Patrick Lindley

Natural Resources Wales

Cyfoeth Naturiol Cymru
Natural Resources Wales

Population status of Curlew in the UK and Ireland

Patrick Lindley
Senior Ornithologist

What do we know?

Listed as globally near threatened in 2008

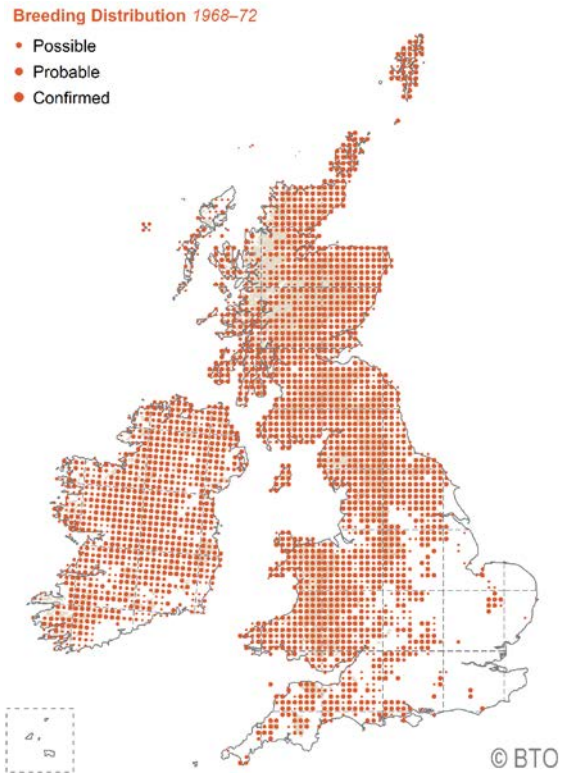
The UK population of 68,000 breeding pairs support between 19-27% of the global breeding population.

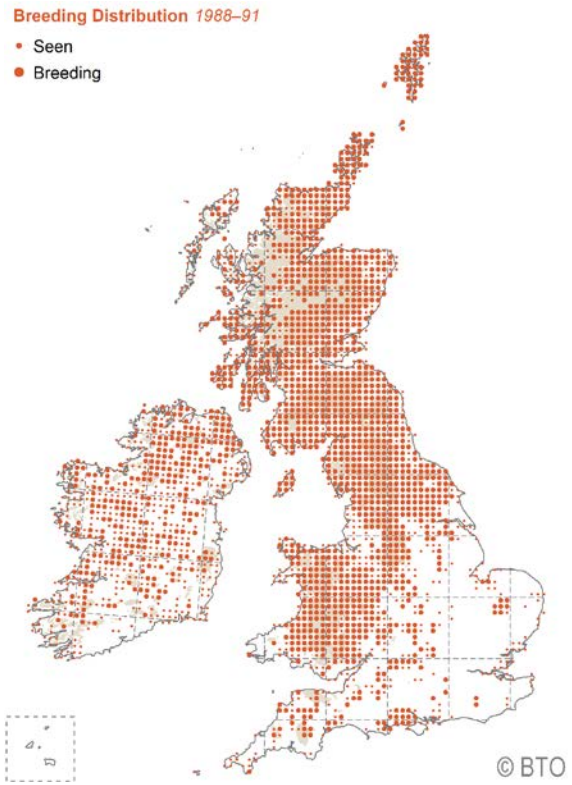
The UK wintering population of 150,000 inds. support between 14-29%of the global wintering population.

