

JAN 19 2022

A BILL FOR AN ACT

RELATING TO HAWAIIAN FISHPONDS.

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

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

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



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

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

16 State and federal funded research between the 1970s and
17 1980s examined hatchery production of 'ama'ama and demonstrated
18 successful maturation, spawning, and rearing of 'ama'ama through
19 larval stage. Similar success with awa showed the potential
20 role hatchery-raised pua could have for restocking efforts. The
21 1993 "Report of the Governor's Task Force on Moloka'i Fishpond



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

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

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



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

3 Loko i'a also aid in ocean conservation, climate resilience,
4 reef protection, and enhancement. Restoration and
5 revitalization of loko i'a are a vital aspect of reaching the
6 30x30 and United Nations Sustainable Development Goals, which
7 the legislature committed to in 2019.

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

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

16 "§183B- Utilization of marine finfish hatchery
17 production technology. (a) The department of land and natural
18 resources shall utilize current state-of-the-art knowledge in
19 marine finfish hatchery production to establish a functional
20 system to provide pua 'ama and pua awa to stock loko i'a.



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

6 SECTION 3. New statutory material is underscored.

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

8
INTRODUCED BY: _____

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S.B. NO. 2023

Report Title:

Department of Land and Natural Resources; 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 'ama and pua awa to stock loko i'a.

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