



# Isle of Man

## Critical habitat for Risso's dolphins?

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### Introduction

Risso's dolphins (*Grampus griseus*) are regularly sighted in the shallow waters around the Isle of Man, particularly in the summer months, and are often seen with calves.

There has only been one population estimate for the UK region of 90-151 animals around Bardsey Island, Wales [1], and there is little other information on the importance of the UK region to this species.

Photo-identification of Risso's dolphins can allow confirmation of site-fidelity, and indicate regional population size. This is important in highlighting the significance of areas for regional conservation, particularly as it has been shown that UK Risso's are genetically distinct to those in the Mediterranean [2].



### Methods

MWDW have conducted dedicated cetacean surveys, between 2007 and 2013, to record sightings and photo-identification. Most survey effort has been focussed in the South-West region of the island.



Digital photographs are matched or added to the identification catalogue of well-marked, left, and right, individuals.

Photographs of Risso's are also made available from 'casual' encounters made on an opportunistic basis, such as those from tourist charter vessels.

Data were used to indicate seasonality and re-sightings of Risso's in Manx waters.

### Results

#### Surveys and Sightings

- 7 survey years: 2007 – 2013
- **73** dedicated cetacean **surveys**
- Risso's seen on 23 (31.5%) surveys
- **42** Risso's dolphin **sightings**
- **Calves in 11 (26.2%)** of 42 **sightings**
- 31 dedicated photo-ID encounters
- 30 'casual' photo-ID encounters
- Risso's seen in 8/12 months
- Peak in June, July, and August
- **Calves** seen in June, July, and August – **five with foetal folds** seen in one sighting in July 2013!
- 8 years of public sightings: 2006 – 2013
- **460 sightings** of 2030 Risso's dolphins
- Seen in every month but peak is June

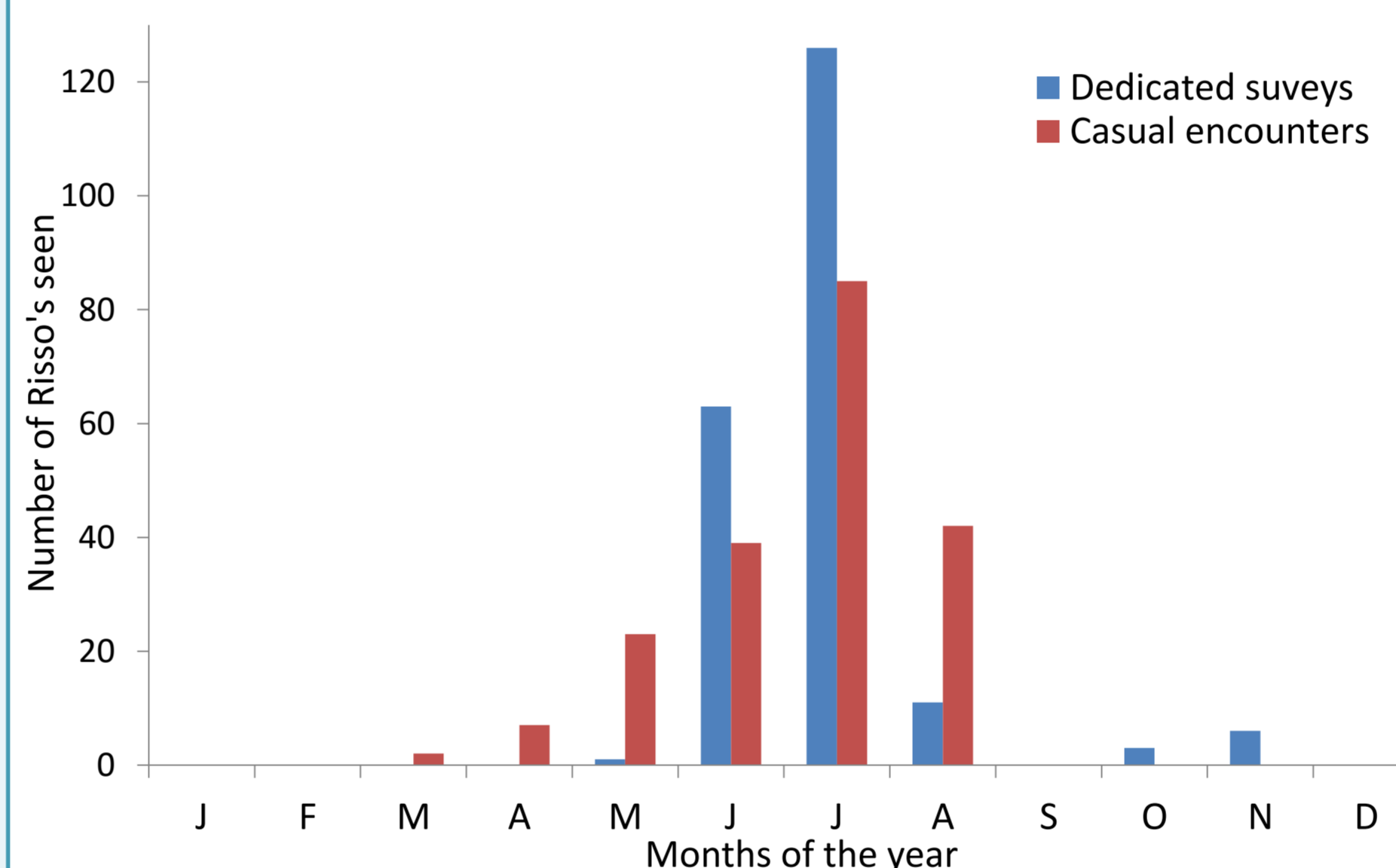


Figure 1: Showing the number of Risso's dolphins seen in each month on dedicated cetacean surveys (blue, n=42) and on casual photographic encounters (red, n=30)

#### Photo-identification

- 370 animals photographed
- 254 (68.6%) positively identified
- Photo-ID catalogue: - **45 well-marked**  
- **35 left**  
- **46 right**
- **Catalogue size:** - Min. **91**  
- Max. **116**
- Ten individuals are known in both the left and right sections
- **34 (29.3%)** out of 116 **re-sighted** (whole catalogue)
- 31 out of 91 (34.1%) re-sighted (only well-marked and right)
- 19 animals have been seen in at least two different years
- 10 seen in both the first and last years



### Conclusion

Manx waters appear to be an important area for Risso's dolphins and their calves, particularly in the summer months. Critical habitat is that which is necessary for the survival of a species, or consistent seasonal occupancy. Both aspects of appear relevant in the case of Manx waters.

Though it is unknown exactly how many animals use the area, it appears similar to that reported for Bardsey Island. New individuals are identified every year, as well as high re-sighting rates, indicating site fidelity. Additionally, the presence of calves, and probable births, in the area suggests it is important in Risso's early life.

For the future, collaborative work is needed to collate sightings data from around the UK to determine population size, distribution, habitat use, movement patterns, and possible social interactions and population dynamics of this interesting species.



### References

- [1] De Boer, M.N., Clark, J., Leopold, M.F., Simmonds, M.P., Reijnders, P.J.H., 2013. Photo-identification methods reveal seasonal and long-term site-fidelity of Risso's dolphins (*Grampus griseus*) in shallow waters (Cardigan Bay, Wales). *OJMS* 3:66-75
- [2] Gaspari, S., Airoldi, S., Rus Hoelzel, A., 2007. Risso's dolphins (*Grampus griseus*) in UK waters are differentiated from a population in the Mediterranean Sea and genetically less diverse. *Conserv. Genet* 8:727-732

