Common moorhen

Gallinula chloropus

England, Wales & Scotland only

BASC's evidence review and recommendations for sustainable shooting

2023-2028 Recommendation

Research required.

BASC

The British Association for Shooting & Conservation

Moorhen - BASC recommendation

Research required

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- 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).
- Shooters should support the BASC wing survey to enable better understanding of adult: juvenile harvest ratios.
- Increased ringing and ring resighting effort to improve understanding of migratory movement.

Shooting restrictions

- Should show restraint.
- Site-based considerations required.

Habitat management

- General wetland creation and management will benefit both breeding and wintering populations.
- A mosaic habitat of dense cover, open water and clearings is required to provide safe refuge and feeding areas.
- Ensure suitable breeding sites have ramp-like areas to enable chicks to leave the water easily.
- Pest and predator control.
- Refuge provision, either for set periods of time (temporal) or over dedicated areas of land (spatial), dependent on site requirements.
- Nesting support (for example: fencing, duck nest tubes, provision of maintained islands).

Stage 2 assessment

Gallinula chloropus - Common moorhen

Species summary

Moorhen are highly adaptive and flexible in their habitat use, now often associated with urban areas[1,2]. The decline of moorhen, like that of coot, is not well understood, but given the low game bag size of the species, it is highly unlikely that hunting is driving the species decline. Habitat loss and predation are suggested to be drivers of decline, possibly impacting breeding success more than adult survival[3,4]. Therefore wetland restoration, along with agricultural and artificial pond creation accompanied by re-vegetating and predator control, will likely benefit moorhen populations across their range.

Species conservation status (see Table 1)

The common moorhen population is showing declines across the UK and Europe. Data from the breeding population is only available for England (where the bulk of UK breeding moorhen are found) and shows a decline in breeding territories (-23.02%). The wintering population, which includes migrants from much of Europe and North Africa shows a 10-year decline (-26% between 2008/09-2018/19)[5]. This is primarily driven by declines in England, as the Scottish and Welsh populations have shown slight increases over this period (+4% and +5% respectively)[6]. The decline in Europe has not pushed the species into an 'at risk' category[7].

	BoCC[8] (2020)	**IUCN UK**[8] (2020)	**Europe**[7] (2021)	**EU28**[7] (2021)	**AEWA**[9] (2018)	**IUCN Global**[10] (Last updated in 2016)
Category	**A**	**VU**	**LC (B)**	**LC (B)**	**B2c**	**LC**
Trend (time period in brackets)	**Decreasing** (Breeding & Wintering)		**Decreasing** (over 3 generations)	**Decreasing** (over 3 generations)	**Decreasing/ Stable** (2009-2018)	**Stable**
Population size estimate Mature individuals	**Breeding:** 210 000 Territories[5] **Wintering:** 305,000 Individuals[11]		1,790,000-2,670,000 (min-max)	1,410,000-1,970,000 (min-max)	2,600,000-3,900,000 (min-max)	4,956,000-8,400,000 (min-max)
Reason for category	Moderate breeding pop. decline over longer term.	Reduction in size of breeding pop (either abundance or range) of the population, measured over 3 generations. Declines of 20-30% over 3 generation lengths.	n/a	n/a	Population >100,000 but is need of special attention as a result of long-term decline.	Species has large range and population size. Trend is stable.
WeBS UK 10-year trend (2008/09-2018/19): -26%[6] • BBS UK 10-year trend (2010-2020): -20.63%[5]						

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.

Population dynamics

Cooperative breeding and brood parasitism are both common in moorhens[1,3,12]. Due to moorhens high reproductive potential, they are also able to quickly colonise new habitat[3]. The species populations are prone to size fluctuations due their sensitivity to severe winter weather, however trends do suggest a downturn in population growth. Although moorhen are tolerant of human disturbance and readily occupy artificial waterbodies[13–16], if the vegetation in these areas is heavily managed or there are high predation rates, it is likely that breeding success is impacted[3,4]. Further studies are required to understand the drivers of moorhen population dynamics.

Hunting and harvest

The moorhen shooting seasons in the UK are not compliant with the Key Concepts of Article 7(4)[17]. The start date of the open season in England and Wales (1st Sept) overlaps with the estimated end of the reproduction period for moorhen in the south of the UK by almost six 'decades' (approx. 1.5 months). This is therefore in breach of the agreement. Take of moorhen is already prohibited in Northern Ireland and the Isle of Man.

There is no UK bag data available for moorhen. Similar to common coot, the species is rarely harvested and as a result there is no modern estimates of its harvest (nor the sustainability of this harvest). Harvest appears to be low in Europe but bag data is limited[18]. Harvest is also low across the remainder of the moorhens range, including in North America19, where there appears to be a low interest in hunting rails[20,21].

Moorhen show a preference for urban areas. Moorhen, like coot, are seen as synanthropic, i.e. they benefit from the artificial environments created by humans and broadly do well despite human disturbance[13–16]. There is no information about the impact of hunting on their behaviour and distribution.

Pressures, action and research

Pressures

The modification or loss of small, vegetated ponds, particularly in agricultural areas is likely to have impacted moorhen across Europe[22]. In the presence of intense bankside and pond habitat management, moorhen will nest in trees1,[3,4]. However, if trees are absent from sites surrounding waterbodies, this may reduce survival and breeding success of moorhens.
A limited number of cases of moorhen with avian influenza have been recorded. Moorhen found or inoculated with the virus did not show signs of illness but shed the virus quickly[23]. This suggests that the species could spread the virus easily to species that are more susceptible to infection and mortality[23].

Practical action

Due to a limited understanding of the drivers of moorhen declines, clear practical actions cannot be recommended. However, creation and maintenance of ponds with stable water levels provide good breeding sites for moorhen[22,24]. These ponds require emergent vegetation and tall cover on surrounding land to provide suitable nesting sites[2]. Predator and pest control, particularly of rats and mink, will likely benefit the nesting success of moorhen[3].

Research action

A large proportion of moorhen studies look at nesting behaviour, specifically cooperative breeding and nest parasitism[1,3,12,25]. However, there is limited understanding of the movement of moorhens within the UK and across the flyway. As with coot, this species would benefit from ringing or marking programmes that allow for capture-mark-recapture studies.

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