EAST CAIRNGORMS MOORLAND PARTNERSHIP

Towards more sustainable moorland management

Dr. Jos Milner

February 2024

Cairngorms National Park
Pàirc Nàiseanta a' Mhonaidh Ruaidh

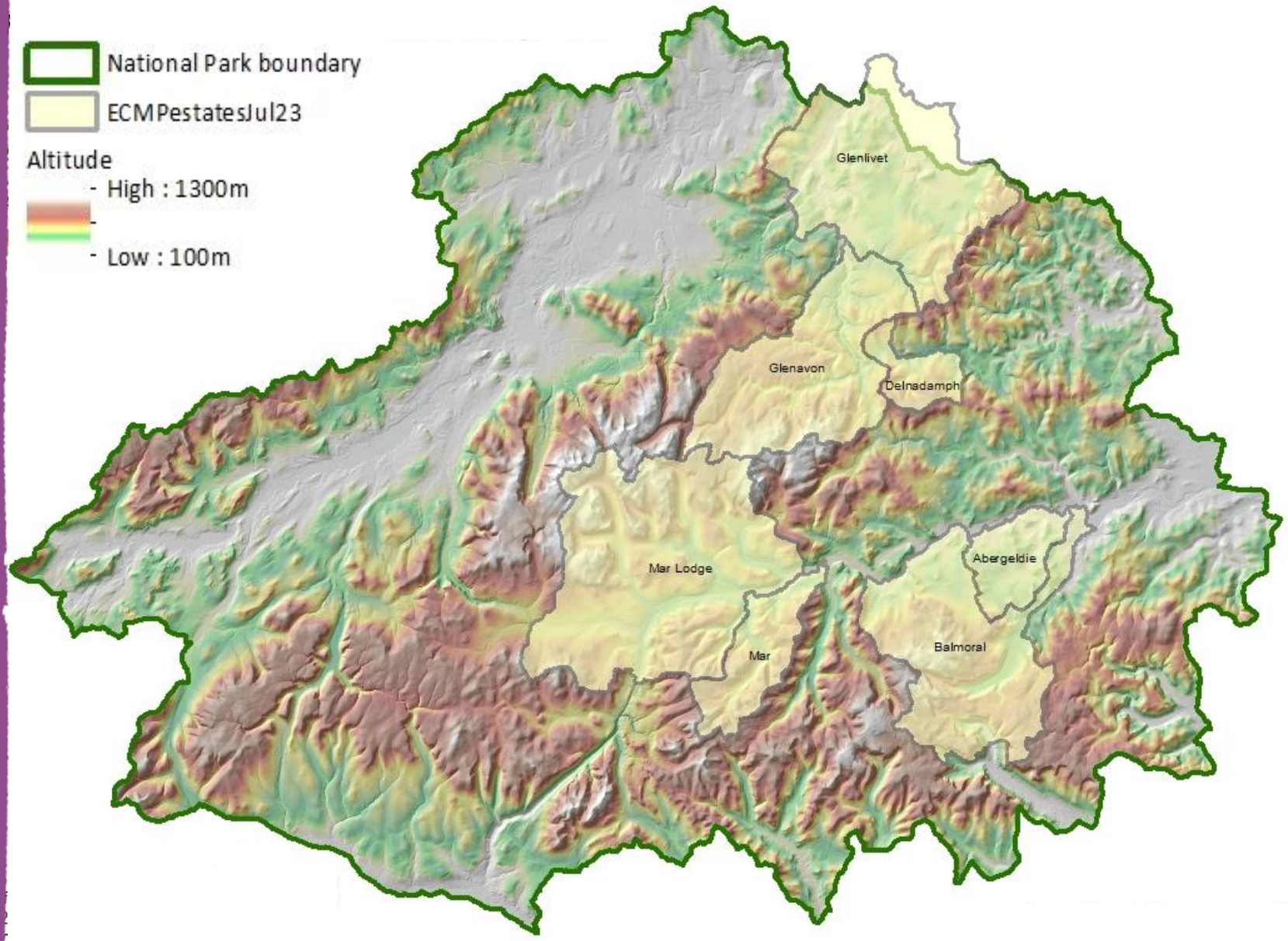
EAST CAIRNGORMS MOORLAND PARTNERSHIP

Partners

- Cairngorms National Park Authority
- Abergeldie Estate
- Balmoral Estates
- Glenavon Estate
- Glenlivet – Crown Estate Scotland
- Mar Estate
- Mar Lodge – National Trust Scotland

c. 1,000 km^2
(22 % of CNP)

Cairngorms National Park



EAST CAIRNGORMS MOORLAND PARTNERSHIP

Purpose:

Landscape-scale collaboration to demonstrate delivery of a viable mix of public benefits and private interests

