

Schedule 2 Consultation: Wales species assessment

Golden Plover *Pluvialis apricaria*

Legislation

Golden Plover *Pluvialis apricaria* is listed on Schedule 2 Part 1 of the Wildlife and Countryside Act, as amended, 1981 ("the Act") and is legal quarry outside the close season which runs from 1st February to 31st August (21st February to 31st August below high-water mark).

Golden Plover is a candidate S7 species of the Environment (Wales) Act 2016.

Conservation status

IUCN Red List			Birds of Conservation Concern (BoCC)				
Global	Europe	GB	BoCC UK	BoCC Wales			
LC	VU	LC (br, n-br)	2022	2002	2010	2016	2023

BoCC 5 UK status: **GREEN** (Stanbury *et al.*, 2021).

BoCC 4 Wales status: **RED** due to a severe (>50%) long term decline in breeding population and non-breeding populations; a long term decline in breeding range of at least 25% (but <50%); severe decline (>50%) in non-breeding population in last 25 years. (Johnstone *et al.*, 2022).

IUCN GB status: **Least Concern** – both breeding and non-breeding

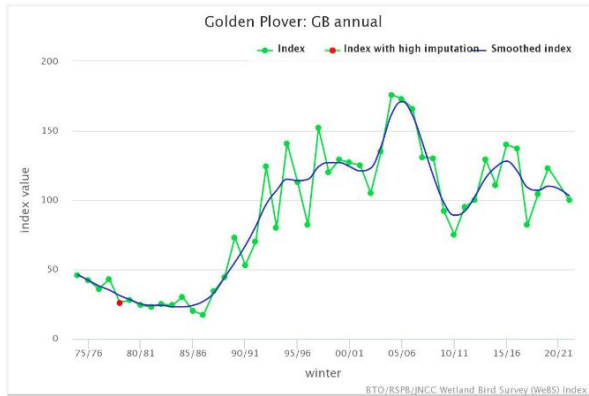
Population status (abundance and distribution)	GB and UK: 32,500–50,500 breeding pairs estimated in 2016 (Woodward <i>et al.</i>, 2020). GB 400,00 overwintering individuals (2006/07) (Woodward <i>et al.</i>, 2020); 400,000 (2012/13 to 2016/17) (Frost <i>et al.</i>, 2019) UK: 410,000 overwintering individuals (2006/07) (Woodward <i>et al.</i>, 2020) The top five sites in the UK for wintering Golden Plover, based on five-year means (2019/20 – 2023/24) from BTO WeBS online portal (2026) are: Breydon Water and Berney Marshes – 21,871 Humber Estuary – 21,623 Somerset Levels – 21,109 The Wash – 23,898 Blackwater Estuary – 8,892 The top five sites in Wales for wintering Golden Plover, based on five year means (2019/20 – 2023/24) from BTO WeBS online portal (2026) are:
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	Cleddau Estuary - 3,861 Carmarthen Bay – 3,784 Severn Estuary - 3,291 Caernarfon Bay – 1,253 Burry Inlet - 1,221
Population trends	Overwintering in the UK: From WeBS 2022/2023 (Calbrade <i>et al.</i>, 2025): Declining - a UK 25-year trend (1997/98 to 2022/23) suggests a change of -26%, and a -58% change in Wales for the same period (Calbrade <i>et al.</i>, 2025). Declining - UK 10-year trend (2012/13 to 2022/23) suggests a change of -8%, and a -23% change in Wales over the same period (Calbrade <i>et al.</i>, 2025). Five-year means between 1999/00 to 2023/24 for the top five Welsh sites for wintering Golden Plover are shown in Table 1 (BTO WeBS online portal, 2026). Based on the five-year average (1997/98 to 2022/23) the estimated number of wintering Golden Plover in Wales is c.11,700 birds (BTO WeBS online portal, 2026). At the level of GB, numbers of wintering Golden Plover increased from the early 1980's, peaking in the mid-2000's from which it declined until the start of the 2010s (Figure 1a). Since then it has shown some recovery and has declined from 2025/16 onwards. The trend is less clear at the Welsh level with several oscillations. Here, the Golden Plover's non-breeding population shows a decline from the mid-1970s until the mid-1980s, after which it increased, reaching a peak in the mid-1990s (Figure 1b). It underwent a further decline until the start of the 2000s, after which it reached another, higher peak in 2015/16 before declining once more. The decline in 2005/06 in GB (Figure 1a.) broadly mirrors the trend changes at the Welsh level (Figure 1b). <i>Breeding in Wales:</i> At the UK level the breeding population for Golden Plover is estimated to be 32,500 in the UK. (Woodward <i>et al.</i>, 2020). Breeding densities in the UK are some of the highest within the species range (Byrkjedal and Thompson, 1998). In Wales, upland breeding surveys of the major upland areas between 1975-78 confirmed up to 224 breeding pairs and suggested a breeding population of 250-300 pairs (Lovegrove <i>et al.</i>, 1994). However, a repeat survey in 2008 estimated a Welsh breeding population of fewer than 40 breeding pairs, concentrated on seven sites in Wales (Johnstone <i>et al.</i>, 2008). Based on these decline rates it is fair to assume that there are probably less than 30 breeding pairs of Golden Plover in Wales, representing less than 0.1% of the UK breeding population.

