

# **Practical Wildcat Conservation in the Cairngorms National Park**

Tuesday 15<sup>th</sup> April,  
Aviemore Highland Resort, Aviemore



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**Conference Report**

## **Welcome**

Eric Baird, Cairngorms National Park Board welcomes all to the conference. This conference will be filmed at various points during the day, not the audience; this is just a record of the speakers. There will be a minute or two to ask questions for each speaker after their session, there will also be a broader discussion with the panel at the end of the morning.

**Dr Andrew Kitchener:  
National Museums of Scotland.**

### **'What is a Scottish Wildcat?'**

Dr Kitchener will talk about research that he has been involved in for 20 years now to identify the wildcat. Global distribution is throughout Africa other than tropical rainforests and dry areas, this is not natural and has been affected by humanisation however, and records show that there are cats as far as China. There are 3 different types of cat: the European wildcat – striped coat and bushy tail, African Wildcat which has a slender tail like a domestic cat and the Indian Desert Cat which has a spotted pattern instead. The wildcat has a long history and it is only through genetic study that we have worked out the origins of these wildcats. 2 million years ago cats were found in Europe. This has been discovered through genetic study and all originate from Iraq more than 100 thousand years ago. The domestic cat derived from the African wildcat. The European wildcat is evolutionary distinct and is not just a feral domestic cat. The wildcat had been in the UK for more than 6 thousand years before domestic cats arrived. The wildcat was first recorded 9 thousand years ago as they were able to re-colonise after the ice age. Domestic cats were discovered 3 thousand years ago in Orkney. There have been other British cats including the lion and lynx. A lynx skull was found from Roman times and they could have survived later than this. The wildcat was once found throughout mainland Britain and there is some fossil evidence from Bute, but through the loss of habitat and hunting it was lost from southern England early on and was really only found in Scotland with a small population in Wales. This coincided with sporting estates in Scotland. By the end of the 19<sup>th</sup> century the wildcat was not surviving. After the 1<sup>st</sup> world war not as many game keepers were around and forests started to re-grow again and the wildcat re-occupied much of central Scotland. The last comprehensive survey was carried out in the 1980's, when an index showed that the wildcat was more abundant in east rather than west Scotland. There are a number of problems that face wildcats today: habitat loss, continued human cause control e.g. roads, toxic chemicals and disease from domestic cats – with the major problem being hybridisation with domestic cats.

Hybridisation is a conservation issue and eventually we will lose the wildcat if the domestic cat takes over. In the mid 1990's there were 3.5 thousand wildcats in Scotland but this would have included hybrid animals. Based on a proportion of SNH study this would give estimate of 400 today – this is the most endangered cat after the lynx in Europe. Why bother? It is a predator so why would we want more? It is part of a 2 million year old lineage of a unique cat and the Scottish wildcat represents the most northerly population of cats in the world and is an important part of the natural and cultural heritage of Scotland. We do have legal obligations and the wildcat is a fully protected species in the UK and Europe. Wildcats have been unprotected in the past and we need to be able to enforce legal obligations. We need to know what we are trying to save. We have to take a comparative approach, what we think of as wildcats with known domestic cats along with hybrids. We can look at skulls, guts, markings and genetics.

Skulls are often used to distinguish a species as you can look at characters of the skull, take a complex series of measurements, and also look at the cranial volume. The shape of the nasal bones in a wildcat is of a smooth 's' shape, in domestic cat it is an 'm' shape. The junction between the 2 bones of the brain case is straight in domestic wavy in wildcat. There is a better

developed mandible bone in a wildcat. Experts take these measurements and carry out a scoring system. The perfect domestic cat score is of 5 whilst a wildcat perfect score is of 15. Hybrids will be somewhere in between. Hybrids tend to overlap with wildcats. Wildcats have not really changed over time. Large black cats in north of Scotland have been difficult to identify because they have black fur, so they have to be identified on the skulls. Another identification method is on the cranial volume, this is found by filling up the cavity with glass beads. Wildcats have larger brains than domestic, hybrids again are a mixture. Lots of skull measurements can be taken. In 1988 a study was carried out and they found that the skulls pre 1950 became more like domestic cats and post 1950 was more like wildcat. The length of the gut is significant as wildcats have much shorter guts than domestic cats. In 1990 a study carried out for SNH looking at differences within the wildcat population found that there were 2 groups; long legs and short guts, short legs and long guts. Both these groups of animals had similar markings and were difficult to distinguish.