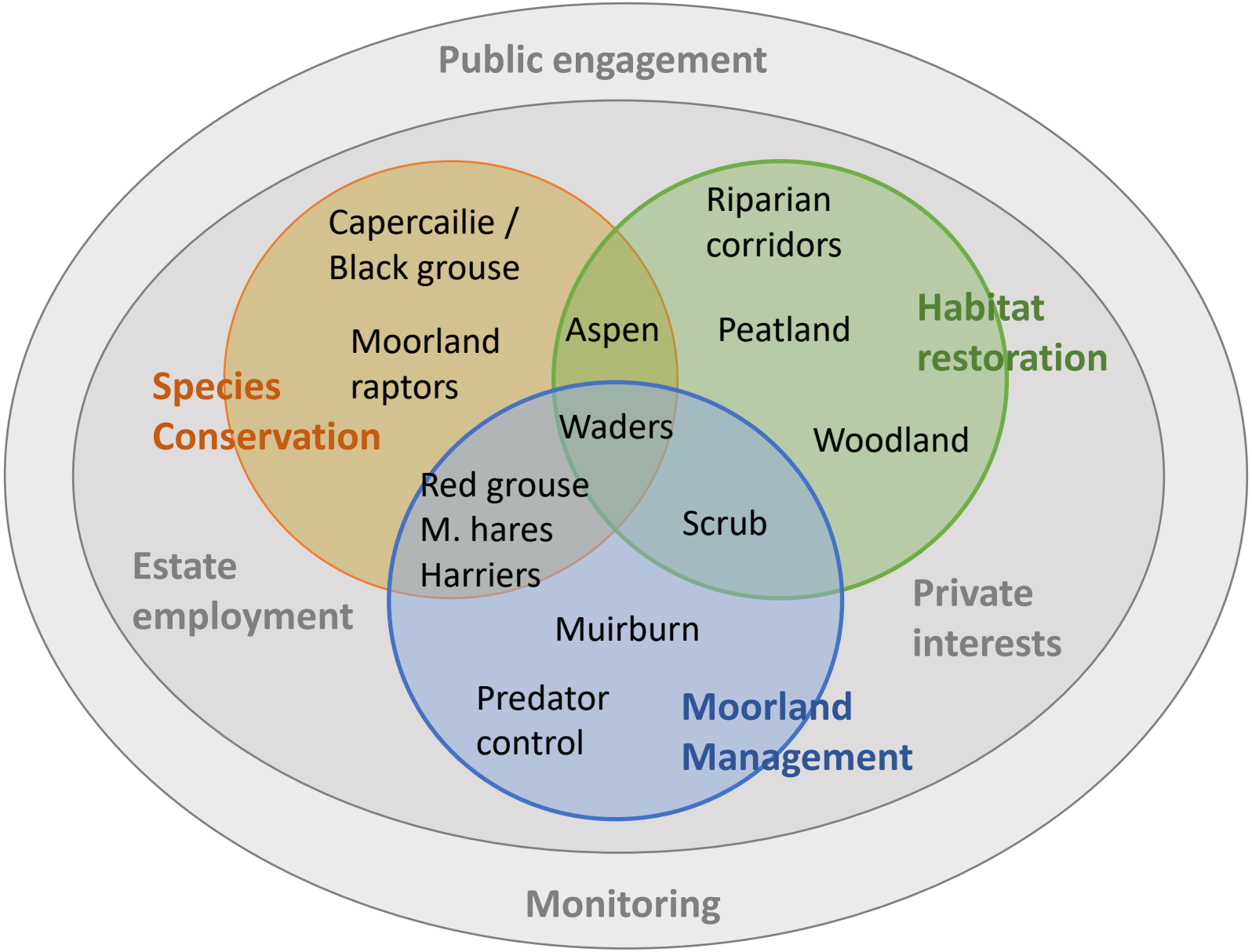
Established: 2015

Resourced: 2018 (0.6 FTE)

EAST CAIRNGORMS MOORLAND PARTNERSHIP

Objectives

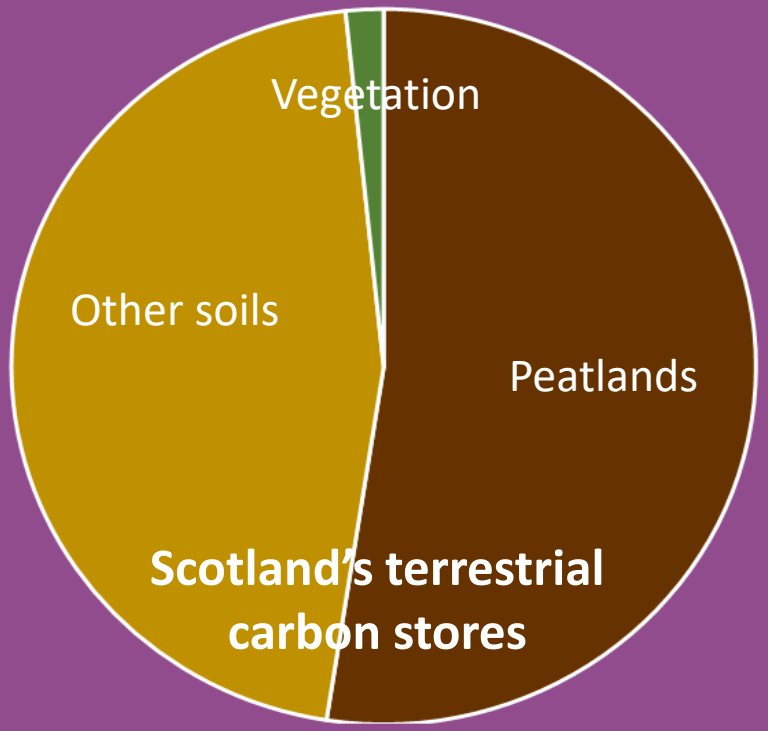
1. Restore moorland, upland woodland & freshwater habitats
2. Improve conservation status of threatened or declining species
3. Deliver private interests through sustainable moorland management
4. Create evidence base by monitoring & research
5. Improve awareness & understanding of moorland management & its benefits



Habitat Restoration

Peatlands

- Peatlands most important terrestrial C store
- Degraded peatlands net CO_2 emitters
- 80% peatlands are degraded



Habitat Restoration

Peatlands

Public benefits

Active / restored peatlands:

- Store carbon
- Biodiversity
- Natural flood management
- Improve water quality
- Reduce wildfire severity

Landowner benefits

- Peatland ACTION funding
- Private finance
- Peatland Code
- Less erosion
- More grouse?

