

# '*The Hobby*'



## *The Newsletter of the South Gloucestershire HOT group*

### **Issue 16 ~ May 2015**

Welcome to Issue 16 of '*The Hobby*' the newsletter of the SGHOT group.

Welcome to all our new friends who have joined our list from meeting us at open days etc. Thank you for your support. Should at anytime you wish to be removed from the list please email me and I will remove you immediately. Likewise keep me informed of changes in your email address etc. so I can keep our list updated so we can always keep in contact. **Of late some emails are not getting through; my Internet provider informs me of this but they don't tell me who has been bounced so I don't know who they are.**

I will endeavour to send a PDF copy to all members and friends on my email contacts list approximately 3-4 monthly; usually post core group meetings. Other emails as events require or information becomes available at short notice. The newsletter should be the member's newsletter; therefore I would appreciate articles, images, and information, for sale, wanted etc. from you to fill its space. There will always be editorial etc. but it can grow to be as large as we let it!

**Bird Profile** each issue I will complete a bird related profile with images and data of the bird of the issue or their prey items. This issue the Red Footed Falcon

***Dave***

Treasurer and Editor

## **Message from our Chairman Paul Golledge**

Dear Members and Supporters of the South Gloucestershire group,

The breeding season is well underway and therefore our teams are busy monitoring and recording any signs of breeding activity across our area.

Early signs are that it will be a good year for Tawny Owls again and it's also looking promising for the Barn Owl too.

Persecution of the Hen Harrier is still making headline news with breeding males disappearing and eggs being stolen from nests. Please read the Trusts statements on this issue in the Peregrine and a further update on the Trust web site.

Our events team have got off to a great start with the first event of the season at Iron Acton May Day Fair. We have managed to recruit 10 new members to the Trust who all signed up on the day and a further 3 promised to join online. A huge thank you to all involved.

If anyone would like to help out at any of our activities then please do not hesitate to contact us.

Many thanks and Best wishes

**Paul**

## Ken Lloyd

2<sup>nd</sup> March 1939 – 19<sup>th</sup> December 2014



Ken was a founder member of the South Gloucestershire Group and instrumental in its early days as establishing the group as a proactive conservation and education body and was its first vice chairman.

Ken's love for wildlife started at an early age and he was especially keen on the Barn Owl. He would often park his car near Acton Court and sit for hours watching the Barn Owl hunt over nearby fields.

Ken played an active part in creating and managing habitat for all birds of prey and would often join the team at School and village events promoting the work of the trust.

Sadly several years ago Ken's health deteriorated and he had to cease his involvement with the group.

Ken had a real passion and drive for everything he believed in and will be sadly missed by all those who knew him.

## **Visits, Meetings and Events for 2015 /2016**

See below for information on Events, meetings and visits for the forthcoming year. I will endeavour to keep you all updated on these and will also send out emails of up to date information for any updates and changes. Where I have the information I will also circulate information from our other local groups with direct contact details as you may wish to join one of their meetings or visits. Meetings are held on the 2nd Tuesday of the month at 7.30pm, Iron Acton Parish Hall, Iron Acton, South Gloucestershire.

Members £4, non-members £5 under 16 free. Tea, Coffee and biscuits included.

### **Monthly Meetings**

<b>DATE</b>	<b>SPEAKER</b>	<b>SUBJECT</b>
<b>Tuesday 8th September 2015</b>	<b>Richard Cornock</b>	<b>A Year on a Dairy Farm, Conservation and Farming</b>
<b>Tuesday 13th October 2015</b>	<b>Steven England</b>	<b>The “Wild” Life of Steven England</b>
<b>Tuesday 10th November 2015</b>	<b>Barry Gray</b>	<b>Hands on Help for Local Kestrels</b>
<b>Tuesday 8th December 2015</b>	<b>Chris Sperring MBE</b>	<b>British Owls – their Natural History and Practical Conservation</b>
<b>Tuesday 12th January 2016</b>	<b>Simon Clarke</b>	<b>Shapwick Heath National Nature Reserve</b>
<b>Tuesday 8th March 2016</b>	<b>Jim Almond</b>	<b>Jim's Big Year – Wildlife around the Country in 2014</b>

