

Argentina. Progress report on cetacean research, April 2008 to March 2009, with statistical data for the calendar year 2008 or season 2007/08.

COMPILED BY

SECRETARIA DE AMBIENTE Y DESARROLLO SUSTENTABLE

JEFATURA DE GABINETE DE MINISTROS DE LA NACION ARGENTINA

San Martín 451 (1004) Ciudad de Buenos Aires-ARGENTINA

TEL (54 11) 4348-8200 FAX 4348-8300

This report summarises information obtained from:

Name of agency/institute	Abbreviation (use in rest of report)	Contact e-mail address
Fundación Vida Silvestre Argentina	FVSA	Alejandro Arias aamarino@speedy.com.ar
Fundación Patagonia Natural	FPN	pnatural@patagonianatural.org Lucas Martín Bandieri lucasbandieri@patagonianatural.org
Instituto de Biología Marina y Pesquera "Almirante Storni"	IBMPAS	Lic. María Alejandra Romero romero.ale@gmail.com ; Lic. Guillermo Martín Svendsen guillesen@yahoo.es
Instituto de Conservacion de Ballenas and Whale Conservation Institute / Ocean Alliance	ICB/WCI	ICB@ICB.ORG.AR MarianoSironi msironi@icb.org.ar VictoriaRowntree rowntree@biology.utah.edu LucianoValenzuela valenzuela@biology.utah.edu Marcela Uhart muhart@wcs.org
Fundación Cethus	CTHS	cethus@cethus.org Iñíguez, Miguel, C.J. de Haro, J. Belgrano, C. Gasparrou, M. Hevia and V. Tossenberger.
Museo Argentino de Ciencias Naturales "Bernardino Rivadavia"	MACN-CONICET	Dr. Luis Cappelozzo cappelozzo@macn.gov.ar Lic. Maria Fernanda Negri mfnegri@macn.gov.ar Lic. Maria Victoria Panebianco panebianco@macn.gov.ar Lic. María Natalia Paso Viola pasoviola@macn.gov.ar

1. SPECIES AND STOCKS STUDIED

FVSA

IWC common name	IWC recommended scientific name	Area/stock(s)	Items referred to
Southern right whale	<i>Eubalaena australis</i>	Southern coastline	2.1; 3.1.1; 3.1.3; 6.2

FPN

IWC common name	IWC recommended scientific name	Area/stock(s)	Items referred to
Southern right whale	<i>Eubalaena australis</i>	Península Valdés, Argentina	9

IBMPAS

IWC common name	IWC recommended scientific name	Area/stock(s)	Items referred to
Southern right whale	<i>Eubalaena australis</i>	Golfo San Matías	2.1.1
Bottlenose dolphin	<i>Tursiops truncatus</i>	Golfo San Matías	2.1.1, 4.3, 4.4, 8
Dusky dolphin	<i>Lagenorhynchus obscurus</i>	Golfo San Matías	2.1.1,
Common dolphin	<i>Delphinus delphis</i>	Golfo San Matías	2.1.1, 4.3, 4.4, 8
Killer whale	<i>Orcinus orca</i>	Golfo San Matías	2.1.2
Sei whale	<i>Balaenoptera borealis</i>	Golfo San Matías	2.1.2, 4.3, 4.4, 8

ICB/WCI

IWC common name	IWC recommended scientific name	Area/stock(s)	Items referred to
Southern right whale	<i>Eubalaena australis</i>	SW Atlantic, N Patagonia	2.1.1; 3.1.1; 4.3; 4.4; 6.3.1; 8; 9; 11.1; 11.2

CTH

IWC common name	IWC recommended scientific name	Area/stock(s)	Items referred to
Southern right whale	<i>Eubalaena australis</i>	Southern Patagonia	2.1.1, 2.2, 3.1
Sei whale	<i>Balaenoptera borealis</i>	Southern Patagonia	2.1.1, 2.2, 4.3, 8
Commerson's dolphin	<i>Cephalorhynchus commersonii</i>	Southern Patagonia	2.1.2, 2.2, 3.1.1, 4.1
Peale's dolphin	<i>Lagenorhynchus australis</i>	Southern Patagonia	2.1.2
Orca	<i>Orcinus orca</i>	Southern Patagonia	2.1.2

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Common name	IWC recommended scientific name	Area/stock(s)	Items referred to
Franciscana	<i>Pontoporia blainvillei</i>	Southern Buenos Aires Coast, Argentina.	3.1.1, 4.2, 4.4, 5, 7.3.2, 9, 11.1, 11.2.

