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Domestic cat neutering to preserve the Scottish wildcat

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malnutrition, injuries and disease.² Although 90 per cent of owners neuter their cats,¹ with a UK cat population of around 10 million, this represents at least one million unneutered animals. Pre-pubertal neutering is advocated by the BVA, BSAVA and the Cat Group,³⁻⁵ among others, but only 61 per cent of vets recommend this.¹ Non-pedigree cat breeding is often unplanned¹ and uncontrolled due to cats' free-ranging nature.

As members of Scottish Wildcat Action (SWA) we are concerned about the additional threat to the Scottish wildcat (*Felis silvestris*) from hybridisation with unneutered pet and feral cats.

With the Scottish wildcat nearing extinction,⁶ the Scottish Wildcat Conservation Action Plan,⁷ representing over 20 key organisations, aims to secure its future as an iconic British predator species. It focuses on responsible domestic cat ownership, feral cat control – through trap-neuter-vaccinate-return (TNVR), ecological studies, land management and conservation breeding – with ongoing reactive monitoring of wildcat populations.

There are at least 100,000 feral cats in Scotland under varying degrees of human control. Survey work in the SWA geographical priority areas in 2016/17 revealed only 19 per cent of wild-living cats exhibited a wildcat phenotype. Our recent genetic analysis on road casualties, cats processed during TNVR and wild-living cats exhibiting wildcat phenotype, has found only three out of 225 (1 per cent) with fewer than the equivalent of one domestic cat grandparent.

We have faced significant challenges in the priority areas, which cover only 2 per cent of Scotland. During winter 2016/17, 826 hours of SWA staff time and 747 hours of volunteer time were invested in TNVR (equivalent to one person-year, with additional contractor time). TNVR sites can be remote, with feral cats living solitary lives akin to wildcats, so locating cats, operating traps in winter

CONSERVATION

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RESPONSIBLE pet cat ownership is a shared goal of the veterinary profession, animal welfare organisations, the majority of the pet-owning public and government. However, the number of unwanted and feral cats continues to grow, indicating that current control measures are insufficient.

The UK feral cat population is estimated at around one million and they can suffer from inhumane persecution, reproductive stresses, field conditions, and maintaining high levels of cat welfare is resource intensive. However, wildcats do not only live in areas remote from human settlements. Some priority areas include human communities of varying sizes (hundreds to thousands) - also applicable across the wider wildcat range – meaning there are also substantial numbers of pet domestic cats present, many of which will be unneutered and unvaccinated. Avoiding neutering pet cats without owners' permission adds further to SWA staff time. The SWA runs responsible cat ownership campaigns but recognises their impact will only go so far.

These experiences demonstrate the difficulties of managing the current situation, and the serious ongoing threat to the wildcat if it does not change.

Feline infectious diseases also pose a threat to both wildcat and domestic cat health and welfare.⁸⁻⁹ Preliminary results from sampling 125 cats over 2016-18 indicate that feral and hybrid cats harbour many common pathogens, including feline immunodeficiency virus (FIV) (7.3 per cent), feline haemoplasma species (*Mycoplasma haemofelis*, 4.8 per cent; Mycoplasma haemominutum, 23.4 per cent), Mycoplasma turicensis, 8.9 per cent), Bordetella bronchiseptica (12.9 per cent), feline herpesvirus (6.7 per cent), feline calicivirus (20.0 per cent), Mycoplasma felis (4.3 per cent), Chlamydophila species (4.3 per cent) and Tritrichomonas foetus (11.1 per cent). Feline leukaemia virus (FeLV) appears less of a concern with only one case so far detected in a wildcat hvbrid.

In Scotland, all domestic cats, including ferals/hybrids, are considered non-native under the Wildlife and Countryside Act 1981 (as amended), meaning it is an offence to release a cat, or allow it to escape, unless it returns home regularly for food and shelter and so is considered to be under the owner's control. A survey of 1445 Scottish cat owners¹⁰ revealed that owners from rural areas with outdoor cats were least likely to have their cats neutered. Only 16 per cent of owners with unneutered cats cited cost as a barrier to neutering,

suggesting that financial incentives are unlikely to be significant motivators. No owners of unneutered females and only 13 per cent of males chose 'I want my cat to breed' as a reason for not neutering, and 70 per cent of owners of unneutered cats less than six months old, with outdoor access, cited 'I'm waiting until my cat is older' as a reason. As the majority of owners chose reasons other than wanting to breed for not neutering their cat, they may in principle be in favour of neutering. Education to allay concerns about the risks from neutering may increase compliance.

What is the solution? A growing number of countries with similar cat population issues take a more proactive approach. In 2016, the EU parliament voted in favour of mandatory identification and registration of cats. In Belgium, neutering, identification and registration has been mandatory since 2017, mandatory identification and registration is required in France, Greece, Lithuania, the Netherlands and Spain, and is under government discussion in Sweden, and compulsory neutering is required in Switzerland for cats that go outdoors. In Australia and New Zealand, where domestic cats have had a devastating impact on native wildlife, there is mandatory neutering in large areas or prohibition on keeping a cat in some areas. In the USA mandatory neutering for adopted/sold cats is included in most state and city legislatures.

We are convinced that greater measures such as these are required to control the UK cat population, and are advocating a far more proactive approach to responsible cat ownership and control. We have also submitted views as part of the evidence-gathering for a petition submitted to Scottish Parliament,¹¹ which outlines how these measures might be implemented.

We firmly believe that this approach offers a 'win-win' situation for both domestic cat health and welfare, and the conservation of the wildcat. We hope this letter stimulates constructive dialogue and debate on this issue, and we welcome further correspondence and discussion.



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