

Santiago, August 20, 2025

National Agency for Research and Development (ANID)
Fund for the Promotion of Scientific and Technological Development (FONDEF)

Esteemed representatives of ANID and FONDEF,

On behalf of Fundación Derecho y Defensa Animal, Aquatic Life Institute and the Aquatic Animal Alliance, a global coalition of 160 organizations dedicated to improving the welfare of aquatic animals in food systems, we respectfully write to express our deep concern over the public funding of research projects aimed at developing octopus farming in Chile.

According to official figures, since 1983, the Chilean government has allocated a total of **CLP 2,423,024,404** to this type of research¹. The most recent project, completed on **April 1, 2025**, titled "*Low survival at the highest growth temperature in octopus paralarvae: Can it be solved through diet?*", was carried out by the Universidad Austral de Chile and received **CLP 82,764,000** in funding².

As organizations committed to ethical science and respect for animal welfare, we believe it is urgent to review the compatibility of this type of research with the **Bioethical Guidelines for Animal Research** issued by ANID. As stated in these guidelines, all research involving animals must follow the **3Rs principle** (Replacement, Reduction, and Refinement), ensure animal welfare, and prevent unnecessary suffering. However, octopus farming research appears to contradict not only these bioethical standards, but also the principles of sustainability and precaution that should guide all public scientific investment. Our concerns are based on the following reasons:

1. **High levels of sentience and ability to suffer in octopuses:** A 2021 review by the **London School of Economics and Political Science** examined over 300 studies and concluded that octopuses are highly sentient animals³. Further research shows they possess well-developed nervous systems and are capable of experiencing emotions, learning, reasoning, and memory⁴. They also avoid previously painful experiences and actively seek pain relief, which constitutes clear evidence of consciousness⁵.

¹ Compassion in World Farming (2024). *Fondos públicos para la cría del pulpo*. Disponible en: https://www.ciwf.org.uk/media/7458958/mindd-es_global-octopus-farming-public-funding-briefing.pdf

² Observatorio para la Innovación Silvoagropecuaria y la Cadena Agroalimentaria (2021). *La baja sobrevivencia en la temperatura de mayor crecimiento en Paralarvas de Pulpo ¿Puede Solucionarse a través de la Dieta?*. Disponible en: <https://opia.fia.cl/601/w3-article-122650.html>

³ London School of Economics and Political Science (2021). *Review of the Evidence of Sentience in Cephalopod Molluscs and Decapod Crustaceans*. Disponible en: <https://www.lse.ac.uk/News/News-Assets/PDFs/2021/Sentience-in-Cephalopod-Molluscs-and-Decapod-Crustaceans-Final-Report-November-2021.pdf>

⁴ Compassion in World Farming (2021). *Octopus Factory Farming: A Recipe For Disaster*. Disponible en: <https://www.ciwf.org.uk/research/species-aquatic-animals/octopus-factory-farming-a-recipe-for-disaster/>

⁵ Crook, R. J (2021). *Behavioral and neurophysiological evidence suggests affective pain experience in octopus*. Disponible en: <https://www.sciencedirect.com/science/article/pii/S2589004221001978>