2. SIGHTINGS DATA

2.1 Field work

2.1.1 Systematic

IBMPAS

Systematic sightings of bottlenose dolphin, dusky dolphin, common dolphin, and southern right whale were recorded from research boats along the San Matías Gulf (SMG) throughout the last year. Studies were conducted for recording data about the distribution, abundance, habitat use and behaviour of the above mentioned dolphins and whale species. The data were not analyzed yet and therefore we do not present the number and date of sightings.

ICB/WCI

Target species	Date	Area	No. of sightings	Contact person/institute and references
Southern right whale	September 8-9, 2008	Península Valdés, Argentina	633	V. Rowntree: ICB-WCI/OA and University of Utah - rowntree@biology.utah.edu

Aerial surveys of southern right whales off the coast of Peninsula Valdes, Argentina were conducted on September 8 and 9, 2008. The purpose of the surveys was to document the presence and distribution of southern right whales along the perimeter of the Peninsula and to identify individuals by photographing the callosity patterns on their heads.

Total southern right whales counted: 633 (including 207 calves), 6,800 photographs taken. Final results of photo-identification for the year 2008 not yet available.

Analyses of photographs in the right whale catalog of the Whale Conservation Institute / Instituto de Conservación de Ballenas is completed for the years 1971-2007.

CTH

Target species	Date	Area	No. of sightings	Contact person/institute and references
Southern right whale	July – August 2008	Southern Patagonia	23	CTH
Sei whale	Southern Patagonia San Jorge	sightings	7	CTH

2.1.2 Opportunistic, platforms of opportunity

IBMPAS

Primary species	Area	Data type/method	Collected by	Platform	Contact person/institute and refs
Sei Whale	SMG	Sightings	scientists	Research boat	G M Svendsen / M A Romero (IBMP)
Killer whale	SMG	Sightings	Fisherman	Artisanal fishing vessels	G M Svendsen / M A Romero (IBMP)

CTH

Primary species	Area	Data type/method	Collected by	Platform	Location of archive (if applicable)	Contact person/institute and refs
Commerson's dolphin	Southern Patagonia	sightings	Dedicated observer	Land	CTH	CTH
Peale's dolphin	Southern Patagonia	sightings	Dedicated observer	Land	CTH	CTH
Orca	Southern Patagonia	sightings	Dedicated observer	Land	CTH	CTH

2.2 Analyses/development of techniques

CTH

Target species	Date	Area	Methods/effort	Parameters/ factors measured	Contact person/institute; refs
Southern Right whale	July – August 2008	Southern Patagonia	Scanning	Distribution; sighting frequency	CTH
Southern Right whale	July – August 2008, January – February 2009	Southern Patagonia	Photo-ID	Stock size – comparison with other SRW areas	CTH
Southern Right whale	January 2009	Southern Patagonia	<i>Ad Libitum</i>	Distribution; sighting frequency	CTH
Commerson's dolphin	December 2008- January	Bahía San Julián	Focal group Photo-ID	Sightings frequency, group composition	CTH

	2009				
Sei whale	July - August 2008	Southern Patagonia	<i>Ad Libitum</i>	Distribution; sighting frequency	CTH

3. MARKING DATA

3.1 Field work

3.1.1 Natural marking data

ICB/WCI

Species	Feature	Area/stock	Calendar year/season/no, photographed	Catalogued (Y/N)	Catalogue total	Contact person/institute
Southern right whale	callosity pattern	SW Atlantic, N Patagonia	2008/spring/633	Y	2,573 individuals identified between 1971-2007, the year 2008 currently under analysis	V. Rowntree: ICB-WCI/OA and University of Utah - rowntree@biology.utah.edu

