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Testimony before the Committee on Resources
United States House of Representatives

Hearing on "Addressing Forest Insects and Disease: A Growing National Problem, 'GAO Report on Invasive Forest Pests'"

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Good afternoon, Mr. Chairman and Mr. Ranking Member. I am Frank Lowenstein, Director of Forest Health Programs for The Nature Conservancy. I want to thank the Committee for inviting us to participate in this hearing. And even more, I want to thank you for soliciting this excellent GAO report and holding this hearing.

The problems described in the report have policy solutions. With improved preventative regulations and sufficient funding for eradication, management and applied research we can protect the many economic and ecological values of our nation's forests. This hearing can help identify those solutions and alert the public to the need for action.

The Nature Conservancy is an international, non-profit organization dedicated to the conservation of biological diversity. Our mission is to preserve the plants, animals, and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive. Our on-the-ground conservation work is carried out in all 50 states and in 27 foreign countries and is supported by approximately one million individual members. We have helped conserve nearly 15 million acres of land in the United States and Canada and more than 102 million acres with local partner organizations globally.

We work to encourage sustainable management of all lands important to biodiversity conservation, including a wide array of forests owned by individuals, corporations, and governments.

Non-native insects and diseases are a critical threat to the ecological and economic health of our nation's forests, a threat that cries out for stronger leadership and oversight. Today's hearing reflects the tremendous need to address this issue.

Figure 1 shows the changes in the number of damaging forest insects and diseases introduced to the United States per decade since 1900. As you can see, there is a tremendous increase in the rate of introductions beginning in about 1980. This corresponds with a continuing exponential increase in the volume of trade. Beginning in the late 1970s, APHIS's budget relative to the volume of U.S. imports fell sharply and has remained relatively low, as shown in Figure 2.

Non-native forest insects and diseases enter the country primarily via two pathways: on live plant imports (currently some 700 million plants per year) and solid wood packaging such as pallets and crates. Treatment of solid wood packaging was proposed by U.S. Forest Service employees as early as 1979, but enforcement of a comprehensive rule began only in February of this year. The efficacy of the new rule remains uncertain. Live plant import rules have actually been loosened since the 1960s; APHIS now proposes improving them, but expects that process to take several years, during which time current inadequate rules remain in effect. With each passing year, more non-native forest insects and diseases enter the country. Urgent action is needed to improve prevention efforts, and until prevention is improved there will be increased demand for funding of eradication and control efforts.

Introduced insects and diseases are the only threat that has removed dominant trees from our forests over much of their range. This has happened numerous times, especially in the East – examples include the American Chestnut, American Elm, and Eastern Hemlock. The pests responsible for these losses were introduced well before the 1980 upturn in imports. We are just beginning to see the impacts from those introduced since.

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The three pests that the GAO report focuses on—Emerald Ash Borer, Asian Longhorned Beetle, and Sudden Oak Death—are but the most worrisome of species introduced or detected in recent years. Together, these three threaten to send all North American ash and maples, and many species of oaks, down the unfortunate path already blazed by the American Chestnut.

One point we would like to emphasize is that when introduced forest pests appear, we cannot choose not to respond. Someone will have to respond. If the Department of Agriculture does not contain these pests, then property owners and municipal governments are stuck with the bill of removing the trees killed by the introduced pests. The trees cannot be simply left standing because of liability concerns if the tree falls on a person or on property.

As pests spread these costs could become dramatic. One study published in an economic journal put the cost of urban tree removal and replanting if Asian Longhorned Beetle spreads to its full potential at \$669 billion, or more than \$20 billion per year. The GAO report estimated that we are increasing the risk that this beetle will escape due to a lack of \$20 million per year-- 1/1000 th of the cost of responding to spread. And this cost, of course, does not take into account the lost value of forest trees, including timber value and such amenities as maple syrup and fall foliage displays.

