



United States Department of Agriculture  
Animal and Plant Health Inspection Service  
Plant Protection and Quarantine



## Federal Noxious Weed Decision Document

**Date:** 6 June 2009

**Commodity:** *Scientific name:* *Lygodium* spp.  
**Common name(s):** various climbing Ferns

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### *Regulation of Lygodium species as Federal Noxious Weeds (FNW)*

APHIS received an inquiry regarding market access for leaves of *Lygodium microphyllum* (Cav.) R. Br. (Old World climbing fern) from China to be used in basket-weaving. The state of Florida at that time requested that APHIS assess the entire genus of *Lygodium* for possible regulation (Sole, 2008). Plant Protection and Quarantine (PPQ), therefore, requested that Plant Epidemiology and Risk Analysis Laboratory (PERAL) prepare a weed risk assessment (WRA) to evaluate regulation of these species as FNW.

PERAL assessed three species in a WRA (Koop, 2009). *Lygodium microphyllum* and its congener, *L. japonicum*, are already present in the United States. *L. japonicum* is also used in Asian handcrafts. Because importation of *L. microphyllum* and *L. japonicum* may lead to the establishment of additional populations in the United States, *L. flexuosum* (L.) Sw. (maidenhair creeper), not currently reported as present in the United States, was also assessed because it is similar to these two species and may have similar impacts if introduced. A preliminary review of the literature indicated that of the approximately 25 species in the genus, only two other species have been considered weeds: *L. polymorphum* and *L. circinnatum*. Due to the limited amount of information available in the literature on these two species, they were not at this time evaluated further. They may be evaluated further if more information becomes available. No other species of *Lygodium* have been noted in the literature to be weeds.

*Lygodium microphyllum* and *L. japonicum* are regulated as state noxious weeds in Florida and Alabama; eight other states with known populations of *L. japonicum* do not list this species as a noxious weed. Outside of Florida, *L. japonicum* is controlled locally by various federal, state, or local agencies; however, the extent of local control is unknown. To help coordinate control efforts, a detailed management plan for *L. microphyllum* has been released by Florida; a similar one is planned for *L. japonicum*. The Florida Department of Environmental Protection has spent approximately \$15 million in the state over the last ten years to study and control *Lygodium*.

After a preliminary evaluation, the APHIS Administrator determined that it was necessary to prevent the importation of plant material of *L. microphyllum* and *L. flexuosum* capable of

propagation, including nursery stock, spores, and leaves (fronds), unless authorized by a PPQ permit for specified research in containment. Due to the seriousness of the potential for the spread of these weeds, this Federal Order was made effective immediately upon issuance on May 30, 2008.

At the time of the petition from Florida to evaluate *Lygodium*, no species in this genus were regulated in the US Code of Federal Regulations (CFR). In the full WRA of *Lygodium*, it was determined *L. microphyllum*, *L. flexuosum* and *L. japonicum* meet the definition of a FNW in the Plant Protection Act (7 U.S.C. §7701-7786, 2000). The PPA definition is “noxious weed means any plant or plant product that can directly or indirectly injure or cause damage to crops (including nursery stock or plant products), livestock, poultry, or other interests of agriculture, irrigation, navigation, the natural resources of the United States, the public health, or the environment.” APHIS lists in the Federal noxious weed regulations those species that are prohibited or restricted from entering the United States, or moving interstate, and for which authority exists under sections 412 and 414 of the PPA for APHIS to apply remedial measures.

#### *References*

7 CFR. 360 and 361. Code of Federal regulations. Title 7. Part 360 & 361. Office of Federal register, National Archives and Records Administration, Washington DC, USA.

7 U.S.C. § 7701-7786. 2000. Plant Protection Act, Title 7 United States Code § 7701-7786.

Koop, Anthony. 2009. *Lygodium microphyllum* (Old world climbing fern), *Lygodium japonicum* (Japanese climbing fern), and *Lygodium flexuosum* Weed Risk Assessment USDA APHIS PPQ Center for Plant Health Science and Technology Plant Epidemiology and Risk Analysis Laboratory.

Sole, M. W. 2008. Request to list the genus *Lygodium* as a Federal Noxious Weed. Personal communication to D. Kaplan and A. Green on April 25, 2008, from Michael Sole (Florida Department of Environmental Protection).

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**Recommendations:**

Pursuant to APHIS' authority under the PPA, we recommend that APHIS continue restrictions on the importation and interstate movement of *L. microphyllum* and *L. flexuosum*, and propose to list them as terrestrial noxious weeds in §360.200(c) and as noxious weed seeds with no tolerances applicable to their introduction in §361.6(a)(1). (7 CFR. 360 and 361). Because *L. japonicum* is not regulated by nine of the eleven states (which includes Puerto Rico) where it occurs, and the extent of control programs throughout these states is unclear, we recommend that *L. japonicum* should not be regulated at this time.

\_\_\_\_\_ **APPROVED**

**Conditions of Entry or Interstate movement:**

Import or interstate movement for *L. microphyllum* or *L. flexuosum* plant material capable of propagation, including nursery stock, spores, and leaves (fronds) of these climbing fern species will not be allowed, unless authorized by a PPQ permit for specified research in containment.

\_\_\_\_\_ **DISAPPROVED**

**Justification**

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**Signature (name)**

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**Date**