Marine biodiversity and habitat surveys

Grey seal population surveys of the Isles of Scilly and Parc Naturel Marin d'Iroise

Deliverable for MERiFIC Work Package 3 (task 3.3.2)

UNIVERSITY OF EXETER

Cornwall Seal Group

parc naturel marin Iroise

MERiFIC
Marine Energy in Far Peripheral and Island Communities

MERiFIC Work Package 3 (task 3.3.2)

Transfer and development of skills on environmental assessment

The impact of extracting energy from marine environments upon host ecosystems is poorly understood. As such, integrated assessments are required to ensure ecological benefits are gained at the local and regional scale, while meeting the increased need to supply energy from renewable sources.

Work Package 3 of the MERiFIC project has enabled a collaborative partnership to develop between the University of Exeter, Cornwall Seal Group and Parc Naturel Marin d'Iroise (PNMI). The relationship has resulted in a fieldwork programme focusing upon the grey seal (*Halichocerus grypus*), a species found in the Isles of Scilly and within the Parc Naturel Marin d'Iroise. These regions are the focus of growing interest regarding marine renewable energy extraction from wind, wave and tidal resources. Given their proximity, the regions are likely connected with respect to seal movements; hence, human activities should be carefully considered.

The MERiFIC fieldwork programme in Work Package 3 has gathered data (for task 3.3.2) that will assist any future marine spatial planning activities with respect to marine renewable energy installation.

This document provides an overview of surveys conducted at the two study sites (N=19, 2011-2013). Surveys assessing the abundance of adult and juvenile grey seals were conducted in October 2011, January 2012, May 2012 (Isles of Scilly and PNMI), November 2013 (Isles of Scilly only), January 2013, December 2013 (PNMI only). A survey specific to grey seal pups was also conducted in the Isles of Scilly (October 2011). Each survey of the Isles of Scilly required a single survey team and was completed over two survey days. Each survey of Parc Naturel Marin d'Iroise required two survey teams and was completed in a single day. Surveys for grey seal pups in the Isles of Scilly required a single land-based survey team and covered four known sites in a single day.

MARINE BIODIVERSITY AND HABITAT SURVEYS

Grey seals in the Isles of Scilly and Parc Naturel Marin d'Iroise

Halichoerus grypus

MERiFIC Deliverable 3.3.2

0 100 Kilometres

0 50 Nautical Miles

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Map projection: British National Grid

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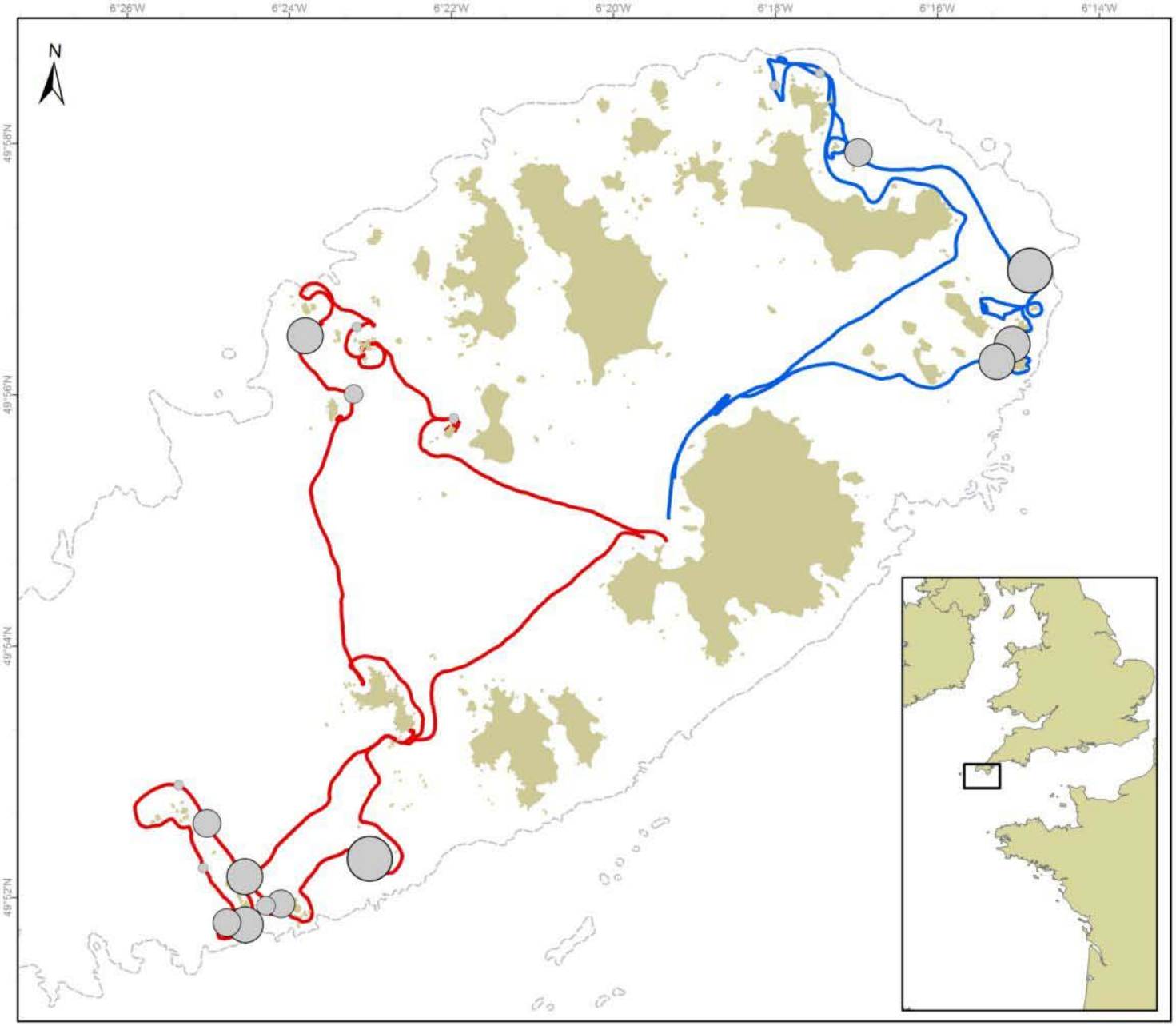

