Open letter to the Rt. Hon. Michael Gove, Secretary of State for the Environment, Food and Rural Affairs.

28th September 2017 Dear Mr Gove,

As you are aware, Lynx UK Trust has recently submitted an application to Natural England for a licence to release Lynx into Kielder Forest. Archaeological and historical evidence suggests that Lynx died out in Britain sometime in the Early Middle Ages – about 1400 years ago [1].

The romantic picture that is painted by those who wish to release Europe's third largest carnivore back into the UK is a very favourable one. They say that it will solve the problem of too many Roe deer in our woods and forests. It will thereby improve biodiversity by reducing the browsing pressure upon woodland flora. They say that Lynx will serve as a tourist attraction and that the tills will ring and rural coffers will be filled. Their plans for habitat connectivity will be grand as they show how woodland can be joined up across England and Scotland, to allow these beautiful animals to roam from one part of the landscape to another. They will doubtless point you towards the EU Habitats Directive and a chapter on large carnivores to show you the way in terms of conflict avoidance in communities affected by such introductions. They say that the advantages will far exceed the disadvantages.

A rosy picture indeed. And one which will doubtless leave you breathless with enthusiasm and eager to make this happen. So, you will forgive my churlishness if I just point out a few difficulties that may not have been drawn to your attention.

Lynx territories vary considerably in size, from 25 to 2,800 Square kilometres [3]. The smaller territories are held by females when rearing kittens, and the largest by males. The male may mate with several females within his territory. Dispersal by sub-adult Lynx varies from 5 to 129 kilometres [2].

A projection for a viable Scottish population of Lynx is in the order of 450 animals, the bulk of which would be found in the Highlands and a smaller sub-population in the Southern Uplands [4]. Kielder Forest is 650 Km² in area and about 40 Km across. Lynx UK Trust have suggested that Kielder might support a population of 28 Lynx [11]. This would suggest a population density of 4.3 Lynx/100Km² which is at the upper limit of known natural populations – e.g 4.2/100Km² in the Taurus Mountains, Antalya, Turkey [9]. It is approximately twice the modelled holding capacity of Lynx in the Highlands, and five times bigger than the same models for the Southern Uplands [10]. However, most of the uplands of the north of England and southern Scotland are all within reach of an expanding Kielder Forest Lynx population. Despite the earnest exhortations of NGOs and Secretaries of State, it is very unlikely that these Lynx will confine themselves to Kielder for very long. Undoubtedly, they will go walkabout.

The Lynx enthusiasts will suggest to you that Lynx do not leave the cover of forest - but actually they are perfectly happy to hunt in open ground at night [7] [8]. The enthusiasts will also brush aside the possibilities of attacks upon sheep as being of little significance. Norwegian and other studies suggest otherwise. In the decade up to 2005, between 5,462

and 9,862 sheep were taken by Lynx in Norway [5]. In the French Jura, the number of Lynx attacks varied between 60 and 190 per year from 1988 to 1998. Work in the Jura has shown that many of these attacks have occurred in hotspots [6]. Furthermore, the Norwegian study records that many attacks on sheep were believed to be carried out by males, which also carried out multiple kills [5] — much in the same way that Foxes will do when they get into a hen-house. Odden et al. showed that of the monitored attacks by Lynx against all species, 39% of them were against sheep.

The density of sheep in the Norwegian study is about 2.4/Km² and Jura is about half that. By comparison, the density of sheep in the Scottish Borders, adjacent to Kielder, is about 2.5 sheep/hectare — or an order of magnitude 100 times greater than the sheep density in the parts of Europe where the behaviour of Lynx has been studied. The effect of Lynx upon sheep farming in the UK is therefore completely unassessed and unknown.

Compensation for Lynx attacks is paid to farmers in Europe. If the same system were applied to the UK, then the levels of compensation would amount to the market price for animals going to slaughter. For a ram or ewe, this would be about £70 or £80. However, consider a young ewe killed by a Lynx, but which might otherwise have produced a lifetime crop of 8 to 15 lambs, or a value of £750 to £900. A young ram will cover 40 to 70 ewes in the space of four or five weeks and thereby produce a crop of 80 to 120 lambs per year. Multiply this by a working life of say 4 years and we get a crop of 320 to 480 lambs. At £75 per lamb, that's a value of £24,000 to £36,000 over his working life. That is a conservative estimate and it depends upon the breed. But this is why rams are sold for hundreds and sometimes thousands of pounds. The value of breeding stock is not in their carcass value, but in their contribution to the future of the flock. The shepherd is paying for the genetic future of his flock. That genetic content of his flock will have been the product of decades of hard work. When a good ewe or ram is lost to an uncontrolled dog attack – or a Lynx – the shepherd is angry for very good reasons. The hidden cost of these losses is many thousands of pounds; the psychological cost unquantifiable. The shepherd will never get adequate compensation.

Any major disturbance or development to the countryside such as wind farms, solar panels and so on require a full Environmental Impact Assessment. This application concerns major risks and changes to the countryside and so should also be subject to a similar EIA. That assessment should include:

- A risk assessment for Lynx attack upon sheep, given the much higher sheep densities within the UK compared to Europe.
- A revised projection over the next 25 years for the likely losses of sheep from an expanding Kielder population of Lynx.
- The proposed scales of compensation that should be given to farmers for their losses to Lynx attack.
- How long do Lynx UK Trust propose to indemnify themselves against those losses?
- Details of their recommended prevention strategies for farmers to undertake in order to mitigate their predicted scale of attacks.
- How will Lynx UK Trust fund the fencing and other mitigation measures that they propose?

