

North Atlantic Killer Whales (*Orcinus orca*) Migrating between Iceland and Scotland. A Short Identification Catalogue.

Compiled by Marie-Thérèse Mruszczok and Andrew Scullion



Grundarfjörður, May 2019

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* The newest version always disclaims the previous ones.



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Introduction and Methodology

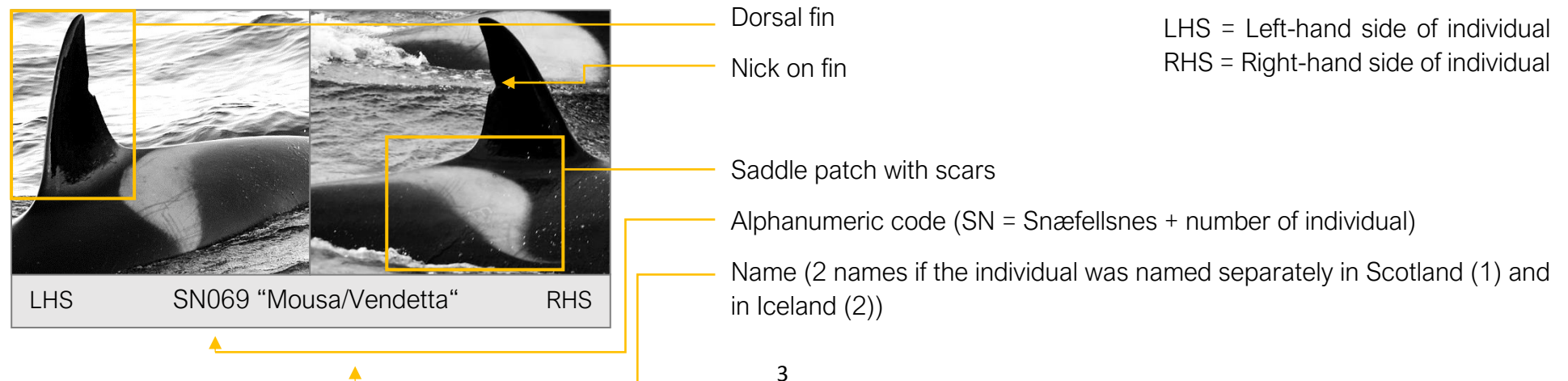
In this short commented identification catalogue, we present information on individual orcas migrating between Iceland and Scotland, emphasizing on recent sightings data from both Iceland and Scotland, as well as group affiliation. ID matches were possible only with the great help of dedicated whale watchers, wildlife guides, and conservationists, who were looking out for these specific orcas along the Scottish shoreline. Once good quality identification images were available from the Scottish mainland, Orkney, Shetland, and the Hebrides, we could then compare these photographs to our pictures taken in West Iceland along the Snæfellsnes Peninsula through vessel-based data collection from 2014 to 2018. In 2017 and 2018 alone, this yielded the discovery of 8 more individuals migrating between Scotland and Iceland.

Orca Guardians Iceland is running a long-term dedicated study on the Snæfellsnes Peninsula, aiming at recording as many individual killer whales as possible moving through the area, with as few knowledge gaps as possible, extending fieldwork over the longest achievable time period. This gives unique insights into migration patterns and social structure of individuals repeatedly documented.

Individuals are displayed in their “core group”, meaning the aggregation in which individuals have been observed repeatedly without a change of the group composition in West Iceland since January 2014. This results, at times, in non-consecutive ID numbers, as identification pictures of certain group members may have only been available at a later date, and therefore, received a higher ID number.

Identification techniques applied for this short ID catalogue were developed by Michael A. Bigg (1982) for killer whales of the Pacific Northwest, using the shape and scarring of the dorsal fin, as well as shape, pigmentation, and scarring patterns of the saddle patch (brighter skin area below and behind the dorsal fin).

The catalogue has been made publicly available to researchers, whale watchers, and whale-watch operators to enhance observations and facilitate identification of the orcas migrating between Iceland and Scotland.



