

Scottish Wildcat Conservation Action Plan



Scottish Natural Heritage
Dualchas Nàdair na h-Alba

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Foreword

The Scottish wildcat is one of Europe's most elusive and endangered mammals. Often referred to as the Tiger of the Highlands, it is one animal whose image we recognise instantly. Striking, handsome and powerful, it is the very essence of a wild predator living by stealth and strength. That wildcats these days are rarely seen by the most experienced of naturalists says as much about their scarcity as their hidden ways of hunting.

We have come to the stage where urgent action is needed to save Scotland's remaining wildcats. Building on a strong partnership keen to make a difference, we shall take three steps. First, we shall identify five areas where wildcats are to be conserved. Second, in each of these we shall promote ways to reduce risks from feral cats and encourage management practices that benefit wildcats. Third, we shall embark on a ground-breaking conservation programme involving captive breeding, molecular ecological research and monitoring.

We have given ourselves just six years to halt the decline. This is one of the most ambitious conservation plans ever produced in Scotland, and the Scottish Wildcat Conservation Action Group will need every encouragement to succeed. In coordinating the plan, Scottish Natural Heritage will work closely with the government and its agencies as well as a wide range of organisations, land managers and indeed householders.

We are at a defining moment for the Scottish wildcat. We have a real opportunity to turnaround its fortunes. And who knows – this may give us some more heart-stopping moments, as we snatch a glimpse, followed by a gasp, "I've just seen a wildcat!" Now, that really would be something special.

**Paul Wheelhouse MSP
Minister for Environment and Climate Change
September 2013**



Introduction

The Scottish wildcat population is in decline and under threat, principally through hybridisation with the domestic cat. There is broad agreement that we urgently need a national plan of conservation actions to reverse the decline. The action plan that follows has been agreed by the main organisations and individuals involved in wildcat conservation, research and land management. It covers six years (2013-2019) and will be updated periodically. This plan is the foundation of a longer term vision to restore viable populations of Scottish wildcat north of the Highland boundary fault line.

Aim: Within six years to have implemented conservation action to halt the decline of the Scottish wildcat.

The plan identifies and co-ordinates national priorities for action; builds consensus around the work; improves clarity on responsibilities and funding priorities.

We make the assumption that populations of wildcats are present and can be identified by their appearance and their body size and shape. Second that we are seeking to protect a distinct group of cats that look like wildcats, but may not all be genetically pure wildcats. Our approach will be refined in light of new knowledge.

This Conservation Action Plan is co-ordinated by Scottish Natural Heritage and is owned by the Scottish Wildcat Conservation Action Group (SWCAG). The plan has been developed in consultation with other experts involved in wildcat conservation.

Summary of work

- 1 Identify at least five priority geographical areas for conserving wildcats**
 - Survey and local liaison
- 2 Take forward conservation work in these areas**
 - Reduce the risks from feral cats and hybrids
 - Reduce harm from predator control and other land management activities
 - Promote responsible domestic cat ownership
 - Promote land management that will benefit wildcats
- 3 Take forward work to underpin a wider conservation programme**
 - Develop a captive breeding programme
 - Carry out research to improve our understanding of hybridisation
 - Develop methods for reporting and monitoring of wildcats
 - Provide clear information to support conservation actions
 - Ensure adequate protection of wildcats from development and land use change

By 2019 we aim to achieve the following:

1. Secured at least five stable populations of Scottish wildcat in the wild¹.
2. Have a better understanding of wildcat distribution, numbers, genetics and the extent of hybridisation.
3. Greater local awareness of the threats posed by domestic cats, feral cats and hybrids to wildcats and of the features that distinguish them.



4. Responsible domestic cat ownership will have been widely adopted in priority areas and promoted throughout the Highlands.
5. Reduced the risk of accidental persecution of wildcats.
6. A better understanding of factors that affect wildcat numbers and how land management can benefit population viability.

