

# Updated Action Table for the Montagu's Harrier, 2016-2021

*(Circus pygargus)*



Threat classification, Swedish Red List:  
Endangered (EN)

The original action table in Swedish has been  
established by the County Administrative Board of  
Kalmar County

SWEDISH ENVIRONMENTAL  
PROTECTION AGENCY

# Preface

Action plans for threatened species and habitats is one of several tools for achieving the environmental quality objective A Rich Diversity of Plant and Animal Life, as decided by the Swedish Parliament, as well as the other six environmental quality objectives related to the ecosystem. These plans also helps to achieve Aichi Target 12 of the Convention on Biological Diversity, which aims to improve the conservation status of threatened species by 2020, as well as sustainable development goal 15, target 15.5, for halting biodiversity loss and, by 2020, protecting and preventing the extinction of threatened species.

The action plan for the Montagu's harrier for 2011–2015 was developed by Staffan Rodebrand, and has been coordinated nationally by the County Administrative Board of Kalmar County. A report on the plan's outcomes was submitted to the Swedish Environmental Protection Agency (EPA), which decided to extend it through 2021 with an update of the action table.

The report contains objectives and a brief presentation of urgent measures during the period 2016–2021 for improving the species' conservation status in Sweden. Actions are being coordinated among different stakeholders, thereby increasing our knowledge and understanding of the species. The actions have been anchored through consultation with relevant stakeholders.

The Swedish EPA's website contains [the complete action plan report](#).

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# Establishment and validity

On 13 December 2018, the Swedish Environmental Protection Agency (EPA) decided to update the action table and short-term objectives of the Montagu's harrier action plan (case NV-08801-18). The table serves as guidance and is not a formally binding document. It is valid for the period 2016–2021. When the plan period expires, the plan's national coordinator must report on the progress of actions taken, results and achievement of goals implemented during the past plan period. The plan's continuation, deeper needs for evaluation and level of ambition will be determined by the Swedish EPA in consultation with the plan's national coordinator and the SLU Swedish Species Information Centre. The action plan's validity period will be extended unless a decision is taken to end the plan or establish a new plan for the species.

# Background

The Montagu's harrier hunts in open country such as heathlands, alvar plains, wetlands and open farmland. It traditionally breeds in metre-high vegetation, including in wetlands such as *Cladium mariscus* marshes on northern Öland and Gotland, at the margins of floodplain lakes and streams, and in vast scrublands, which in southern Öland means large stands of *Dasiphora fruticosa*. Sometime after 2012, most of the remaining Montagu's harrier pairs on Öland chose to abandon these biotopes and instead breed in farmland, mainly in lucerne fields. Throughout Sweden, the nearly total abandonment of natural habitats and transition to nesting sites in arable land in recent years is both surprising and a cause for concern.

Öland in Kalmar County (H) is the primary area affected by the action plan for Montagu's harriers, although the species also breeds with some degree of regularity in the counties of Scania (M), Östergötland (E), Örebro (T), Uppsala (C), Stockholm (B), Västra Götaland (O), Västmanland (U) and Gotland (I). Observations of Montagu's harrier breeding in the Kvismaren area have recently been reported, which is why Örebro County has now been added. More information about the species is available in Swedish EPA Report 6465, Action Plan for the Montagu's Harrier, 2011–2015.

The action plan report shows that the counties have prioritised measures that involve identifying, inventorying and restoring high-value areas. Progress has been made in managing some of the identified sites by cooperating with landowners on restoration and management measures in areas of high nature value. Although the action plan for the Montagu's harrier is on the right track, it has not yet managed to reverse the negative trend. Preserving viable stocks of the species requires continued investment at the biotope level; the restoration of overgrown reed, *Cladium mariscus* and *Dasiphora fruticosa* environments; a later pasture date or removal of grazing livestock from breeding grounds; and protection of crop-nesting Montagu's harriers.

The updated action table aims to improve the conditions for the future survival of the Montagu's harrier in the country. Remaining measures that were not implemented during the previous plan period as well as ongoing measures have been adapted to the prevailing state of knowledge and actions. New actions have also been introduced. The short-term objectives have been partially met and new short-term objectives have been defined in order to achieve the long-term objectives.