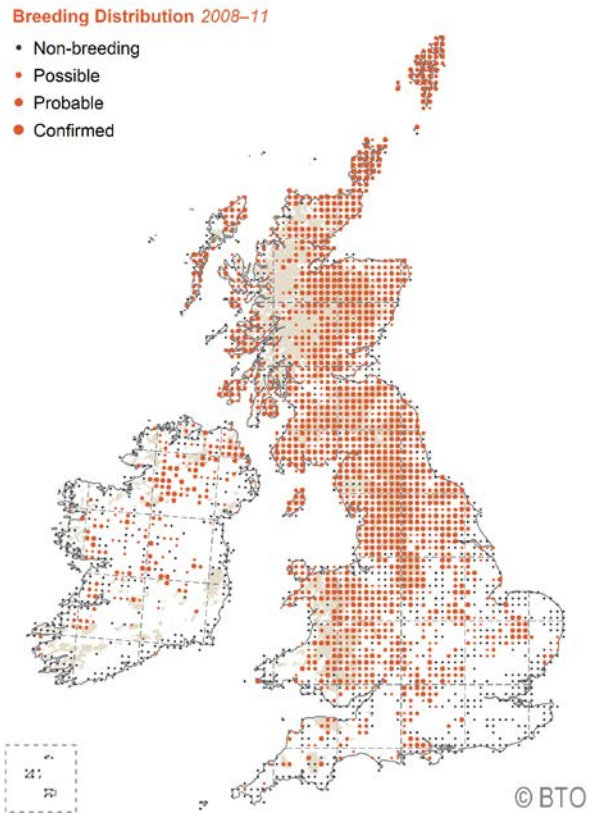
The rate of the UK breeding population decline is among the highest recorded across its range

