

# A-LAW Essay Competition Winner: Invasive Species

2021: Is the UK's legal approach to "invasive" species of animals justified in the interests of protecting the UK's native wildlife?

By Emily Treneman

## Introduction

As a planet we are enduring a fifth mass extinction, with at least 550 known animal species extinct in the last 300 years, and an estimated 1 million more species facing the possible threat<sup>1</sup>. There is a plethora of contributing factors to this phenomenon, nearly all with an anthropogenic cause, including invasive species. The term invasive or alien species refers to species that has invaded a foreign environment and consequentially caused adverse effects on the native ecosystems. Although this process is not uncommon in the natural world when considering the historic movement of species, the current abundance and scale has undoubtedly been exacerbated by humans. It aligns with the globalisation of our own species as we open up wildlife corridors<sup>2</sup>. And as such, it seems only consequential that laws be employed to counter the devastating effects of invasive species. Notably one of the cheapest and most rapid methods is extermination, which raises the moral dilemma as to the justifiability of devaluing the life of one species in the bid to protect another.

## UK legislation on 'invasive' species

The authoritative UK law that tackles the wide-

spread issue of invasive species is enshrined in the Invasive Alien Species (Enforcement and Permitting) Order 2019 along with the EC Habitats Directive, the Convention on Biological Diversity and the Bern Convention amongst others. The approach of the legislations highlights the need for prevention- s.3 of the Invasive Alien Species (Enforcement and Permitting) Order 2019 lists native species where it is an offence to release them into the wild-and immediate response, namely extermination<sup>3</sup>.

It is interesting to consider that studies have proven the most effective way of protecting native wildlife is through prevention methods and worth noting that many of the methods employed in the UK to eradicate one species are not able to ensure the protection of others. A pinnacle example is the culling experiments authorized by the British Government in 2013 on Eurasian badgers. It was demonstrated they were ineffective at reducing the spread of TB amongst cattle, nor did they reach the standard of humaneness expected<sup>4</sup>. Nonetheless, culls continue to be used and expanded, with approximately 164,000 culled since the experiments began<sup>5</sup>. When considering UK law, introductions of new species are not strictly prohibited, only regulated<sup>6</sup>. S1.18 of The Bern Convention only necessitates strict control<sup>7</sup>, which questions whether the drastic extermination provisions are justified when methods of prevention are not of an equal (if not greater) magnitude. The Invasive Alien Species Order stresses the need for emergency eradication procedures where

3 Manchester S, and Bullock J, 'The Impacts Of Non-Native Species On UK Biodiversity And The Effectiveness Of Control' (2000) 37 *Journal of Applied Ecology*

4 Dubois S and others, 'International Consensus Principles For Ethical Wildlife Control' (2017) 31 *Conservation Biology*

5 ([Badgertrust.org.uk](https://www.badgertrust.org.uk), 2021) <<https://www.badgertrust.org.uk/cull>> accessed 26 February 2021

6 Manchester (1)

7 Convention on the Conservation of European Wildlife and Natural Habitats, (1979) ETS No.104

1 Tollefson J, 'Humans Are Driving One Million Species To Extinction' (2019) 569 *Nature*

2 Westphal M and others, 'The Link Between International Trade And The Global Distribution Of Invasive Alien Species' (2007) 10 *Biological Invasions*



prevention methods fail<sup>8</sup>. It seems indefensible that the efforts and regulations are not weighted more towards the altogether prevention, where the resulting effect is one of such inhumane proportions- the mass culling of entire populations.

### **The threat to native wildlife**

It is widely accepted that extinction is as much a natural process in our world as evolution, however as we are living in the fifth cataclysmic event the world has seen, the rate at which it is unfolding is unprecedented. The loss of a single species can result in resounding impacts on the ecosystem functioning, particularly with regards to keystone species. Take pollinators for example, like the bee, whose extinction would reverberate throughout the food web.

The UK's wildlife is one of the most depleted in the world, it has seen reductions of 60% in some of our most endangered species since

1970<sup>9</sup>. Invasive species hold some of the blame for this tragedy, which recent studies pinpointing them as a contributing factor to nearly half of all endangered species<sup>10</sup>. There are currently an estimated 193 non-native species in Britain that are impacting the local wildlife<sup>11</sup>. We have witnessed the grey squirrel drive the red to the brink of extinction, the American mink dominate lotic ecosystems, and cane toads poisoning entire food chains. Protecting indigenous species is paramount in their survival and eradication is considered by many to be the lesser of two evils.

