



## Report: Task 4

# Offshore SEA – Distribution, movements and foraging behaviour of grey seals off NE England and SE Scotland

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| <b>Project Name:</b>    | Offshore SEA |
| <b>Reference:</b>       | MMM.0308.BER |
| <b>Project Manager:</b> | Beth Mackey  |

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| <b>Date:</b>        | Wednesday, 21 January 2009 |  |

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## **Preliminary results from aerial surveys of grey seal haul out sites on the Scottish and Northumbria east coast.**

The figures show the monthly survey counts for grey seals at all haul-out sites on the east coast between Cairnbulg Point (57.685N 1.94W) and Coquet Island (55.337N 1.54W) for the period April to September 2008. Table 1 contains the raw count data.

The scope of the contract funded by DECC (formally DBERR) encompassed aerial surveys within the SE Scotland and NE England Region. In the analysis and final report, these data will be augmented by inclusion of all haulout sites in the Moray Firth (between Dunbeath and Fraserburgh) and counts of harbour seals throughout the region. These additional data were collected with funding support from NERC. The combination of these two data sets will increase the strength of the data set, and therefore any inference made within the scope of this project.

Sea Mammal Research Unit  
survey date 19/04/2008



Sea Mammal Research Unit  
survey date 20/05/2008



Sea Mammal Research Unit  
survey date 18/06/2008



Sea Mammal Research Unit  
survey date 21/07/2008



Sea Mammal Research Unit  
survey date 29/08/2008



Sea Mammal Research Unit  
survey date 25/09/2008

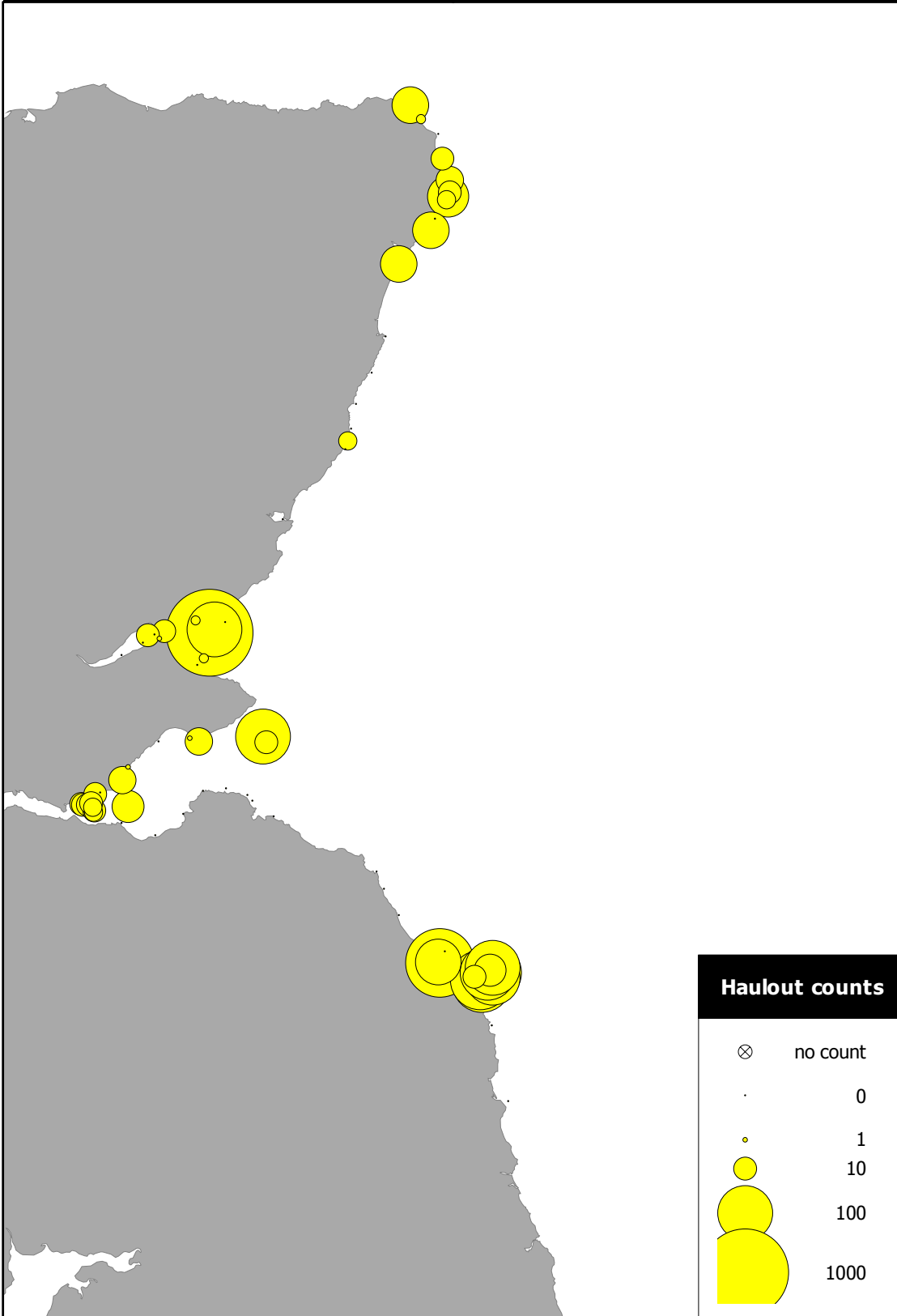




Table 1. Counts of grey seals in each of the 6 monthly surveys at all haul out sites on the East coast between Cairnbulg Point and Coquet Island. Sites not surveyed are marked with \*.