There are a series of traditional characters to distinguish wildcat from domestic or feral. Wildcats tend to have a bushy tail with a blunt black tip and stripy pattern. Statistical analysis has been carried out which looked at 21 different characters and used the previously mentioned scoring system again. The perfect wildcat has a score of 63 with the domestic cat a score of 21. Over time we find that wildcat score is high whereas domestic cats are low, hybrids scan in between but with much less overlap. The good news is that from these scores the wildcats labelled as wildcats are correct. There is some slight overlap for hybrids. If there was extensive hybridisation you would have a random pattern but we don't get that.

With all these scores they found 4 main groups: wildcat / domestic / hybrid – similar to wild / hybrid similar to domestic. There are 7 key characters that distinguish wildcat from domestic cat. The wildcat shape of the stripes on back of neck (more wavy) 2 stripes on shoulders, tail should be bushy with a blunt black tip with distinct rings, stripes along lower back and stops at the tail. Also some other characteristics but they are of secondary importance. Another way to distinguish is from their genetics. There are genetic markers that can distinguish European from Asian and also Scottish from European. The Scottish wildcat has two thirds of domestic genes and this is not a good sign.

On the basis of the research to develop a conservation action plan a number of different things have arisen from this. Greater awareness and public education are required to ensure that the wildcat is listed as a priority, with sufficient habitat, responsible domestic cat ownership, and the need to control feral cats to prevent hybridisation. Most importantly is that we establish a captive breeding programme for the wildcat. There is a very high risk that the species might disappear. We have a very small population for the breeding programme and we will need to get more from the wild to establish the group.

Plans for now and the future are that firstly we need to establish the captive breeding programme so that we can restock areas. There is a need for a national survey, which is underway, national awareness and an education campaign, and the need to carry out more research on studies so that we can carry out better conservation with more research on predator control and look at hybridisation in more detail.

Q: What colour eyes do they have?

A: Green/yellow although this is not scored on dead cats because colouration goes.

Q Have you thought about colonisation of islands?

A: There is evidence that there are colonies on islands already however as there are domestic cats on islands this may be a problem.

Q: Why do wildcats hybridise? Is there a lack of mates?

A: Game keeper reported that the only time he had seen wildcats and domestic cats together was when a wildcat was eating domestic cat. As wildcat populations expand males stray further than females and this is why this might happen. Suspects that natural selection is

at work here. Animals which are more domesticated are surviving around humanisation and wildcats find it difficult to survive.

Q: With the updated identification procedures nowadays is there more of a legal standing?

A: Dr Kitchener has appeared at court and his identification never been challenged.

Q: Is there enough evidence to say that the Scottish wildcat is a separate species from the European?

A: No there isn't, as you go from west to east through Europe the stripes decrease. There is some suggestion that there may be markers that certain genes have survived. If possible look at archaeological material and fossils as well.

**Stewart Blair:**  
**Freelance Gamekeeper.**

### **'Working with Wildcats'**

Rather than working with wildcats, we should be working along side cats. The main question is will wildcats affect what I do and will they cost me money? There are four main income streams for land managers and rural estates: forestry, farming, tourism and wildlife.

Forestry: do wildcats affect the work of the forester? Yes. Is this positive? Yes, as they don't eat trees, but they eat the mammals that do eat trees. The presence of wildcats in a forest will be a great benefit to biodiversity.

Farming: we can't think of any damage to crops or live stock from wildcats although there have been tales of cats taking lambs but these are purely anecdotal.

Tourism: an ever increasing component throughout Scotland. The wildcat is a fantastic Highland icon.

Game and wildlife management: are cats seen as a negative? Yes. Break this down into are feral cats a problem? Then the answer is a definite yes. Are wildcats a problem? Then it is no. How can a population of 400 wildcats effect the overall population of other species? Removal of feral cats will be seen as a positive but a conflict will arise with a domestic missing cat, and usually a game keeper will be under suspicion however, roads, predation and old age will have an impact as well.

How is this problem solved? The speaker feels that cat ownership should be brought in line with dog ownership and if a cat has no collar it should be treated as a feral cat which could possibly be killed. The speaker also feels that all domestic cats should be neutered unless a breeders licence is obtained.

Shooting is used to control feral cats, but the golden rule is identifying the target first and with the use of new optics this should be relatively easily. Cage traps are used so that identification is possible alongside snaring and if carried out properly this will have no effect on wildcats.

Q: What is definition of too many?

A: There is no specific number; it is rather the number that will affect the work of game keepers.

Q: How easy is it to identify when lamping between wildcat and feral?

A: Optics and spotlights used are getting better and we need to trust the experience of the man on the ground. There is n formal training at the moment but hopefully there may be some passed on from this conference.

**Adrian Davis:**  
**Naiad Environmental Consultancy**

### **'The Scottish Wildcat Survey'**

The wildcat survey is a 3 year project, funded by SNH. The Scottish wildcat is the only native cat in the UK and has suffered a marked decline in the 19<sup>th</sup> Century due to deforestation and persecution. The last survey carried out was over 20 years ago. This survey was based on land management. This new survey aims to provide updated information on wildcat distribution so that conservation can be implemented effectively in the future.

