Agenda Item 2 Annual National Reports 2009

Document 2-09 rev.1

Annual National Report Sweden

Action Requested

- Briefly present highlights from reports (max. 5 minutes)
- Take note of the information submitted
- Comment

Submitted by Sweden

NOTE:
IN THE INTERESTS OF ECONOMY, DELEGATES ARE KINDLY REMINDED TO BRING THEIR OWN COPIES OF DOCUMENTS TO THE MEETING

Revised Format for the ASCOBANS Annual National Reports Dnr 121-2103-10 Nh

General Information

Name of Party: Sweden	Period covered: 2009-01-01—2009-12-31
	Date of report: 2010-03-31

Report submitted by:	
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Any changes in coordinating authority or appointed member of advisory committee	

List of national authorities, organizations, research centres and rescue centres active in the field of study and conservation of cetaceans, including contact details

Naturhistoriska Riksmuseet, Anna Roos, anna.roos@nrm.se

Naturhistoriska museet, Anders Nilsson, anders.nilsson@gnm.se

Kolmårdens djurpark , Mats Amundin; mats.amundin@kolmarden.com

Fiskeriverket, Sara Königsson; sara.konigsson@fiskeriverket.se

NEW Measures / Action Towards Meeting the Objectives of the Conservation and Management Plan and the Resolutions of the Meeting of Parties

Please feel free to add more rows to tables if the space provided is not sufficient.

A. HABITAT CONSERVATION AND MANAGEMENT

1 Direct Interaction with Fisheries

Investigations of methods to reduce bycatch

Cod pots

A potential alternative fishing gear to the cod gillnet fisheries in the Baltic is the two-chambered pot. The Swedish Board of Fisheries has investigated the catch of the Norwegian cod pots when used in a commercial fishery. The cod pots catch efficiency over the fishing season 2009 has been investigated and compared to the gillnet fisheries in the same area.
However, there are many aspects regarding the use of pots which needs to be taken under consideration. The pot needs to be selective both with regard to non commercial fish species, small fish and marine mammals and birds. There is also a need to improve catch efficiency of the pots. This can be done by modifying the pots entrance, adding a visual stimuli or just using more long lasting bait. Studies have been carried out to investigate if visual stimuli can increase the catch. The Swedish Board of Fisheries have also studied the effect of escape windows for the undersized cod.

Implementation of methods to reduce bycatch

Push-up traps

The pike perch fisheries in the Baltic sea have suffered from seal damages for a long time. In 2008 pike perch/white fish traps were being introduced as an alternative to gill nets with the purpose of reducing seal damage. A certain percent of the cost of the trap will be funded by the government when fishermen are investing in the fishing gear. The traps used are so called push-up traps. They have been a success in Sweden in the salmon and white fish fisheries. In the salmon fisheries the traps mostly replace older traps but in the white fish and pike perch fisheries the traps replace nets and therefore reduce net effort.

Pingers

Implementation of pingers: Currently at least 9 fishermen have purchased pingers, using them in the waters covered by the regulation 812. The fishermen on the west coast of Sweden believe the pingers are effective in reducing by-catch of harbour porpoises. However, there will be an increase in numbers of by-caught harbour seals.

In addition, please attach or provide link to your country's Report under EC Regulation 812/2004.

2 Reduction of Disturbance

2.1 Anthropogenic Noise

In 2008 a monitoring study of noise from leisure boats was carried out. Two sites, known to have intensive leisure boat traffic, were visited for one week each: Sandhamn in the outer Stockholm archipelago and Västervik, a coastal town some 200 km south of Stockholm.

A hydrophone test rig was custom made for the project. It turned out to work fine, after some adjustment of the anchoring system. The data acquisition system also worked precisely as intended, and proved to be very reliable.