Country-level extinctions are now a real possibility by 2030

Breeding distribution 1968-72 to 2008-11



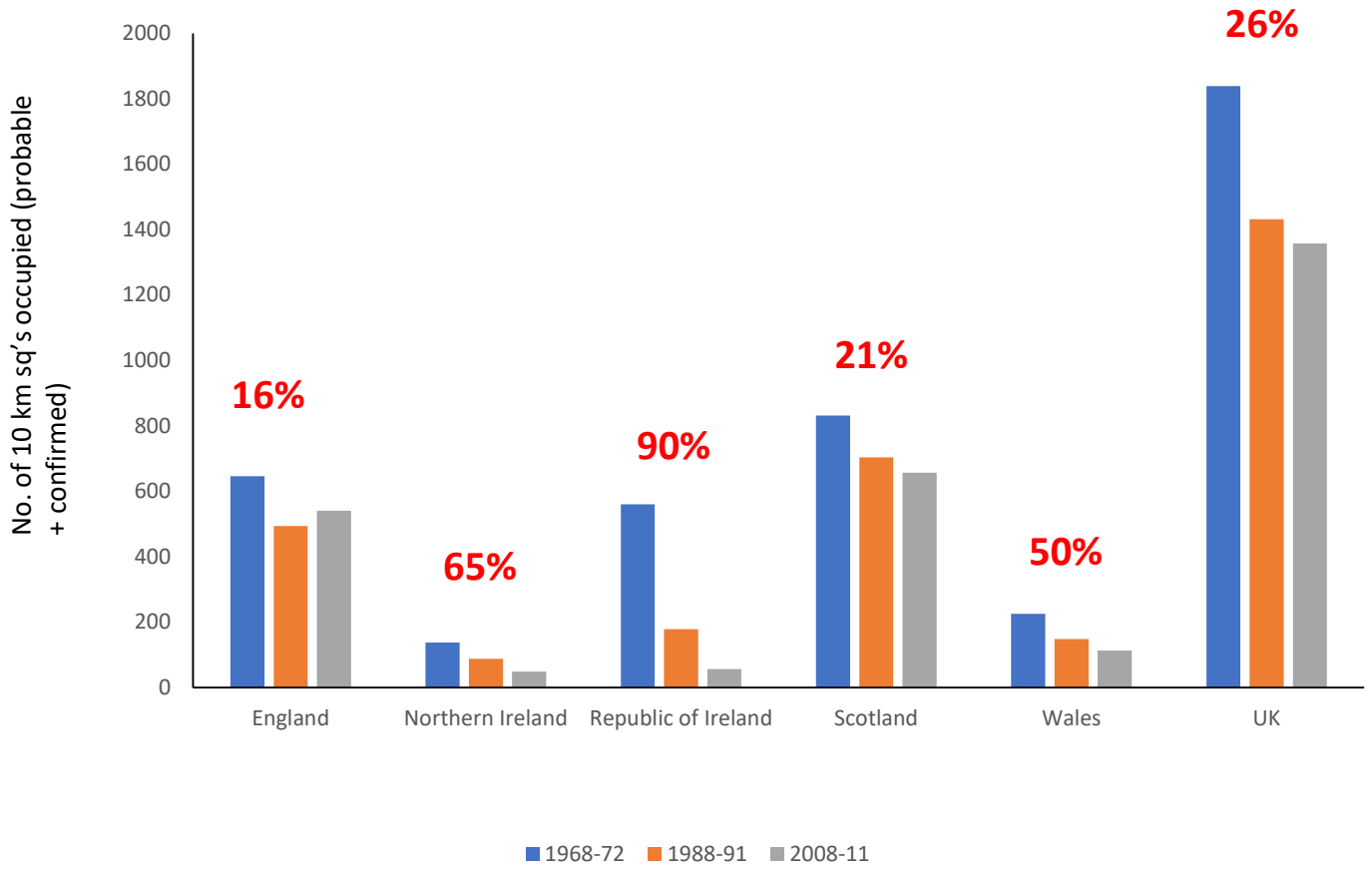




1968-72 **1988-91** **2008-11**

