The Isle of Man Hen Harrier *Circus cyaneus* Breeding Census 2022

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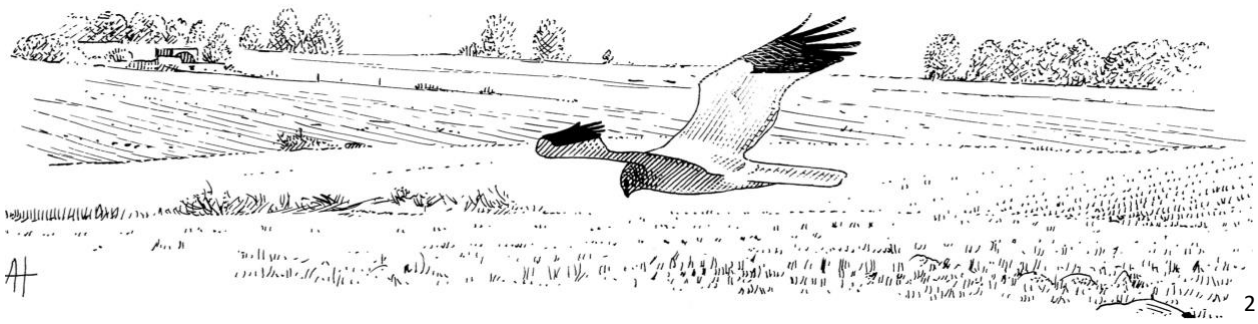


ABSTRACT

Between 28th March and 5th July 2022, up to three visits were made to each of 86 known recent and historic Hen Harrier *Circus cyaneus* nesting sites in the Isle of Man's uplands, with 83 sites being fully assessed.

Standardised surveys from carefully chosen vantage points located 31 Definite, 7 Probable and 4 Possible Hen Harrier territorial pairs (nesting sites), giving a population range of 38-42 breeding females.

Hen Harriers were noted at a further 13 sites but were judged to be merely hunting over these areas and not using them for breeding.

No Hen Harriers were observed at a further 31 surveyed sites.

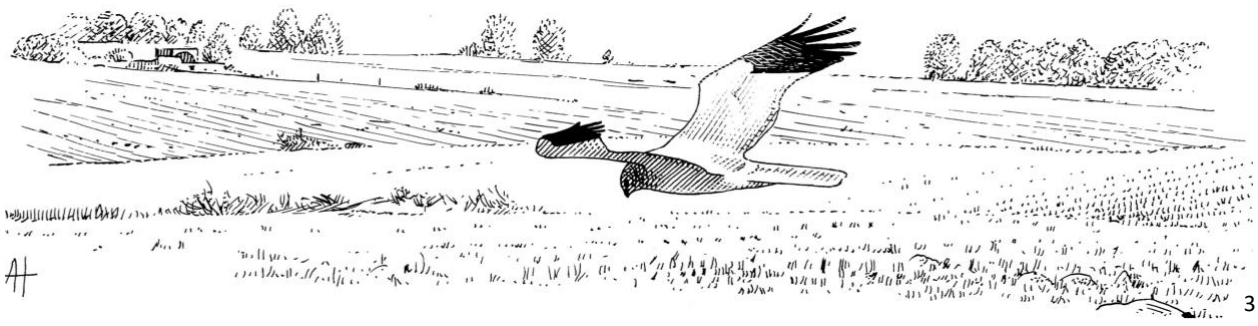
The total of 38 Definite and Probable territorial pairs is the highest such count since 2004 when the Manx breeding population peaked at 57 Definite and Probable territorial pairs.

It was not within the scope of the 2022 Census to determine the number of nesting attempts made by pairs, clutch or brood size, or the number of fledged young.

An encouraging, estimated total of 27 different grey males was observed, an improvement on significantly lower winter roost counts of grey males in the run-up to the breeding season.

Eight or ten nesting females were considered to have been serviced by four or five polygynous males.

Despite concurrent fieldwork by Manx BirdLife, other NGOs and Government staff in addition to an appeal to members of the public to report sightings of Hen Harriers during the 2022 breeding season, no reports were received of Hen Harriers nesting in the Manx lowlands or coastal areas.



ABBREVIATIONS AND TERMS USED IN THIS REPORT

BTO	British Trust for Ornithology
CR Form	Census Recording Form
DEFA	Department of Environment, Food and Agriculture (Isle of Man)
DfE	Department for Enterprise (Isle of Man)
DOI	Department of Infrastructure (Isle of Man)
Grey male	Male Hen Harrier, aged 2nd calendar year plus, in adult type grey plumage
MOD	Manx Ornithological Database maintained by Manx Birdlife
PSR Form	Priority Species Recording Form
Ringtail	Immature male/female or adult female in essentially brown plumage
RSPB	Royal Society for the Protection of Birds
VP/VPs	Vantage Point/Vantage Points

INTRODUCTION

BRITISH ISLES

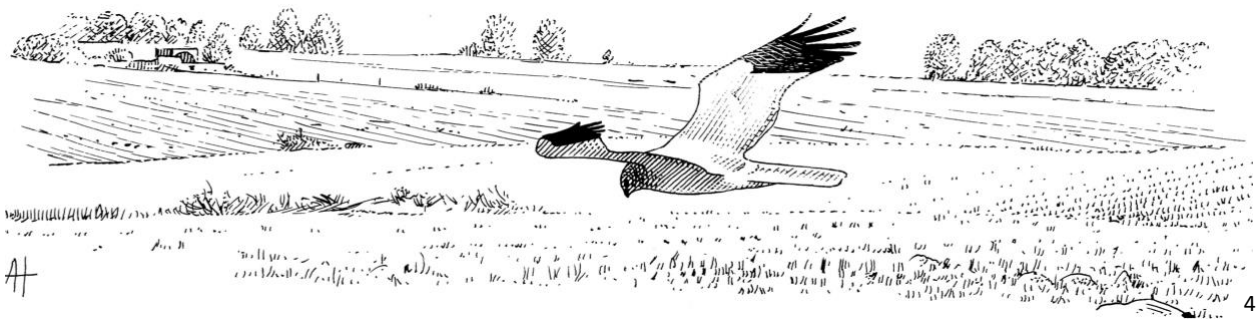
Within the British Isles, the Hen Harrier *Circus cyaneus* is confined, as a breeding species, to the uplands of northern and western England, Wales, Ireland and the Isle of Man, and with traditional strongholds in Scotland especially Orkney, the east Highlands and Argyll.

Once widespread, the species was all but exterminated as a breeding bird on mainland Britain during the second half of the 19th Century and early 20th Century. During and immediately after the Second World War, Hen Harrier re-colonised parts of northern Scotland and rapidly extended its range as far south as the Pennines of England and North Wales by 1970.

ISLE OF MAN

The Hen Harrier also made its way to the Isle of Man, with the first breeding pair being recorded in Glen Rushen in 1977 (McIntyre *et al*. 1978, cited in Sharpe *et al*. 2007). The Manx breeding population rapidly established itself and by 2004 there were at least 57 territorial pairs on the Island.

A reversal of fortunes saw Manx breeding numbers decline to 29 territorial pairs by 2010, alongside a less severe decline in the overall British Isles population from 806 to 662 territorial



pairs (Hayhow *et al*. 2013). By 2016, the population had stabilised at 30 territorial pairs, against the backdrop of a further but non-significant decline in the overall British Isles population from 662 to 575 territorial pairs (Wotton *et al*. 2018).

A SPECIES OF SIGNIFICANT CONSERVATION CONCERN

There have been five assessments of the *Birds of Conservation Concern in the United Kingdom including the Channel Islands and Isle of Man*, spanning 1996 to 2021 (Stanbury *et al*. 2021).

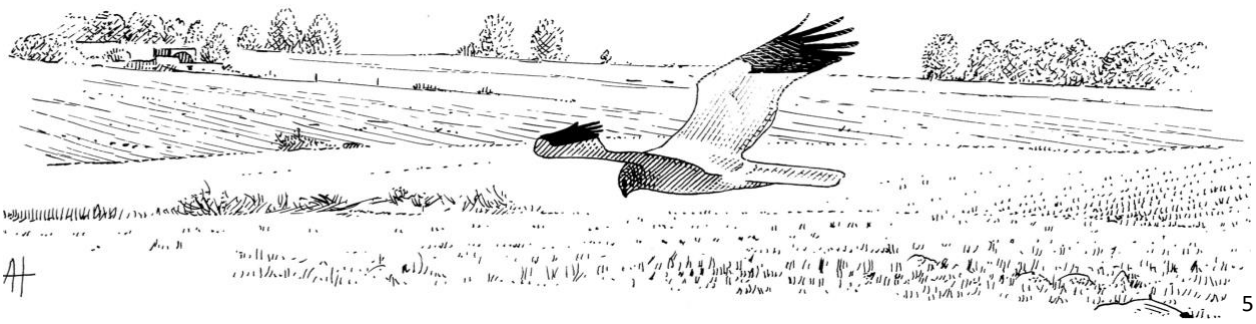
In all five assessments, the Hen Harrier has been Red-listed as being of the highest conservation concern due to historical declines in the breeding population. The UK Government has identified Hen Harrier as a high priority species in terms of combatting wildlife crime.

At European level, the Hen Harrier is currently listed under SPEC 1 and under Annex 1 of the EC Birds Directive, being considered vulnerable within Europe (Fielding *et al*. 2011).

In the Isle of Man, the first ever assessment of the Manx nation's *Birds of Conservation Concern* (BoCCIoM) was completed in 2021 (Morris and Sharpe 2021). In this, Hen Harrier was Amber-listed as being of medium conservation concern at a national level based *inter alia* on a 41.2% decline in Manx breeding numbers in the period 2004-2016.