2. **High risk of mortality in captivity:** Octopuses are extremely fragile animals with no internal or external skeleton. They require highly specific environmental and dietary conditions that are difficult to replicate in laboratory settings. As a result, their mortality rate in captivity is extremely high, reaching **96.6% in the larval stage** and up to **52% in the juvenile/adult stage**⁶.
3. **Incompatibility with animal welfare:** Octopuses are solitary, territorial, and inquisitive animals. Confinement in small spaces leads to aggressive behaviors, including cannibalism, and causes high levels of stress, boredom, and frustration⁷.
4. **Absence of humane slaughter methods:** There is currently no scientifically validated method for the humane slaughter of octopuses⁸. The commonly used methods, such as blunt force trauma, asphyxiation, or brain severance, or immersion in ice slurry, cause intense and prolonged suffering, violating the euthanasia protocols accepted by ANID.
5. **Severe environmental impacts:** Octopus farming can produce nitrogen and phosphorus waste that alters coastal ecosystems, promotes harmful algal blooms, and harms biodiversity. Their carnivorous diet also demands large quantities of animal protein, increasing pressure on already overexploited marine populations.
6. **Public health risks:** Intensive aquaculture farms facilitate the spread of pathogenic bacteria like *Vibrio* (linked to cholera) and foster antibiotic overuse, contributing to antimicrobial resistance, a major global health threat.
7. **International rejection:** In March 2024, over one hundred scientists and veterinarians published an article in *Science* expressing strong opposition to octopus farms, citing robust evidence of sentience, vulnerability, and complexity in these animals, and warning of the serious welfare impacts⁹. Additionally, in the United States, the states of **California**¹⁰ and **Washington**¹¹ have enacted laws expressly prohibiting octopus farming. In California, it is also illegal to import products from such farms. Legislative proposals to ban octopus farming have also been introduced at the federal level and in states such as **Hawai'i, New Jersey, Oregon, New York, North Carolina, Massachusetts and Connecticut**.
8. **Availability of sustainable and ethical alternatives for scientific research:** We urge FONDEF and ANID to redirect funding toward projects such as seaweed and plant-based aquaculture, marine ecosystem restoration, development of alternative proteins, and alternative assays with the implementation of in vitro models such as

⁶ Aquatic Life Institute. *¿Qué ocurre detrás de la investigación sobre cultivo de pulpos en México?*. Disponible en: https://www.ali.fish/blog/qu-ocurre-detrs-de-la-investigacin-sobre-cultivo-de-pulpos-en-mxico-j37j9?utm_source=chatgpt.com

⁷ Compassion in World Farming, op. cit.

⁸ Compassion in World Farming, op. cit.

⁹ Science (2024). Support US OCTOPUS Act to keep octopuses wild. Disponible en: <https://www.science.org/doi/10.1126/science.adr3813>.

¹⁰ California State Assembly. Assembly Bill No. 3162 (OCTO Act), 2024. Disponible en: https://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=202320240AB3162

¹¹ Washington State Legislature. House Bill 1153 – 2023-24. "Prohibiting octopus farming." Disponible en: <https://app.leg.wa.gov/bills/bills/summary?billnumber=1153&year=2023>

cell cultures or in silico tools like computer simulations, which have proven to be effective for studying environmental effects and toxicology in a sustainable manner¹² experimentation models. The trend toward these technologies is escalating¹³ and their adoption not only has an immediate ethical impact, it also generates long-term economic benefits, such as compliance with international regulations and the creation of new markets and jobs.

In light of the above, we respectfully request that ANID and FONDEF:

- Refrain from approving future research proposals aimed at promoting intensive octopus farming.
- Enforce strict compliance with bioethical guidelines for all funded research.
- Actively promote the replacement of animal models with in vitro or in silico alternatives, and redirect public funding toward sustainable, ethical, and socially responsible scientific initiatives.

We firmly believe that public funding for science must not conflict with the principles of respect and protection for animals. Chile has the potential to lead cutting-edge research that places ethics at its core.

Signatories

Aquatic Life Institute

Acción Océanos

Action for Protection of Animals Africa

Action For Dolphins

Ader-cov

AEL Advocacy

African Marine Mammal Conservation Organization

Alexandria Turtle And Wildlife Rescue

Alianima

Alliance for Human Animal Coexistence

Angolan Vegetarian Association

¹² OECD (2011), *Test No. 201: Freshwater Alga and Cyanobacteria, Growth Inhibition Test*, OECD Guidelines for the Testing of Chemicals, Section 2, OECD Publishing, Paris, <https://doi.org/10.1787/9789264069923-en>.

¹³ Bal-Price, A., et al. (2020). *Practical implementation of New Approach Methodologies (NAMs) in the regulatory context: An overview of the European regulatory framework*. Regulatory Toxicology and Pharmacology, 114, 104654. <https://doi.org/10.1016/j.yrtph.2020.104654>

Anima International

Anima Naturalis

ANIMAL

Animal Action Greece

Animal Advocacy Africa

Animal Advocates International

Animal Empathy Philippines

Animal Equality

Animal Friends Croatia

Animal Justice Canada

Animal Interfaith Alliance

Animal Kingdom Foundation

Animal Law Focus

Animal Law Italia

Animal Libre

Animal Nepal

Animal Rights Center Japan

Animal Rights Initiative

Animal Society e.V.