## Future Events

Event	Address	Date	Duration	Set-up time	Attending
Stoke Gifford Fete	Stoke Gifford Village	<b>Mon 25<sup>th</sup> May</b>	1.00 – 5.00pm	12 11.15am@Flo's	PG, D&LK, P&EL, J&JM
Festival of Nature	Millennium Square	<b>Sat 13<sup>th</sup> June</b>			North Somerset & Bristol Group.
Festival of Nature	Millennium Square	<b>Sun 14<sup>th</sup> June</b>			North Somerset & Bristol Group
Owl talk/fly before Ed Drewitt Prowl	Emerson's Green	<b>Tues 18<sup>th</sup> Aug</b>	19.00 – 19.30		PG & D&LK
Bristol East Allotments	BEAA St George	<b>Sat 23<sup>rd</sup> Aug</b>	TBC	TBC	PG, D&LK
ICBP Falconry Weekend	ICBP Newent, Glos GL18 1JJ	<b>Sat 5<sup>th</sup> Sept</b>	9.00 – 5.00pm	8.00am	D&LK, PG
ICBP Falconry Weekend	ICBP Newent, Glos GL18 1JJ	<b>Sun 6<sup>th</sup> Sept</b>	9.00 – 5.00pm	9.00am	D&LK, PG,

## Attendance at Events

Please note the Core group always appreciate offers of help to attend events or help in any other way they can. Please contact me ([dalyn@blueyonder.co.uk](mailto:dalyn@blueyonder.co.uk)) with your offers 'Many Hands Make Light Work!' and we all have fun!

## The Peregrines of Bath ~ Update by John Madge

Last years lone fledgling HG successfully completed her training and left Bath for pastures new. My last sighting of her was during October 2014 suggesting a November/December departure.

Last winter the falcon and tiercel AA used the nest box (tray and roof) as a food cache. Early December it was discovered by a surprise and unwanted visitor – a Tawny Owl who considered it a very attractive proposition and continued to visit though January, February and into March.

Peregrine bonding and courtship began late January, calling heard and food passes seen. Late March another visitor appeared. Mark Hucker, a regular watcher, witnessed a juvenile falcon dive at and strike a glancing blow on AA as he was attempting to copulate with his mate. The incident was over too fast for Mark to see if the juvenile was wearing one of Ed Drewitt's I.D. rings and therefore the juvenile's origin could not be established. It is not uncommon for falcons to pass through looking for a mate at this time of the year. There have also been occurrences where a young falcon has returned having been unable to find a territory. HG perhaps?

The first egg was laid at 4.21 am on the 25<sup>th</sup> of March, followed by the second at 1.20 pm on the 27<sup>th</sup> of March. The third egg was laid at 10.26 pm on the 29<sup>th</sup> of March and serious incubation began. The fourth and final egg arrived at 8.00 am on the 2nd of April.

Times between eggs: 1 - 2 = 57 hrs. 2 - 3 = 57 hrs. 3 - 4 = 57.5 hrs. Impressive regularity.

Using the third egg as the base line the first egg is likely to hatch during the first week of May, assuming it is healthy. Last year two eggs failed and were laboratory tested and both declared infertile.

Incubation continues and the webcam records that AA is doing his share and has recently shown a reluctance to allow the falcon's attempts to relieve him.

I recommend members follow events on the Bath webcam during May and June. The Eyasses eat one and a half times their bodyweight each and every day and grow at a very fast rate and are generally bigger than their parents at fledging time. If all the eggs hatch the falcon and tiercel will have their work cut out in order to satisfy the Eyasses appetite.

Better still; make your way to Bath and watch events unfold in real time. The nest box can be viewed from South Parade or across the river behind the cricket ground, access via Pultney Bridge or North Parade. I recommend the latter. Latest news Falcon GA that fledged at Bath 2 years ago has been seen on Norwich Cathedral.

## **SGHOT AT ACTON COURT from our AC rep Dave**

The team have been working well at AC and we have cleared various areas of bramble in the lower fields to encourage new growth of plants and wild flowers whilst leaving larger mature areas of bramble to flower and fruit for wildlife. Next winter I would expect to choose new bramble areas to clear so we end up with a rotation of new, old and very mature habitat for wild life. The black thorn needs attention in various areas due to its habit of outward spread from the mature Blackthorn as birds drop seeds, which sprout and gradually encroach on the grass areas.