CTH

Species	Feature	Area/stock	No. photo-id'd	Catalogue (Y/N)	Catalogue total	Contact person/institute; refs
Southern Right whale	Head callosities pattern	Southern Patagonia	4	Y	7	CTH
Commerson's dolphin	Coloration pattern, scars	Bahía San Julián	3	Y	59	CTH

Species	Feature	Area/stock	No. photo-id'd	Catalogued (Y/N)	Catalogue total	Contact person/institute
Franciscana	Dorsal fin, flippers, fluke and body scars	Southern Buenos Aires Coast, Argentina.	7	Y	52	Luis Cappozzo; MACN María Fernanda Negri; María Victoria Panebianco; María Natalia Paso Viola / MACN

MACN-CONICET

3.2 Analyses/development of techniques

FVSA

Development and testing of a M-tag, suction cup attachment for studies of patterns of movements of southern right whales in Peninsula Valdés. The M-tag (multi porpouse digital tag) has a 3 axis sensor, hydrophones and digital camera enclosed. Testing of the maniouvering and attachment of the devices were successfully done during 2008 season.

IBMPAS

Photo ID by means of dorsal fin scars is being used in bottlenose's dolphins to study the capture / recapture history of the individuals identified. This data will provide information to develop in the

future capture-recapture models for the estimation of population parameters such as abundance, birth, mortality and emigration-immigration rates; as well as social structure and group dynamic.

4. TISSUE/BIOLOGICAL SAMPLES COLLECTED

4.1 Biopsy samples (summary only)

CTH

Species	Area/stock	Calendar year/ season - no. collected	Archived (Y/N)	No. analysed	Total holdings	Contact person/institute
Commerson's dolphin	Bahía San Julián	3	Y	0	27	CTH

4.2 Samples from directed catches (commercial, aboriginal and scientific permits) or bycatches

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Species	Area/stock	Tissue type(s)	No. collected	Archived (Y/N)	No. analysed	Contact person/institute
Franciscana	Southern Buenos Aires Coast, Argentina.	Skin, blubber and muscle samples, stomach content, intestine, gonads, kidney, liver, melon, pancreas, spleen, teeth, skeleton.	7	Y	7	Luis Cappozzo; María Fernanda Negri; María Victoria Panebianco; María Natalia Paso Viola / MACN

4.3 Samples from stranded animals

IBMPAS

4.3 Samples from stranded animals

Species	Area/stock	Tissue type(s)*	No. collected	Archived (Y/N)	No. analysed	Contact person/institute
Sei whale	San Matias Gulf	Liver, skin, blubber, stomach, intestine, kidney, gonads and skeleton.	1	Y	0	M A Romero / G M Svendsen (IBMP)
Bottlenose dolphin	San Matias Gulf	Liver, skin, blubber, stomach, intestine, kidney, gonads and skeleton.	3	Y	0	M A Romero / G M Svendsen (IBMP)
Common dolphin	San Matias Gulf	Liver, skin, blubber, stomach, intestine, kidney, gonads and skeleton.	6	Y	3	M A Romero / G M Svendsen (IBMP)

ICB/WCI

Species	Area/stock	Tissue type(s)*	No. collected
Southern Right whale	SW Atlantic, N Patagonia	baleen (56) spleen (6) callosity (2) brain (4) digestive contents (41) heart (6) gum (24) stomach (34) eye ball (8) blubber (20) feces (23) liver (39) aqueous humor (15) intestine (39) milk (1) eye lens (1) skin lesions (29) bone marrow (22) muscle (35) lymph node (3) urine (28) ovary-uterus (7) skin (65) lung (9) kidney (38) several tissues for hystopathology (50) testicle (9)	614 samples from 100 whales

CTH

Species	Area/stock	Tissue type(s)*	No. collected	Archived (Y/N)	No. analysed	Contact person/institute
Sei whale	Southern Patagonia	Skin, blubber	1	Y	0	CTH

