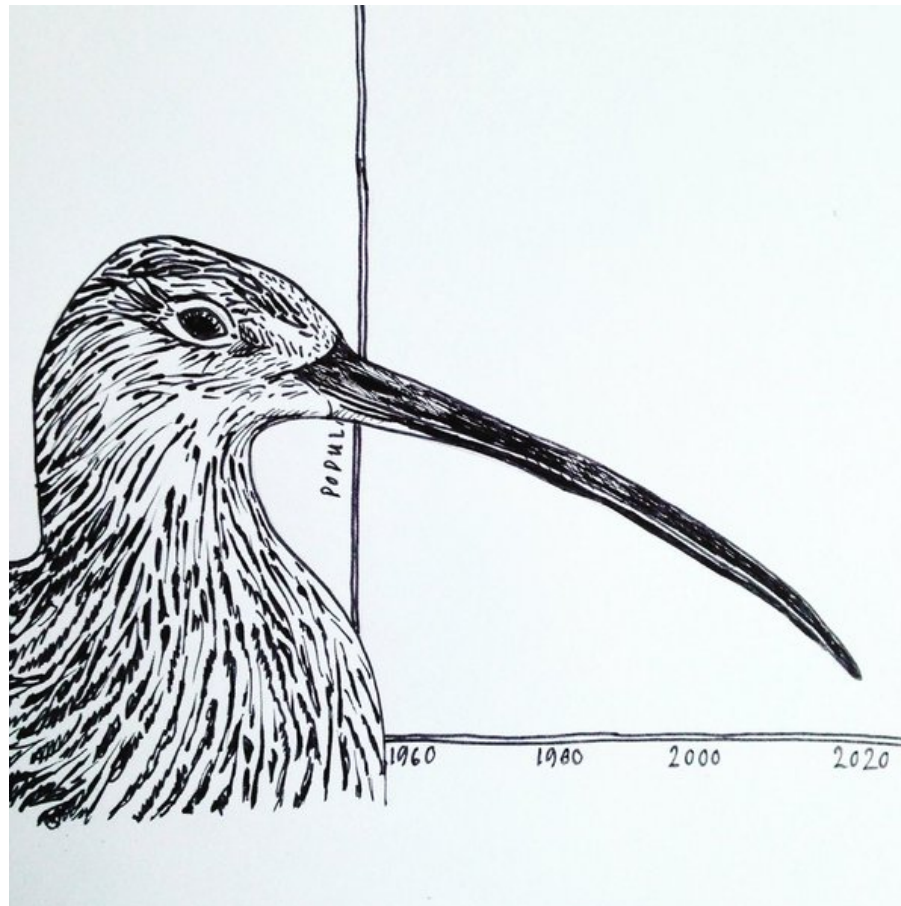


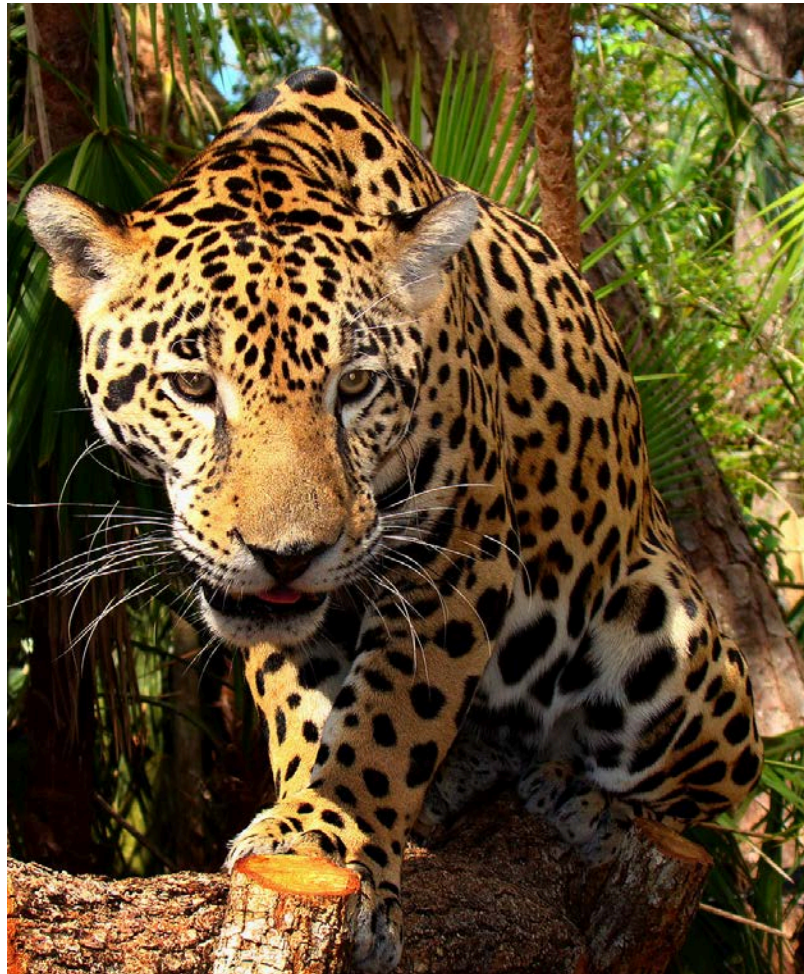
Saving Curlews

Mary Colwell



Near Threatened

Threatened with extinction in the near future – same as jaguar



Declines

- Global population estimated to be around 750,000 in 2006.
- But since the 1980s- Decline of 97% in Ireland since 80s - Wales 80% - England 60% Scotland 50%
- On average a 30% decline across the rest of its range in last 15 years

