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Decapods as food, companions and research animals: Legal impact of ascribing sentience

Commentary on [Crump et al.](#) on *Decapod Sentience*

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Abstract: This commentary provides an overview of the practical implications of attributing sentience to protect decapods as food, companion and research animals in the UK context. Recognising their capacity to suffer has implications for humane slaughter in farming and fishing sectors. It should also place a greater duty of care on owners of captive decapods, considering their needs and avoiding unnecessary suffering. The recognition of decapod sentience should also have an impact on their protection as research animals, although research with a potential to cause suffering may be needed to better understand decapods' capacity to suffer.

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1. Decapod sentience and protection. Crump et al's (2022) timely target article draws together the current evidence for sentience in invertebrates, identifying gaps in knowledge, as well as summarising the evidence for introducing animal protection legislation. This commentary will focus on the current situation in the United Kingdom (UK), where section 5 of the Animal Welfare (Sentience) Act (June 2022) recognised all vertebrates, as well as cephalopod molluscs and decapod crustacea, as sentient animals. Sections 1-3 established an Animal Sentience Committee to report on the policy implications of this recognition of animal sentience. Originally, only vertebrate species were to be defined as sentient; however, following a review of evidence by the authors (Birch et al 2021), cephalopods and decapods were added for final readings. Although the recognition of decapod sentience may not yet have an immediate impact on decapod welfare (Crump et al 2022; Crump 2022; Gorman

2022), this commentary will explore what could already be recognised in practice under existing legislation.

2. Decapods as food. A wide variety of decapods are captured or farmed for human consumption, including lobsters, crabs, prawns, shrimps and crayfish. In the UK, captive populations have scope for greater protection within the overarching requirements of the Animal Welfare Act (AWA 2006) to avoid causing unnecessary suffering. If captive decapods were to be protected under AWA 2006, they would need to be housed in a comfortable physical environment, provided with health care and species-appropriate food, and allowed opportunities to perform natural, motivated behaviours. Slaughtering them would also need to be done humanely, to minimise suffering. One area of focus has been boiling live lobsters; although the lobsters may originally have been free-living, in the period of management following capture they become captive animals, and consequently less humane slaughter must be replaced by more humane methods (Conte et al., 2021). Even without a formal ban on live boiling, the recognition of lobsters as sentient is likely to further increase public concerns and to reduce the practice significantly (Crump et al. 2022).

3. Decapods as companion animals. A wide range of decapod species are commonly kept as pets, including hermit crabs, crayfish and prawns. There are currently no legally binding requirements for the husbandry and housing of these species as pets in the UK; however, their recognition as sentient under AWA 2006 should increase their protection and improve their quality of life. AWA 2006 places a duty of care on the animal's owner, who can be prosecuted for neglect, cruelty or causing unnecessary suffering to protected captive animals. Hence, if decapods kept as pets are accorded levels of protection similar to those accorded to vertebrate pets, their owners will be liable to prosecution if they do not provide a suitable physical environment, diet, and health care. Compliance is a challenge to enforce; nevertheless, the legal recognition of sentience, the duty to provide care and the potential for prosecution can lead to a greater recognition of the needs of decapods by responsible owners.

4. Decapods as research animals. Currently only one invertebrate species (*Octopus vulgaris*) receives protection as a research animal under the Animal (Scientific Procedures) Act in the UK (ASPA 1986). This means -- for any research procedure with the potential to cause pain, suffering or lasting harm -- that the potential benefits of the research compared to its costs to the animal must be evaluated. The protection of decapods under ASPA 1986 would therefore have implications for research involving decapods as well as their use in student teaching to develop knowledge and skills. This would mean a more rigorous ethical review (ASAB 2020, Home Office 2020). It is perhaps ironic that the kind of research findings cited by Crump et al (2022) in support of decapod sentience might now require a license under the terms of ASPA 1986 (e.g. Elwood 2019, 2021). Both ASPA and the 3R research principles (Lewis et al. 2019) have advocated using invertebrates instead of vertebrates as models in research (Passantino et al 2021). Cost-benefit analysis would not necessarily preclude the use of decapods in research on welfare, physiology or ecotoxicology, but researchers would have to complete the same ethical review as for studies with vertebrates (Home Office 2020). Under existing powers, the UK Home Office can already extend protection to decapods without involving the Animal Sentience Committee because "*The Secretary of State may by order... extend the definition of protected animal so as to include invertebrates of any description*" (ASPA 1986).

5. Summary. Although the recognition of decapod sentience may not have an immediate impact on their welfare when they are used as food, companion or research animals, it does elevate their status as animals that have interests in view of their capacity to suffer. The establishment of an Animal Sentience Committee with “*functions relating to the effect of government policy on the welfare of animals as sentient beings*” offers a route toward providing greater protection to decapods by adding them to existing legislation such as AWA 2006 and ASPA 1986. The challenge may no longer be to recognise that they can indeed suffer, but to identify, through research, how to meet their requirements in husbandry and how to provide humane alternatives to practises that lead to unnecessary suffering.

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