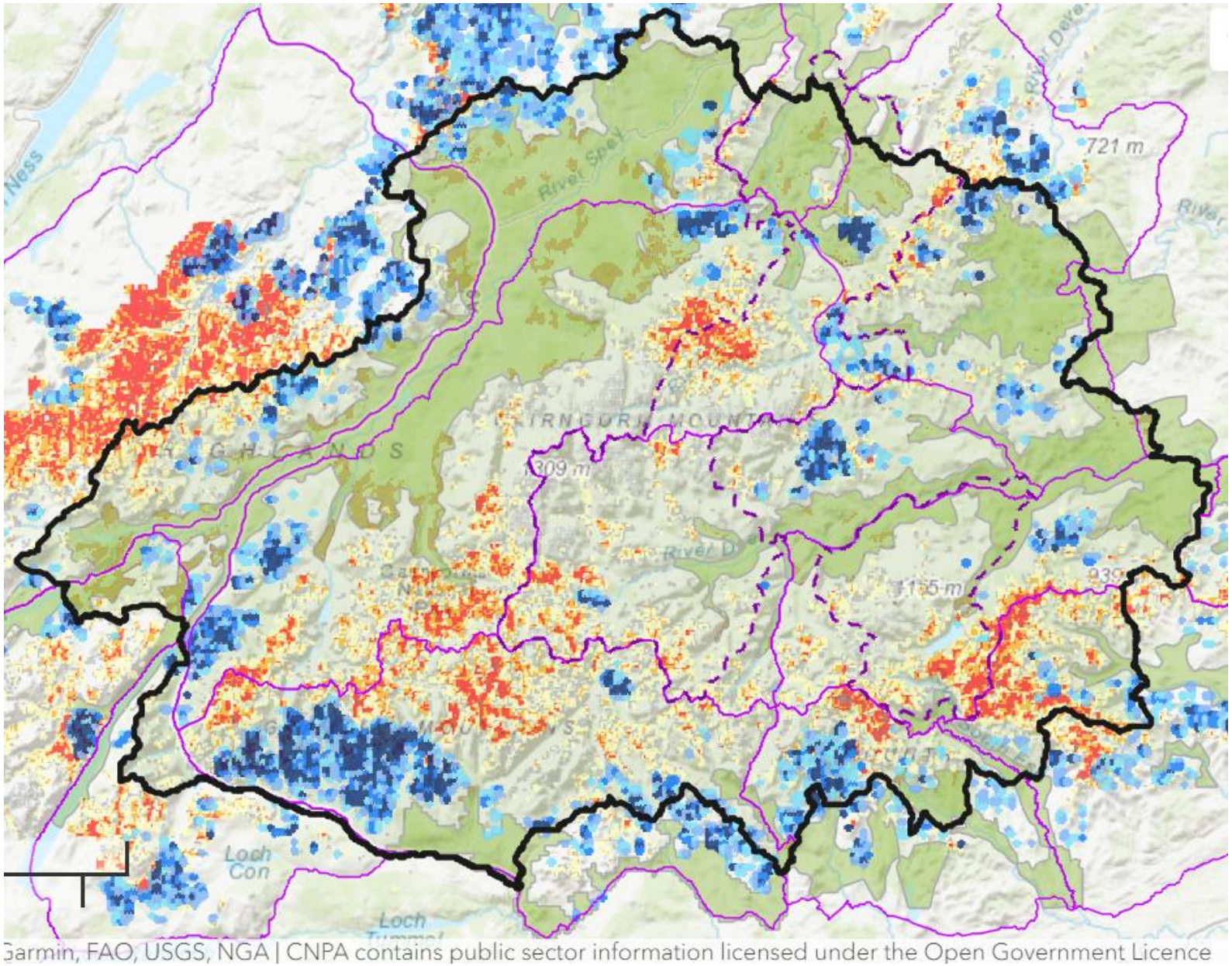
Habitat Restoration Peatlands

Peatland Restoration Planning Tool
https://storymaps.arcgis.com/stories/24bba98fd4294dbc9828abc0928186f0

Severity of erosion

Extent of drainage

Cairngorms National Park – degraded peatlands



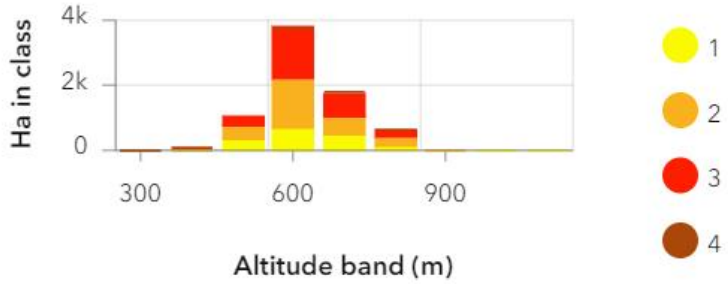
ECMP Peatlands

Eroded peat: 4.5k– 10.2k ha
Affected by drainage: 1.4k ha
Total degraded = 5.7k – 11.5k ha

Ha mid | Ha min | Ha max | Notes

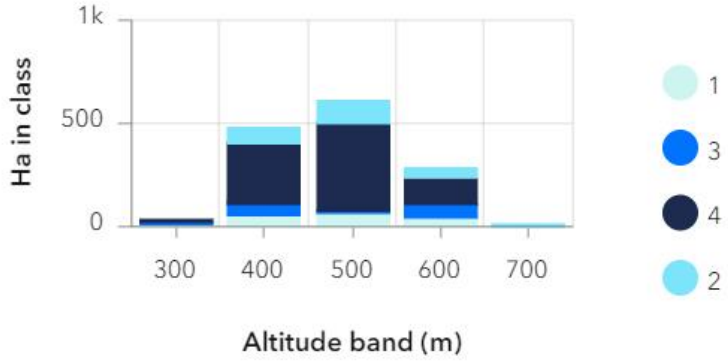
Ha erosion by altitude band and erosion class (middle estimate)

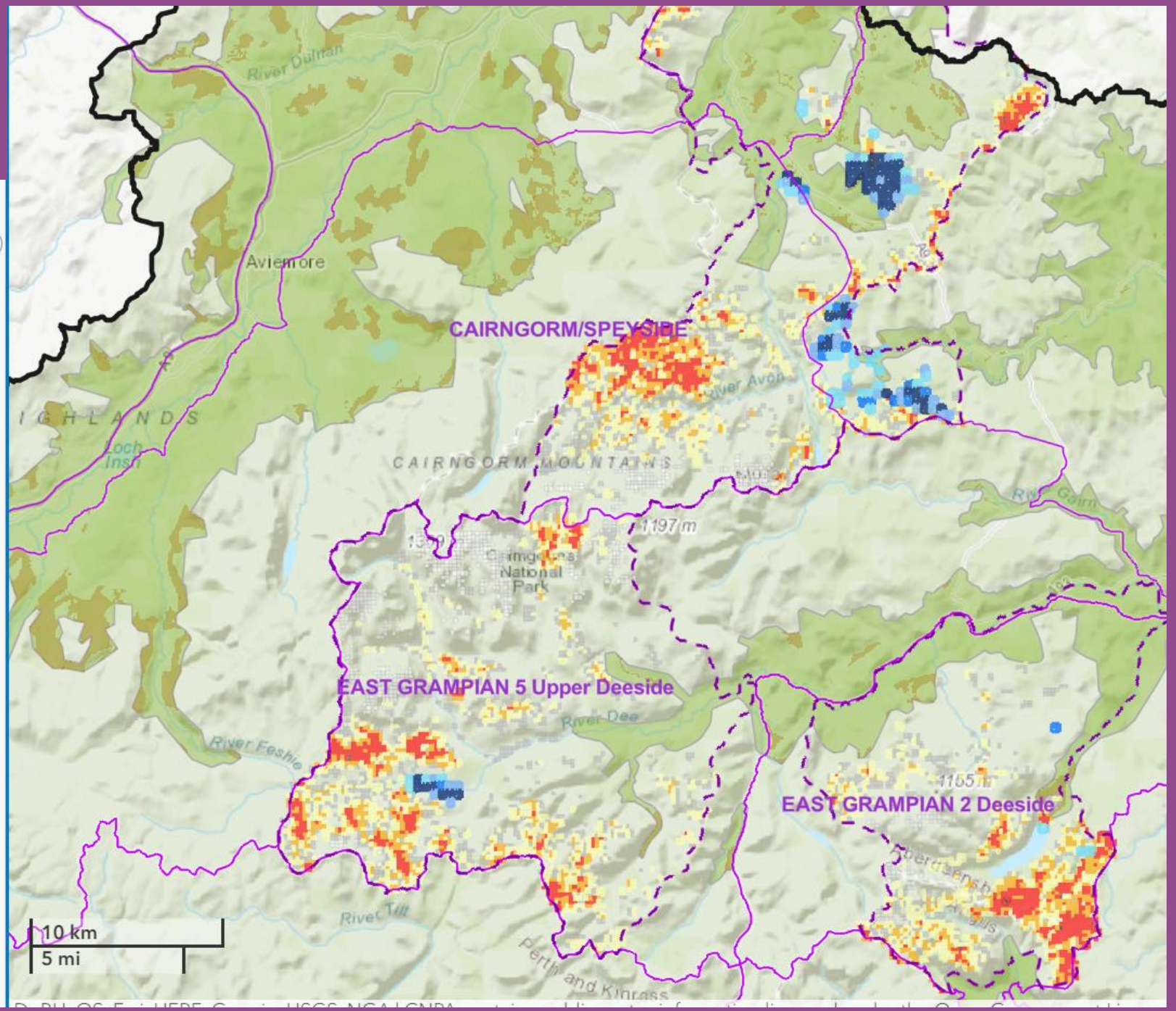
Click on bars to filter map data, click on chart area to remove filter



