



**Scottish Natural Heritage**  
**Dualchas Nàdair na h-Alba**

All of nature for all of Scotland  
Nàdar air fad airson Alba air fad



**SEPA**  
Scottish Environment  
Protection Agency



By email:

Ms Sigrid Robinson  
Assistant Clerk  
Public Petitions Committee

23 December 2015

Dear Ms Robinson

### **CONSIDERATION OF PETITION PE1558**

Thank you for your letter of 2 December 2015 requesting a response to the issues raised in the submission by Abigail Stancliffe-Vaughan dated 17 November 2015.

The submission raised issues relating to:

- Non-native crayfish consumption in the UK;
- Trapping as a control/management option; and
- Public engagement.

SNH and SEPA's joint response to these issues are addressed in Annex 1.

If there are any questions about this response, please do not hesitate to get in touch with us via SNH's Government Relations team ([SNHGovernment\\_Relations@snh.gov.uk](mailto:SNHGovernment_Relations@snh.gov.uk)).

Yours sincerely

Andrew Bachell  
Director of Policy & Advice  
Scottish Natural Heritage

Paula Charleson  
Head of Environmental Strategy  
Scottish Environment Protection Agency

## ANNEX 1

### SNH and SEPA response to issues raised in submission by Abigail Stancliffe-Vaughan dated 17 November 2015

 [PE1558/N: Abigail Stancliffe-Vaughan Letter of 17 November 2015 \(99KB pdf\)](#)

#### 1. Non-native crayfish consumption

As public organisations, SNH and SEPA have a shared responsibility to stimulate and support action to lessen the effects of climate change. We recognise the importance of the transition to a low carbon economy in the Scottish Government's Economic Strategy and the role that eating locally produced food has to play in this. Our aim is to support sustainable economic growth by helping others balance use of resources and economic development with an understanding of the effects on, and risks to, the natural environment. In this instance, we consider that the environmental risks of establishing a fishery for signal crayfish are significant and far outweigh the potential benefits.

The EU Habitats Directive and Water Framework Directive require measures to protect Special Areas of Conservation and other waterbodies. Any activity which is considered likely to facilitate the movement of invasive non-native species such as signal crayfish into these areas would undermine efforts to meet the statutory obligations of these Directives, as well as posing a risk to the wider health of the Scottish environment.

The position in Scotland is in line with the new EU Regulation 1143/2,014 on invasive alien species. This will place restrictions on the keeping, sale and use of signal crayfish and several other species of non-native crayfish. Under the Regulation, the commercial use of already established invasive non-native species may be temporarily allowed as part of agreed management measures aimed at their eradication, population control or containment, but only under strict justification and provided that all appropriate controls are in place to avoid any further spread.

#### 2. Trapping as a control or management option

There are no examples in Great Britain or elsewhere in Europe where control measures have been shown to have significantly reduced the ecological impacts of signal crayfish, other than the eradication of crayfish from very small, isolated ponds described in our submission of 31 July 2015. Although trapping can, in some circumstances, reduce the abundance of crayfish locally, there is no evidence that it can eradicate or prevent the spread of signal crayfish, or that it is an effective means of long-term control.

It is highly unlikely that trapping would significantly reduce the ecological impact caused by signal crayfish in Loch Ken. Although trapping studies can show a reduction in numbers of crayfish caught over time, this does not necessarily mean a significant reduction in impact. The majority of crayfish in the population are below the minimum trappable size and these smaller crayfish still have an impact. Reducing competition and predation by removing larger crayfish can also cause these smaller crayfish to grow more quickly and start to breed at a younger age. Density-dependent population growth as a result of selective capture of larger individuals has been observed in both fin fish and crayfish fisheries.

The pilot study of intensive crayfish trapping in Loch Ken cost approximately £90,000 over a five-month period. The project was reviewed, on behalf of Scottish Government, by a recognised UK crayfish expert, Dr. Stephanie Peay, who concluded that it was unlikely that the project reduced the ecological impact caused by signal crayfish, or reduced their spread.

She also considered that the cost of continued trapping would be very high and open-ended, whereas the benefits would be uncertain, but likely to be small. These conclusions are supported by the results of long-term trapping work from other parts of the UK and Europe.

### **3. Public engagement**

The desire to take action when rivers and lochs are invaded by signal crayfish is understandable. However, preventing the spread to uninvaded catchments is the key to tackling invasive crayfish. Our submission of 31 July 2015 details the considerable work that the Dumfries & Galloway Invasive Non-Native Species Working Group has done on public engagement, raising awareness of the risks of moving crayfish around and the need for biosecurity measures.

The consensus of scientific opinion is that exploiting non-native crayfish encourages their deliberate spread into new locations with the intention of creating a new resource. This opinion is supported by the detailed submission from Dr Lennart Edsman, based on experience in Sweden. Unlike most of the areas where non-native crayfish are currently exploited, the vast majority of Scotland's rivers and lochs are crayfish-free, and there are significant strategic gains to be made by preventing them from spreading into new catchments.

In summary, SNH's and SEPA's position is that the risks associated with establishing a fishery for signal crayfish are significant and far outweigh any potential environmental and economic benefits. Experience from elsewhere in Europe shows that exploiting non-native crayfish as a resource encourages further deliberate introductions to other catchments, with major environmental and economic consequences. In contrast the potential benefits from crayfish trapping are low. However, we are always willing to consider proposals for control that adequately address the risks and demonstrate the likelihood of clear benefits.