The estimated cost for actions that would need to be covered by Swedish EPA funding to implement the action plans for Montagu's harriers amounts to 1,782,000 Swedish kronor for the validity period 2016–2021. However, this funding potential depends on an annual allocation of resources to and prioritisation of all current action plans.

# Vision and objectives

## Vision

Sweden aims to have a thriving, stable and slightly increasing population of about 65–75 pairs of Montagu's harriers. The *Dasiphora fruticosa* and *Cladium mariscus* habitats have been improved and managed appropriately, providing suitable alternatives to breeding in farmland. The majority of the Montagu's harrier's most important semi-natural breeding grounds have long-term protection (nature reserve or Natura 2000 site) with management instructions adapted to the species' requirements. All more than temporary breeding sites are known to the relevant authorities and operators.

## Long-term objectives

The objectives is a self-reproducing population (meaning 2 fledglings per breeding pair per year) at the level that prevailed for much of the 1980s and 1990s, with 40–45 breeding pairs on Öland and a slightly increasing population in the rest of Sweden by 2025. Therefore, the Montagu's harrier cannot be removed from the Swedish Red List. It will have regained its position in Sweden as a bird species with a regionally positive conservation status relative to the amount of suitable habitat (see Favourable Reference Range and Favourable Reference Population in the Article 17 guidelines of the Habitats Directive; EU Commission 2006).

## Short-term objectives for 2020

- The decline of Montagu's harrier populations on Öland has tapered off and has not fallen below 2004–2008 levels (30 pairs).
- At least 75% of breeding pairs on Öland succeed in producing fledglings.
- The Swedish presence outside Öland has been surveyed and the needs for measures there investigated.
- Habitat restoration has been carried out in all priority-1 areas of high-nature value.
- The need to adapt management to benefit the Montagu's harrier in protected areas has been identified.

# Actions and recommendations

## Dialogue and collaboration

### **Dialogue**

Recurring dialogue is needed with the Federation of Swedish Farmers, individual users affected by breeding, as well as advisors and those who develop commitment plans for lands that receive agri-environmental payments. Collaboration should take place with Birdlife Sweden, local ornithological associations, volunteers, interested landowners and users, and other stakeholders.

### **Information, events, training and guidance**

An informational leaflet aimed at landowners, farmers and interested parties should be distributed each year ahead of the breeding season. An international seminar should be held on Öland and a European network created for the exchange of experiences and cooperation. In order to increase awareness of the need for action, guidance, training and guidance should be provided regularly. A report on Öland's Montagu's harriers should be published summarising all knowledge to date and the conservation efforts that are taking place.

Temporary signs should be put up wherever breeding sites need special protection. Information should be given to landowners and users about breeding Montagu's harriers so that they do not accidentally violate the Swedish Species Protection Ordinance.

### **Area protection**

Agreements should be signed with users wherever Montagu's harriers breed in grasslands or fields. Farmers and landowners should be notified so they can help protect breeding Montagu's harriers.

Plans for wetland measures in Öland's protected mires, including Djurstad Träsk, Petgårde Träsk and Amundsmosse, with late-season breeding Montagu's harriers, should be monitored.

## Actions in the field

### **Management**

Continued management including recurring clearing and regeneration of both *Cladium mariscus* and *Dasiphora fruticosa* scrublands should take place. The species is sensitive to taller shrub and tree overgrowth, and to trails or other linear structures passing through breeding scrubs, reeds and grasslands. To avoid trails and trampling, semi-natural habitats should also be fenced in.

Kalmar County, Öland:

- Djurstad Träsk – recurring mowing (in sections; depending on growth, each area is mowed about every 10 years). During the period 2016–2021, at least 2 ha should be mowed.
- In Djurstad Träsk on Stora Alvaret (S. Möckleby and others), and in Frösslunda and Triberga and other lakelands, suitable biotopes should be fenced in (mowed *Cladium mariscus* fens, cleared *Dasiphora fruticosa* areas) and in a few years' time be able to provide a *Cladium mariscus* or *Dasiphora fruticosa* habitat that makes a suitable breeding site. About 5 ha.
- Recurring clearing maintenance will be needed in mowed and fenced-in areas, at least once during the period 2016–2021 (see above for area).