I have used the trap camera in various locations and caught rabbits, roe deer, foxes, jays, squirrels as well as LBJs that are too small to easily identify. Visually I have seen Buzzards (up to 4 at a time) sadly no kestrels on my last visits, a heron, all of the common corvids, bullfinches, yellowhammers, chaffinches, greenfinches, Great spotted woodpeckers, Green woodpeckers, Blue, Great and Long tailed tits, Blackcap, Chiffchaff, and other warblers, Only one swallow so far. As to Owls, a Tawny has been heard and infrequently seen but no real sight of the Barn or Little owls as yet. The boxes have been cleaned and renewed where necessary last year and have no desired occupants although the squirrels and Jackdaws use them and the chimney cavity!. Lets hope some of last years owls need a des res and will move in soon.

We will let you know when we will start on this years nettle and dock bashing (last years work had a really good effect at reducing numbers again whilst leaving some areas for the butterflies). As usual we will work alternate Wednesday mornings and by arrangement perhaps a few evenings once we have warm light nights to improve AC even more for all manner of wildlife.

Please contact me if you think you may be available and I will send you details

## **Farm Survey Team / Nest box Monitoring**

### **Nest box Team News**

Since autumn 2014 the team has installed 14 new nest boxes and visited 32 of our existing nest boxes to carry out maintenance eg. cleaning out nesting material taken in by other species such as squirrels and jackdaws and pruning tree branches to allow the birds a clear flight path into the nest box.

During April and May of this year we have been monitoring our 49 Tawny Owl nest boxes and found 11 with breeding pairs.

We are currently checking our Barn Owl, Little Owl and Kestrel nest boxes for breeding.

### **Farm Survey Team News**

Regular readers will know that our Farm Survey Team was formed some six years ago to visit local farms and other landowners in our work to conserve South Gloucestershire's wild owls and other birds of prey.

The owl most associated with farmland is the Barn Owl. Two surveys carried out, one by the Hawk and Owl Trust in 1982-85 and another national survey in partnership with the BTO 1995-97 estimated 4,000 breeding pairs of Barn Owl - down from 12,000 breeding pairs in 1932. a decline of 70%.- For more information: copy and paste this link in to your browser - <http://www.bto.org/volunteer-surveys/completed-surveys/bomp/history-barn-owl-monitoring>

The current Barn Owl population is estimated at "4,000 pairs, stable, possibly increasing". For more information: copy and paste this link in to your browser - <http://hawkandowl.org/species/owls-a-z/barn-owl/>

DEFRA Stewardship schemes and work by the Hawk and Owl Trust and other Conservation bodies for this species is thought to have contributed to these stable figures, and possible even increased the number of breeding Barn Owls.

Apart from natural mortality, there are a number of other reasons for the decline in this species eg: up to 5,000 Barn Owls are killed on our roads each year, also barn conversions resulting in the loss of natural breeding sites and modern intensive farming practices where many rough grass areas have been lost to farm production.

The field vole, which is the main prey species of the Barn Owl (approx. 85% of its diet) depends on these rough grass areas to breed.

In our work with local farmers and other landowners to conserve the Barn Owl the H O T South Gloucestershire Group strives to address this particular problem.

One of the farms we have been working with since **2011** is **Says Court Farm in Frampton Cotterell.**

In the Autumn of **2011** we erected an outdoor Barn Owl nest box in support of a natural hole site in an old oak tree. We also had an input on discussions prior to the farm's Entry Level Stewardship Scheme, resulting in creation of 2 x 6 mtr margins of rough grass for voles, which is the main prey species of the Barn Owl.

In **2012** the Barn Owls produced 5 eggs in the nest box. Unfortunately, during the cold and persistent rain that summer the chicks were predated upon, possibly by the parents who would have been unable to hunt in the wet weather.

Early in **2013** we were informed by the Bennett family that the farm had applied for planning permission to erect solar panels on the farm. Initially we were disappointed, as both nesting/roosting sites would be surrounded by solar panels. However, the family were committed to doing whatever was needed to conserve their Barn Owls.

As part of the planning application we accompanied their ecologist on a site visit, following which the developer agreed to pay for three additional Barn Owl nest boxes which we sited in other areas of the farm. We then temporarily sealed off the original nest box and the natural tree site, to allow the installation of the solar panels to continue through the impending breeding season.