There are quite a few changes since the original survey, with the increased information about skull characteristics and anatomical features available now. The scoring system that has been put into place also gives a benchmark to work from. We have come quite a long way with new learning experience and can see that wildcats are distributed fairly widely throughout the Highlands. From the southern tip of Argyll stretching up through Perthshire extending up to Stonehaven and extending north and upwards and east towards Huntly and Fraserburgh. There is a theory about wildcat population and islands, historically there have been no records from islands, but we do have records from Mull now so we are beginning to get a picture of wildcat distribution. The distribution figures are dependent on the observers and the survey is dependent on witnesses of wildcats in the field. Owing to the range of different experience we get differing qualities of information. There are some similarities between hybrids and wildcats and obviously dead cats play an important role in verifying what is found in the field. If we can get photographs and good strong evidence then these build up the knowledge base and as such become a tool to verify the nature of the cat. A better understanding of distribution of wild, feral and domestic cats is required.

The current survey was planned in several phases and currently they are still undertaking consultations, interviewing people and verifying records. Interviews tend to snowball. Distributions of questionnaires are now out in virtually the whole of Scotland so the message is out there now. Interviews are an ongoing process as there are many people on the ground including game keepers, general public and other witnesses. The next phase is the processing of questionnaires to form a distribution map and then a review and further research to be undertaken.

So where would you spot a wildcat? What is their preferred habitat? When out in the field look to forest edges and between uplands and lowland margins. Wildcats are extremely cautious of people and areas of low human population and domestic cat populations are low wildcat sightings will be more abundant.

The scoring system mentioned previously is used in the leaflets so that people can distinguish wildcats, however it can be quite difficult to record accurately because you only get a fleeting glimpse, these records are still important. Dead wildcats found on the roads are of some value and it is recommended that you report the incident and store in a freezer to be delivered onto the museum for future analysis.

The distribution map is still ongoing with over 100 reports of wild 'looking' cats, but we are all aware that it is difficult to notice the differences. This survey has included a wider public consultation than before and this has included the environmental issues affecting wildcat areas i.e. wind farms where trees have to be removed. Once we have the records these can be forwarded on to SNH.

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General Q&A Session at the end of the morning:

- Q: Is there a thought about reintroducing wildcats south of border?  
A: We need to see what the outcome of the survey is initially. We will have succeeded if it is no longer just a Scottish wildcat.  
Q: It is quite clear that feral cats are a problem, but what about these hybrid cats – do they pose a threat?  
A: It could be that natural selection is at force, so we can't tell at this time.

Discussion point: The general advice is if it is a striped tabby cat with a bushy tail you shouldn't kill it. All agreed it would be a good idea to look at an amnesty on accidentally killed wildcats which would encourage people to come forward to report incidents.

- Q: Of the dead cats submitted, are they looking at the health of these cats or just the identification?  
A: It is too early at this stage but there would be an opportunity to do that in the future.  
Q: Has there been any work done looking at landscape /cat names and could this assist with possible sightings?  
A: There was some work done on this previously and there are some records from those locations so they may be historical sites and still continue to be so.  
Q: The questioner has worked with people around the world on difficult to see species and two different methods were used - camera tracking and radio tracking – will we be doing something similar?  
A: We will be liaising with BBC for spring watch, and camera traps have already been set up but radio tracking has not been.  
Q: Is there any different behaviour between hybrids and wildcats?  
A: Wildcats will be seen further out of the domain of humans. Feral cats would tend to be seen closer to habitation. A fundamental element of a wildcat is the aggression and even wildcat kittens have been found to be extremely vicious.  
Q: Are you looking for historical records for the survey or the current distribution?  
A: Really looking for current sightings although have looked back for information over the past 10 years.  
Q: Is it an option for game keepers to keep a potentially illegal wildcat in the freezer?  
A: As previously mentioned, all agree that there should be an amnesty.  
Q: How thorough is the verification of sightings with a leaflet campaign?  
A: Interviews are being held with the witness on completion of the form. This has been ongoing since the survey started. Can be difficult with financial constraints to see everyone, but where possible people are visited.  
Q: Regarding territorial habits and identity, how high could the numbers get if this is carried out properly?  
A: The maximum density is 30 per 100 square kilometres. Survey is showing that if there are records close to each other it is difficult to know if it is the same or separate cats.  
Q: With regards to the captive breeding policy – would this lead to reintroduction?  
A: Yes possibly. But is there a habitat out there? Surrey!  
Q: Is the habitat more important than prey?  
A: When hare population was high there were definitely more wildcats.  
Q: Is there any conservation action on the continent that we can draw on?  
A: Yes there are captive breeding programmes, monitoring programmes and yes we should take time to learn the best practice and adapt for our own purposes.  
Q: Would lynx be reinstated as a benefit?  
A: We will be looking at this later on in the day.