In the Isle of Man Wildlife Act 1990, the Hen Harrier is listed under Schedule 1, affording it special protection during the breeding season.

Perhaps due to the fidelity of the Island's population, Manx Hen Harriers are genetically diagnosable from their UK, Irish and European counterparts (Jense 2018, and in prep.).



CENSUS CONTEXT

This breeding census represents the Isle of Man's contribution to what will be the sixth internationally coordinated UK and Isle of Man breeding survey of Hen Harrier, expected to take place in 2023.

The Isle of Man census was conducted in 2022 as a result of advantageous funding opportunities. The UK component is delayed until at least 2023.

Data generated from the Isle of Man Census will be provided to RSPB for incorporation into the ensuing combined UK and Isle of Man report.

CENSUS AIM

Building on five prior censuses (1988/89, 1998, 2004, 2010 and 2016), the aim of the Isle of Man Hen Harrier Breeding Census 2022 was to obtain a reliable updated estimate of the breeding population in terms of territorial pairs in order to understand ongoing trends in population size and distribution, especially as previous censuses had indicated a decline.

To ensure that the Hen Harrier's conservation status per BoCCIoM remains valid over time, based on contemporary data, and that relevant and timely conservation action can be taken, regular assessment of the species' breeding population is required in conjunction with regular monitoring of winter roosts.

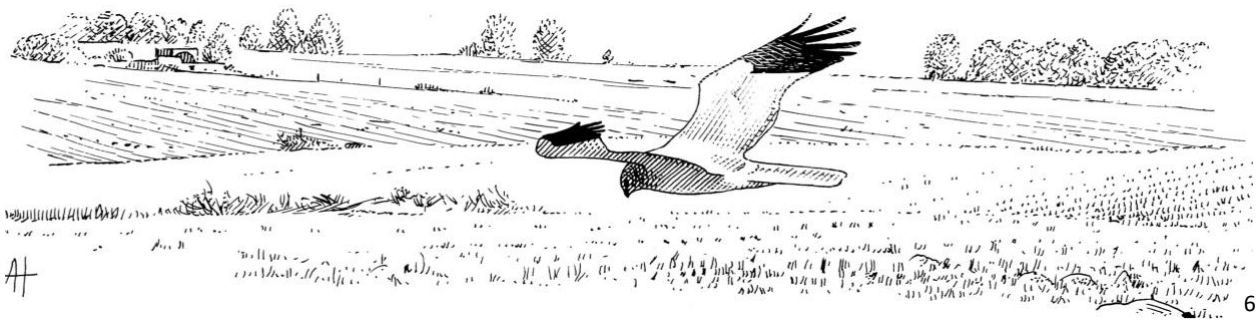
CENSUS METHODS (SUMMARISED)

In each 5km square containing suitable habitat, the sites of previously proven breeding were identified. These 80 sites formed the core territories to be surveyed.

A further 6 sites were later added as a result of observations during the early part of the 2022 Census, making a combined total of 86 potential sites.

During the Census fieldwork, sightings of Hen Harrier were marked on maps with corresponding notes for each sighting including:

- Time of sighting;
- Observed behaviour;
- Sex;
- Habitat in the general area of the sighting and whether the heather moorland was managed for Red Grouse *Lagopus lagopus* (though see later comments under 'Results').

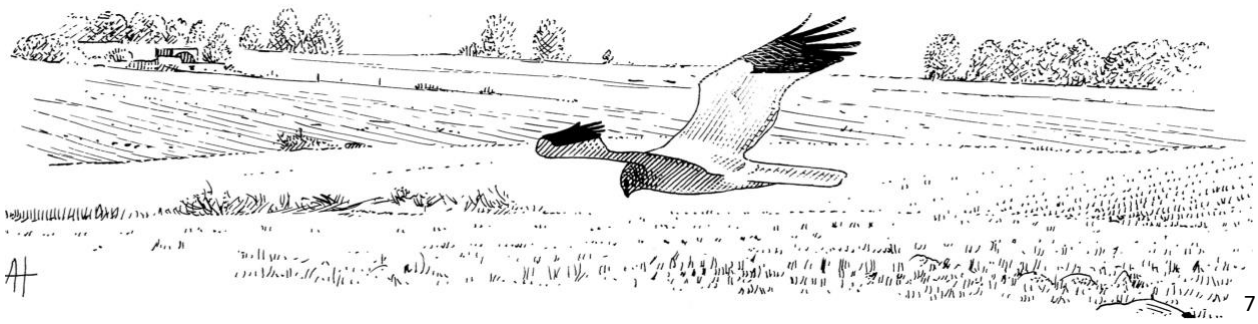


On return to the office, maps and recording forms were backed up (digitally scanned and saved). Accurate grid references – typically six-figures – for each sighting were obtained from the Manx BirdLife mapping system.

Each sighting was attributed a breeding status, depending upon observed activity, utilising the MOD system of Activity and Habitat Codes. Commonly used Activity Codes for Hen Harrier are shown in Table 1 below, with Table 2 showing Habitat Codes.

Breeding Status	**Activity Code**	**Activity description**
Other	FO	Flying over - used for birds passing through a site, but not considered to be using the site for breeding
	HT	Individual Hunting and not considered to be using the site for breeding
Possible	IF	In flight and possibly using the area for breeding
	H	Individual/s in possible habitat
Probable	AL	Alarm - Hen Harrier
	D	Display or courtship - including pair bonding
	M	Bird/s collecting or carrying nest material
	MO	Mobbing - N.B. In MBL database this is a 'Probable' activity
	N	Bird/s visiting 'Probable' nest site
	P	Pair in suitable habitat
	PM	Pair observed mating
Definite	A	Adults agitated
	B	Nest building - N.B. In MBL database this is a 'Definite' activity
	FP	Food Pass
	FY	Adult carrying food or faecal sac
	NE	Nest with eggs
	NY	Nest with young
	ON	Adult/s indicating occupied nest
	RF	Recently fledged young
	T	Holding territory - N.B. in MBL database this is a 'Definite' activity
	UN	Used nest (current year)

Table 1. MOD Activity Codes used to indicate breeding status of observed Hen Harriers.



Habitat	Habitat Code	Habitat description
Heather-dominated moorland	H	Unenclosed heather dominated moorland characterised by species such as heather, bilberry and purple-moor grass plus blanket bog characterised by ling and bell heather, bog cotton, deer grass and moss
Grass-dominated moorland	G	Unenclosed grass-dominated usually grazed by sheep characterised by species such as wavy hair grass, mat grass and heath rush. Stands of rush (Juncus sp.,) and bracken (Pteridium spp.) occasionally occur
Young plantation	Y	Before canopy closure of plantation. Characterised by varying shrub layer development and brash and tree root-plates from previous crop and large open spaces between lines of planting. Seedling and/or sapling recruitment either by natural regeneration or by planting is widespread
Thicket plantation	T	Closed-canopy forest plantations of even sized stands. Tree canopies fill all the available space and crop height is 10-20m
Mature plantation	M	Closed canopy forest plantation 20-25m high. Characterised by absence of shrub layer, except in rides between stands of trees and in small patches of unplanted ground or failed crop
Other	O	Description of habitat not falling into one of the categories outlined above.

Table 2. MOD Habitat Codes used to indicate breeding habitat of observed Hen Harriers.

Sightings from other sources

Sightings of Hen Harriers were gratefully received from members of the public and DEFA staff. These were checked against known breeding sites to ensure site visits were undertaken by Manx BirdLife's surveyors where necessary.

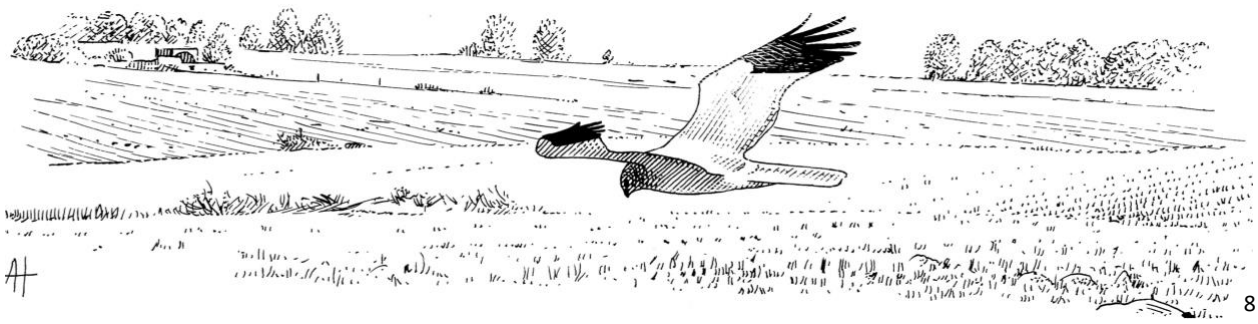
FIELD METHODS

During each field visit, surveyors carried with them sufficient personal equipment, clothing and means of communication to ensure their safety and warmth.

Date range of visits

Hen Harriers can occupy breeding sites from as early as late February, with the peak period of site selection and territorial display being from early April to early May (Hardey *et al.* 2006).

On the Isle of Man, local experience has shown that, although harriers do visit suitable nesting territories throughout March, the proximity of the uplands to suitable lowland foraging areas can result in birds being absent from territories for some hours each day early in the season.



Harriers consistently forage within territories only once upland prey such as Meadow Pipit *Anthus pratensis* becomes more available (C Sharpe pers. obs.).

Assessing numbers of fledged young did not form part of the Census scope hence fourth visits were not undertaken.