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a)



b)

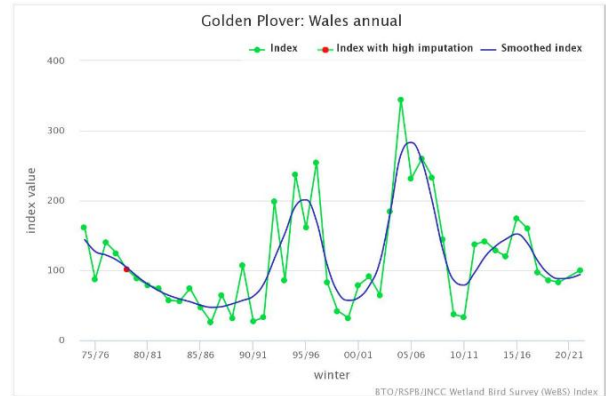


Fig.1a-b. Wetland Bird Survey trend for Golden Plover in a) Great Britain and b) Wales. Green dots = annual index; red dots = sparse data; blue line = smoothed trend (BTO WeBS online portal, 2026).

Table 1. Five-year means between 1999/00 to 2023/24 for the top five Welsh sites for wintering Golden Plover (BTO WeBS online Portal, 2026). Wales only values from cross border sites in parentheses.

Site	99/00-03/04	04/05-08/09	09/10-13/14	14/15-18/19	19/20-23/24
Cleddau Estuary	1,556	3,459	1,710	2,864	3,861
Carmarthen Bay	5,316	7,814	2,199	5,200	3,784
Severn Estuary	1,432 (3)	3,432 (3)	3,026 (8)	3,325 (2)	3,351 (18)
Caernarfon Bay	No data	214	440	1,867	1,253
Burry Inlet	1,770	1,708	1,455	1,830	1,670

Ecology

Habitat and diet

Breeding Golden Plover tend to select heather moorland, blanket bog and acidic grassland where they prefer to nest on high, flat or gently sloping plateaus, away from the moorland edge (Pritchard *et al.*, 2021). Adjacent damp pastures with abundant earthworms and tipulid larvae are important for feeding adults. Chick-rearing areas tend to be wet areas rich in invertebrate food. In winter, Golden Plovers are found on estuaries and coastal grasslands around Wales and elsewhere within the UK, although they will continue to utilise upland and inland sites. Both breeding and non-breeding Golden Plover consume a wide range of invertebrates.

Migratory behaviour and movements

The Golden Plover is partially migratory in Britain and Ireland and wholly migratory elsewhere in its range. In winter, Golden Plovers are found in the western maritime parts of Europe, especially Britain, Ireland, France and Iberia, with smaller numbers in the Mediterranean basin (Pritchard *et al.*, 2021). Flocks occur throughout much of lowland Britain and Ireland, although England is the main wintering ground for north European birds,

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with British breeding birds joined by winter immigrants from Scandinavia, Iceland and western Siberia (Byrkjedal and Thompson, 1998).

The Golden Plover is a highly migratory species, with birds that winter in Britain and Ireland coming from widely dispersed breeding grounds from Iceland stretching eastwards to Fennoscandia and the Baltic states (Figure 2). The evidence from ring recoveries indicates that winter immigrants and passage migrants in Ireland differ in origin than those found in Britain. Wernham *et al.* (2002) suggest Golden Plover wintering in Ireland are predominantly Icelandic breeders with very little evidence that British breeder's winter in Ireland. There is little/no information about the wintering locations of Welsh breeding birds.

