

Research and Development Series

Results of the Thermal Image Survey of Seals around the Coast of Northern Ireland

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Results of the thermal image survey of seals around the coast of Northern Ireland

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Results of the thermal image survey of seals around the coast of Northern Ireland

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The survey was carried out between 14 and 16 August 2002. Seals hauled ashore were detected using a thermal imaging camera (Barr & Stroud IR18) mounted in a Squirrel Helicopter (AS350B1). The thermal images were displayed on a small monitor and recorded on VHS tape. A Canon image-stabilised Hi8 camcorder was mounted in parallel with the thermal imager, providing a 'real' image on a second monitor. The thermal imager enables us to detect seals hauled ashore at distances up to 3km.

Following the protocol adopted by SMRU for harbour seal surveys, surveying was restricted to a two hour interval either side of low tides occurring between approximately 12:00 and 18:30 during the first three weeks of August, when harbour seals are moulting. We impose these restrictions in order to survey when the maximum number of seals are likely to be ashore, therefore maximising our counts for a particular stretch of coastline. In addition, rainy days are also avoided as seals tend to abandon haulout sites in anything more than slight rainfall and because rain drops absorb the thermal image.

The survey started on Rathlin Island on 14 August, joining the mainland coast at Benmore (Fair) Head and progressing westwards along the coast, into and round Lough Foyle, finishing at Inishowen Head in Donegal. On 15 August we started surveying south of the mouth of Carlingford Lough and headed east and north along the coast past Dundrum, into the Strangford Narrows, round the Ards Peninsula including the Copelands, round Belfast Lough finishing at Black Head. We then recommenced the survey at the Strangford Narrows and surveyed the whole of Strangford Lough. On 16 August we started at Black Head and headed north, including the Maidens, completing the survey at Benmore (Fair) Head. We resurveyed Rathlin Island as the first survey might have been a bit early in the tidal cycle. During the survey the helicopter based and refuelled at Newtonards Aerodrome.

The number and distribution of harbour seals seen on the survey are shown in Figure 1(a) with grey seals in Figure 1(b). Figure 2 shows harbour seal distribution from Carlingford Lough to Belfast Lough in more detail. The numbers of harbour seals counted in different sections of the coast (subregions) are in Table 1. Note that during the summer, the number of grey seals ashore can vary greatly from day to day. Grey seal numbers should, therefore, be interpreted with caution.