Animals Aotearoa

Animals Don't Speak Human

Animal Welfare Advocates Association the Gambia

Animal Welfare and Environment Network for Tanzania

Animal Welfare Concern

Animal Welfare Institute

Animal Welfare Observatory

Animals Australia

Animals Now

Apon Welfare

ARBA

Arusha Society for the Protection of Animals

Aware

Better Food Foundation

BC SPCA

Catholic Concern for Animals

Congo Basin Conservation Society CBCS-Network

Coalition of African Animal Welfare Organisations

Compassion in World Farming

Conservative Animal Welfare Foundation

Crustacean compassion

The Dark Hobby

Depana

Deutscher Tierschutzbund

Dharma Voices for Animals

Dieren Bescherming

Djurens Rätt

Dyrenes Alliance

Environmental and Animal Society of Taiwan (EAST)

Education for African Animals Welfare

Environmental and Animal Rights Consultants Pakistan

Essere Animali

Estonian Union for the Protection of Animals (MTÜ Eestimaa Loomakaitse Liit)

Eurogroup for Animals

The European Institute for Animal Law & Policy

Ethical Farming Ireland

EZRA Foundation

FAADA

fair-fish international

Farmállatvédelem

Feedback Global

Fish Welfare Initiative

La Fondation Droit Animal, Éthique et Sciences (LFDA)

Fórum Animal

F.R.E.E

Frente Animal

Friends of Phillip

Fundación Abogados Por Los Animales APLA

Fundación Defensa y Derecho Animal

Fundación Veg

Future For Fish

Ghana Animal Welfare Society

Green REV Institute

Humane Africa Trust

The Humane Global Network

The Humane League

Humánný pokrok

In Defense of Animals

Institute of Animal Law Asia

International Centre for Animal Rights and Ethics (ICARE)

Invisible Animals (Nevidimi Zhivotni)

Kitwe Animal Welfare Society

Kurdistan Organization for Animal Rights Protection

KYMA sea conservation & research

L214

Lady Freethinker

The Last Cage

Lever

Life of Pachamama

Lilongwe Society for Protection and Care of Animals

Luv 4 all: Uganda

Meru Animal Welfare Organization

National Council of SPCAs

Nepal Animal Welfare and Environment Society (NAWES)

Nepal Animal Welfare and Research Center (NAWRC)

New Roots Institute

Nurture Imvelo Trust

Nuru Animal Welfare Organization

Oikeutta eläimille

OIPA - International Organization for Animal Protection

One Health and Development Initiative

ONG Sante Animale Afrique (SAA)

Podrska foundation

PlantBased Treaty

Plataforma ALTO

Planet For All

Protección Animal Ecuador (PAE)

Proyecto ALA

PAZ

RENTAS

Rwanda Animal Welfare Organization (RAWO)

SAFCEI

SAFE (Save Animals from Exploitation)

Samayu

Scale Welfare

Sea Shepherd Brasil

Seastemik

Sentience

Sentient Media

SHARED

Shellfish Network

Shrimp Welfare Project

Sibanye Animal Welfare and Conservancy Trust

Sinergia Animal

Somali Animal Welfare Society (SAWS)

Sống Thuần Chay

SPCA Montreal

SPCA Selangor

Tanzania Animals Protection Organization

Tanzania Animal Welfare Society (TAWESO)

Te Protejo

Terranimal Ecuador

Teuluu Sustainability Foundation

Tikobane Trust

Todos Somos Animales

Tourists Against Trophy Hunting

University of Guilan

Uganda vegan society

Utunzi Animal Welfare Organization

Vegan Planet Africa

Vege zajednica

Vissenbescherming

Vivamar Society

Voices for Animals

Voters for animals rights

We Animals

Welfare Footprint Project (Center for Welfare Metrics)

West Africa Centre for the Protection of Animal Welfare (WACPAW)

World Animal Justice

WTS