
A BILL FOR AN ACT

RELATING TO RAPID OHIA DEATH DISEASE.

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

1 SECTION 1. Ohia is Hawaii's most common tree and makes up
2 eighty per cent of remaining native forests, providing important
3 habitat for other plants and animals and gathering precipitation
4 for recharging island aquifers. Ohia forests have also been
5 treasured by native Hawaiians for centuries, not only for
6 practical uses but also in art, such as hula where ohia is the
7 kinolau of important Hawaiian gods.

8 The disease known as rapid ohia death has infected and
9 destroyed hundreds of thousands of native ohia trees and
10 affected more than 135,000 acres of forest on Hawaii island. In
11 2018, rapid ohia death was first found infecting trees on the
12 island of Kauai. Widespread loss of ohia will have a
13 catastrophic impact on Hawaii's native ecosystems, including
14 reducing the supply of water available for municipal and
15 agricultural uses and eliminating important cultural ties to the
16 forest.



1 Rapid ohia death is caused by two recently arrived fungi
2 which were named and described by scientists in 2018.
3 *Ceratocystis lukuohia* is a more aggressive fungus responsible
4 for ninety per cent of the mortality attributed to rapid ohia
5 death on Hawaii island. *Ceratocystis huliohia* kills trees more
6 slowly but is still a threat to state forests. In 2018,
7 *Ceratocystis huliohia* was detected on Kaua'i. To date, neither
8 species has been found infecting trees on the islands of Oahu,
9 Lanai, Maui, or Molokai.

10 The rapid ohia death fungi infest the wood of trees and are
11 released into the environment by boring beetles that are
12 attracted to dead ohia trees. When these non-native beetles
13 bore into dead trees they release dust and frass which can carry
14 the disease and infect other trees. The two fungi causing rapid
15 ohia death need wounds to infect ohia trees, therefore,
16 preventing the wounding of trees is critical to stopping the
17 spread of rapid ohia death. Additional research is needed to
18 better understand the role of beetles in spreading the disease
19 and to determine whether hooved animals create wounds that lead
20 to disease infection.



1 The department of land and natural resources is leading the
2 multiagency response to this urgent threat and works closely
3 with the department of agriculture, federal agencies, the
4 University of Hawaii, and the island-based invasive species
5 committees.

6 The purpose of this Act is to protect the State's ohia
7 forest for future generations by appropriating funds to the
8 department of land and natural resources for ongoing research,
9 survey and control, expedited removal of hooved animals, and
10 public outreach.

11 SECTION 2. There is appropriated out of the general
12 revenues of the State of Hawaii the sum of \$2,003,000 or so much
13 thereof as may be necessary for fiscal year 2019-2020 and the
14 same sum or so much thereof as may be necessary for fiscal year
15 2020-2021 for the protection of the State's ohia forest;
16 provided that the sums appropriated shall be allocated and used
17 for the following purposes:

18 (1) \$750,000 for ongoing research projects, including
19 disease diagnostics including genetic testing;
20 investigations on the two fungi associated with rapid
21 ohia death and how they spread in the environment;



1 development of tools for management and early
2 detection; and initial steps for developing disease
3 resistant ohia for restoring forests;

4 (2) \$750,000 for survey and control, including statewide
5 helicopter surveys conducted twice a year to detect
6 new disease outbreaks; ground crews follow-up on
7 aerial surveys and public reports of disease to gather
8 samples and record ecological data; control treatments
9 by land managers to contain disease outbreaks by
10 suppressing beetles that bore into wood which releases
11 the disease into the environment; post-treatment
12 monitoring of tree mortality, beetles, and disease
13 spores in the environment to determine whether
14 additional management is necessary; and helicopter
15 contracts, salaries for crew and data manager,
16 training, supplies, and equipment;

17 (3) \$253,000 for expedited removal of hooved animals from
18 fenced areas on the islands of Hawaii and Kauai
19 islands to reduce wounding of healthy trees and
20 prevent further rapid ohia death infections; and



1 (4) \$250,000 for public outreach to communicate to
 2 residents and visitors on how to reduce the spread of
 3 rapid ohia death and why protecting ohia is so
 4 important for future generations, including public
 5 service announcements, airport displays, community
 6 meetings, trailhead signage, video documentaries, and
 7 sanitation workshops to inform targeted stakeholders
 8 and the broader public on how they can help protect
 9 ohia forests.

10 The sums appropriated shall be expended by the department
 11 of land and natural resources for the purposes of this Act.

12 SECTION 3. This Act shall take effect on July 1, 2019.

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H.B. NO. 1083

Report Title:

Ohia Forests; Rapid Ohia Death Disease; Appropriation

Description:

Protects the State's ohia forests for future generations by appropriating funds to the Department of Land and Natural Resources for ongoing research, survey and control, expedited removal of hooved animals, and public outreach.

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