The Barn Owls did not breed on the farm in **2013** but following the completion of the solar farm construction in the summer of **2014** the Barn Owls somehow were able to find a hole in the natural tree site (we had unknowingly failed to seal up) and they produced a late brood.

As part of the solar farm project the Bennett family have been in discussions with the developers who are funding the creation of the various types of habitat required to conserve the local wildlife and wildflowers. A plan was agreed after

consultation with **Avon Wildlife Trust** and various other wildlife groups including the **Hawk and Owl Trust South Glos. Group**.

In April of this year all the stakeholders involved with the plan met at **Says Court Farm** and were given an eye opening tour of the farm by the Bennett's. The site has approximately 75 acres of solar panels surrounded by some 25 acres of wildlife areas, which are currently being created.

Tree/shrubs and hedgerow planting, all of native species, have already started. The sowing of the different types of grass seeds has been held up because of the dry spring weather and will now not take place until the autumn. There are many areas planned for wildflowers including meadows to be sown with a pollen and nectar mix to attract bees, butterflies etc.

There are also areas to be sown with a selective seed recipe to create the type of rough dense grass habitat, which is required for breeding voles and in turn will benefit the Barn Owl.

This is in addition to all the other rough grass areas which will develop naturally within the new tree plantations providing cover for mice, voles and other rodents which is more food for Owls and Kestrels.

The **Hawk and Owl Trust South Glos. Group** have been delighted to have been part of this project and would like to thank the Bennett family for their hard work and commitment to ensuring the wildlife on the farm is conserved into the future.

If any readers would like to get involved with our work to conserve the Barn Owl and other birds of prey in our countryside please get in touch – ***see our Contacts list below.***

Even if you do not have any experience, as long as you have an interest in wildlife in general, we would be delighted to see you. This is how most of us started off and all our members will tell you, once you have experienced the sight of a Barn Owl hunting in the wild, you become more determined than ever to help conserve one of our countryside's most beautiful creatures.

### **Kestrel Highways Project**

For information on this HOT national project please go to:

<http://hawkandowl.org/our-work/research/the-kestrel-highways-project/>

The South Gloucestershire Group of the Hawk and Owl Trust has chosen the A38, B4058, A46 and A420 as its Kestrel Highways roads. Since the start of the project in 2008 the group have erected 50 nest boxes in the vicinity of the following roads:

**A38 Alveston, South Glos. to Hardwicke, Glos.**

**B4058 Frampton Cotterell, South Glos to Wotton-under-Edge, Glos.**

**A46 Swainswick, Bath to Horton, South Glos.**

**A420 Wick, South Glos. to Chippenham, Wilts.**

If you see a Kestrel within 1 mile of these roads please go to:

<http://hawkandowl.org/our-work/research/report-a-kestrel-highways-project-sighting/> to record your sighting.

***Your information will help us in our efforts to conserve this beautiful falcon.***

Sadly due to this years weather effect on the birds and reduction in vole numbers the success of the kestrel breeding season has been minimal as with the Barn Owls we hope this will pick up next year

### **Membership**

Welcome to the new members and friends who have joined our mailing list since the last 'Hobby'. If you are not already an HOT member and would like to join, or have friends and family who would like to join the Hawk & Owl Trust,

please go to the website: <http://hawkandowl.org/join/join-the-hawk-and-owl-trust/> where you can join on line or download an application form, please consider 'gift aiding' your contribution so the 'Taxman' also helps our cause!

HOT membership automatically gives you membership to the South Gloucestershire Group where, if you wish, you can get involved in our local conservation work giving as much or as little time as you like to help in a number of projects, including our efforts to reverse the decline of iconic birds such as the Kestrel and the Barn Owl.

HOT membership monies go towards the running of the Trust; This means we have to fund our own local conservation work through donations and fund raising events including school and local group talks and interactive sessions.