**Dr Mike Daniels:  
John Muir Trust.**

### **'The Ecology of Wildcats – what we know'**

This talk is about work carried out 10 years ago for a PHD. Mike initially worked on contract with SNH collecting cats from across the country and looking at what a wildcat was. At that time the key issue was how to identify a wildcat. Over 300 samples were collected from across the country and they looked at the bones and skulls, genetics and body measurements. Came out with a map that showed where wildcats (defined as cats furthest from domestic cats) were most likely to be found. The Cairngorms came out as a really key area so a radio study was set up in the Angus Glens. The habitat was mixed heather moorland with a lot of rabbits. Historically rabbits only came to the Highlands 300 years ago so cats must have fed on something else prior to this.

There were a number of aims such as the need for increased understanding of wildcats, habitat use, activity patterns, what are they eating. Are cats with different coat colours behaving differently? What was damaging their conservation?

They caught 32 cats, took blood samples and photographs and then put radio collars on and let them go.

The study showed that adult male cats didn't overlap their territory with each other. Adult cats are territorial and live in a situation where they don't tolerate other animals of the same sex. Females didn't overlap with each other but the males would overlap on several females. Juvenile cats were tolerated with the all territories. The home range size was dependent on food and in Angus Glens it was about 500 square hectares per male with seasonal variations possibly due to feeding and mating. Juvenile cats had bigger territories. The cats favoured woodland, clear fells and streams and avoided heather moorland.

There is a perception that wildcats are nocturnal, however, the study showed that they were active during the day but peaked during the night with seasonal variations showing that they were more active during spring and summer.

The study looked at prey remains and droppings, and these showed a high percentage of rabbits and small mammals. The impression you get is that they are not unlike foxes, although cats are much more opportunistic predators. The key question at the time was how do stripy cat compare with other cats? In general terms there wasn't really much difference.

In terms of threats, a 1/3 of the cats were shot or snared. Disease is also a potential threat from domestic cats although no information to show how disease passes between the different cat types and what the effect is. The third big threat is interbreeding, breeding with domestic cats. There has been interbreeding for a long time but we need to minimise this for the future.

Q: Did you radio track everything you caught or were some close to domestic?

A: Radio tracked everything regardless of appearance.

Q: Did you classify them?

A: Afterwards yes on basis of pelage, skulls and bones (for those killed) and genetics. No - the majority of the stripy cats fitted the 'classic' wildcat pelage but for all other characteristics measured there was no clear distinction.

Q: Did you find anything on breeding productivity?

A: This study was only on a small sample of 30 animals, radio tracking came across a couple of litters. Wildcats tend to be more seasonal breeders but have similar size litters to domestic cats.

Q: Was there any dispersal of litters?

- A: Some radio tracked cats disappeared off the area and the juveniles certainly disappeared, at the time they tried to follow them but this was not always possible.
- Q: In your opinion what was the biggest cause of death?
- A: 29% were killed – shot and snared, 71% still alive. The agreement at the time was for game keeping activity to carry on as normal and game keepers helped by giving radio collars back if they were killed.
- Q: What was the tolerance of males to other males, any indication of tolerating domestic or feral cats?
- A: Any information was only based on radio tracking, so they couldn't say anything for sure. One of the key issues is the definition of feral ('living independent of man'). The researchers concluded that regardless of appearance cats living in the Angus Glens were either domestic (belonging to someone) or wild.
- Q: Were the ones returned from gamekeepers more domestic looking?
- A: Numbers were too small to say, at night in a spotlight it would be too difficult to see.

**Peter Cairns:  
Tooth & Claw.**

### **'The wildcat as an icon'**

The wildcat as an icon; what does this mean? Icon means, an important and enduring symbol, one who is the object of great attention and devotion. The wildcat has remained an enduring symbol like the eagle and the cat is used, where convenient, as a commercial symbol. This icon has been ignored in contemporary culture. Its existence is under threat. Short film showing interviews with the public and what they think a wildcat is. It seems that generally speaking we know very little about the wildcat. UK's domestic cat population is estimated at around 9 million. For most people contact with any form of wildlife is becoming less likely. Why is it that the wildcat has been largely ignored? SNH state that very few people have seen a wildcat so they don't relate to them. Through the tooth & claw project many people were interviewed and the common thread was that if any species has no relevance or benefit to you then it is difficult to care about it. The wildcat has also found itself in no mans land for conservation issues. Badgers, red squirrels etc have got their own charity, the wildcat has not. How do we communicate the plight of the wildcat? How do we avoid indifference in the future? How do we make this animal and icon? This is not a quick or easy task, and as a start this is not an issue about wildcats but of people. We need to talk to lots of people about wildcats. We must avoid scientific and conservation 'speak'.