| Site               | Lat    | Long  | 19/04/2008 | 20/05/2008 | 18/06/2008 | 21/07/2008 | 29/08/2008 | 25/09/2008 |
|--------------------|--------|-------|------------|------------|------------|------------|------------|------------|
| Cairnbulg          | 57.685 | 1.939 | 0          | 19         | 6          | 34         | 4          | 57         |
| South Inch         | 57.651 | 1.892 | 18         | 24         | 11         | 30         | 0          | 4          |
| Ratray Head        | 57.617 | 1.817 | 0          | 0          | 0          | 24         | 0          | 0          |
| Scotstown Head     | 57.558 | 1.800 | 0          | 0          | 2          | 45         | 0          | 16         |
| Peterhead Harbour  | 57.508 | 1.767 | 0          | 31         | 6          | 13         | 4          | 27         |
| Peterhead Skerry   | 57.479 | 1.767 | 93         | 8          | 0          | 18         | 22         | 11         |
| Peterhead L' house | 57.469 | 1.775 | 0          | 0          | 4          | 34         | 5          | 68         |
| Dundonnachie       | 57.461 | 1.783 | 0          | 35         | 0          | 24         | 3          | 9          |
| Slains Castle      | 57.417 | 1.833 | 0          | 0          | 0          | 2          | 0          | 0          |
| Whinnyfold         | 57.389 | 1.853 | 50         | 114        | 41         | 278        | 27         | 52         |
| Ythan              | 57.310 | 1.990 | 73         | 74         | 84         | 60         | 22         | 52         |
| Aberdeen L' house  | 57.140 | 2.048 | 0          | 1          | 0          | 0          | 0          | 0          |
| Portlethen         | 57.054 | 2.109 | 0          | 0          | 0          | 11         | 2          | 0          |
| Stonehaven         | 56.980 | 2.176 | 10         | 0          | 0          | 11         | 0          | 0          |
| Fowlsheugh         | 56.923 | 2.199 | 0          | 35         | 9          | 22         | 0          | 0          |
| Catterline         | 56.892 | 2.211 | 34         | 5          | 0          | 10         | 6          | 9          |
| Rouen Bay          | 56.873 | 2.223 | 0          | 0          | 0          | 82         | 0          | 0          |
| Montrose           | 56.707 | 2.489 | 0          | 0          | 0          | 1          | 0          | 0          |
|                    |        |       |            |            |            |            |            |            |
| Barry Buddon       | 56.465 | 2.731 | 9          | 0          | 0          | 0          | 7          | 0          |
| Broughty Ferry     | 56.466 | 2.856 | 4          | 1          | 0          | 0          | 8          | 5          |
| Abertay            | 56.447 | 2.775 | 47         | 128        | 639        | 375        | 98         | 184        |

