



Prevention is better than cure:

**A diagnosis on the state of UK
invasive species biosecurity**

Wildlife and
Countryside





EXECUTIVE SUMMARY

Invasive species are animals or plants which have been introduced to places where they do not occur naturally, through deliberate or accidental human actions, causing negative environmental, social and/or economic impacts in those areas.

Invasive species are one of the top five drivers of biodiversity loss worldwide. They cost the UK economy at least £2 billion every year, through impacts such as damage and loss of crops, increased flooding and additional building construction costs, which continues to rise as new invasive species are introduced and established species expand their range. Despite this substantial economic cost, invasive species biosecurity is severely under-funded and under-resourced compared to other areas of biosecurity, receiving a mere 0.4% (£922k) of the UK biosecurity budget. It is also the only biosecurity department without a dedicated inspectorate.

This chronic underinvestment means we are failing to keep invasive species out. Limited resources are spent on managing established species rather than preventing new arrivals. This misplaced focus means the rate of invasive species introductions continues to rise. Twenty-five new invasive species established in the last 20 years - three times higher than the other four biosecurity regimes combined.

We cannot cope effectively with the threat that invasive species currently pose, so we risk being overwhelmed when new trading routes open up new pathways of introduction and climate change makes it easier for species to establish once they have arrived.

Addressing this imbalance in resources is long overdue. The Government should heed the recommendations of the Environment Audit Committee and commit to increasing investment in invasive species to £6 million, funding on-the-ground biosecurity capacity and the formation of a dedicated invasive species inspectorate.



Our ask: *The Government commits to the recommendation of the Environmental Audit Committee (October 2019) report on invasive species, tripling the invasive species biosecurity budget to £3 million and providing a further £3 million to form a dedicated invasive species inspectorate.*

This investment would:

- facilitate a more strategic approach to invasive species biosecurity and management, allowing for enhancements in rapid response capabilities and greater coordination of control efforts.
- create more paid and voluntary roles in invasive species management, supporting the Government's strategy for a Green Recovery from Covid-19. If combined with a Government-funded National Nature Service, an estimated 4,000 coordinators, 75,000 volunteers and 2,000 contractors could expand the Local Action Group network to full capacity across Great Britain.
- prevent the establishment of 24 new invasive species and eradicate 10 established invasive species by 2040. This constitutes a **50-67% reduction** in the number of new introductions and a 5% reduction in established species.
- **save the UK economy a total of £2.7 billion over 20 years. That is a return on investment of £23 for every £1 spent.**

THE INVASIVE SPECIES THREAT

An invasive non-native species is any animal or plant which is introduced to places where it does not occur naturally, through human actions - deliberate or accidental - and where it causes negative impacts. Once established, invasive species can cause severe damage to the environment, native species and habitats, the economy and sometimes human health.

Invasive species are one of the five principal drivers of biodiversity loss globally¹. Impacts on native plants and animals, including competition, predation, and the introduction of new diseases, have resulted in invasive species decimating populations of native species across all major types of plants and animals.

They are also a huge drain on public finances, costing the UK at least £1.7 billion per year due to impacts such as damage and loss of crops, increased flooding and additional building construction costs². This economic cost, calculated in 2010, is likely to be a serious underestimate when the spread of existing invasives and the establishment of new species in the intervening years is taken into consideration. Inflation alone means the cost will now be at least £2.2 billion per year.

¹ IPBES Global Assessment, 2019 <https://ipbes.net/global-assessment-report-biodiversity-ecosystem-services>

² The Economic Cost of Invasive Non-native Species to the British Economy. Defra commissioned report, CABI 2010 <https://secure.fera.defra.gov.uk/nonnativespecies/downloadDocument.cfm?id=487>

There are currently hundreds of invasive species established in Britain, with an estimated minimum 12 new non-native species establishing every year³. The problem of spreading invasive species is demonstrably intensifying in the UK across terrestrial, freshwater and marine habitats⁴. Climate change is a major compounding factor, with warmer conditions and ecological disruption helping new species to establish more easily.