MARINE BIODIVERSITY AND HABITAT SURVEYS

Grey seals in the Isles of Scilly

Halichoerus grypus

MERiFIC Deliverable 3.3.2

OCTOBER 2011

Seals

N = 484

- < 5
- 5 - 10
- 11 - 25
- 26 - 50
- > 50

Boat survey, 20th Oct. 2011

Boat survey, 21st Oct. 2011

50 m Isobath

0 2 Kilometres

0 1 Nautical Miles

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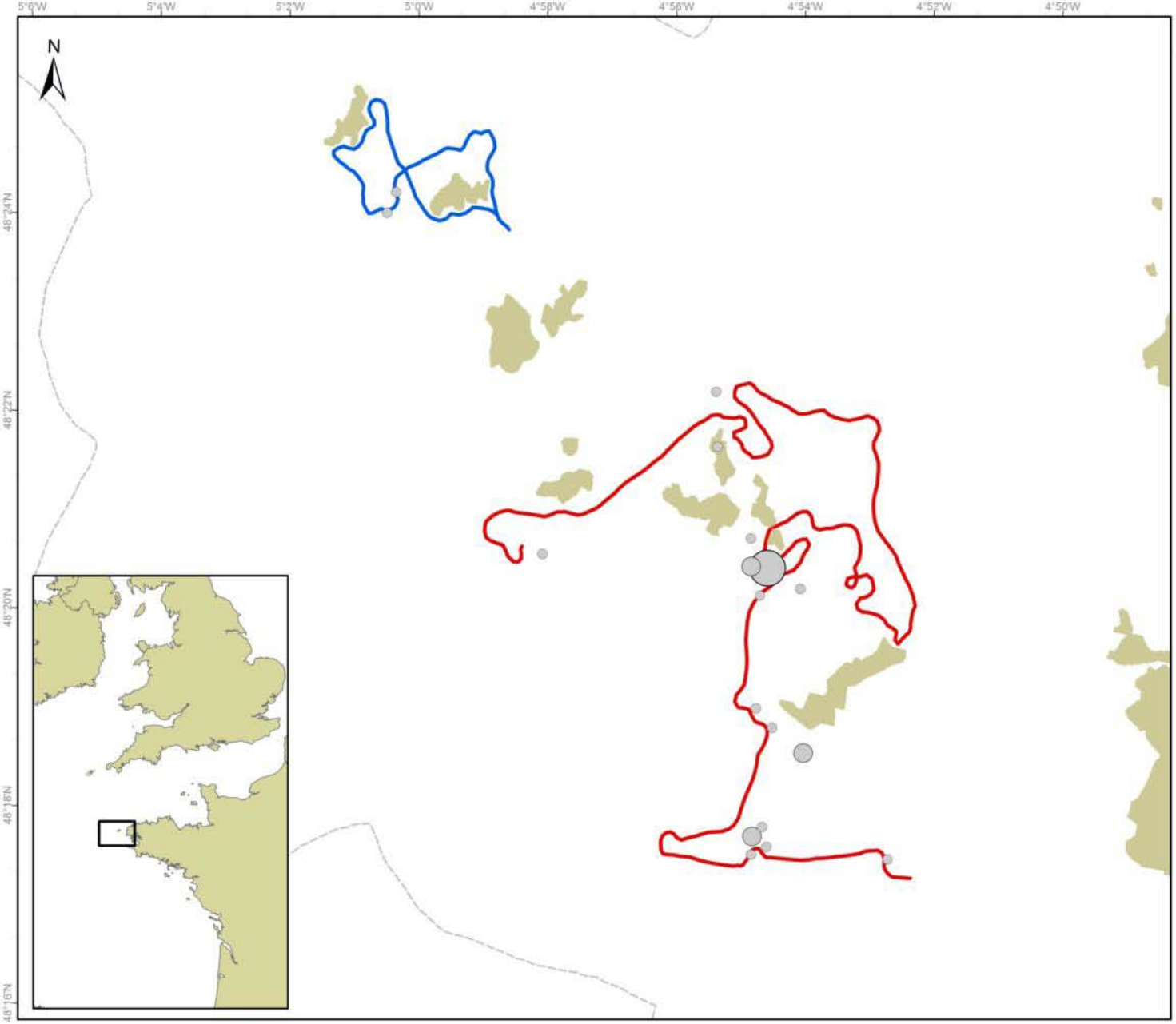

