



February 11, 2025

House Committee on Agriculture and Food Systems Hawai'i State Legislature 415 South Beretania St. Honolulu, HI 96813

RE: Support for HB 365

Dear Chair Kahaloa, Vice Chair Kusch, and Members of the Committee:

We appreciate the opportunity to submit this letter<sup>1</sup> in strong support of HB 365, which would prohibit persons in Hawai'i from raising octopuses for human consumption. Octopuses are highly sensitive and intelligent animals with distinct environmental and social needs that are not easily replicable in artificial conditions. In addition to serious concerns about welfare, commercial octopus farming would pose significant and unnecessary threats to wildlife, the environment, and public health in Hawai'i. We applaud Hawai'i's efforts to ban this inhumane, unhealthful, and unsustainable practice, consistent with the State's strong track record of leadership on such issues and commitment to policy making rooted in the best-available science.

Octopuses are highly sensitive and intelligent animals who are capable of experiencing pain, stress, and fear, making them especially unsuitable for intensive farming. There is growing consensus within the scientific community that octopuses are sentient beings. Indeed, a recent government-commissioned independent review of over 300 existing scientific studies found that "there is strong evidence of sentience in octopods" and further concluded that "highwelfare octopus farming is impossible." These findings are consistent with a recent declaration by more than 500 experts across the world that "the empirical evidence indicates at least a realistic possibility of consciousness" in cephalopod mollusks like octopuses, and that "when there is a realistic possibility of conscious experience in an animal, it is irresponsible to ignore that possibility in decisions affecting that animal."

<sup>&</sup>lt;sup>1</sup> The views expressed herein are those of the authors and do not purport to represent the views, if any, of the Center for Environmental and Animal Protection, the NYU Wild Animal Welfare Program, New York University, or New York University School of Law. Individual titles and institutional affiliations are provided solely for identification purposes.

<sup>&</sup>lt;sup>2</sup> Jonathan Birch et al., *Review of the Evidence of Sentience in Cephalopod Molluscs and Decapod Crustaceans*, LSE Consulting, London School of Economics and Political Science (2021), <a href="https://www.lse.ac.uk/business/consulting/reports/review-of-the-evidence-of-sentiences-in-cephalopod-molluscs-and-decapod-crustaceans">https://www.lse.ac.uk/business/consulting/reports/review-of-the-evidence-of-sentiences-in-cephalopod-molluscs-and-decapod-crustaceans</a>; *see also* Jennifer Mather, *The Case for Octopus Consciousness: Valence*, 3 NEUROSCI 656 (2022), <a href="https://doi.org/10.3390/neurosci3040047">https://doi.org/10.3390/neurosci3040047</a>.

<sup>&</sup>lt;sup>3</sup> THE NEW YORK DECLARATION ON ANIMAL CONSCIOUSNESS, NEW YORK UNIVERSITY (Apr. 19, 2024), <a href="https://sites.google.com/nyu.edu/nydeclaration/declaration">https://sites.google.com/nyu.edu/nydeclaration/declaration</a>.

Their complex environmental and social needs make it impossible for octopuses to be raised humanely in aquacultural settings. Octopuses are highly intelligent and curious animals who have the ability to solve puzzles, use tools, learn skills, and play. As a result, they have high enrichment needs that simply cannot be met in farming environments. Octopuses in captivity regularly exhibit stress-related behaviors as a result of a lack of cognitive stimulation, including repetitive "darting" behaviors and self-harm. Moreover, octopuses are typically solitary by nature and have been known to act aggressively towards other octopuses and even cannibalize each other when confined together. Intensive confinement in barren, crowded spaces—as is typically present in the farming operations contemplated by this bill—would inevitably cause significant suffering among those individuals, raising serious welfare concerns.

Octopus farming is inconsistent with Hawai'i's environmental priorities and would pose a risk to public health. Octopuses are carnivorous apex predators who prey on live animals such as crabs, shrimp, and mollusks, and supplying food to farmed octopuses would only put additional pressure on already overexploited fish populations. Aquaculture is also known to produce large amounts of wastes (e.g. uneaten food, feces, and deceased animals) and nutrient pollution (e.g. carbon, nitrogen, and phosphorus) which poses serious risks to local ecosystems. Commercial aquaculture farms are also breeding grounds for bacteria and parasites that can spread to humans and other animals, and farmed octopuses may be particularly susceptible to disease due to stress, poor water quality, and poor nutrition. Using antibiotics to combat these

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<sup>&</sup>lt;sup>4</sup> Meghan M. Holst & Tim Miller-Morgan, *The Use of a Species-Specific Health and Welfare Assessment Tool for the Giant Pacific Octopus, Enteroctopusdofleini*, 24(3) J. APPLIED ANIMAL WELFARE SCI. (2020), <a href="https://doi.org/10.1080/10888705.2020.1809412">https://doi.org/10.1080/10888705.2020.1809412</a>; Peter Godfrey-Smith, *The Mind of an Octopus*, SCIENTIFIC AMERICAN (Jan. 1, 2017), <a href="https://www.scientificamerican.com/article/the-mind-of-an-octopus">https://www.scientificamerican.com/article/the-mind-of-an-octopus</a>.