<sup>8</sup> Invasive Alien Species (Enforcement and Permitting) Order 2019

<sup>9</sup> 'One In 10 UK Wildlife Species Faces Extinction, Major Report Shows' (*the Guardian*, 2021) <<https://www.theguardian.com/environment/2016/sep/14/one-in-10-uk-wildlife-species-faces-extinction-major-report-shows>> accessed 26 February 2021

<sup>10</sup> 'Invasive Species | National Wildlife Federation' (*National Wildlife Federation*, 2021) <<https://www.nwf.org/Educational-Resources/Wildlife-Guide/Threats-to-Wildlife/Invasive-Species>> accessed 26 February 2021

<sup>11</sup> 'UKBI - B6. Invasive Species | JNCC - Adviser To Government On Nature Conservation' (*Uncc.gov.uk*, 2021) <<https://jncc.gov.uk/our-work/ukbi-b6-invasive-species/>> accessed 26 February 2021



## Alternative approaches

However, there are humane options available that have been proven to be equally, if not more, effective. During a global extinction epidemic, can we justify killing one to prevent the death of another? I am of the view that all animals need to be treated as what they are, a life, a vessel of their species genetics, and a part of the continuation of that species- a species that is no less important than another. There are viable humane methods at our disposal such as immunocontraception, co-habitation promotion and capture and relocation programmes- they should be our absolute frontline defence where prevention has failed<sup>12</sup>. It would be unwise and unjust to continue down a path of destruction in a world that is going extinct. There is undeniably the financial issue concerned with more humane methods, however if we refer to the costs incurred by invasive species at 1.3 billion in England and 125 million in Wales, effective management of any

kind would have an overall positive effect on the economy<sup>13</sup>. Humane methods are also less harsh on the native wildlife, as eradication methods can not be 100% targeted at the alien species alone. The extermination programme of the topmouth gudgeon consisted of the poisoning of entire river ecosystems with pesticides, all local wildlife is impacted during this process<sup>14</sup>.

The dispersal of species into novel environments is not an unfamiliar concept in the natural world. Whether it be Japanese sea creatures carried across the Pacific by the Tohoku tsunami of 2011<sup>15</sup>, or marine iguanas floating to the Galapagos millions of years ago; history is punctuated with these species that have moved

<sup>12</sup> Strive T, Hardy C, and Reubel G, 'Prospects For Immunocontraception In The European Red Fox (*Vulpes Vulpes*)' (2007) 34 *Wildlife Research*

<sup>13</sup> 'The Economic Impact Of Invasive Species On Great Britain Revealed - The Invasives Blog' (*The Invasives Blog*, 2021) <<https://blog.invasive-species.org/2010/12/15/the-economic-impact-of-invasive-species-on-great-britain-revealed/>> accessed 26 February 2021

<sup>14</sup> Britton J, and Brazier M, 'Eradicating The Invasive Topmouth Gudgeon, *Pseudorasbora Parva*, From A Recreational Fishery In Northern England' (2006) 13 *Fisheries Management and Ecology*

<sup>15</sup> Gewin V, 'Tsunami Triggers Invasion Concerns' (2021)

and successfully flourished in their new environment. Least to say, the most notorious and successful of all being the human. It could be argued we should let 'nature' take its course and allow the survival of the fittest to prevail. This will undeniably result in some animals being out competed. Yet these alien species often take up the ecological function of the ones they drive out, and in some circumstances allowing another species to flourish. Animals have also been known to adapt to the introduction of invasive species. Australia has witnessed the cane toad eliciting morphological changes to occur in native snakes<sup>16</sup>, demonstrating the extent of the durability of nature and its unrelenting ability to adapt and overcome the harsh conditions it may face. This outcome, is surely, more favourable than wiping out an entire population.

## Conclusion

The law cannot justify the pursuit of the protection of our self-constructed hierarchy of animals and choose who dies an often-agonising death, so another has an uncertain better chance of survival<sup>17</sup>. It is an unjustifiable ideology that itself needs to become extinct. This problem is a man-made one, and yet to no surprise the animals are the ones to suffer. Strict regulations should be imposed on regulating human activity more. The root cause should be resolved instead of killing the animals we have caused to be here. UK law should be altered to a more humane and justified approach to redirect the focus and funding towards preventative measure. Regarding already existent invasive species, a compassionate balance can be struck. Humane long-term control such as those discussed and co-habitation strategies instead of extermination programmes should be favoured, for the preservation of all life; native and non-native alike.

**Emily Treneman has just finished studying for the GDL after graduating from Cardiff University in Biological Science. She is very passion-**

**ate about animal rights and enjoys writing about legal issues on the matter. She hopes to pursue a career in this field of law and help improve the legal rights of animals.**

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<sup>16</sup> Phillips B, and Shine R, 'Adapting To An Invasive Species: Toxic Cane Toads Induce Morphological Change In Australian Snakes' (2004) 101 Proceedings of the National Academy of Sciences

<sup>17</sup> Barkham P, 'Should We Cull One Species To Save Another?' (*the Guardian*, 2021) <<https://www.theguardian.com/environment/2020/jun/28/should-we-cull-one-species-to-save-another-huge-mice-killing-birds-gough-island>> accessed 25 February 2021