch should be evaluated through analysis of samples and observations generated by observer programmes. • continued and expanded monitoring of gill net fishing effort throughout the range of the franciscana. 	

	<p>2005 Recommendation:</p> <ul style="list-style-type: none"> • that a rigorous investigation be conducted to assess the status of this population [Grande do Sul, Southern Brazil]. <p>2006 Recommendation:</p> <ul style="list-style-type: none"> • that further surveys should be conducted, with a longer trackline, and with some improvements in the methodology to address perception bias and the left truncating of the perpendicular sighting distance, to cover the entire habitat. <p>2010 Recommendations:</p> <ul style="list-style-type: none"> • that further studies be carried out to: (1) improve estimates of visibility bias, (2) evaluate potential biases in the estimation of group sizes, (3) estimate franciscana diving parameters in areas where such information is not available. • that franciscana bycatch be estimated in areas for which bycatch estimates are currently unavailable and that assessments be carried out of other possible threat factors such as underwater noise, chemical pollution from coastal development and industrial and human waste discharge, oil and gas exploration activities and vessel traffic. • that the possibility of further population sub-structure within the other FMAs be investigated. <p>2012 Recommendations:</p> <p>Status of FMA 1:</p> <ul style="list-style-type: none"> • Additional aerial surveys with increased sampling effort in order to: <ul style="list-style-type: none"> ○ produce more robust (lower CVs, estimates for the northern range of FMA I) population estimates; ○ further assess distribution (e.g. offshore limits, discontinuity); ○ evaluate potential habitats that could be protected (e.g. by one or more no-take zones, marine protected areas) to improve conservation. • Resume systematic and long-term by-catch monitoring in northern Rio de Janeiro and Espírito Santo, in order to produce more up-to-date mortality estimates. • Studies be conducted to assess areas within the range of the species where other human activities could pose a threat to the long-term viability of franciscanas in FMA I. 	
2003 (55°)	Berlin (Germany)	Small cetaceans in the Black Sea
	<p><u>The sub-committee recommended:</u></p> <ul style="list-style-type: none"> • that a coordinated photo-identification programme be conducted throughout the Black Sea and TSS to provide information regarding their ranging patterns, seasonal movements and population structure. Such research could also establish the degree of movement of bottlenose dolphins into and out of the Mediterranean Sea. • that additional research be conducted on the population discreteness of common bottlenose dolphins and short-beaked common dolphins from the Black Sea, using additional samples from this and adjacent regions. Such research should pay particular attention to the potential for dispersal into and out of the Mediterranean Sea through the Turkish Straits System. Researchers working with stranded and bycaught cetaceans in all range states of the Black Sea are encouraged to make samples available for analyses of population structure. Additional material may be obtained from museum specimens and biopsy sampling. • that research should be conducted on population structure of all three species within the Black Sea, Azov Sea and Turkish Straits System. Such research should use methodologies most appropriate for each species, including molecular analysis of mitochondrial and nuclear markers. • that systematic abundance surveys, such as those described in SC/55/SM15, should be conducted for all three species throughout their range in the Black Sea, Sea of Azov and Turkish Straits System. These surveys should use methodologies (such as line transect surveys and photo-identification mark-recapture) most appropriate for each species. • that further work be conducted on the life history of these species throughout the Black Sea and TSS using samples from stranded or bycaught specimens. • an assessment of the potential for disturbance caused by maritime traffic in the Turkish Strait System and the Kerch Strait. • that the possibility of conducting a retrospective analysis of directed catches and bycatches should be explored. • that any removals of live cetaceans be preceded by a rigorous assessment of the impacts of such removals. Such an assessment should consider the size of the source population and its ability to sustain such removals. • that the magnitude of bycatches should be determined for all three species of cetaceans in Black Sea fisheries. This assessment should be conducted as a matter of some urgency for bycatches of harbour porpoises in bottom-set gillnet fisheries for turbot and sturgeon. • that any efforts to implement acoustic alarms to reduce bycatch rates of cetaceans in Black Sea fisheries should be preceded by a comprehensive evaluation of the potential efficacy of these devices with respect to each fishery's scale, methods, economic value and management regime. <p>The Committee encouraged further research on the issue of depredation (which has been reported from many parts of the Mediterranean) and recommended that if pingers are widely used, these fisheries should be monitored to determine their efficacy.</p>	

