



HEN HARRIER PROGRAMME



Hen Harrier Monitoring 2020

November 2020



An Roinn Talmhaíochta,
Bia agus Mara
Department of Agriculture,
Food and the Marine



'The European Agricultural Fund
for Rural Development: Europe
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Hen Harrier Project
Unit No. 2 Oran Point
Main St
Oranmore
Co. Galway
H91 R6XH

Phone: 091 792 865

Email:
info@henharrierproject.ie

Website:
www.henharrierproject.ie

CONTENTS

HEN HARRIER MONITORING 2020

1.	MULLAGHANISH TO MUSERAMORE SPA	01
2.	SLIEVE AUGHTY MOUNTAINS SPA	02
3.	SLIEVE BEAGH SPA	03
4.	SLIEVE BLOOM MOUNTAINS SPA	04
5.	SLIEVEFELIM TO SILVERMINES SPA	05
6.	STACK'S TO MULLAGHAREIRK MOUNTAINS SPA	06
7.	HEN HARRIER POPULATION TREND	07
8.	HEN HARRIER PRODUCTIVITY	08
9.	FLEDGED YOUNG PER CONFIRMED NEST	09

SEEN A HEN HARRIER?

We would be very interested in any casual sightings of Hen Harrier in your area. The Golden Eagle Trust are the Project partners undertaking annual monitoring of Hen Harrier within the SPAs and also monitor a range of other species as part of the Programme.

You can let the Project know in confidence by either contacting your local Project Officer; by submitting a sighting via the Contacts Page on our website; by emailing the Project; or, by contacting the Hen Harrier Monitoring Team Manager:

Dr. Marc Ruddock
Golden Eagle Trust

Mobile 087 357 8590
Email: marcruddock@goldeneagle.ie

The Hen Harrier Programme

HEN HARRIER MONITORING

The Hen Harrier Project monitor the numbers of territorial breeding birds in each SPA. Monitoring also aims to establish the breeding outcome (i.e. success or failure of a nest and if successful, establish the number of fledged young). Nest visits are not undertaken as part of the monitoring.

The monitoring team put in a huge effort from early Spring, to late Summer every year. In 2020, national Covid-19 restrictions resulted in a break in surveys in the early spring. Monitoring resumed in mid-April after a risk assessment was carried out and risk mitigation measure procedures were introduced. This break in monitoring effort means that the 2020 results may not be directly comparable with previous years. Our assessment is that this did not significantly affect survey outcomes. We would like to thank the monitoring team for all their hard work.

Suitable Hen Harrier habitat in the SPAs are surveyed from Vantage Points (VPs) that provide good views of the study area. More than 649 individual VP observations were undertaken across the SPA network in 2020, equivalent to over 1,946 hours of surveyor effort. All 55 10km squares which overlap SPAs were surveyed during 2020.

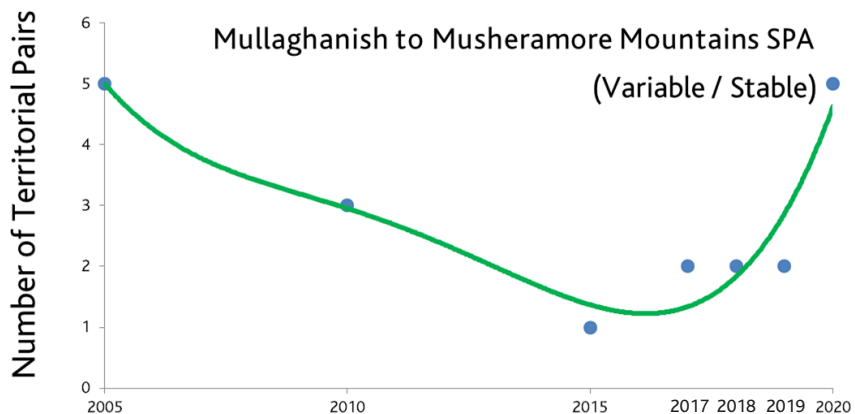
In 2020 there were 58 confirmed territories and 4 possible breeding pairs of Hen Harrier within the SPAs (a population range of 58 - 62 pairs). This is slightly less than the total numbers of territorial pairs recorded within the SPAs in 2017 (70 pairs); 2018 (68 pairs); and 2019 (63 pairs). A comparison of the estimated Hen Harrier numbers in 2005 shows that the total SPA population in 2020 is now 34% smaller than that recorded during designation.