Ethical Statement

Orca Guardians Iceland is an independent conservation nonprofit organization dedicated to the protection of orcas in Iceland and their habitat. Therefore, any research conducted by Orca Guardians Iceland is critically monitored for its non-invasive character. Vessel-based data collection in **West Iceland** was carried out under strict compliance with the Ice Whale Code of Conduct for Responsible Whale Watching, and solely conducted on the Láki Tours boats. During encounters on sea, behavioral patterns of the animals were monitored closely for any signs of distress, in which case the distance to the individuals was increased or the area left completely. Identification pictures presented in this catalogue are cropped and enlarged, and are not representative for the distance between vessel and individual at the time they were taken.

Photographs from **Northern Scotland, Shetland, and Orkney** displayed in this catalogue were exclusively taken from land, and were non-invasive by nature. As conservationists, we highly value the effort that is made by the whale watching public in Scotland, Shetland, and Orkney to track animals along the shoreline via land-based watches. This emphasizes the uniqueness of close encounters that are possible without any impact on the animals, e.g. by watching from a cliff while the orcas are hunting close to shore.



Acknowledgments

Láki Tours Whale Watching has been facilitating our data collection onboard their whale watching vessels in West Iceland since 2014 all year round, and the Icelandic photographs and data used to establish this catalogue are but a mere excerpt from the huge database we were able to acquire since then (an average of 40.000 identification photographs per year). We would like to thank manager and captain Gísli Ólafsson in particular for a great cooperation in the field throughout the years.

None of the 2017 and 2018 matches would have been possible without the tireless effort of the whale watching public in Scotland. We would like to very much thank Karen Munro from Caithness for providing her photographs and helping us make the matches, particularly for core group 04, which was a group not known before to migrate between Iceland and Scotland – until Karen found some older pictures of the individuals per our request!

Hugh Harrop from Shetland Wildlife was likewise very active in helping us find new matches and provided updated ID pictures for the individuals already matched. Thank you, Hugh, for always supporting us with the latest orca news from Shetland through land-based watching!

We would also like to thank Phil Evans, Peter and Rachel Hazlehurst, Colin Bird, Wouter Jan Strietman, Alexa Kershaw, Róbert A. Stefánsson, Noel Hawkins, Robbie Stanger, and Howard Loates for sending us their best photographs for further matches and comparisons, and digging out old images, so we can keep putting the puzzle together! Thank you also to Dr Andy Foote and Dr Filipa Samarra for advice on the specifics of the historical matches. Last but not least, thank you to Steve Truluck for sending in photographs and for being our “orca hotline”, always alerting us to the latest Scottish sightings – almost in real time!

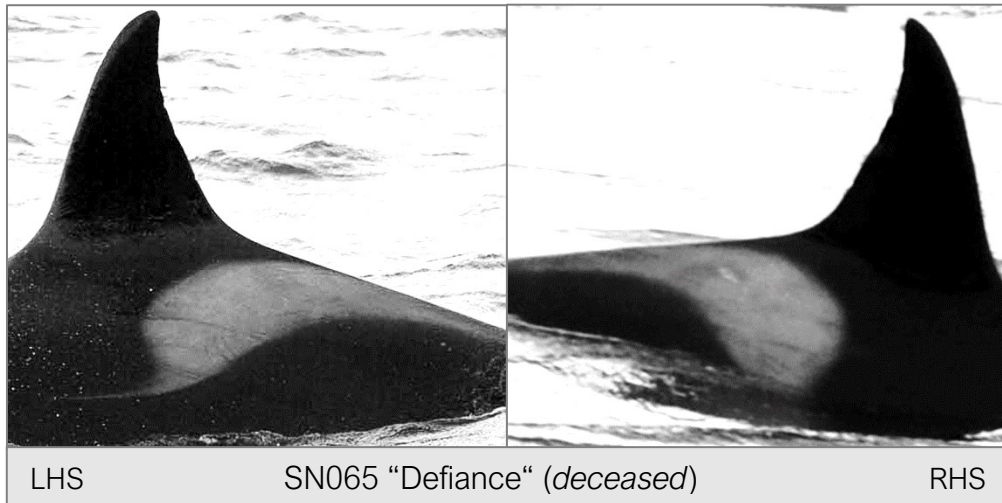
If you have seen orcas along the Scottish or Icelandic shoreline, or anywhere else in the North Atlantic, and you have taken good quality identification pictures, we would love to hear from you! Drop us a message at:

info@orcaguardians.org

or

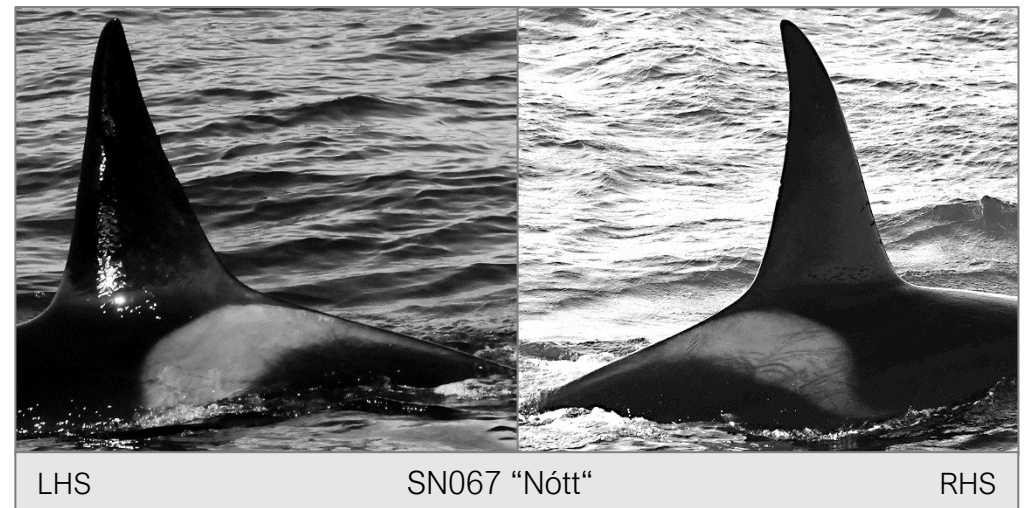
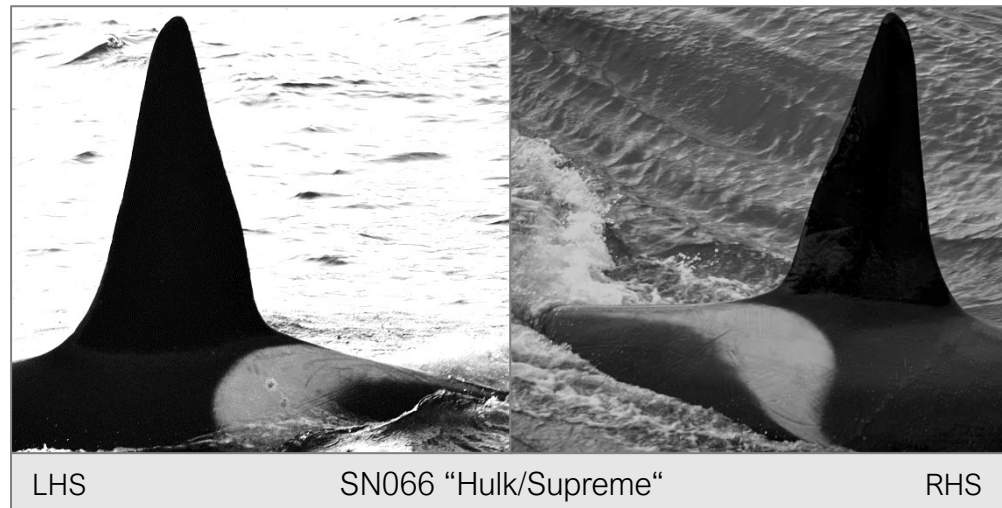
orca.survey.scotland@gmail.com