**Thanks to all of you who have made donations over recent months.**

All our work is voluntary and these donations help us to fund projects such as, for example, our nest box programme. Whilst we make our own nest boxes we have to purchase the wood, preservative, screws and securing bolts all of which are increasing in price. We also have to occasionally replace tools such as our electric drill, jigsaw, impact driver and their batteries. **So every donation counts.**

## Web Links / Articles of interest

**Birds of Prey in the UK** *On a wing and a prayer, a great source of information from the RSPB website*

[http://www.rspb.org.uk/Images/wingprayer\\_tcm9-188788.pdf](http://www.rspb.org.uk/Images/wingprayer_tcm9-188788.pdf)

**Sevenside Birds**, local information of birds and wildlife on the Severn from Avonmouth to the Severn Bridge. Lots of input relating to bird movements along the River Severn and migrants in the Severn Bridges area.

<http://www.sevensidebirds.co.uk/index.html>

**The Birds Of South Gloucestershire**, Established in 2005 The Birds Of South Gloucestershire (TBOSG) aims to provide a point of reference with easy access to information about rare, scarce and notable bird sightings, and where to watch them in S Gloucestershire.

[www.thebirdsofsouthgloucestershire.co.uk](http://www.thebirdsofsouthgloucestershire.co.uk)

### Dragonfly and Damsel fly identification

<http://www.dragonfly-images.co.uk/#/quick-id-guide/4532713573>

**Owl Pages**, lots of information relating to Owls of the World

<http://www.owlpages.com/index.php>

**The Barn Owl Trust** website a treasure trove if Owl information including habitat, conservation, what to do if you find an injured bird and lots more

<http://www.barnowltrust.org.uk/>

**Avibirds.com** This online bird guide consists of over 2700 bird species. Physical characteristics, habitat, migration, distribution and more is described. Almost every page contains a video, sound fragment, picture and distribution map. For most species scientific literature is available, the articles are in PDF format for you to download. All European species have been added, as well over 550 North American species. The latter is by no means complete, but a work in progress. <http://www.avibirds.com/>

**Operation SWORD** – Save Wild Owls from Road Deaths, The Hawk and Owl Trust has launched a research project in Norfolk called Operation SWORD (Save Wild Owls from Road Deaths). Its aim is to help reduce the number of wild owls, particularly barn owls, killed by vehicles on the county's roads. See more info

<http://hawkandowl.org/our-work/research/operation-sword/>

If you find a good wildlife link please let me know and I will include it. We can often reciprocate and get SGHOT listed in their publication.

## **Excerpts from NORTH SOMERSET AND BRISTOL GROUP NEWSLETTER**

### *News from Shapwick Reserve:*

When the ditches along the drove were dug out, the banks looked very bleak for a time but they are starting to green up and the reeds are shooting vigorously. Several trees have now been planted in addition to the hedging. One kestrel box is being used and there may be interest in the other, which is very encouraging.

This month there will be no work day. However, there will be the Avalon Marshes Open Day on **Sunday 24<sup>th</sup> May**, 10am-3pm. This is run in conjunction with all the partners and is a day of fun activities. Any offers of assistance would be welcomed by Simon.

A new programme of activities and tasks for the summer work days is now available. For more details or to be put on the volunteer mailing list, please contact Barry: [baz.gray@btinternet.com](mailto:baz.gray@btinternet.com) or Simon: [simon.beard@hawkandowl.org](mailto:simon.beard@hawkandowl.org) Tel 01300 320008.

A reminder that the well-known author and BBC TV wildlife producer Stephen Moss has kindly offered to lead an early morning bird walk around the Canada Farm and Barbara Handley Hide areas on **Friday 6<sup>th</sup> June**. Meet in the carpark at 06.00. Please let Simon know if you plan to come so he can make sure there will be enough bacon sandwiches on your return! He says there is a great campsite at Westhay - and also makes mention of a cider house??!!! For those who want to make a whole morning of it, there will be some tasks after breakfast

### *Kestrel Highways Project*

Things are looking promising this year with birds thought to be sitting in at least 5 boxes, and the first chicks having hatched in Ashton Court. Several other boxes have kestrels in the vicinity and in one box a tawny owl was observed!

Barry would be pleased to receive any information on kestrel sightings in our area, or to hear from you if you would like to help with monitoring. [baz.gray@btinternet.com](mailto:baz.gray@btinternet.com).

### *Other dates and items which may be of interest:*

27-30<sup>th</sup> May - If you are at the Bath and West Show, do come along to the stand and say hello. Again, Simon is looking for offers to help out for a day.