TT restrictions

During the period 29th May to 10th June 2022, the annual Isle of Man Tourist Trophy (TT) motorcycle races took place, resulting in some restrictions on access to the uplands – much of which are within the closed public roads that comprise the racing circuit.

The impact on surveying was minimised where possible by selecting other areas, though with up to 40,000 visitors to the Island concerns over site security and confidentiality did reduce survey work at this time.

Timing of visits during the day and length at vantage points

The site selection process identified an initial 80 priority sites for survey, with a further six sites being identified in the early stages of fieldwork.

Vantage points (VPs) for each site were selected to give a view over known nesting areas and as extensive a view as possible of the surrounding landscape, thus maximising the opportunity to observe harrier activity in the wider habitat. Though VPs were primarily chosen to provide maximum visibility over a site, account was taken of the need to avoid being too close to a potential nest.

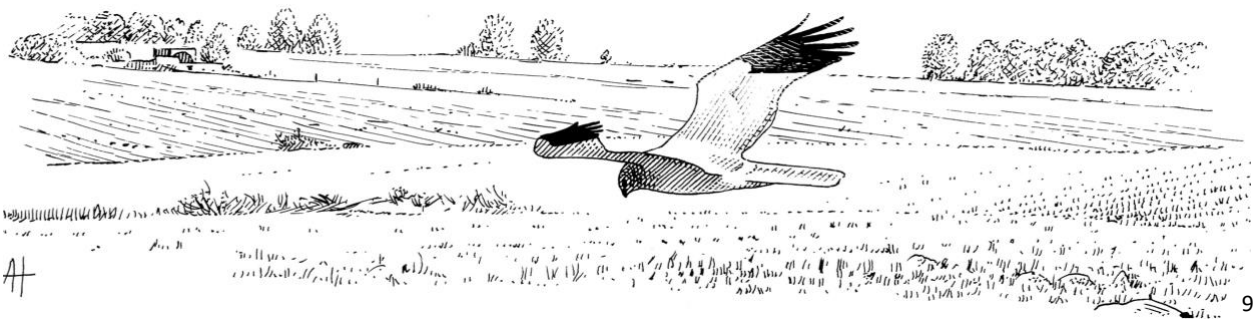
During visits there were occasions when an initial choice of VP needed to be changed in light of observed harrier activity being farther away than was anticipated. In most instances, the VP selected during first visits was suitable for use on any subsequent visit.

In line with Hardey *et al.* (2006) vantage point surveys were mainly undertaken during the periods 06:00 to 12:00 and 16:00 to 20:00. In practice, most surveys were undertaken during mornings, occasionally extending beyond 12:00 where activity was being observed but clarity over what was happening was still lacking. Visit duration was for a maximum of four hours per site, though this could be of shorter duration if proof of breeding was obtained sooner.

Sites where either no harrier was observed during first visits, or where the only sighting was of a bird not considered to be using the area to breed, did not typically receive a second visit.

NEST VISITS TO RING YOUNG

The scope of the 2022 Census did not include nest visits to record the number of eggs or young or to ring young, and no budget was available for satellite tagging.



CENSUS RESULTS

NESTING SITES

A total of 31 Definite, 7 Probable and 4 Possible nesting sites were identified (see Table 3 below) giving a range of 38-42 breeding females. In addition, birds were noted at a further 13 sites, but were judged to be hunting over these areas and not using them for breeding. There were no harrier observations at a further 31 sites that were surveyed.

10km	Definite	Probable	Possible	Other	Nil sightings
Square A	5	3		3	*7
Square B					1
Square C	15	3	3	5	14
Square D	5			3	3
Square E	3			2	*4
Square F	3	1	1		*2
Total	**31**	**7**	**4**	**13**	**31**

Table 3. Number of sites surveyed and highest breeding status by 10km square.

***Note**: Of 86 identified potential sites, 83 were fully surveyed. Three were not surveyed and returned 'Nil' results due to lack of access or suitable habitat.

POPULATION ESTIMATE

With 38 Definite and Probable nesting sites plus a further 4 Possible nesting sites, the population of breeding females can be inferred, at one per site, as being 38 to 42. Records of birds classed as Other (i.e. not breeding) are excluded from this population estimate.

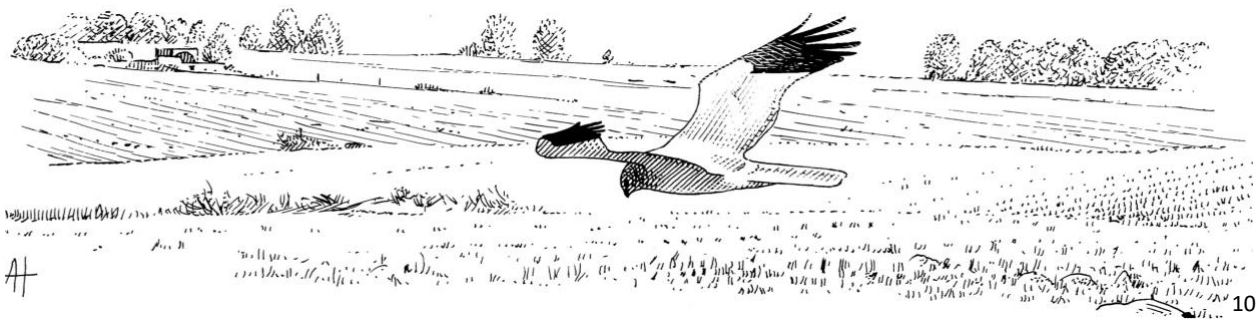
POLYGYNOUS MALES

Polygyny was noted at four, possibly five, sites (with the approximate distances between nests held by the polygynous males shown in parentheses):

- Definite: Square 1 (280m), Square 2 (450m), Square 3 (550m) and Square 4 (650m);
- Possible: Square 5 (850m).

SELECTED HABITATS FOR NESTING

Habitat types at and near nests were noted in the field, including whether there was any sign of heather moorland being 'managed for grouse shooting'.



The primary reason for upland management on the Isle of Man is different to that in many parts of the British Isles with less emphasis placed on managing primarily for grouse. However, in order to enable comparison with results across the wider British Isles, the classification of 'managed for grouse shooting' has been used in this report.

Determining whether an area of heather moorland was 'managed for grouse shooting' or not proved problematic. This was due to a generally aged heather structure sometimes making it difficult to determine managed from non-managed areas of heath. Upland management typically generates a mosaic structure within heather moorland, obvious in the field during the first few years, becoming less easy to determine from ground level as time goes by, this proving to be the case in the 2022 Census. Most of the existing mosaic is obtained through cutting rather than burning, though after several years it is hard to tell the difference.

As, to a degree, even an ageing mosaic provides the variations in heather height preferred by grouse and other upland species, the use of aerial photography taken in 2021 was used in conjunction with field notes in preparing the summary of habitat use that follows.

HABITAT AND HABITAT USE

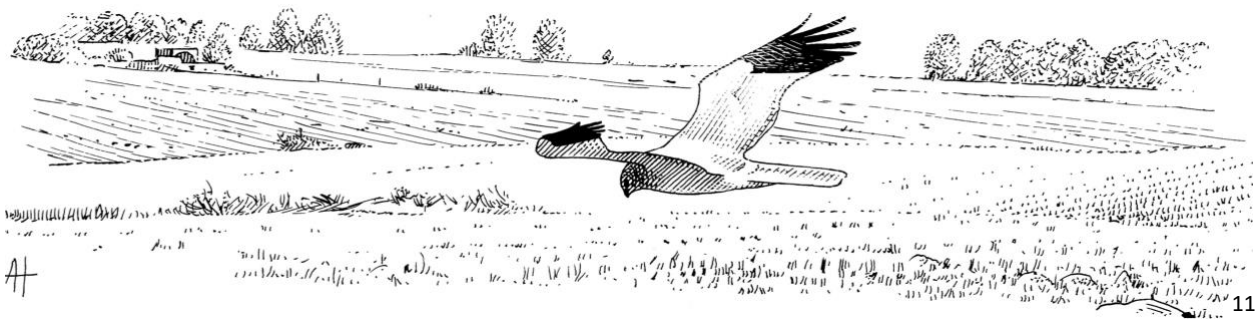
Evaluation of habitat and its use was undertaken at two levels: at the nest, and within a 250m radius of the nest.

In addition, the habitat within a 250m radius and a 500m radius was classed either as managed or not managed for grouse (though see comments below on 'Upland management'). The following should be considered when examining the results:

- The main habitat type/s identified were used in the summary even if, on occasion, additional habitats were present.
- Classification of habitat at the nest was undertaken at distance. While in most cases the habitat type was clear, there were one or two where visibility was restricted. Mapped aerial photos were used to support classification if there was any doubt.
- Field observations were used to classify main habitat type within survey areas, with aerial photos taken in 2021 used to check distances.
- Though notes on management for grouse were taken in the field, greater reliance on correct classification was put on aerial photos as topography often restricted views of the landscape and older managed land could be hard to identify at ground level.

Habitat at the nest and within 250m of nest

Chart A shows 16 (51.6%) of Definite nest sites in European Gorse, with a further 8 (25.8%) in a mix of European Gorse/heather/scrub. Just 4 (12.9%) were judged to be entirely within heather, with a further 8 (25.8%) being in a mix of heather/gorse/grass.



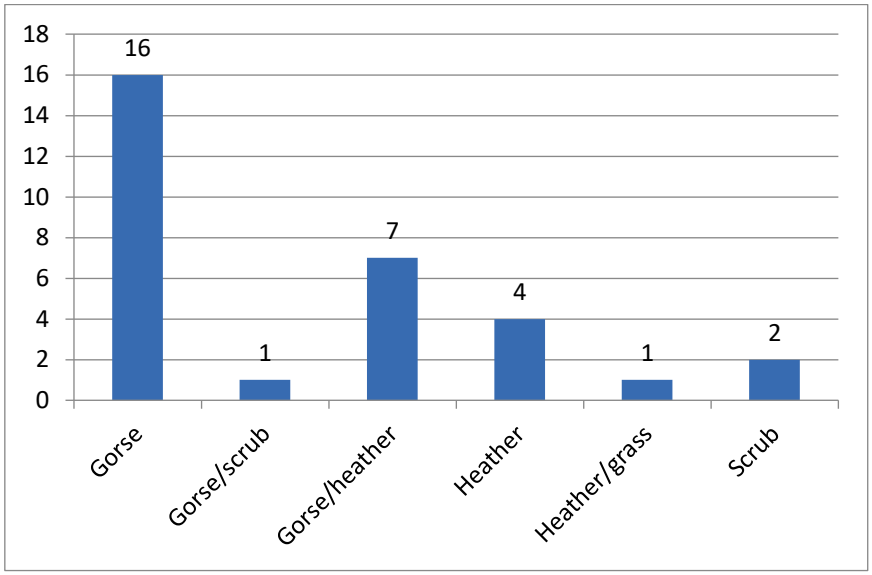


Chart A. Habitat type at Definite nest sites.

Chart B shows the predominant habitat within a 250m radius of known nests, though other habitat types were often also present. A total of 27 nests (87%) lay within heather-dominated habitat, though only 6 (19%) were classified as being in heather.

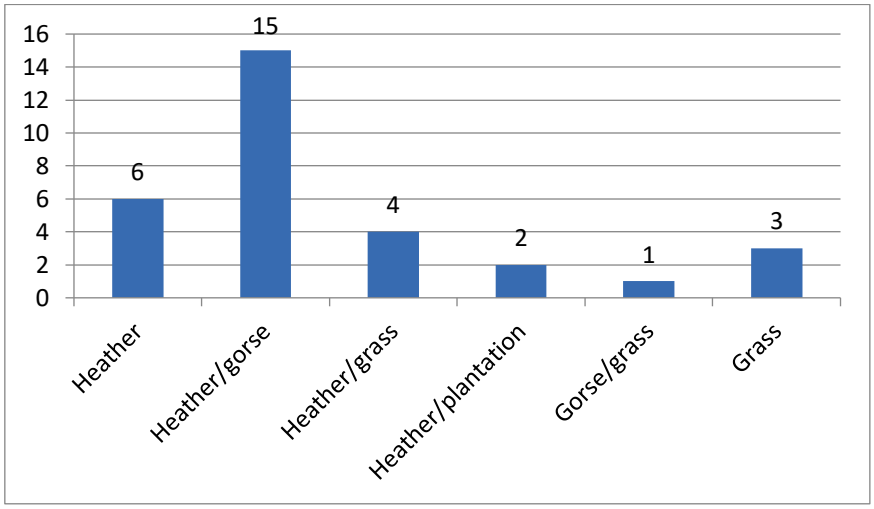
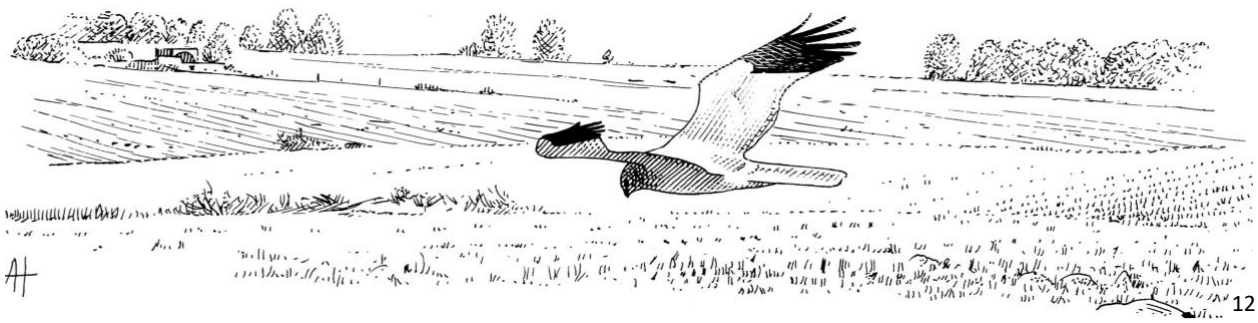


Chart B. Predominant habitat within 250m radius of Definite nest sites.

MANAGED FOR GROUSE WITHIN 250M & 500M RADIUS

Determining whether or not an area had been 'managed for grouse' (burnt or cut) proved difficult from on the ground, especially if such management had last been undertaken some years previously. A combination of field observations and examination of aerial photography



indicated that there were signs of cutting/burning within a 250m radius at 9 (29%) of known nests, that figure increasing to 18 (58%) once the radius was increased to 500m.

DISCUSSION

NUMBER OF SITES OVER TIME

The combined number of Definite and Probable breeding sites found during the 2022 Census is 27% higher than for the 2016 Census, though 33% lower than the 57 found in the 2004 Census and 22% lower than the 49 found in 1998.

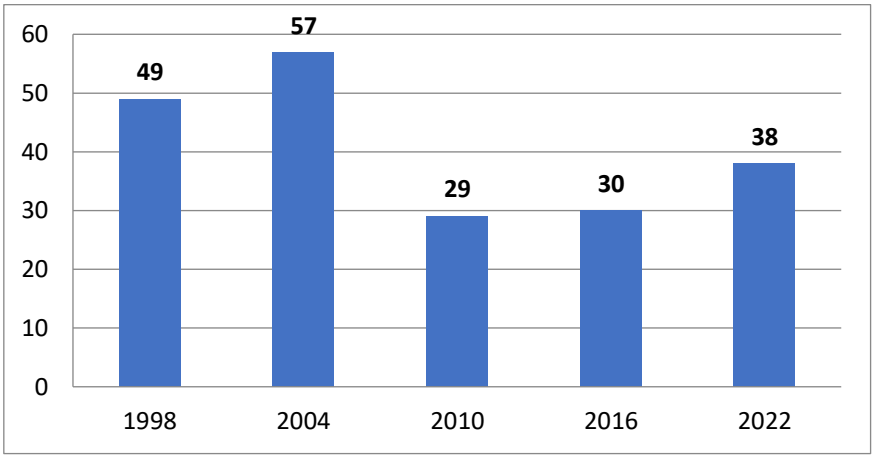
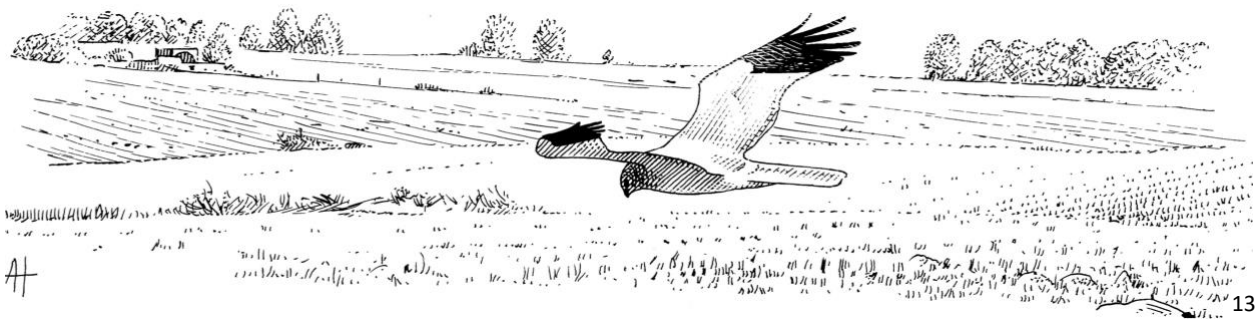


Chart C. Confirmed sites (Definite and Probable) from five Isle of Man Hen Harrier censuses.

DISTRIBUTION

10km	Territories in 2010			Territories in 2016			Territories in 2022		
	Definite	Probable	Possible	Definite	Probable	Possible	Definite	Probable	Possible
Square A	1								
Square B	2	2	1	4	2	1	5	3	
Square C		1		1					
Square D	12	1	2	12	4	5	15	3	3
Square E	3		1		2	1	5		
Square F	3	1		2	1		3		
Square G	3		1	2		1	3	1	1
Total	**24**	**5**	**5**	**21**	**9**	**8**	**31**	**7**	**4**

Table 4. Comparison of the number of Isle of Man Hen Harrier Definite, Probable and Possible breeding sites in 2010, 2016 and 2022.



Breeding population figures should be treated with caution as, although they reflect the minimum number of territories, they are unlikely to represent the total breeding population on the Island. There are likely to be one or more pairs in upland margins or scrub areas that went undiscovered, despite the extensive nature of the survey work. However, since the methods employed were consistent with previous surveys, data can be reliably compared with prior results and patterns in population numbers, distribution and habitat selection inferred.

MAYE

In 2019, a female fledgling Hen Harrier was satellite-tagged as part of the RSPB Hen Harrier Life+ Project, one of 15 birds to be tagged on the Isle of Man since 2007.