Mullaghanish to Musheramore SPA

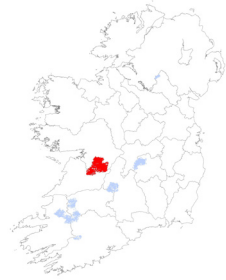


5 confirmed pairs; 10 young

The Hen Harrier population in the Mullaghanish to Musheramore Mountains SPA at designation was five breeding pairs. This population had undergone a serious decline until a recovery in 2020. No pairs were recorded breeding in the SPA in 2014 and between 2015 - 2019 the population fluctuated between one and two pairs. There were four successful pairs which fledged ten young in 2020 with brood sizes of four, three, two and one respectively. One pair failed at the late chick stage, most likely due to predation.

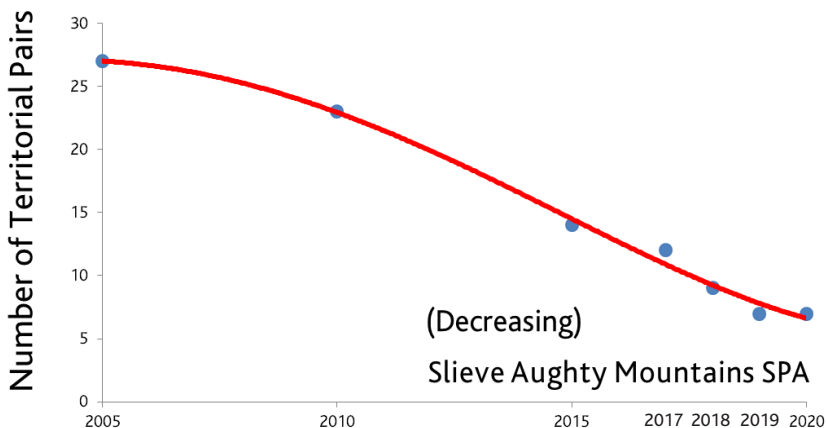


Slieve Aughty Mountains SPA



6 confirmed pairs; 6 young

The breeding Hen Harrier population in the Slieve Aughty Mountains SPA has more than halved from twenty seven territorial pairs at the time of the SPA designation. Confirmed breeding pairs in the SPA predominantly select second rotation prethicket forest for nesting. Recent monitoring data show low numbers of fledged young per confirmed pair. There were six confirmed territories recorded during surveys in 2020 and one possible territorial pair, very similar to the 2019 numbers. There were three successful breeding pairs which reared a total of six young (with fledged brood sizes two, one and three). A number of potential pressures were noted in the SPA. These include forestry operations and recreational and vehicle traffic on access roads and tracks near nest sites. Turf cutting and pine marten were noted regularly near nest sites.