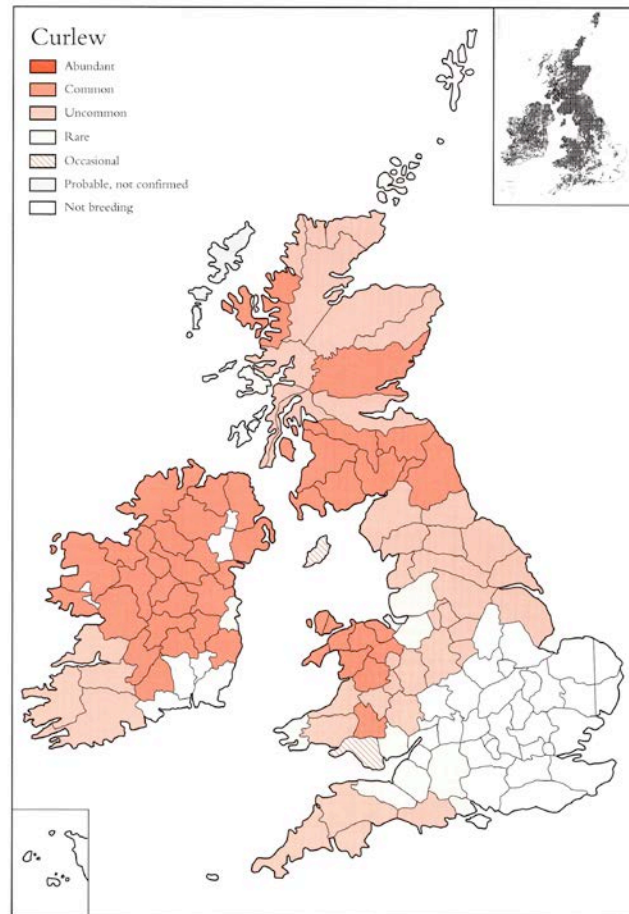
Breeding 1875-1900

ng in
a few
: had
from
n the
n the
nt in

Outer
ings,
or, in
There
n the
: was
acca-
and

little
as of
: was
ange
sley
large
as to
ting,
sens
ntrol
19th
and

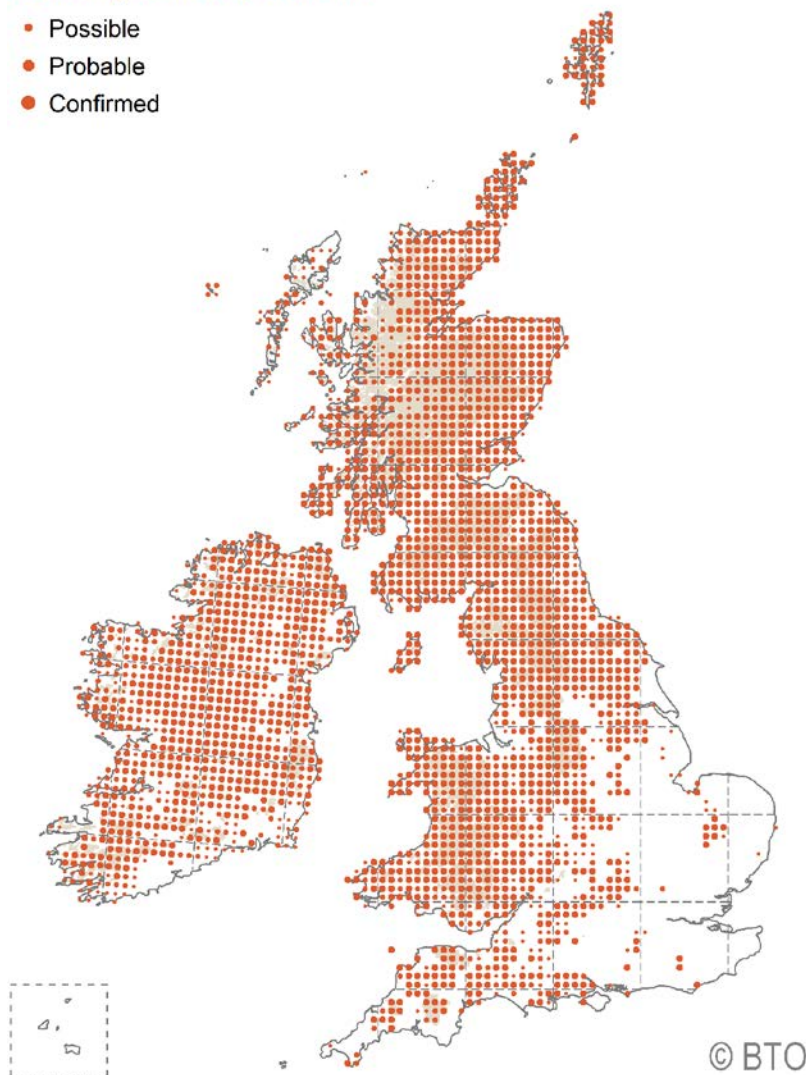
d of
f the
ow-
ying
940s,
not
pan-
and
vps,
s-45
l by
ing-
that
The
l. It
but
on-
ring
nest
and,
fing