4.4 Analyses/development of techniques

IBMPAS

The biological samples collected are used to age and sexual maturity determinations, parasites identification, diet analysis, and genetics studies of SMG's cetaceans. These studies are carried out jointly with Marine Mammal Laboratory (LAMAMA) at Centro Nacional Patagónico (CONICET) – Puerto Madryn, Chubut, Argentina

ICB/WCI

Southern right whale biopsy samples collected between 2003-2006 and tissue samples collected from whales that die and strand at Peninsula Valdes are being used for the following analyses:

Genetics: Sequencing of mtDNA control region to reveal different haplotypes and estimate genetic diversity, population genetic structure and gene flow in the Península Valdés southern right whales. DNA fingerprinting using microsatellite loci for individual identification, paternity assessment, estimation of population structure, gene flow and assessment of social systems.

Stable Isotopes analyses: ¹³C and ¹⁵N isotope ratios of the skin and baleen to estimate trophic level and geographic location of feeding areas of right whales.

A paper describing the first results of the combined analyses of genetics and stable isotopes was published in February 2009. See references.

Samples from necropsies are also being used to assess the health condition of the Península Valdés right whale population since 2003. Also see item 9.

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We are currently carrying out studies related to age determination, parasites, trophic and isotopic ecology, reproductive biology, physical and sexual maturity, and heavy metals pollutants of the Franciscana bycaught in different artisanal fishing gears of Southern Buenos Aires Province.

In addition, DNA studies are being conducting, preliminary, on southern stocks of this species of small cetacean, in order to contribute to the discrimination of Franciscana stocks along its distribution.

5. POLLUTION STUDIES

MACN-CONICET

During the last three years, we have determined the concentration of the following heavy metals from liver of Franciscanas: Ni, Zn, Cu, Cr, Pb and Cd.

The analyses were carried out with the support of the Chemistry Laboratory of the IADO (Instituto Argentino de Oceanografía, CONICET).

Currently, we continue determining heavy metals of new samples in liver and kidney, with the objective to include other metals in the analysis (Se and Hg), and to study samples of other tissues. We take also blubber samples with the aim to investigate organochlorines (PCBs and DDTs) concentration in this species.

The extraction protocol of heavy metals includes digestion with perchloric and nitric acids of each tissue samples. The concentrations are determined by an atomic absorption spectrophotometer.

6. STATISTICS FOR LARGE CETACEANS

6.3 Anthropogenic mortality of large whales for the calendar year 2008 or the season 2008/09

6.3.1 Observed or reported ship strikes of large whales (including non-fatal events)

FVSA

Whale species	Sex	No.	Date	Location	Vessel type	Speed	Fate	How observed	Contact person/ institute and refs
Southern Right whale	U	1	13/6/09	Bahía Nueva, Puerto Madryn, Chubut, Argentina (Piedrabuena Pier)	M	manoeuvring	D	Crew, people from the pier	Alejandro Arias, FVSA

ICB/WCI

Of the 100 southern right whales strandings examined in 2008 in Argentina, the cause of death was apparent in only two individuals.

One southern right whale was killed when it swam rapidly into the propellers of an Argentine Navy ship (M) as the ship was backing slowly (4 knots) from the pier in Puerto Madryn, Chubut Province, Argentina. The whale was killed instantly (D). Approximate location: 42° 45' 44''S 65° 01' 20'' W

The second whale was a 13m male that stranded dead (D) on the coast of Monte Hermoso, in the Province of Buenos Aires. This whale had sharp slicing wounds that extended linearly across its back that were probably caused by a ships' propellers although this has not been confirmed by specialists. No information about the vessel that caused the propeller wounds is available.

6.3.2 Fishery bycatch of large whales

The inclusion of this data was agreed by the Committee in 2004 (IWC, 2005a). If available, please use Latitude and Longitude for location. Indicate fate of whale (R = released alive, D = discarded dead or seriously injured, K = kept for sale or specimen), targeted fish species (e.g. tuna, herring, etc.). The Committee also agreed that types of fishing gear involved in bycatch should be documented (IWC, 2005a). **Please use the internationally recognised standard gear description codes from FAO (given in Appendix 1)**, although more detail can be supplied if known. More detailed information and illustrations of the different types of fishing gear can be found on the FAO/FIGIS website¹. Please also include any instances of entanglement in shark exclusion nets, which are another important source of bycatch. Please indicate how observed: M = records collected as part of a planned cetacean monitoring programme, F = records collected by onboard fishery monitoring scheme, V = records collected by fishermen through vessel logbooks, A = anecdotal reports from any reliable source, with a further distinction of DA if the latter were documented (e.g. photos, rescue teams etc.).