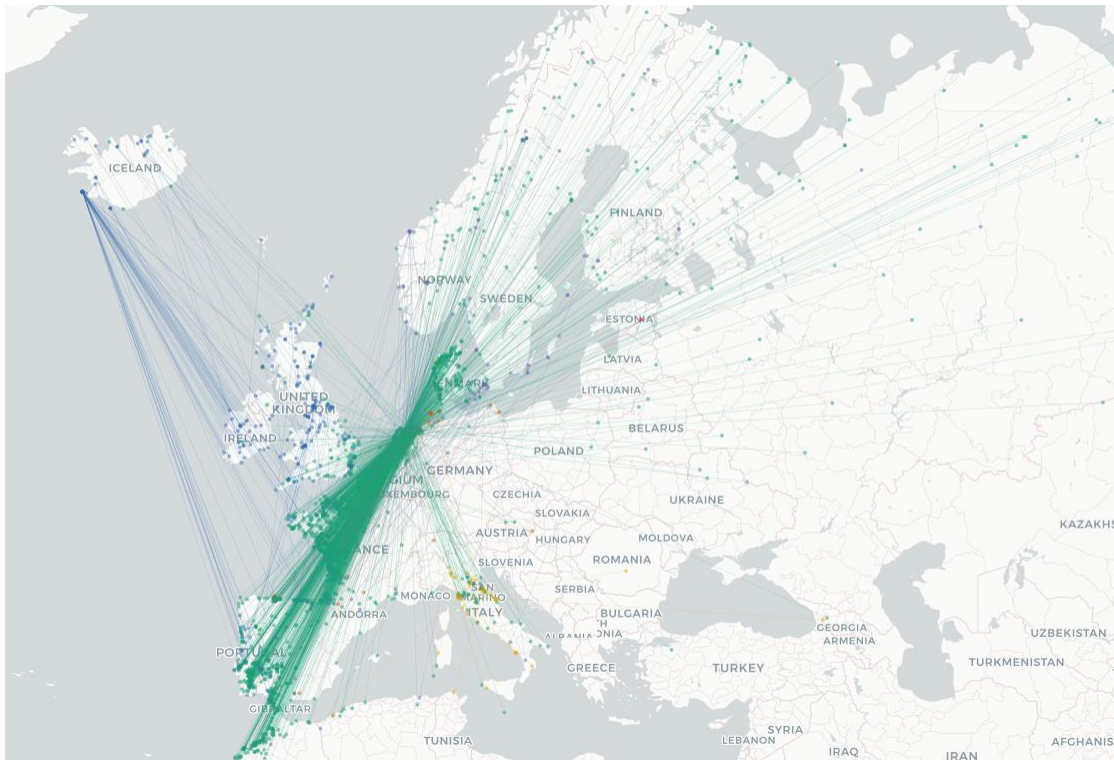


Figure 2. Movements of Golden Plover in northern Europe based on ringing recoveries. (Spina *et al.*, 2022).

During August and September, flocks of British breeding Golden Plover (including Welsh birds) often begin to aggregate and concentrate on coastal sites. Ring recoveries have shown that some British breeders move to Europe and wide-scale movements occur in response to periods of cold weather (Wernham *et al.*, 2002).

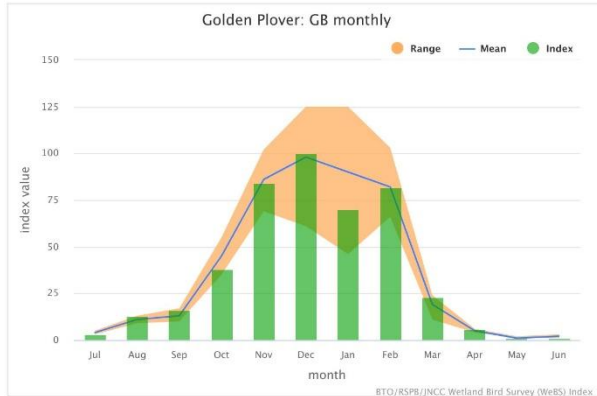
The GB level within monthly trends from the Wetland Bird Surveys (WeBS) sites show that Golden Plover numbers are low and stable between July-September, increasingly rapidly from October with peak numbers in December. Numbers begin to sharply decline after February (Figure 3a). This suggests that the majority of immigrant birds have arrived in Great Britain by January.