## Habitat restoration and regeneration

Trees should be felled and tall bushes (mainly juniper, willow and hawthorn) cut in the previously semi-natural breeding habitats.

Tall, dense and old vegetation in *Dasiphora fruticosa* scrublands and *Cladium mariscus* fens should be regenerated. Areas should be set aside in farmland where the Montagu's harrier breeds, and users should be compensated for lost harvest and additional work.

Kalmar County, Öland:

- Stora Alvaret – cutting trees, groves and tall bushes in *Dasiphora fruticosa* areas having at least 5 sites (e.g. Löt Alvar, Sebberneby Alvar, Dröstorps NR), about 10 ha.
- Southern Öland's *Dasiphora fruticosa* shrubs – fencing in *Dasiphora fruticosa* scrublands that are being cleared or have been over the last 10 years. These should be allowed to mature and become suitable breeding habitats. At least 3 sites (prelim. S Möckleby Alvar, Frösslunda and Triberga Sjömarker), about 4 ha.

Uppsala County:

- Reeds should be restored in Dragmansbosjön lake, about 10 ha.



Breeding site in grasslands left undisturbed after mowing and fenced in, Öland 2018. Photo: Susanne Forslund

## Population-enhancing measures

Non-cropped patches should be left and nest exclosures, fences or a combination of these placed around breeding sites to protect nests, eggs and chicks from grazing animals, predators and combine harvesters. If necessary, some compensation should be paid for additional work and lost harvest.

Kalmar County, Öland:

- At least 10 crop-nesting pairs and their offspring are estimated to be rescued annually from combine harvesters and predators by putting up fencing around the nests and cooperating with farmers.
- Exclosures (3x3 m) will be placed around nests in farmland prior to the second ley harvest, or before the grain harvest.
- Cooperation will take place regularly with hunters who have culling rights on southern Öland to protect ground-nesting birds, such as waders and Montagu's harriers, from prey like corvids, foxes and badgers.

Scania County:

- To prevent predation, nest exclosures are placed over nests of pairs found nesting in cereal seed.

Uppsala and Östergötland Counties:

- Non-cropped patches are left around nests found in farmland.

## Data collection and analysis

### Inventory

Inventory should be carried out annually on Öland, and in 2020 all sites in the country where breeding has occurred in recent years (the last 10-year period at a minimum) should be inventoried. New breeding sites (not least in farmland) should also be sought. Information from ornithologists and the Swedish Species Observation System is available as an aid. A common inventory methodology (Rodebrand, S., 2011) should be used to make the results comparable.

### Follow-up

The restored areas should be followed up the year after the actions are taken and after three years. The common inventory methodology will be used to monitor population trends and see how the species responds to the implemented measures.

### Environmental monitoring

Monitoring takes place at least once every five years, through inventory at all sites within the Swedish range, to highlight any changes in population size.

### Knowledge needs

A forum is being built up for exchanging knowledge and experiences between researchers studying the Montagu's harrier and conservationists involved in protecting the species around Europe, through international seminars and social media. This will facilitate the implementation of new knowledge and practical measures.

Genetic analyses can be carried out to investigate the origin of the Swedish Montagu's harrier. Theories abound that there are eastern Montagu's harriers choosing to breed in natural habitats and southern ones that have adapted to farmland breeding. A collaboration is underway with researchers at the University of Warsaw, who have analysed the genetics of Montagu's harriers from different parts of Europe. Samples (feathers, droppings, pellets) are being collected in conjunction with nest monitoring, ringing and inventory-taking.

Breeding data from previous years should be analysed in order to gain knowledge about the selection of breeding sites relative to landscape changes and feeding sites.