The first site, at the ship lane leading to Sandhamn, was visited in week 29, 2008. The data acquisition resulted in two different data sets: 1) remote recordings of boats passing in the ship lane, with photographs of each boat to reveal type and approximate speed, and 2) recordings of boats passing through the hydrophone gate, with detailed info on boat mark, engine power, propeller type and average cruising speed. The latter allowed for source level to be calculated. Also the use and type of echo sounder was asked for.

A total of 176 boats were recorded on the Sandhamn site, of which 8 ran through the gate. The vessels run through the gate ranged from medium sized cabin boats to jetskis. All but 2 of the 176 were photographed. One of the boats running through the gate failed to provide info on its specifications and speed. For the remotely recorded boats, the estimated distance to the hydrophone gate ranged from 50 to 300m.

On the second site, visited in week 31, 2008, the gate was deployed in between two ship lanes leading to the Västervik town. Like at Sandhamn, two different data sets were acquired, remote recordings of boats passing by in the two ship routes, and recordings of boats passing through the gate.

A total of 179 boats were recorded on the Västervik site, of which 10 run through the gate. One of the latter was considered too big to pass through the gate; instead it was run parallel to the gate, as close as possible. For the remotely recorded boats the distance to the gate varied from 50m to 300m.

So far the acoustic data has not been analyzed. Although the basic analysis of software has been developed, an automated routine is being developed to facilitate the processing of this large data set. Also the source tracing algorithms are still to be refined and tested in order to make the source level calculations possible. These algorithms include autocorrelation in order to calculate time of arrival differences between the five hydrophones in the gate. This is more complicated to do with continuous noise, compared to e.g. sonar clicks or frequency modulated dolphin whistles. So far the analysis indicate that the frequency spectrum of the noise extends to above 100 kHz. The source levels, as expected, was the highest from the outboard and semi-outboard boats, with fast revolution propellers. Also the jetskis were very noisy. An unexpected finding was that a large proportion of the boats had continuously running echosoundes, many of which transmitted at frequencies audible to marine mammals.

2.2 Ship Strike Incidents

Please list all known incidents and for each, provide the following information:

Date	Species	Type of injury	Fatal injury (Yes / No)	Type of vessel (length, tonnage and speed)	Location (coordinates)	More information: (Name / Email)
1 april 2009	Harbour porpoise	Probably killed by a boat propeller	yes	?	Lat N58 56, 124 Long E11 8, 547	Anna.roos@nrm.se

2.3 Major Incidents Affecting Significant Numbers* of Cetaceans

Sweden has no major incidents to report

Date	Location	Type of incident	Further Information

**Two or more animals*

2.4 Pollution and Hazardous Substances

The Museum of Natural History in Stockholm have initiatied a 3-year study on several contaminants in harbour porpoises from Swedish waters. The study is funded by the SEPA. The first results will be available within a year.

2.5 Other Forms of Disturbance

Noting to report

3 Marine Protected Areas for Small Cetaceans

After the assessment by the EU Commission of the Natura 2000 network in the Baltic and Atlantic regions, SEPA has been commissioned to report to the government of possibilities to add harbour porpoise to the species list in some existing sites as well as considering designating new ones on the west coast of Sweden, pending the results of the survey in Skälderviken. At the moment there are three Natura 2000 sites with harbour porpoise. The sites are Stora Middelgrund, Vrångöskärgården and Koster-Väderöfjorden.

B. SURVEYS AND RESEARCH

4.1 Overview of Research on Abundance, Distribution and Population Structure

Please provide an brief summary of (and reference to) any national work.

A Life Nature application for the SAMBAH project was approved and the Grant Agreement was signed in November 2009 by Kolmårdens Djurpark as the Coordinating Beneficiary. This project is running over 5 years (2010-2014), and aims at producing an estimate of the total abundance and distribution of harbour porpoises in the Baltic. Three of the countries around the Baltic (Finland, Poland and Denmark) are associated Beneficiaries, whereas the Baltic States will be subcontractors to Sweden. The project is based upon data from passive acoustic porpoise echolocation loggers, which will be kept in operation during 2011 and 2012. This data will be used as input to state of the art population density statistics, and subsequently allow for habitat modelling.

