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June 27, 2011

Chairpersons and Members
Hawai'i Invasive Species Council (HISC)
State of Hawai'i

Co-Chairs and Council Members:

SUBJECT: Briefing on the role of HISC to address current invasive species issues to prevent the introduction and spread of invasive species, with recommendations for follow-up actions.

The HISC was established for the special purpose of providing policy level direction, coordination, and planning among state departments, federal agencies, and international and local initiatives for the control and eradication of harmful invasive species infestations throughout the State of Hawai'i and for preventing the introduction of other invasive species that may be potentially harmful (HRS 194-2). The HISC Strategic Plan outlines the HISC priorities in the Working Group areas of prevention, response and control, public outreach, and research and technology for FY2008-2013.

The measures of effectiveness for the HISC outlined in the strategic plan include *advice and recommendations given to the Governor or legislature, member agency adoption of rules and policies against invasive species, and Working Group goals achieved*. Each Working Group has its own tasks and measures of effectiveness laid out in the strategic plan. One of the key objectives of the Prevention Working Group is to *prevent the movement of known invasive species between islands*. A key objective for the Response and Control of Established Pests Working Group is to *determine what species are invasive to trigger access provisions onto private lands*.

Several current and pressing issues have emerged that highlight the need for the HISC to provide additional authorities to agencies by officially designating key species as invasive for the purposes of control, and to support efforts to prevent the introduction and interisland transport of pests by identifying and pursuing rule changes that will address gaps in the biosecurity system and the ability to effectively manage pests.

Albizia

Albizia is native to Indonesia, Papua New Guinea, and the Solomon Islands. It is a fast growing species capable of reaching 40 m in height and is difficult and costly to remove once established. Albizia associates with nitrogen-fixing bacteria in the soil, altering local soil composition and impacting the growth of native species. The tree often grows along roadways and produces brittle branches that easily break and fall, causing a threat to cars and other property below.

The County of Hawai‘i has requested that albizia (*Falcataria moluccana*) be designated by the HISC as an invasive species. Like many other places in state, the County of Hawai‘i has found albizia to be a nuisance. Agencies statewide need additional authorities to remove these trees where they are identified as being a threat to human safety and the environment.

Recommendation: We recommend that the Council support listing albizia as a HISC-designated invasive species through an administrative rule process.

Mosquitoes

Mosquitoes were introduced to Hawai‘i in the mid-1800s and may transmit diseases such as yellow fever, dengue fever, or malaria. There are 6 known species of mosquito present in Hawai‘i. However, we do not have the mosquitoes known to transmit malaria or the species that best transmits dengue fever. The Hawaii Department of Agriculture is responsible to prevent the entry of mosquitoes in cargo, through inspection, and the diseases they carry into the State. The Department of Health is responsible for monitoring for mosquitoes around ports, identifying and monitoring mosquito populations, and addressing outbreaks of mosquito-borne diseases.

Due to reductions in budget, these programs have been severely reduced or eliminated throughout the state.

Recommendation: We recommend that the Council support the Departments of Agriculture and Health programs in preventing and monitoring for new mosquito species in Hawai‘i, and that the Council support, as a high priority, restoring the capacity of the Department of Health’s Vector Control Branch to prevent and control disease outbreaks.

‘Ōhi‘a rust

‘Ōhi‘a rust (*Puccinia psidii*), also known as guava rust, is a disease that can kill ‘ōhi‘a trees and other plants in the myrtle family. ‘Ōhi‘a rust can enter Hawai‘i by hitchhiking on imported plants and plant parts in the myrtle family. Agriculture inspectors have intercepted ‘ōhi‘a rust on common myrtle in imported flower bouquets, although any plant material in the myrtle family, including eucalyptus foliage and wax flowers, could also bring in the rust.

Like the flu virus, there are different strains of ‘ōhi‘a rust. One strain of the rust has already arrived in Hawai‘i and it quickly killed rose apple trees across the state, while ‘ōhi‘a and other local Myrtaceae showed lesser susceptibility. However, additional arrivals of any strains of this rust could pose a very real threat to the survival of ‘ōhi‘a trees, which comprise 80% of Hawai‘i’s native forest (nearly 1,000,000 acres). To protect ‘ōhi‘a and the water that is provided by a healthy ecosystem, the Hawai‘i Department of Agriculture will be proposing new rules restricting the importation of myrtle family plants, produce, and cut flowers via the rulemaking process.

Recommendation: We recommend that the Council support the establishment of a rule to restrict importation of plants in the Myrtle family into Hawai‘i. We also recommend that the Council support a program promoting locally grown alternatives to high-risk imports, including members of the Myrtaceae family.

Axis Deer

Axis deer (*Axis axis*) were introduced to Moloka'i, Lāna'i, and Maui, where they are hunted for recreation and food. The Maui axis deer population started with ten animals in 1959 and has grown to an estimated 12,000 animals today due to a lack of natural predators and natural environmental controls such as extreme weather or population-culling diseases, as well as the limited capacity to control population size through hunting. Axis deer have had devastating impacts on local agriculture, costing more than \$1 million in losses to vegetable crops, cattle, grapes, and sugarcane on Maui last year. Axis deer also threaten watershed forests and native species. Axis deer can jump or circumvent most existing ungulate fences that were built to exclude feral pigs. The presence of axis deer requires farmers, ranchers, and conservation agencies to retrofit or install taller fences (8') to protect food crops, endangered and threatened species, sensitive natural areas, and watershed forests from deer impacts.

The recent discovery of axis deer on Hawai'i island has highlighted significant gaps in existing Administrative Rules regarding the interisland and intransland movement of restricted species, the release of game species, and access to controlling or eradicating HISC-designated invasive species.

Recommendation: We recommend that the Council and member agencies pursue statutory and administrative rule changes and administrative actions to effectively control and regulate the introduction and movement of introduced wildlife species.

General Recommendation: That the Council issue a statement of support for the control of invasive species and the prevention of their importation and interisland transport with the commitment to pursue the necessary rule changes that are critical in effective biosecurity and management.