The monthly trend for Wales, broadly mirrors that of Great Britain with numbers remaining comparatively low and stable throughout the year, with numbers increasing rapidly in winter, peaking in December but sharply falling in January (Figure 3b). The relatively low numbers of birds between July to October probably reflects the small Welsh breeding population, though Pritchard *et al.* (2021) suggests there is considerable passage of birds through

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Wales in spring and autumn, with 'strong' autumn passage noted on Anglesey and 'strong' spring passage reported through Breconshire.

a)



b)

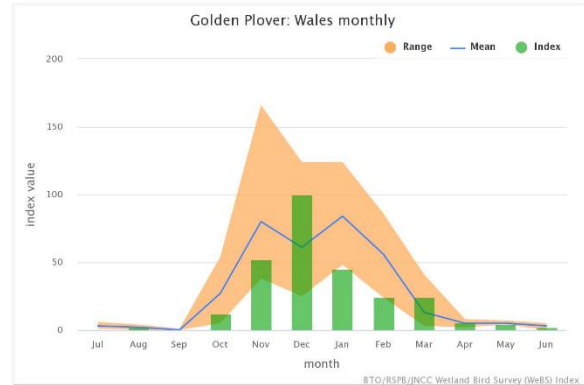


Fig.3 a-b. Monthly indices for Golden Plover in a) GB and b) Wales (BTO WeBS online portal, 2026).

Site designation for breeding and wintering Golden Plover

In Wales, there are no SPAs classified for either breeding or non-breeding Golden Plover. Wintering Golden Plover are a feature on two SSSIs – Burry Inlet and Loughor Estuary SSSI and the Twyni Lacharn - Pentywyn / Laugharne - Pennine Burrows SSSI.

Drivers of population change

Habitat loss and modification

As a breeding species, the Golden Plover has significantly declined in Wales, but the reasons are unclear, possibly a result of limited demographic data for the species. However, the substantial range contractions and declines in breeding numbers in Britain and Ireland, as elsewhere and Europe, have been attributed to afforestation, agricultural intensification of permanent pastures (Lovegrove *et al.*, 1994; Byrkjedal and Thompson, 1998). Losses have further been attributed to reduction in moorland management and reduced predator control due to a decline in game-keeping.

Increased stocking densities of sheep may have led to declines in nest survival in some grassland habitats (Crick, 1992; Fuller, 1996). However, abundance has also been shown to be lower with reduced sheep densities, or taller vegetation (Johnstone *et al.*, 2008, Buchanan *et al.*, 2017, Douglas *et al.*, 2017,). There is some evidence, from a single site, that chick survival is negatively correlated with tick load; but this needs more research (Douglas *et al.*, 2019). Abundance has been shown to be positively correlated with levels of predator control (Buchanan *et al.*, 2017).

Climate change

The breeding phenology of Golden Plover and their prey is advanced by warmer springs (Pearce-Higgins *et al.*, 2005). It is suggested that the effects of climatic warming on crane fly (tipulidae) populations will cause northward contraction of the Golden Plover's range. The

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future of Golden Plover as a breeding bird in Wales looks uncertain and the long-term impact of climate change adds to that uncertainty.

Evidence gaps:

- Breeding demographic information, particularly hatching success and fledging success and age of breeding population.
- The relative strengths of the influences between broad-scale factors (climate change related) and local on-site influences (habitat quality, disturbance) on Golden Plover population declines.

Impact of hunting on Golden Plover populations

The National Gamebag Census (NGC) collated by the Game and Wildlife Conservation Trust has been collecting voluntary bag returns from shoots across the UK since 1961. Methods similar to the ones used for bird census data are applied to NGC data to derive annual bag indices for the UK, assess temporal trends and evaluate changes in bags over 50, 25 and 12 years (Aebischer, 2019). Total UK bags and numbers released in the 2004 and 2012 seasons are obtained by splitting up aggregate bags from two independent surveys (PACEC, [2006](#), PACEC, [2014](#)) in relation to their NGC species composition.