MARINE BIODIVERSITY AND HABITAT SURVEYS

Grey seals in Parc Naturel Marin d'Iroise
Halichoerus grypus

MERiFIC Deliverable 3.3.2

OCTOBER 2011

Seals
N = 80

- < 5
- 5 - 10
- 11 - 25
- 26 - 50
- > 50

Boat survey, 01st Oct. 2011
Boat survey, 01st Oct. 2011
50 m isobath

0 2 Kilometres
0 1 Nautical Miles

Contact(s):
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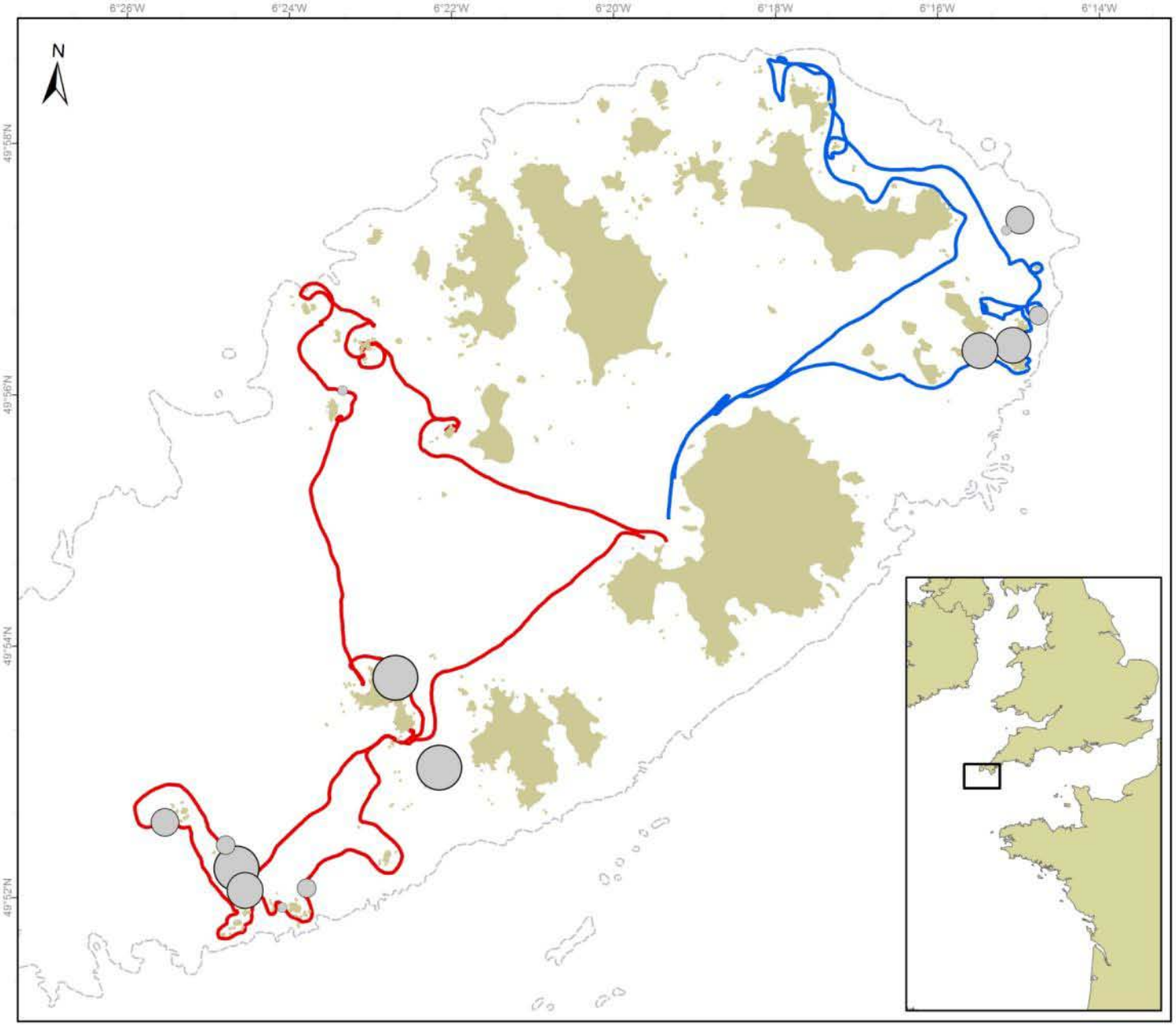

MARINE BIODIVERSITY AND HABITAT SURVEYS

Grey seals in the Isles of Scilly
Halichoerus grypus

MERiFIC Deliverable 3.3.2

JANUARY 2012

Seals
N = 447

- < 5
- 5 - 10
- 11 - 25
- 26 - 50
- > 50

Boat survey, 11th Jan. 2012
Boat survey, 12th Jan. 2012
50 m Isobath

0 2 Kilometres
0 1 Nautical Miles

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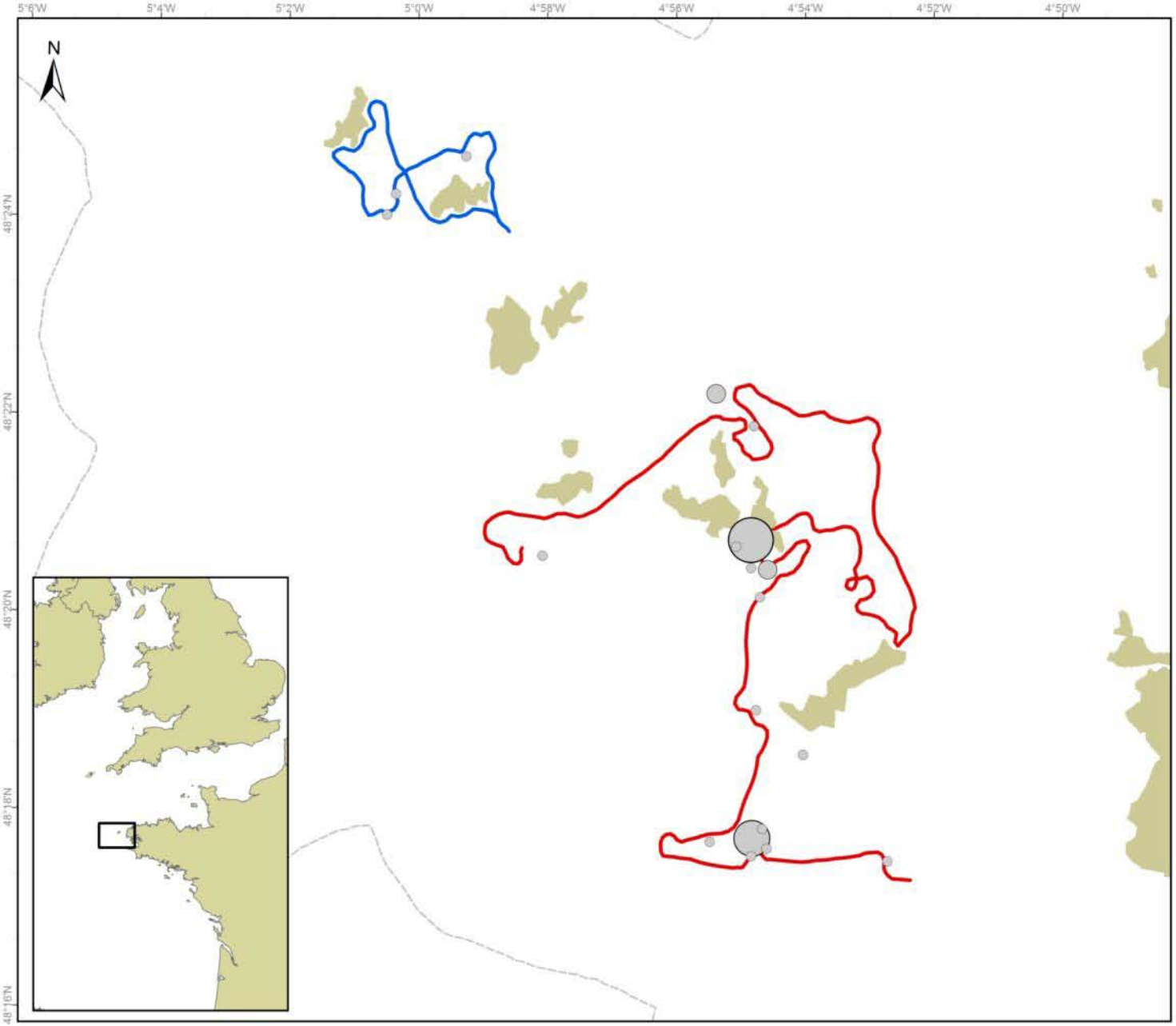