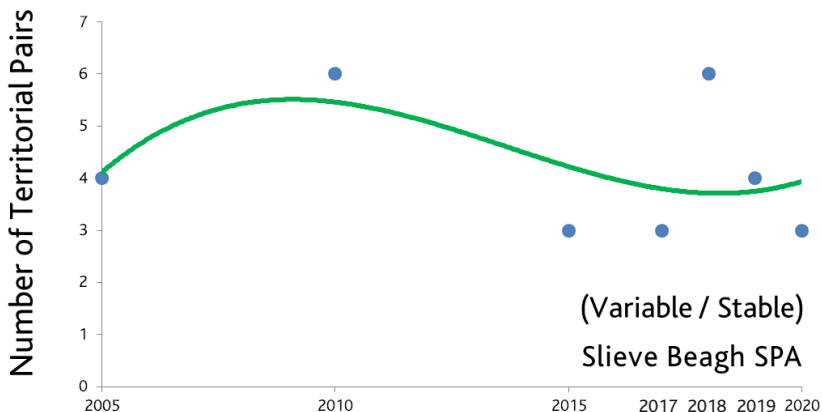


Slieve Beagh SPA



2 confirmed pairs; 5 young

The small Hen Harrier population in this SPA is part of a larger cross border population within the Slieve Beagh - Mullaghfad - Lisnaskea SPA designation in Northern Ireland. The number of pairs recorded annually in the southern portion fluctuates in response to the movement of pairs across the border. Two confirmed and one possible pair were recorded in this SPA in 2020. Two pairs fledged young with broods of three and two. One pair were disturbed by forestry activity at their initial nest site, however successfully fledged chicks on their second attempt at a new location.

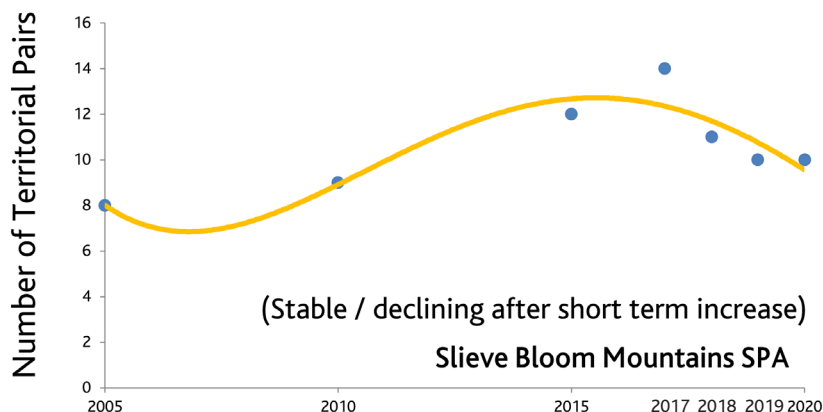


Slieve Bloom Mountains SPA



10 confirmed pairs; 3 young

The population in this SPA has declined from a peak of 14 pairs in 2017 to 10 pairs in 2020. The numbers of chicks fledged each year in this SPA has been very variable. Very small numbers fledged in 2018 (5 chicks) and 2020 (3 chicks) compared to 16 chicks in both 2017 and 2019. The causes of this year to year variability are still unclear. A summer heatwave and large wildfire may have been contributory factors in 2018. Predation is suspected as contributing to the low 2020 productivity figures. While the breeding population has declined in recent years it is still higher than at the time of designation.

