

Aquaculture brings the animal suffering and environmental impact of farming to the sea. But there is a better way.

Policy

Animal aquaculture causes enormous suffering to animals. It is also responsible for environmental problems and the harming of wild species such as whales, dolphins, seals, birds and other aquatic animals.

The Animal Justice Party (AJP) is opposed to animal aquaculture and will advocate to end the practice. In the interim, the AJP advocates for sound, evidence-based regulation and monitoring of aquaculture operations to minimise impacts on animals and the environment.

The AJP advocates plant-based aquaculture, not animal-based. This includes opportunities to develop algae industries (including seaweed) as part of a transition towards cruelty-free farming. Sea grasses can also be farmed as carbon sinks, similar to forestry on land.

Key Objectives

1. Educate the public on the serious harm to aquatic animals and the environment caused by animal aquaculture, and on the latest science revealing the sentience and the emotional and cognitive abilities of aquatic animals.
2. Ensure that aquatic animals are protected under the law in all states and territories (see our Animal Law Policy)
3. Transition away from animal aquaculture (including aquaponics), with economic incentives.
4. Enhance regulation and monitoring around the environmental impacts of animal aquaculture, including through the use of satellite imagery.
5. Develop seaweed and other algae products and promotional marketing strategies to broaden the appeal of such aquatic foods to Australian consumers.

¹<https://www.agriculture.gov.au/abares/research-topics/fisheries/fisheries-and-aquaculture-statistics>

²<https://voiceless.org.au/fishes-the-next-wave-of-animal-advocacy/>

³<https://thefishsite.com/articles/catching-handling-and-transport-the-implications-for-fish-welfare>

⁴<https://www.independent.co.uk/environment/cruelty-crustaceans-save-lobster-6096317.html>

⁵<https://royalsocietypublishing.org/doi/full/10.1098/rsos.160030>

⁶<https://www.wellbeingintlstudiesrepository.org/cgi/viewcontent.cgi?article=1112&context=animsent>

⁷<https://doi.org/10.1038/35016500>

⁸<https://doi.org/10.1073/pnas.0905235106>

⁹<https://doi.org/10.1038/35016500>

Background

Animal aquaculture involves the intensive farming of fishes, molluscs, crustaceans, and amphibians. It occurs in oceans, estuaries and freshwater bodies, and in factory farm-style industrial facilities. In 2018, the Australian animal aquaculture industry *killed over 97,000 tonnes of animals*¹. We do not know the number of animals killed each year, because the industry measures their deaths in tonnes, not individual lives lost. The mass, abstract measurement of “fish” has led to many advocates instead using the term “fishes”² to recognise the individuality of each fish.

Aquaculture is a major cause of suffering in animals. They are kept in crowded conditions, are removed from their pens by capture (often by vacuum), and their handling and transportation causes *extreme stress and injury*³. Lobsters can be kept alive in *storage facilities*⁴ outside their natural environment for several months and denied any ability to express their natural behaviours. The conditions of these “fish farms” are so traumatic to individuals, that up to one quarter of farmed salmon *float lifelessly on the surface*⁵ of their tanks, suffering from a condition that scientists say is akin to severe depression. Fishes and complex invertebrates, such as octopus, are sentient animals. The *science*⁶ clearly shows they experience pain and suffering from animal aquaculture.

People often believe that animal aquaculture is a way to reduce human impacts on wild aquatic animals. However, this is generally *not the case*⁷. Many “fish farms” *use wild fishes as feed*⁸, with only a *low percentage*⁹ of feed converted to fish meat. This means that aquaculture causes a much larger impact, on both the environment and the suffering of fishes, than is commonly believed.

Animal aquaculture also often involves killing the predators, especially birds, who feed from the pens. Boundary nets

used in aquaculture often entangle marine mammals, such as¹⁰ *whales, dolphins and seals*¹¹.

Environmental impacts seen from space

Beyond its impact on the welfare of wild and farmed aquatic animals, aquaculture contributes to a range of environmental and health problems. Among these are *destructive land use, ecosystem degradation, land and water*¹² *pollution*¹³, *water use, erosion, and diseases*¹⁴. Waste from animal aquaculture is responsible for *poor water quality*¹⁵ caused by bacterial contamination and low dissolved oxygen which can lead to marine dead zones. Impacts can also include *mass breakouts*¹⁶. Many of these problems can be measured and monitored through existing imaging satellites, and the Australian Space Agency has *expressed interest*¹⁷ in monitoring these impacts. Satellites have proven to be very effective in monitoring *land clearing*¹⁸ around Australia.

Algae Aquaculture

Seaweed is already being used for many purposes and as a surprising solution to many problems. It is important to

further fund research into the exciting possibilities that come with a domestic algae aquaculture industry. Current or proposed uses include:

- *nutritious food source*¹⁹
- *cleaning polluted water*²⁰
- *organic fertiliser*²¹
- *tissue engineering and wound healing*²²
- *fighting climate change by drawing carbon from the atmosphere*²³
- *bioplastics and other materials*²⁴
- *clothing and fashion*²⁵

AgriFutures recognises the *long list of possibilities*²⁶. Seaweed is seen as an appealing food choice by many consumers, *particularly health-conscious consumers*²⁷. Australia is home to a *remarkable diversity of seaweed species*²⁸, yet it remains a net importer of seaweed. Developing a seaweed aquaculture industry in Australia is an opportunity to reduce the suffering of fishes and other marine animals, whilst also transitioning an industry and promoting a sustainable economy.

¹⁰<https://www.abs.gov.au/AUSSTATS/abs@.nsf/featurearticlesbytitle/2F9296E45B52B49BCA256CAE0015CAAC>

¹¹<https://www.abs.gov.au/AUSSTATS/abs@.nsf/featurearticlesbytitle/2F9296E45B52B49BCA256CAE0015CAAC>

¹²<https://doi.org/10.1016/j.ocecoaman.2015.10.015>

¹³<https://doi.org/10.1016/j.ocecoaman.2015.10.015>

¹⁴<https://doi.org/10.1016/j.ocecoaman.2015.10.015>

¹⁵https://docs.google.com/document/d/173qDjMxSjiYfu2B1_joPTY9qYRsfMx_A4c4D_x6v_tQ/edit?usp=sharing

¹⁶<https://www.abc.net.au/news/2020-11-23/salmon-breakout-after-fire-huon-aquaculture-tasmania/12912222>

¹⁷<https://publications.industry.gov.au/publications/advancing-space-australian-civil-space-strategy-2019-2028.pdf>

¹⁸<https://www.qld.gov.au/environment/land/management/mapping/land-clearing>

¹⁹<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5387034/>

²⁰<https://doi.org/10.3390/ijerph15122851>

²¹<https://doi.org/10.1007/s13762-019-02442-z>

²²https://www.researchgate.net/publication/272946100_Algae_breathe_new_life_into_tissue_engineering

²³<https://doi.org/10.1016/j.tibtech.2020.03.015>

²⁴<https://innovationorigins.com/algae-as-a-valuable-renewable-raw-biomaterial/>

²⁵<https://fashionjournal.com.au/fashion/could-algae-be-the-future-of-sustainable-fashion/>

²⁶<https://www.agrifutures.com.au/farm-diversity/cultivated-seaweed/>

²⁷<https://doi.org/10.1108/BFJ-03-2018-0189>

²⁸<https://doi.org/10.1007/s10811-013-0003-x>