Annex E

Status Updates on DNA Registries

Appendix 1

STATUS OF THE ICELANDIC WHALE DNA REGISTER

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Practical arrangements regarding the establishment of the Icelandic DNA register were concluded in 2007. The Marine and Freshwater Research Institute, Reykjavik, is responsible for the establishment and maintenance of the registry that is of the same format as the Norwegian DNA registry. An ORACLE database has now been created and contains all genotyped individuals information as well as tissue collected ID of individuals collected but not genotyped. In parallel, a DNA tissue bank has been achieved and is now fully functional.

Table 1 gives the present status of the registry. Samples from all the common minke whales landed as a part of the Icelandic research program (2003-07) and recent commercial catches (2008-17), as well as from commercial North Atlantic fin whale catches have been genotyped and information stored in the database (note that two hybrid blue-fin were caught in 2018).

Footnote number:	1	2	3	4	5	6	7	8	9	10	11	12
Species/year	Туре	No. whales	No. duplicates	No. missing	No. lab problem	No. mtDNA	%mtDNA	No. msat	%msat	Sex analysed	% sexed	Note
NA minke whale 2003-07 2008-17	SP C	189 437	0 0	0 0	0 0	189 379	100 89	189 382	100 88	189 382	100 89	-
NA fin whale 2006-18	С	834	0	0	0	834	100	834	98	834	100	-

¹Key to sample types: SP=special permit catch, C=commercial catch, BC=bycatch, ST=stranding.

²Number of whales that potentially entered by the previous years and enters (new year) the markets.

³Number of occurrences (tissues) sample switching on board the vessels as detected by comparison of genetic profiles.

⁴Number of individuals for which tissue samples are missing for reasons other than sample switching.

⁵Genetic laboratory not able to obtain microsatellite profiles mtDNA haplotypes from tissue samples.

⁶Number of samples analysed for mitochondrial control region.

⁷% of total samples analysed for mitochondrial control region.

⁸Number of samples analysed for microsatellites.

% of total samples analysed for microsatellites.

¹⁰Number of samples analysed for sex.

¹¹% of samples analysed for sex.

¹²Other problems or information.

Appendix 2

AN UPDATE OF THE NORWEGIAN MINKE WHALE DNA REGISTER (MAY 7, 2020)

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Footnote number:	1	2	3	4	5	6/13	7	8	9	10	11	14	13	12
Species/year	Туре	No. whales	No. duplicates	No. missing	No. lab problem	No. mtDNA	%mtDNA	No. msat	%msat	Sex analysed	% sexed	SNP	% SNP	Note
NA minke whale	_				_									
1997-2018	С	12,192	116	80	3	10,652	87	12,109	99	12,109	99	1,457	12	-
2019	С	427	1	2	0	0	0	425	100	425	100	425	100	-

¹Key to sample types: SP=special permit catch, C=commercial catch, BC=bycatch, ST=stranding.

²Number of whales that potentially entered by the previous years and enters (new year) the markets.

³Number of occurrences (tissues) sample switching on board the vessels as detected by comparison of genetic profiles.

⁴Number of individuals for which tissue samples are missing for reasons other than sample switching.

⁵Genetic laboratory not able to obtain microsatellite profiles mtDNA haplotypes from tissue samples.

⁶Number of samples analysed for mitochondrial control region.

⁷% of total samples analysed for mitochondrial control region.

⁸Number of samples analysed for microsatellites.

⁹% of total samples analysed for microsatellites.

¹⁰Number of samples analysed for sex.

 $^{\rm 11} \rm \%$ of samples analysed for sex.

¹²Other problems or information. ¹³Discontinued starting from 2016.

¹⁴Started in 2016.

Appendix 3

AN UPDATE OF THE JAPANESE DNA REGISTER FOR LARGE WHALES

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The status of the Japanese DNA register for large whales was presented and discussed during the 2005 IWC SC meeting (IWC, 2006). Since then, the number of genetic samples and the number of individuals analysed and registered have been reported to the IWC SC annual meetings. The annual reports include information of whales taken by the scientific whaling (JARPN/JARPNII and NEWREP-NP) and by the commercial whaling in the North Pacific, in the Antarctic (JARPA/JARPAII and NEWREP-A), and from bycatches. The most recent full description of the protocol used by the Institute of Cetacean Research for the genetic analyses in the context of the IWC guidelines was presented by Kanda *et al.* (2014). The update of the Japanese DNA register for large whales till 2019 is as follows. SP: special permit catch, CW: commercial whaling and BC: bycatch.