|                             |        |       |     |     |     |     |     |      |
|-----------------------------|--------|-------|-----|-----|-----|-----|-----|------|
| Tentsmuir                   | 56.439 | 2.798 | 343 | 495 | 954 | 816 | 385 | 1046 |
| Bridge Piers, Firth of Tay  | 56.441 | 2.990 | 0   | 7   | 10  | 18  | 1   | 14   |
| Naughton Bank, Firth of Tay | 56.423 | 3.008 | 1   | 8   | 16  | 0   | 4   | 3    |
| N Shore Lower, Firth of Tay | 56.430 | 3.058 | 0   | 0   | 0   | 12  | 0   | 11   |
| N Shore Mid, Firth of Tay   | 56.414 | 3.079 | 5   | 0   | 0   | 0   | 10  | 0    |
| N Shore Upper, Firth of Tay | 56.383 | 3.171 | 0   | 0   | 0   | 0   | 0   | 0    |
| Mid Bank, Firth of Tay      | 56.433 | 3.032 | 0   | 0   | 0   | 0   | 11  | 0    |
| Eden : Out Head             | 56.379 | 2.819 | 123 | 1   | 29  | 0   | 6   | 4    |
| Eden : Up River             | 56.363 | 2.846 | 0   | 46  | 28  | 0   | 27  | 0    |
|                             |        |       |     |     |     |     |     |      |
| Isle of May N               | 56.194 | 2.567 | 341 | 88  | 335 | 2   | 75  | 153  |
| Isle of May S               | 56.182 | 2.550 | 0   | 35  | 0   | 33  | 7   | 22   |
| Earlsferry                  | 56.183 | 2.838 | 12  | 56  | 21  | 27  | 19  | 29   |
| Shell Bay                   | 56.189 | 2.876 | 0   | 0   | 0   | 6   | 19  | 1    |
| Methil                      | 56.181 | 3.007 | 0   | 7   | 2   | 2   | 5   | 0    |
| Kirkcaldy                   | 56.119 | 3.133 | 0   | 0   | 0   | 0   | 12  | 3    |
| East & West Vows            | 56.089 | 3.158 | 0   | 28  | 21  | 40  | 26  | 32   |
| Burntisland                 | 56.058 | 3.250 | 0   | 0   | *   | 0   | 0   | 0    |
| Common Rocks                | 56.055 | 3.271 | 13  | 27  | *   | 50  | 19  | 18   |
| Carcraig                    | 56.033 | 3.286 | 0   | 0   | *   | 42  | 0   | 10   |
| Inchcolm                    | 56.030 | 3.303 | 0   | 17  | *   | 18  | 9   | 15   |
| Cow & Calf                  | 56.016 | 3.274 | 0   | 0   | *   | 7   | 19  | 15   |
| Oxcars                      | 56.023 | 3.280 | 0   | 18  | *   | 26  | 4   | 8    |
| Inchmickery                 | 56.011 | 3.274 | 16  | 0   | *   | 32  | 11  | 9    |
| Inchkeith                   | 56.027 | 3.131 | 29  | 32  | *   | 52  | 20  | 42   |
| Long Craig                  | 56.031 | 3.330 | 28  | 0   | *   | 17  | 7   | 20   |
| Haystacks                   | 56.028 | 3.321 | 0   | 0   | *   | 15  | 0   | 19   |
| Leith                       | 55.987 | 3.159 | 0   | 0   | *   | 14  | 2   | 0    |
| Musselburgh                 | 55.959 | 3.016 | 0   | 0   | -1  | 0   | 2   | 0    |

|                           |        |       |             |             |             |             |             |             |
|---------------------------|--------|-------|-------------|-------------|-------------|-------------|-------------|-------------|
| Gosford Bay               | 56.010 | 2.900 | 0           | 0           | *           | 0           | 0           | 0           |
| Eyebroughty               | 56.066 | 2.818 | 2           | 7           | *           | 4           | 24          | 0           |
| Craikleith                | 56.073 | 2.718 | 6           | 0           | *           | 0           | 3           | 0           |
| St Baldreds Boat          | 56.058 | 2.628 | 1           | 0           | *           | 0           | 8           | 0           |
| Beggars Cap               | 56.043 | 2.608 | 0           | 0           | *           | 0           | 3           | 0           |
| Dunbar                    | 56.008 | 2.518 | 0           | 0           | *           | 0           | 15          | 0           |
| Eyemouth                  | 56.878 | 2.085 | 0           | 0           | *           | 0           | 8           | 0           |
| Cowdrait                  | 55.838 | 2.054 | 0           | 0           | *           | 0           | 24          | 0           |
| Berwick                   | 55.776 | 1.990 | 0           | 0           | *           | 0           | 9           | 0           |
| Lindisfarne Outer         | 55.691 | 1.798 | 0           | 0           | 95          | 0           | 112         | 0           |
| Lindisfarne Inner 1       | 55.663 | 1.820 | 396         | 859         | 1652        | 2022        | 214         | 490         |
| Lindisfarne Inner 2       | 55.664 | 1.828 | 0           | 0           | 54          | 734         | 33          | 86          |
| Megstone, Farnes          | 55.629 | 1.675 | 210         | 80          | 38          | 0           | 80          | 18          |
| Knoxes Reef, Farnes       | 55.621 | 1.651 | 351         | 337         | 320         | 0           | 0           | 256         |
| Wideopens/Scarcar, Farnes | 55.616 | 1.646 | 0           | 191         | 99          | 0           | 49          | 335         |
| Warmeses/Harcar Farnes    | 55.639 | 1.622 | 258         | 0           | 0           | 217         | 0           | 203         |
| Longstone NW End Farnes   | 55.644 | 1.611 | 0           | 61          | 69          | 90          | 126         | 48          |
| Longstone SE End Farnes   | 55.639 | 1.606 | 324         | 192         | 544         | 374         | 154         | 296         |
| Knivestone Farnes         | 55.650 | 1.601 | 22          | 53          | 75          | 227         | 1040        | 130         |
| Crumstone, Farnes         | 55.628 | 1.600 | 189         | 128         | 188         | 382         | 362         | 217         |
| Newton                    | 55.515 | 1.605 | 17          | 0           | 0           | 0           | 0           | 0           |
| Coquet Island             | 55.337 | 1.540 | 648         | 457         | 312         | 145         | 159         | 0           |
|                           |        |       |             |             |             |             |             |             |
| <b>Total</b>              |        |       | <b>3673</b> | <b>3705</b> | <b>5643</b> | <b>6498</b> | <b>3331</b> | <b>4047</b> |