

DAVID Y. IGE
GOVERNOR



CRAIG K. HIRAI
DIRECTOR

GLORIA CHANG
DEPUTY DIRECTOR

STATE OF HAWAII
DEPARTMENT OF BUDGET AND FINANCE
P.O. BOX 150
HONOLULU, HAWAII 96810-0150

EMPLOYEES' RETIREMENT SYSTEM
HAWAII EMPLOYER-UNION HEALTH BENEFITS TRUST FUND
OFFICE OF THE PUBLIC DEFENDER

ADMINISTRATIVE AND RESEARCH OFFICE
BUDGET, PROGRAM PLANNING AND
MANAGEMENT DIVISION
FINANCIAL ADMINISTRATION DIVISION
OFFICE OF FEDERAL AWARDS MANAGEMENT (OFAM)

WRITTEN ONLY
TESTIMONY BY CRAIG K. HIRAI
DIRECTOR, DEPARTMENT OF BUDGET AND FINANCE
TO THE SENATE COMMITTEES ON WAYS AND MEANS AND JUDICIARY
ON
SENATE BILL NO. 2284, S.D. 1

March 3, 2022
10:30 a.m.
Room 211 and Videoconference

RELATING TO AQUACULTURE

The Department of Budget and Finance (B&F) offers comments on this bill.

Senate Bill No. 2284, S.D. 1, moves the existing aquaculture program within the Department of Agriculture (DOA) to a new part under Chapter 141, HRS, and adds five new sections to this part, which adds new definitions for the program; establishes provisions relating to the DOA's governing of the business of aquaculture; grants exclusive property rights to persons who lawfully obtain the cultured progeny of wild plants and animals by brood stock acquisition; authorizes the DOA to regulate the transportation, purchase, possession, and sale of specific aquaculture products as may be deemed necessary to protect indigenous species; and requires the DOA to prepare programmatic environmental impact reports for existing and potential commercial aquaculture operations in both coastal and inland areas of the State, provided that there are funds appropriated to the DOA for this purpose and matching funds are provided by the aquaculture industry. This bill also requires the DOA to acquire land for the purposes of aquacultural production and appropriates an unspecified amount of general funds in FY 23 for the DOA to establish 4.00 positions to effectuate this part.

B&F notes that, with respect to the general fund appropriation in this bill, the federal Coronavirus Response and Relief Supplemental Appropriations Act requires that states receiving Elementary and Secondary School Emergency Relief (ESSER) II funds and Governor's Emergency Education Relief II funds must maintain state support for:

- Elementary and secondary education in FY 22 at least at the proportional level of the state's support for elementary and secondary education relative to the state's overall spending, averaged over FYs 17, 18 and 19; and
- Higher education in FY 22 at least at the proportional level of the state's support for higher education relative to the state's overall spending, averaged over FYs 17, 18 and 19.

Further, the federal American Rescue Plan (ARP) Act requires that states receiving ARP ESSER funds must maintain state support for:

- Elementary and secondary education in FY 22 and FY 23 at least at the proportional level of the state's support for elementary and secondary education relative to the state's overall spending, averaged over FYs 17, 18 and 19; and
- Higher education in FY 22 and FY 23 at least at the proportional level of the state's support for higher education relative to the state's overall spending, averaged over FYs 17, 18 and 19.

The U.S. Department of Education has issued rules governing how these maintenance of effort (MOE) requirements are to be administered. B&F will be working with the money committees of the Legislature to ensure that the State of Hawai'i complies with these ESSER MOE requirements.

Thank you for your consideration of our comments.