Trade is the principal mechanism for transporting and releasing invasive species, be it deliberate or accidental. The rise in global trade and tourism has dramatically increased the movement and establishment in the UK of species from further afield. Before 1950, 44% of invasive species establishing in Britain were non-European species – that figure has risen to over 70% today⁵.

As the UK forges new trading relationships outside the EU, species movements will intensify and more invasives will establish in the UK, with non-European species twice as likely to become invasive once established, compared to European species⁶. This poses a twin threat of greater costs to our economy and a higher risk of out-competition, novel disease, and extinction for native wildlife.

What's already in the UK?: *There are an estimated 275 invasive species established in Great Britain with far-reaching environmental and economic impacts, including:*

Japanese knotweed: The estimated annual cost of managing Japanese Knotweed in Britain is £165m. To eradicate it would cost around £1.56 billion – proving it is much more cost effective to prevent a species from arriving, than to manage or eradicate it once it has a foothold. Roots can damage pavements, properties and underground structures. The damage devalues houses, negatively impacting the housing market.

American mink: They predate on water voles (which have been lost from 97% of sites at which they were once found since 1900), ground nesting birds and amphibians.

Quagga mussel: A highly invasive freshwater mussel, it can significantly alter whole ecosystems by filtering out large quantities of nutrients. It is also a serious 'biofouling' risk – blocking pipes, smothering boat hulls and other structures. It is a rapid breeder, capable of producing up to one million eggs per season, meaning a single mussel can establish a new population.

Floating pennywort: This invasive aquatic plant reduces the availability of oxygen in water (impacting on fish and invertebrates), chokes drainage systems and crowds out native plants, blocking sunlight needed for photosynthesis. It is difficult to control due to rapid growth rates of up to 20cm per day and its ability to re-grow from small fragments.

³ GB Non-Native Species Report Card, 2017 <http://www.nonnativespecies.org/downloadDocument.cfm?id=1116>

⁴ JNCC UK Biodiversity Indicators, 2019 <https://jncc.gov.uk/our-work/ukbi-b6-invasive-species/>

⁵ Environmental Audit Committee Supplementary evidence submitted by Defra, 2019

<http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/environmental-audit-committee/invasive-species/written/104755.pdf>

⁶ Ibid.

What's on the horizon?:

The table below highlights the top ten invasive species most likely to establish in the UK (As ranked by the GB Non-Native Species Information Portal September 2020)

Species	Sightings	Risks
Asian Hornet - <i>Vespa velutina</i>	There have been a number of sightings in the UK since a nest was first found in Gloucestershire in 2016, with all so far successfully eradicated.	Asian hornets devastate honey bee colonies and other pollinating insects, which has a huge knock-on impact for pollination of plants and crops and associated costs for farmers and land managers. Researchers at Warwick University estimate the hornet could colonise the UK within two decades
Asian longhorned beetle – <i>Anoplophora glabripennis</i>	There has been one outbreak in Kent in 2012. This led to the felling of 2229 trees, with a quarter of all sycamore trees infested. The source was untreated wood packaging from China.	The Asian longhorned beetle causes significant damage in broad-leaved trees, affecting woodland habitats and the wildlife that rely on them, and impacting on timber and fruit tree production. Research on the potential impact in the US (where infestations were discovered and controlled in New York and Chicago) estimates that nationally up to 30% of trees (1.2 billion) and 35% of canopy cover could be lost with a value loss of \$669 billion
Asian Bush Mosquito - <i>Aedes japonicus</i>	This mosquito was first discovered in France in 2000 and is spreading across Europe. It is thought to have been introduced via the sale of second-hand tyres from Asia. It is not believed to be present in the UK currently.	This mosquito carries a number of diseases harmful to humans and wildlife. Research in the laboratory shows it can transmit Zika virus (which can cause severe microcephaly brain damage in babies and Guillain-Barré syndrome) and zoonotic Usutu virus (which causes mass mortality in birds, and in humans can result in mild disease to severe neurological impairments). It has also been shown able to transmit West Nile Virus which can be asymptomatic or can cause encephalitis, meningitis, flaccid paralysis and even death.
Comb jellyfish - <i>Mnemiopsis leidyi</i>	Sightings were recorded in the Ouse Estuary in 2016 and have been recorded since 2006 in the North Sea off the Netherlands coast .	The comb jellyfish is a carnivorous predator, feeding on zooplankton, fish eggs and larvae. In areas where it has established as a non-native species, including the Black Sea and Caspian Sea, it has massively reduced biodiversity and decreased fish stocks , with impacts felt up to top predators such as seals. It has the potential to reduce UK fish stocks, limit food for dolphins and other UK sea mammals, and reduce biodiversity in UK waters.
Salmon fluke - <i>Gyrodactylus salaris</i>	Salmon fluke have not been recorded in Britain yet, but pose a significant disease threat to native salmon populations.	The salmon fluke is a tiny freshwater parasite less than 1mm long that attaches to the body and gills of fish in the salmon family. Despite its small size it can cause serious infectious damage to fish and therefore deplete fish stocks. It originates in Russia and Finland where salmon are tolerant to the infection and it does not harm them. In Norway where it has become established salmon stocks have been wiped out in more than 20 rivers . It is a major threat to the UK salmon industry.