Ha estimated affected by drainage by altitude and drainage class

Click on bars to filter map data, click on chart area to remove filter





Habitat Restoration

ECMP Peatlands

- Restoration work on > 1,000 ha to date
- Projects spread across partnership
- 5 y target: > 1,350 ha
- 22/23: 464 ha = 8,800 t CO_2 equiv. saved / y
- Trialling variety of techniques
- Increasing contractor capacity by training new operators
- Piloting new finance models

Scottish Natural Heritage
Dualchas Nàdair na h-Alba
Peatland ACTION

Habitat Restoration

Peatlands

Techniques include:

- Re-profiling hags
- Transplanting turf
- Using geotextile
- Building bunds with peat, coir or stone
- Creating bog pools

Sustainable Moorland Management

Muirburn

- Controlled burning to create mosaic of young & old heather to provide food & shelter
- Maintains open moorland landscape
- Good for mountain hares as well as grouse
- Controls fuel load
- If carried out badly can cause environmental damage
- Muirburn licencing coming in

Sustainable Moorland Management

Muirburn

Within ECMP:

- Follow Muirburn Code
- Demonstrate good practice
- Using new techniques
- Contributing to Muirburn Code Working Group

Sustainable Moorland Management

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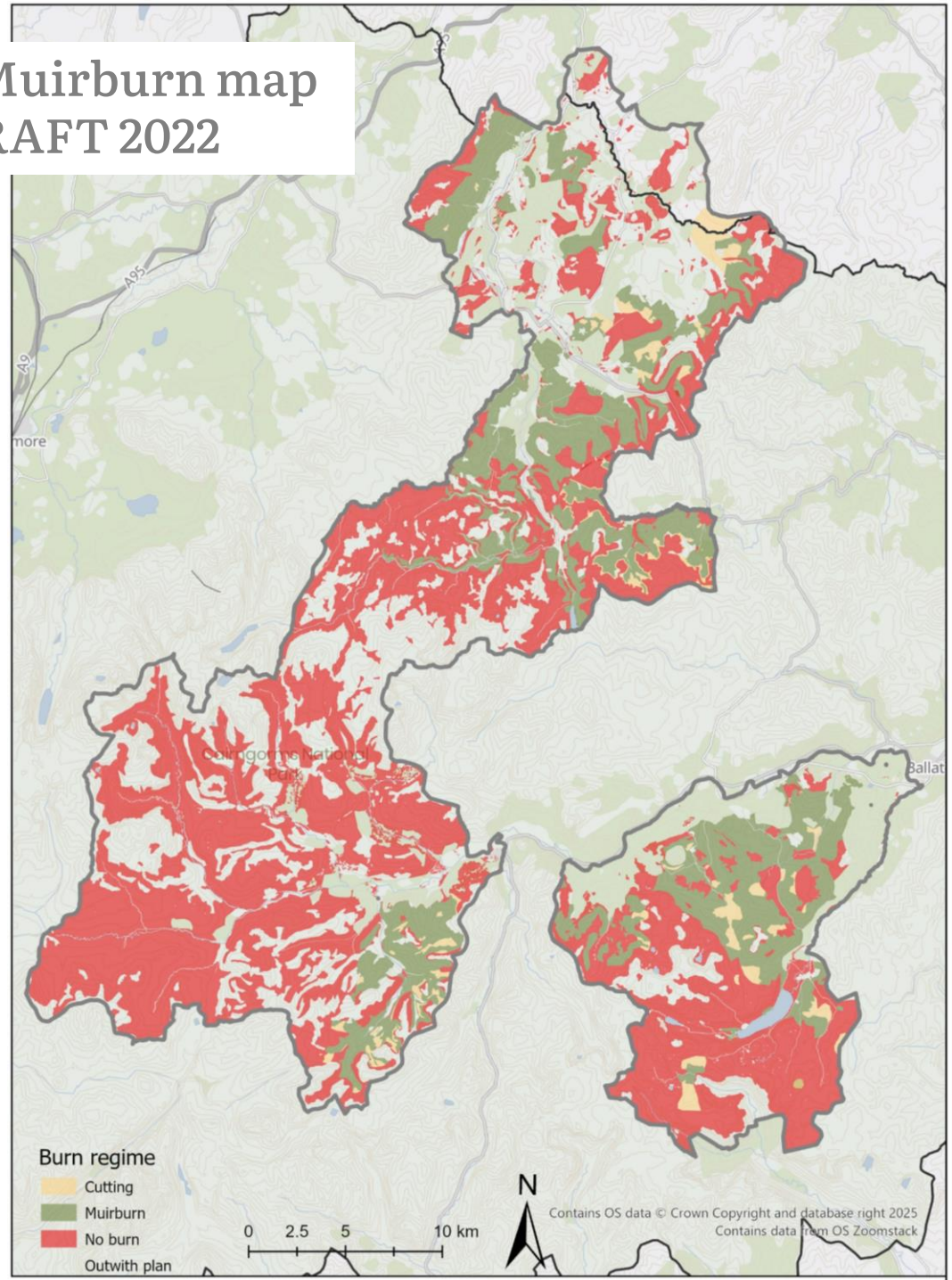
Sustainable Moorland Management

Muirburn

Within ECMP:

- Mapping Muirburn Code to identify areas unsuitable for burning
- Steep slopes & deep peat are no burn areas
- Rotational muirburn is carried out on ~18,000 ha of moorland in ECMP (31%)
- Definition of deep peat likely to change to 40 cm – map will need to be revised

ECMP Muirburn map
DRAFT 2022



Sustainable Moorland Management

Muirburn

Within ECMP:

- Muirburn Code requires some areas to be unburnt
- Large areas of moorland unburnt in ECMP
- Allows habitat like willow scrub to develop
- A rare ecotone at woodland / moorland edge
- Opportunity to improve habitat for hen harriers

Species Conservation

Moorland Raptors

Raptor - grouse conflict

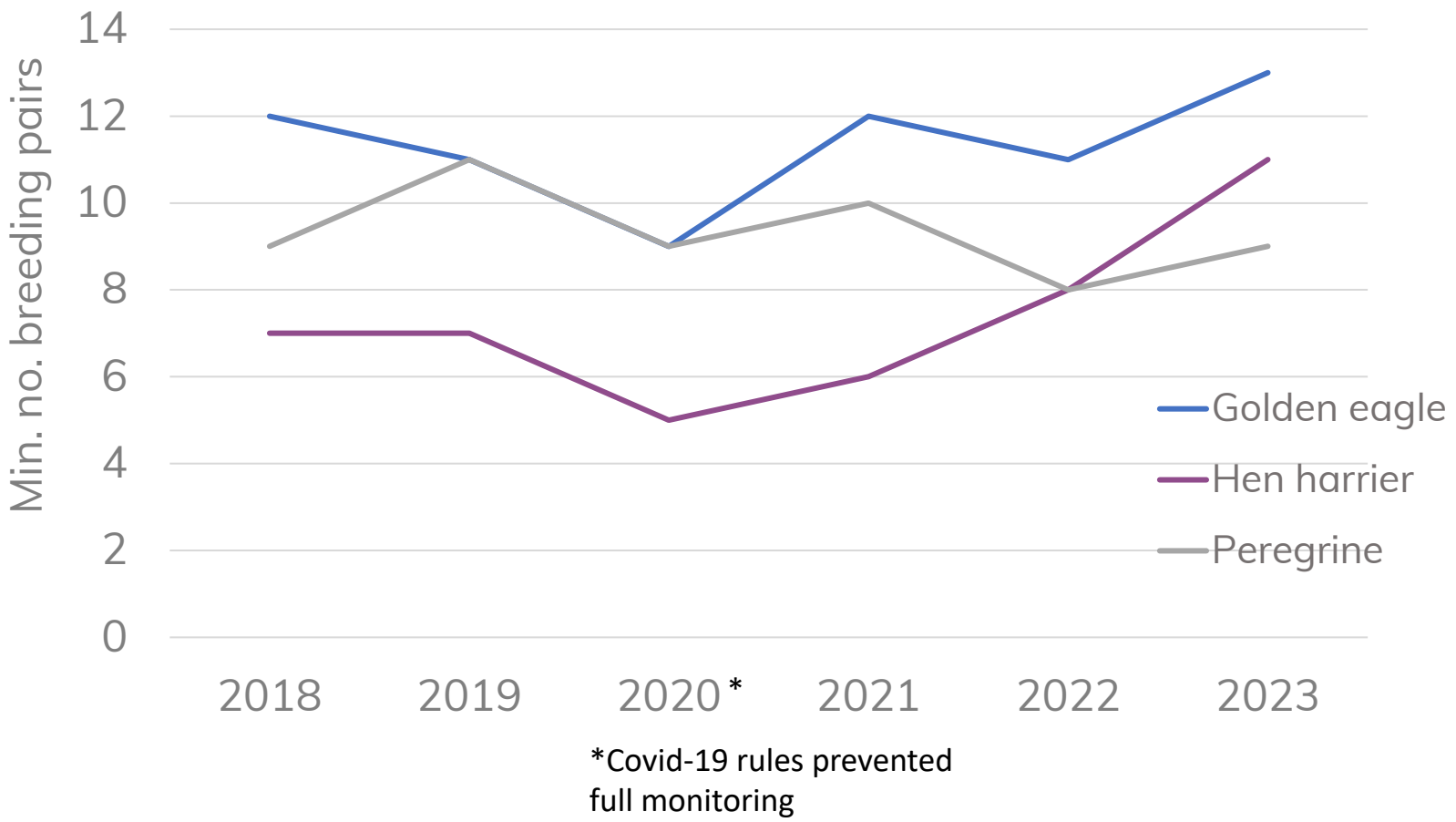
- Raptor persecution going on for centuries
- Widespread population recoveries since legal protection & banning of pesticides
- Issues remain around some grouse moors
- Including within CNP
- Species most affected: golden eagle, hen harrier & peregrine
- Key rationale behind ECMP

Species Conservation

Moorland Raptors

ECMP raptors

- Monitoring of golden eagles, hen harrier, peregrine & merlin
- Carried out by NERSG, estate staff & independent consultants
- All ECMP estates have ≥1 pair golden eagle
- To date confirmed harrier breeding only on Mar Lodge
- First breeding of white-tailed eagle on Deeside for 200 y on Mar Estate in 2020
- Creation of eagle nests



Species Conservation

Breeding Waders

Waders in decline

- Large declines in breeding populations of red & amber listed waders
- East Cairngorms likely to hold nationally significant numbers
- Managed moorland identified as strongholds
- Predator control & good habitat are key

Species Conservation

Breeding Waders

Waders in decline

Work in East Cairngorms:

- Wader productivity monitoring with BTO
- Wader transects to count breeding pairs
- Habitat improvement work

