Significant Pest Bulletin and Federal Import Quarantine Order issued on *Lygodium microphyllum* and *Lygodium flexuosum*

Effective immediately, the United States Department of Agriculture, Animal and Plant Health Inspection Service (APHIS), Plant Protection and Quarantine (PPQ) has issued a Federal Import Quarantine Order (May 30, 2008) to prevent the importation of ***Lygodium microphyllum*** (Old World climbing fern) and ***Lygodium flexuosum*** (maidenhair creeper). The restrictions apply to any parts capable of propagation, including spores and leaves (fronds) of these climbing fern species.

For additional information regarding this Federal Order, contact Ms. Polly Lehtonen at (301) 734-4394 or polly.p.lehtonen@aphis.usda.gov. The Pest Bulletin and Federal Order may be downloaded at: http://www.aphis.usda.gov/plant_health/plant_pest_info/weeds/downloads/federalorder-lygodiums.pdf

FEDERAL IMPORT QUARANTINE ORDER (in part):
Lygodium microphyllum and
Lygodium flexuosum
May 30, 2008

The purpose and goal of this Federal Order is to prevent the entry from all foreign countries into the United States of two harmful noxious weeds, *Lygodium microphyllum* (Cav.) *R. Br.* (Old World climbing fern) and *Lygodium flexuosum* (L.) *Sw.* (maidenhair creeper). This Federal Order is issued pursuant to Section 412(a) of the Plant Protection Act of June 20, 2000, as amended, 7 U.S.C. 7712(a), which authorizes the Secretary of Agriculture to prohibit or restrict the importation or entry of any plant, plant part, noxious weed or article if the Secretary determines that the prohibition or restriction is necessary to prevent the entry of a plant pest or noxious weed into the United States.

Request for Samples of *Lygodium microphyllum*

The Department of Environmental Studies at Florida International University has initiated studies on Old World climbing fern (*Lygodium microphyllum*) with naturally occurring disease symptoms in South Florida natural areas. We are particularly interested in plants showing severe and extensive disease symptoms rather than diseased leaflets from old and decaying rachis branches or herbicide treated plants. Our major goal is to isolate native fungal and bacterial pathogens of lygodium and evaluate their potential as biological control agents.

General guidelines for sample collection and shipment:

1. Select samples that exhibit early symptom development with portions of the plant still green.
2. Avoid taking old or decaying leaflets (pinnules) and samples treated with herbicide.
3. Try to collect several samples from each plant representing a range of symptoms.
4. Please do not wet the sample.
5. Keep samples refrigerated until shipping; avoid storing under excessive heat.
6. Keep samples collected from different areas separate.
7. Samples that arrive from sites within Florida that require two days or less mailing time can be sealed in plastic bags for shipping.
8. Samples that arrive from distances greater than 2 days mailing time should be packed tightly in a box with dry paper. Do not seal in plastic and do not moisten.
9. Take pictures if possible.
10. Collect at least 12 leaves with disease symptoms for the minimum sample size.
11. Collect as much information concerning the sample as possible (habitat, GPS coordinates, etc.)

Care should be taken with plants showing general yellowing, browning, wilting, stunting etc., which might be due to drought, flooding, changes in nutrient levels, etc. In such cases, pinpointing the pathogen is difficult.

Symptoms such as wilting, chlorosis (yellowing), leaf drop, dieback (death or necrosis of growing tip), and decline are often the result of root damage or root disease. In these situations, if the individual lygodium plant showing symptoms can be separated, the entire plant is needed for processing. Please collect or send whole plants that show a range of symptoms with roots and adjacent soil intact. If this is not possible, please let us know and we will make a trip to collect the entire sample along with the root materials.

Leaf spot disease on Old World climbing fern. Pinnules on the rachis show various stages of disease development - small spots, chlorosis and tissue necrosis.

Close-up of disease symptoms on fertile fronds of Old World climbing fern.

Please mail samples to the following address:
Dr. "Jay" Jayachandran, Associate Professor of Microbiology, ECS-337,
Dept. of Environmental Studies, Florida International University,
11200 SW 8th St., Miami, FL 33199
Phone: 305-348-6553, Fax: 305-348-6137, Email: jayachan@fiu.edu