

North of England Raptor and Upland Birds Conference

Agricultural Business Centre, Bakewell, 14 November 2009

The North of England Raptor and Upland Birds Conference was hosted by the South Peak Raptor Study Group and the Peak District Raptor Monitoring Group, and sponsored by RSPB, National Trust and Severn Trent Water Authority. It was attended by 135 representatives, not only from the north of England, but also from the south and midlands.

The Gyr Falcon: Bill Heinrich

Bill Heinrich is the Species Restoration Manager for the Peregrine Fund in the US. The Peregrine Fund was established in the early 1970s to rescue the Peregrine from threatened extinction in the US, but they have since used the same captive breeding techniques for many other raptor species worldwide. The organisation now has more than a hundred employees: there are over 200 raptors in their captive breeding programmes, they raise 16,000 quails a year for raptor food, and they manage an archive of raptor skins etc. Only one US falcon is still on the endangered list, namely the Aplomado Falcon, a small falcon of the Americas, and it is hoped that they will be able to remove the species from the list in about 3-5 years time.

In the course of its conservation work, the Organisation may uncover serious levels of environmental pollution. For example, Californian Condors at the release site at Vermilion Cliffs in Arizona were found to be dying from lead poisoning, caused by the presence of lead particles in the remains of deer that had been killed by hunters – and this led to a voluntary ban on lead shot, with copper bullets being used instead. (Interestingly, they also discovered lead in hamburgers made from the Vermilion Cliffs venison.)

Furthermore, it was discovered that a pharmaceutical drug given to cattle in Pakistan was causing widespread deaths in vulture species due to kidney failure. The drug was banned three years ago, and it is hoped that at least some of the species can be re-established.

A major project with which Bill was involved was a study of Gyr Falcons which began in October 2004 in Greenland. Its aim was to trap birds passing through the area on their autumn migration, and in the longer term to be able to learn more about the species, and how it interacts with its environment. Studies such as this are increasingly important as we face changes to the environment due to climate change.

They established a small camp with a hide overlooking a lure pole baited with pigeon meat (they took fifty live pigeons with them). They took the usual measurements including DNA from the birds they trapped, and fitted them with transmitters in order to follow their movements. Only about 10% of the birds they trapped were adults.

The second year they repeated the procedures, but this time they ensured that someone was in the hide at all times, instead of the hide-occupant returning to base as soon as a bird had been caught. This time, they found that they often caught two or three birds close together, showing that the birds were travelling together. On their best day, they caught 11 different birds. Bill has now left this project, which is able to function on its own, his last visit being in June 2006.

For more about the Peregrine Fund, see www.peregrinefund.org.

Results of the 2008 Merlin Survey: Mark Eaton

Mark Eaton, a Research Biologist with RSPB, kindly gave this talk in place of Steven Ewing who was unavoidably unable to attend.

As is well known, the Merlin breeds not just in upland moors, but also in afforested areas where it

uses nests of other species. Historically, the species underwent a slow decline in the first half of the 20th Century, and this decline intensified in the 1950s and 1960s due to the use of organo-chlorine pesticides; it continued, albeit more slowly, in the 1970s and early 1980s. The RSPB carried out a partial breeding survey of the species in 1983 and 1984, estimating the number of breeding pairs to be 550-650, whilst a full survey in 1993 and 1994 gave an estimate of c1300 breeding pairs. Although part of this increase may be due to differences in coverage, local studies also indicated an increase in numbers, and the species was moved from the Red list to Amber, where it has remained ever since.

The RSPB 2008 survey used data from the two BTO breeding atlases, together with information from Regional Study Groups (RSGs), to identify areas known to hold Merlins during the breeding season. In addition, they used sampling methods to select particular 10-km squares within areas not covered by RSGs. The survey was carried out by a combination of RSGs counting the numbers of breeding pairs in their areas, together with volunteer fieldworkers surveying the sampled squares. They then calculated population estimates in surveyed squares, and extrapolated the numbers to other comparable squares. The 2008 survey included Northern Ireland which had not been included in the two previous surveys.

The results showed that, compared to 1993/4, there was a small decline in England, no change in Scotland, and a small increase in Wales. The total estimate of breeding pairs for the whole of the UK was 1128 and, excluding Northern Ireland, was 1085; this represents a small decline compared to 1300. None of the changes were statistically significant within the parameters of the survey techniques.