2002 (54°)	Shimonoseki (Japan)	Humpback dolphins
	<p>The sub-committee recommended:</p> <ul style="list-style-type: none"> the following: (1) Expanded morphological and molecular sampling throughout the range of the genus [<i>Sousa</i>]. (2) Representative sampling of humpback dolphins from areas in which samples have not yet been included in molecular analyses, such as Australia, India, Malaysia, Mozambique, Tanzania, the Persian Gulf, Gulf of Aden, Red Sea and West Africa. that this work [to test hypotheses concerning the regional population structure of humpback dolphins in certain areas, such as southeast Asia, southern Africa, and the northern Indian Ocean] continue to be conducted, so that gene flow within and between populations can be evaluated using molecular data. that abundance estimates be derived for other areas [other than Hong Kong]. that more work on the life history of this species be carried out in the different regions, particularly in areas where samples of stranded or bycaught specimens are available. In other areas, some of this information can be derived from longitudinal studies using photographic identification techniques. that any dolphins captured in these nets be recovered for post-mortem examination to obtain information on life history and stock structure. the following. (1) Wide collaboration among <i>Sousa</i> researchers to allow resolution of the systematics and population structure within the genus. (2) Studies over long time-scales to obtain estimates of abundance, and rates of fecundity and mortality. (3) Surveys, and photo-identification and genetic sampling in areas where the distribution of humpback dolphins is patchy, to allow for more detailed information on distribution, ranging patterns, discontinuity or population fragmentation and stock structure. (4) Studies of the life history, behaviour and ecology of this genus, to better understand its conservation status, ecological requirements and social structure. (5) Further quantitative studies of habitat use, and of the degradation of habitat, especially where habitat modification has occurred. (6) Independent observer monitoring programmes to estimate incidental mortality from bycatch and to monitor the effects of mitigation measures when they have been introduced. (7) Evaluation of the magnitude and effects of the directed fishery for humpback dolphins in Madagascar. <p>2006 Recommendation:</p> <ul style="list-style-type: none"> that both small-boat and shore-based surveys be implemented to locate humpback dolphin communities along the Guinean coastline, obtain a measure of abundance, collect specimens and evaluate threats, especially bycatch. 	
2001 (53°)	Hammersmith (UK)	Dall's porpoise taken by the Japanese hand-harpoon fishery
	<p>The sub-committee recommended:</p> <ul style="list-style-type: none"> that further genetic analysis address the issue of stock structure within the Okhotsk Sea. that new abundance estimates be generated for Dall's porpoise stocks in the region, particularly in view of the continued and sustained high level of directed and incidental takes. that more accurate estimates of the total catch be reported on a stock-by-stock basis, with information on the catch composition and numbers 'struck and lost'. that the [bycatch observer] programme continue at a statistically meaningful level [Russian EEZ]. that catches [in Okhotsk Sea and Japan] be reduced as soon as possible to sustainable levels. It is not clear whether the catch levels reported prior to 1986 would be sustainable at present. To determine what levels of catch might be sustainable. a full assessment of the status of each stock be conducted as soon as possible, including consideration of the factors described above. <p>2005 Recommendation:</p> <ul style="list-style-type: none"> that directed takes be reduced to a sustainable level as soon as possible. <p>2007&2008 Recommendations:</p> <ul style="list-style-type: none"> that catches be reduced as soon as possible to sustainable levels. that new abundance estimates be generated for Dall's porpoise stocks in the region and encouraged adjacent member states to facilitate such a survey. Such estimates should address potential biases from vessel avoidance or vessel attraction. research on quantification of bycatches, investigation into the accuracy of estimates of catch, and research into population structure of Dall's porpoise in the Okhotsk Sea, further details of which can be found in IWC (2002). that a full assessment of the status of each population be conducted as soon as possible. <p>2008 Recommendation:</p> <ul style="list-style-type: none"> that the sightings data on Dall's porpoises collected during whale surveys [Japanese minke whale cruises] be incorporated in the proposed new assessment. 	
2000 (52°)	Adelaide (Australia)	Freshwater small cetaceans
	<p>The sub-committee recommended:</p> <p>Irrawaddy dolphin:</p> <ul style="list-style-type: none"> that further investigations be carried out using morphometric and genetic techniques to better elucidate stock structure over the geographical range of Irrawaddy dolphins and to examine potential differences between freshwater and marine habitats. 	