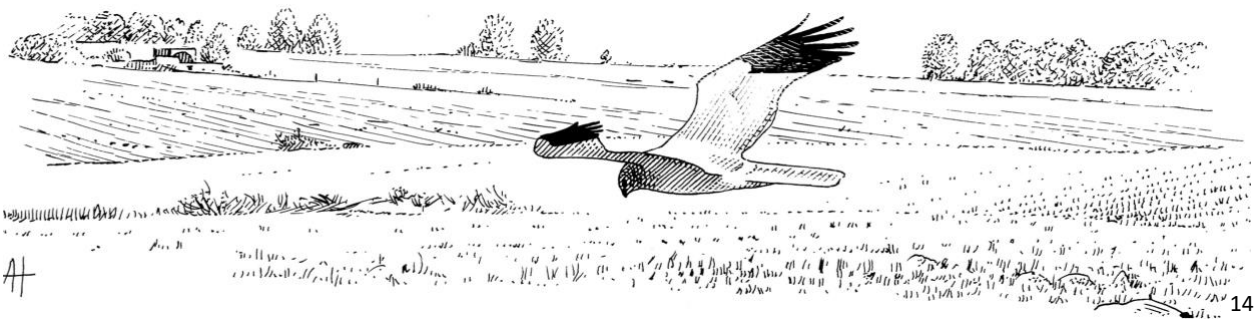
Maye is the only satellite-tagged Manx harrier known to be still surviving. Now an adult and back on the Island after a brief trip to Northern Ireland, she has reached breeding age.

On 18th April, during a routine survey, a satellite-tagged female was briefly observed hunting at Sartfell, *Maye's* natal site. This raised the possibility that she had returned to the area to breed and, as such, the sighting was attributed a Possible breeding status. Regrettably, no further sightings of any harriers were obtained from that area during the rest of the breeding season. In light of this and taking into account the additional information below, the record was downgraded to Other (i.e. non-breeding).

Confusingly, in the ten-day period leading up to 26th April, thus spanning the sighting of 18th April, satellite data provided by RSPB indicated that *Maye* was frequenting a known harrier nesting area located nearly 10km away from the sighting of the satellite tagged bird of 18th April. Observations on 16th June revealed the presence of an untagged female harrier which was considered not to be breeding on site. Further data from RSPB, received on 21st and 27th June, indicated that, in the 12 days prior to 27th, *Maye* had been ranging widely across the northern edge of the Northern Hills, including a single record from near her natal site, though with a centre of activity in suitable breeding habitat some distance away. Females were seen on surveys of this same area, on 17th and 22nd June, the bird on the first survey being a known female nesting nearby and the bird of the 22nd considered not to be breeding. Neither bird was satellite-tagged.

Disappointingly, it must be assumed that either:

- *Maye* did not nest in 2022; or,
- Any nesting attempt failed very early on; or,
- She nested at an unknown site, though satellite data suggests this to be unlikely.



UPLAND MANAGEMENT

Land classification

As mentioned under 'Selected habitats for nesting', the classification of land 'managed for grouse shooting' has been used to allow comparison with a summary of habitat selection in the rest of the British Isles.

This classification is not a good fit for the way in which Manx uplands are managed. It would be more accurate to describe it as 'heather managed on a rotational basis, which is delivered by DEFA and its land tenants for the benefit of wildlife and agriculture'.

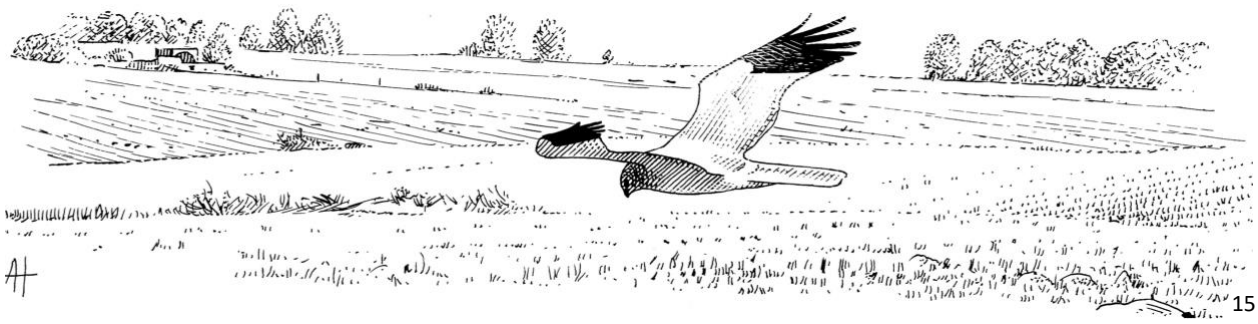
Regulation of Manx upland management

Upland management in the Isle of Man bears little resemblance to the short burning rotation, application of medicated grit and zero tolerance of predators that typifies commercial grouse moors in many parts of the British Isles. Even during the peak management period of 2000-2015, Manx uplands did not come close to a 20-year rotation and some areas have never been subjected to management by burning or cutting.

Moorland management on the Island is regulated by the Heath Burning Act 2003, requiring anyone wishing to burn or destroy 'Registered Heathland' (defined as all continuous areas of heath) to obtain a licence from DEFA. Applications are individually assessed and, where necessary, restrictions such as no burn zones are applied, for example at known Hen Harrier roost sites. Anyone using prescribed burning and/or mechanical cutting in the uplands is required to adhere to the Heath Burning Code.

Combined, the Act and Code have brought to an end the intentional lighting of large blanket burns of the kind historically favoured by shepherds, instead encouraging all land managers to utilise small burns and cuts, spread over a larger area to create a patchwork mosaic of different age vegetation. Thus, it might be seen that the Island is considerably ahead of neighbouring jurisdictions in terms of regulating, whilst still facilitating, moorland management.

Prescribed upland management is undertaken for a variety of interconnecting reasons. Grazing tenants use, mainly, burning to improve grazing and to encourage stock to range over a wider area. DEFA sporting tenants employ strip burning and cutting to provide habitat for Red Grouse and non-quarry species and to lower fuel loads as a safeguard against wildfires. DEFA also uses a combination of cutting and prescribed burning to lower above ground fuel loads in order to protect precious peat soils from wildfire, whilst improving habitats for multiple upland species. Furthermore, DEFA uses baled cut heather to block drains in re-wetting projects, to act as sediment traps and as seed-rich mulch for habitat restoration.



Voluntary moratorium

In the mid-1990s, DEFA and its sporting tenants introduced a voluntary moratorium on the taking of Red Grouse, an agreement that has run continuously since. Notwithstanding, a small, dedicated group with an interest in preserving Red Grouse continues to manage some upland areas using rotational burning. It needs to be acknowledged that those with an interest in managing for Red Grouse accept that Hen Harriers are an integral part of the Manx upland ecosystem, and there has never been any evidence to suggest otherwise.

In recent years there has been a decline in the number of sporting tenants, resulting in most management being delivered by DEFA and its grazing tenants, though still delivering the same outcome. In the Southern Hills, where management of some areas by sporting tenants does persist, a good mosaic is still to be found in some areas, benefiting Curlew *Numenius arquata*.

Until a few years ago the Central Hills were actively managed through cutting and burning by sporting tenants, though they have now stopped, any management in these hills now falling to DEFA and its grazing tenants.

Elsewhere, the Michael Hills, though not having had a shooting interest since 2002, still have a very good, though declining mosaic, largely implemented by DEFA. The same is true of the Laxey Hills, including the Rheast.

Covid-19

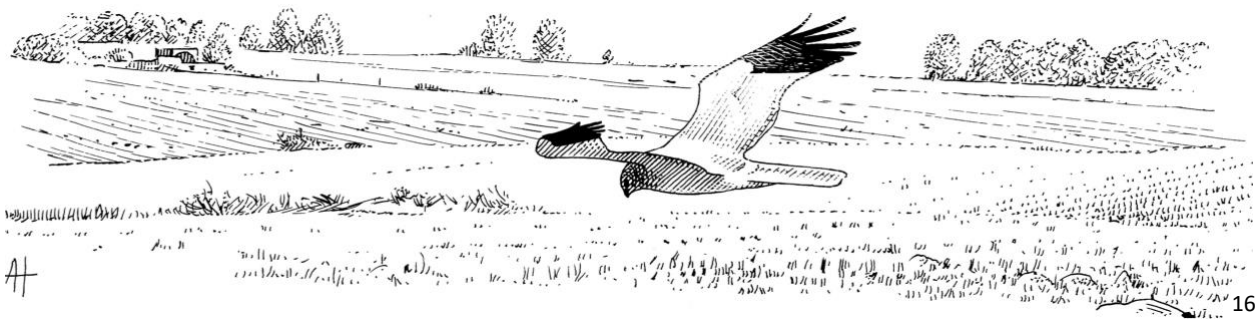
Though upland agriculture and management by grazing tenants has changed little in recent years, there have been significant reductions in burning and cutting by those with a sporting interest and by DEFA. The loss of two management seasons through Covid-19 restrictions has compounded this situation.

Reduced management, resulting in increased above-ground fuel loads, an increase in the use of the uplands for leisure, coupled with extended dry periods becoming the norm have combined to significantly increase the risk of uncontrollable wildfires, considered by Shaun Gelling, DEFA Upland Manager, to represent the greatest risk to the Manx uplands and the diverse wildlife that depends upon it, Hen Harrier included.

GREY MALES

Since October 2014, up to eleven winter roosts sites have been monitored during the period October to March. As might be expected, monthly counts consistently record more females/ringtails than grey males.

Compared to prior winters, a disproportionate shortage of grey males was noted during the winter roost counts of 2021-22. The six-monthly roost counts in this period produced a total of



179 birds but only 27 (15%) were grey males (L Samson pers. comm.). By comparison, of 1,010 birds encountered during 30 co-ordinated monthly counts in the winters of 2014-15 to 2018-19, 227 (22%) were grey males (Samson 2019).