The main potential causes of future changes in Merlin populations are the reduction in size and quality of suitable moorland, availability of prey species, changes in the age of commercial plantations, possible increase in predation by, for example, Goshawks and/or foxes, and climate change. It is expected that the species may move further north and, worryingly for many people at the conference, possibly becoming confined to the north of Scotland. In answers to questions, Mark thought that the CROW Act was unlikely to have much effect, but that the RSPB are working with Natural England to assess the effect of the Act on upland birds in general.

Mark finished his talk by thanking not only the funding bodies, but also those present who had participated in the survey, either as members of the RSGs or as volunteer fieldworkers for the RSPB.

The Life of the Sparrowhawk: Ian Newton

Ian Newton is well known as the world authority on Sparrowhawks, having been working with them since the early 1970s. Today he talked about results from studies that he was personally involved with in Eskdale and Rockingham Forest, together with data from studies in twelve other areas spread over the UK which were carried out by other fieldworkers. In Eskdale, they ringed every hatched young, together with as many adults as possible; almost all the adults were females, as they spend much longer on or around the nest than males do, and are therefore easier to capture.

Results from the 1970s show that within any one area of continuous woodland, nests are very regularly spaced, although there is considerable variation when comparing different localities. For example, in Upper Speyside the nests were all about 2.3 km apart, whilst in Carlisle they were all about 0.5 km apart; the determining factor seemed to be food supply, as there was strong correlation between density of prey species, and density of Sparrowhawk nests. However, this only holds for woodland: in the general countryside such as farmland, where nest sites are limited but there is plenty of cover for prey in hedgerows etc., it is the availability of nest sites that limits the population.

Over the period 1970-1990, it was found that Sparrowhawk populations were remarkably stable. In Eskdale, they were able to follow the lives of 200 breeding females from their fledging until death, keeping detailed records throughout. When considering, for each of the 200, the total number of chicks they had fledged throughout their lives, it was found that this total ranged from 0 to 33 (the latter achieved by one individual). It was found that a relatively small number of birds contributed to most of the young, with 5% of individuals producing 50% of the total numbers of chicks fledged.

Most females began to nest when two or three years old, and most had a lifespan of seven to eight years. Their productivity was found to increase until they were about six or seven years old, as they became more experienced, but then declined as they got older.

It was found that some territories were consistently more productive than others, and the critical factor seemed to be availability of food. This was partly because underfed chicks would be less strong and healthy, and also because adults who had to spend longer hunting away from the nest would leave their chicks vulnerable to chilling and to predation. In fact when they looked at ownership of territories, they found a high turnover of occupants, with the more experienced birds moving to a “better” territory when the opportunity arose.

At the time of hatching, it was found that the sex ratio was 50-50 but, as time goes on, females are found to survive better than males. Interestingly, both sexes survive equally well in the nest, even though females rapidly outgrow the males. It is thought that the males develop more quickly than females, so are able to use behavioural strategies to compete effectively with their larger sisters.

The distance that an individual moves from its natal territory to its own breeding territory was also investigated, and ringing returns have shown that most breed within 20 km from their natal nest. The researchers omitted their own data from this investigation as it would clearly have distorted the figures.

Ian finished with a summary of the findings that he wished to leave us with:

- breeding density in woodland is limited by food supply, but elsewhere by nest sites;
- a small proportion of individuals produce most of the young;
- individuals perform best in mid-life;
- some territories are consistently more productive than others;
- the sex ratio at hatching is about 50/50 but, over time, females have better survival rates;
- most individuals breed within a radius of 20 km from their natal nest.

Upland Moorland Management: Mike Innerdale

Mike Innerdale is the General Manager with the National Trust High Peak Estate, and spoke to us about what he sees as the important issues now and in the future.

The High Peak Estate covers some 12,000 hectares, comprising the Derwentdale reservoirs (which are managed by the Severn Trent Water Authority), conifer plantations and upland moorland; it has tenancy contracts with fifteen farmers, and with shooting organisations.

Some 80% of the moorland is in “poor” condition, but they have spent millions on restoration of the habitat, and they are continually trialling new ways of management. They are in partnership with Moors for the Future in developing Moorland Management Plans - which give them some authority when negotiating with local landowners – and there has been some improvement.

Problems are caused by the uncertainty of the future of environmental payments, and in the longer term there will be problems caused by an ageing farming population. The National Trust believes

that the moors should be an area where people work and live, not an area of wilderness. They need a new contract for land management for farmers whereby they receive a guaranteed income for high quality conservation

Water is a major component of land usage, and United Utilities are in partnership with RSPB in the Sustainable Catchment Management Programme (SCaMP). The objectives of the project are to address land management issues to improve both biodiversity and water quality, and in particular to protect the soil so that ultimately the land can support a sustainable raptor population. They have major problems with wildfires, over-grazing and over-drainage, and they also have to look to the future with the likelihood of increased pressure from recreation, wind turbines, etc.