- that comprehensive surveys be conducted to assess the abundance, distribution and habitat quality of Irrawaddy dolphins, with special emphasis on their fresh- and brackish-water range [given the paucity of data on distribution and abundance],
- that a review be carried out of the distribution and habitat preferences of the Irrawaddy dolphin in marine systems and to define oceanographic, bathymetric and biological features associated with high density areas.
- an immediate cessation of live captures until affected populations have been assessed using accepted scientific practices.
- that appropriate bycatch mitigation strategies be developed for use with this species.

Irrawaddy dolphin, 2004 & 2005 Recommendation:

- that given the precarious status of Irrawaddy dolphins all live captures should cease 'until affected populations have been assessed using accepted scientific practices'.

Inia geoffrensis, 2002 Recommendation:

- the continued development of these techniques [line-transect, strip transect and photo-identification surveys of boto (*Inia geoffrensis*) and tucuxi (*Sotalia fluviatilis*) in the Colombian Amazon].

Inia geoffrensis, 2006, 2007, 2008 Recommendations:

- that the true magnitude and geographical scale of the catch is established and that research continues to determine its impact on the boto population.
- that the Government of Brazil make every effort to determine the number of individuals killed and the geographic extent of the hunt, and conduct an assessment of the impact of these removals on the dolphin population.
- that immediate steps be taken by Brazil, Colombia, Peru and Venezuela to stop this hunt, and that range states provide information to next year's meeting on progress in this regard.

Boto:

- that work on stock structure of *Inia* be conducted and existing studies should be brought to publication as soon as possible.
- that a registry of the distribution of this species should be established, recording in which waterways botos are present, and the locations of all existing and proposed dams and other large-scale engineering works. Information on other potential threats, such as the scale of fishing operations and the locations of oil pipelines might also usefully be included where practicable.
- that research should be directed towards detecting trends in abundance or any diminution of range, and identifying causes of any declines [for each population]. Trends in abundance should be documented by making repeatable, statistically rigorous estimates of density in a range of regions and habitats.
- that information should be collected to allow evaluation of the relative levels of mortality, both indirect and direct, associated with different fishing methods.

Tucuxi:

- that research be directed towards detecting trends in abundance by making repeatable and statistically rigorous estimates of density in a range of regions and habitats.
- that information be collected to allow evaluation of the relative levels of incidental mortality of the tucuxi associated with different fishing methods.
- that research be directed to determine which form of tucuxi occurs in areas such as the Orinoco and Amazon estuaries.

Tucuxi, 2002 Recommendation:

- the continued development of these techniques [line-transect, strip transect and photo-identification surveys of boto (*Inia geoffrensis*) and tucuxi (*Sotalia fluviatilis*) in the Colombian Amazon].

2012

the sub-committee **recommended** the organization of an International Scientific Workshop that would involve scientists and managers from the countries where botos and tucuxis occur, with the goals of addressing research and conservation priorities, standardizing methodologies and planning long-term strategies.

The following specific topics could be discussed at the workshop:

- (1) Geographic and temporal extent of the piracatinga fisheries and associated dolphin use;
- (2) Methods to assess abundance and mortality (rapid assessment as well as longer-term approaches);
- (3) Improved understanding of dolphin movements and habitat use (including population structure) ;
- (4) Ways to reduce (or preferably eliminate) the pressure on dolphin populations from exploitation as bait for the piracatinga fishery.

Indus susu:

- The sub-committee commended the Sindh Wildlife Department for their initiative to return Indus dolphins to the Indus River from irrigation canals and recommended that future operations be conducted with application of a protocol that has been reviewed by specialists with prior experience of the capture and safe release of cetaceans. Opportunities for conducting conservation-oriented research on rescued animals should be fully utilised. Priority should be given to monitoring survival and movement of released animals, particularly with regard to the effects of barriers and irrigation canals.

- research be conducted to elucidate the possible effects of barrages and canal gates on dolphin movements, paying particular attention to the design of these structures.
- recommended that surveys be further coordinated and standardised, so that conservation strategies can be prioritised and pursued at the metapopulation level. Surveys should include a strong emphasis on identifying and assessing the availability of suitable habitat and the distribution and magnitude of threats.