Whale species	Sex	No.	Date	Location	Fate	Targeted fish species	Gear	How observed?	Source or contact
Minke whale	F	1	17/3/06	54°14'N; 29°43'W	D	<i>Thunnus</i>	LLD	F	Same format as above
Comments: Entangled in gear, cut off and sank.									

7. STATISTICS FOR SMALL CETACEANS

7.3 Anthropogenic mortality of small cetaceans for the calendar year 2008

7.3.2 Fishery bycatch of small cetaceans

MACN-CONICET

Species	Sex	No.	Date	Location	Fate	Targeted fish species	Gear	How observed?	Source or contact
Franciscana	F M U	2 5 20	April 2008 / March 2009	Southern Buenos Aires Coast, Argentina: Necochea 38°37'S, 58°50'O; Claromec6 38°51'S, 60°04'O; Monte Hermoso 38°59'33"S, 61°15'55"O; Bahía Blanca 38°44'S, 62°14'O.	D	Shrimp, sharks, teleosts.	GNS TM	M, A	Luis Cappozzo; María Fernanda Negri; María Victoria Panebianco / MACN
Comments: Entangled in gear.									

8. STRANDINGS

IBMPAS

Species	No. strandings	No. post mortems	Contact person(s)/ Institute(s)	Contact email address(es)
Sei whale	1	1	M A Romero / G M Svendsen (IBMP)	romero.ale@gmail.com; guillesen@yahoo.es
Common dolphin	4	4	M A Romero / G M Svendsen (IBMP)	romero.ale@gmail.com; guillesen@yahoo.es
Bottlenose dolphin	3	3	M A Romero / G M Svendsen (IBMP)	romero.ale@gmail.com; guillesen@yahoo.es

ICB/WCI

The Program to Monitor the Health of the Right Whales at Peninsula Valdes, Chubut, Argentina began in 2003 with support from the US National Marine Fisheries Service. The program is a collaboration between local NGOs (non-governmental organizations), research centers, and governmental agencies. During its first six years, the Stranding Project has operated as a collaboration of the Wildlife Conservation Society (WCS), Whale Conservation Institute/Ocean Alliance (WCI/OA), Instituto de Conservación de Ballenas (ICB), Fundación Patagonia Natural (FPN) y Fundación Ecocentro.

An essential component of the Stranding Project is the Stranding Network which has greatly increased the speed and probability of receiving reports of stranded animals. The Network is composed of wildlife officers, fishermem, the local population, whale watch capitains, dive boat operators, tour-guides, boat captains, airplane pilots, scallop fishermen, researchers, non-governmental organizations and local authorities such as the Coast Guard. The Stranding Network has become the most efficient and rapid way to learn of stranded animals and thus fundamental to the operation of the Stranding Project. To compliment the Stranding Network, the Project's field team usually makes bi-weekly surveys of the beaches where the whales concentrate but because the Project does not have its own vehicle these surveys were made only occasionally in 2008. The Administrator of Península Valdés as a World Heritage Site invited the Stranding Project team to take part in five aerial surveys of the coast of PV in 2008 (3 in October, 1 in November and 1 in December). The aerial surveys allowed us to search portions of the coast that are inaccessible from land. Through these surveys, 16strandings were found that were not recorded previously, 14 in October and 2 in December.

Of the 100 animals that stranded in 2008, 64 (64 %) were reported by the Stranding Network and 36 (36 %) were found by the field team during surveys, 20 during surveys by truck and 16 by aerial surveys with the Administradora de Península Valdés.