The High Peak is at the southern edge of blanket bog, and therefore likely to be the first such area to feel the effects of climate change. We are expecting to see movements of many species of wildlife as they respond to changes, and it will be the responsibility of landowners such as the National Trust to enable them to do this, and not to become isolated in areas from which they will merely die out.

The National Trust is in partnership with a number of other bodies, for example it works with the RSPB and others on the Peak Nestwatch project that has been going for eight years, and will be working with the RSPB and the Peak District National Park Authority in the recently formed Eastern Moors Partnership.

In answer to questions, Mike recognised that the near absence of raptors in the High Peak is a matter of great concern. The initial acquisition of the land came with legally binding contracts with the shooting organisations but contracts can be terminated if there is firm (i.e. not circumstantial) evidence that the law has been broken. Most unfortunately, such evidence is extremely hard to obtain.

Honey Buzzards: Steve Roberts

Steve Roberts has been studying Honey Buzzards for twenty years and, although he would not claim to be an expert, he does not believe anyone else is either. He has found that every question he has been able to answer has given rise to a further ten, and that when the literature thinks it knows the answer, it is often wrong. Thus, for example, it is said that Honey Buzzards nest in hardwood trees, and that wasp larva form almost all of their diet, whereas Steve has found that they frequently nest in conifer plantations and they eat a lot of frogs, especially in the earlier months before wasps' nests are established.

Steve has found that Honey Buzzards are difficult to see, and timing is crucial when trying to locate their nests: eggs are normally laid in the period 15-25 May, and once they are incubating, the birds are very difficult to see. If you are fortunate enough to see one, it will probably be over a mile away and easily confused with Ravens or other large raptors. (Steve finds that a helpful pointer when trying to distinguish a Honey from a Common Buzzard is that the latter tends to rock and twist its body about, whereas a Honey Buzzard holds its body steady.) A useful clue to the presence of Honey Buzzards is a partially dug out wasps' nest, particularly if debris from the nest is scattered on lower vegetation nearby, since a badger would dig out the whole nest, and all debris would be on the ground. It is thought that Honey Buzzards may leave part of the nest intact so that the wasps build it back up again, and it can be raided again at a later date.

Nests are usually very difficult to see from ground level, especially when located in impenetrable Western Hemlock. However, the birds are fairly tolerant of disturbance, provided of course that the fieldworker "observes the normal formalities". They generally lay two eggs, and generally both will fledge (an unfortunate exception being a nest in South Wales, which was fitted with a CCTV camera, and a chick was eaten by a Goshawk in full view of the watching public).

Some birds have been fitted with satellite transmitters, more to track their foraging habits than their migration. The objective is to be able to advise landowners if Honey Buzzards are foraging on their land, but Steve is not sure it is really worth stressing the birds.

Generally speaking, the species is successful in the UK - although 2009 was a poor year, probably due to bad weather at critical times. Steve ended his entertaining lecture by assuring us that there are probably many more breeding Honey Buzzards than are known about, and all fieldworkers are encouraged to go out and look.

Ground Nesting Peregrines and Other Matters: Terry Pickford

Terry Pickford is a well known for his interest and expertise on raptors, and for his indefatigable opposition to persecution of raptors. Today's talk was about the Forest of Bowland, where most of the land is owned by either the Duke of Westminster or by United Utilities, and particularly the life chances of Peregrines and Hen Harriers on these two estates.

Up until 1973, the Duke of Westminster's estate held twelve breeding Hen Harriers, but now there is just one pair. In contrast, the United Utilities estates, where United Utilities has been working in partnership with the RSPB since the early 1980s, normally holds between six and ten pairs.

In times gone by, the usual method of persecution of Hen Harriers was to kill eggs or chicks on the nest, leaving the evidence for all to see. Now that the law has tightened up, this no longer happens, and actions are taken that leave no evidence. For example, it is very common for nests to fail at the egg stage, and it is believed that individuals with an interest in destroying a Hen Harrier nest will deliberately cause disturbance, for example by sitting next to a nest for long periods, so that the adults are kept away and the eggs become fatally chilled.