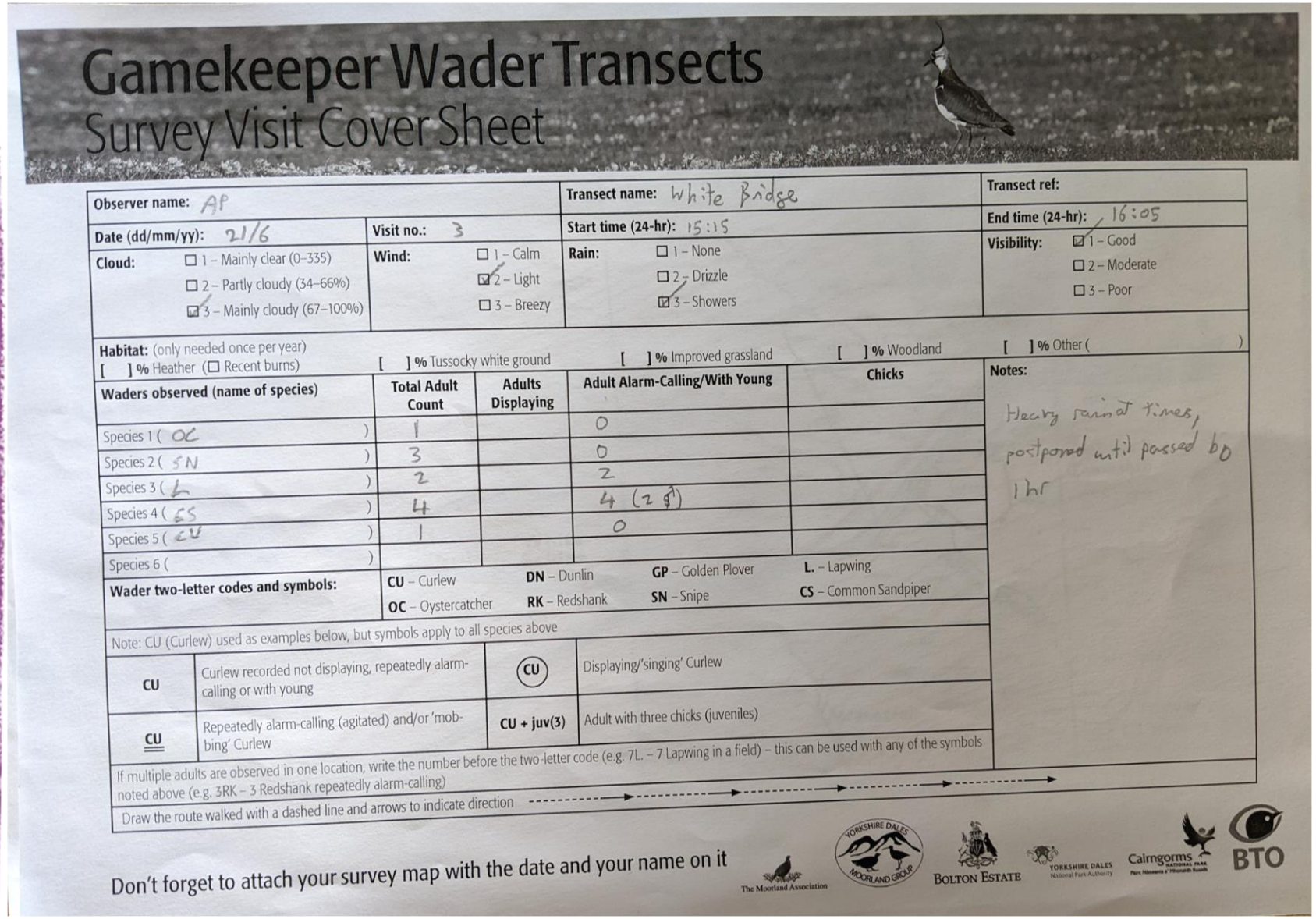
Gamekeepers & estate staff are key to carrying out monitoring & habitat management

Species Conservation

Wader Transects

2-3 surveys of transects in April – June, recording:

- location of waders seen
- observed behaviour
- presence of chicks



Gamekeeper Wader Transects

Survey Visit Cover Sheet

Observer name: AP		**Transect name:** White Bridge	**Transect ref:**
Date (dd/mm/yy): 21/6	**Visit no.:** 3	**Start time (24-hr):** 15:15	**End time (24-hr):** 16:05
Cloud: ☐ 1 – Mainly clear (0–335) ☐ 2 – Partly cloudy (34–66%) ☑ 3 – Mainly cloudy (67–100%)	**Wind:** ☐ 1 – Calm ☑ 2 – Light ☐ 3 – Breezy	**Rain:** ☐ 1 – None ☐ 2 – Drizzle ☑ 3 – Showers	**Visibility:** ☑ 1 – Good ☐ 2 – Moderate ☐ 3 – Poor

Habitat: (only needed once per year) [ ] % Heather (☐ Recent burns) [ ] % Tussocky white ground [ ] % Improved grassland [ ] % Woodland [ ] % Other ( )

Waders observed (name of species)	Total Adult Count	Adults Displaying	Adult Alarm-Calling/With Young	Chicks
Species 1 (OC)	1		0	
Species 2 (SN)	3		0	
Species 3 (L)	2		2	
Species 4 (ES)	4		4 (2 ?)	
Species 5 (CU)	1		0	
Species 6 ( )				

Wader two-letter codes and symbols: **CU** – Curlew; **DN** – Dunlin; **GP** – Golden Plover; **L.** – Lapwing; **OC** – Oystercatcher; **RK** – Redshank; **SN** – Snipe; **CS** – Common Sandpiper

Note: CU (Curlew) used as examples below, but symbols apply to all species above

CU	Curlew recorded not displaying, repeatedly alarm-calling or with young	(CU)	Displaying/'singing' Curlew
CU	Repeatedly alarm-calling (agitated) and/or 'mob-bing' Curlew	CU + juv(3)	Adult with three chicks (juveniles)

If multiple adults are observed in one location, write the number before the two-letter code (e.g. 7L. – 7 Lapwing in a field) – this can be used with any of the symbols noted above (e.g. 3RK – 3 Redshank repeatedly alarm-calling)