1968-1972

Breeding Distribution 1968-72

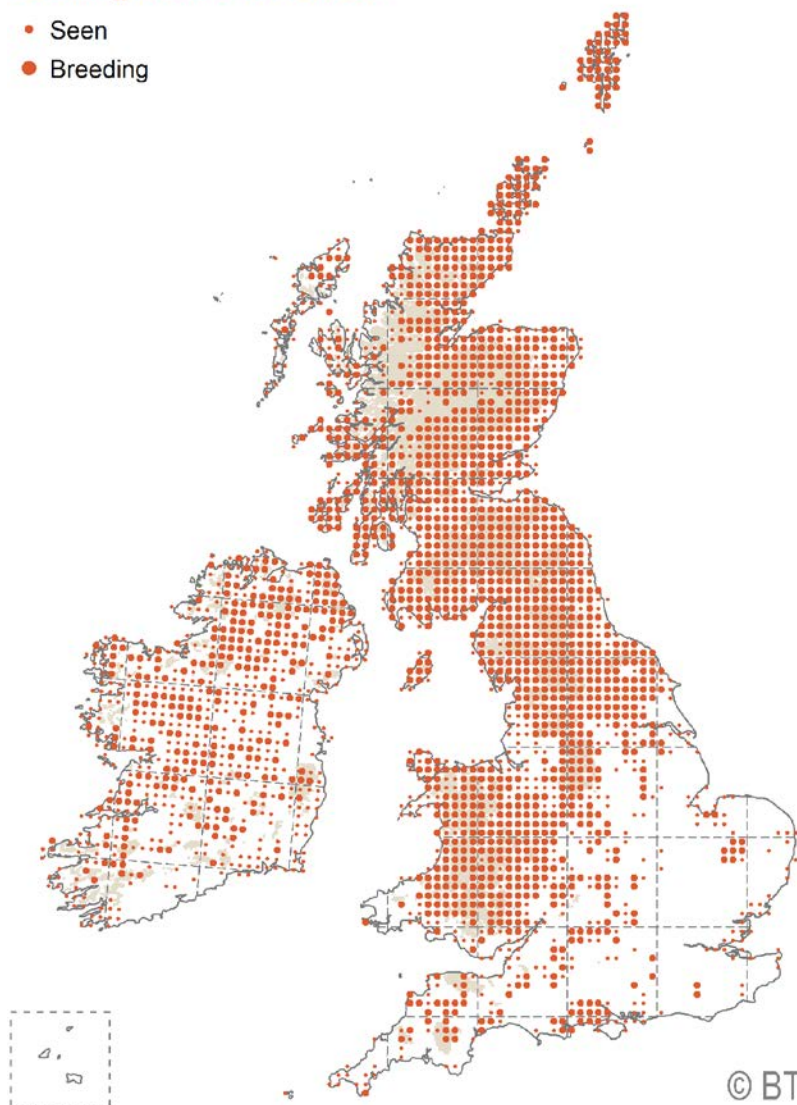
- Possible
- Probable
- Confirmed



1998-1991

Breeding Distribution 1988-91

- Seen
- Breeding

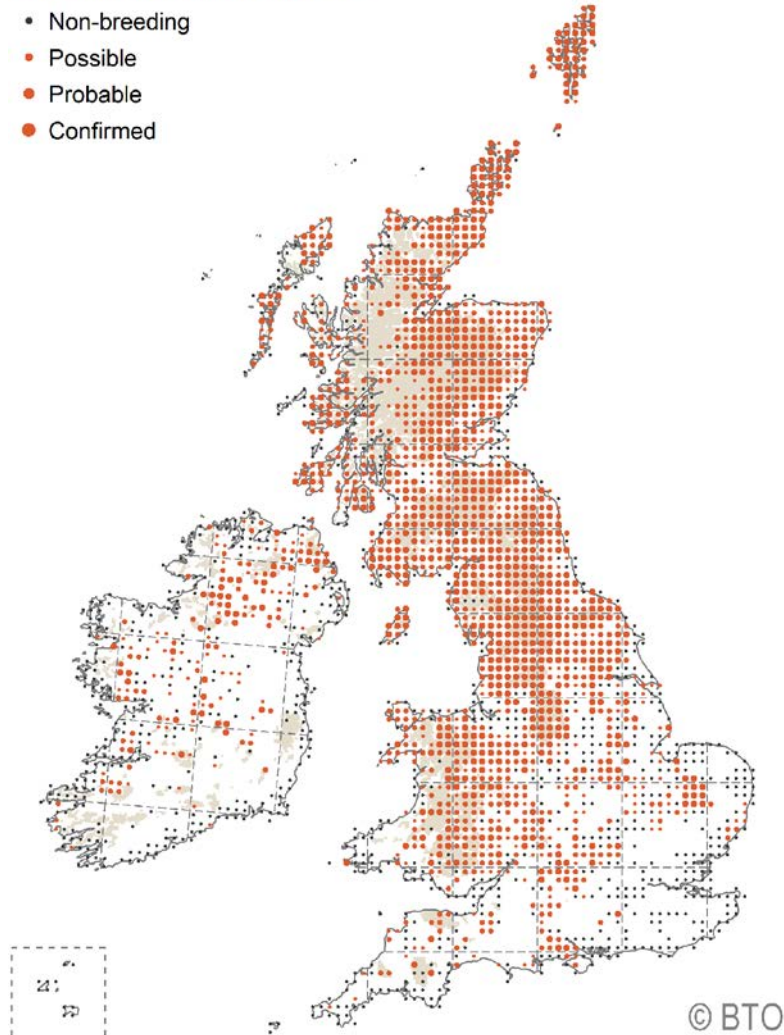


© BTO

2008-2011

Breeding Distribution 2008-11

- Non-breeding
- Possible
- Probable
- Confirmed

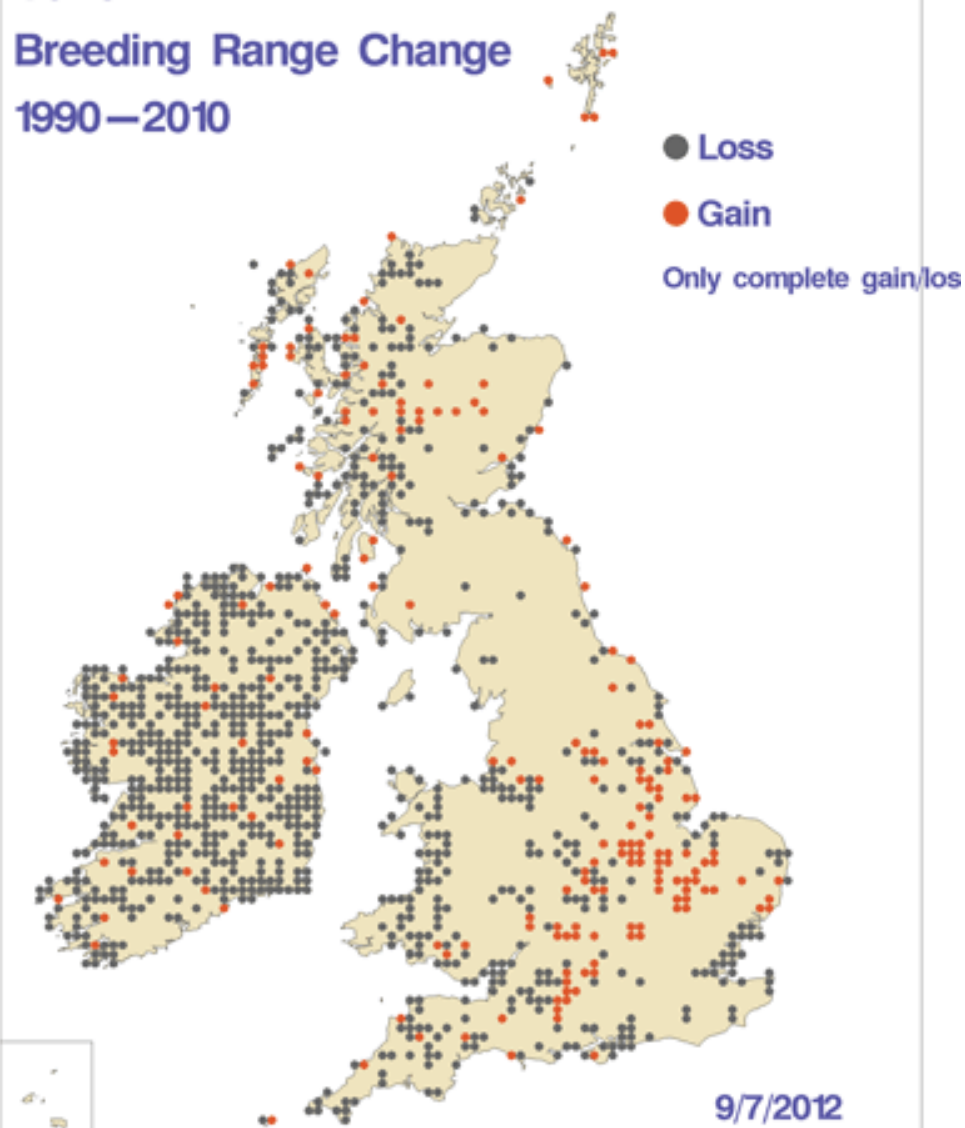


© BTO

Curlew

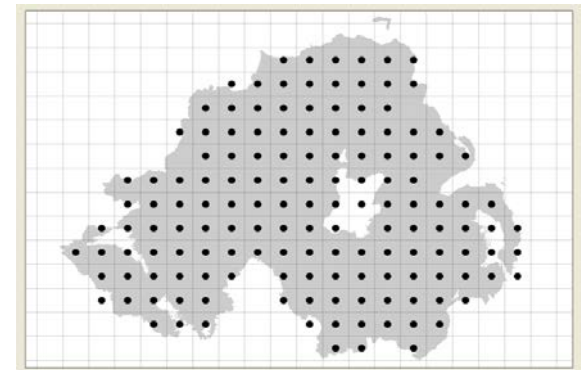
Breeding Range Change

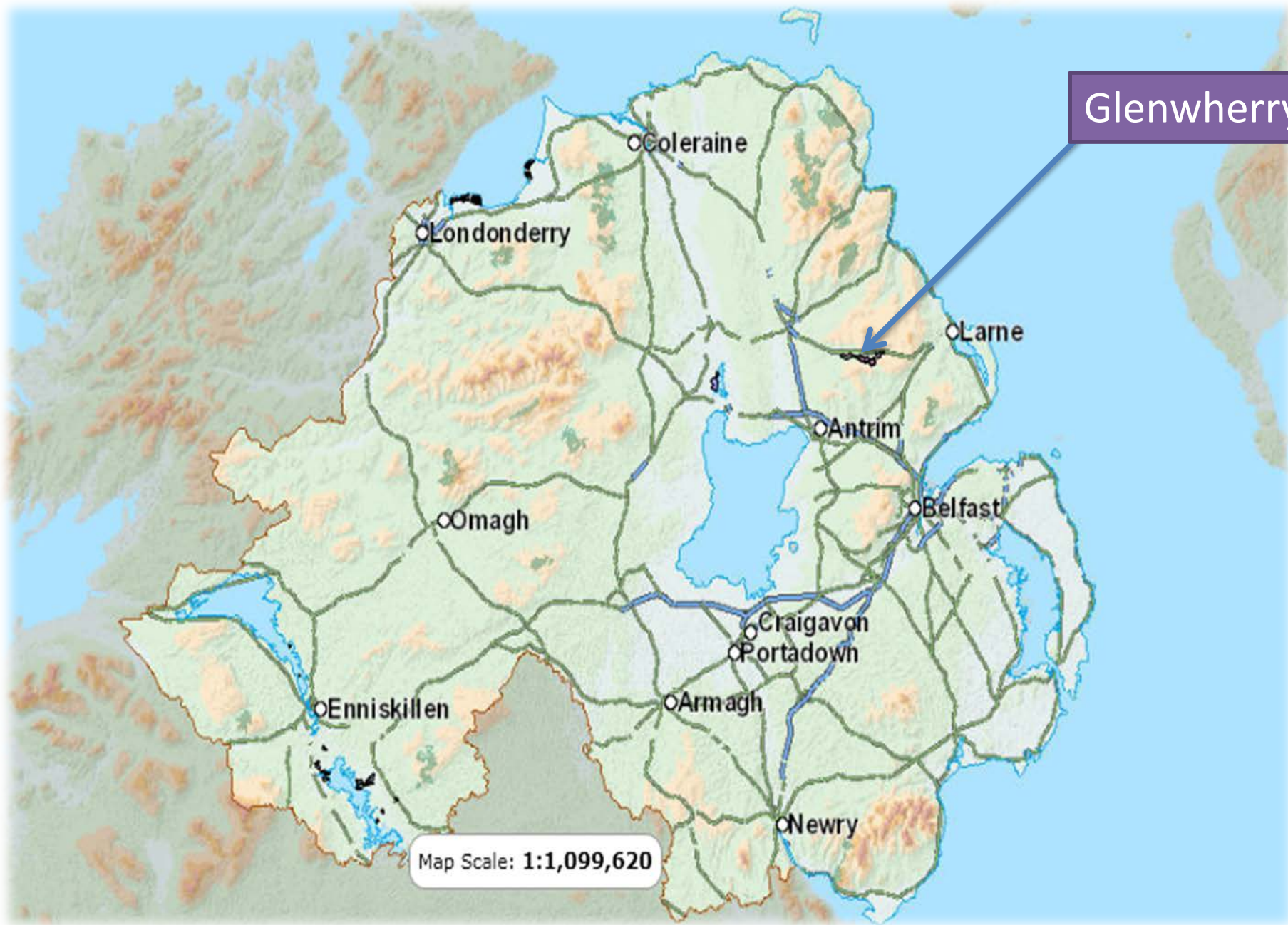
1990—2010



Status of curlew in Northern Ireland

- NI breeding wader surveys carried out in 1987, 1999 and 2013
- 146 10km squares surveyed across NI
- 82% decline in curlew since 1987
- Survey estimated 526 pairs of curlew remaining in 2013 (\pm 95% CI: **252-783**)
- That's 5000 pairs to 526 (or more likely 250) in c25 years