Ganges susus:

- that the distribution, abundance and habitat of Ganges susus be assessed in areas where adequate surveys have not yet been conducted (e.g. Sundarbans and Damodar river system). Particular attention should be paid to documenting threats during these surveys.
- that an evaluation of population discreteness be conducted of Ganges susus among river systems, with particular attention to dolphins in the Karnaphuli-Sangu river systems.
- that the level and impact of direct and incidental catches of this species be assessed, with particular attention to the number of dolphins killed to support the use of their oil as fish attractant.

The finless porpoise (Yangtze river population):

- that molecular genetic and morphometric studies of finless porpoises be conducted to assist in clarifying taxonomy and stock structure in the genus *Neophocaena*. These studies should include analysis of existing specimens and new samples from areas that are currently under-represented in collections.
- the sub-committee recommended that a detailed assessment is conducted of variation in the density of finless porpoises in this system [Yangtze River], to identify areas of high porpoise abundance, such as the Poyang Lake, that may deserve special protection.
- that the magnitude and effects of such bycatches is investigated as a matter of priority.
- that further research is conducted to determine the causes of the population decline of this species in the Inland Sea of Japan and how to best stop or reverse this decline.
- that surveys are conducted throughout its known and suspected range, particularly in areas where little current information exists, for example along the coasts of the Indian Ocean.

Baiji:

- that the following requirements be met prior to any further removals of baiji from the wild: (1) the environmental quality and carrying capacity of the semi-natural habitat are ensured at levels adequate for the long-term maintenance a group of baiji; (2) the semi-natural habitat is developed to ensure that dolphins cannot move into the river, regardless of flood level; (3) there is no other cetacean species in the semi-natural habitat; (4) the risk of baiji entanglement and mortality in fishing gear within the semi-natural habitat is eliminated; (5) capture and relocation operations can be conducted with minimal risk of dolphin mortality (with advice and participation of relevant experts who have experience in the capture and handling of cetaceans); (6) sufficient resources are available to ensure that a group of dolphins of adequate size and demographic composition can be established in the semi-natural habitat within a relatively short time; (7) sufficient resources are available to support monitoring and management of the semi-natural habitat; (8) a panel of independent international experts is established to evaluate conditions in the semi-natural reserve and determine that they are suitable. This panel would observe the capture and relocation operations and have full access to all sites, with adequate resources to undertake their tasks; and (9) a parallel effort is made to enhance or restore the natural habitat for baiji in the Yangtze River system, aimed at future reintroduction.

Baiji, 2005 Recommendation:

- that [...] a range-wide baiji survey should be implemented as a matter of urgency and any capture efforts be targeted on the most threatened areas while concomitant in situ conservation work should be pursued in areas ostensibly subject to lower levels of risk.

General recommendations for freshwater cetaceans:

- The sub-committee recommended, therefore, that the impacts of water development on freshwater cetaceans should be investigated thoroughly and that future plans for water development projects and water usage in the range of these species take into account the habitat requirements of freshwater cetaceans and the demographic implications of population fragmentation.
- It recommended, therefore, that any future protected areas or time/area fishery restrictions intended to conserve populations of freshwater cetaceans be of appropriate size and location, that potential threats be eliminated or greatly reduced in such areas and, further, that such measures are enforced adequately.
- that the relative magnitude of this threat [bycatches of freshwater dolphins and porpoises in gillnets and other fishing gear] be assessed and that, where necessary, appropriate mitigation strategies be developed.
- The sub-committee recommended that the effects of environmental contaminants, such as mercury, pesticides, antifoulants and oil, be evaluated for freshwater cetaceans, particularly with species that inhabit highly polluted areas. Such studies will require the development of new approaches, such as those being developed by the IWC programme POLLUTION 2000+.
- The sub-committee recommended that scientists with appropriate theoretical and/or analytical skills should be directly involved in river cetacean studies, so that surveys result in statistically robust estimates of abundance. Ideally, arrangements should be made for one or more of these scientists to obtain relevant experience at a suitable range of survey sites and to make recommendations for appropriate survey and analytical methods.