Draw the route walked with a dashed line and arrows to indicate direction

Notes: Heavy rain at times, postponed until passed by 1 hr

Don't forget to attach your survey map with the date and your name on it

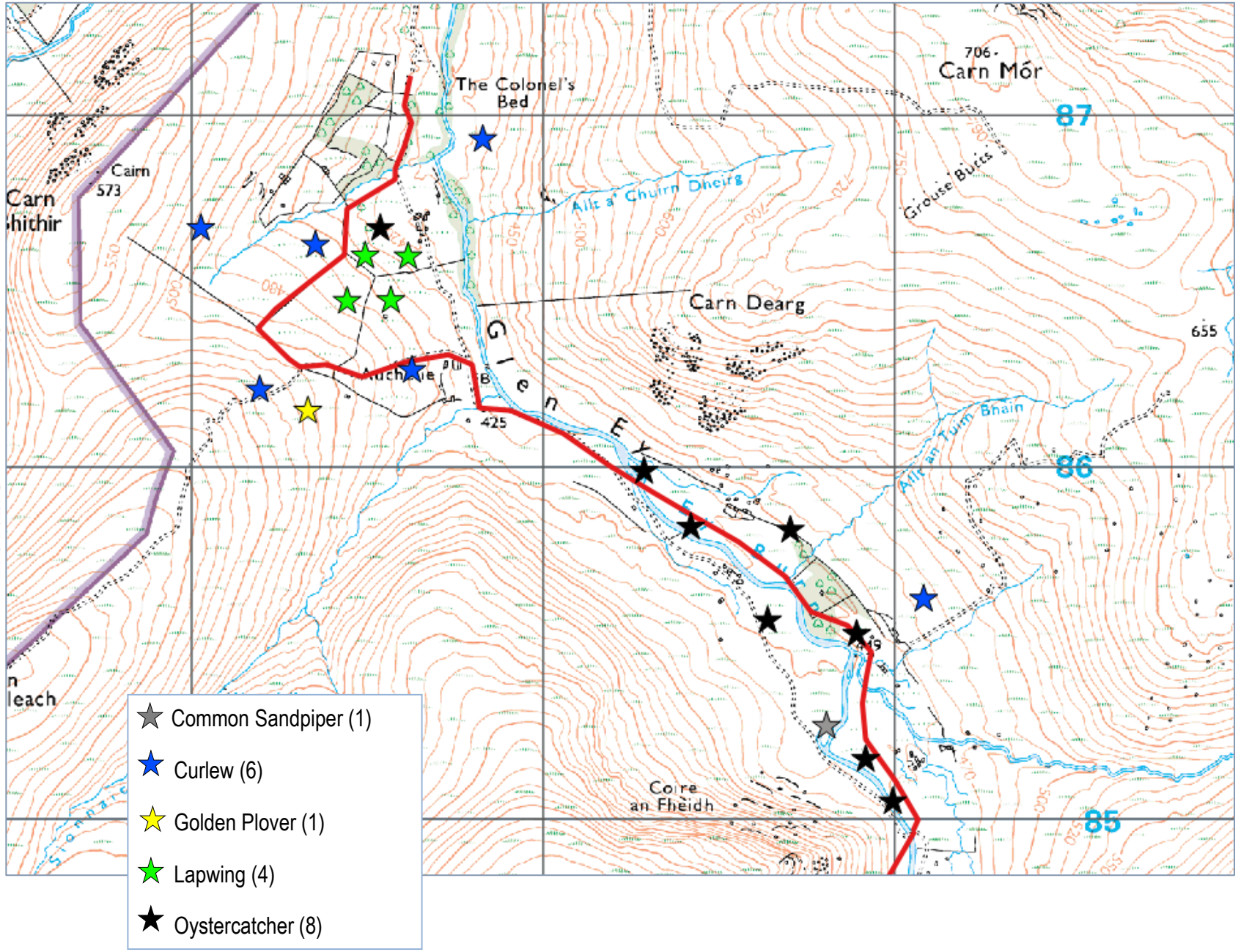
The Moorland Association · Yorkshire Dales Moorland Group · Bolton Estate · Yorkshire Dales National Park Authority · Cairngorms National Park · BTO

Species Conservation

Wader Transects

Data compiled at end of season to give number of breeding pairs of:

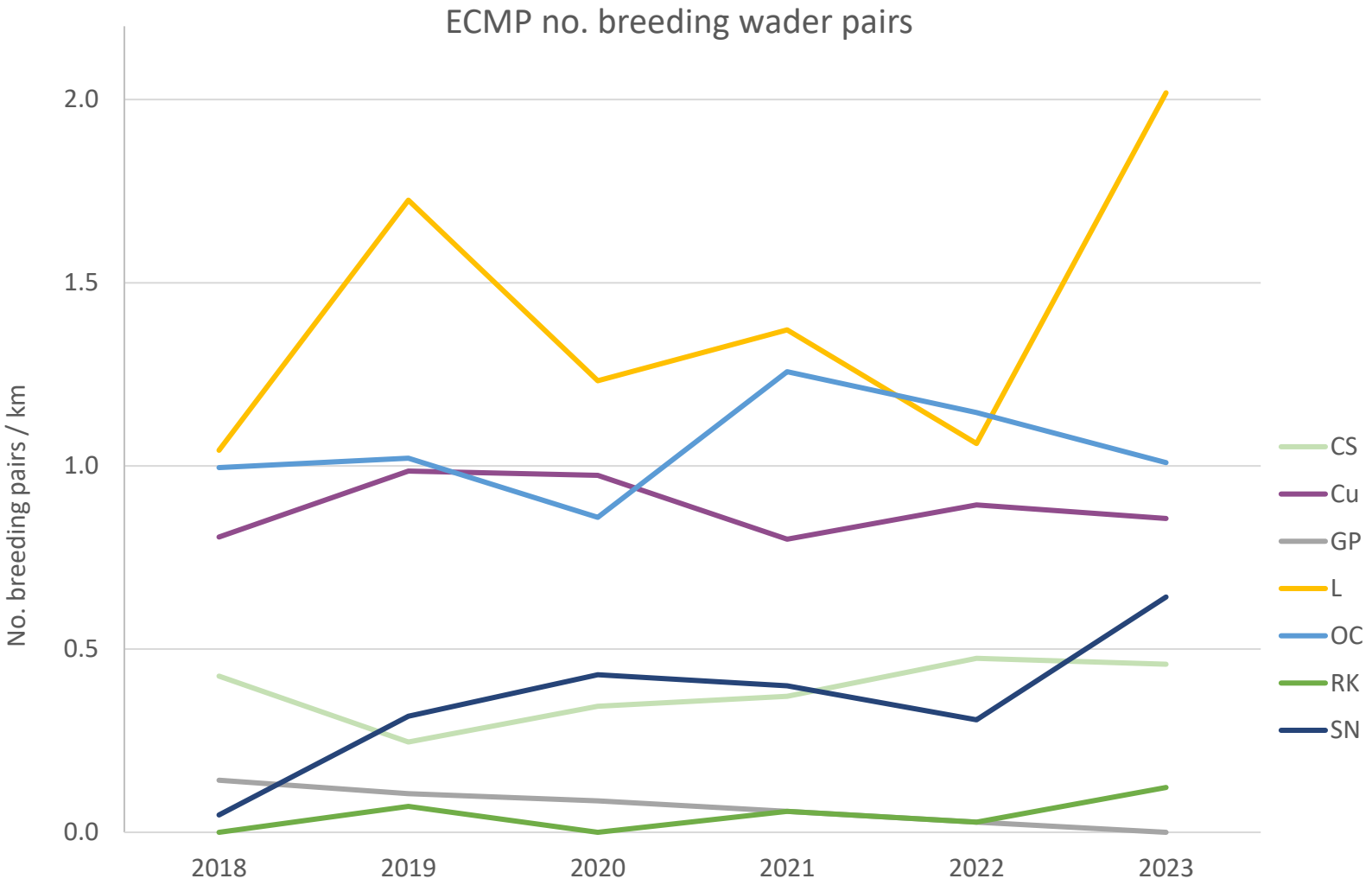
- Common sandpiper
- Curlew
- Golden plover
- Lapwing
- Oystercatcher
- Redshank
- Snipe



Species Conservation

Wader Transects

- Data compiled across estates since 2018
- 73-167 breeding pairs recorded / y
- Trends broadly stable with increase in some sp. where habitat management occurring
- Combined density of curlew, lapwing, oystercatcher, redshank & snipe c. 0.23 breeding pairs / ha



Annual counts of wading birds recorded on monitoring transects across ECMP estates, expressed as breeding pairs per km of transect. CS – common sandpiper; CU – curlew; GP – golden plover; L – lapwing; OC – oystercatcher; RK – redshank; SN – snipe.