Next steps

Additional resources are needed to support this work. Local plans will be needed to support actions in priority areas and it is anticipated that additional project staff will be required to take this work forward. The SWCAG is currently drawing up funding plans. Detailed costings will be calculated during the remainder of the development phase of the project.

Actions in the Conservation Action Plan are flagged as project development or project delivery phases, with the development phase involving preparatory work to underpin the delivery phase. Delivery actions will not start until additional funding is available.

Development phase: September 2013 – September 2014

Delivery phase: September 2014 – 2019

Given the urgency, the SWCAG wants to take early action. This includes:

- Carrying out further surveys to establish what are the priority geographical areas for wildcats in order to target subsequent actions.
- Finding out more about the genetic make-up of existing populations; the extent of hybridisation; the current threats from feral cat and hybrid populations.
- Developing protocols for the management of feral cats and hybrids in priority areas.
- Establishing the status of the existing captive wildcat population and what would be required to set up a comprehensive captive breeding programme.
- Providing guidance to avoid forestry operations and development having adverse impacts on wildcats.

The delivery phase will concentrate on taking forward the conservation measures in the priority areas, captive breeding and supporting further underpinning research into wildcat behaviour and ecology.

What is the Scottish wildcat?

The Scottish wildcat *Felis silvestris*, is the only remaining native member of the cat family in Britain. It shares a history with the European wildcat which is present in all but the more northern parts of Europe.

Domestic cats originate from African wildcats, a separate sub-species. The problem of domestic cats hybridising with wildcats has been recognised for a long time. Our earliest wildcat specimens are from the early 1800s by which time domestic cats had been in Britain for around 2000-3000 years.

Our current understanding of taxonomy is the result of around 30 years of research. This work has involved examination of a range of features with a view to identifying distinguishing characters; body size and shape, coat markings or 'pelage' characteristics, environmental factors and genetics.

The findings suggest that there is a range for many of these characteristics from domestic cats through to wildcats in the cats currently living in the wild in Scotland. However, at one end of the range there is a group of cats that are distinct from domestic cats. These cats have the typical wildcat appearance and are also those most genetically distinct from domestic cats.

Hence, a definition based on a wildcat's appearance has been broadly recognised, with the 'relaxed' definition including all potential wildcats, but also some hybrids and a 'stricter' definition including only the much smaller set of animals that appear to be wildcat on all characteristics.

The definitions used for different purposes may vary. For example, a relaxed definition is a precautionary approach that is appropriate for gamekeepers and volunteers that are neutering feral cats. Hence we will consider it to be a wildcat in the wild if it is

- a striped tabby cat
- with thick ringed blunt black tipped tail
- it has no stripe down the middle of the tail.

Whereas a stricter definition backed up by genetic testing is likely to be more appropriate for a captive breeding programme.

However, detailed work on wildcat genetics is underway and the current approaches will be reviewed in light of new information.

¹ Measured by the implementation of actions and against populations trends where possible to establish.

What do we know about the current wildcat status?

Wildcats are notoriously difficult to see and to distinguish reliably from hybrids in the field. Hence there are few verified records and consequently our knowledge of their current status is patchy. Surveys in the late 1980s and 2000s established their contemporary distribution as being north of the Highland boundary fault line.

There has been much recent debate over numbers with several estimates being quoted. However, there are currently no reliable population estimates for the number of wildcats in Scotland.

Recent work has used trail cameras to look for wildcats. Photographs can then be scored against the pelage key. Records of cats with wildcat markings continue to be collected, but they appear to be very rare. Surveys for wildcats using genetic testing of scats (droppings) or hair samples are also being trialled.

One of the early actions in the plan will be to gather more information on current populations as the basis for identifying priority geographical areas and to improve our understanding of their current status.

At the same time a captive breeding programme is proposed as a 'safety net' in parallel to measures on the ground and to offer future opportunities for reintroductions.