CATALOGUE - Core Group 01

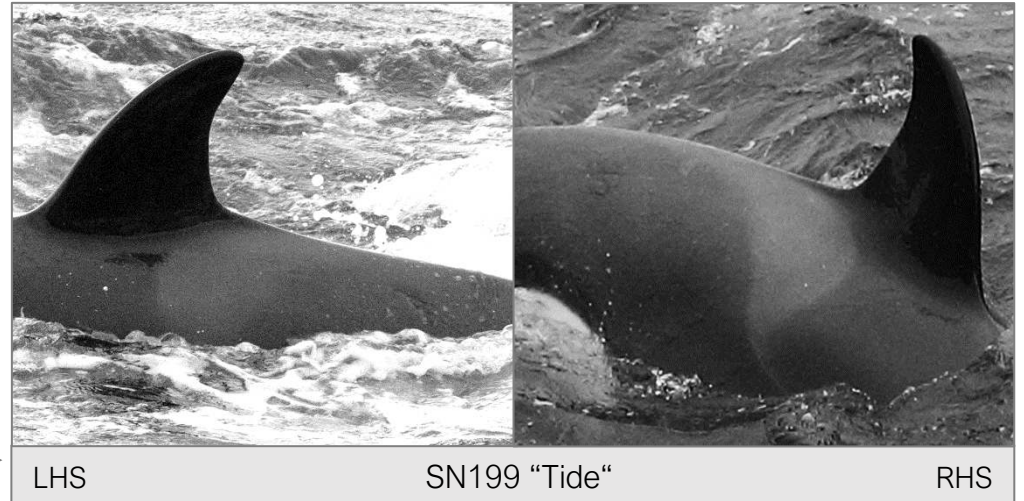
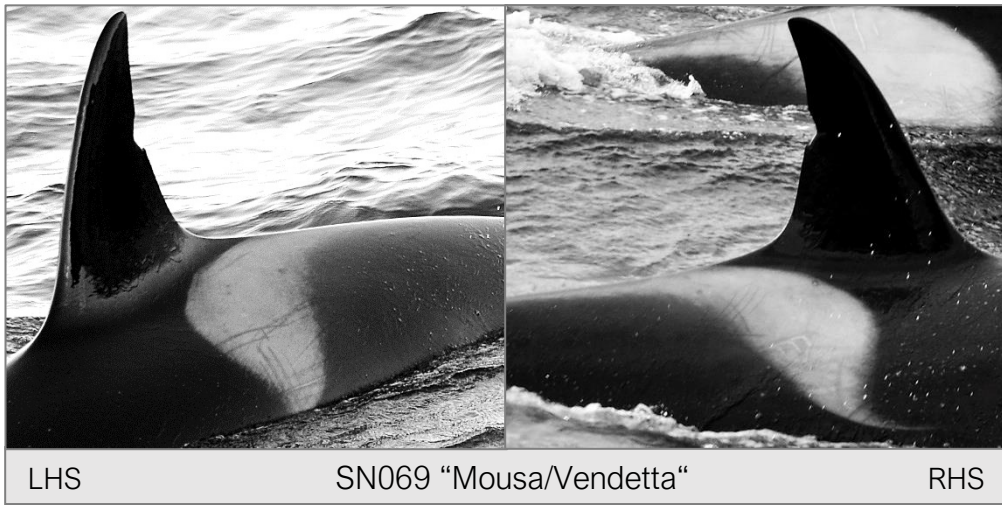


Core group 01 only consists of adult male SN066 "Hulk/Supreme" and subadult male SN067 "Nótt". Until 2014, there was a female in the group (SN065 "Defiance") who is now declared deceased. In Iceland, core group 01 is often observed associating with core group 02.

Apart from the affiliation with other orcas that migrate between Iceland and Scotland, this core group has also been frequently encountered in association with individuals thought to stay in Icelandic waters all year round.