1999 (51°)	Grenada (Grenada)	- Bycatch mitigation - Monodontids
1998 (50°)	Muscat (Oman)	Small cetaceans in the Indian Ocean and Red Sea, with special reference to the Middle East
1997 (49°)	Bournemouth (UK)	- Review of the small cetaceans in the coastal waters of Africa - Further consideration of the criteria for assessing the status of harbour porpoise populations - Global review of <i>Stenella coeruleoalba</i>
1996 (48°)	Aberdeen (UK)	- Consideration of the criteria for assessing the status of harbour porpoise population - Consideration of the methodology to assess the magnitude of bycatches of harbour porpoise populations - Global review of the genus <i>Lagenorhynchus</i>
1995 (47°)	Dublin (Ireland)	Review of harbour porpoises in the North Atlantic
1994 (46°)	Puerto Vallarta (Mexico)	Review of the status and exploitation of small cetaceans in Latin America [several species, including
1993 (45°)	Kyoto (Japan)	Review of abundance and exploitation of small cetaceans in the inshore waters of Southeast Asia, Indo-Malay region
1992 (44°)	Glasgow (UK)	- Population biology and exploitation of <i>Monodontidae</i> - Dolphin species taken in Japanese drive fisheries
	<p>The sub-committee recommended: White whales & narwhals, 2003 <i>Recommendation</i>: <ul style="list-style-type: none"> • [action to obtain] better information on stock identity and catch reporting of narwhals. • rigorous assessment of [Russian] white whale stocks that are subject to direct exploitation or significant disturbance from various human activities. White whales & narwhals, 2004 <i>Recommendation</i>: <ul style="list-style-type: none"> • that this stock of white whales should be considered to be 'of highest conservation concern' and that efforts should be made to improve its status. • that narwhal stocks that are either depleted, small in size or currently declining in numbers or range, should be considered of highest conservation concern. Narwhals, 2009 <i>Recommendation</i>: <ul style="list-style-type: none"> • that the stocks of narwhals and belugas in West Greenland should remain the focus of major conservation concern. </p>	
1991 (43°)	Reykjavik (Iceland)	Review of significant directed and incidental catches of small cetaceans
	<p>The sub-committee recommended: 2002 <i>Recommendation</i>: <ul style="list-style-type: none"> • that such [Russian white and killer whales'] captures be preceded by an assessment of the size of affected populations and of the impact of these removals. 2004 <i>Recommendations</i>: <ul style="list-style-type: none"> • that live captures (or other directed takes) [in Salomon Islands] of any small cetacean species be preceded by a full assessment. • that all directed removals [in Kamchatka, Russia], including live captures, should be preceded by a full assessment using accepted scientific practices. 2007 <i>Recommendation</i>: <ul style="list-style-type: none"> • that no removals (live capture or directed harvest) should be authorised until a full and complete assessment has been made of their sustainability [in relation to live captures planned in several parts of the world (e.g. Panama, Turkey and the Solomon Islands) for a variety of small cetaceans (killer whales, bottlenose dolphins, etc.) for display purposes]. 2008 <i>Recommendation</i>: <ul style="list-style-type: none"> • That information on the efficacy of this regulation [Regulation (EC) n. 812/2004] be submitted to the scientific committee for evaluation. </p>	
1990 (42°)	Noordwijk (The Netherlands)	Population biology and exploitation of the porpoises, <i>Phocoenidae</i>
	<p>The sub-committee recommended: The 1990 SM report contains a number of recommendations on Vaquita, Dall's porpoise in Japan, small cetaceans in the Black Sea and harbour porpoise. These recommendations are very similar to those reiterated in the following years. Vaquita, 2007 <i>Recommendation</i>: <ul style="list-style-type: none"> • that resources be found to design and implement a comprehensive programme to eliminate entangling nets from the range of the vaquita through a buy-out programme or other system of compensation to affected fishing communities. </p>	

