



The Scottish Parliament
Pàrlamaid na h-Alba



Richard Lochhead MSP
Cabinet Secretary for Rural Affairs and the Environment
St Andrew's House,
Regent Road
Edinburgh
EH1 3DG



[REDACTED]

Dear Richard

I have received an interesting enquiry, from a constituent, on the subject of the imminent programme to eradicate black rats from the Shiant Islands.

Broadly, my constituent [REDACTED] is concerned over the consequent loss of what could, potentially, be a valuable means of research in future. [REDACTED] points to research being undertaken in St Kilda at present on field mice, where the genetic distinctions of animals which have been isolated on that island may offer the opportunity for ground-breaking advances in veterinary science. As the original communication presents the technical detail better than I could hope to, I have enclosed a copy.

Although, as I understand it, the programme is too far advanced to be postponed, it appears that my constituent makes a compelling case for storage of samples so that the opportunity for future analysis will not be lost. I would be most grateful for your consideration on the above and enclosed.

Yours sincerely

Alasdair Allan MSP

ALASDAIR ALLAN MSP

[REDACTED]



Black Rats on the Shiant

COPY

Dear Dr Allan,

I believe that the RSPB are to extirpate the population of black rats on the Shiant islands. The black rat is now a rare British mammal with, whether we like it or not, a long historical association with man that has left a rich cultural legacy; what child even today is unable to recite:

*Ring a ring 'o' roses,
A pocket full of posies,
A-tishoo! A-tishoo!
We all fall down.*

However, of greater concern will be the loss of an important body of living information. We are about to lose forever not only a genetically distinct race of black rat but a set of unique dependent organisms. Such organisms may have significant importance in the areas of public and livestock health; anthropological studies and knowledge of complex ecological interactions.

My concerns are best illustrated by two points involving St Kilda, one current and one historic.

- A University of Edinburgh undergraduate from South Uist is undertaking groundbreaking work on field mice from Hirta looking for parasites that may explain the conundrum of a tapeworm *Cysticercus tenuicollis* that causes disease in the Soay sheep on Hirta (and significant economic loss throughout the UK; 742,000 sheep livers condemned at slaughter in 2012). This tapeworm was always thought to need a canine host to complete its lifecycle. Yet no dogs have been present on St Kilda since 1930! The student wondered whether the mouse may act as the tapeworm's main host. If anyone had considered this possibility before they had not, to my knowledge, investigated it. Although this work is ongoing, he may not only have found the tapeworm in the mice but also another tapeworm called *Hymenolepis* that infects people, and an unusual liver fluke. This work is still to be confirmed and published but demonstrates that unless a thorough investigation of the Shiant black rats, and any parasitic fauna they may harbour, has been carried out then we may be about to lose forever a living wealth of important scientific and educational material.
- In 1932 the Earl of Dumfries, the new proprietor of St Kilda, had all the islanders' abandoned cats on Hirta shot, ostensibly to protect the birds. As well as the loss of a lineage of cat that should have been considered a

cultural artefact of the island, this act may well have sent the unique species of St Kilda house mouse into extinction. More serious is that this single, irreversible action may have caused the loss of a set of unique fauna dependent on the cats and mice. Of practical concern would have been the parasites with human and animal health implications e.g. toxoplasma.

The latter bullet point is admittedly conjecture on my part but my rationale is sound and unfortunately we will never know if I'm right. Nevertheless it illustrates that one would hope that in today's enlightened age we will take more care interfering with the natural history of island communities; but will we?

If the cull is successful, the current St Kilda rodent/sheep/tapeworm cycle investigation could never be replicated on the Shaints, Other potential investigations lost might include:

- The unique interrelationship of pelagic seabirds; their ticks; the pathogens they carry (over 50 viruses* have been isolated from the seabird tick) and a close association with an omnivorous rodent, well-recognised as a consumer of ticks (thereby clearing the empty puffin burrows of ticks and so maybe having significantly positive effects on puffin parasitic load and therefore healthier puffin colony).
- A serological study for evidence of hantavirus? (Its absence can be as important to epidemiological studies as its presence)

* many zoonotic

Finally, I'm no expert on regulations but the World Organisation of Animal Health (the OIE) obliges its member countries to provide information, annually, on the presence **or absence** of OIE-listed diseases specific to wild species. Has this been done within the Shaints' unique mix of fauna and geographical position as this requirement '*is meant to protect biodiversity and could be used as an early warning system to protect domestic species and human health.*'

Please can you have the cull postponed to allow for a fuller assessment. I fear a successful cull will be looked on by future generations as ecological vandalism.

Yours sincerely,

P.S. If this cull really must take place can you ensure that as many killed rats as possible are passed on to the Scottish Museum for permanent and appropriate storage in ways that allow for future examination (by visionary, Uist-educated, Scottish undergraduates, perhaps).