The abundance of harbour porpoise has been investigated in “Skälderviken”, a bay on the south western coast of Sweden. PCL:s Porpoise click loggers were being used. The fishing effort of gillnets in the same areas was surveyed and will be compared to the porpoise abundance. If the results show a high abundance of harbour porpoise, Sweden will consider designating an MPA for harbour porpoise in the area.

4.2 New Technological Developments

Nothing to report

4.3 Other Relevant Research

Nothing to report

C. USE OF BY-CATCHES AND STRANDINGS

5 Post-Mortem Research Schemes

Contact details of research institutions / focal point	Anna Roos, Dep of Contaminant research, Swedish Museum of Natural History, PO Box 50007, SE 104 05 Stockholm. Anna.roos@nrm.se
Methodology used (reference, e.g. publication, protocol)	We follow a common protocol made for cetaceans
Collection of samples (type, preservation method)	Skin, blubber, kidney, muscle, liver, brain, lung, spleen, teeth etc are taken and stored frozen. Also if some organs are stored in formalin.
Database (Number of data sets by species, years covered, software used, online access)	We use a specially formed database, in MSQL. But older data is still also in Excel-sheets, since 1960s. No online access yet.
Additional Information (e.g. website addresses, intellectual property rights, possibility of a central database)	The museum also host a web page where the public can report live porpoises. http://www.nrm.se/tumlare It will be translated to English shortly.

5.1 Number of Necropsies Carried out in Reporting Period:

Species	**Recorded cause of death**
Harbour porpoise 21 individuals were sampled at SMNH during 2009: 17 of them died in 2009, 2 in 2008 and 2 in 2007. Of these, 10 carcasses were sent to SMNH for necropsy, the rest were only samples or parts of and were sent to the SMNH so it was not possible to do a full necropsy of them.	At least 4 individuals had drowned, one emancipated newborn calf was shot, and the rest were found dead with unknown cause of death. Several of them have probably drowned but were in such a state (rotten) that it was not possible to say. One porpoise was probably killed by a boat.

Please provide any other relevant information on post-mortem / stranding schemes.

One female, probably drowned, was very old. She had at least 10 scars in ovaries from previous pregnancies. Also, one female was pregnant.

D. LEGISLATION

6.1 Relevant New Legislation, Regulations and Guidelines

In 2009, 3 MPA :s were established along the west coast of Sweden applying restrictions regarding fisheries. On of these , in the south of Kattegatt, is a large area where there are varying fisheries regulations in different zones. In certain zones there is total closure of all fisheries all year round. In this area, harbour porpoises are common. Other areas with restrictions of the fisheries are also established further north. In 2010 another 3 MPA:s with fishery restrictions will be established in the Baltic Sea.

In 2009 Sweden´s first marine national park was established in the Koster Archopelagio in Skagerakk. Certain regulations will apply in the use of leisure boats as well as fisheries.

E. INFORMATION AND EDUCATION

7.1 Public Awareness and Education

The day of the harbour porpoise is celebrated every year through exhibitions and presentations at Havets Hus in Lysekil.

A new brochure was produced by SEPA in the autumn 2009. The aim of this production is to rise awareness of the general public as well as encouraging people to report sightings and stranded of bicaught harbour porpoises to the Swedish Museum of Natural History in Stockholm (SMNH). The brochure will be distributed to ferry-companies, birdwatchers, boat-clubs etc. in the spring.

Since a group of porpoises were spotted in the archipelago of Stockholm a press release from SMNH received a lot of attention. Porpoises in the central Baltic are spotted every year but this was a group of several individuals, and that is unusual.

POSSIBLE DIFFICULTIES ENCOUNTERED IN IMPLEMENTING THE AGREEMENT

Please provide any relevant information.