Glenwherry

Map Scale: 1:1,099,620

Slemish Mountain



RSPB Trial Management Plan



Lough Erne, Co Fermanagh



Southern Ireland







Industrial peat extraction



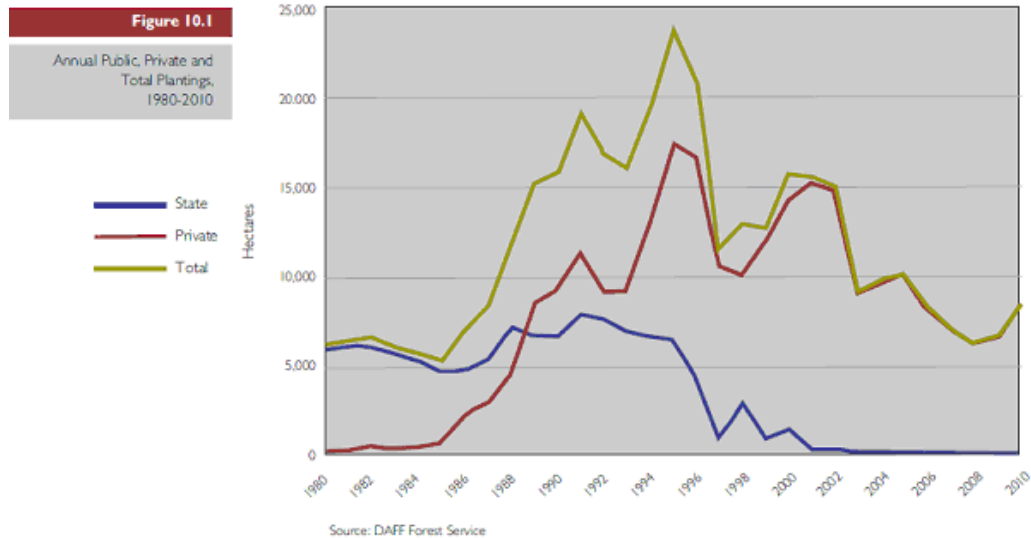
3 peat fired power stations in Ireland



- There has been a 99% loss of original area of actively growing raised bog in Ireland, and one-third of the remaining 1% has been lost in the last 10 years.
- 70% of Ireland's remaining curlews nest on bog



Forest cover



Ireland will increase forest cover by 6% by 2020
(another 46,000 hectares)

Early Silage Cutting



- 75% of Ireland's land is agriculture
- 81% of agricultural land is for pasture, hay and grass silage
- Over half a million tonnes of grass for cows produced in 2015





Predation



2015: Yellow dots

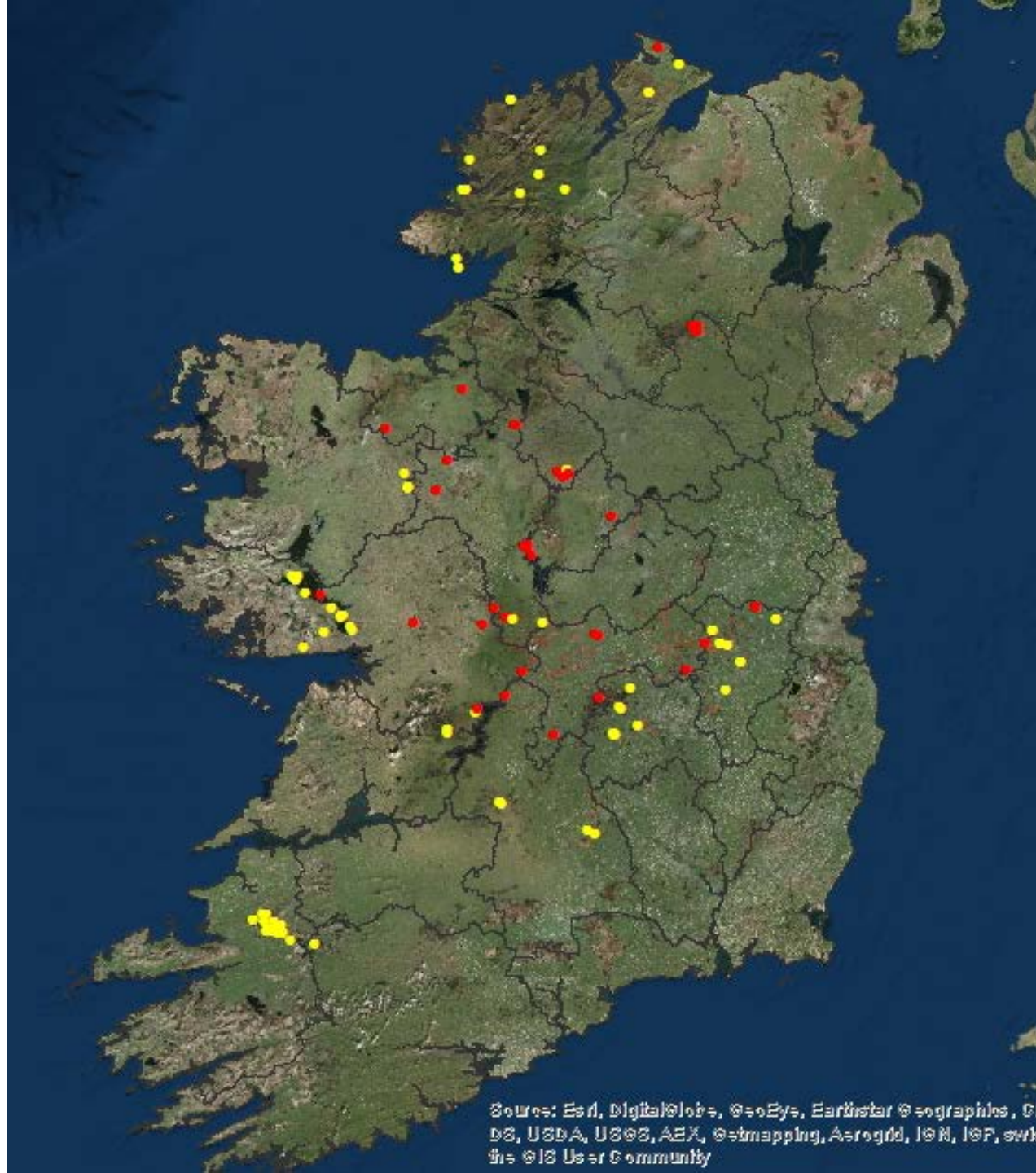
2016: Red dots

Key Areas:

-Stacks Mountains

-Lough Corrib

-Midlands Bogs



Results

TOTAL = 122 pairs

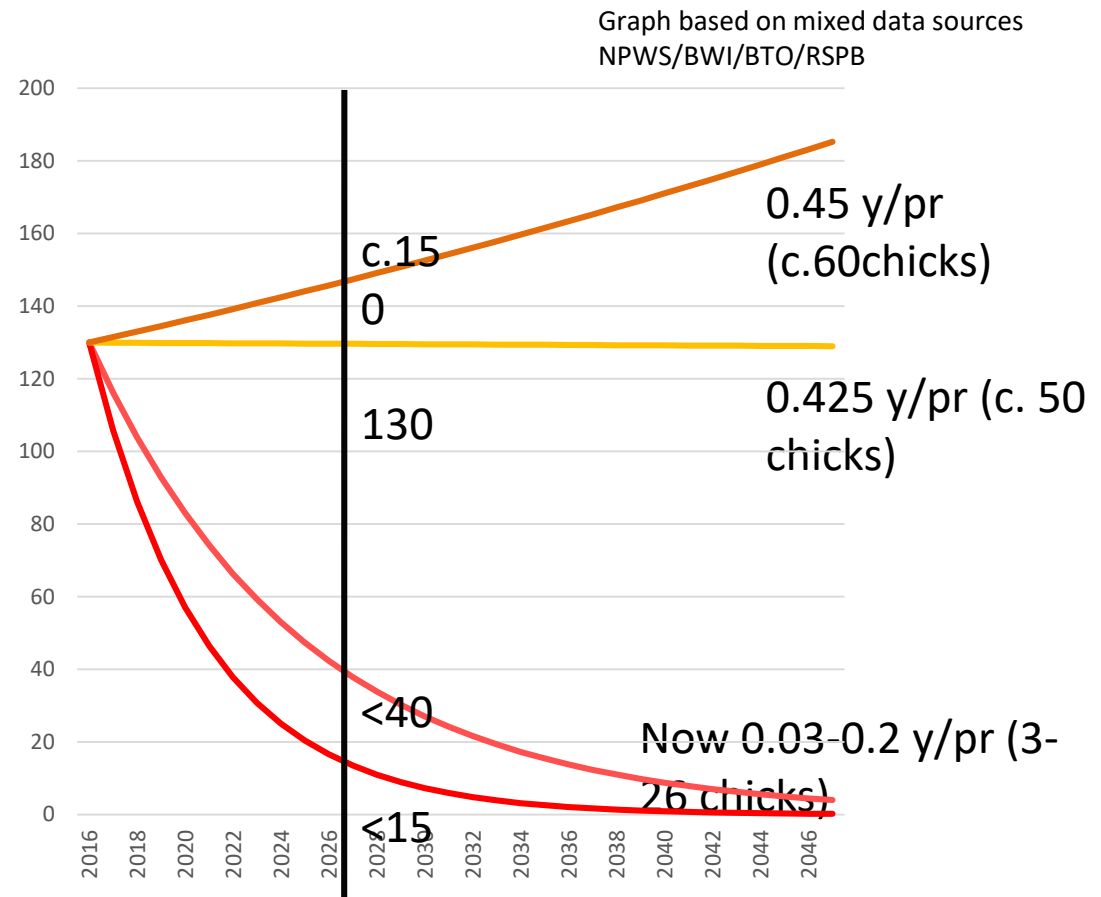
*(Excludes Shannon Callows, scheduled for survey in 2017 –
approx 5 pairs?)*

↓ 97% decline since 1980s ↓

↓ 34% decline since 2007-2014 ↓

WORKSHOP SESSIONS

How do we go from
red to green?