Records of probable wildcat sightings from 2006-2008 survey

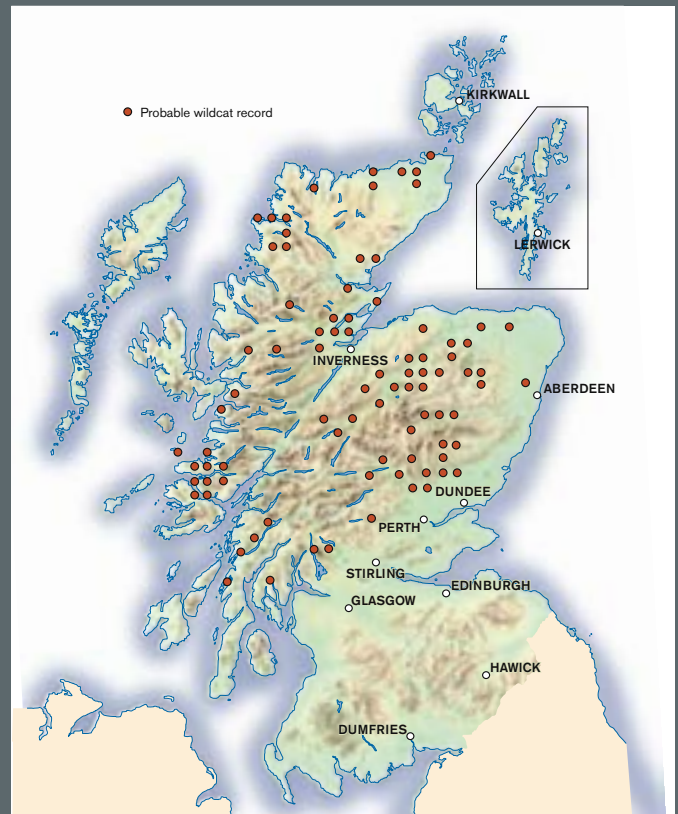


Table of actions 2013-2018

1 Identify at least five priority geographical areas for conserving wildcats

Projects		Actions		Lead	Who else needs to be involved	Priority	Phase*
Survey and local liaison	1.1 Identify at least five geographic areas for conserving wildcats.	1.1	Carry out surveys to establish the status of contemporary populations of wildcats, feral cats and hybrids using appropriate techniques.	SNH	WildCRU, RZSS, NMS, CNPA, LLTNPA, HFW, CU, SGA, land managers, FCS and volunteers.	H	D
		1.2	Identify priority areas for wildcat conservation based on survey results. Priority areas should take account of all cat populations, population viability and defendability.			H	D

2 Take forward conservation work in these areas

Projects		Actions		Lead	Who else needs to be involved	Priority	Phase
Land management actions for wildcats	2.1 Promote wildcat-friendly predator control.	2.1.1	Agree a wildcat-friendly protocol including an identification key and the use of cage traps.	CNPA	Steering group.	H	D
		2.1.2	Ensure the wildcat-friendly protocol is incorporated in relevant training/ liaison with keepers/ rangers in priority areas.	SGA	SNH, CNPA, BASC, GWCT, SCA. Gamekeeper colleges.	H	PD
		2.1.3	Work with estates and provide resources to promote the protocol in priority areas – e.g. identification cards and cage traps.	SNH	CNPA, SL&E, SGA, BASC, GWCT, SCA.	M	PD
		2.1.4	Work with estates to collate information on feral cats trapped; pelage and disease.	SNH	CNPA, SL&E, SGA, BASC, GWCT, SCA.	H	PD
	2.2 Promote wildcat-friendly management on estates, farms and crofts.	2.2.1	Avoid creating artificial food sources for feral cats. Including: – proper storage of foodstuffs – advice on mice and rat control and avoiding secondary poisoning.	NFUS	SL&E, SGA, SASA.	H	PD
		2.2.2	Highlight the risks of toxoplasmosis to livestock from feral cats.	NFUS	SL&E, vets.	L	PD
		2.2.3	Produce guidance on land management that will benefit wildcats.	NFUS	SL&E, SGA, SNH, FCS.	L	PD
	2.3 Promote wildcat-friendly forestry practice.	2.3.1	Revise and promote FCS guidance on forestry operations and wildcats (including habitat management for wildcats).	FCS	SNH, Confor.	M	PD
		2.3.2	Carry out trials of a limited range of habitat management measures on the National Forest Estate, e.g. assess the benefits of extended fallow periods on restock sites, creation of brash piles and artificial den sites.	FES	HFW.	L	PD