	<p>Vaquita, 2008, 2009, 2010 <i>Recommendations</i>:</p> <ul style="list-style-type: none"> • that, if extinction is to be avoided, all gillnets should be removed from the upper Gulf of California immediately, and certainly within the three year timetable starting in 2008. <p>Vaquita, 2010 <i>Recommendation</i>:</p> <ul style="list-style-type: none"> • to intensify development and testing of alternative fishing gear (e.g. through a smart-gear competition) that fishermen can use in place of entangle gears. <p>2012</p> <p>the sub-committee recommended that vaquita conservation efforts focus on:</p> <ol style="list-style-type: none"> 1. Expedited approval and adoption of the small shrimp trawls as an alternative to gillnets and prohibition of shrimp fishing with gillnets throughout the entire range of vaquitas. 2. Continued research on technologies to replace gillnetting for finfish or to otherwise address the bycatch of vaquitas in the finfish nets as quickly as possible. <p>Harbour porpoise, 2002 <i>Recommendation</i>:</p> <ul style="list-style-type: none"> • continued monitoring of this [Danish cod gillnet] fishery, including pinger use and bycatch rates. <p>Harbour porpoise, 2007 <i>Recommendations</i>:</p> <ul style="list-style-type: none"> • that further trials of pinger spacing be conducted in other gill net fisheries and with other pingers. • that [given large numbers of harbour porpoises reportedly taken by the Greenlandic hunt] formal assessments be made of these stocks. <p>Harbour porpoise, 2009 <i>Recommendations</i>:</p> <ul style="list-style-type: none"> • that more detailed estimates of bycatch should be obtained [from the North and Baltic seas], and encouraged continued abundance surveys. <p>Harbour porpoise, 2010 <i>Recommendation</i>:</p> <ul style="list-style-type: none"> • further study of this [Iberian] population. <p>2012</p> <p>The sub-committee recommended with regard to the Gap area to:</p> <ol style="list-style-type: none"> a. assess porpoise bycatch levels, b. monitor porpoise abundance on a regular basis, c. introduce measures to mitigate bycatch and other anthropogenic mortality, d. monitor the health status of the porpoises, e. ensure all bycaught and stranded animals are reported and delivered to qualified institutions for necropsy and sampling, f. implement the recovery plan for harbour porpoises which is currently being developed by ASCOBANS for the Gap area. <p>The sub-committee also repeated its longstanding concern regarding the critically endangered harbour porpoise population in the inner Baltic ('Baltic proper') and encouraged all possible efforts to eliminate the bycatch there and address other factors that may be preventing this very small population's recovery.</p>	
1989 (41°)	<i>San Diego (USA)</i>	Review of exploited populations of pilot whales
1988 (40°)	<i>San Diego (USA)</i>	Review of population biology and exploitation of beaked whales, <i>Ziphiidae</i>
	<u>The sub-committee recommended:</u>	
	•	
1987 (39°)	<i>Bournemouth (UK)</i>	Review of life histories and status of populations of pilot whales, <i>Globicephala spp</i>
	<u>The sub-committee recommended:</u>	
	<ul style="list-style-type: none"> • that these studies [on contamination by mercury, persistent organochlorines and heavy-metals in the Faroes] be continued and that a broad survey of organochlorines be initiated. • that every opportunity be taken to collect sightings in these latitudes [45° and 50°], with records or estimates of sighting effort. 	
1986 (38°)	<i>Bournemouth (UK)</i>	Review of life histories and status of several populations of pilot whales