MARINE BIODIVERSITY AND HABITAT SURVEYS

Grey seals in Parc Naturel Marin d'Iroise
Halichoerus grypus

MERiFIC Deliverable 3.3.2

JANUARY 2012

Seals
N = 128

- < 5
- 5 - 10
- 11 - 25
- 26 - 50
- > 50

Boat survey, 11th Jan. 2012
Boat survey, 11th Jan. 2012
50 m isobath

0 2 Kilometres
0 1 Nautical Miles

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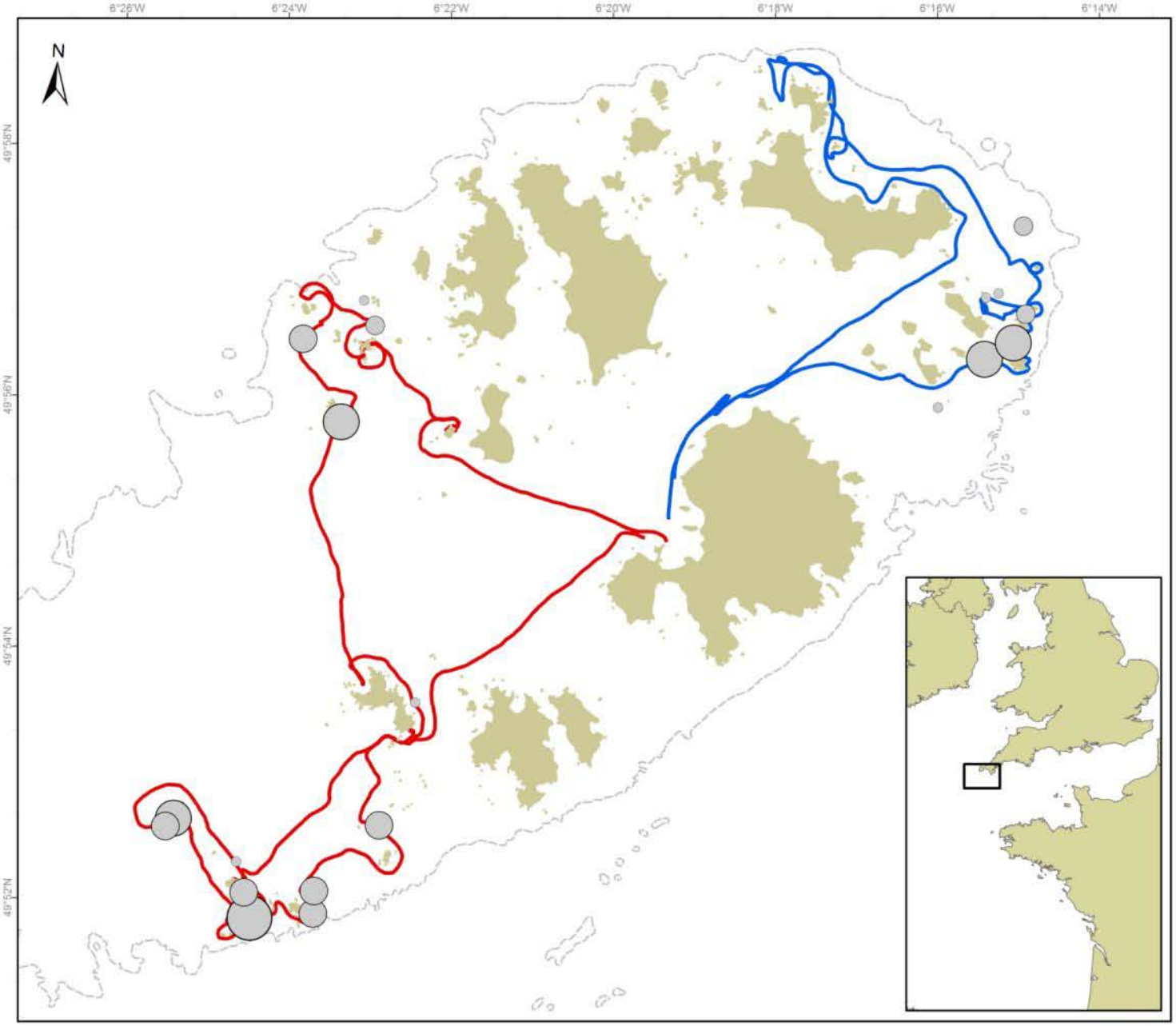