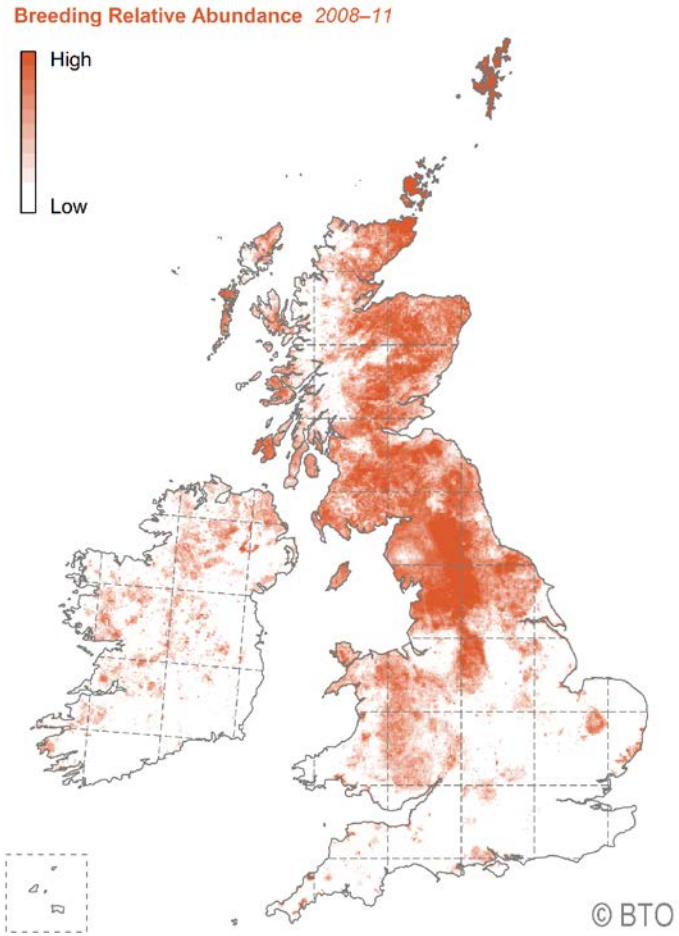
Data sourced from the BTO

Changes in curlew distribution across the UK and Ireland between 1968-72 to 2008-11