Due to recent breeding population declines in continental Europe as well as poor UK breeding and harvest data, Ellis and Cameron (2022) used a demographic invariant method (**DIM**) to estimate potential excess growth (**PEG**) for populations of UK wintering waterbirds and calculated a sustainable harvest index (**SHI**) for each species. Comparing this with population trends they assessed the sustainability of harvests. These authors collated mean and confidence intervals for harvest estimates, population size estimates and demographic data, and also population trends on huntable ducks, geese and waders in the UK. Using the mean and Confidence Intervals (**CI**) of SHI estimates, they estimated how probable it is that a current harvest is unsustainable. For Golden Plover, the threshold for sustainability was set at 50% of the maximum potential surplus of the current winter population size, the mean sustainable harvest index was 0.018 (95% CI 0.002–0.043) and gave a probability value of an unsustainable harvest of zero. Ellis and Cameron (2022) concluded in the UK Golden Plover are not being overharvested and the current take is sustainable.

As shown by the Confidence Intervals **CIs** presented by Aebischer (2019), the accuracy of the current UK Golden Plover harvest estimates are unclear (Table 2). On the basis of scientific uncertainty it is important to develop an accurate harvest recording system for the UK, which will assist with management decisions at the flyway scale.

Table 2. Estimated number of Golden Plover that are shot in the UK with 95% Confidence Intervals (CI) in brackets (redrawn from Aebischer, 2019).

Year	Number of birds shot (95% CI)
2004	1300 (100-3400)
2012	5100 (600-13,000)
2016	870 (190-4100)

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Are hunters shooting Golden Plover (i.e. native breeding population) that are in decline and need of protecting?

It is not possible to distinguish between a native breeding bird and a wintering visitor, unless it is ringed or stable-isotope analysis of the feathers is used. The open season for Golden Plover begins on 1st September when resident breeding birds and that year's offspring make up a higher proportion of the overall population than later on in the non-breeding season, especially during November to December when immigrant birds strongly inflate numbers. Due to the fragile and declining breeding population there is a risk that any shooting, in Wales, during the current open season could have a relatively high impact on breeding numbers even if only a handful of birds are hunted. The absence of a national bag return policy or legislative instrument makes it inherently difficult to determine the number of Golden Plover hunted in Wales.

What proportion of shot Golden Plover enter the human food chain?

As there is no record of how many Golden Plover are shot and/or sold for food, the economic value of shooting this species is unclear, but is likely to be low/negligible based on provisional figure of <900 birds killed in the UK in 2016 (Aebischer, 2019).

What is the economic value of shooting Golden Plover

As there is no record of how many Golden Plover are sold for food, that value is not known, but is likely to be low/negligible based on the provisional figure of <900 birds killed in the UK in 2016 (Aebischer, 2019).

Hunters of birds such as Golden Plover are more likely to be lone hunters or part of wildfowling clubs/groups, rather than groups on commercial shoots.

Is there supporting evidence to suggest shooting/hunting might bring benefits to the species

No evidence can be found that shooting or hunting may bring conservation benefits to over-wintering Golden Plover. Though this may be an evidence gap rather than evidence of no impact.

Would any amendment to Schedule 2 reduce any deleterious effects of current hunting/shooting practices?

Extending the close season (e.g. to 1st December) could reduce the possibility of killing individuals of the small and vulnerable Welsh breeding population, estimated to be less than 30 breeding pairs. Dependent on whether Welsh breeding birds over winter in Wales, based on the five-year average (2017/18-2021/22) of wintering birds in Wales the breeding component is estimated to be c. 0.6%. In absence of an annual/monthly bag return system in Wales the number of Golden Plover hunted in Wales is not known.

Options

1. Maintain Golden Plover on Schedule 2 of the Act as a legal quarry outside the close season which runs from 1st February to 31st August (21st February to 31st August below high water mark) but encourage voluntary measures to limit further the current hunting take (though this is not known in Wales).
2. Consider the removal of Golden Plover from Schedule 2 as a precautionary measure on the basis of:

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- reducing any impact of shooting on Wales' declining breeding and non-breeding populations.
- the species is Red-listed Bird of Conservation Concern in Wales
- hunting pressure may exert greater impact on the integrity of populations through drivers of change such as climate change related distributional shifts and site-based habitat quality issues.

This could, however, be reviewed in future, if and when it could be demonstrated that hunting here is sustainable, and the data is available to develop an adaptive harvest management approach that could be implemented through a national species action plan.

3. Consider extending the close season to 1st December to reduce any impact of shooting on the small, declining Welsh population.

Recommendations

NRW advise Option 2 as a preferred approach, based on the level of uncertainty of the impact of hunting on the declining Welsh breeding population.

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