MARINE BIODIVERSITY AND HABITAT SURVEYS

Grey seals in the Isles of Scilly
Halichoerus grypus

MERiFIC Deliverable 3.3.2

MAY 2012

Seals
N = 347

- < 5
- 5 - 10
- 11 - 25
- 26 - 50
- > 50

- Boat survey, 16th May 2012
- Boat survey, 17th May 2012
- 50 m Isobath

0 — 2 Kilometres

0 — 1 Nautical Miles

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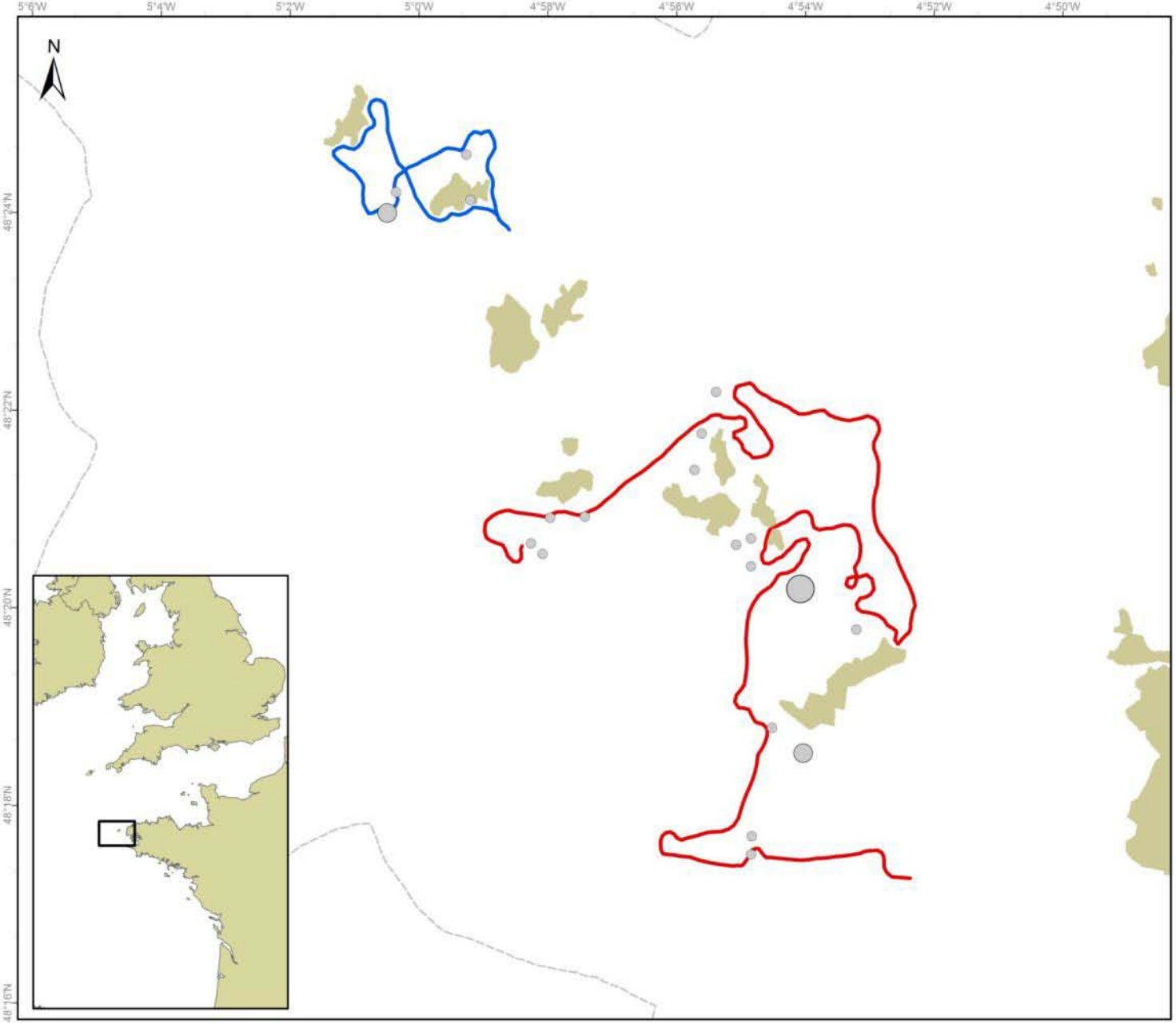