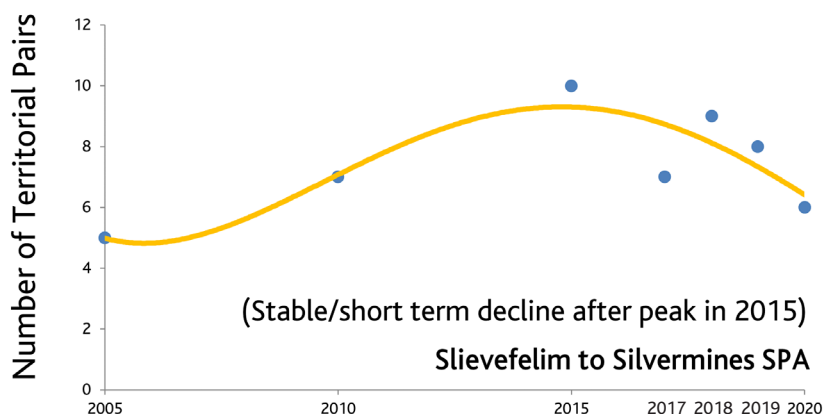


Slievefelim to Silvermines SPA

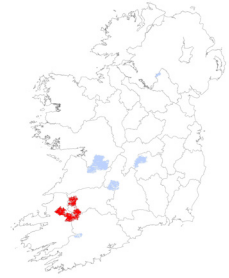


5 confirmed pairs; 3 young

The breeding Hen Harrier population in the Slievefelim to Silvermines SPA is similar to that recorded at the time of designation. However there has been a decline from a peak of 10 pairs in 2015 to 6 pairs in 2020. Hen Harrier nests were recorded in a range of habitats (heath/scrub/pre-thicket forest) in this SPA, however the majority of pairs select heather for nesting. Five confirmed and one possible breeding pair were recorded in 2020. Productivity in this SPA has been very low in recent years with just 1 chick fledged in 2019 and 3 chicks in 2020. In both 2019 and 2020 an additional pair successfully fledged chicks from nests just outside the SPA.

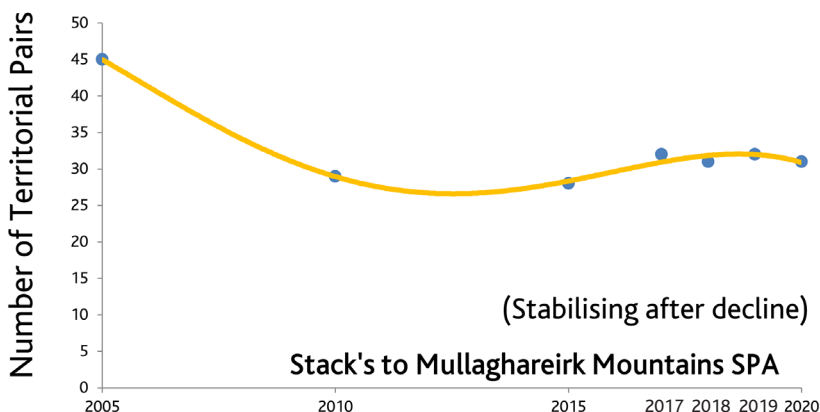


Stack's to Mullaghareirk Mountains SPA

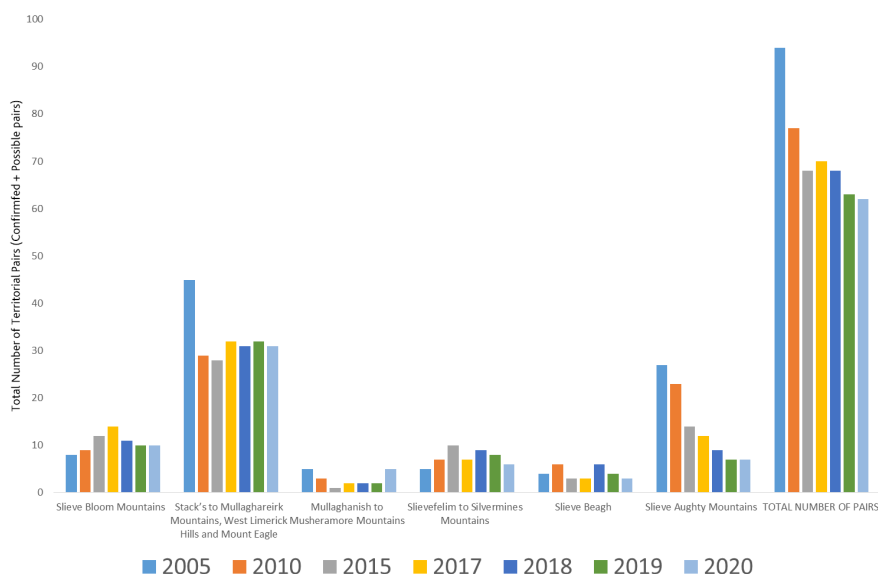
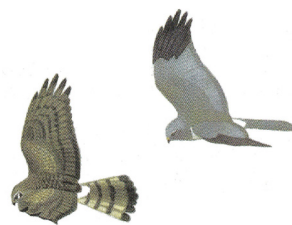


30 confirmed pairs; 33 young

The Stacks, Mullaghareirks, Mount Eagle and West Limerick Hills SPA supports the largest population of breeding Hen Harrier in the SPA network. The population has declined by a third since 2005, however it appears to have stabilised in the last five years. There were 30 confirmed pairs and one possible pair recorded during 2020. Following a record-breaking year for numbers of fledged young in 2019 (51 fledged from 17 confirmed pairs), there was a drop in productivity in 2020, with 13 pairs successfully fledging 33 young. The nest failure rate at 58% was relatively high however the number of chicks per successful nest is quite good averaging over 2.5 chicks per nest.