Core Group 02





Core group 02 consists of 6 individuals. Orca female SN069 “Mousa/Vendetta” (on the previous page) has three confirmed offspring – SN068 “Gunnar”, SN070 “Summer/Attack”, and SN199 “Tide”. Her latest calf “Tide” (SN199) was sighted for the first time in West Iceland in December 2015.

SN207 “Trinkie” and subadult male SN071 (on the left) are some of the lesser-known members of this group. As they have not been photographed very often, we are still missing a right-side identification picture of SN207.

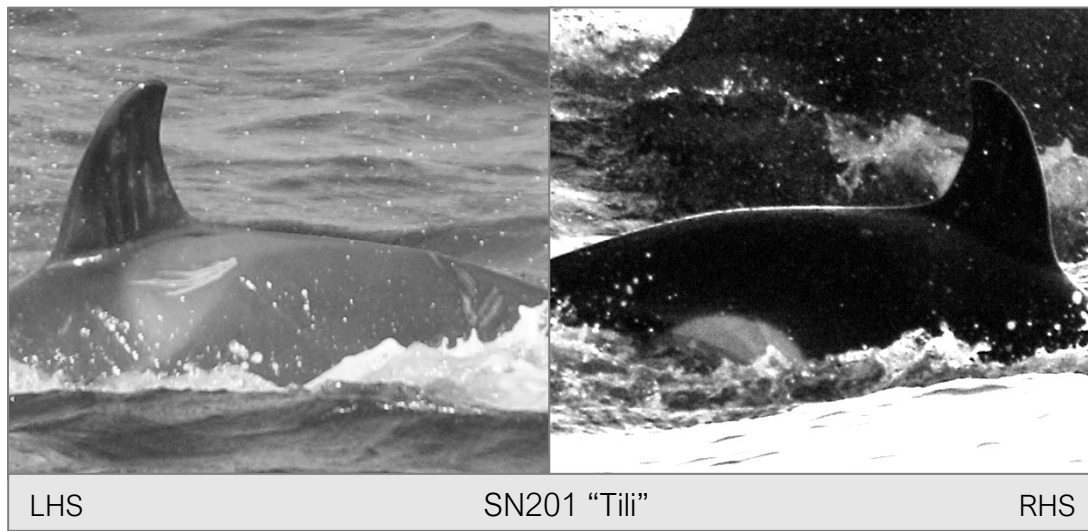
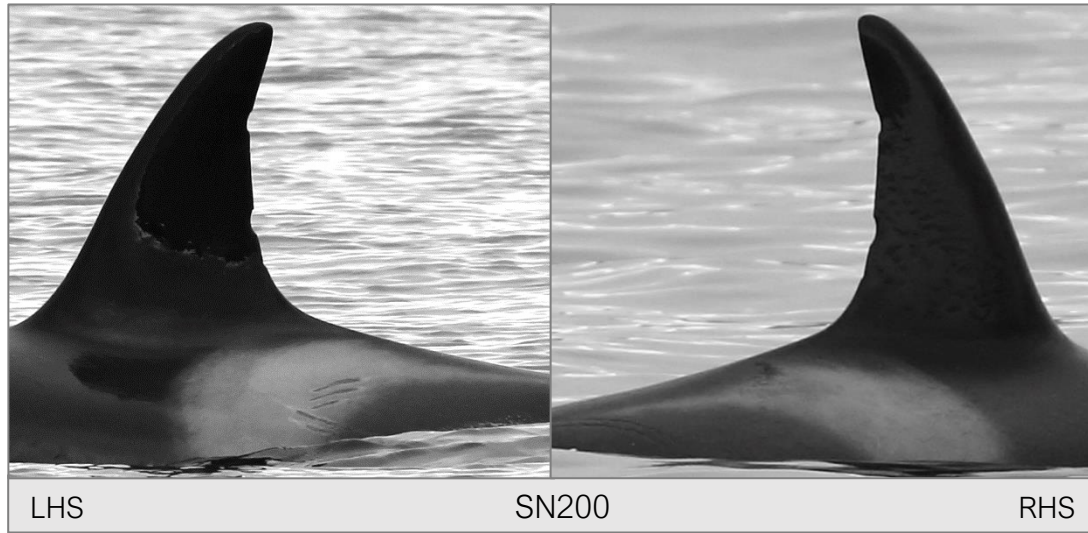
In Iceland, core group 02 has been observed associating with core groups 03 and 04 several times, but most often with core group 01.