Species	No. strandings	No. post mortems	Contact person(s)/ Institute(s)	Contact email address(es)
Southern right whale	100	100	Marcela Uhart / Wildlife Conservation Society and Victoria Rowntree / ICB-WCI/OA and University of Utah	<i>Victoria Rowntree</i> (rowntree@biology.utah.edu) <i>Marcela Uhart</i> (muhart@wcs.org)

CTH

Species	No. strandings	No. post mortems	Contact person(s)/ Institute(s)	Contact email address(es)
Sei whale	1	1	CTH	CTH

9. OTHER STUDIES AND ANALYSES

FVSA

Southern right whales and vessels patterns of use of the Bahía Nueva in front of the city of Puerto Madryn. Census from coast, tracking of whales and ships, GIS integration, interviews and social surveys to the commercial and nautical social sector of the community of Puerto Madryn.

MACN-CONICET

The incidental mortality of Franciscana in fishing gears is being estimated for the southern coast of Buenos Aires in order to supply data to the total bycatch of the whole Province.

Since 1998, we have worked in cooperation with artisanal fishermen and Prefectura Naval Argentina (Coast Guard of Argentina) in order to register data on incidental mortality, fishing gears and fishing effort. We estimated annual mortality and catch per unit of effort (CPUE), for each locality surveyed. Additionally, the carcasses of entangled dolphins are recovered for biological systematic studies, as described before.

The incidental mortality of the surveyed area, as well as the biological parameters studied, are compared with data of adjacent stocks. This will allow to integrate the available information of the population structure with the impact of fisheries of the entire South Atlantic coast.

9.1.1 Field work

FPN

Study area: Puerto Pirámides (42°34'40" S; 64°16'12" O), Chubut, Argentina. This is the only place in the country that the whale watching by boat is allowed for the tourist activity.

Date: June to December 2007, coincident with whale watching season.

Survey: The observations were carried out from panoramic views, located in the cliffs, near town. We used telescopes (15-45X), under good tide conditions. The distance between the vessel and the whales or group of whales ("the target") was estimated as a function of the mean length of an adult whale (around 12 – 14m). The sampling consisted on a focal observation of a whale watching vessel. We recorded every 5 minutes the activity of the boat: how the vessel approaches the target and the maneuver done in the vicinity of the animal/s, and the behavior of the whales: approaching, fleeing or indifference.

Abstract:

Target species	Date	Area	Objective
Southern right whale	June – December 2007	Puerto Pirámides Bay	To assess the behavior of the whales in relation to the approaching and stay of the whale watching vessels. To identify the target of the whale watching.

9.1.2 Results

The whale watching trips last on average 77 ± 20 minutes. The vessels watch between 1 and 6 groups of whales with a mode of 2. The men stay time with each group is 15.21 ± 12 minutes (rank 1 to 60 minutes).

In 13% of the interactions we did not observe an approaching or fleeing reaction of the whales. In the remaining 87% at least in one occasion the whales reacted running away or approaching to the vessels (N= 189).

The progressive approaching is the most used maneuver for all the companies (63% of the total), followed by the direct approach (25%) and the waiting for a response (12%). The direct approach was the maneuver that presented higher frequency of fleeing of the whale (48%). The waiting of response modality was the one that produced less fleeing events (12.5).

The reactions of the whales to the whale watching maneuvers were ordered, a priori, in a decreasing perturbation gradient: persecution, vessel to whale to and neutral. We observed that the percentage of fleeing behavior decreased in relation to the proposed gradient. While the approaching behavior increased according to the gradient. The proportion in the response indifference presented a minimum in the maneuver persecution, and it remained less variable in the rest of the maneuvers.

Target of the watching: 60% of the whale watching was done on mothers with calves. At the beginning of the season the vessels frequently watched single individuals, but at the end of the season the watching was almost exclusively on females with calves.

Between July and November, from 10 am to 6 pm, we carried out 125 scanning instant samplings. The presence of vessels in the watching zone was continuous. We recorded that in only 1.6% of the samplings there were not any vessel.