- Lynx UK Trust financial projections for the next 25 years for these mitigation and compensation measures, including sources of funding.
- A risk assessment for the likelihood of Lynx contracting bovine TB when they come
 into contact with infected animals such as badgers or cattle given that Felids are
 known to be highly susceptible to infection by bovine TB.
- A risk assessment for transfer of bTB by Lynx from High Risk Areas to Low Risk Areas.
- An assessment of all the changes and costs to hill farmers to their livelihoods which would result from this introduction.
- The foregoing suggests that it is the Lynx UK Trust who will pay for the damage or otherwise indemnify themselves against claims. However, if, like a gambler who walks into a casino without any money and who doesn't have the funding to play, then they need a very good reason indeed as to why the rest of us should fund their obsession via increased taxation.

This application has been prompted by a collection of NGOs, environmental activists and academics, for whom the EU Habitats Directive has provided the lure of a potential gold mine of grant funding and salaried positions. Whilst Lynx UK Trust has gone through the motions of *consultation* with local people, they have not sought or gained the *consent* of those people. In particular, they have not gained the consent of those hill farmers who will be in the front line of interaction with Lynx, both in England and in Scotland. In glossing over, or ignoring the difficulties, they have been seriously misleading.

The record of releases of alien species in the UK is a <u>dismal litany</u> of ecological and economic disaster. Even the licenced reintroductions of large avian predators are not without their problems and cost to the taxpayer. Lynx UK Trust is a tiny group of enthusiasts who are expecting to indulge their own passions at considerable cost to others. As things stand, once their animals have been released into the forest, their own legal liabilities come to an end, because their former charges are now wild animals. Ultimately, they are clearly expecting the taxpayer to pick up the tab for the cost of an animal which will very rarely be seen because of its nocturnal and wide-ranging habits. But the farmer will find the progress of the Lynx marked in corpses the following morning.

British farmers have endured decades of terrible events, few of which are of their own making: Salmonella in eggs, BSE, Swine Fever, Foot and Mouth Disease, almost annual epidemics of avian influenza, Bluetongue Virus, Schmallenberg Virus and bovine TB. The record of successive governments in dealing with these assaults on British livestock farming has not been a happy one. In the case of bovine TB, Foot and Mouth and BSE, government policy has either exacerbated the cost to farmers or actually *caused* and multiplied the problem many times. Over the years this has caused bankruptcies, suicides, depression and break up of families. This application for the release of a large predator into the midst of hill farming country has the potential to add yet another onslaught onto the viability of British livestock farming.

I hope you consider this application with all due care and consideration.

Yours sincerely, David Eyles

References

- [1] Hetherington DA, Lord TC and Jacobi RM (2005): New evidence for the occurrence of Eurasian Lynx (Lynx lynx) in medieval Britain. Journal of Quaternary Science, Vol 21, Issue 1.
- [2] Schmidt K (1998): *Maternal behaviour and juvenile dispersal in the Eurasian Lynx*. Acta theriologica. DOI: 10.4098/AT.arch.98-50.
- [3] Foster H (Date unknown): *Lynx lynx Eurasian lynx*. Animal Diversity Web, University of Michigan Museum of Zoology.
- [4] Hetherington DA and Gorman ML (2007): *Using prey densities to estimate the potential size of reintroduced populations of Eurasian lynx*. Biological Conservation Vol 137, Issue 1. Elsevier.
- [5] Odden J, Linnell JDC, Andersen R (2006): *Diet of Eurasian lynx (Lynx lynx), in the boreal forest of southeastern Norway: the relative importance of livestock and hares at low roe density.* Eur J Wildl Res DOI 10.1007/s10344-006-0052-4
- [6] Stahl P, Vandel JM, Herrenschmidt V, Migot P. (2001): *Predation on livestock by an expanding reintroduced lynx population: Long-term trend and spatial variability.* Journal of Applied Ecology Vol 38, Issue 3.
- [7] Heuric M et al. (2014): Activity patterns of Eurasian lynx are modulated by light regime and individual traits over a wide latitudinal range. PLOS ONE. DOI:10.1371/journal.pone.0114143.
- [8] Filla M et al. (2017): Habitat selection by Eurasian lynx (Lynx lynx) is primarily driven by avoidance of human activity during day and prey availability during night. Ecology and Evolution, 7:6367-6381.
- [9] Avgan B, Zimmermann F, Guntert M, Arikan F and Breitenmoser U (2014]: *The first density estimation of an isolated Eurasian lynx population in southwest Asia*. Wildlife Biology 20: 217-221.
- [10] Hetherington DA and Gorman ML (2007): *Using prey densities to estimate the potential size of reintroduced populations of Eurasian lynx*. Biological Conservation Vol 137, Issue 1.
- [11] White C, Convery I, Eagle A, O'Donoghue P, Piper S, Rowcroft P, Smith D, van Maanen E (2015): Cost-benefit analysis for the reintroduction of lynx to the UK: Main Report, Application for the reintroduction of Lynx to the UK government, AECOM.