From a pole of 27 thousand citizens, only 35% of them knew what bio diversity meant. In addition to the practical measures being spoken about today we need to work to increase the awareness of the wildcat. There is a mixture of people here today, it is not political, and this is a perfect opportunity to have different organisations and individuals working together.

- Q: Do you think it is worth trying to prove the Scottish wildcat as a separate sub species and therefore separated from the European species?
- A: There are two different audiences, people such as in this room and then there are the general public, this will require innovation and imagination. People are not that worried about the genetic diversity.

**Jane Harley:  
Strathspey Veterinary Centre.**

### **'Responsible Cat Ownership'**

Jane works in general practice and so works with all animals and animal owners. There is a responsibility as a pet owner, in that you are responsible for your animal. However, we live in a society and have a responsibility to other people as well. We also have a responsibility to the environment and the wildlife. Why do people put cats out at night but not the dogs for example – what is the difference? The Animal Welfare Act in 2006 placed the obligation of cat ownership more onto the owner, now you have to provide proper welfare care for your animal.

The domestic cat owner's responsibility to the wildcat is to minimise the threat of hybridisation and disease. This can be achieved by neutering. Neutering reduces the interbreeding and the number of potential cats. Breeders of pedigree cats are not the issue here as they would want to be breeding with other pedigrees. Cats are very productive breeders reaching sexual maturity at about 5 months and can produce up to 5 or 6 kittens in a litter. Females can have 3 litters a year.

Most cat owners will neuter their cat, but is this because of the advantages to the owner? For example neutering stops unwanted kittens, female calling and spraying/marketing territory in males. Males can be aggressive if not neutered and there are fights and associated wounds which can result in a higher risk of disease. Cat Protection offer assistance for neutering for domestic cats and also carry out trapping and neutering feral colonies. It is estimated that there are 2.5 million stray cats in the UK.

Responsible pet owners should have their cats vaccinated against diseases. Jane listed several diseases, Feline Leukaemia Virus, Feline Infectious Enteritis, Cat Flue Complex, Chlamydia – all of these can be vaccinated against. Feline Infection Anaemia, Feline Immunodeficiency Virus and Feline Infectious Peritonitis have no vaccine and can not be treated.

Cats have overtaken dogs as the UK's favourite pet however; cat owners take their pet to the vet less than dogs. Last year the vet surgery held an amnesty on vaccinations, only 25% of pets brought in were cats.

A dog in a public place should have a collar with a tag on. There is no legal requirement for this in cats. Collars can cause nasty injuries in cats, but there are some quick release collars that can be used.

Q: Have you seen any scientific papers, of these diseases in wildcat kittens?

A: No.

Q: Should the policy be that we blood test when cats are caught? And are there more diseases in domestic cats now?

A: Yes there are more diseases around and no it is not policy to blood test as routine.

Q: Is a vaccinated cat capable of passing on the disease?

A: No.

Q: If a cat came in with a disease would you still vaccinate?

A: No.

Q: If a feral cat is brought in for neutering is there a procedure to check that they are wild?

A: Jane would refer them to an expert.

Q: When should cats be neutered?

A: Should be about 5-6 months. Can be early neutered if they are feral and they have been caught and are due for release. Feral is usually about 12 weeks.

Q: Should there be a neuter and release policy or should there be a euthanasia policy?

A: This is open for discussion as there are no set guidelines as yet.

Q: We talk about releasing feral cats back into the wild – does legislation say that we shouldn't be releasing non indigenous cats back?

A: Again this is open for discussion however; the police would not prosecute as the animal had been trapped in the wild.

Q: How many feral cats are neutered and put back?

A: About 10 years ago there were many in the Badenoch & Strathspey area however, Cats Protection has been so effective that most are now neutered. The vet's surgery doesn't neuter nearly as many these days.

Conclusion is that domestic cat owners are going to have to be part of the solution.

**Dr Mairi Cole:  
Scottish Natural Heritage.**

### **'Developing a trial for feral cat management in the Cairngorms National Park'**

SNH have commissioned a study to look at a scientifically based trial for feral cat management. It is currently a desk-based exercise which is designed to be scientifically statistically robust. It does, however, need an injection of pragmatism if it's to work in the field.. SNH support control of feral cats to underpin wildcat conservation but have learnt a lesson with hedgehog culling on the Uists that this needs to be open and collaborative.