Core group 02 is often among the first groups sighted in West Iceland’s waters in the winter season, and can then also be seen socializing and feeding on herring in cooperation with other orcas that are thought to stay in Icelandic waters all year round.

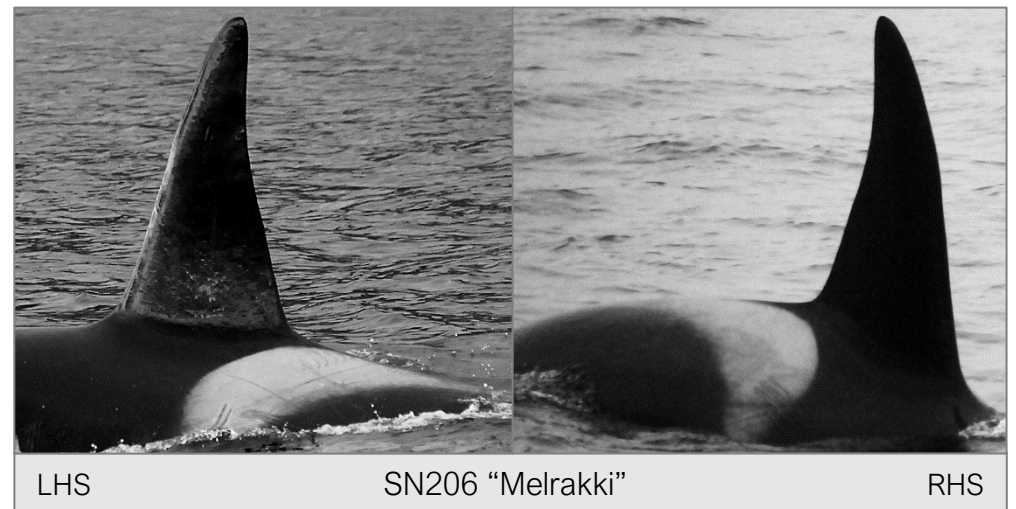
Core group 03, as displayed on the next page, consists of 5 individuals. SN201 “Tili” is the confirmed offspring of female SN200, and was first sighted in West Iceland in November 2016. At Snæfellsnes, we have records of female SN200 as far back as 2011. When spotted, core group 03 often travels either with core group 02 or on their own.



Core Group 03



Core Group 04



Members of core group 04 were first matched in 2017 and 2018. This group has no known lead female as it consists of three males and a juvenile. Relatedness between the individuals is, to date, unknown. Core group 04 has mostly been observed separate from other groups, and occasionally with core group 02.