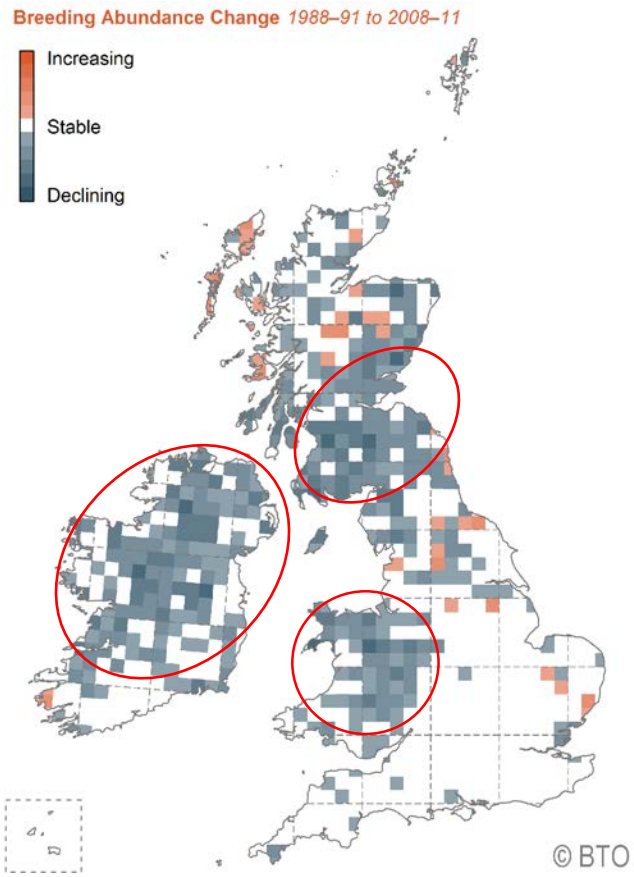


Data sourced from the BTO

Breeding curlew relative abundance and change between 1988-91 to 2008-11



2008-11



1988-91 to 2008-11

Balmer *et al* 2013

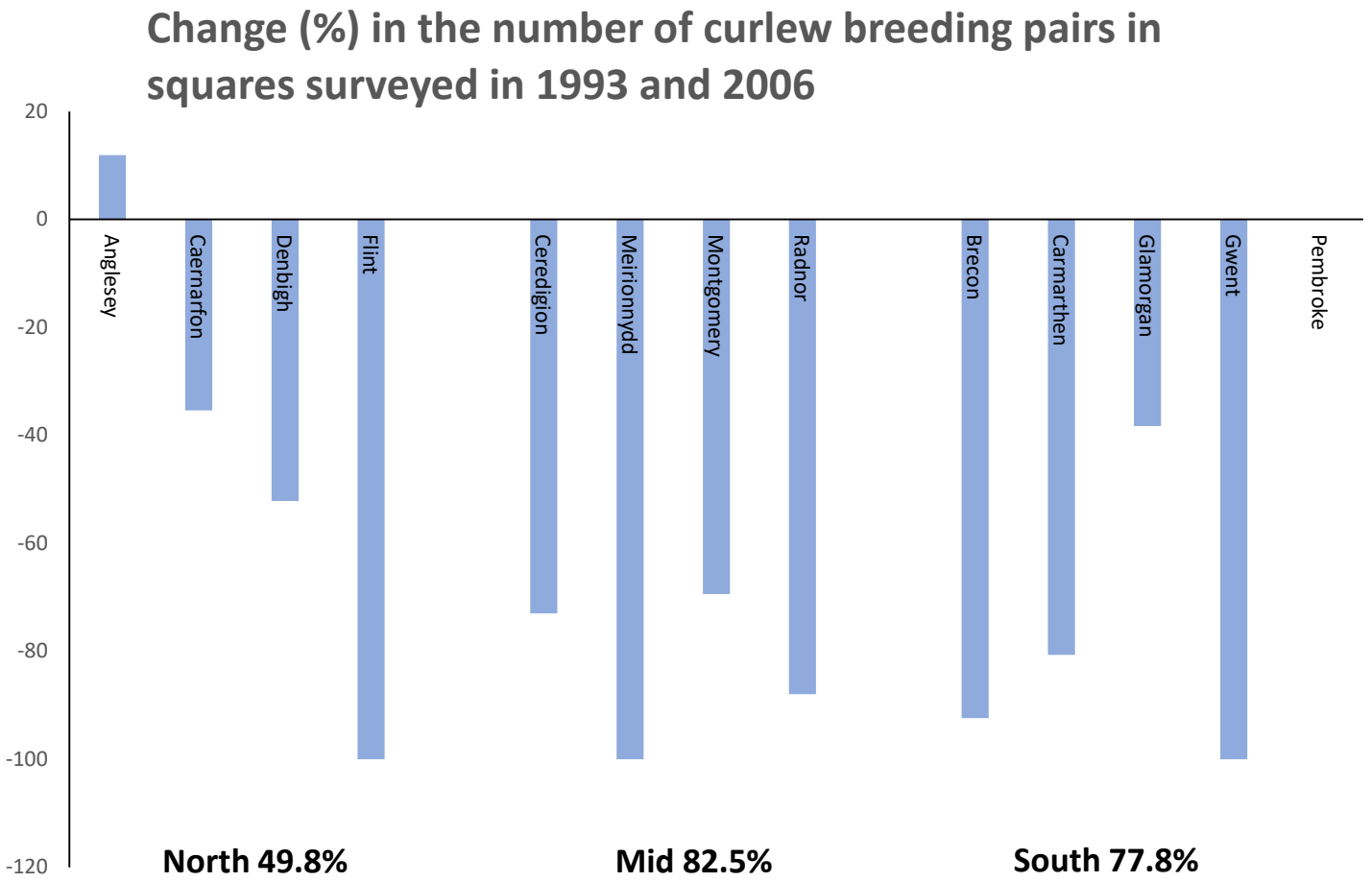
Changes (%) in numbers of breeding curlew across the UK and Ireland