Prior to the start of the 2022 Census, it was anticipated that the reduced number of grey males encountered in the winter of 2021-22 might be reflected in the number of occupied sites. There was concern that a lack of mature males in the population would impact the number of breeding attempts and success. Though Hen Harriers do roost individually during the winter on old nests in breeding areas, and hence might not be counted as part of communal roost counts, these birds tend to be females (Hardey *et al*. 2006).

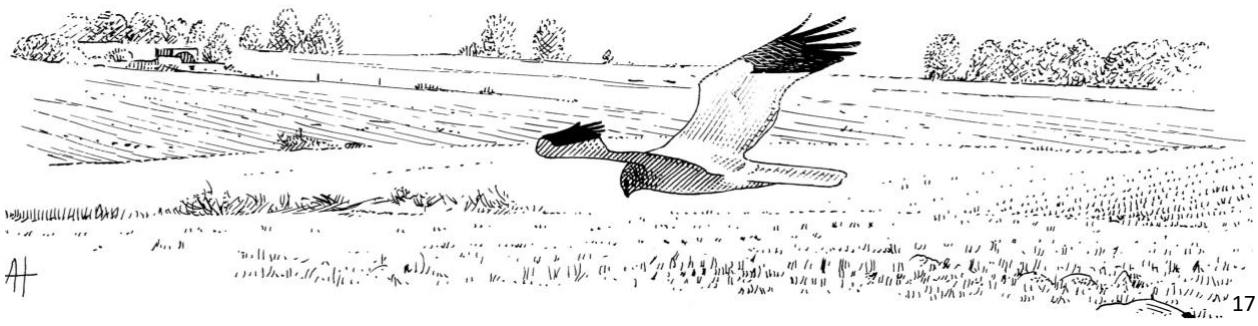
Of the 42 Definite, Probable and Possible territories, 31 (74%) were occupied by grey males. Taking account of the four confirmed instances of polygynous breeding, all involving grey males, territories were occupied by 27 different grey males. The sum of females and immature males at nest sites was 53, giving a total of 80 birds at the 42 sites. Grey males therefore comprised 34% of birds on breeding territories.

This percentage is considerably higher than that for grey males encountered at winter roost sites in 2021-22 and during the winters of 2014-15 to 2018-19, there being no clear single explanation for this difference.

Red-necked Wallaby

The numbers and distribution of Red-necked Wallaby *Macropus rufogriseus* on the Island are poorly understood, though sightings are widespread and increasing in frequency. Wallaby, or signs thereof, were noted as follows:

> **11th April 2022**. One in a ride at Glion Gill Plantation;
>
> **26th April 2022**. A minimum of six feeding around the fire pond within Tholt-y-Will Plantation. The high number of droppings in the area suggested that many more animals were likely to be present. The site is no longer used by Hen Harrier, abandonment coinciding with the increased incidence of Wallaby on site (C. Sharpe pers. comm.).
>
> **12th May 2022**. Though no animals were observed there were several droppings, indicating recent presence, near Ballakerka.



RECOMMENDATIONS

HEN HARRIER STUDIES

- The marked difference in the percentage of grey males at winter roosts in 2021-2022, compared to the number of grey males observed occupying breeding territories in 2022, is of interest and warrants further investigation into the location and movements of male Hen Harriers across the year.

- The long-term genetic viability of the Manx Hen Harrier population requires investigation, not least in the light of the work by Jense (2016).

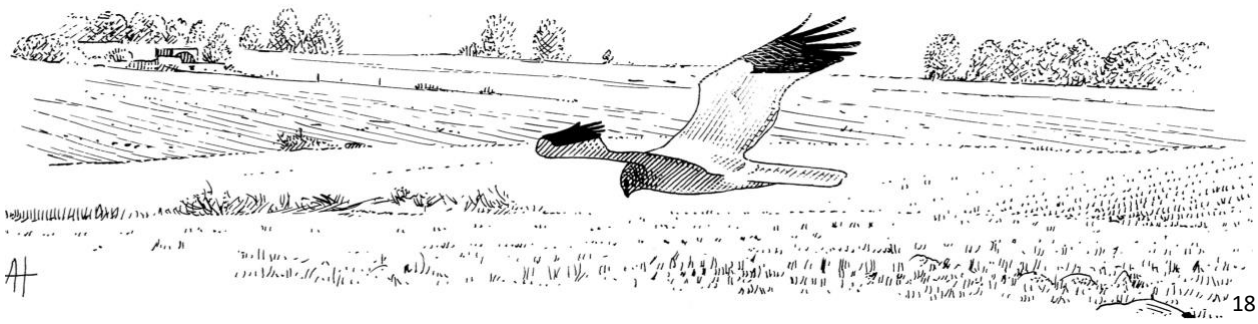
HEN HARRIER CONSERVATION

- Protecting and even restoring the Manx Hen Harrier breeding population (and of course bird populations in general) should be designed and embedded into:
    - DEFA's upland management policy and strategy;
    - DOI's infrastructure policy and strategy;
    - DfE's Visitor Economy Strategy, and wider policy and strategy. (Without a complementary strategy to increase relevant environmental and wildlife protections, Government's economically-driven ambition to increase the Isle of Man's population from the current 85,000 to 100,000 people by 2037 *represents a significant threat to the Island's natural spaces and wildlife*. See below.)

- Increasing pressures on nature and the countryside (e.g. amenity, noise, light and chemical pollution; domestic/feral cat, dog and vermin numbers) due to planned population expansion (www.gov.im//economicstrategy) must be mitigated through pre-emptive Government policy and strategy.

- The known and potential impact of Red-necked Wallaby on roosting and nesting Hen Harriers must be curtailed through invoking the Precautionary Principle (see below).

- Hen Harriers receive year-round protection from being killed, taken or injured under the Isle of Man Wildlife Act. Protection is amplified during the active breeding period, and is extended to nests and eggs, through Schedule 1. However, there are no specific legal protections for vital lifecycle behaviours or site/habitat dependence outside of breeding activity. This creates a strategic weakness (a weak link) in wildlife protection law, leaving many species highly vulnerable. For example:



- Nesting sites (to which species such as Hen Harrier show high year-after-year fidelity) are protected *only* when they are in active use. There is no protection for nesting sites at any time when they are not actively in use;

- Traditional roosting sites are afforded no specific protection. Such sites are carefully chosen for their topographic attributes and, often, historic inaccessibility to/remoteness from human activity.

- Vital foraging and loafing areas are afforded no specific protection. Whilst it is widely appreciated that feeding is a vital behaviour, it is less well appreciated that loafing (as different to roosting) forms an equally vital part of many species' daily routines.

The Precautionary Principle

Definition of the Precautionary Principle:

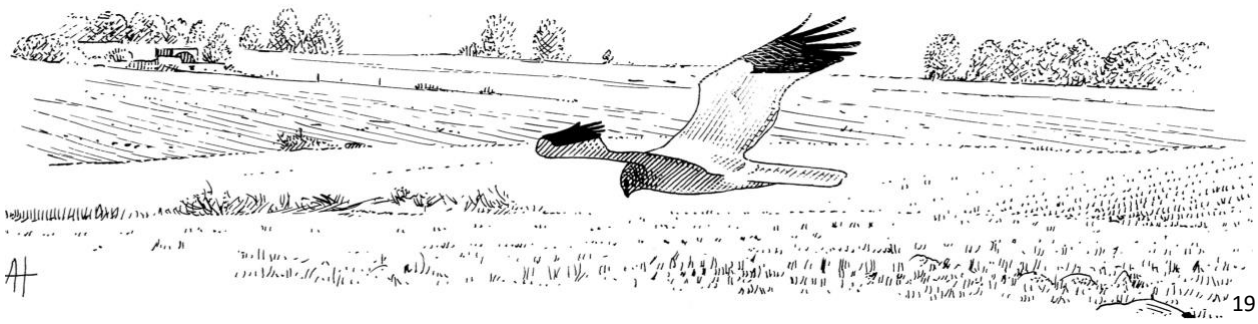
> **"When human activities may lead to morally unacceptable harm that is scientifically plausible but uncertain, actions shall be taken to avoid or diminish that harm."**

Convention on Biological Diversity:

> **"Given the unpredictability of the impacts on biological diversity of alien species, efforts to identify and prevent unintentional introductions as well as decisions concerning intentional introductions should be based on the precautionary approach. Lack of scientific certainty about the environmental, social and economic risk posed by a potentially invasive alien species or by a potential pathway should not be used as a reason for not taking preventative action against the introduction of potentially invasive alien species. Likewise, lack of certainty about the long-term implication of an invasion should not be used as a reason for postponing eradication, containment or control measures.**"
>
> SBSTTA Recommendation: Alien species.
> Guiding principles for the prevention, introduction and mitigation of impacts.
> Annex 1. A. General: Guiding principle 1: Precautionary approach
> https://www.cbd.int/kb/record/recommendation/7021?Event=SBSTTA-05)

European Environment Agency, 2004:

> "The Precautionary Principle provides a framework, procedures and policy tools for public policy actions in situations of scientific complexity, uncertainty and ignorance, where there may be a need to act before there is strong proof of harm in order to avoid,



> or reduce, potentially serious or irreversible threats to health or the environment, using an appropriate level of scientific evidence, and taking into account the likely pros and cons of action and inaction."

Rio Declaration on Environment and Development, UN, 1992:

> In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

ACKNOWLEDGEMENTS

Manx BirdLife wishes to thank The Gough Ritchie Charitable Trust without whose support the 2022 Census would not have been possible.

Fieldwork, results compilation and analysis were undertaken by Sharpe Focus Ltd.