<p>Chinese mystery snail - <i>Bellamya chinensis</i></p>	<p>The first European recording of this snail was in 2007 in the Netherlands. It was probably introduced through the aquatic pet trade and can be spread by boating and similar activities. It is not believed to be in the UK currently.</p>	<p>The Chinese mystery snail spreads quickly. In the Netherlands twelve water systems (mostly rivers) had established populations of the snail within 9 years of the first sighting. The snails are large and resistant to chemical treatments, so once established they are very hard to remove. It can outcompete native snail species and has an economic impact through the blocking of water pipes – for example in reservoirs. It also poses a potential (though unproven) threat to human health, as a transmitter of parasites that it hosts.</p>
<p>Two-leaf Water Milfoil - <i>Myriophyllum heterophyllum</i></p>	<p>This freshwater plant is established in Europe in Austria, Belgium, France, Germany, the Netherlands and Spain. It was introduced through the aquarium and water gardening trades. It was first recorded in the wild in the UK in 1941 in Halifax. It is thought to not be established in the UK.</p>	<p>Two-leaf water milfoil is an aquatic plant native to southeastern USA. Described as ‘one of the worst invasive species in Europe’ It has a tendency for uncontrolled growth and can form dense underwater mats which harm native wildlife through reduced sunlight, oxygen and water quality. The plant also cause economic and social harm through reduced water flow and impediment to swimming, boating and fishing. It clogs up water bodies and can affect drainage, irrigation, hydropower and drinking water, incurring large costs to manage. In the USA, it has been recorded as reducing house prices by 20–40% when the species grows along lake shores.</p>
<p>Sea Myrtle - <i>Baccharis halimifolia</i></p>	<p>Introduced as an ornamental shrub to the UK from North America in the 1920s and known to be invasive in coastal habitats in Europe and Australia. Currently recorded in the wild in three locations in Southern England and Scotland.</p>	<p>This shrub is a successful survivor and can cause problems taking over habitats from native species. It is one of the most prolific seed producers in history – with just one plant producing hundreds of thousands of seeds per season. Its ability to survive fire, thrive in a wide-range of soils, and cope with salinity, sun, shade and extreme wet conditions, mean it can grow in most conditions, spread widely and be hard to eradicate.</p>
<p>Emerald Ash Borer - <i>Agrilus plannipennis</i></p>	<p>Not yet recorded in Britain.. It was first recorded in Europe in 2003 in Russia (Moscow)</p>	<p>The Emerald Ash Borer is a beautiful yet destructive wood-boring beetle native to East Asia. All ash species native to Europe and North America are susceptible to this beetle. It has caused massive damage to ash species in North America. In Ohio alone potential related ash landscape losses, tree removal and replacements costs, are estimated between \$1.8 and \$7.6 billion.</p>
<p>Cauliflower sea sponge - <i>Celtodoryx ciocalyptoides</i></p>	<p>First discovered in Europe in Brittany, France, in 1996 where it has established. It is also established in the Netherlands. Not currently believed to be established in Britain.</p>	<p>This sponge is native to the Northwest Pacific. Imports into oyster farms from Japan are the likely cause of introduction to Europe. It is highly invasive posing a serious threat to native habitats as it quickly becomes dominant due to its rapid growth and coverage.</p>