MARINE BIODIVERSITY AND HABITAT SURVEYS

Grey seals in Parc Naturel Marin d'Iroise
Halichoerus grypus

MERiFIC Deliverable 3.3.2

MAY 2012

Seals
N = 77

- < 5
- 5 - 10
- 11 - 25
- 26 - 50
- > 50

Boat survey, 10th May 2012
Boat survey, 10th May 2012
50 m isobath

0 2 Kilometres
0 1 Nautical Miles

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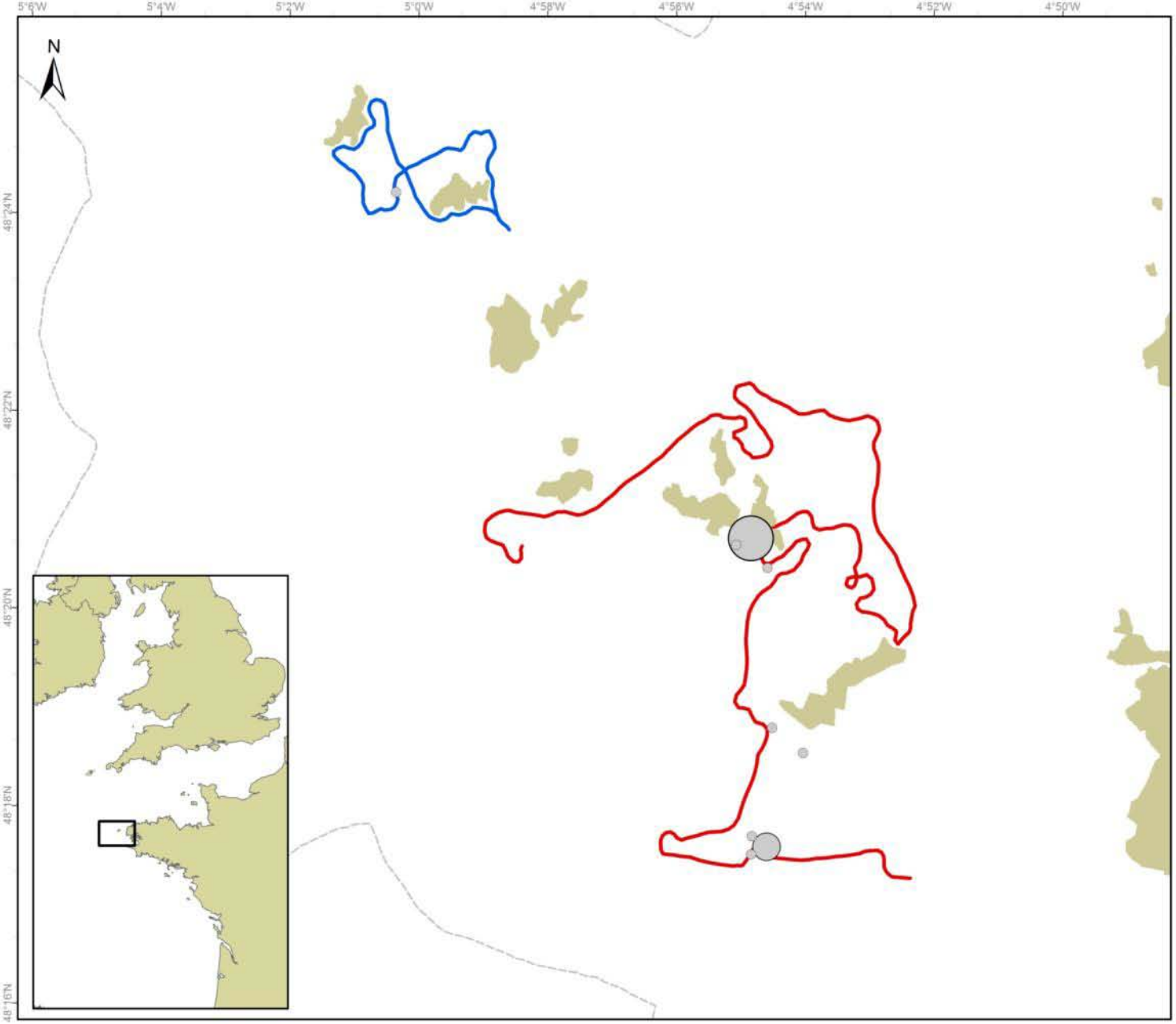

MARINE BIODIVERSITY AND HABITAT SURVEYS

Grey seals in Parc Naturel Marin d'Iroise
Halichoerus grypus

MERiFIC Deliverable 3.3.2

JANUARY 2013

Seals
N = 104

- < 5
- 5 - 10
- 11 - 25
- 26 - 50
- > 50

Boat survey, 14th Jan. 2013
Boat survey, 14th Jan. 2013
50 m isobath

0 2 Kilometres
0 1 Nautical Miles

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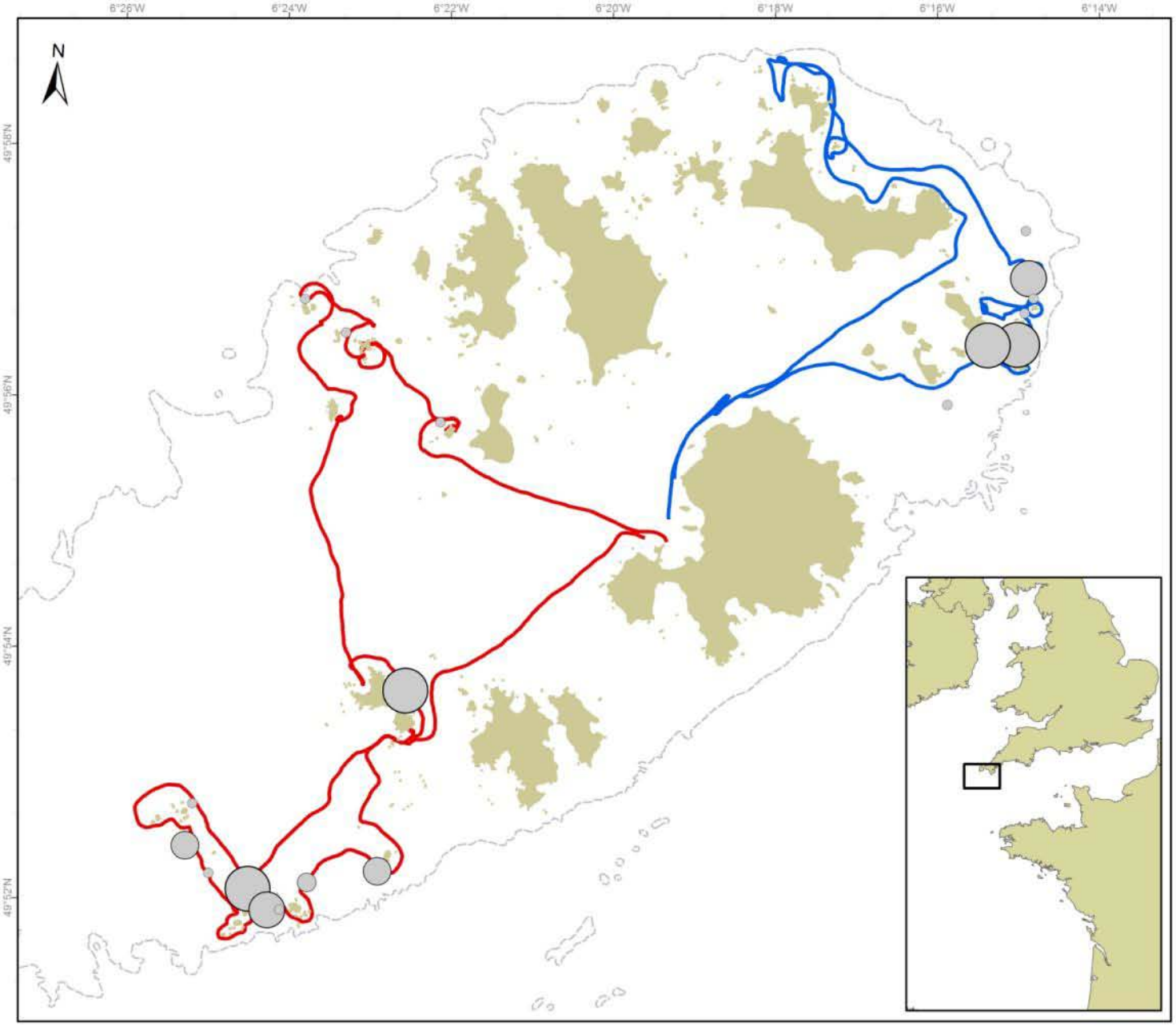