Country	Survey method	Period	Change %	Change per annum	Population estimate (pairs)	Population trajectory (2018)
England	BBS	1995-2015	31% ↓	1.6%	26,000 (2009)	<22,200 pairs
Scotland	BBS	1995-2015	59% ↓	3.0%	40,500 (2009)	<30,500 pairs
Wales	Survey	1993-2006	81% ↓	6.2%	1,100 (2006)	<400 pairs
N. Ireland	Survey	1985-2013	82% ↓	2.9%	526 (2013)	<250 pairs
UK	BBS	1995-2015	48% ↓	2.4%	68,000 (2009)	<53,300 pairs
Republic of Ireland	Survey	1988-2014	96% ↓	3.2%	150 (2014)	<150 pairs

Curlew population change in Wales

Repeated survey	Period	% Change	Predicted Welsh population
Waders of wet meadows (Wilson et al 2005)	1982 & 2002	83%	2738
Repeat upland bird survey	1981-85 & 2002	75%	1676
Repeat all Wales wader survey	1993 & 2006	81%	1099

Welsh regional changes:1993 to 2006

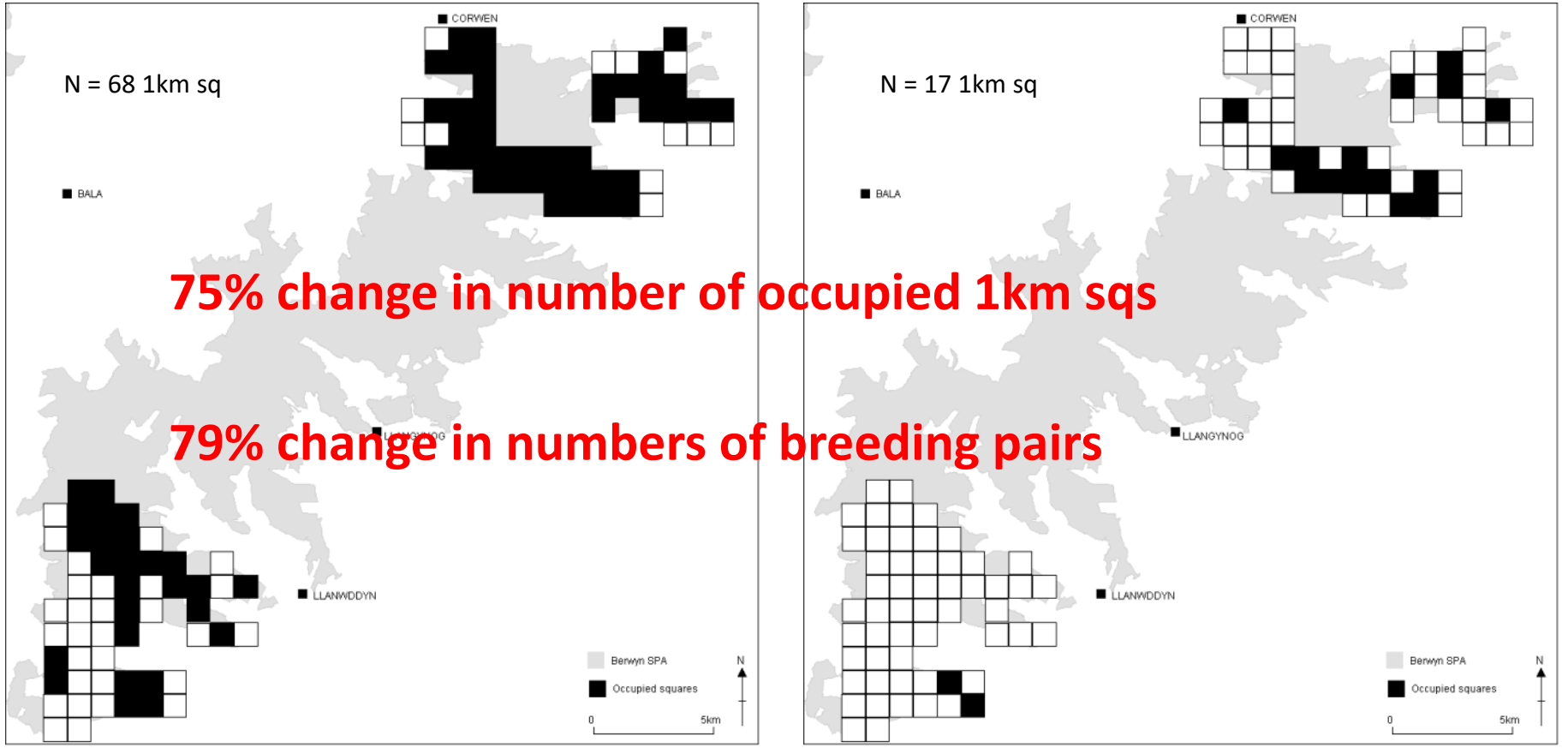


Data from Johnstone *et al* 2007

Distribution of breeding curlew in 1983-5 and in 2002 in the Berwyn SPA (filled 1-km squares denotes presence, open squares absence).

1983-1985

2002



75% change in number of occupied 1km sqs

79% change in numbers of breeding pairs

Warren & Baines (2012)