Please return this form, preferably by e-mail, to:

UNEP/CMS/ASCOBANS Secretariat
UN Campus
Hermann-Ehlers-Str. 10
53113 Bonn
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Tel: +49 228 815 2416
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Email: ascobans@ascobans.org

Dnr 121-2311-10 Nh

Fisheries statistics from Sweden

(S Königson)

1. Bottom set gillnets

Type of fishery Bottom set gillnet

Target species Varied species

Reporting period 2009

Fishing season Year round depending on species

Type of statistics Catch per area and gear type from loggbook

Fishing areas ICES III a,b,c,d

Number of vessels 581

Total effort unit m of net*hours

DIVISION	Totalt
3AN	23 147 750
3AS	84 429 380
3B	198 555 420
3C	96 000
3DN	21 803 300
3DS	1 182 154 890
Totalt	1 510 186 740

Catch unit kg

SPECIES	3AN	3AS	3B	3C	3DN	3DS	Total
Eel						7 497	7 497
Brill	1 090	11 858	634			250	13 833
Catfish	0	0	0				0
Rockfishes	2 895	517	16				3 427
Bullheads sculp					43	20	63
Herrings	420						420
Cod	37 189	8 886	261 340	225	34 092	2 737 313	3 079 045
Conger Eel	7						7
Edible crab	13 055	18 798	151				32 004
Dab	141	10 458	1 880			3 516	15 995
Spurdog / spiny dogfish	48 505	156	3			4	48 668
Eel	7		4		317	687	1 015
Bream		0			1 763	1 321	3 084
Burbot					450	243	692
Flounder	719	18 606	36 885		289	91 313	147 812
Perch			213		51 767	13 397	65 376
Pike					10 625	11 534	22 159
Zander (Pikeperch)					17 243	5 975	23 218
Roach							
Vendace (Cisco)					23 984		23 984
Garfish	10		300			75	385
European Eel						192	192
Grey Gurnard	23	179	70				272
Haddock	82	59	225			6	372
Halibut	17	215					232
Herring	118 069	13 378	887 657		845 694	131 612	1 996 409
Hake	305	610	2			0	917
Stone King Crab	7						7
European lobster	2	55	1				58
Lemon Sole	62	9 402	195				9 659
Ling	561	50	36				647
Lumpfish	2 663	17 598	55 446			442	76 149
Mackerel	129 065	23 452	53			17	152 587
Monkfish	451	2					453
Four spined sculpin					46		46
Thick-lipped Mullet		7	455				462
Bonefish	499	101	1 076		23 748	87 586	113 010
Norway lobster	56	5					61
Plaice	9 065	37 578	42 326	75		41 651	130 694
Saithe	13 732	30	8			6	13 776
Pollack	18 395	2 244	214				20 853
Red-Fish	2						2
Salmon		10	156		105	5 293	5 564
Skates, rays		8					8
Smelt					114		114
Sole	279	30 465	413			79	31 236
Sprat	3 945				1 400	75	5 420
Seal		143	2		68	2	215
Rainbow Trout					124	7	131

Trout	3	32	96	5 583	1 985	7 698
Turbot	225	14 829	1 264	28	26 377	42 722
Unknown Catches	0	0	0	0	0	0
Tusk	194				1	194
Greater Weever	24	508				532
Whitefish, Houting, Powan	80			73 172	21 210	94 461
Whiting	158		451		3 879	4 488
Witch	1 085	88				1 173
Porbeagle			25			25
Grey mullets			0			0
Northern pink shrimp	0		0			0
Rabbit Fish	88					88
Poor cod					0	0
Twaite Shad					60	60
Squid	3					3
Horse Mackerel	0		1			1

Discard 42.8 ton of fish. No harbour porpoise recorded in logbook.

2. Driftnet

No driftnet fisheries carried out.