<sup>&</sup>lt;sup>5</sup> See e.g. Jennifer A Mather & Ludovic Dickel, Cephalopod complex cognition, 16 CURRENT OPINION IN BEHAVIORAL SCIENCES 131 (2017), <a href="https://doi.org/10.1016/j.cobeha.2017.06.008">https://doi.org/10.1016/j.cobeha.2017.06.008</a>; Julian K. Finn, Tom Tregenza & Mark D. Norman, Defensive tool use in a coconut-carrying octopus, 19(23) CURRENT BIOLOGY R1069 (2009), <a href="https://doi.org/10.1016/j.cub.2009.10.052">https://doi.org/10.1016/j.cub.2009.10.052</a>; David Scheel et al., A second site occupied by Octopus tetricus at high densities, with notes on their ecology and behavior, 50(4) MARINE & FRESHWATER BEHAVIOUR & PHYSIOLOGY 285 (2017), <a href="https://doi.org/10.1080/10236244.2017.1369851">https://doi.org/10.1080/10236244.2017.1369851</a>; Jacquet et al., The case against octopus farming, 35(2) ISSUES IN RSCH. & TECH. 37 (2019), <a href="https://issues.org/the-case-against-octopus-farming">https://issues.org/the-case-against-octopus-farming</a>.

<sup>&</sup>lt;sup>6</sup> See Gavan M. Cooke, Belinda M. Tonkins & Jennifer A. Mather, Care and enrichment for captive cephalopods, in The Welfare of Invertebrate Animals (Claudio Carere & Jennifer Mather eds. 2019), <a href="https://doi.org/10.1007/978-3-030-13947-6">https://doi.org/10.1007/978-3-030-13947-6</a>; Graziano Fiorito et al., Guidelines for the Care and Welfare of Cephalopods in Research: A consensus based on an initiative by CephRes, FELASA and the Boyd Group, 49(2) LABORATORY ANIMALS 1 (2015), <a href="https://doi.org/10.1177/00236772155800">https://doi.org/10.1177/00236772155800</a>; Paul L.R. Andrews et al., The identification and management of pain, suffering and distress in cephalopods, including anaesthesia, analgesia and humane killing, 447 J. EXPERIMENTAL MARINE BIOLOGY & ECOLOGY 46 (2013), <a href="https://doi.org/10.1016/j.jembe.2013.02.010">https://doi.org/10.1016/j.jembe.2013.02.010</a>.

<sup>&</sup>lt;sup>7</sup> Christian M. Ibáñez & Friedemann Keyl, *Cannibalism in cephalopods*, 20 Rev. FISH BIOLOGY & FISHERIES, 123 (2010), <a href="https://doi.org/10.1007/s11160-009-9129-y">https://doi.org/10.1007/s11160-009-9129-y</a>; Christopher K. Pham & Eduardo Isidro, *Growth and Mortality of Common Octopus (Octopus vulgaris) Fed a Monospecific Fish Diet*, 28(3) J. SHELLFISH RSCH. 617 (2009), <a href="https://doi.org/10.2983/035.028.0326">https://doi.org/10.2983/035.028.0326</a>. *See also* Jacquet et al. (2019), *supra* note 5.

<sup>&</sup>lt;sup>8</sup> Jennifer Jacquet et al., *The octopus mind and the argument against farming it*, 26(19) ANIMAL SENTIENCE 1 (2019), <a href="http://dx.doi.org/10.51291/2377-7478.1504">http://dx.doi.org/10.51291/2377-7478.1504</a>.

<sup>&</sup>lt;sup>9</sup> See e.g. Ivona Mladineo & Mladen Jozić, Aggregata infection in the common octopus, Octopus vulgaris (Linnaeus, 1758), Cephalopoda: Octopodidae, reared in a flow-through system, 46(2) ACTA ADRIATICA 193 (2005), <a href="https://acta.izor.hr/ojs/index.php/acta/article/view/118">https://acta.izor.hr/ojs/index.php/acta/article/view/118</a>.

pathogens—as is common practice in commercial aquaculture—further exacerbates the risk of multi-drug bacterial resistance.

This ban is unlikely to have adverse effects on the Hawai'i's existing agricultural economy. Because there are no commercial octopus farms currently operating in Hawai'i, a prohibition on such operations is unlikely to harm the State's existing agricultural industry. This ban will thus take a significant step towards protecting animal welfare, public health, and the environment without adverse effects on farmers, workers, or consumers.

Through its leadership on this issue, Hawai'i joins a growing cohort of governments <sup>10</sup> that have acted to ban the raising of octopus for human consumption in response to growing concerns within the scientific community about risks to animal welfare, public health, and the environment. <sup>11</sup> By enacting this bill, Hawai'i would not only improve conditions for its own constituents but also send a strong message to other states who are considering similar legislative action, and to the federal government, where Congress is considering new legislation that would create a nationwide ban on commercial octopus farming and imports of farmed octopus from other countries. Both because this ban would have positive effects for Hawai'i and because it would build momentum toward positive change nationwide, we urge the Committee to vote in favor of this bill.

We thank you again for your leadership and for considering our comments in your deliberations.

Sincerely,

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<sup>&</sup>lt;sup>10</sup> California and Washington have both passed laws banning octopus farming, and similar legislation has been introduced in Oregon. Notably, in addition to prohibiting the raising of octopus for human consumption, Oregon's proposed bill would also ban the sale of octopus that has been raised as food for humans. <u>H.B. 1153</u>, 68th Leg., Reg. Sess. (Wash. 2023); <u>A.B. 3162</u>, 2023-2024 Leg., Reg. Sess. (Cal. 2024); <u>H.B. 2557</u>, 83<sup>rd</sup> Leg., Reg. Sess. (Or. 2025).

<sup>&</sup>lt;sup>11</sup> See Jacquet et al. (2019), supra note 8.

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