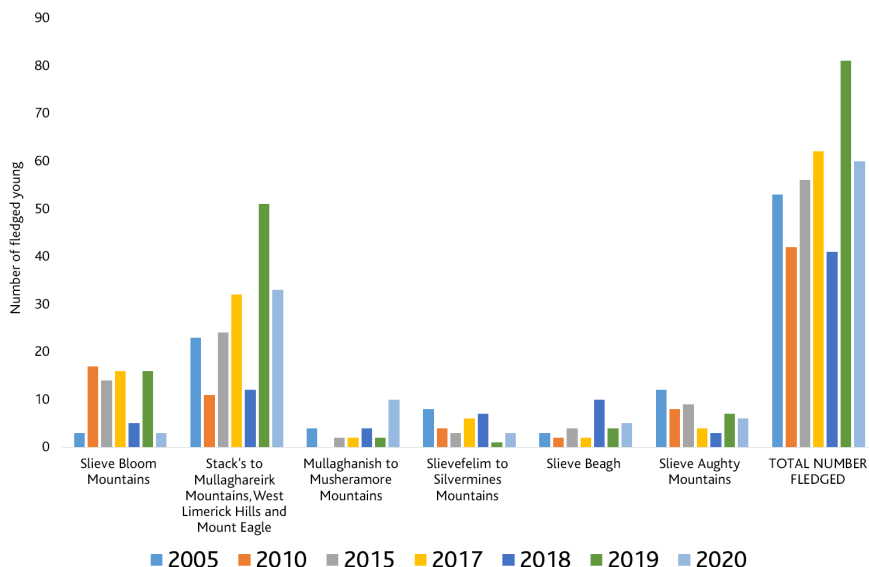


Hen Harrier Population Trend within the SPA Network



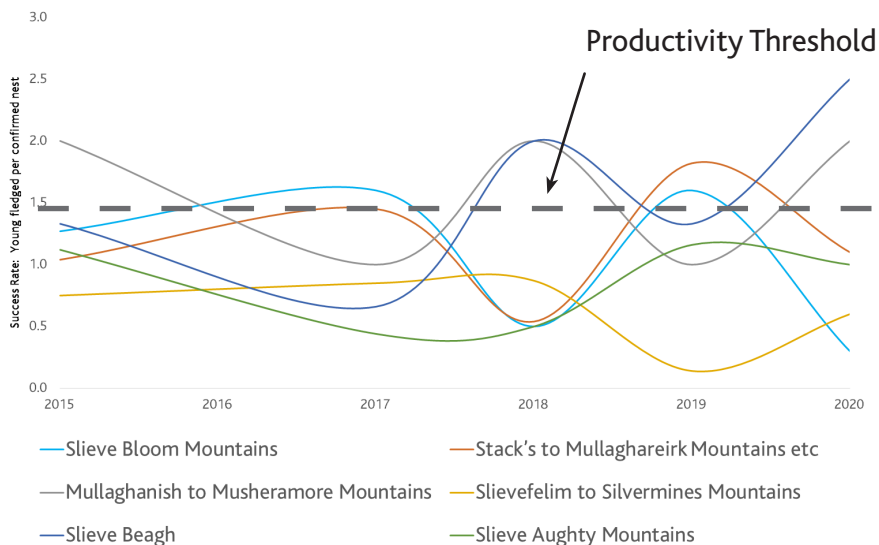
The six Special Protection Areas (SPAs) designated for breeding Hen Harrier were identified using data from the 2005 national survey. At that time the population in the SPAs was estimated to be 94 pairs. Since then the population trend within the SPAs has been downward, with only 62 pairs in 2020. This is equivalent to a 34% decline since the SPAs were designated. There has been a pronounced decline in the second largest SPA, the Slieve Aughty Mountains with a 74% drop in pairs over the last 15 years. The largest SPA, the Stack's to Mullagherieirk Mountains, West Limerick Hills and Mount Eagle had undergone a serious decline since designation, however the population appears to have stabilised, albeit at a lower level. Over the long-term, numbers within the Slieve Blooms SPA and Slievefelims to Silvermines SPA are considered stable, however they have undergone small incremental declines in recent years.