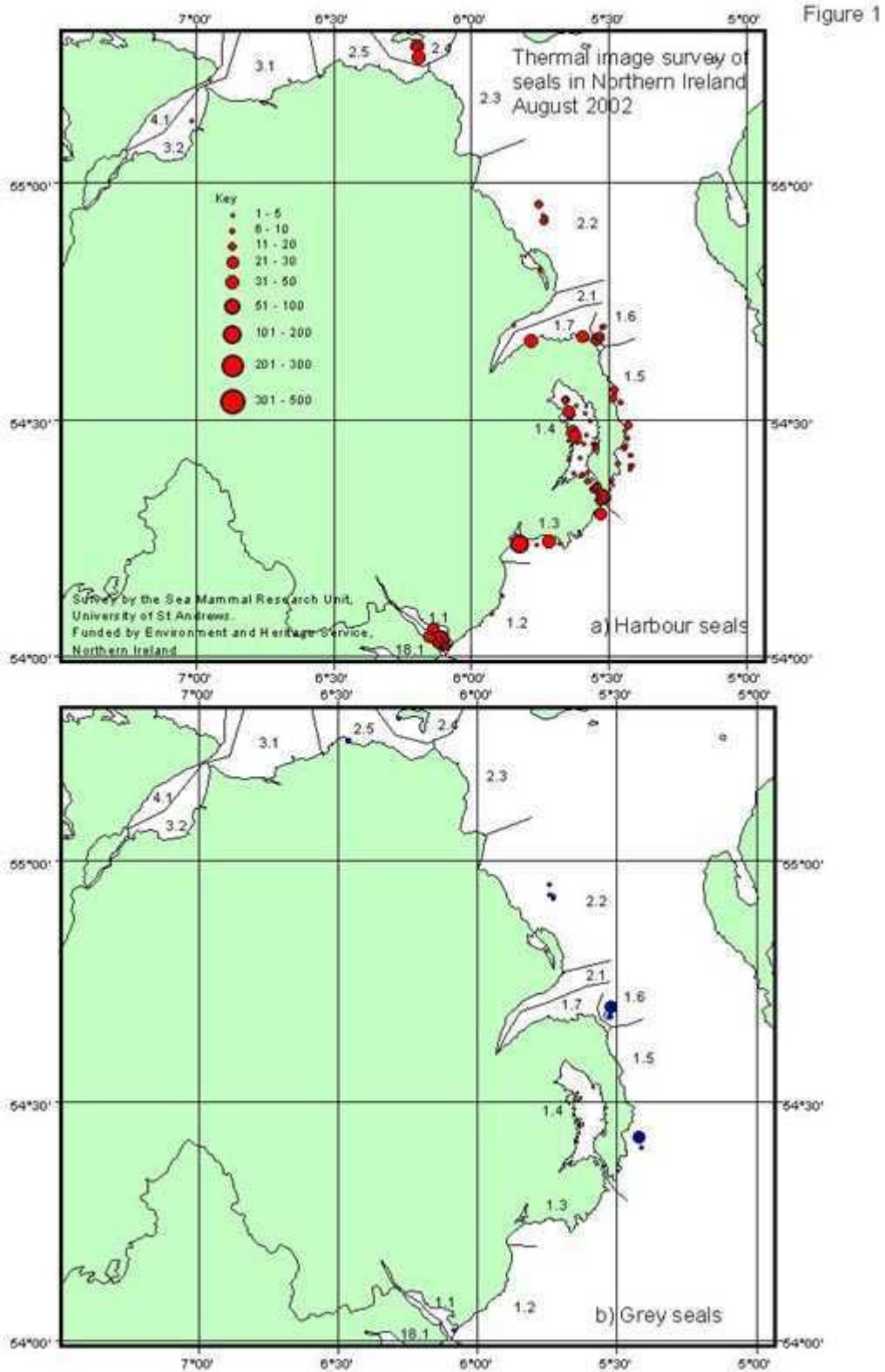


Figure 1. The number and distribution of (a) harbour seals and (b) grey seals on the Northern Ireland coast as recorded during the survey.

Figure 2

Harbour seals in Northern Ireland,
from Carlingford Lough to Belfast Lough.
14-16 August 2002