MARINE BIODIVERSITY AND HABITAT SURVEYS

Grey seals in the Isles of Scilly

Halichoerus grypus

MERiFIC Deliverable 3.3.2

NOVEMBER 2013

Seals
N = 480

- < 5
- 5 - 10
- 11 - 25
- 26 - 50
- > 50

Boat survey, 16th Nov. 2013
Boat survey, 17th Nov. 2013
50 m Isobath

0 2 Kilometres
0 1 Nautical Miles

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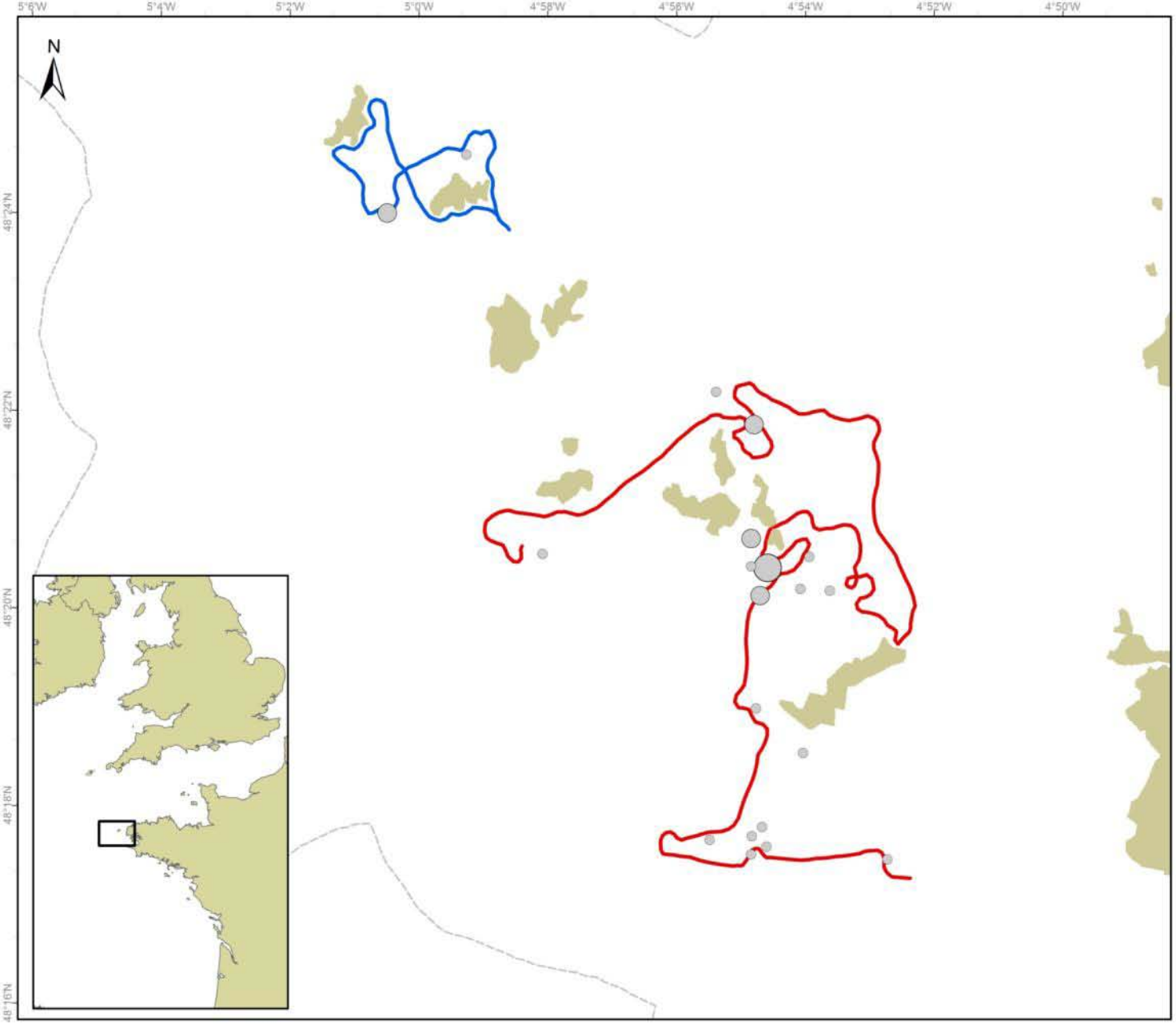