3 **Trawling**

Type of fishery	bottom otter trawl and pelagic trawls
Target species	sprat, herring, sandeel, cod …
Reporting period	2009
Fishing season	Year round
Type of statistics	catch per area and type of gear from loggbook
Fishing area	III a,b,c,d and IV a,b
Number of vessels	298
Total effort	unit trawling hours

DIVISION	Totalt
3AN	114 003
3AS	35 469
3B	10
3C	0
3DN	7 563
3DS	48 316
4A	4 062
4B	4 139
Totalt	213 562

Catch unit kg

SPECIES	3AN	3AS	3B	3C	3DN	3DS	4A	4B	Total
Blue Ling	0								0
Brill	7 718	11 476				90	0	0	19 284
Catfish	0	0					0	0	0
Rockfishes	3 484	1 824					574	8 707	14 589
Herrings						0			0
Cod	384 869	44 327	2 257			8 472 410	54 225	232 865	9 190 953
Conger Eel	8								8
Edible crab	636	425							1 061
Cuttlefish	2	0					0	0	2
Dab	257	899				395	0	0	1 551
Spurdog / spiny dogfish	14 870	16 841				0	2	20	31 733
Eel	12	4				0			16
Bream		0							0
Flatfishes	16	39					90		145
Flounder	938	12 215	10			43 397	40		56 600
Perch					480				480
Ruffe					400				400
Vendace (Cisco)					936 995				936 995
Tope								0	0
Garfish	19								19
Greenland Halibut	0								0
Grey Gurnard	204	2 339					0	450	2 993
Haddock	147 783	18 482				3	25 808	102 944	295 020
Halibut	5 651	1					378	590	6 620
Herring	10 896 222	3 748 409		85 000	4 093 898	54 571 088	17	2 009 000	75 403 634
Hake	38 891	5 864				5	16 828	12 299	73 887
Horse Mackerel									
Stone King Crab	41	9							50
European lobster	18	0							18
Lemon Sole	3 745	2 186					155	1 521	7 606
Ling	20 192	499					5 907	4 939	31 537
Lumpfish	1 738	12					420	120	2 290
Mackerel	342	144				3 800	2 170 000	400	2 174 685
Megrim	5								5
Monkfish	40 702	238					20 572	6 095	67 607
Bonefish	20 160	8 619			2 125	878	14 608	8 940	55 330
Norway lobster	604 910	450 606				0	2 306	30	1 057 851
Octopuses	5	2							7
Plaice	82 499	47 204	15			80 841	0	744	211 303
Saithe	525 901	3 492					219 380	594 613	1 343 386
Pollack	14 704	2 057					7 733	22 829	47 323
Northern pink shrimp	1 960 315	197 859					168 619	450	2 327 243
Rose Fish (Beaked Redfish)	0								0
Red-Fish	26	0					77		103
Red-fish (Norway Haddock)								0	0
Salmon						1 827			1 827
Sandeels	526 000						110 000	13 764 000	14 400 000
Skates, rays	1 773	73					147	0	1 993
Sticklebacks						5 000			5 000
Sole	1 736	4 379							6 115
Sprat	123 000	116 015			1 228 500	122 055 935		0	123 523 450
Squid	1 495	544					1	40	2 080
Seal					302				302
Trout						63			63
Sand Eel	0					0	0	0	0

Tub Gurnard	0							0
Turbot	904	1 167			7 774	0	103	9 947
Unknown Catches	0	0			0	0	0	0
Tusk	710					296	0	1 006
Greater Weever	122	959 059						959 181
Blue Whiting	3 107							3 107
Whitefish, Houting, Powan		9		2 595	315			2 919
Whiting	18 335	15 092	5		40 897	3 980	430	78 738
Witch	149 503	923				5 165	330	155 921
Greenland shark		400						400
Three-spined Stickleback					10 000			10 000
Rabbit Fish	4							4

Discard of fish 47.6 ton, no harbour porpoises reported bycaught