
A BILL FOR AN ACT

RELATING TO HAWAIIAN FISHPONDS.

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

1 SECTION 1. Loko ia (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 ia
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 ia 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 ia
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 ia. The historic loss of loko ia
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 ia practitioners conclude that current
6 marine health is too degraded for natural stocking. From 1903
7 to 1983, fishery stocks of amaama (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 ia operations
12 and contributions to Hawaii's food security. Presently hatchery
13 production is the best option to restore loko ia 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 amaama and demonstrated
18 successful maturation, spawning, and rearing of amaama 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 Molokai 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 ia 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 isolated island community. Estimates show that loko ia 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 ia 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 ia also aid in ocean conservation, climate resilience,
4 reef protection, and enhancement. Restoration and
5 revitalization of loko ia 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 ia.

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 ia.



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 ia."

6 SECTION 3. There is appropriated out of the general
7 revenues of the State of Hawaii the sum of \$ or so
8 much thereof as may be necessary for fiscal year 2022-2023 for
9 the purpose of hiring staff or contractors with expertise in
10 finfish hatchery production, purchasing of equipment and
11 supplies, and training workshops.

12 The sum appropriated shall be expended by the department of
13 land and natural resources for the purposes of this Act.

14 SECTION 4. New statutory material is underscored.

15 SECTION 5. This Act shall take effect on July 1, 2050.



Report Title:

Department of Land and Natural Resources; Fishponds; Marine
Finfish Hatchery; Food Security; Appropriation

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 ia. Appropriates funds.
Takes effect 7/1/2050. (SD1)

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not legislation or evidence of legislative intent.*