FAILURES IN OUR INVASIVES DEFENCES

Misplaced focus

In the UK, there are five main areas of biosecurity: animal health, plant (including tree) health, aquatic animal health, bee health and invasive non-native species. The first four areas have long upheld the principle that prevention is better than cure. The very essence of biosecurity is that preventing something arriving is much more effective, and cost-efficient, than trying to get rid of it once it's here.

Yet despite the huge harm invasive species cause when they establish, they were only relatively recently brought under the biosecurity umbrella. This historic rooting in biodiversity at Defra, which is ill-equipped and under-resourced to deploy preventative measures, has been a fatal flaw in the Government's approach to invasive species.

Elements of biosecurity, such as plant health risk assessments, have been adopted ad hoc to cope with arriving invasive species. But often it was only once damaging impacts were noticed from established invasives that action was taken. Unfortunately, for many species it was already too late.

Plant and animal health biosecurity is underpinned by longstanding, comprehensive domestic and European legislation, in some cases dating back almost 100 years⁷. This has necessitated a robust approach from Government. In contrast, the first piece of international legislation governing the UK's response to invasive species – the Invasive Alien Species Regulation – only came into force in 2015⁸. Prior to that, invasive species control was driven solely by poorly implemented domestic legislation and the Great Britain Non-Native Species Strategy, a non-legislative policy document, itself only published in 2008⁹. The Government's ability to deal with this significant and intensifying environmental and economic threat is decades behind other areas of biosecurity.

These past shortcomings could be overcome if the Government had rectified the systemic problems. But aside from nominally recognising invasive species as a biosecurity issue, the Government has not taken the requisite steps to properly resource and modernise our invasive species biosecurity in line with the scale of the threat they pose.

Uneven resources

Compared to animal and plant health biosecurity, our invasive species regime is drastically underfunded, receiving just 0.4% (£922k) of the total UK biosecurity spend. This chronic underinvestment means we are failing to keep new and damaging species out. *Three times more* invasive species have established in the last 20 years than species that have become established in the other four biosecurity areas *combined* (table 1).

⁷ The Foot and Mouth Disease (Packing Materials) Order of 1925 <http://www.legislation.gov.uk/ukro/1925/1178/made>

⁸ The EU Invasive Alien Species Regulation was converted into domestic law via The Invasive Non-Native Species (Amendment etc.) (EU Exit) Regulations 2019 <https://www.legislation.gov.uk/ukdsi/2019/9780111176269>

⁹ The GB Invasive Non-Native Species Strategy 2015

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/455526/gb-non-native-species-strategy-pb14324.pdf

Table 1. Comparison of expenditure and success rates of biosecurity regimes¹⁰

Regime	Expenditure (2016/17)	% Expenditure	No. of listed species*	No. of new listed species that have become established in last 20 years
Animal Health	£200m	91.2	53	0
Plant Health	£13.2m	6.0	409	9
Aquatic Animal Health	£3.1m	1.4	15	0
Bee Health	£2.2m	1.0	6	0
Invasive species	£0.9	0.4	[66]*	~25 invasive species (>200 non-native)**

* The invasive species list is not directly comparable as the regime is much newer than others (2015) and the list is incomplete. Despite this, the number of invasive species listed is roughly 4x that of aquatic animal health and 8x that of bee health, both of which receive substantially more resource than invasive species biosecurity and are significantly more successful.

** Estimation based on: new non-native species (NNS) establish at a rate of 10-12 per annum, so 200-240 NNS will have become established in the last 20 years. 10-15% of these will have become invasive, equating to 20-36 invasive species. Three have been eradicated in that length of time, leaving 17-33 (mean of 25) invasive species which have become established in the last 20 years.