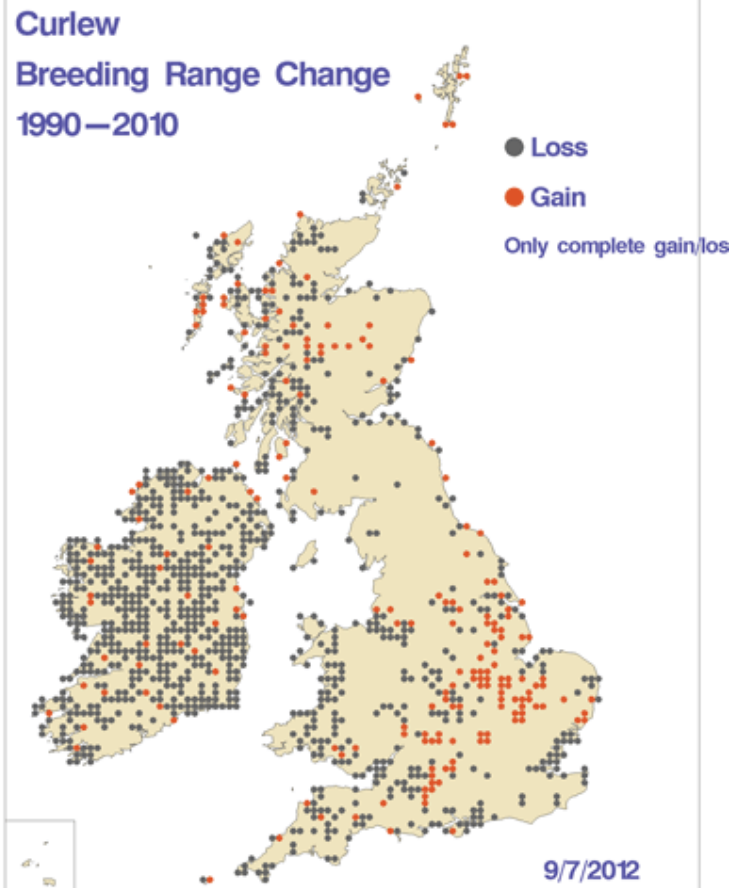
The bird of full-throat



Curlews in Crisis Workshop

Nov 4th 2016





Anglesey







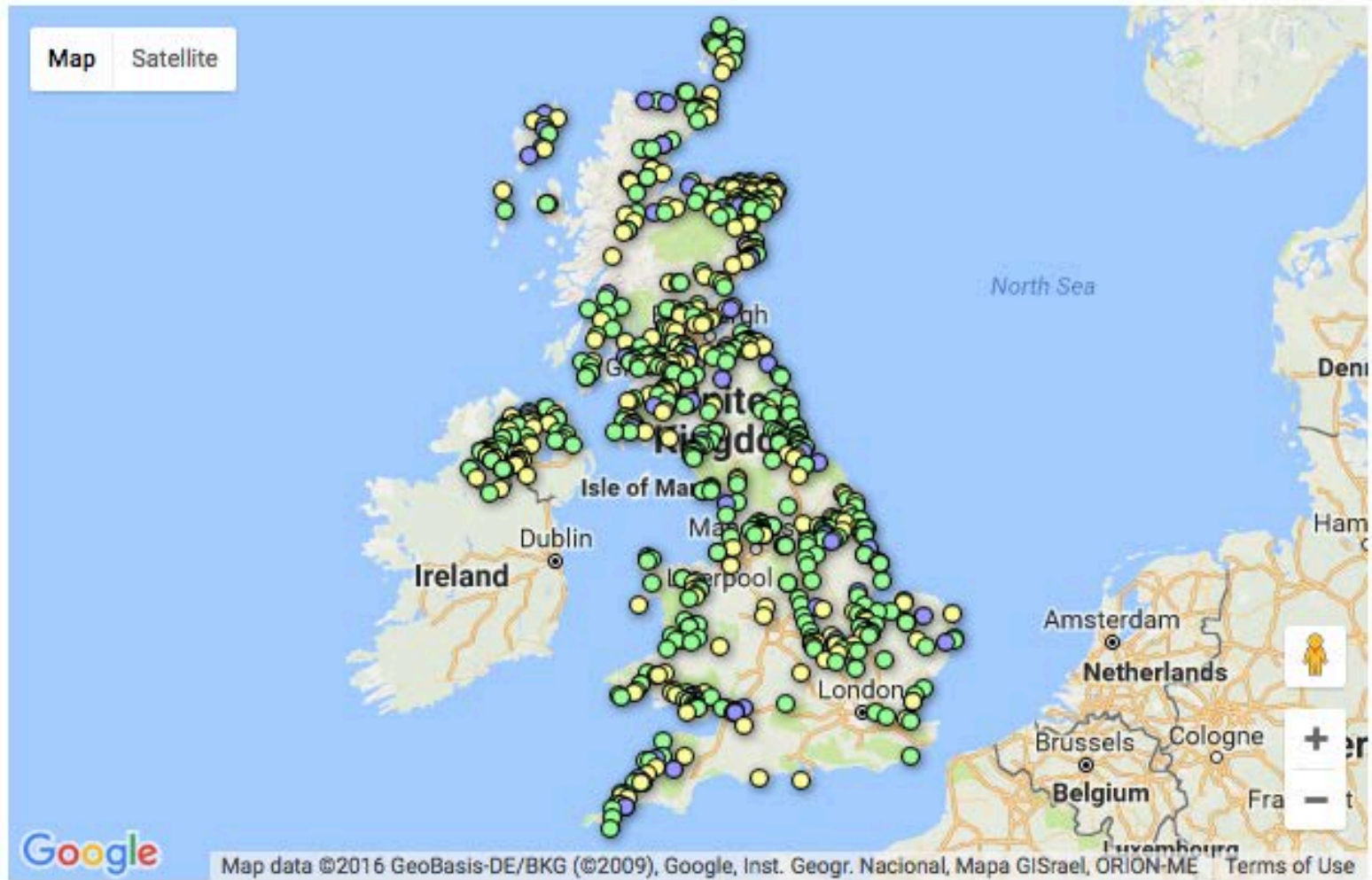
Windmills and Sheep



Sheep numbers

- 1999 – 11.8 million sheep in Wales
- 2015 – 9.5 million

Windmills



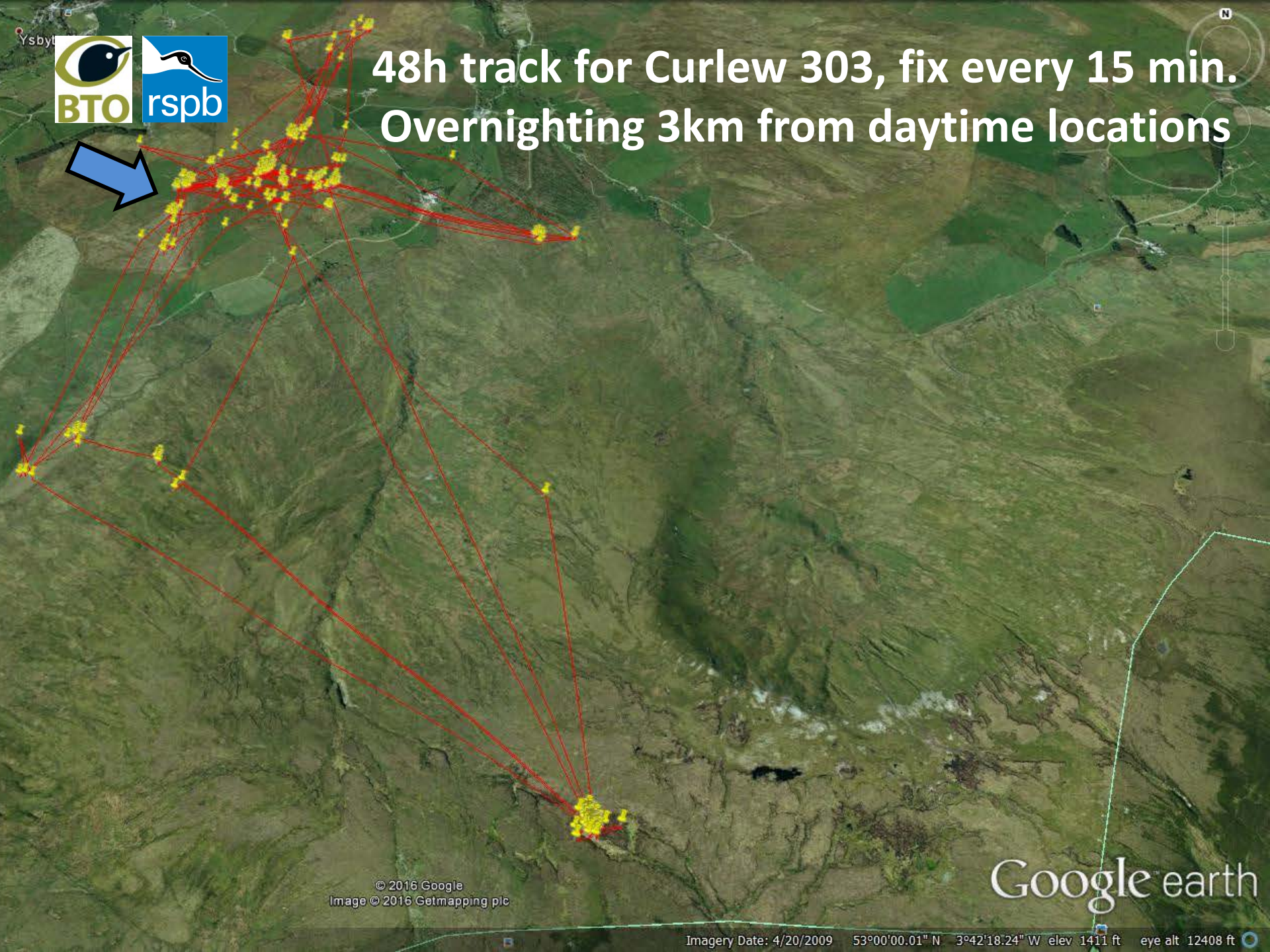
📍 Green dots are operational windfarms, purple are under construction and yellow dots are those that have been approved. Source: UK Wind Energy Database ([RenewableUK](http://renewableuk.co.uk))

