

Peer Review Plan

Date: 11/22/2011

Source Center: U.S. Geological Survey (USGS)
Pacific Island Ecosystems Research Center
677 Ala Moana Blvd., Suite 615
Honolulu, HI 96813

Title: Economic Analysis of the Proposed Rule to Prevent Arrival of New Genetic Strains of the Rust Fungus *Puccinia psidii* in Hawai'i.

Subject and Purpose: This report discusses the potential economic impact on the state's florist, nursery, landscaping, and forest plantation industries of a proposed rule that would ban the import of non-seed Myrtaceae plant material and require a one-year quarantine of seeds. Since its first documented introduction to Hawai'i in 2005, the rust fungus *P. psidii* has already severely damaged the *Syzygium jambos* (Indian rose apple) and the federally-endangered *Eugenia koolauensis* (nioi). Fortunately, the particular strain has yet to cause serious damage to 'ōhi'a, which comprises roughly 85 percent of the state's native forests and covers 400,000 ha. Although the rust has affected less than 5 percent of Hawai'i's 'ōhi'a trees thus far, the introduction of more virulent strains and the genetic evolution of the current strain are still possible. Since the primary pathway of introduction is Myrtaceae plant material imported from outside the state, potential damage to 'ōhi'a can be minimized by regulating those high-risk imports.

USGS scientist Lloyd Loope is coauthor of this non-USGS publication that was prepared by Dr. Kim Burnett and colleagues of the University of Hawaii Economic Research Organization, with financial support from the U.S. Fish and Wildlife Service via the USGS Science Support Program.

Impact of Dissemination: This information product is considered by the USGS to be Influential Scientific Information.

Timing of Review (Including Deferrals): November - December 2011. Deferrals are not anticipated.

Manner of Review, Selection of Reviewers, and Nomination Process: This review will be conducted via individual letters. The USGS will select the peer reviewers pursuant to requirements in Survey Manual chapter 502.3 -Fundamental Science Practices: Peer Review (<http://www.usgs.gov/usgs-manual/500/502-3.html>).

Expected Number of Reviewers: Anticipates 3 or fewer reviewers.

Requisite Expertise: Invasive species biology, high-island ecology, natural resource valuation economics.

Opportunity for Public Comment: No opportunity for public comment is formally incorporated for this product.

Agency Contact: peer_review_agenda@usgs.gov.