Colour ringing should take place and satellite transmitters put on a few males to investigate feeding patterns and migration routes in spring and autumn. These studies will be carried out in collaboration with researchers from the Netherlands, who have been using transmitters on several Montagu's harriers for many years. They are also keen on following Montagu's harriers from the northern regions.

# Annex 1

## Proposed actions

### Category: Regular action plan

Action	County	Area/Site	Actor	Funder	Estimated cost, SEPA' action plan	Estimated cost, other funder	Priority	Implement by <sup>2</sup>
<b>Dialogue and collaboration</b>								
Regular guidance, training, meetings	All counties <sup>3</sup>		County admin. board	SEPA action plan	40 000		1	Annually <sup>4</sup>
Updates of information materials, signs	H		County admin. board	SEPA action plan	20 000		2	2020
Report on Montagu's harrier on Öland	H		County admin. board	SEPA action plan	40 000		1	2018
International seminar	H		County admin. board	SEPA action plan	60 000		1	2017
<b>Actions in the field</b>								
Management (incl. management agreements)	All counties <sup>3</sup>	<i>Dasiphora fruticosa</i> areas, <i>Cladium mariscus</i> marshes, reeds	County admin. board	SEPA action plan, SEPA management	20 000	50 000	1	Annually <sup>4</sup>
Fence in nesting sites (materiel)	All counties <sup>3</sup>		County admin. board	SEPA action plan, SEPA management	132 000	100 000	1	Annually <sup>4</sup>
Protection of crop-nesting Montagu's harriers	All counties <sup>3</sup>		County admin. board	SEPA action plan	240 000		1	Annually <sup>4</sup>
Restoration of <i>Cladium mariscus</i> fens	H, I	Northern Öland, Gotland	County admin. board	SEPA action plan, SEPA management	0	450 000	1	2020
Restoration of <i>Dasiphora fruticosa</i> scrublands	H	Southern Öland	County admin. board	SEPA action plan, SEPA management	100 000	200 000	1	2020

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Restoring reedbed areas	C	Dragmansbosjön	County admin. board	SEPA action plan	50 000	150 000	1	2018
<b>Data collection and analysis</b>								
Inventory of breeding sites	All counties <sup>3</sup>		County admin. board	SEPA action plan	200 000		1	2020
Annual inventory	C, H <sup>5</sup>	Öland	County admin. board	SEPA action plan, SEPA management	340 000	50 000	1	Annually
Follow-up of actions	All counties		County admin. board	SEPA action plan, SEPA management	60 000	50 000	1	2021
Analysis, prioritisation and designation of new high nature value areas in natural habitats	H	Öland	County admin. board	SEPA action plan, SEPA management	45 000	40 000	1	2018
Monitoring of crop-nesting pairs	All counties <sup>3</sup>		County admin. board	SEPA action plan	300 000		1	Annually <sup>4</sup>
Ringling of crop nesters	H	Öland	County admin. board	SEPA action plan	10 000		2	2019
Study of breeding site relative to feeding area	H	Öland	County admin. board, Lund Univ.	Lund Univ. (thesis project)	0	0	1	2018
Satellite monitoring	H	Öland, Uppland	County admin. board	SEPA action plan, BirdLife Sweden, Uni. Groningen	100 000	100 000	1	2019
Genetic studies	H	Öland	County admin. board, Univ. Warsaw	SEPA action plan	25 000	0	3	2020
<i>Total estimated cost during 2016–2021</i>					<i>1 782 000</i>	<i>1 190 000</i>		

1 Swedish Environmental Protection Agency (SEPA).

2 The specified year should be considered as a guideline provided that the measure can be funded, and might be delayed due to a lack of resources.

3 Includes Kalmar (H), Scania (M), Östergötland (E), Örebro (T), Uppsala (C), Stockholm (B), Västra Götaland (O), Västmanland (U) and Gotland (I).

4 The cost specified is the total amount during the plan period.

5 Inventory not planned in accordance with Annex 1 can be performed to a lesser extent even in counties, areas or sites not listed in the counties above if there are strong indications of the presence of Montagu's harriers. Such inventories must be agreed in advance with the coordinating county administrative board for the plan.