Terry is an enthusiastic photographer, and the rest of his lecture consisted of a photographic tour of Peregrine nests that he had monitored. Most had suffered failure for reasons that could only be speculated upon. For example one nest contained eggs that were well past their due hatch date, and the eggs were found to contain well-grown embryos; this suggested that something had been done to the eggs, e.g. shaking, in order to kill the embryos within. He also had many anecdotes of problems he had had with shooting organisations, and how the local police forces were sometimes less than helpful. One gamekeeper apparently claimed that the CROW Act permitted the arrest of members of raptor groups on shooting estates if they had not previously obtained permission to be there.

Terry clearly feels very strongly about raptor persecution (as does everyone present at the conference) and the best efforts of the chairmen failed to keep him even approximately to his allotted time. For more about the problems encountered by raptors and their fieldworkers, particularly in north-west England, see the website www.raptorpolitics.org.uk.

The Hen Harrier in 2009: Jeff Knott

Jeff Knott is a Species Policy Officer with the RSPB, dealing mainly with birds of prey, and kindly offered to give the talk after his colleague was stuck in a very long queue on the M1. He summarised the fortunes of the Hen Harrier in England in 2009, and took a look at what the future may hold. Most of his talk centred on the Forest of Bowland, the only area of England where the species is established, but he also mentioned a successful nest in Cumbria which produced four fledged juveniles, and another amongst crops in Gloucestershire that produced one fledged young.

There are two estates in Bowland where Hen Harriers are found, namely the land owned by United Utilities, comprising 10,000 hectares, and the Duke of Westminster's Abbeystead estate comprising nearly 8,000 hectares. In 2009, United Utilities had seven breeding attempts, three successful,

raising five young, and Abbeystead had only one nest, although it was successful and produced five young. (This compares with 2008 figures of seven successful nests out of ten attempts on United Utilities land, raising 22 young, and one successful nest out of four attempts on Abbeystead, raising 3 young.) In total, then, there were ten nesting attempts in England in 2009, including the nests in Cumbria and Gloucestershire, with six of them being successful. The reasons for the poor results in 2009 are not known.

Analysis of available habitat in the UK suggests that Scotland should be able to support 1268 pairs of Hen Harrier, Wales 88 pairs and England 232 pairs. In other words although we may well ask why Abbeystead had only one breeding attempt compared to United Utilities' ten, and why in total, there were only six nests successful out of ten, an even more pertinent question is why there were only ten nests in total in the first place.

In order to address this question, a ten-year project is still ongoing on the Langholm estate in SW Scotland, where they are looking at possible solutions such as legal predator control, habitat management and diversionary feeding. The shooting fraternity have suggested their preferred solutions, namely establishing an agreed population ceiling for the species whereby "surplus" nests could be destroyed (rejected as unworkable, illegal and unacceptable), or brood management which would involve removing some chicks from nests, rearing them in aviaries, and returning them to the moors after the end of the shooting season. This second suggestion has not been rejected out of hand, as there is an acknowledgement that eventually some compromise must be reached, and this procedure would at least give us more Hen Harriers. However, the much preferred option for conservationists would be diversionary feeding; unfortunately no landowners are willing to trial it on their grouse moors.

If no progress is made, then it may be time to think about whether or not driven grouse shooting is a sensible form of land use. It is believed that some people like the idea of going on a grouse shoot for the experience of being in a wild place, and they like to shoot a few grouse but do not need to shoot huge numbers of birds. Such a form of shooting could easily co-exist with a healthy Hen Harrier population.

In the meantime, RSPB is actively engaged in gaining public support for raptors, encouraging people to report breeding attempts by vulnerable species so that protection can be put in place, and in campaigning for police forces to see raptor persecution as a "real" crime. They also want a more rigorous approach to clawing back at least some of the public subsidies from estates where persecution occurs.

The Hobby in Derbyshire: Anthony Messenger

Anthony Messenger began his talk by explaining that he is a fieldworker, not a researcher, and he wished to acknowledge help received from Martin Roome in his early day of watching Hobbies, and for the use of some of Martin's photographs. Later, he also acknowledged the use of some of Robert Snell's photographs.

The Hobby is now well established in south Derbyshire, and can in fact be found throughout the county except for the upland moors. Most nests are in isolated trees, or a single tree in a hedgerow, but occasionally they use other structures such as pylons. Their preferred tree species is Oak, their second preference being Ash, and most individuals nest within 1 km of last year's nest; in a suitable habitat, nests are usually 4 - 4.5 km apart.