There are many reasons why the wildcat population is under threat and these have been discussed at length earlier in the day. To investigate the benefits of feral cat control for wildcat, SNH are proposing a scientific study including three 'treatments': lethal cat control, non lethal control and non-intervention (the experimental equivalent to 'doing nothing'). Methods of lethal control which are currently available include trapping and culling, shooting, poisoning, biological control and fertility control. Non lethal controls include trapping and removal, trap-neuter-release, trap-test-vaccinate-alter-return-monitor, fertility control, exclusion fencing, cat licensing and increased public awareness.

It is proposed that the trial should be run over a 3 year period as this gives time to get sufficient data. It is also suggested that control should be carried out between August and February only but further consideration needs to be given to this to avoid conflict with other management issues.

The design of the trial is to have treatment triplets, one area using lethal control, one using non-lethal methods and the other with no control at all. Ranges would be circular and would contain a core area, which was kept discrete from other areas, an inner buffer, which would also be discrete but may vary in size depending on the landscape contours, etc, and outer buffer which may overlap with adjacent areas. Areas would be, on average, 72-81km<sup>2</sup>. Areas have to have similar habitats where possible so that this minimises any variability from the start. The core area is based on the home range for feral cats and would be suitable for 10 cats (5 males). There should be 1.5 miles between triplets with 10-13 replicates of each triplet for statistical robustness. The location of this trial has to be in suitable wildcat territory with a mixture of woodland and pasture. There have already been some areas set as potential sites however, we do not have enough space within the CNP and so we may have to enlist the assistance of outside areas.

The treatment triplets are split into the following sections:

Treatment 1 – lethal control. The size of the area assumes that 50-65% of the local feral cat population is killed. In order to be statistically robust, the area may have to increase if this figure isn't achieved.. It is recommended that shooting be conducted during the day only in order to avoid the difficulties of identifying wildcats at night. It is also recommended that a shot to the heart or chemical euthanasia be used so that the skulls can be used at a later date. Steps would need to be taken to make sure trapped animals were domestic pets and lactating females would need to be released if the young weren't found. There should be a huge public awareness campaign in the area prior to the trial beginning to ensure adjacent cat owners were aware/on board.

Treatment 2 – non lethal control. This is based on 75-80% of feral cats in the area being trapped and sterilised. The same caveat about the area over which this should be done would apply if this figure was not achieved. The method would include trapping, neutering, sterilising and returning feral cats to their ranges and would go hand-in-hand with monitoring.

Treatment 3 – non intervention. No control done in this area, and populations would be monitored with liaison/awareness raising to ensure the public did not feed cats in the area.

Feral cat density would be monitored in the area, prior to and during the control period. Information on this could be obtained both through live trap returns and road kill numbers. It is also important to monitor the prey species such as rabbits and small mammals. It is always assumed that taking out the feral cats will improve the wildcat numbers, but is this the case? This is why we need to carry out a long study of data produced. All dead animals would be passed to Dr Kitchener for morphological assessments and the zoo have also requested samples to monitor the prevalence of disease. The genetics test that is available is still in its infancy but samples could also be stored for use later on.

There are already estates who wish to be part of the study but we need to assess the impact on estate activities and then to review the options from there. It has been suggested that there is such limited information to start with that we carry out a pilot project initially to see if the full study will work. This would give information on whether we need to modify it before rolling out a bigger, more statistically robust, trial. A policy needs to be agreed regarding hybrid cats, such as what to do if they are spotted or caught. Training would be required to ensure the same standard of work across the board, giving keys on how to spot and identify wildcats and trapping methods. A management structure needs to be established for the trial which would need representation and assistance from all estates, organisations, individuals and agencies working to an integrated strategy. PR will be required to get people on board including, in particular the general public and media who may be critical of some aspects of the project.

It should be noted that is all in the very early stages and SNH are happy to modify aspects of the trial as necessary to ensure it is workable and benefits wildcat.

- Q: It was recommended that SNH carry out monitoring of prey species at the same time as running the trial and also monitoring of ground nesting birds.
- Q: What are we going to do about the hybrids? Surely they could be culled at the same time?
- A: Some of the hybrids are closer to wildcats than the others. The initial approach would focus on the identification, as set out by Kitchener *et al* but this may evolve with experience. Hybrids provide both wildcat and feral cat genes and, if you leave them you are leaving the wildcat as well as the potential to dilute this with feral genes. There is no definitive answer at this stage.
- Q: Some feral cats are of benefit, especially around farms the questioner thinks we need to watch for a potential problem.
- A: Agreed, we need to identify the areas for study correctly. Feral cats will be a greater threat to wildcat than others.
- Q: Given that we are talking about a politically endangered species is there is not an argument for doing something less robust at this time?
- A: Yes there is an option to carry out the study in half of the areas but the benefits of this to wildcat need to be clarified. To be discussed in the workshop this afternoon.
- Q: Looking at other schemes e.g. hedgehogs and badgers, what it has come down to is the unit cost per animal and it is fundamental to know what it is going to cost?
- A: There was a price label that came with the report, but this is not the issue. The primary importance is whether the action will benefit wildcat. The estimated cost was around £350,000 over 3 years – this is not a huge cost for saving an endangered species.
- Q: Are we not going into science for science sake, this has happened with capercaillie and hedgehogs, with the experiment showing what was already known.
- A: Feral cat control is being carried out now but we are still watching the decline of the species. What we need to clarify is what action is necessary to save the species. This is the purpose of the trial.
- Q: How many pure wildcats are there? How many are breeding together? How much disease is around in wildcats now? How many wildcat litters are there?