MARINE BIODIVERSITY AND HABITAT SURVEYS

Grey seals in Parc Naturel Marin d'Iroise
Halichoerus grypus

MERiFIC Deliverable 3.3.2

DECEMBER 2013

Seals
N = 76

- < 5
- 5 - 10
- 11 - 25
- 26 - 50
- > 50

Boat survey, 05th Dec. 2013
Boat survey, 05th Dec. 2013
50 m isobath

0 2 Kilometres
0 1 Nautical Miles

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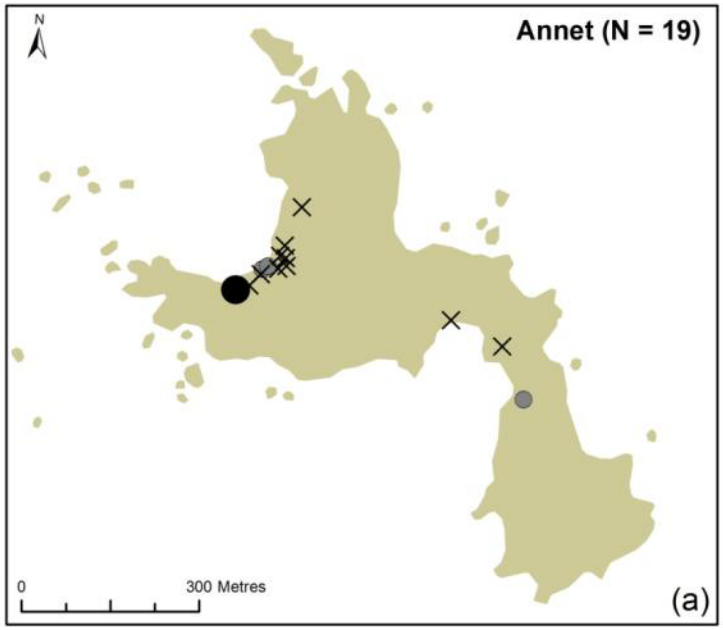
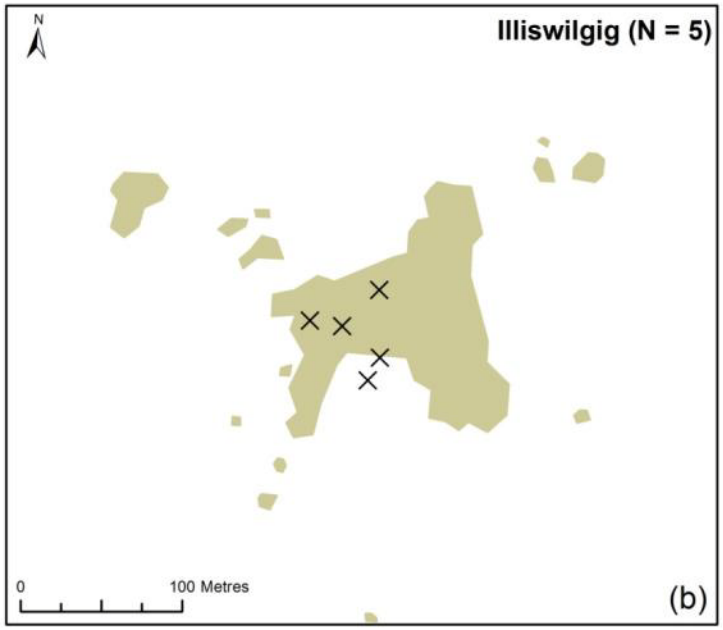
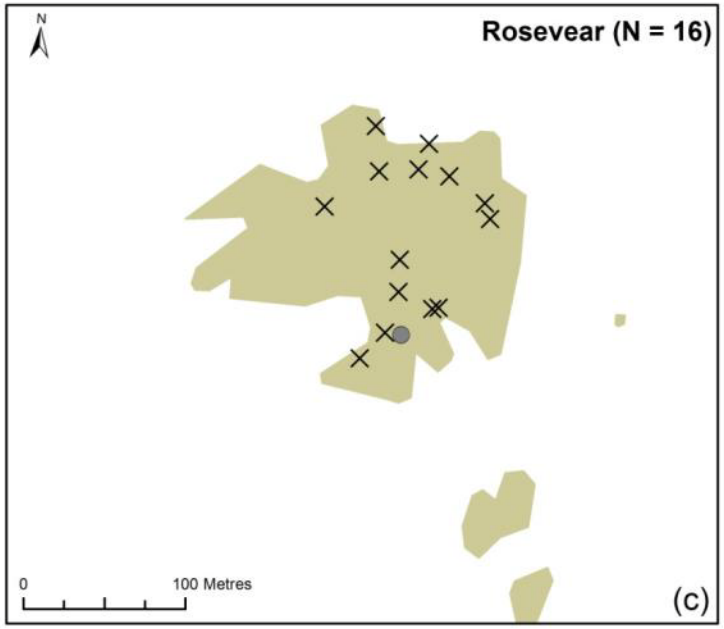
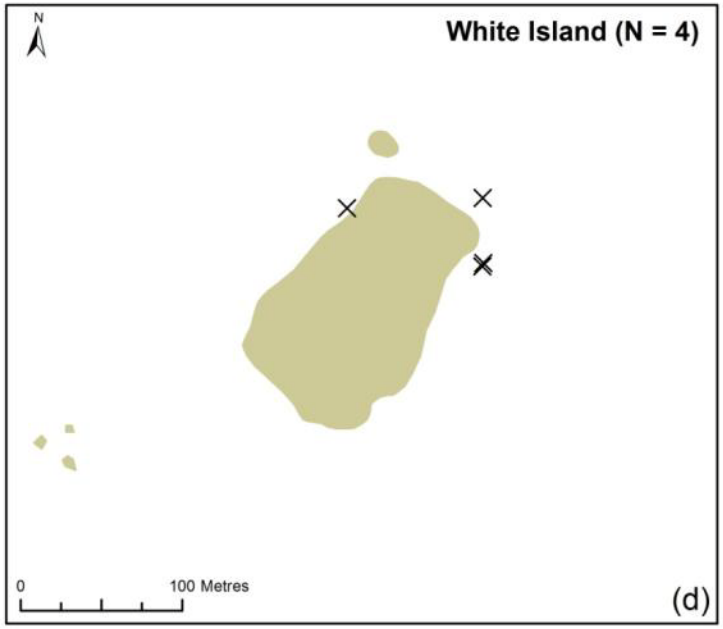








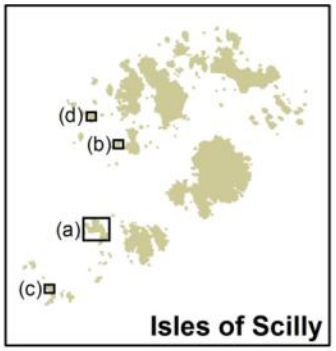
MARINE BIODIVERSITY AND HABITAT SURVEYS

Grey seals in the Isles of Scilly

Halichoerus grypus

MERiFIC Deliverable 3.3.2

OCTOBER 2011



Land survey, 20th Oct. 2011

Seal pups

- 1
- 2
- 3

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