DAVID Y. IGE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

Testimony of
SUZANNE D. CASE
Chairperson

Before the Senate Committees on
JUDICIARY
and
WAYS AND MEANS

Thursday, March 3, 2022
10:30 AM
State Capitol, Conference Room 211 & Videoconference

In consideration of
SENATE BILL 2284, SENATE DRAFT 1
RELATING TO AQUACULTURE

Senate Bill 2284, Senate Draft 1 proposes to establish provisions relating to the Department of Agriculture's (HDOA) governing of the business of aquaculture; grants exclusive property rights to persons who lawfully obtain the cultured progeny of wild plants and animals by brood stock acquisition; authorizes HDOA to regulate the transportation, purchase, possession, and sale of specific aquaculture products as may be necessary to protect indigenous species; requires HDOA to prepare programmatic environmental impact reports and acquire land for aquacultural purposes; and makes an appropriation. **The Department of Land and Natural Resources (DLNR) appreciates the intent of this bill and provides the following comments and suggested amendments.**

While there are currently no laws that expressly prohibit the culture of non-native species in state ocean waters, for the past 30 years DLNR and HDOA have maintained a de facto ban through the existing joint review and approval process. This process has prevented the proposed cultivation of non-native groupers and tilapia in ocean cages. It is unclear how this bill would affect HDOA's process for reviewing and approving aquaculture projects, including consultation with DLNR to prevent or minimize risk of non-native species introductions.

DLNR suggests that the committees reinsert the language of Senate Bill 2284 (p.5, line 16 through p.7, line 2) that establishes prohibitions relating to the spawning, incubating, or cultivation of transgenic fish species or any exotic species of finfish and makes exemptions for certain research activities. DLNR also suggests reinserting an amended definition of "exotic

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
FIRST DEPUTY

M. KALEO MANUEL
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

species” to mean “a fish that is not indigenous to Hawaii waters and did not exist as a viable population in a wild condition in the State as of January 1, 2022.” This would address the concern that the bill may incentivize the intentional release of exotic species once they are established in the wild.

Thank you for the opportunity to comment on this measure.

DAVID Y. IGE
Governor

JOSH GREEN
Lt. Governor



PHYLLIS SHIMABUKURO-GEISER
Chairperson, Board of Agriculture

MORRIS M. ATTA
Deputy to the Chairperson

State of Hawaii
DEPARTMENT OF AGRICULTURE
1428 South King Street
Honolulu, Hawaii 96814-2512
Phone: (808) 973-9600 FAX: (808) 973-9613

**TESTIMONY OF PHYLLIS SHIMABUKURO-GEISER
CHAIRPERSON, BOARD OF AGRICULTURE**

BEFORE THE COMMITTEE ON WAYS AND MEANS AND JUDICIARY

**MARCH 3, 2022
10:30 A.M.**

CONFERENCE ROOM 211 & VIA VIDEOCONFERENCE

**SENATE BILL NO. 2284 SD1
RELATING TO AQUACULTURE**

Chairpersons Dela Cruz and Rhoads and Members of the Committees:

Thank you for the opportunity to testify on Senate Bill 2284 SD1. The measure establishes provisions relating to the Department of Agriculture's ("Department") governing of the business of aquaculture. This measure: grants exclusive property rights to persons who lawfully obtain the cultured progeny of wild plants and animals by broodstock acquisition; authorizes the Department to regulate the transportation, purchase, possession, and sale of specific aquaculture products as may be necessary to protect indigenous species; requires the Department to prepare programmatic environmental impact reports and acquire land for aquacultural purposes; and makes an appropriation. The Department supports the intent of this measure and respectfully provides the following comments.

The measure promotes the State's economic development by enabling the Department to have regulatory authority for aquaculture, and provides a pro-development framework that minimizes negative effects on the environment through monitoring and reporting using a science-based approach. The Department notes the following and respectfully offers recommendations to improve implementation of this measure:



- The Department has three divisions or programs which are active in providing aquaculture support. They are:
 - Agriculture Resource Management Division which acquires land and administers property management activities;
 - Aquaculture Development Program which coordinates research, technology transfer, outreach, and marketing activities; and
 - Plant Quarantine Branch which administers importation and movement permits for aquatic non-domestic animal, plants, and microorganisms, including algae.
- Ocean-based aquaculture operations are administered by the Department of Land and Natural Resources. The harvesting, processing, and sales of aquaculture food products are administered by the Department of Health. The Department suggests that those activities remain with their currently associated departments.
- Pursuant to Chapter 150A, Hawaii Revised Statutes, the Department already regulates importation, possession and transfer of plant, non-domestic animal, and microorganism species, which include micro and macro algae, used for aquaculture. The Board of Agriculture review process for permit issuance requires multiple technical reviews to ensure that proposed uses and locations of aquacultured species pose minimal risk of escape, including possible negative effects to native species and the environment that can be associated with the introductions. Depending on the species and use, the review process is able to create specific requirements to minimize risk for import and transport. The Department suggests that the proposed requirements for indigenous species protection be removed since the existing review process already takes this into account. Moreover, to provide additional support to stakeholders, further outreach can be provided to better inform them of the process and to work with them to ensure safe use and importation.
- The Department recommends use of the following language to amend the proposed definition of "Aquaculture" to clarify that algae is included: “. . . and harvesting of aquatic plants, animals, and microorganisms, including algae, in marine, brackish, and fresh water. The term "aquaculture" does not include species of ornamental marine or freshwater plants, animals, and microorganisms, including algae, not utilized for human consumption or bait purposes that are maintained in closed systems for personal, pet industry, hobby, or other similar purposes.”

- The requirement to initiate rulemaking should be deleted since the Department's existing programs are already performing the tasks prescribed by the measure.
- The Department can coordinate programmatic environmental impact assessments for inland areas; however, the Department may not be appropriate or suitable for coordinating or conducting environmental assessments for coastal and ocean areas since they are under the jurisdiction of the Department of Land and Natural Resources. It is unlikely that matching funds of any kind would be available from the aquaculture industry for programmatic environmental assessments. The Department respectfully recommends that this requirement be deleted.
- The Department appreciates the addition of four staff positions to implement the provisions of this measure, however, additional operating funds are needed to accomplish the intent and purpose of this measure. The Department estimates that approximately \$400,000 in operating funds would be needed for research, outreach, and marketing.

Thank you for the opportunity to testify on this measure.



HATCH

Hatch Aquaculture Fund Management LLC
73-4460 Queen Kaahumanu Hwy. #138 Kailua-Kona, HI 96740
Phone: (808) 222 1253 Email: wayne@hatch.blue
Website: www.hatch.blue

TESTIMONY OF SENATE BILL 2284 SD1

RELATING TO AQUACULTURE.

Thursday, March 3, 2022, 10:30am

Dear Chairpersons Rhoads and Dela Cruz and Members of the Committees;

I am Wayne Murphy, Managing Partner of Hatch Aquaculture Fund Management LLC, Hawaii. Hatch is a global innovation and venture capital company focused exclusively on the global aquaculture and alternative seafood industry, where we work with governments, NGOs, research organizations and new ventures with offices at NELHA, Europe (Norway) and Asia (Singapore). We have a long track record of supporting sustainable aquaculture projects in Hawaii and have received a second grant period from The U.S. Economic Development Administration (EDA) to support the development of new aquaculture businesses in Hawaii in the years to come.

Hatch **supports SB2284**. Allowing the Department of Agriculture to govern the business of Aquaculture would promote productive and responsible handling of wild stocks and indigenous species, supported by scientific research.

Thank you for the opportunity to testify on this bill.

Sincerely,

Wayne Murphy

Co-Founder & Partner Hatch Accelerator Fund Management LLC

SB-2284-SD-1

Submitted on: 3/2/2022 8:49:35 AM

Testimony for JDC on 3/3/2022 10:30:00 AM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Maria Haws	Individual	Support	No

Comments:

Aloha:

I am writing this testimony as a private citizen, although I serve as a Professor of Aquaculture at UH-Hilo. I have worked since 1999 in aquaculture development in Hawai'i, and specifically since 2009 in promoting and supporting the development of Hawai'i's shellfish production. Most coastal states have thriving "mom and pop" oyster and clam farms, but the difficulty in obtaining leases for marine waters has inhibited the ability of ordinary citizens to participate in aquaculture. Although some shellfish aquaculture can occur in the loko i'a, even those practitioners who are interested sometimes cannot grow shellfish in the ponds. For example, some loko i'a are too low in salinity for oysters. However, excellent areas for shellfish and limu culture commonly exist just beyond the pond walls, but these are essentially off limits unless one has several years, thousands of dollars and the legal "know-how" to apply for a lease. Opening new opportunities for small producers in near-coastal waters would create jobs, small businesses and locally produced food.

Even restorative forms of aquaculture are inhibited by the lengthy and costly process of applying for Conservation Land leases in marine areas. Even small test sites to conduct research to establish proof of concept for near-shore seaweed (limu) culture is being held up by this process. For example, on Molokai there are several inter-tidal areas that would make excellent shellfish and limu growing areas, yet it would be almost impossible to obtain leases under the current system. There are also many near-coastal areas around the state where pearl farms could be established by cooperatives or families, similar to what occurs in French Polynesia. The only impediment to these highly feasible and sustainable forms of aquaculture is the outdated and unnecessarily complicated lease application process. Finally, it is important to attempt to consolidate as much of the aquaculture permitting processes under HDOA since this agency has the mission to promote aquaculture as a form of agriculture and has the specialists needed to properly evaluate permit applications. Other state agencies generally lack expertise in aquaculture and moreover, there are clear cases of individuals with bias against aquaculture taking matters into their own hands and denying permit applications of various types simply because they have the power to do so. It is time to move as many permitting processes to HDOA as possible if aquaculture is to become a thriving business and opportunity for our citizens.

I would also like to note the testimony previously submitted by DLNR stating that this agency should retain control over wild aquatic species stocks. While this argument has some merit and care must be taken to protect the wild stock, DLNR is clearly not facilitating even limited use of

wild stock in for aquaculture or even many forms of important research not directly related to aquaculture.

For example in February and March of 2021, I applied for three Special Activities Permits (SAP) to collect very limited numbers of fish, shellfish and seacucumbers to be used for research. While some of the research was directly related to developing methods for captive breeding, much of it would also have provided information useful for conservation and management. The application for the shellfish collection took 10 months to approve. The other two permits to collect limited numbers of fish for broodstock and research have still not been approved even after one year. Despite repeated inquiries, no explanation has been provided. The DLNR permitting process is not transparent, nor do they have experts who can even evaluate requests related to aquaculture. I know many individuals who work for DLNR and they are mostly well-intended and well-qualified in their fields. But the lack of transparency as to how DLNR evaluates permits related to aquaculture (or anything else for that matter) is troubling and impedes progress on many fronts.

Contrary to this, while the HDOA permitting processes are not always quick, they are at least transparent and they utilize assessment by committees comprised of highly expert specialists from other organizations and the public (e.g. the PQ-7 import permits). I would suggest that in order to expedite legitimate permit applications related to aquaculture, that the bill be amended to require HDOA and DLNR to work closely together on any permit requiring input from either agency if it touches on the respective jurisdictions of either. Also, there should be a mandate for the evaluation process related to any permit to be open, timely, transparent and for consultation to involve subject matter experts rather than allow the evaluation process to take place behind closed doors by personnel who may be very well-intended, but who often simply lack the expertise needed to weigh in on permits related to aquaculture.

I also have concerns about the portion of the bill related to GMO fish or "exotic species". First, there are very few GMO fish used in aquaculture at this time. If proposals emerge in the future to utilize GMO fish in some way, then this should be reviewed by qualified experts in a transparent fashion either by HDOA or in transparent consultation with other agencies. For example, there are GMO species that are very important for biomedical research. The term "exotic fish" is also vague and required definition before being included in this bill. Potentially any non-native species could be called, "exotic", even those species which pose little or no risk of invasiveness or other impacts. Using this term without a clear definition could potentially harm aquaculture and impede various forms of research.