We can conclude that the different modalities of approaching the whales and maneuvers in the whale watching lead to different responses by the whales

IBMPAS

Our studies were focused in the assessment of the distribution, habitat use, interaction with fisheries and ecological role of marine mammals at SMG. These studies began in 2006 as part of an integral study of the SMG's ecosystem, as a basis to planning and implement conservation and management measures. Marine mammals had not been object of systematic studies previously. For that reason, the current results represent the data base necessary to deepen specific ecological aspects, for example trophic relations among top predator and between these and fisheries; and relation of marine mammal's distribution with ocean processes.

ICB/WCI

Gull attacks on right whales. Kelp gulls at Península Valdés feed on the skin and blubber of live southern right whales and have a negative effect on the behavior of the whales. Researchers from the Instituto de Conservacion de Ballenas (ICB) and the Whale Conservation Institute / Ocean Alliance (WCI/OA) have made observations of the interactions between kelp gulls and southern right whales annually since 1995. In 2008, we followed 242 mother/calf pairs and recorded 1,065 gull attacks. The attacks are recorded as the number of 5-minute intervals of observation that included a gull attack on the mother/calf pair that is being followed. Results showed that mother/calf pairs were attacked in 26% of the 5-minute intervals they were under observation in Golfo San José and 25% of the intervals in Golfo Nuevo, compared to 17% in 1995. Monitoring and controlling the gull harassment problem has become a joint project with other NGOs and local governmental officials in Chubut Province.

A summary of data collected from Southern right whale strandings at Peninsula Valdes, Argentina from 2003-2008. From 1971 through 2006 calf mortalities (number of stranded calves per year) increased at a rate similar to the number of calves counted each year during aerial surveys, but spikes in calf deaths in 2003, 2005, and especially 2007 and 2008 have caused a significant increase in the rate of calf deaths. The results of this research for the years 2003-2007 were presented during the annual meeting of the IWC Scientific Committee in Santiago, Chile, in June 2008. An update of these data to include the unusual mortality event of 2008 will be presented at the Annual Meeting in Madeira, Portugal, in June 2009.

Isotopic and genetic evidence for culturally inherited site fidelity to feeding grounds in southern right whales (*Eubalaena australis*). Genetic and stable isotope analyses of 131 skin biopsies collected

from southern right whales on their nursery ground at Península Valdés showed a large number of mitochondrial haplotypes and a broad range of isotopic values. Carbon isotopic signatures vary with latitude and have been used to identify feeding locations of birds and mammals. The broad isotopic range in the right whale skin samples indicates that they use a wide range of feeding areas. Genetic and isotope markers analyzed together show that isotopic values are more similar than expected among individuals sharing the same mitochondrial haplotype, suggesting the Patagonian right whales show culturally (maternally) inherited site fidelity to their feeding grounds. The results of this research were published in the Journal of Molecular Ecology in 2009.

Assesment of acoustic adaptations for noise compensation in marine mammals. The first concern raised about the effects of anthropogenic sound on marine mammals involved the large number of lower intensity noise sources from commercial shipping. Since the alarm was first raised, shipping has been increasing steadily as demand for transport has grown, especially in the northern Hemisphere. There is evidence that low-frequency ocean ambient noise levels are also increasing. Distant shipping has been suggested as the most likely source for the observed increases in low-frequency noise. Currently, the acoustic environment of the South Atlantic is likely closer to the natural pristine environment than the North Atlantic given the lower level of commercial activity. However, steady increase in shipping and oil exploration activities is to be expected in the South Atlantic. Therefore, studying the behavioral response of Southern right whales to noise now, before noise levels increase further, is critical to assess the potential impacts of future noise increases. Dr Susan Parks (Pennsylvania State University) visited Península Valdés in September 2008 to scout the area and to make the first recordings of ambient noise in Golfos Nuevo and San José and right whale vocalizations for this study in collaboration with researchers Mariano Sironi and Vicky Rowntree. We hope to conduct two full field research seasons to collect data for this study in 2009 and 2010.