Species Conservation

Wader monitoring

- Some nests have been monitored to measure productivity
- 183 nests monitored with temperature loggers
- … nests also monitored with wildlife trail cameras
- 115 nests hatched successfully
- Of those that failed, 45% due to predation

Species Conservation

Wader monitoring

- Some nests have been monitored to measure productivity
- 183 nests monitored with temperature loggers
- … nests also monitored with wildlife trail cameras
- 115 nests hatched successfully
- Of those that failed, 45% due to predation

Species Conservation

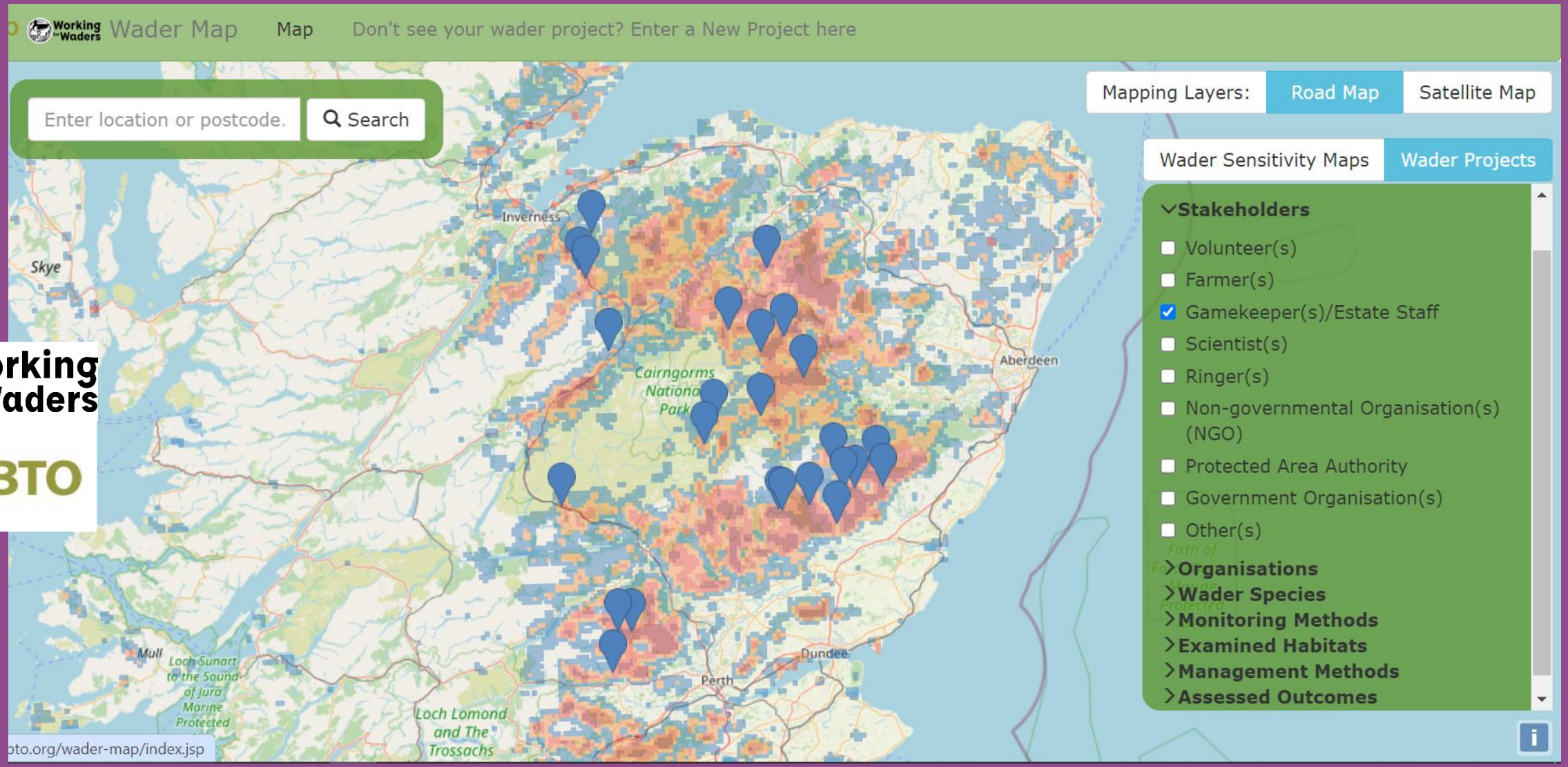
Wader monitoring

- Some nests have been monitored to measure productivity
- 183 nests monitored with temperature loggers
- ~50 nests also monitored with wildlife trail cameras
- 115 nests hatched successfully
- Of those that failed, 45% due to predation

Species Conservation

Working for Waders

https://app.bto.org/wader-map/



Species Conservation

Wader Habitat Improvement

- Wader scrape creation
- Vegetation management

Species Conservation

Wader Habitat Improvement

Wader scrape creation & ditch-blocking

Funding	No. scrapes
• BCF2	21
• Estates	20+
• ECMP	12
• AECS	12
	= 65+

NatureScot
NàdarAlba

Species Conservation

Wader Habitat Improvement

Vegetation management (Rush-cutting)

Funding	Area / y
• AECS	12 ha
• BCF2 / Estates	52 ha
	= 64 ha

NatureScot
NàdarAlba

Species Conservation

Wader Habitat Improvement

Vegetation management

- Issue maintaining rush control especially close to scrapes
- Sustainability of methods

Species Conservation

Wader Habitat Improvement

Vegetation management

- Issue maintaining rush control especially close to scrapes
- 15 NoFence collars at Mar Lodge 2023

Nofence
Grazing technology

EAST CAIRNGORMS MOORLAND PARTNERSHIP

Summary

- Habitat restoration is underway
- Recovery takes time
- Monitoring is important to assess progress & demonstrate benefits
- More action needed to improve biodiversity & species conservation status
- This will help sustainability & resilience of moorland