Animal, plant, fish and bee health each have a dedicated inspectorate responsible for enforcing the relevant animal or plant health laws at the border and internally, investigating possible breaches and handing over to the police and/or relevant rapid response team. Table 1 demonstrates how effective this inspectorate model has been at keeping listed and potentially harmful organisms out of the country, with only plant health having any breaches (9 out of 409 listed species) in the last 20 years.

The sizes of these inspectorates vary commensurately with the amount of legislation they are required to enforce, the number of listed species they are responsible for and the level of threat those species are considered to pose to the economy, environment and/or human health. The animal health inspectorate is by far the largest due to the economic and potential human health implications of disease outbreaks in the livestock industry with over 1000 staff including support staff.¹¹

Conversely, there is no inspectorate for invasive species despite the large-scale detriment to the economy, property, people and native biodiversity. The nearest equivalent is the Great Britain Non-Native Species Secretariat, which comprises four staff responsible for implementing the totality of the Westminster, Scottish and Welsh Governments' invasive species legislation and policy. As it is an arms-length body, not an inspectorate, the Secretariat has neither the autonomy nor capacity to enforce invasive species biosecurity proactively, relying instead on agencies such as the Environment Agency and Natural England to act as go-between.

¹⁰ Environmental Audit Committee Supplementary evidence submitted by Defra, 2019
<http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/environmental-audit-committee/invasive-species/written/104755.pdf>

¹¹ Government response to the Environmental Audit Committee's First report of Session 2019
<https://publications.parliament.uk/pa/cm5801/cmselect/cmenvaud/332/33203.htm>

This is a highly inefficient approach when dealing with issues such as time-sensitive rapid response. With such scarce resources, it is not surprising that the Secretariat, despite being an effective hub for communications and best practice, is unable to stem the tide of invasive species arriving on British shores.

We are spending far more on curing than preventing invasive species damage. Expenditure on control of established invasive species is estimated at £9.85 million per annum – roughly ten times the expenditure on biosecurity (£922,000). This imbalance needs urgent redress given that it is internationally accepted that preventing invasive species arriving is far more effective and cost efficient than managing or trying to eradicate them once they are here, and as a Party to the Convention on Biological Diversity, the UK has committed to prioritise “*preventing the introduction of invasive alien species, between and within States*”.¹²

We need to maintain spending on control of established invasive species, but we need a complimentary and significant uplift in invasive species biosecurity.

Case in point: Since the EU Invasive Alien Species Regulation came into force in 2015, the majority of the GB Non-Native Species Secretariat’s capacity has been dedicated to complying with legal obligations for the 66 listed species of ‘Union concern’.

However, because of its inadequate resources, the Secretariat still missed the EU deadline for publishing a comprehensive analysis of pathways for new species arrivals - this was eventually published in May 2019, 15 months after the EU deadline.

Without a significant uplift in resources, biosecurity measures necessary to address the high risk pathways identified in that analysis will not be implemented, let alone wider biosecurity to deal with species not on the EU list, but that have a significant impact in the UK – such as American mink.

The UK’s exit from the EU will place further burden on this overstretched body as its remit is expanded to cover Northern Ireland and it is required to take on functions previously carried out by EU bodies such as the Scientific Forum, which involves considerable independent scientific and technical expertise from EU member states. Uncertainty around information-sharing on high-risk invasive species, such as access to the EU’s invasive species Information Support System, is further cause for concern.

¹² Convention on Biological Diversity 6th COP 6 Decision VI/23 <https://www.cbd.int/decision/cop/?id=7197>



Clearly the current regime for invasive species biosecurity is failing. Species are establishing at an alarming rate, and academics are warning of even greater threats on the horizon. New trading routes opened up by Brexit will exacerbate this risk, but Brexit itself is an opportunity to pioneer world-leading invasive species defenses and showcase these on the global stage at the Convention on Biological Diversity COP15 in 2021.

We need an urgent step-change in the level of priority and attention afforded to invasive species by our Government, which must be accompanied by a commensurate increase in resources and modernisation of our invasive species biosecurity infrastructure.