13/14<sup>th</sup> June - Festival of Nature at Bristol Harbourside.- bigger, better and wilder than ever! All talks free.

### **Carrie Riches**

Chairman Tel: 01275 462908

### **Adopt a Box - for a Birthday**

HOT run a scheme where you can adopt a nest box for owls and other species which would make an ideal Birthday or Christmas present for friends or family. It could also be an excellent way to introduce children to conservation.

Go to: <http://hawkandowl.org/our-work/conservation/adopt-a-box/>

If you join this scheme you will be supporting the work of the Trust and you will receive a certificate, a newsletter twice a year, an annual box report on **your** box, a car sticker and an illustrated guide to British Owls.

Remember if we cannot contact you we cannot keep you informed. Please contact me with any points, articles, pictures etc. so I can improve our newsletter.

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**Contact list**

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## Profile 16 **The Red Footed Falcon, *Falco vespertinus***

Copied from Wikipedia.

An Occasional visitor to our shores

The red-footed falcon (*Falco vespertinus*), formerly western red-footed falcon, is a bird of prey. It belongs to the family Falconidae, the falcons. This bird is found in eastern Europe and Asia although its numbers are dwindling rapidly due to habitat loss and hunting. It is migratory, wintering in Africa. It is a regular wanderer to Western Europe, and in August 2004 a red-footed falcon was found in North America for the first time on the island of Martha's Vineyard, Massachusetts.



Adult male



Adult female



*Falco vespertinus* – Toulouse Museum, France

### Taxonomy

The Amur falcon was formerly included herein as a subspecies but it is nowadays considered well distinct. Nonetheless, it is the present species' closest relative; their relationship to other falcons is more enigmatic. They appear morphologically somewhat intermediate between kestrels and hobbies and DNA sequence data has been unable to further resolve this question, mainly due to lack of comprehensive sampling. They might be closer to the merlin than to most other living falcons, or more generally related to this species and American falcons such as the American kestrel and the aplomado falcon.

### Description

It is a medium-small, long-winged species. The adult male is all blue-grey, except for his red undertail and legs; its underwings are uniformly grey. The female has a grey back and wings, orange head and underparts, and a white face with black eye stripe and moustaches.

Young birds are brown above and buff below with dark streaks, and a face pattern like the female. Red-footed falcons are 28–34 cm (11–13 in) in length with a wingspan of 65–75 cm (26–30 in). The average mass is 155 g (5.5 oz).

### Breeding and Behaviour

This falcon is a colonial breeder, reusing the old nests of corvids, such as rooks. It lays two to four eggs. Its maximum lifespan is 13.25 years in the wild and 18 years in captivity.

### Azerbaijan

Red-footed falcons were witnessed copulating several times over a week-long period and "showed a strong preference for an old magpie nest" Frequent copulation was interspersed with joint inspections of the magpie nest. The morning after the aforementioned observations, the pair was again observed and they repeated their behaviour. Both then defended against an attack by a lesser kestrel. On this day neither bird spent much time in the nest, but always remained perched beside it. At the end of the week the researchers revisited the nest. The behaviour this time was that the female sat in the nest and the male perched outside but in the same tree. Further defensive responses to lesser kestrels were observed. The male red-footed falcon hunted for large insects and fed them to the female.

Copulation then occurred. After copulation, the female returned to sit in the nest until the male fed her again. This behaviour continued for several days. This pair clearly showed territorial behaviour. The frequent copulations and lengthy stay of the female in the nest suggested incubation but the researchers did not check the nest.