Q: Is this experiment definitely going ahead? How set in stone is it?

A: This is purely a desk based exercise and if there is a good enough reason not to go ahead then it won't. However, we want to be sure that whatever is set in it's place is justified and beneficial for the wildcat.

Q: What is happening beyond this event?

A: Will be answered after workshop

## **WORKSHOPS:**

### **Session A – Innovative ideas for education and awareness-raising.**

#### Key Points:

- Public are disconnected from nature so we need to tackle this and get them connected, the wildcat provides an opportunity to do this.
- Must capitalise on the cultural connection with the wildcat, e.g. perhaps the 'Celtic tiger'.
- Could capitalise on the invigorated Scottish Nationalism. The wildcat isn't purely Scottish, but there are opportunities to promote the "Scottish Wildcat" as an icon.
- Wildcat trail at Newtonmore, in 2009 there is an arts project planned which reminds people of the importance of the wildcat, including models of wildcats on the trail.
- Should we concentrate on CNP or UK as a whole? Both.
- In 2010 we could hold a CNP wildcat carnival/festival.
- We must tap into the corporate sector i.e. Tesco as they may be interested in some way of helping out. If Whiskers put 1p on every tin of cat food this would raise £28 million.
- 9 million cat owners need to be reached. TV is a possibility such as a Wildlife on One programme on the wildcat which received 14 million viewers a couple of years ago.
- Target different levels, not just the general public. E.g. Produce a card that game keepers have to accurately identify wildcats.
- We need very strong leadership. Mike Russell the environment minister has pledged strong support of the trial so we must build on that.

Conclusion: At the moment the public know more about dinosaurs than wild cats so any raising of awareness is a good thing.

Further discussion: VisitScotland are planning the 'Year of the Homecoming' which is being actively promoted with the clans in the USA. There is the potential for wildcat issues to be incorporated. CNPA logo is osprey, could the wildcat be incorporated?

### **Session B – The practicalities of game keeping with wild and domestic cats.**

#### Key Points:

- Need an approach to feral and domestic cats.
- There is a strong feeling that cat owners should take more responsibility.
- Produce a code of conduct i.e. wearing collars, keeping cats in at night.
- Educate people better on looking after cats and target relevant areas.
- Define zones where wildcats exist.
- We need people to understand that straying cats may be liable to control.
- There may be areas where people should be told that they can't keep cats.
- Unrealistic to have a UK wide cat ownership policy.
- The PR strategy should be carefully thought out.
- The code of conduct, should work to protect people shooting cats as well as owners.
- Need to increase the level of public support for people shooting cats – great opportunity for game keepers to promote a positive message to the general public. SGA and the SNH should be involved in this.
- A broad partnership approach is required when dealing with media.
- The amnesty idea is broadly positive and would increase scientific understanding
- There needs to be higher levels of legislation for cat ownership.

- We need to produce a card for gamekeepers with the 7 identification of wildcats points.

### **Session C – Responsible cat ownership: tackling disease and hybridisation.**

#### Key Points:

- We need to know what a wildcat is and differentiate between them and feral cats.
- Neutering – reduce rapid productivity of domestic and feral cats.
- Identify cats living in the wild, whether feral or wild. Ear clipping would be acceptable.
- Collars, there are the breakaway type if cat gets stuck. However, they come off too easily. Further development required on collars to make them safe for cats and less likely to come off. Fluorescent collars help gamekeepers to identify at night. Many forms of marking i.e. a tattoo are not going to be seen by gamekeepers.
- How to market responsible cat ownership – we could instil responsible ownership in CNP that might spread wider than the park. We need to consider the confusion of asking people to care for cats on one hand and then on the other to kill them in other situations.
- Cats on farms; there can be lots of feral cats, they do hang close to farms, but then again wildcats do encounter feral cats near farms.
- Cat owners, don't understand neutering – what are the benefits and little disadvantages?
- Vaccination only works if you keep a cat in captivity for 3 weeks, not easy or practical to keep a feral cat for that length of time. Vaccination needs to be done on an annual basis so recapturing cats is not a workable solution.
- There are tests that can be taken which would mean not putting feral cats back in wild if testing positive for disease.
- Removal of feral cats creates areas with no dominant males which may be filled up again with other feral cats. We would have to have a scaled removal.
- Cats are being dumped in areas. Could be good work done and then find that cats are dropped off, some experience of this within the park at the moment. Awareness campaign that reaches beyond park is required.
- More surveillance of disease is required but who will fund this?
- Can we carry out a national survey e.g. road casualties?
- More research needed. There are a lot of studies based on work previously done, but we need more up to date information – how do we pay for that? Encourage universities to take part.
- Do we do more research before we carry out action? The amount of information we don't have or we need is a daunting task.
- Need to raise awareness – use tools such as BBC spring watch.
- Cat registration – encourage all responsible cat owners to register – many people wouldn't register – worth considering providing incentives for registration.
- How much time do we have to develop a programme of responsible cat ownership?
- Could we introduce bylaws in the CNP in relation to the cat ownership – difficult to police and can be unpopular.
- PR will be the key area
- Don't have all the answers, didn't have enough time to discuss all of the issues.
- It is important that game keepers, farmers and cat owners build up partnerships.
- Other issues that may not have been addressed: habitat loss, wind farms, new housing etc.

Conclusion: probably more questions than answers, a lot more work has to be done.

Q: Do fluorescent collars only last 3 days?

A: No it is the ones with the quick release which although a good method they can be lost within 3 days.

### **Session D – Practicalities of a conservation trial.**

Key Points:

- Do we do a trial or don't we? Do we do it scientifically or not? What do we need if we go ahead with a trial? What are the elements of it? What do people want to get out of it?
- There is no money attached at the moment. There is the potential to get funding.
- We need to draw a line between what is a feral cat and what is a wildcat? It would have to be standard that the 7 point scale is used.
- If the core area was stricter we could apply the 7 point rules.
- Standardisation of training will be essential and a common set of standards used by everyone.
- If you could wipe out every feral cat in the area then wouldn't this solve the problem?
- Responsible cat ownership is essential as we need to stem the supply of feral cats.
- The public will not be on board if every feral cat is going to be killed.
- Small meetings from the beginning of the process are a good idea as people then feel like they are more involved.
- The trial is designed to find out the impact of the feral cat on the wildcat, it is assumed that it is a negative impact – this may not be the case. However, do we have the luxury of a 3 year research project?
- What would be good to see is that the captive breeding process runs alongside. The potential of the wildcat population increasing is good as long as they are not competing with the feral cats.
- We don't understand the dynamics of hybridisation, is the gene pool being diluted by feral cats?
- You can't use genetic testing in the field. Is this a reason for not shooting anything that is striped with a bushy tail?
- Proper education programme with the general public might mean that culling would be accepted. 77 thousand cats are shot every year by game/sport shooters, the trial will actually kill less cats in the long run.
- How do you ensure compliance? There is going to have to be a lot of trust.
- What is the alternative to this trial? If SNH are involved this is a publicly funded operation so a proper scientific study is going to have to be carried out.
- The other option is a pilot study, look at the practicality of controlling things and see if it works then roll it out further.
- We know that feral cats are being controlled now but the wildcats are still declining so is this trial going to show anything different?
- It may be that the feral cats are spreading disease, perhaps we capture all the 400 wildcats and vaccinate them all; however is it legal or desirable to vaccinate a wild animal?
- If trial goes ahead we would have to take into consideration other species and we should monitor anything that could be affected i.e. foxes, pine martins, raptors.
- Perhaps we should link this project/trial with other wildlife projects rather than having species specific groups.

Conclusion: The general feeling is that there is a reason for doing a study but not on the magnitude currently proposed. We need to start small with a pilot project and with a good PR strategy. The Cairngorms can only support 6 triplicates and therefore we will not get full scientific figures, so a lot of this will rely on how easy it is to recruit other areas onto the trial. The trial must not become a 'talking shop' and must carry out positive action.

### **Summary of conference and closing remarks:**

Eric Baird recognised that there wasn't enough time in workshops however; these have given the steering group ideas which will be taken forward.

The conference has been a success with people coming together from different disciplines and backgrounds with different points of view and this is really important. What happens next? The material generated today will be circulated to everyone attending. This will also be used by the steering group to make an informed wildcat strategy. A lot of what has been discussed today will also inform other strategic initiatives such as Land Management Contracts, Habitat Networks and Cairngorms Forest Framework, because habitat loss was a key underlying concern.

Eric gave his thanks to speakers from this morning, thanks to the organisers and finally thanks from Eric to the conference delegates for attending.