We are urging the Government to:

Commit to triple the invasive species budget from £0.9million to at least £3 million in the 2020 Comprehensive Spending Review.

This budget would enable enhanced rapid response capabilities, maintenance of specialist and expert capacity in the face of emerging threats, and more strategic coordination of invasive species control efforts.

Additional investment in people to undertake management of widespread invasive species at a strategic scale should be a cornerstone of the Government's strategy for a green recovery from Covid-19. There is ample paid and voluntary work to do across the country. Scaling up the Local Action Group network to full capacity across the country would require an estimated 4,000 LAG staff, 75,000 volunteers and 2,000 contractors. People could be trained in volunteer management and specialist invasive species control skills as part of a Government-funded National Nature Service¹³, and a vast expansion of the volunteer-base engaged and educated in invasive species identification and eradication would go some way to meeting the Environmental Audit Committee's recommendations for a Biosecurity Citizens' Army. This would complement control efforts by land managers supported through the Environmental Land Management Scheme.

Establish a dedicated invasive species inspectorate that will enable the UK countries to respond rapidly and robustly to emerging threats and new arrivals.

An additional £3 million should be allocated to set up a dedicated inspectorate for invasive species that is comparable to the other four biosecurity regimes. It is the only effective way to tackle the invasives risk.

This would fund approximately 20 inspectors, similar in size to the Aquatic Animal Health Inspectorate which arguably has a much smaller (though no less important) remit.

¹³ <https://www.nationalnatureservice.org/>

Lord Gardiner, Minister for Biosecurity, has stated¹⁴ that *“the Government is carefully considering the case for an invasive non-native species inspectorate and the functions that it might carry out.”* He also said they will *“look to determine if a separate inspectorate is required based on an assessment of costs, benefits and practicalities [and] assess whether existing inspectorates might be extended in scope to carry out INNS related functions.”*

This presents a small ask considering the recent announcement for the recruitment of 100 new Plant Health inspectors to assist with the transition of the UK out of the EU. Ian Hewett, Service Delivery and EU Exit Director stated *‘this recruitment is a critical part of our preparedness for the UK’s final departure from the EU. The additional Plant Health and Seed Inspectorate capacity will enable us to meet our goals of facilitating trade and maintaining biosecurity’*.¹⁵ This clearly highlights the imbalance in resources provided to invasive species compared to other biosecurity inspectorates, which urgently needs to be addressed.

The legislation, practicalities and challenges presented by invasive non-native species differ fundamentally from those presented by animal and plant disease. An inspectorate for invasive species would be expected to promote implementation of policies, best practice and legislation as required by the Invasive Alien Species Regulation. These all pivot on factors and imperatives that diverge profoundly from those relevant to animal and plant health, for example:

- Concepts of native and non-native;
- Species lists of organisms crossing a far broader range of taxa, ecologies, size, behaviour, distribution and impacts;
- Pathways – such as boat hulls and pet trades – that are both more diverse, and very different from most animal and plant disease pathways;
- The need for early warning and rapid response that utilises vigilance from audiences much wider than just one or two industries: often, broad public vigilance will be required;
- The need to engage management and eradication techniques – such as shooting, vegetation management in important habitats, the use of toxins and bait traps, biological control techniques – that are more diverse than the control of diseased livestock or crop plants.

Any attempt, therefore, to engage existing animal and plant health inspectorates in combatting the growing invasives threat risks distracting those from their core purpose, failing to adequately engage the required specialist knowledge and skills needed for invasive species, and securing poor value for the public purse through inefficient and ineffective operations.

¹⁴ Parliamentary Question, February 2020 <https://www.theyworkforyou.com/wrans/?id=2020-02-24.HL1809.h&s=invasive+species#gHL1809.q0>

¹⁵ Defra press release, July 2020 <https://www.gov.uk/government/news/apha-launches-recruitment-campaign-for-plant-health-inspectors>

The GB Non-Native Species Secretariat has so far identified 51 functions that an invasive species inspectorate should carry out – 38 of these are unique to invasive species while 13 are partially covered by other biosecurity regimes¹⁶. Functions identified as ‘partially covered by other inspectorates’ mainly relate to controls at the border. However, the term ‘partial’ is key as there are important gaps that need addressing, such as more frequent and rigorous inspections of recreational boating and angling gear, and soil of imported plants, all of which can carry stowaway invasive species such as highly invasive flatworms.