* D = Development phase, PD = Plan delivery phase

Projects		Actions		Lead	Who else needs to be involved	Priority	Phase	
Responsible cat ownership and management of feral domestic cats	2.4	Promote a co-ordinated approach to Trap-Neuter (vaccinate) and Release (TNR) of feral cats in priority areas.	2.4.1	Produce a protocol for an effective TNR programme. Operating guidance and contacts.	SNH	CP, FAB, SSPCA, vets, RDSV.	H	D
			2.4.2	Promote reporting of feral cats to Cats Protection or local vets by farmers and crofters.	CP	NFUS, SL&E, SGA, vets.	H	PD
			2.4.3	Support local volunteer groups to carry out TNR.	SNH	CP, CNPA, vets.	H	PD
	2.5	Promote the responsibilities that go with domestic cat ownership to communities in priority areas. Including considering not keeping cats in these areas.	2.5.1	Targeted public awareness within priority areas (cat health and neutering).	CP	SNH, CNPA, Vets.	H	PD
Monitoring of wildcat populations	2.6	Monitoring of population trends in priority areas.	2.6.1	Develop and implement monitoring protocols to inform approaches in priority areas.	SNH	RZSS, WildCRU, NMS, SGA, land managers, FCS, HFW, volunteers and CU.	M	PD

3 Take forward work to underpin a wider conservation programme

Projects		Actions		Lead	Who else needs to be involved	Priority	Phase	
Ex situ measures – (recognising that these actions are just the start of a long-term programme).	3.1	Develop a captive breeding programme for wildcats with a view to reinforcing populations in the wild in the future. N.B. this will require that the risks to wildcats have first been addressed in potential release locations.	3.1.1	Assess the genetic status of the current captive population.	CU, TAF	RZSS, NMS.	H	D
			3.1.2	Acquire more wildcats of known genetic status to increase the diversity of the captive population.	RZSS, TAF	SNH, CU, NMS.	H	PD
			3.1.3	Update the existing wildcat husbandry manual and disseminate to all holders. Standards will be a condition of participation in the captive breeding programme.	RZSS, TAF	All captive holders, NMS	M	PD
			3.1.4	Captive breeding	Holders	Participating holders.	H	PD
	3.2	Scope population reinforcement or re-introductions (to take place if required after current plan timescales)	3.2.1	Scope the potential for and requirements of reinforcement/ re-introductions following IUCN guidelines and the Scottish Best Practice Code on Species Translocations and associated guidelines.	RZSS	SNH, SL&E, NMS, NSRF.	M	PD
			3.2.2	Examine what lessons can be learned from other wildcat/ small carnivore re-introduction projects.	RZSS, WildCRU	SNH, NMS.	M	PD
			3.2.3	Carry out a trial release of captive cats to assess their ability to adapt to a wild-living situation.	RZSS, WildCRU	SNH, NMS.	L	PD

Projects		Actions		Lead	Who else needs to be involved	Priority	Phase
Technical/scientific oversight	3.3 Improve our knowledge of wildcat genetics and taxonomy.	3.3.1 Assess the correlation between genetic markers and other diagnostic characteristics.	SNH	NMS, RZSS, CU.	H	D	
		3.3.2 Assess levels of hybridisation and disease in wild populations.	SNH	CU, RZSS, NMS, WildCRU, RDSV.	H	D	
		3.3.3 Assess the genetic diversity of wild populations. Compare between regions and with European populations.	SNH	CU, RZSS, NMS, WildCRU.	M	D	
	3.4 Improve our understanding of wildcat ecology and behaviour as affects their conservation.	3.4.1 Improving our understanding of where and why hybridisation occurs.	SNH	NMS, RZSS Research Institutions and individuals.	H	D	
		3.4.2 Assess the factors affecting wildcat population viability: recruitment and mortality.	SNH	Research Institutions and individuals.	H	PD	
		3.4.3 Assess species interactions and competition for den sites.	HFW	Research Institutions and individuals.	L	PD	
Screening, monitoring and archive of specimens	3.5 Standardise wildcat records	3.5.1 Agree standards for wildcat records / criteria for NBN records.	SNH	RZSS, CNPA, NMS, HBRG.	L	PD	
	3.6 Develop a protocol for wildcat samples.	3.6.1 Agreed a protocol for the collection and archiving of wildcat specimens/ samples/ post-mortem and disease screening.	NMS, RDSV	RZSS, CU, SNH.	M	D	
	3.7 Monitor national wildcat distributions and population trends.	3.7.1 Develop and implement a programme of monitoring for wildcats.	SNH	RZSS, WildCRU, NMS, HBRG.	M	PD	
Communications public awareness/ education	3.8 Develop and implement a national communications plan to support conservation actions	3.8.1 Develop a campaign to promote responsible cat ownership and promote how the public can contribute to wildcat conservation.	SNH	NTS, SWT, SSPCA, RZSS, CP, RSPB, AFC, BVA.	H	PD	
		3.8.2 Ensure wildcat awareness is part of training courses for relevant professions; game keepers and vets.	SGA	SNH, SGA, BASC, GWCT, SCA. Gamekeeper colleges, PAWS, RDSV, BVA.	H	PD	
		3.8.3 Ensure MSPs are briefed on wildcat conservation.	LINK	SG, SNH.	M	D	
Ensure adequate protection for wildcats from development pressures	3.9 Increase wildcat awareness amongst developers and planning authorities to ensure adequate survey and mitigation for wildcats prior to approvals.	3.9.1 Produce guidance on when and what survey methods are recommended.	SNH	FCS, CNPA, LLTNPA, Planning Authorities, consultants.	H	D	
	3.10 Promote competency of ecological surveys for wildcat.	3.10.1 Develop wildcat training and guidance for ecological surveyors.	SNH	IEEM, Research Institutions and consultants.	M	D	
Investigate funding and support for actions	3.11 Investigate the potential for external funding to deliver the SWCAP.	3.11.1 Explore potential of SRDP, funds, charities and private sponsors to support plan delivery; together with contributions from partner organisations.	SNH	Steering Group.	H	D	
		3.11.2 Develop bids, launch appeals.	SNH	Steering Group.	H	D	

Context

The following bullet points highlight the policy context within which the Scottish Wildcat Conservation Action Plan has been developed and are provided for background only.

- **Scottish Biodiversity Strategy** – recognises the need for conservation action for prioritised species; wildcats will continue to be a priority. The increased emphasis on landscape-scale approaches to ecosystem health should also assist.
- **Wildlife Management Framework** – provides a framework for making decisions about managing wildlife.
- **Scottish Forestry Strategy** – highlights the need for targeted action for woodland and woodland-related priority species and habitats. However, many of the wider aims of the SFS will benefit wildcats including; woodland expansion and forest restructuring; reducing deer impacts and diversifying planted woodlands.
- **Scottish Rural Development Programme** – The next SRDP is expected to place more emphasis on landscape-scale management; hence there may continue to be support for land management that would benefit wildcats. Support for wildcat-friendly predator control is currently being explored.
- **Land Use Strategy** – is a high-level strategy of which the three basic tenets are to ensure that land use in Scotland:
 - Delivers multiple benefits
 - Fosters partnerships with nature
 - Links people with the land

It recognises ecosystem and habitat function at larger scales and seeks ways of ensuring that urban and rural communities are better connected with the land. Hence, these principles are aligned with the actions we are seeking to take forward for wildcat conservation.

Lessons learned from the Cairngorms Wildcat Project

The Cairngorms Wildcat Project was a trial of practical conservation actions between 2007-2012. It involved four main types of action.

- **Raising awareness of wildcats and their conservation** – Promotion as a rare and nationally important species via the Highland Tiger brand. Local targeting of audiences such as farmers, gamekeepers and cat owners.
- **Neutering domestic and feral cats** – Working with cat welfare charities and local vets to intensify and expand neutering and vaccination of domestic and feral cats.
- **Working with estates** – Development of a protocol for wildcat-friendly feral cat control, including promotion of a field identification key and promoting discriminatory methods of predator control.
- **Research and monitoring wildcats** – Monitoring of wild-living cats on five estates using camera traps. Collation of public sightings and roadkill carcasses.

Hence the CWP has already trialled many of the actions we will be looking to take forward in priority areas.

A particular success of the trial was the effective partnerships developed between conservation and land management interests, with evidence of an improved understanding of wildcat identification amongst gamekeepers leading to more precautionary feral cat control. The project was successful at raising the profile of Scottish wildcat locally and nationally. And we learned a lot about the populations of cats living on the estates involved in the project, which included wildcats, domestic feral cats and their hybrids.

The project promoted better coverage of feral cat neutering and actively promoted responsible domestic cat ownership. However, these aspects will need to be further developed to reduce the risks to wildcat populations in priority areas.

The Cairngorms National Park covers a very large area and several distinct communities. Hence whilst priority areas should be those that can support viable wildcat populations, they should also be regions over which action can be easily co-ordinated.

Organisations participating in the development of this plan

Abbreviation used in plan

AFC	Aigas Field Centre
BASC	British Association for Shooting and Conservation
CNPA	Cairngorms National Park Authority
CP	Cats Protection
CU	Chester University
FCS	Forestry Commission Scotland
HC	Highland Council
HFWS	Highland Foundation for Wildlife
JMT	John Muir Trust
LLTNPA	Loch Lomond and Trossachs National Park Authority
NFUS	National Farmers Union Scotland
NMS	National Museums Scotland
NTS	National Trust for Scotland
RSPB	Royal Society for the Protection of Birds
RZSS	Royal Zoological Society of Scotland
SASA	Science & Advice for Scottish Agriculture
SCA	Scottish Countryside Alliance
LINK	Scottish Environment LINK
SGA	Scottish Gamekeepers Association
SG	Scottish Government
SL&E	Scottish Land and Estates
SNH	Scottish Natural Heritage
SSPCA	Scottish Society for the Prevention of Cruelty to Animals
SWCAG - Steering group	Scottish Wildcat Conservation Action Group
SWT	Scottish Wildlife Trust
TAF	The Aspinall Foundation
TENT	The European Nature Trust
RDSV	The Royal (Dick) School of Veterinary Studies – Edinburgh University

Others listed

BVA	British Veterinary Association
Confor	Confor
FAB	Feline Advisory Bureau
GWCT	Game and Wildlife Conservation Trust
HBRG	Highland Biological Recording Group
IEEM	Institute of Ecology and Environmental Management
NSRF	National Species Reintroduction Forum
PAWS	Partnership for Action Against Wildlife Crime in Scotland

Animal health and welfare considerations

Several aspects of the action plan are influenced by animal health and welfare considerations.

Promoting responsible domestic cat ownership and the neutering and vaccination of feral cats both aim to improve domestic cat health and welfare in general.

Wild-living domestic cats are essentially a non-native species. Hence a good case needs to be made to permit their release (under licence) as part of a co-ordinated Trap-Neuter-Release programme. A justification is likely to be based on wildcat conservation and animal welfare considerations. Public support for TNR leads us to favour this approach over lethal control.

In promoting more wildcat-friendly predator control techniques there is also the wish to prevent harm to wildcats, e.g. inadvertently caught in snares.

A welfare protocol will be developed for all live-trapping of feral and wildcats as part of the plan delivery.



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