Detailed Information on Individuals

ID West Iceland	ID Iceland	ID Scotland	Name	Sex	Core Group	LHS Photographer	RHS Photographer
SN065	IS113	021	Defiance	F	01	Alexa Kershaw	Marie-Thérèse Mruszczok
SN066	IS015	062	Hulk/Supreme	M	01	Marie-Thérèse Mruszczok	Marie-Thérèse Mruszczok
SN067	IS229	-	Nótt	M	01	Marie-Thérèse Mruszczok	Marie-Thérèse Mruszczok
SN068	IS172	-	Gunnar	M	02	Karen Munro	Marie-Thérèse Mruszczok
SN069	IS086	019	Mousa/Vendetta	F	02	Marie-Thérèse Mruszczok	Marie-Thérèse Mruszczok
SN070	IS408	-	Summer/Attack	M	02	Karen Munro	Marie-Thérèse Mruszczok
SN071	IS153	-		M	02	Alexa Kershaw	Marie-Thérèse Mruszczok
SN149	IS240	-	Flangi	M	04	Marie-Thérèse Mruszczok	Marie-Thérèse Mruszczok
SN199	-	-	Tide	U	02	Karen Munro	Hugh Harrop (Shetland Wildlife)
SN200	IS106	012		F	03	Hugh Harrop (Shetland Wildlife)	Hugh Harrop (Shetland Wildlife)
SN201	-	-	Tili	U	03	Hugh Harrop (Shetland Wildlife)	Marie-Thérèse Mruszczok
SN202	IS432	-		U	03	Hugh Harrop (Shetland Wildlife)	Marie-Thérèse Mruszczok
SN203	IS431	-		M	03	Marie-Thérèse Mruszczok	Hugh Harrop (Shetland Wildlife)
SN204	IS243	-		M	04	Karen Munro	Peter Hazlehurst
SN205	-	-		U	04	Karen Munro	Wouter Jan Strietman
SN206	IS241	-	Melrakki	M	04	Marie-Thérèse Mruszczok	Marie-Thérèse Mruszczok
SN207	IS244	-	Trinkie	U	02	Karen Munro	N/A
SN323	-	-		M	03	Hugh Harrop (Shetland Wildlife)	Hugh Harrop (Shetland Wildlife)
-	IS039	122		M	-	N/A	N/A
-	IS202	013 (?)		M	-	N/A	N/A

F = Female; M = Male; U = Unknown (either the individual is still a juvenile, or it is not known at this point whether the individual is a female or a subadult male)

Sightings for Northern Scotland, Shetland, and Orkney (2017-2018)

	Core Group 01	Core Group 02	Core Group 03	Core Group 04
May 2017	Pentland Firth off Duncansby Head, Caithness	Scapa Flow, Orkney Latheron, Caithness	Scatness, Shetland Birsay, Orkney	
June 2017	Burwick, South Ronaldsay, Orkney Burwick, South Ronaldsay, Orkney Fair Isle Duncansby Stacks, Caithness	Cantick Head, South Walls, Orkney Eilean nan Ron, Sutherland Helmsdale, Sutherland Isbister, South Ronaldsay, Orkney	Sumburgh Head, Shetland Brough of Birsay, Orkney	
July 2017	John O'Groats, Caithness	Birsay, Orkney Sinians of Cutclaws, Rousay, Orkney Tolsta, Isle of Lewis	Sumburgh Head, Shetland	Staxigoe, Caithness
August 2017	Twingness, North Ronaldsay, Orkney Pentland Firth Offshore East of Sanday, Orkney Cunningsburgh, Shetland			
April 2018	Levenwick, Shetland		Landberg, Fair Isle Horse Island, Shetland	

Sightings for Northern Scotland, Shetland, and Orkney (2017-2018) (*continued*)

May 2018

Moray Firth off Hopeman,
Moray
Houten Head, Orkney
Cava, Scapa Flow, Orkney
Dunbeath Caithness

Brough of Deerness,
Orkney
Pentland Firth off
Duncansby Head,
Caithness

June 2018

Collieston, Aberdeenshire

July 2018

Sumburgh Head, Shetland

Isle of Noss, Shetland
Muckle Skerry (Out
Skerries), Shetland
Burravoe, Yell, Shetland

Note: This overview displays general areas for sightings of members of the respective core groups (core groups were not complete on all occasions).

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Recent Matches (2017-2018)

ID West Iceland	Date matched between Scotland and Iceland	Matched by Orca Guardians Iceland in cooperation with
SN067	05.06.2017	Peter Hazlehurst
SN149	16.05.2017	Karen Munro, Phil Evans
SN199	17.06.2017	Karen Munro
SN201	12.05.2017	Hugh Harrop (Shetland Wildlife)
SN204	31.05.2018	Peter Hazlehurst, Steve Truluck, Karen Munro
SN205	01.06.2018	Wouter Jan Strietman, Steve Truluck, Phil Evans, Andrew Scullion
SN206	16.05.2017	Karen Munro, Phil Evans
SN323	13.05.2017	Hugh Harrop (Shetland Wildlife)

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