The remaining 38 unique functions of an invasive species inspectorate identified by GBNNSS relate to pre-border and internal biosecurity measures, including but not limited to:

- investigating deliberate release or dumping and monitoring
- online biosecurity
- educating target groups (e.g. exotic pet owners, recreational water users)
- initiating rapid response functions and engaging specialist capacity within the Defra agencies (which, with the necessary parallel increase in INNS biosecurity budget, would be enhanced)
- alerting the police to criminal activity and assisting with investigations

Support from the Environmental Audit Committee: Calls for increased resources and an invasive species inspectorate have been resoundingly supported by the Environmental Audit Committee (EAC) in their October 2019 report¹.

In the course of its inquiry, the Committee took evidence from Lord Gardiner, Minister for Biosecurity. Unusually for a Government minister, Lord Gardiner spoke of the inadequacy of resources for invasive species measures and the Government’s consequent failure to prevent them arriving. He said, in relation to resources and the Comprehensive Spending Review, “*we have not, candidly, had the resources that I would suggest animal health and plant health have had ... More resources need to be put into this major contribution to environmental degradation... We have an ambitious spending review request because we think this is an important area.*”

The Committee made a number of other important recommendations which we support, including the establishment of a biosecurity ‘citizens army’ to help identify invasive species and respond to biosecurity outbreaks, learning from New Zealand’s highly effective and ambitious approach.

¹⁶ Environmental Audit Committee oral evidence, July 2019

<http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/environmental-audit-committee/invasive-species/oral/103706.html>



WHY INVEST?

With an increase in budget of £1 million to £6 million (funding and inspectorate plus on-the-ground biosecurity and control), the GB Non-Native Species Secretariat estimates that, in the next 20 years, we could:

- Prevent 24 new species from establishing
- Eradicate 10 existing species
- Restrict the spread of 20 species and prevent them colonising new parts of GB

Overall, this would constitute a **50-67% reduction** in the number of establishments of new invasive species, **remove 5% of the established species** and **restrict the spread of a further 10%** - these last species being the priorities for long-term control.

In monetary terms, over the next 20 years this would amount to an approximate saving of £2.7 billion, for an annual investment of just £6 million¹⁷. That's a return on investment of £23 for every £1 spent. This estimate does not account for the restricted spread of 20 established species, nor does it take account of the cumulative cost of INNS as they become more established, so the actual saving is likely to be much greater.

Given the devastating impacts of some of the species expected to arrive on British shores in the next 20 years, an annual investment of £6 million now would represent by far the most cost-efficient use of taxpayers' money. In considering this issue within the Comprehensive Spending Review, we would urge the Government to reflect on the potential impact of invasive species at this critical time for both our natural world and our economy.

The UK is one of the most nature-depleted countries on the planet¹⁸. Much of our treasured wildlife continues to decline in both numbers and range, with invasive species as a primary driver of that decline. Now, we are entering a recession as a result of the coronavirus pandemic and there is huge pressure on post-Brexit trade deals to determine our future economic success. Yet unless we ensure our invasive species defences are robust, new and expanded trade will open our doors to irreparable damage by invasive species to wildlife, and multi-billion pound annual bills to deal with damage to businesses and property.

The question for Government should not be can it afford to invest in our invasive species defences, but can it afford not to?

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¹⁷ Wildlife and Countryside Link 2020 https://www.wcl.org.uk/docs/INNS_savings_calculations_Aug2020.pdf

¹⁸ State of Nature, 2019 <https://nbn.org.uk/wp-content/uploads/2019/09/State-of-Nature-2019-UK-full-report.pdf>

This report and the calls within it are supported by the following organisations:

