THE SENATE
THIRTY-FIRST LEGISLATURE, 2021
STATE OF HAWAII

S.B. NO. 1319

JAN 27 2021

A BILL FOR AN ACT

RELATING TO HAWAIIAN FISHPONDS.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

SECTION 1. Loko i'a (Hawaiian fishponds) are part of advanced food systems that optimize natural watersheds, nutrient cycles, and fish biology and represent one of the world's most significant and successful aquacultural achievements. Loko i'a must be utilized to ensure the health and wellbeing of future generations in Hawaii. Writing about commercial fisheries in Hawaii in 1901, J.H. Cobb estimated that about three hundred fifty fishponds had been in operation in ancient Hawaii.

The dramatic decline in the number of loko i'a and the average yield of those remaining are attributed to various factors including competition from cheaper imported products, money replacing barter as the standards of exchange, population movement from rural to urban areas, loss of traditional loko i'a management skills, and the availability of alternative sources of employment. Additionally, forces of nature, such as lava flows, tsunami and sea storms, land erosion, vegetation encroachment, and eutrophication have contributed to the

destruction of Hawaiian loko i'a. The historic loss of loko i'a played a tragic role in furthering food inequity in Hawaii and points to the need to reinvigorate efforts to get ponds in operation.

Currently, loko i'a practitioners conclude that current marine health is too degraded for natural stocking. From 1903 to 1983, fishery stocks of 'ama'ama (mullet) and awa (milkfish) declined by over ninety per cent, and these depleted population and degraded nursery habitats rendered the natural recruitment of pua (juvenile fish) impossible. The current predicament necessitates use of fish hatcheries to uplift loko i'a operations and contributions to Hawaii's food security. Presently hatchery production is the best option to restore loko i'a productivity and access to hatchery-raised pua has been identified as a pivotal need.

State and federal funded research between the 1970s and 1980s examined hatchery production of 'ama'ama and demonstrated successful maturation, spawning, and rearing of 'ama'ama through larval stage. Similar success with awa showed the potential role hatchery-raised pua could have for restocking efforts. The 1993 "Report of the Governor's Task Force on Moloka'i Fishpond

Restoration" provided recommendations for hatchery support based on cultural and historical knowledge and community input. Nearly thirty years later, none of the recommendations have been fully actualized, and yet, the decline in marine health and increased need for food security have dramatically increased to the detriments of the communities.

Prioritizing loko i'a restoration and revitalization is an active step towards improving food systems and reducing hunger, and increasing responsible consumption and production patterns. Restoration addresses the food security challenges of being an isolate island community. Estimates show that loko i'a once produced about four hundred to six hundred pounds of sustainable protein per acre, per year, leading to an annual yield of near two million pounds per year. According to the department of business, economic development, and tourism, the replacement of just ten per cent of current food imports locally would save over $300,000,000 annually.

Stock enhancement hatcheries and loko i'a restoration can also create sustainable jobs in the environmental sustainability and food production sectors, which in turn, provide alternatives in economic development. Building more careers in the field of

fishpond restoration provides a meaningful way to revitalize the State's economy.

Loko i'a also aid in ocean conservation, climate resilience, reef protection, and enhancement. Restoration and revitalization of loko i'a are a vital aspect of reaching the 30x30 and United Nations Sustainable Development Goals, which the legislature committed to in 2019.

Therefore, the purpose of this Act is to provide for the department of land and natural resources to utilize state-of-the art knowledge in marine finfish hatchery production to establish a functional system to provide pua 'ama and pua awa to stock loko i'a.

SECTION 2. Chapter 183B, Hawaii Revised Statutes, is amended by adding a new section to be appropriately designated and to read as follows:

"**§183B- Utilization of marine finfish hatchery production technology.** (a) The department of land and natural resources shall utilize current state-of-the-art knowledge in marine finfish hatchery production to establish a functional system to provide pua 'ama and pua awa to stock loko i'a.

(b) The department of land and natural resources may adopt rules pursuant to chapter 91 concerning the application and utilization of marine finfish hatchery production technology for the repair, strengthening, reinforcement, and maintenance of loko i'a."

SECTION 3. New statutory material is underscored.

SECTION 4. This Act shall take effect upon its approval.

INTRODUCED BY: _____

By Request

S.B. NO. 1319

Report Title:
DLNR; Fishponds; Marine Finfish Hatchery; Food Security

Description:
Requires the department of land and natural resources to utilize the current state-of-the-art knowledge in marine finfish hatchery production to establish a functional system to provide pua ʻama and pua awa to stock loko iʻa.

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