Finding Hobby nests is not easy. It is relatively easy to find Hobbies displaying early in the season, and to identify the general area where a nest is likely to be, but finding the nest is a different matter. Once they have laid their clutch of (normally) three eggs the adults become very elusive, although they may give themselves away by calling just before going to roost. By late July, when the young

may be about two weeks old, the adults become more visible. By the second week in August, the young have fledged, and they may be seen flying together, catching insects. Birds can regularly be seen insecting up to the third week in September.

Over many years of watching Hobbies, Anthony believes that the hunting skills of the male bird is key to determining the success or otherwise of the nest. However, he has also noticed that some sites regularly produce broods of four, so there may be “good” sites in the same way as for Sparrowhawks. Over the last three years, he has colour-ringed 123 juveniles, and hopes that sightings of these birds will tell him more about their movements. Standard ringing has of course been going on for much longer, and the oldest recorded individual was eleven years old.

Anthony commended Hobbies as an end-of-season perk to jaded raptor workers, particularly those who have had the depressing experience of watching nests come to a sad end. The average success rate in most years for a Hobby nest is 2.3 fledged young, and the species is doing as well in the UK as anywhere else in Europe.

Saker Falcon Research in Mongolia: Andrew Dixon

Andrew Dixon works for a private company whose job it is to protect Saker Falcons in Mongolia, so that the population can sustain the removal of a quota of birds to be sold to Middle Eastern countries for falconry. Conservation can be problematic in third world countries where the interests of conservationists can be in opposition to people who are living very difficult lives.

Falconry is an important part of the Arabic cultural heritage, and it has been practised there for 3000-4000 years. Generally they use Saker, Gyr and Peregrine Falcons, with only the Sakers obtained from the wild; Gyrs and Peregrines are supplied from captive breeding programmes, or are supplied by illegal traders. Wild-bred falcons are seen to be “better” than captive bred, but breeders often have recourse to producing hybrids which are seen as better still.

After the collapse of the USSR, Mongolia suffered a profound economic downturn, and they started selling a quota of 300 Sakers to the Gulf States to generate income. Unfortunately there was no scientific basis for fixing the quota, and it was set by what they could sell. There was no recording of birds that were caught, and they were unable to meet the CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) rule which states that there should be no detriment to the survival of the species in the exporting country. The trade was worth three million dollars to the economy.

The species inhabits the open steppe landscape, an area teeming with small mammals, and their diet includes a high proportion of mammals. There is a severe shortage of nest sites, and Sakers frequently use nests of other species. They have the capacity for very high reproduction, normally laying between four and six eggs, with an average of 4.7 eggs and an average of 3.5 juveniles still surviving after 21 days from fledging. Because nest sites seemed to be the limiting factor, the team developed a nest box comprising a modified orange juice barrel on a 3m metal pole, and the boxes proved popular not only with Sakers but with other species as well. The team monitored the nests, recording productivity and survival, took various measurements including DNA samples from the chicks, and fitted them with wing tags or transmitters. Each year more and more of the boxes were occupied, and now 95% have something living in them. Productivity is high, as the chicks are safe from predators such as Eagle Owl.

By 2010 it is hoped to have 5,000 boxes in place, and by 2015 they hope for 10% occupancy by Sakers. This would represent 500 pairs, and hence about 1500 chicks, so CITES rules can be met, and legitimate income generated. Local herdsmen are employed to look after the boxes, and the team are also training local scientists so that they can continue to manage the project.

The project must be counted a success, with the future of the Saker more secure, income generated for a relatively impoverished area, and signs that this is proving a boost for eco-tourism which will also raise awareness of the benefits of conservation for local economies.

Concluding Session: Paul Irving

Paul Irving is the Chairman of the Yorkshire Dales Upland Bird Study Group, and chaired the final session (which was very abbreviated owing to above-mentioned speaker over-run).

There was further discussion about the level of persecution of Hen Harriers in particular, and inevitably many people feel frustrated that it is so difficult to do anything about it. It is also known that the birds are very vulnerable at their winter roosts, and it is important that the locations of these should not be carelessly divulged.

To conclude the proceedings, Bryan Barnacle, Chairman of the Derbyshire Ornithological Society, thanked the South Peak Raptor Study Group and the Peak District Raptor Monitoring Group for their efficient organisation of a very enjoyable and interesting day, and an excellent range of speakers. Thanks were also due to the four chairmen, Mick Taylor, Trevor Grimshaw, Roy Frost and Steve Davies, together with all the speakers and the sponsors.

Wendy Thomson
November, 2009