Footnote number:	1	2	3	4	5	6	7	8	9	10	11	12
		No.	No.	No.	No. lab	No.				Sex		
Species/year	Туре	whales	duplicates	missing	problem	mtDNA	%mtDNA	No. msat	%msat	analysed	% sexed	Note
North Pacific minke	whale											
1994-2018	SP	2,978	0	0	8	2,970	99.73	2970	99.73	2978	100.00	
2019	SP	, 79	0	0	0	79	100.00	79	100.00	79	100.00	
2019	CW	44	0	0	0	44	100.00	44	100.00	44	100.00	
2001-18	BC	2,259	0	26	2	2,259	100.00	2231	98.76	2229	98.67	
2019	BC	104	0	0	0	104	100.00	104	100.00	104	100.00	
North Pacific sei what	ale											
2002-18	SP	1622	0	0	4	1618	99.75	1622	100.00	1622	100.00	
2019	CW	25	0	0	0	25	100.00	25	100.00	25	100.00	
2019	BC	1	0	0	0	1	100.00	1	100.00	1	100.00	
North Pacific Bryde'	whale											
2000-17	SP	730	0	0	3	727	99.56	730	100.00	730	100.00	
2019	CW	187	0	0	0	187	100.00	187	100.00	187	100.00	
2001-18	BC	5	0	0	0	5	100.00	4	80.00	4	80.00	Include three Omura's
												whale and one from the East China Sea stock
2019	BC	0	0	0	0	0	0.00	0	0.00	0	0.00	No BC
North Pacific humph	ack wha	ale										
2001-18	BC	67	0	0	0	67	100.00	67	100.00	67	100.00	
2019	BC	5	0	0	0	5	100.00	5	100.00	5	100.00	
North Pacific right w	hale											
2001-18	BC	3	0	1	0	3	100.00	2	66.67	2	66.67	Missing by the 2011
2019	BC	0	0	0	0	0	0.00	0	0.00	0	0.00	No BC
North Pacific fin what	ale											
2001-18	BC	11	0	0	0	11	100.00	11	100.00	11	100.00	
2019	BC	0	0	0	0	0	0.00	0	0.00	0	0.00	No BC
North Pacific sperm	whale											
2000-17	SP	56	0	0	0	56	100.00	56	100.00	56	100.00	
2001-18	BC	2	0	0	0	2	100.00	2	100.00	2	100.00	
2019	BC	0	0	0	0	0	0.00	0	0.00	0	0.00	No BC
Antarctic minke what												
1987/88-2004/05	SP	6794	0	10	0	1 1 1 8	16 50	6271	92 30	6 794	100.00	Incl_dwarf· 87/88-
1907/00 2004/09	51	0754	0	10	Ū	1,110	10.50	0271	52.50	0,754	100.00	88/89. no microsats
2005/06-2017/18	SP	4883	0	549	162	3,644	74.63	4172	85.44	4,883	100.00	Some missing by the 3/11 tsunami in 2011
2018/19	SP	333	0	0	0	333	100.00	333	100.00	333	100.00	
Antarctic fin whale												
2005/06-2011/12	SP	18	0	0	0	18	100.00	18	100.00	18	100.00	

¹Key to sample types: SP=special permit catch, C=commercial catch, BC=bycatch, ST=stranding. ²Number of whales that potentially entered by the previous years and enters (new year) the markets. ³Number of occurrences (tissues) sample switching on board the vessels as detected by comparison of genetic profiles. ⁴Number of individuals for which tissue samples are missing for reasons other than sample switching. ⁵Genetic laboratory not able to obtain microsatellite profiles mtDNA haplotypes from tissue samples. ⁶Number of samples analysed for mitochondrial control region. ⁷% of total samples analysed for mitochondrial control region. ⁸Number of samples analysed for sex. ¹⁰% of total samples analysed for sex. ¹²Other problems or information. **REFERENCES**

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