Eurasian woodcock

Scolopax rusticola

BASC's evidence review and recommendations for sustainable shooting

2023-2028
Recommendation

Delay shooting until late November where resident woodcock are present.

BASC
The British Association for Shooting & Conservation

Eurasian woodcock - BASC recommendation

Delay shooting until late November where resident woodcock are present.

Research required

- Breeding and wintering surveys to better understand local and national distribution and abundance.
- Submission of bag data to better inform harvest estimates
- (data can be submitted to the GWCT National Gamebag Census or BASC Green Shoots Bagged It).
- Hunters should support the BASC wing survey to enable better understanding of adult:juvenile and male:female harvest ratios.

Shooting restrictions

- Should avoid shooting woodcock in areas where resident woodcock are present until the major fall of migrant woodcock in late November.
- Show restraint, even when resident birds are absent. Shoot what you need, not what you can.
- Shoot flightlines with caution.
- Curb shooting in severe weather.

Habitat management

- Targeted habitat creation and management for both breeding and wintering populations is required.
  - Create or widen woodland rides to provide breaks in the tree canopy. Ideally, rides should be at least 8m wide.
  - Mow rides and clearings to produce accessible grassy feeding and breeding display sites.
  - Create and reinstate clearings and young woodland using a little-but-often policy. Over time this creates a mosaic of woodland types and ages.
  - Periodically remove marginal vegetation along sections of ditch or pond edges where these features occur within or close to woodlands.
  - Create wet features that retain ground moisture into late summer.
- Pest and predator control.
- Refuge provision, either for set periods of time (temporal) or over dedicated areas of land (spatial), dependent on-site requirements.

Stage 2 assessment

Scolopax rusticola - Eurasian woodcock

Species summary

Official UK population trends of woodcock (particularly wintering population estimates) are limited due to the efficacy of the generic survey methods used. It is acknowledged, therefore, that woodcock numbers are being underestimated by surveyors1. GWCT-BTO species-specific surveys between 2003 and 2013 reported a 29% decline in breeding birds1.

Drivers of decline in the breeding populations size and extent are unclear but are likely a result of climate change, changes to habitat (especially woodland) management, predation and possibly disturbance and shooting[1]. Estimates of wintering population trends are not available and considered hard to estimate due to survey difficulty.

Species conservation status (see Table 1)

The breeding (resident) UK population shows a decline of 29% between 2003-2013[1] (the next major survey will be in 2023[2]). This is coupled with a range decline, particularly in the south and west of the UK[1,3]. It is however, important to note that this breeding population represents a very small proportion of the flyway's breeding population[4]. However, in parallel, the large migrant wintering population is displaying a 25-year increase of 113%[5]. Woodcock have a large and widespread population across the entirety of their range and therefore, outside the UK, retain a favourable conservation status[6,7]. Although facing local pressures at breeding and wintering ground due to land use changes and climate change[1,8–10], their distribution and migration routes are diffuse[11], making the global population resilient[12,13].

	BoCC[14] (2020)	**IUCN UK**[14] (2020)	**Europe**[6] (2021)	**EU28**[6] (2021)	**AEWA**[4] (2018)	**IUCN Global**[7] (Last updated in 2016)
Category	**R**	**VU**	**LC (B)**	**LC (B)**	**B2c**	**LC**
Trend (time period in brackets)	**Breeding:** Decreasing[1] (2003-2013) **Wintering:** Increasing[5] (1993/4 -2018/19)		**Decreasing** (over 3 generations)	**Decreasing** (over 3 generations)	**Decreasing** (2009-2018)	**Stable**
Population size estimate Mature individuals	**Breeding:** 57,000 Males (95% CI: 43,000–71,000) **Wintering:** 1,400,000 Individuals[15]		9,790,000-13,500,000 (min-max)	1,410,000-2,940,000 (min-max)	15,000,000-20,000,000 (min-max)	10,000,000-26,000,000
Reason for category	Severe breeding range decline over long term. Moderate breeding range decline over 25yrs[14]	Reduction in size (either abundance or range) of breeding & non-breeding population. Declines between 20-30% over 3 generations[14]	n/a	n/a	Populations numbering more than around 100,000 individuals, considered in need of special attention as a result of showing long-term decline[4]	n/a
WeBS UK 10-year tend (2008/09-2018/19): n/a • BBS UK 10-year trend (2010-2020): n/a**						

Table 1. Species conservation status across different scales. *It has been highlighted by BASC that such automatic linkage between IUCN status and levels of protection by AEWA is directly contrary to the IUCN's advice on the use of its list. **Due to its cryptic nature this species cannot be surveyed using standard methods. A woodcock-specific survey has replaced this.