Hen Harrier Productivity within the SPA Network



Productivity is quantified by the number of fledged young in each SPA. For the Hen Harrier population to be capable of maintaining itself, or expanding, reproduction and survival must exceed the combined effects of mortality and dispersal to other areas. Productivity can be linked to habitat availability, habitat quality, predation pressure and weather. As the graph shows, productivity between sites and between years in the SPA network can vary. In 2019, 81 young fledged from nests across the six SPAs, the highest number within the network in the last 15 years. In 2020, 60 young fledged from nests, numbers more consistent with 2015 and 2017 levels of productivity. There were gains in the Mullaghanish to Musheramore SPA with 10 fledged young. The Slieve Bloom Mountains SPA recorded its lowest productivity in the network in the last 15 years, with continued low productivity observed in the Slievefelims to Silvermines Mountains SPA and Slieve Aughty Mountains SPA.

Fledged Young per Confirmed Nest



The numbers of fledged chicks per pair of Hen Harrier is a useful measure of breeding success. Research indicates that for Hen Harrier populations to be stable or expanding (productivity threshold) the number of chicks must exceed 1.45 per breeding pair. The last national Hen Harrier survey in 2015 showed the mean number of fledglings per breeding pair was around 0.94, hence a national population decline. SPA monitoring data (2015 - 2020) shows that mean fledging rates across the SPA network range from 0.99 - 1.25 chicks fledged per breeding pair. The actual number of fledged young per confirmed nest in 2020 was 1.02.

This is below what is required for the population to be self-sustaining. Breeding success varies considerably between the different SPAs and from year to year. There are a large numbers of factors that can influence nest success. These include habitat quality, predation, inclement weather, disturbance and subsequent nest abandonment.

CONTACT US

Dr. MARC RUDDOCK:

Golden Eagle Trust

Hen Harrier Monitoring Team Manager

Mobile: 087 357 8590

Email: marcruddock@goldeneagle.ie

Dr. CAROLINE SULLIVAN:

Assistant Manager and Project Officer for Slieve Aughty Mountains.

Mobile: 087 649 9948

Email: caroline.sullivan@henharrierproject.ie

RYAN WILSON-PARR:

Project Officer for Slieve Beagh; Slieve Blooms; and,
Slievefelim to Silvermines Mountains.

Mobile: 087 151 0849

Email: ryan.wilson-parr@henharrierproject.ie

PADRAIG CRONIN:

Project Officer for Stacks to Mullaghareirk Mountains and, Mullaghanish to Musheramore Mountains.

Mobile: 087 362 3913

Email: padraig.cronin@henharrierproject.ie

EOIN MCCARTHY:

Project Officer for Stacks to Mullaghareirk Mountains and, Mullaghanish to Musheramore Mountains.

Mobile: 087 703 4348

Email: eoin.mccarthy@henharrierproject.ie

KRISTINA FEENEY

Assistant Ecologist & Operational / G.I.S Support

Office: 091 792 865

Email: admin@henharrierproject.ie

Alternatively you can contact the Project Manager

FERGAL MONAGHAN:

Office: 091 792 865

Mobile: 087 605 8670

Email: fergal.monaghan@henharrierproject.ie

Email: info@henharrierproject.ie

Online: www.henharrierproject.ie/contact.html



Hen Harrier Project
Unit No. 2 Oran Point
Main St
Oranmore
Co. Galway
H91 R6XH



An Roinn Talmhaíochta,
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