Especial thanks are due to Shaun Gelling (DEFA), Louise Samson (DEFA) and Aron Sapsford (Ornithological Warden, Calf of Man) for their valuable input and advice.

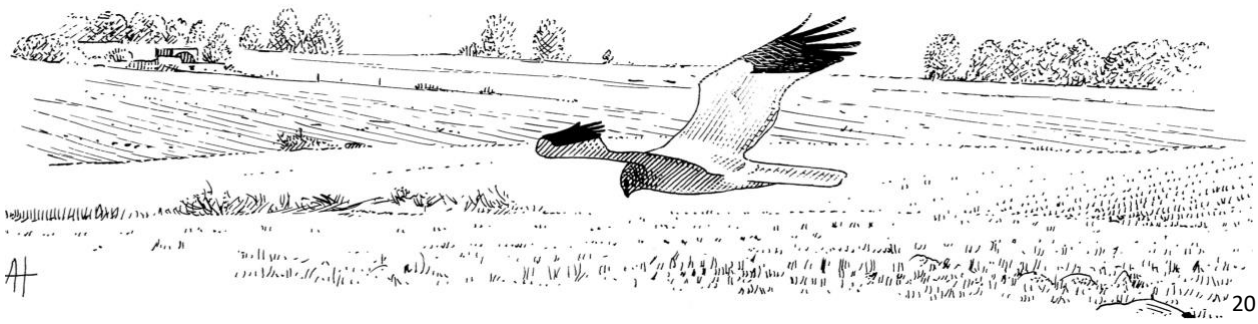
Vehicle access to upland tracks and greenways was kindly granted by DEFA and DOI.

Maps used by surveyors were used under licence from DOI. Manx BirdLife is especially grateful to Rob Clynes for his assistance with mapping.

We are grateful to those landowners who granted permission for the Census team to enter private land through which there was no public path or permitted access.

We are indebted to all those who provided details of Hen Harrier sightings across the Island during the Census period and other valuable assistance with planning, implementation and analysis of results:

> David Andrews, Eve Aycock, David Bellamy, Alice Bellando, Sally Bolton, Paul Bromley, Liz Charter, Amber Cordwell, Jane Corke, Adam Denard, Tim Earl, Rob Fisher, Angela G, Andrew Gell, Gary Gough, Rebecca Hundscheid, Andrew and Kerry Johnston, Alex King, Jan Kneen, Andy Jowett, David Kelly, Natalie LeBrun, Susan Luton, Suzanne McKnight, Allen Moore, Richard Norris, Sheila Norris, Mark Pass, George Platt, Laura Power, Steve Riding, Lindsay Rowe, Jenny Shanley, Rachel Sheldon, Stephen Whittaker.



REFERENCES

Fielding, A., Haworth, P., Whitfield, P., McLeod, D. & Riley, H. 2011. A Conservation Framework for Hen Harriers in the United Kingdom. *JNCC Report 441*. Joint Nature Conservation Committee, Peterborough.

Hardey, J., Humphrey, Q.P.C., Wernham, C.V., Riley, H.T., Etheridge, B. and Thompson, D.B.A. 2006. *Raptors: a field guide to survey and monitoring*. Edinburgh. Scottish Natural Heritage.

Hayhow, D.B., Eaton, M.A., Bladwell, S., Etheridge, B., Ewing, S.R., Ruddock, M., Saunders, R., Sharpe, C., Innes, M.W. and Stevenson, A. 2013. The status of the Hen Harrier, *Circus cyaneus*, in the UK and Isle of Man in 2010. *Bird Study*, 60(4): pp 446-458.

Jense, C. 2018. Population genetics among European and Manx Hen Harriers. *Celebrating Manx Birds Symposium II*, 17 Nov 2018. Manx BirdLife, Laxey.

Morris, N.G., & Sharpe, C.M. 2021. Birds of Conservation Concern in the Isle of Man. *British Birds* 114: 526-540). The website publication of this analysis is available free at: http://manxbirdlife.im/bocciom/.

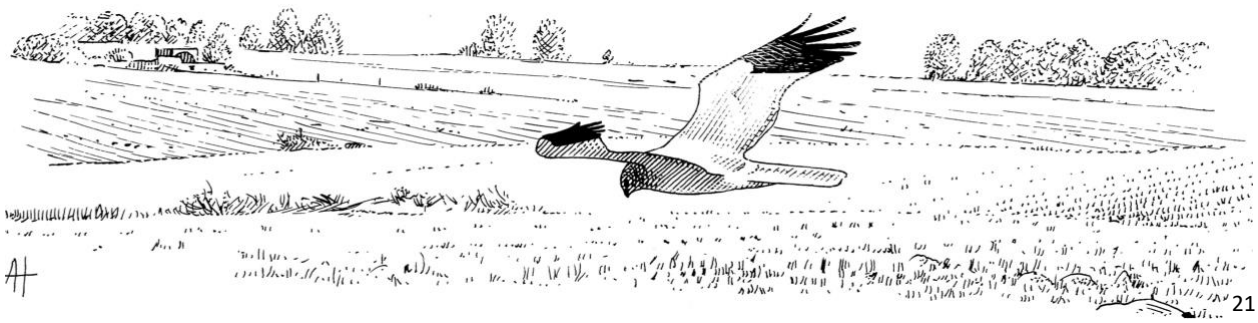
Samson, L. 2019. Unpublished report on Hen Harrier data collected by volunteer Manx roost counters from 2013 to 2019.

Sharpe, C.M., Bishop, J.P., Cullen, J.P, Giovannini, P.G., Thorpe, J.P. & Weaver, P. 2007. *An Atlas of breeding and wintering birds on the Isle of Man: April 1998 to March 2003*. Liverpool University Press, Liverpool.

Stanbury, A., Eaton, M., Aebisher, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D. and Win, I. 2021. The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. *British Birds*, 114: pp 723-747.

Van Midden, C. 2016. Report on the Hen Harrier census on the Isle of Man, breeding season 2016. Manx BirdLife. Laxey, Isle of Man (Unpublished).

Wotton, S.R., Bladwell, S., Mattingley, W., Morris, N.G., Raw, D., Ruddock, M., Stevenson, A. and Eaton M.A. 2018. Status of the Hen Harrier *Circus cyaneus* in the UK and Isle of Man in 2016. *Bird Study,* 65:2, 145-160, DOI: 10.1080/00063657.2018.1476462.



PRESS RELEASE 10TH OCTOBER 2022

PRESS RELEASE

10th October 2022

Hen Harrier breeding census reveals Island's population of iconic bird of prey to be stable for now

An Island-wide census of nesting Hen Harriers *Circus cyaneus* undertaken by Manx BirdLife during 2022 has found that, although the Manx breeding population remains well below its historic peak, numbers appear to have been stable over the last few years.

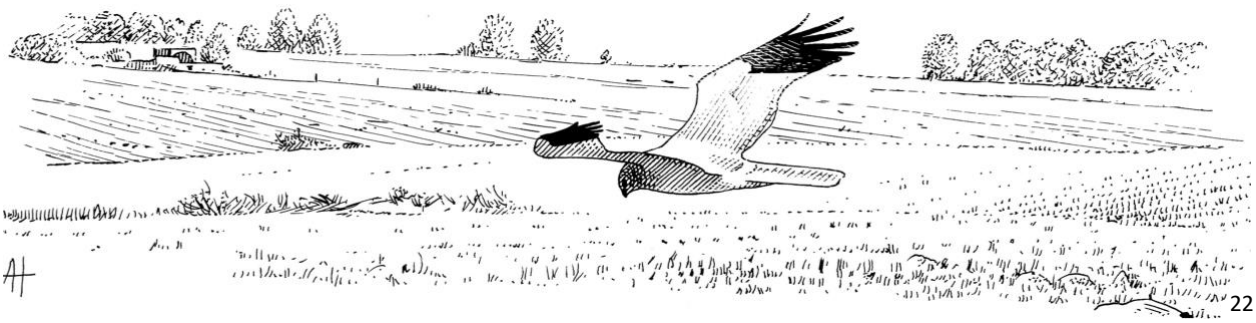
The Isle of Man Hen Harrier Breeding Census 2022, organised by wildlife conservation charity Manx BirdLife, took place between 28th March and 5th July this year. Up to three visits were made by Manx BirdLife's survey team to each of 86 known recent and historic Hen Harrier nesting sites in the Isle of Man's uplands.

Standardised surveys from carefully chosen vantage points located 38 territorial pairs, with a further four Possible pairs. Hen Harriers were seen at another 13 sites but were judged to be merely hunting over these areas and not using them for breeding.

The total of 38 territorial pairs is the highest such count since 2004 when the Manx breeding population peaked at 57 territorial pairs.

Each territory found in 2022 was attended by one female and one male Hen Harrier. However, male Hen Harriers can be polygynous, serving one or two females. Among 31 of the studied territorial pairs, just 27 different males were observed, indicating that at least four of the territories involved a polygynous male.

Neil Morris, Managing Director of Manx BirdLife and census project director commented, "It's pleasing to have some good news to report. Though we're well off the peak of 57 pairs recorded at the beginning of this Century, this year's census appears to show that the Manx Hen Harrier population has been sustaining itself. We're grateful to the census team for the long hours they spent in the Manx uplands surveying more than eighty locations and documenting hundreds of harrier sightings."



Morris added, “There is of course no room for complacency. The Island’s uplands are under unprecedented pressure from climate change and increasing human disturbance. It’s imperative we do everything in our power to protect our harrier population and the large tracts of wild, open land on which they depend. The Isle of Man is internationally recognised as a stronghold for this iconic bird of prey, and we have a duty to keep it that way.”