Rachel Taylor – BTO Research

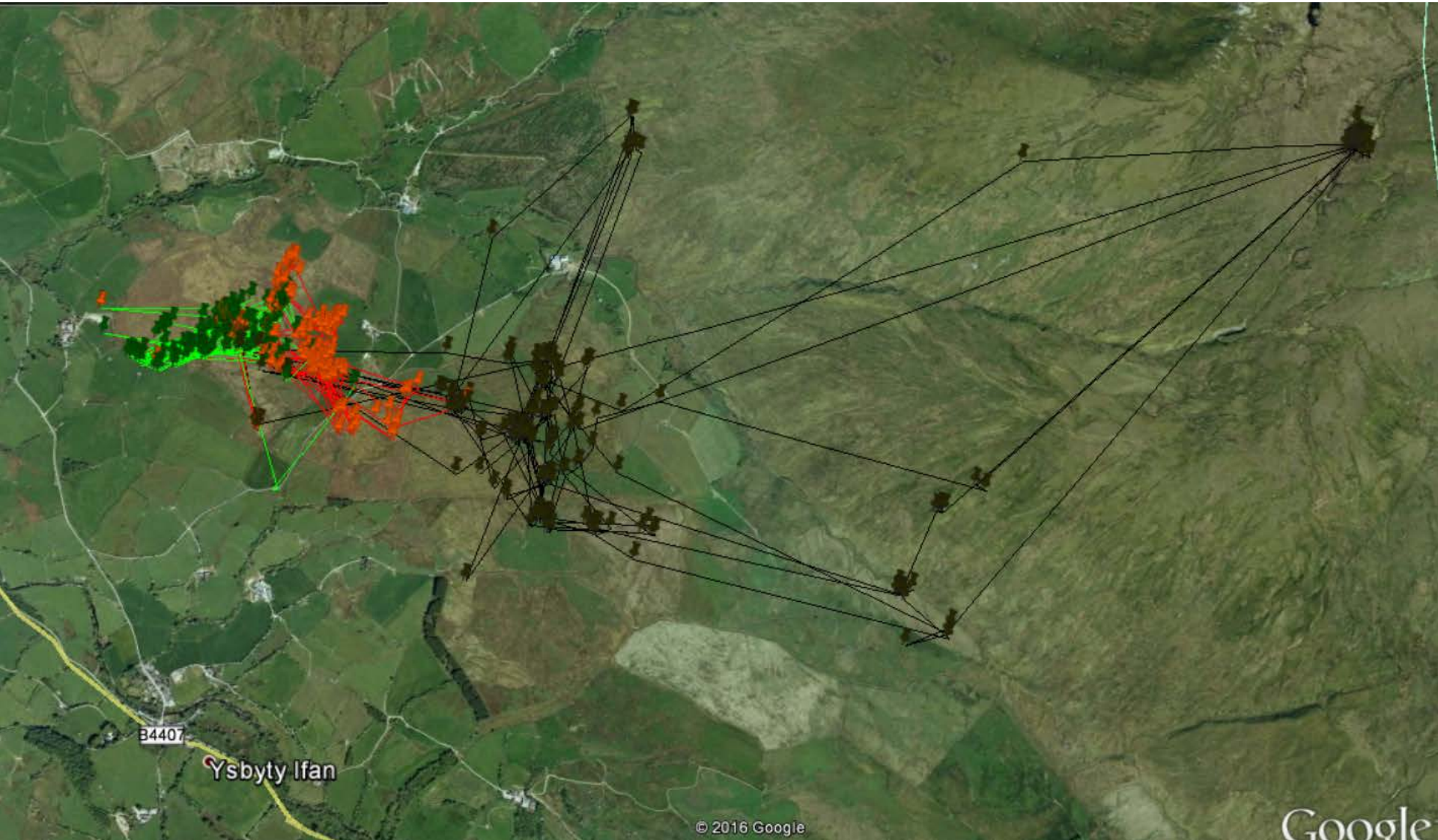




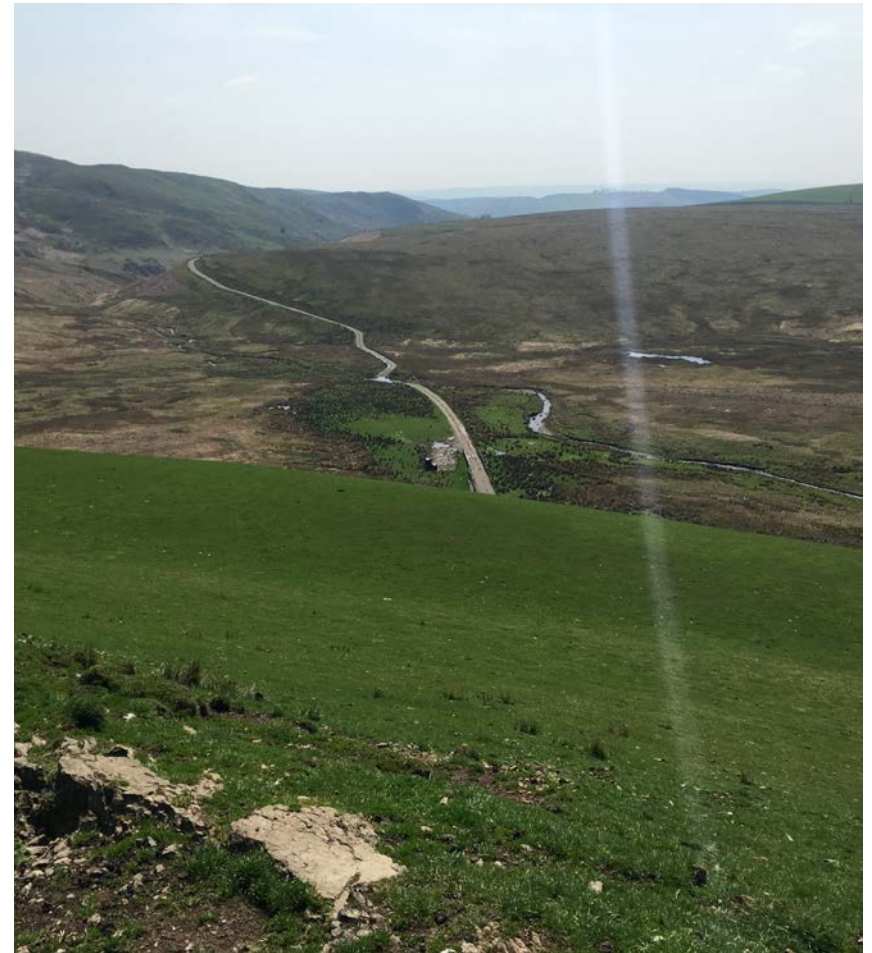
48h track for Curlew 303, fix every 15 min.
Overnighting 3km from daytime locations



48h tracks from all three Curlew, fixes every 15 min.

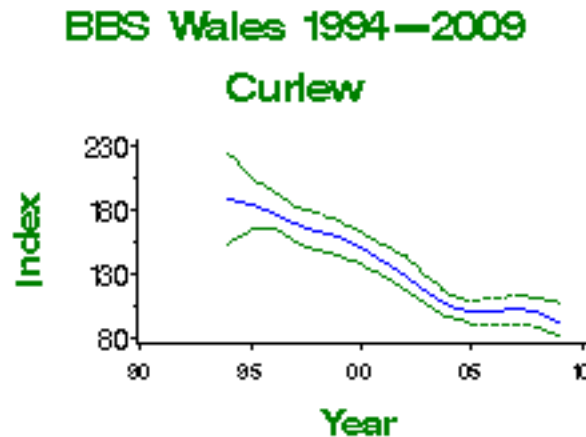


Lake Vyrnwy



Wales

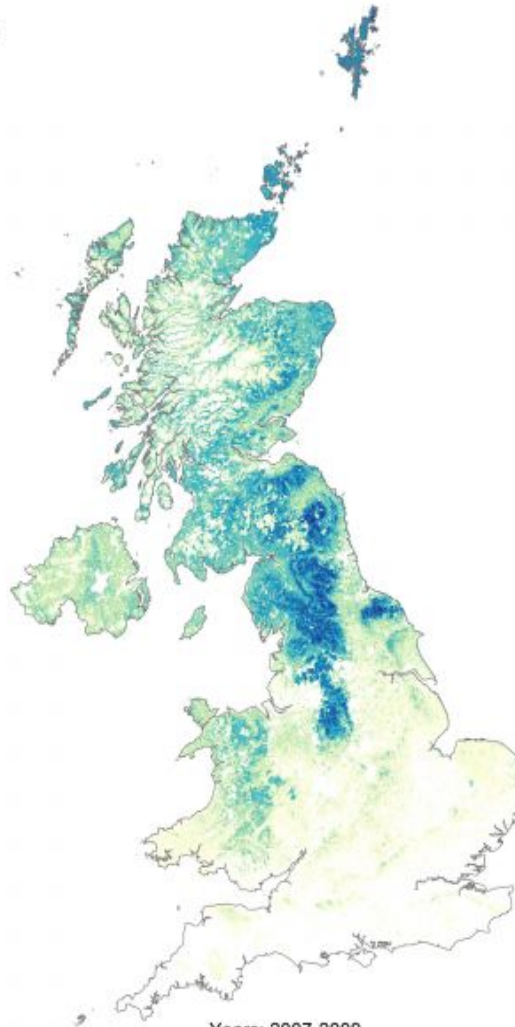
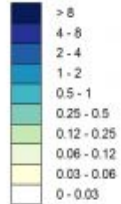
- 500-600 pairs in total? Where are they? In rapid decline – 80% since 1980s.



England and Scotland

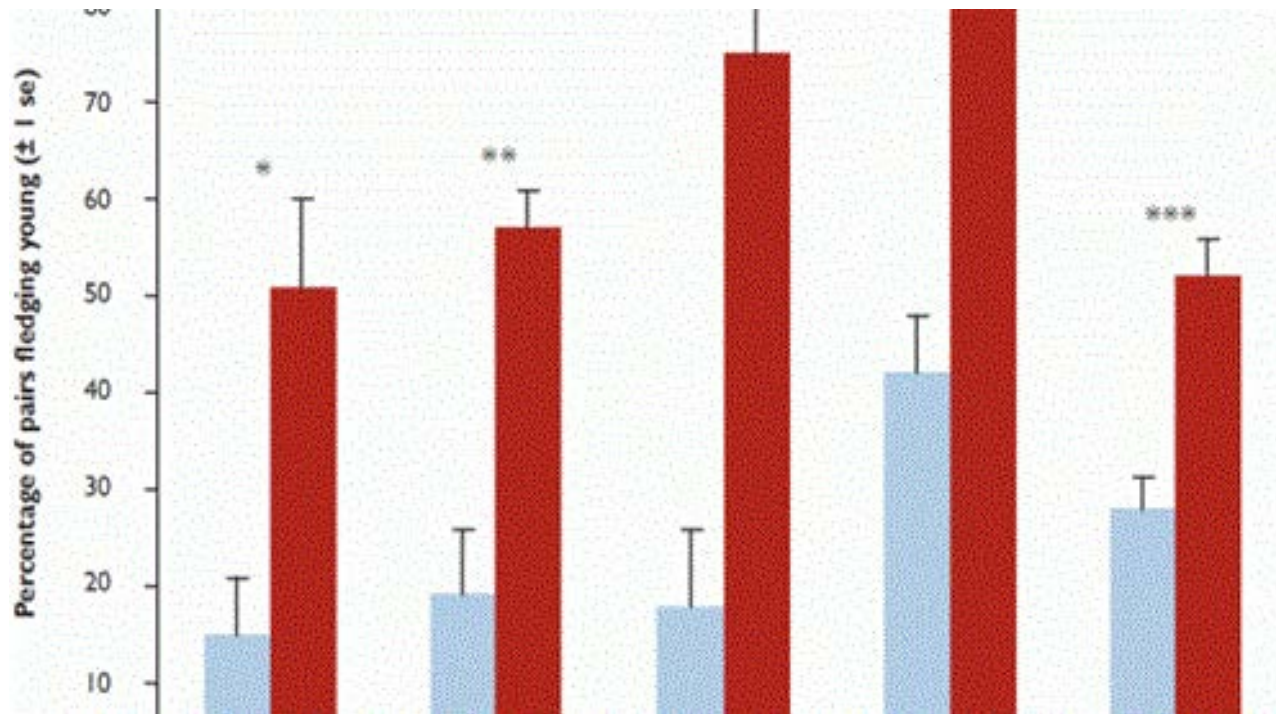
Curlew
Numenius arquata

Density (birds/km²)