11. PUBLICATIONS

11.1 Published or 'In Press' papers only

FVSA

Pérez, A.D., y Guzmán J.R. (2008). Whales and the city: A southern right whale ship strike scenario in Peninsula Valdes? WC Scientific Committee Meeting, Santiago, Chile, June 2008 SC60/BC4

ICB/WCI

Valenzuela, Sironi, Rowntree, Seger. 2009. **Isotopic and genetic evidence for culturally inherited site fidelity to feeding grounds in southern right whales (*Eubalaena australis*)**. *Molecular Ecology* 18(5): 782-791

CTH

Belgrano J., M. Iñíguez, J. Gibbons, C. García & C. Olavarría. 2008. South-west Atlantic right whales distribution nearby the Magellan Strait. *Anales del Instituto de la Patagonia* (Chile) 36 (2): 69-74

Bolaños-Jiménez, J., E. Hoyt, M. Iñíguez and A. Villarroel-Marín. (in press). A note on the status of dolphin watching on the "tonina del lago" or "Guiana dolphin" (*Sotalia guianensis*) in southern Lake Maracaibo, Venezuela. *The Latin American Journal of Aquatic Mammals*.

Cipriano, F., M. Hevia & M. Iñíguez. (in press). Genetic divergence over small geographic scales and conservation implications for Commerson's dolphins (*Cephalorhynchus commersonii*) in southern Argentina. *Marine Mammal Science*.

Hoyt, E. e Iñíguez, M. 2008. El Estado del Avistamiento de Cetáceos en América Latina. WDCS, Chippenham, UK; IFAW, East Falmouth, EE.UU.; y Global Ocean, London, 60pp.

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Appendix 1. FOA fishing descriptions and codes

FAO FISHING GEAR CATEGORIES:		FALLING GEAR	
SURROUNDING NETS		Cast nets	FCN
With purse lines	PS	Falling gear (not specified)	FG
One-boat operated purse seines	PS1	GILLNETS AND ENTANGLING GEAR	
Two-boat operated purse seines	PS2	Set gillnets (anchored)	GNS
Without purse lines (lampara)	LA	Driftnets	GND
SEINE NETS		Encircling gillnets	GNC
Beach seines	SB	Fixed gillnets (on stakes)	GNF
Boat seines	SV	Trammel nets	GTR
Danish seines	SDN	Combined gillnet-trammel nets	GTN
Scottish seines	SSC	Gillnets and entangling gillnets (not specified)	GEN
Pair seines	SPR	Gillnets (not specified)	GN
Seine nets (not specified)	SX	TRAPS	
TRAWLS		Stationary uncovered pounds nets	FPN
Bottom trawls	TBB	Pots	FPO
Beam trawl	OTB	Fyke nets	FYK
Otter trawls (side or stern)	PTB	Stow nets	FSN
Pair trawls	TBN	Barriers, fences, weirs, etc	FWR
Nephrops trawls	TBS	Aerial traps	FAR
Shrimp trawls (not specified)	TM	Traps (not specified)	FIX
Midwater trawls		HOOKS AND LINES	
Otter trawls (side or stern)	OTM	Handlines and pole-lines (hand operated)	LHP
Pair trawls	PTM	Handlines and pole-lines (mechanised)	LHM
Shrimp trawls	TMS	Set longlines	LLS
Midwater trawls (not specified)	TM	Drifting longlines	LLD
Otter twin trawls	OTT	Longlines (not specified)	LL
Otter trawls (not specified)	OT	Trolling lines	LTL
Pair trawls (not specified)	PT	Hooks and lines (not specified)	LX
Other trawls (not specified)	TX	GRAPPLING AND WOUNDING	
DREDGES		Harpoons	HAR
Boat dredges	DRB	HARVESTING MACHINES	
Hand dredges	DRH	Pumps	HMP
LIFT NETS		Mechanised dredges	HMD
Portable lift nets	LPN	Harvesting machines (not specified)	HMX
Boat-operated lift nets	LNB	MISCELLANEOUS GEAR	MIS
Shore operated stationary lift nets	LNS	RECREATIONAL FISHING GEAR	RG
Lift nets (not specified)	LN	GEAR NOT KNOWN OR NOT SPECIFIED	NK
		SHARK CONTROL NETS	NSC
		DERELICT FISHING GEAR	