The results of the Isle of Man Hen Harrier Breeding Census 2022 will be shared with an internationally coordinated census group across the British Islands that is being led by the Royal Society for the Protection of Birds (RSPB).

The Hen Harrier was Amber-listed in the *Birds of Conservation Concern in the Isle of Man (BoCCIoM) 2021* report produced by Manx BirdLife. Morris says, “Thankfully, there is no need to review the status of Hen Harrier on the Isle of Man following the census. The species remains of moderate conservation concern. However, even a small decline in the future could see it elevated to the Red list due to its small range and dependence on undisturbed, good condition habitat.”

Manx BirdLife remains grateful for the support, information and practical contributions made by the Gough Ritchie Charitable Trust, Manx Ornithological Society members, Government officials and landowners, and to members of the public who reported their Hen Harrier sightings during the 2022 breeding season.

End

Contact

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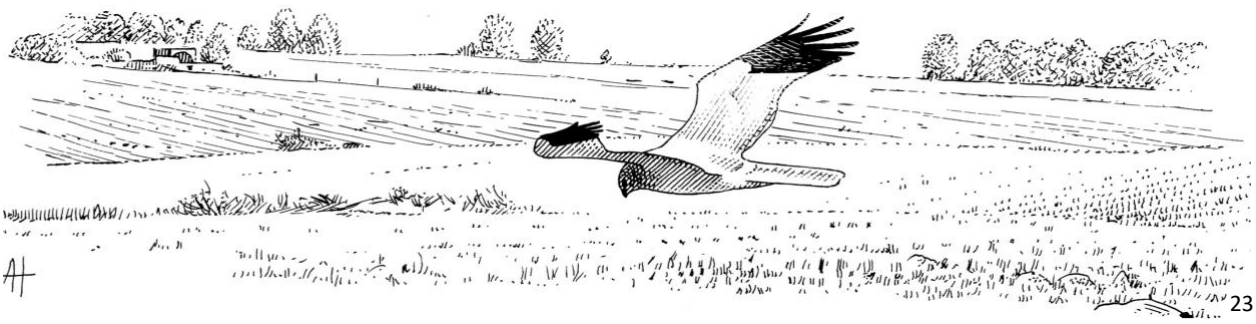
07624 455972

About Manx BirdLife

Manx BirdLife is the wildlife conservation charity based on the Isle of Man working to protect the Isle of Man’s wild birds and the habitats on which they depend. Founded in 1997 under the name ‘Manx Bird Atlas’, the charity changed to its present name in 2008.

Through scientific research, best practice conservation, education and advocacy Manx BirdLife’s goal is to ensure that future generations can continue to enjoy and cherish the Island's wonderful natural heritage.



Hen Harrier facts

British Isles

Within the British Isles, the Hen Harrier *Circus cyaneus* is confined, as a breeding species, to the uplands of northern and western England, Wales, Ireland and the Isle of Man, and with traditional strongholds in Scotland especially Orkney, the east Highlands and Argyll.

Once widespread, the species was all but exterminated as a breeding bird on mainland Britain during the second half of the 19th Century and early 20th Century. During and immediately after the Second World War, Hen Harrier re-colonised parts of northern Scotland and rapidly extended its range as far south as the Pennines of England and North Wales by 1970.

Isle of Man

The Hen Harrier also made its way to the Isle of Man, with the first breeding pair being recorded in Glen Rushen in 1977 (McIntyre et al. 1978, cited in Sharpe et al. 2007). The Manx population rapidly established itself and by 2004 there were at least 57 territorial pairs on the Island.

A reversal of fortunes saw Manx breeding numbers decline to 29 territorial pairs by 2010, alongside a less severe decline in the overall British Isles population from 806 to 662 territorial pairs (Hayhow et al. 2013). By 2016, the population had stabilised at territorial 30 pairs, against the backdrop of a further but non-significant decline in the overall British Isles population from 662 to 575 territorial pairs (Wotton et al. 2018).

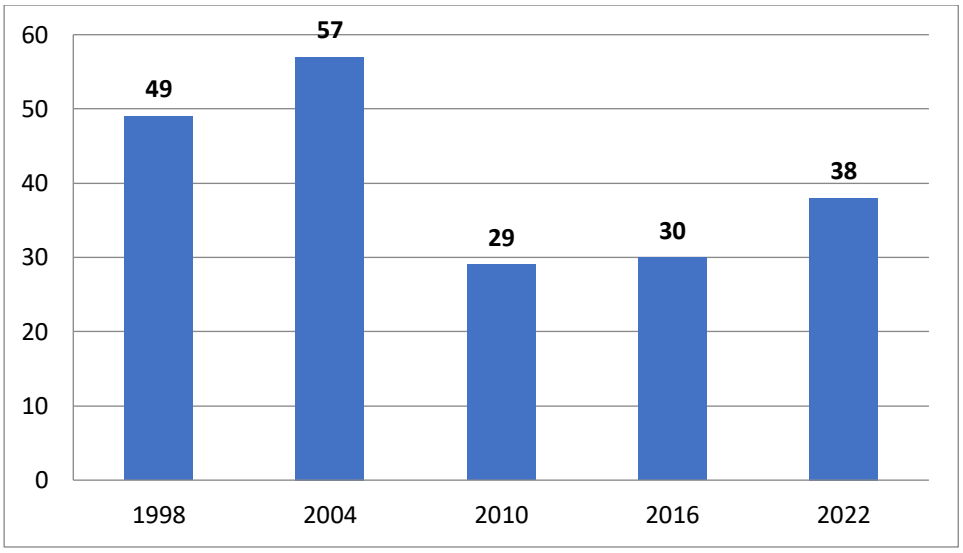
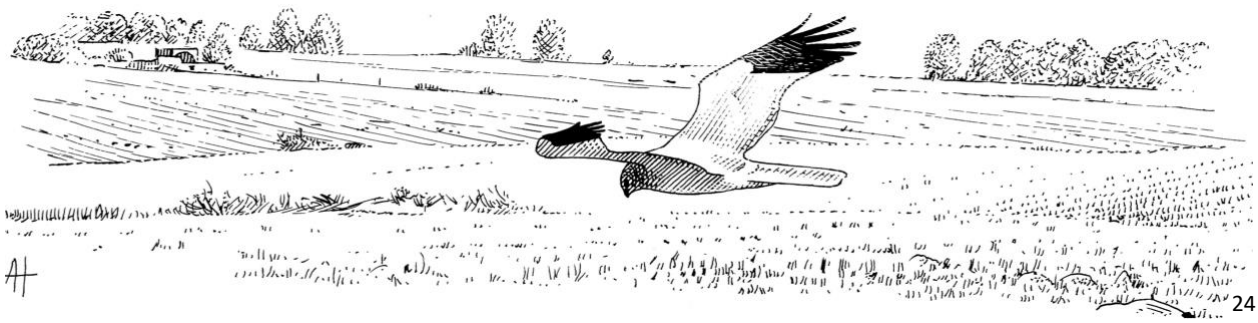


Chart. Confirmed territorial pairs (Definite and Probable) from five Isle of Man Hen Harrier censuses.



A bird of conservation concern

There have been five assessments of the Birds of Conservation Concern in the United Kingdom including the Channel Islands and Isle of Man, spanning 1996 to 2021 (Stanbury et al. 2021).

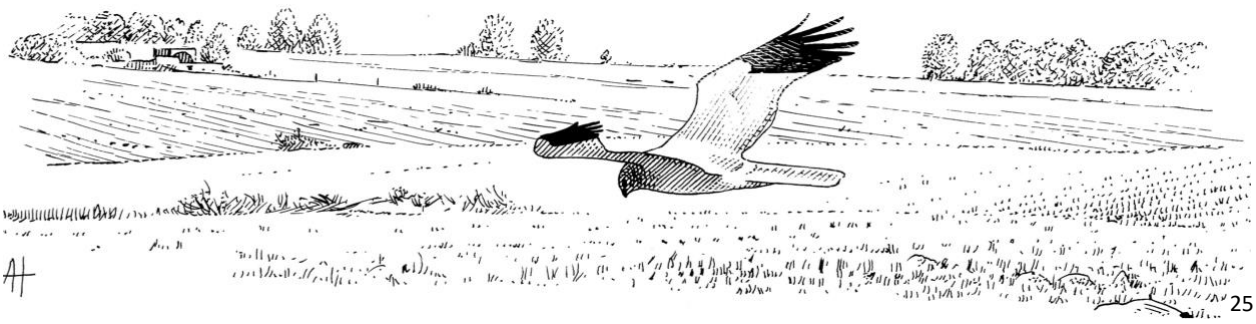
In all five assessments, the Hen Harrier has been Red-listed as being of the highest conservation concern due to historical declines in the breeding population. The UK Government has identified Hen Harrier as a high priority species in terms of combatting wildlife crime. At European level, the Hen Harrier is currently listed under SPEC 1 and under Annex 1 of the EC Birds Directive, being considered vulnerable within Europe (Fielding et al. 2011).

In the Isle of Man, the first ever assessment of the Manx nation's Birds of Conservation Concern (BoCCIoM) was completed in 2021 (Morris and Sharpe 2021, http://manxbirdlife.im/bocciom/). In this, Hen Harrier was Amber-listed, being of medium conservation concern at a national level based inter alia on a 41.2% decline in breeding numbers in the period 2004-2016.

Under the Isle of Man Wildlife Act 1990, the Hen Harrier is listed as a Schedule 1 species, affording it special protection from disturbance during the breeding season.

Perhaps due to the fidelity of the Island's population, Manx Hen Harriers are genetically diagnosable from their UK, Irish and European counterparts (Jense 2018, and in prep.).

End of Press Release



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