1985 (37°)	Bournemouth (UK)	- Baird's beaked whales - Incidental take of cetaceans in gillnet fisheries
1984 (36°)	Eastbourne (UK)	- Review of life histories, population biology and fishery involvement of the species of <i>Cephalorhynchus</i> - New data on Baird's beaked whale - New information on the Black Sea dolphins and porpoise populations and fisheries
1983 (35°)	Cambridge (UK)	- Exploited populations of <i>Phocoenids</i> [<i>Phocoena phocoena</i> , <i>Phocoena sinus</i> , <i>Phocoenoids dalli</i> , <i>Neophocaena phocaenoides</i>] - New data on Baird's beaked whale - New information on the Black Sea dolphins and porpoise populations and fisheries
1982 (34°)	Cambridge (UK)	Review of stock assessments for some exploited populations of pelagic dolphins (<i>Delphinus</i> and <i>Stenella</i> spp.) [Small-cetacean fishery in the Black Sea (<i>Phocoena phocoena</i> , <i>Tursiops truncatus</i> and <i>Delphinus delphis</i>); <i>Stenella</i> spp. in the eastern tropical Pacific; <i>Stenella coeruleoalba</i> in the western North Pacific]
	<p>The sub-committee recommended:</p> <p>Black Sea</p> <ul style="list-style-type: none"> (1) Improvement in harvest statistics is needed, in defined units, both to determine if the assumed value of centners as 100 kg is correct, if the levels reported correctly represent the fishery, and to determine species composition; we recommend that the IWC request Turkey's and FAO's assistance in obtaining original Turkish documents reporting catch levels, with translations, for the Scientific Committee's use. (2) The series of aerial sighting surveys from 1967 to the present provides a possible basis for population size monitoring, and it is recommended that the data resulting from these surveys by the Soviet Union be presented to the Committee for analysis. (3) Because the fishery is not well understood, and because little improvement in understanding of the fishery has occurred in the last several years, despite discussions in several forums [...], we recommend that individuals in Turkey knowledgeable of the fishery and of the fishery statistics be invited to participate in the next Committee meeting. (4) Because the dolphins feed on anchovies, the history and present status of the anchovy fisheries throughout the Black Sea should be described for Committee use. Additionally, the present catch of cetaceans in the Black Sea should be sampled for stomach contents; the available literature on the Black Sea dolphins should be reviewed on this point. (5) Because the available biological studies on these cetaceans are quite old, the Turkish catch should be sampled in order to determine sex composition and the reproductive condition and length of the animals. The sub-committee urges that Turkey and FAO be approached on this matter. <p>Stenella spp. in the eastern tropical Pacific</p> <ul style="list-style-type: none"> (1) Member nations of the IWC should be urged to participate in the data collection programme of the Inter-American Tropical Tuna Commission. Members fishing on dolphins but not currently participating are Mexico, the Netherlands and Spain. (2) Research into ways of reducing incidental mortality should continue, and crews of vessels of member nations of the IWC should be encouraged by member governments to participate in the seminars held by the IATTC. (3) Since there is uncertainty about the assessments which have been made and consequently about the status of the stocks, the US should be urged to continue with plans for reassessment. (4) Incidental catch statistics should be included in Progress Reports to the IWC as required by the Schedule. Mexico, especially, has a large and growing fleet and should be approached directly by the Secretary and urged to participate. <p>Stenella coeruleoalba in the western North Pacific</p> <ul style="list-style-type: none"> that more detailed effort data and relevant information be retrieved, or collected, and analysed. The data should include if possible: (a) effort in hours and days, by vessel, area, season and year; (b) detailed oceanographic data; (c) data on other major fisheries, in the area, especially that for squid; (d) information on shifting of seasonal abundance (as well as effort and catch) year to year. 	
1981 (33°)	Cambridge	- New information on stocks, catches and status [including <i>Hyperoodon ampollatus</i> , <i>Delphinapterus leucas</i> , <i>Monodon monoceros</i> , <i>Orcinus orca</i> , <i>Globicephala melas</i> , <i>Tursiops truncatus</i> , <i>Delphinus delphis</i> , <i>Stenella coeruleoalba</i> , <i>Phocoenoids dalli</i> , <i>Phocoena phocoena</i>] - Live-capture fisheries - Problems of interactions between fisheries and small cetaceans [competition] - Effect of pollution and industrial development
1980 (32°)	Cambridge	- Management actions and research on northern bottlenose whale, striped dolphin, Dall's porpoise and harbour porpoise - Other direct catches [including narwhal and beluga] - Problems of interactions between fisheries and small cetaceans [competition] - Effect of pollution and industrial development
1979 (31°)		- Management actions and research on northern bottlenose whale, striped dolphin, Dall's porpoise and harbour porpoise - Other direct catches - Problems of interactions between fisheries and small cetaceans [competition] - Effect of pollution and industrial development - Review of definition and status of stock of the white whale, <i>Delphinapterus leucas</i> , and the narwhal, <i>Monodon monoceros</i> - Review of small cetaceans of the south Atlantic coast of South America.

		- Live-capture fisheries
1978 (30°)		<ul style="list-style-type: none"> - Management of small cetaceans [<i>Hyperoodon ampollatus</i>: North Atlantic; <i>Stenella coeruleoalba</i>: North West Pacific; <i>Phocoenoids dalli</i>: North West Pacific, <i>Phocoena phocoena</i>: North Atlantic] - Research on direct fisheries [same species] - Regional Fisheries Accounts and Catch Statistics [Temperate North Atlantic, Black Sea, Eastern Tropical Pacific, North Pacific, Temperate South Pacific, Indian Ocean, Antarctic] -The problem of competitive interactions between fisheries and small cetaceans - Live-capture fisheries