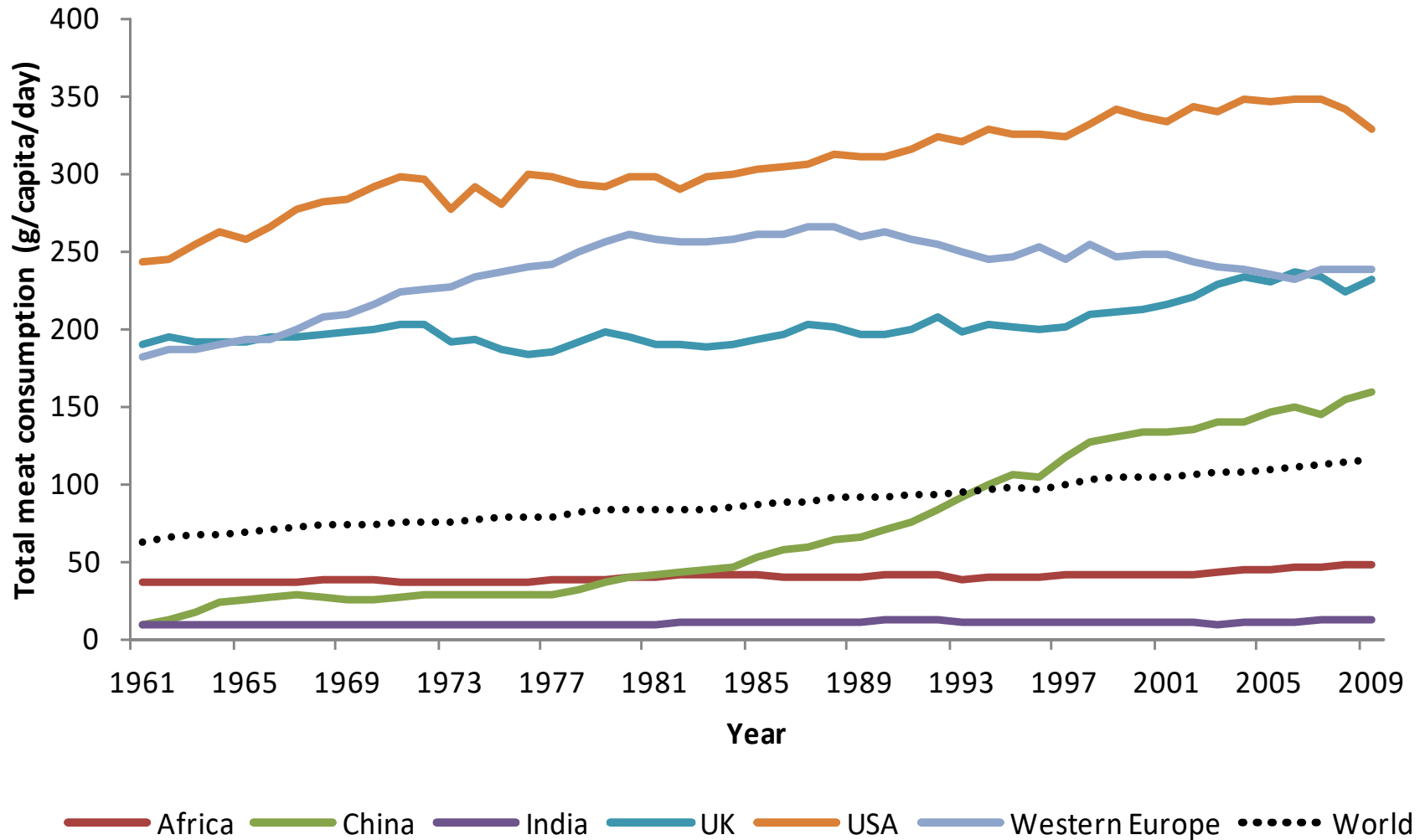


Years: 2007-2009

GWCT Research on breeding waders on uplands 2010



Meat consumption around the world



Global meat consumption has almost doubled in the last 50 years from 63g (person/day) in 1961 to 115g (person/day) in 2009 (FAOSTAT 2013).



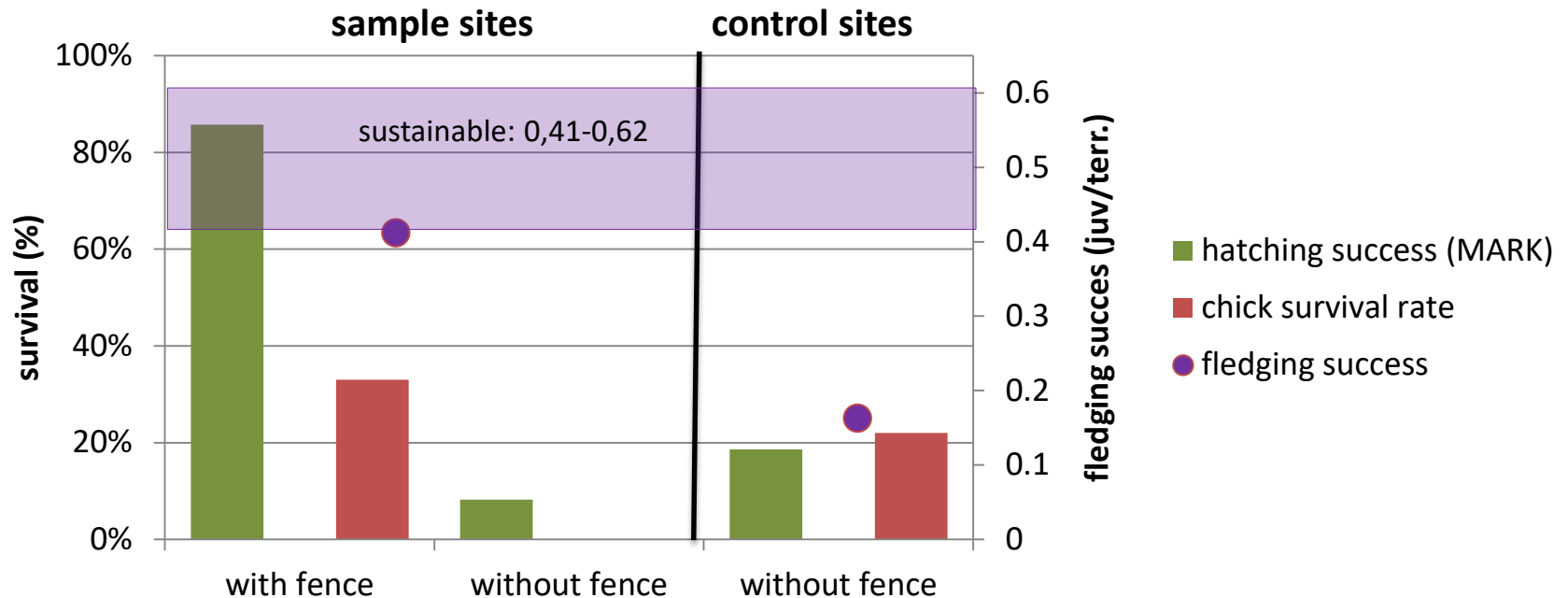
Fledging success (2013-2016)

Sample sites (agriculture & predation):

47 % hatching success
33 % chick survival
0,41 fledging success

Control sites (agriculture):

19 % hatching success
22 % chick survival
0,16 fledging success



n = 208 nests (47 with fence, 161 without fence)

Chart 1: UK Milk Usage, 1994 & 2004 (million litres)

	1994	2014	% change
Liquid consumption	6,773	7,028	+4%
Butter	292	288	-2%
Cheese	3,251	3,866	+19%
Cream	265	301	+13%
Condensed milk	751	270	-64%
Milk powder	2,098	1,562	-26%
Other manufacture	632	732	+16%

Source: Defra, *Agriculture in the UK 2014*, table 8.5