## Carpathian Basin

Researchers used a species distribution model for red-footed falcons. This model can play a crucial role in identifying key nesting sites for endangered species. According to the researchers, the red-footed falcon is officially listed as near-threatened, due to the drastic breeding population decline of the past decades. Red-footed falcons breed in colonies and in solitary pairs. They do not build a nest. In Hungary, the landscape scale distribution of rookeries remained stable, while the density and size of rookeries decreased and their location shifted to human settlements. Similar patterns were reported from other European countries. The reasons of rookery declines can be attributed to a large-scale persecution in the mid-80s resulting in a 90% population crash. Because of this, most potential breeding colonies for red-footed falcons disappeared, causing a decline in the number of breeding pairs. Conservation projects have established artificial nest box colonies to rectify this problem. There is little evidence of this plan's effectiveness and also little evidence on recent population trends and distribution, from Northern Serbia, where 5-10% of the total European Union population is thought to breed. The researchers' main focus was on understanding the relationship between landscape scale habitat variables and red-footed falcon presence. The researchers found that the increase of natural grasslands had a positive effect on nest site presence while the increase of broad-leaved forests negatively influenced the probability of nest site presence. Their modeling approach proved successful in describing the landscape scale habitat composition of red-footed falcon breeding sites in the modelling area. Natural grasslands have a considerable impact on the probability of nest site presence. Therefore, locating their breeding sites or creating breeding sites by providing artificial colonies with the aid of our results has additional conservation and socio-economic benefits for wildlife and human population.

## Serbia

Near the village Melenci (Voivodina, northern Serbia) there were 22 red-footed falcon *Falco vespertinus* nests in 1991 in which offspring had been successfully brought up. The contents of four nests were checked daily from the start of incubation until the fledglings left the nests. Breeding success did not differ between the group of 4 nests disturbed by inspections and the remaining 18. Despite the fact that the ratio of parent bird presence (both, only female, only male) and absence differed in the comparison of the four nests, red-footed falcon parents were usually found in the close surroundings, i.e. they attended their nest. The attendance of the birds to the nests differed between the sexes during incubation as well as hatching and the nestling period, which fact can be interpreted as a difference between the roles of females and males. In 59% of the cases it was the female, while in 41% it was the male bird that was sitting on the eggs. At the time of hatching it was mostly the female (female 86%, male 14%) that was present in the nest, while after hatching it was only the female. Later on the adult birds usually took off from the branch supporting the nest, from neighbouring trees, or from abandoned rook (*Corvus frugilegus*) nests, rather than from the nest itself. Females participated more times in the defence of the nest than males, yet the ratios of the studied types of behaviour (alarm, repellence, attack) did not differ between the sexes. However, significant difference appeared to be present between four nests when the distribution frequency of the three behaviour types was looked at. The distribution of the reaction types of the parent birds to disturbance was significantly different in the periods of incubation, hatching and nestling, respectively. As

nesting proceeded and parental investment grew, the number of repellences and attacks increased proportionally.

The survey of population size and distribution of red-footed falcons proceeded in June–July 2000 and 2001 respectively, ten years after the first census (1990 and 1991). Data of only those nests were processed in which there was breeding. Breeding Success was calculated from the number of offspring per reproductive female. During the survey in Voivodina in 1990-1991 there were 308 and 124 pairs, respectively, whereas ten years later, in the year 2000 there were 116, and in 2001 only 61 pairs of red-footed falcons. Even if the marked fluctuations observed are not considered, the red-footed falcon population breeding in Voivodina shows a declining tendency. The south-western margin of the distribution area has moved towards the northeast by about 50-70 kilometres. More than 90% of the nesting sites, including the larger nesting colonies, are found in the Banat region, i.e. east of the Tisa River. More than 90% of the red-footed falcons continue to nest in rook colonies. No significant change has occurred in their breeding success.

### Dietary habits

The red-footed falcon is a bird of prey with a diet consisting of a variety of insects, amphibians, reptiles, mammals and birds, such as great green bush-crickets, spadefoot toads, sand lizards, the common vole and bird nestlings, respectively. This bird's distinctive method of hunting is shared by the common kestrel. It regularly hovers, searching the ground below, then makes a short steep dive towards the target. When feeding their nestlings, the youngest nestlings receive the most food more frequently and more regularly. Chicks that are between 0 and 3 weeks old will get fed bigger prey like toads, lizards, bird nestlings, and great green bush-crickets, while nestlings over that age will get fed less frequently and with less variety. Young nestling's diet consists mostly of Orthoptera and Coleoptera with a little bit of Vertebrata, while older nestling's diet mostly consists of Orthoptera and almost never receives Vertebrata.