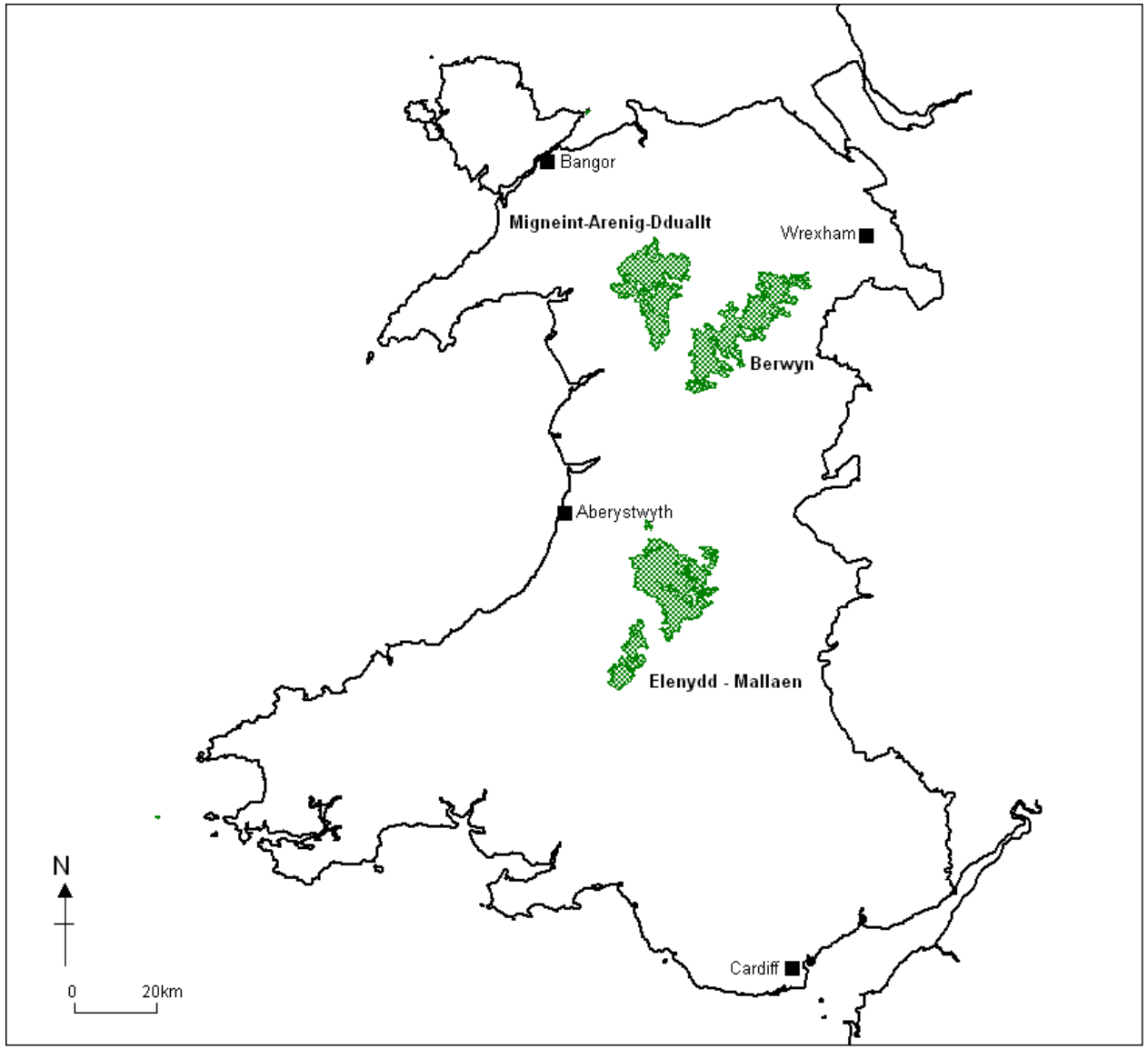
A comparison of hatching success across UK and European studies

Study area	Habitat	No of occupied sites	% sites with chicks based a visits 3-5	Mean and range of breeding success (chicks/pair)
[1] Haweswater	Upland rough grass	6	67	?
[1] North Pennines	Upland rough grass	5	40	**0.60** (0.59-0.61)
[1] Co. Fermanagh	Lowland wet grass	6	33	**0.36** (0.20-0.56)
[1] Wales	Random 1km sqs	14	14	**0.24** (0.21-0.27)
[1] Co. Antrim	Upland rough grass	7	0	**0.19** (0.14-0.26)
[2] N. Finland	Bog	?	?	**0.74**
[2] Vastmanland, Sweden	Bog	?	?	**1.4**

Curlews require 0.48 – 0.62 fledglings per pair per year for population stability

[1] Data from Johnstone *et al* 2007
[2] Data from Brown *et al* 2015

Upland SPAs in Wales



Three upland SPAs in covering 741 km^2

No SPA with curlew as a qualifying breeding feature

Two SSSIs (sites of lowland wet grassland) list curlew as a designated feature

What do we know in Wales?

BBS trends for Curlew can not be calculated as they occur in too few squares

Future surveys to revise the population size is impractical, given the likely sample size required to achieve a level of precision as they are now too scarce.

The direction of across habitat population trends seems to be consistent with habitat specific resurveys.

Breeding success (chicks fledged/pair) would need to be 0.21-0.27 to achieve observed population decline.

Thank you for listening

© David Kjaer