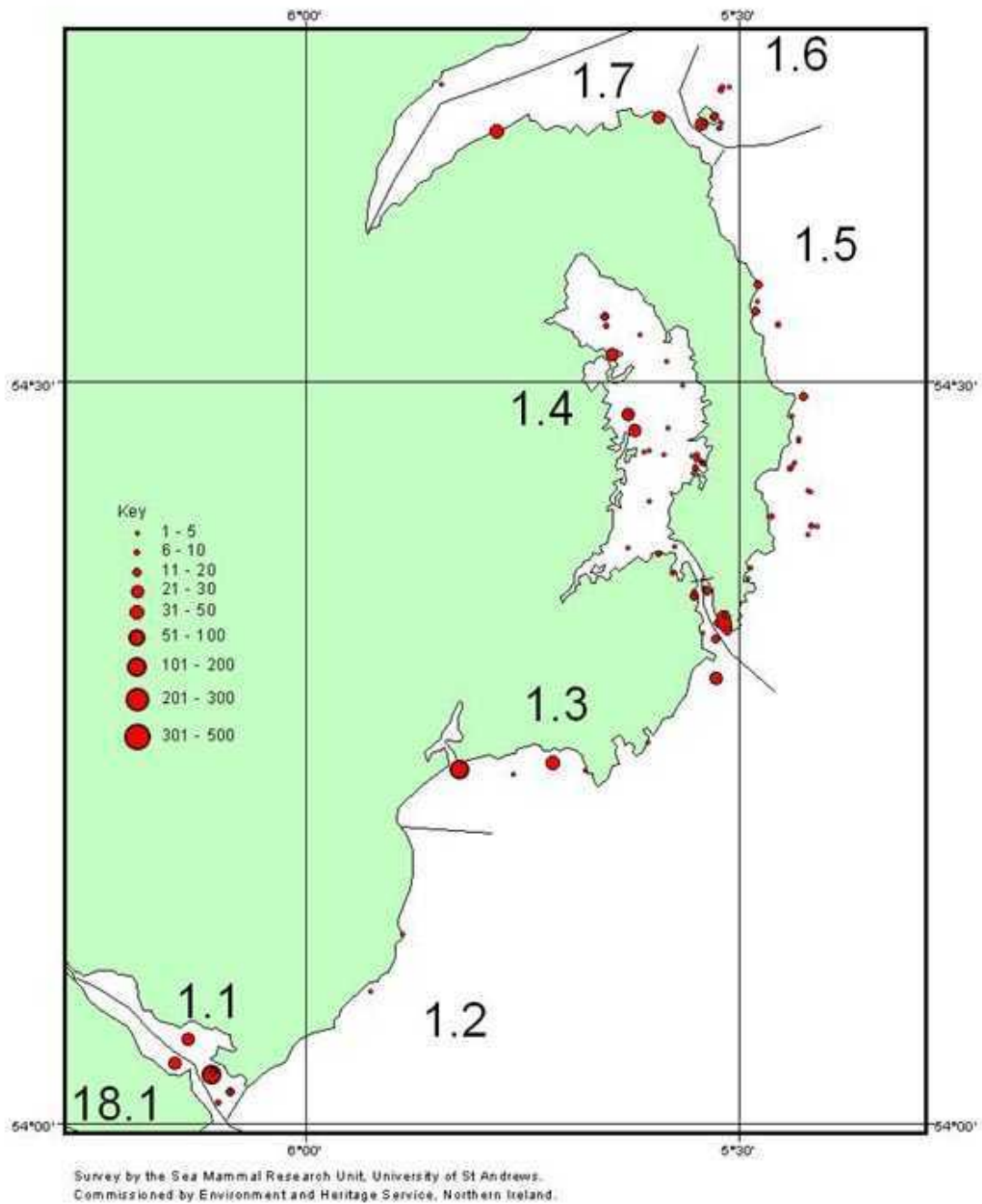


Figure 2. The number and distribution of harbour seals from Carlingford Lough to Belfast Lough.

Table 1. Numbers of harbour and grey seals in subregions of Northern Ireland counted during a thermal image survey in August 2002. The subregion codes correspond to the sections of coast outlined in Figures 1 and 2. Parts of the two adjacent subregions of Eire are included, Carlingford Lough south, in Louth, and Loch Foyle west, in Donegal.

Date	Region	Subregion	Subregion code	unknowns	harbour	grey	Fishfarm cages
15 Aug 2002	Louth (18)	Carlingford Lough S	18.1	0	56	4	0
	Down (1)	Carlingford Lough N	1.1	0	201	0	0
	Down	Newcastle	1.2	0	2	0	0
	Down	Dundrum	1.3	1	299	0	0
	Down	Strangford Lough	1.4	0	180	0	0
	Down	The Ards	1.5	1	264	35	0
	Down	Copelands	1.6	0	65	46	0
	Down	Belfast Lough S	1.7	0	63	0	0
	Antrim (2)	Belfast Lough N	2.1	0	3	0	0
16 Aug 2002	Antrim	Madman's Window	2.2	0	40	11	5
	Antrim	Red Bay	2.3	0	0	0	9
14 Aug 2002	Antrim	Rathlin Island	2.4	0	34	4	0
*16 Aug 2002	Antrim	*Rathlin Island	2.4	*0	*128	*1	0
14Aug 2002	Antrim	Ballycastle	2.5	0	0	7	0
	Londonderry (3)	Port Rush	3.1	0	0	0	0
	Londonderry	Lough Foyle East	3.2	0	3	0	0
	Donegal (4)	Lough Foyle west	4.1	0	2	0	0
14-16 Aug 2002	Northern Ireland total			2	1,248	100	14
14-16 Aug 2002	Survey total			2	1,306	104	14

* Second survey of Rathlin Island used in totals as surveyed at better time of low tide



Our aim is to protect and conserve the natural and built environment and to promote its appreciation for the benefit of present and future generations.

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