Population dynamics

Woodcock populations are often estimated by the number of 'roding' (displaying) males during the breeding season[1,16]. This survey data is then extrapolated to estimate overall population size. Winter surveys are more challenging due to the cryptic nature of woodcock and absence of displaying. Female woodcock rear broods alone, using different habitat for incubation and foraging[10]. It is unclear whether reproductive success and recruitment are driving the breeding population decline, or if it is a result of poor adult survival. These aspects of woodcock population dynamics therefore require further investigation.

Hunting and harvest (see Table 2)

Woodcock shooting seasons in the UK are compliant with the Key Concepts of Article 7(4)[17]. Woodcock are a popular species to hunt in the UK with some of the highest bag numbers of all recorded quarry species[18]. Bag numbers have remained relatively stable since the 90's but have been gradually decreasing since 2004[19]. It is unclear if this relates to voluntary restraint or a population decline. Woodcock are estimated to have a sustainable harvest in the UK for both migrant and resident birds, however the estimates of Sustainable Harvest Index (SHI) have wide confidence intervals and require more accurate population estimates and understanding of origin and age composition of birds shot[20]. Woodcock are legally hunted in 26 countries in Europe. Bag data from 21 of these countries estimate the total harvest to be over 970,000 birds[21]. Bag sizes were historically largest in France, Greece, Ireland, the UK and Italy[22].

Species	Species estimated λmax (95% CI)	Potential excess growth (95% CI)	Mean Sustainable Hunt Index (95% CI)	Probability of unsustainable harvest
Woodcock (Resident)	1.411 (1.302 - 1.61)	28,000 (16,000 - 46,000)	0.711 (0.394 - 1.183)	0.097
Woodcock (Migratory)	1.411 (1.302 - 1.61)	210,000 (120,000 - 340,000)	0.636 (0.353 - 1.057)	0.042

Table 2. Estimated sustainability of species harvest in the UK. Table from Ellis & Cameron 2022.

Little is known about the impact of disturbance on woodcock, either in the form of hunting or other outdoor activities[23]. It is suggested that hunting mortality may locally impact the over-winter survival of woodcock[24] but this is hard to quantify, especially in the UK where migrant birds substantially outnumber residents[1]. Overall, woodcock appear to retain site fidelity after disturbance if there is access to high quality foraging areas[23], highlighting the importance of meadow and grassland bordering woodland habitat.

Pressures, action and research

Pressures

Climate change is considered a driver in range shifts and survival of woodcock and other woodland birds[8]. Within the UK this is likely exacerbated by agricultural practices to increase yield, such as drainage of soil, increased fertilisers and loss of pasture and grassland9. Forestry management such as ride and glade creation and coppicing has been replaced by commercial timber production. Reduced variation of age structure in

woodland and increased woodland fragmentation is also considered a major driver of woodcock decline[1,10]. Alongside habitat changes driven by deer as well as humans, increased predation by mustelids, feral cats, foxes and raptors is also thought to play a role in the species decline[23,25–27].

Practical action

Habitat restoration, through adaptation of agricultural and forestry activities is the primary action recommended to support woodcock populations[10,28,29]. Many of these actions require financial incentivisation and it is possible improvements may be seen in coming years due to increased tree planting for carbon capture. Current action also includes voluntary restraint of shooting early in the season and predator control[30]. However, the impact of these activities (or change in their intensity) has not been documented.

Research action

Data collection on demographics of shot birds/hunting effort can be improved through increased participation in the National Game Bag Census (GWCT) and Wing Survey (BASC). Increased survey effort of winter and breeding populations across the UK and Ireland will also help establish on a long-term, species-specific dataset[2] (BTO/GWCT). Focused research is required to build on some of the more complex aspects considered to impact woodcock such as predation[25] and the associated predator control, disturbance by various recreational activities[23], the impact of deer damage on woodcock and their habitat[1,10,26] and the role of hunting relative to other forms of mortality[28,31].

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