### Habitat

The red-footed falcon tends to reside in typical steppe type habitats ranging from Eastern Europe to Lake Baikal in Central Asia. This is a diurnal bird of open country with some trees, often near water. They tend to migrate far south for the winter, including in areas of Africa.[11] The red-footed falcon tends not to make their own nests, but tend to use abandoned nests made by other birds such as the hooded crow, rook, and magpie. The nests that are chosen tend to be higher than the majority of the other nests; the nests tend to be 13–20 m (43–66 ft) above the ground and within 3–4 m (9.8–13.1 ft) of the treetop. Most of these nests tend to be near the edge of woods, avoiding nesting on solitary trees. Breeding takes place in these abandoned nests; usually breeding occurs colonially in rookeries because these birds tend to stay together in groups. This is also important because fledging success tends to be higher when these birds are in colonies and are not solitary. The red-footed falcon relies on the nests built by rooks, and with a decline in population of rooks, the number of suitable rookeries for colonial nesting has also decreased, leading humans to ideas of conservation.

### Threats

A major impact on the red-footed falcon's population is loss and degradation of natural nest sites. Rooks and rookeries are regularly attacked, by shooting into the nests, killing birds and cutting down the trees they were living in for the wood. Pesticides are also a huge threat as they are depleting their natural food sources, making food competitive. There is

also an increased mortality caused by electrocution due to the bird's habit of sitting perched on power lines. From 1980 to 1999 intensive poisoning of *C. frugilegus* in Hungary forced the species to change its nest site selection habits, and large colonies have nearly disappeared there as a result, with only 38% of the population breeding colonially. As productivity is generally greater in larger colonies, further decreases may occur. The species appears to be hunted opportunistically during migration.

## Conservation

The global population of *Falco vespertinus* is estimated to be between 300,000-800,000 individuals, with 26,000 to 39,000 pairs in Europe. Most of the population breeds in the steppe grasslands of Russia and central Asia, although a significant amount also breeds in the Ukraine, Romania and Hungary. In 2005, the population in Hungary was estimated to be between 700 to 800, showing a steady decline. Red-footed falcons can be considered as a classic umbrella species because they affect other species living in the community. They play a popular role in the Natura 2000 designation process. Therefore, locating their breeding sites or creating breeding sites by providing artificial colonies has additional conservation and socio-economic benefits for both wildlife and the local human population.

## Conservation of *Falco vespertinus* in the Pannonian Region

A conservation program, which was funded by the EU's LIFE Nature financial instrument, was initiated on January 1, 2006 with the goal of increasing and maintaining the breeding population of the species in Hungary and western Romania. This conservation project developed a method to create more nesting sites by creating artificial nest box colonies. It's pretty common for the birds to be preyed upon by martens or other mammalian predators during incubation or during the nestling state, even in the artificial colonies. Some extreme cases show that the predators may threaten the existence of every clutch in the colony. They are using many methods to repel or trap potential predators in order to avoid predation. Some of those methods are listed in this section. There are many known threatening factors and the program takes active conservation measures against them. Some of these factors include being electrocuted by electric pylons so the program locates and insulates the exposed cables. Roadside trees are a common nesting site for falcons because they are also home to corvids. Previously, only safety aspects were considered in the management of these nesting facilities. Therefore the project will submit a conservation based management plan to the correct authorities. One of the reasons of red-footed falcon decline is the collapse of the rook population due to drastic pest control measures. Based on previous experience and information from stakeholders, a draft "corvus management plan" will be prepared to handle the conflict situations caused by rooks.

Future conservation efforts proposed include continuing to conduct regular surveys throughout the area. Figuring out additional ways to help the species is crucial. Red-footed falcons are known to use artificial colonies, therefore, they can be a useful mid-term conservation tool to prevent their population from fragmenting. Also, there may be ways to help out the species by changing farming and land-use practices in Central Europe. Surveys in Bulgaria indicated that there is a decline in available breeding sites for the birds.

## Other Links

<http://www.arkive.org/red-footed-falcon/falco-vespertinus/>

[http://www.europeanraptors.org/raptors/red\\_footed\\_falcon.html](http://www.europeanraptors.org/raptors/red_footed_falcon.html)

<https://www.birdguides.com/species/species.asp?sp=032037>

<http://www.birdlife.org/datazone/species/factsheet/22696432>

<http://birdsofbritain.co.uk/bird-guide/red-footed-falcon.asp>

[http://www.avibirds.com/euhtml/Red-footed\\_Falcon.html](http://www.avibirds.com/euhtml/Red-footed_Falcon.html)