Another cost is the potential loss of timber value. Oaks threatened by the possible spread of Sudden Oak Death comprise 38% of the total hardwood saw timber volume in the United States, with a timber value estimated at \$3 billion annually. The Sirex wood wasp (an introduced pest detected too recently for inclusion in the GAO report) could cause up to \$11 billion in losses to the softwood timber trees in the Southeast. If no action is taken to contain the wood wasp, it could spread across the entire southern pine region in 55 years or less. If the Emerald Ash Borer spreads to forests in the Eastern states, timber losses might reach \$25 billion. The Asian Longhorned Beetle threatens many other species utilized by the northern hardwood timber industry.

There are also economic costs that result from the ecological impacts of tree death. In California, the loss oaks may increase fire hazards; in the east, the ongoing death of the hemlock will raise water temperatures and increase bank erosion along mountain streams—both bad news for trout.

Other economic values are threatened. The U.S. nursery industry is our third in largest agricultural crop. The introduction and spread of some forest pests have caused significant losses to parts of the industry. Nursery plants vulnerable to Sudden Oak Death are worth more than \$250 million. Nurseries in California alone lost an estimated \$25 million in 2004-2005 as a result of steps required to ensure that they did not send more infected plants to other states.

RECOMMENDATIONS

The Nature Conservancy recommends Congress take six specific actions in response to the threat, some of which echo recommendations included in the GAO report.

First, the report's most obvious gap was its vivid description of the impact of inconsistent and insufficient funding, combined with the absence of corresponding recommendations. We urge that more funding for eradication and control be made available immediately through:

- Expanded use and expedited procedures for timely release of Commodity Credit Corporation funds.
- Creation of a \$500 million no-year fund specifically for response to these pests. We understand such a proposal has been discussed by the National Association of State Departments of Agriculture.
- Increased annual appropriations for APHIS, particularly Plant Protection and Quarantine, and for Forest Health Protection within the U.S. Forest Service.

Nationwide polling on this issue conducted for The Nature Conservancy in December 2005 showed that seven in ten voters support a \$100 million increase in funding for this issue.

The most urgent is for greater funding for APHIS Plant Protection and Quarantine and to maintain support for the Forest Health Protection program within the U.S. Forest Service. With respect to Forest Service Research, priorities for funding in our view include:

- Developing improved detection methods for introduced insect species that do not rely on sex pheromones for mating
- Developing improved detection methods for forest pathogens
- Documenting the ecological and economic impacts of forest pests and pathogens
- Developing and testing biocontrol agents for established forest pests and pathogens
- Developing and testing methods for breeding resistance into hosts of established introduced insects and pathogens
- Developing and testing methods for restoring resistant trees to the ecosystem, e.g., chestnut, dogwood, butternut and possibly hemlock

As part of effort to ensure adequate, timely funding for the eradication of newly introduced pests, Congress and

the Administration must resolve their differences as to whether funding to stop new invaders comes through appropriations or through the Commodity Credit Corporation. The ecological and economic values of our nation's forests will continue to suffer until this policy dispute is resolved.

Second, we must focus on preventing new invasions. The most important single need is that APHIS should speed the adoption of improved policies regarding the 700 million live plants that enter the country each year. Congress should require timely action on APHIS's part.

Third, we need to verify that new phytosanitary rules intended to clean up wood packaging are working. Asian Longhorned Beetle, Emerald Ash Borer, and *Sirex* wood wasp were introduced as larvae hiding in crates, pallets, and other forms of wood packaging. USDA APHIS led an international effort to develop and implement a world-wide "standard" which requires that wood packaging be treated. The U.S. and most of its trading partners are now putting this standard into effect. However, the treatments were not tested before being written into the standard. USDA should be carrying out statistically valid studies to determine whether the new treatments are preventing introductions of additional forest pests.

There are reasons to worry. In 2005, Asian Longhorned beetles were found in wood packaging from China shipped to central California. Regulations have required treatment of wood packaging from China since January 1999, which should have killed these insects, but did not. This year, the Port of Long Beach has found living insects in wood packaging from Turkey that carries the official mark indicating that has been treated. The efficacy of this regulatory program must be evaluated and modified if necessary.

Fourth, Congress should enhance APHIS's mandate to curtail movement of potentially infested or infected plants across state lines. As the GAO report notes, in 2004, millions of plants exposed to Sudden Oak Death were shipped to hundreds of nurseries across the country; 176 nurseries received plants that proved infected. Emergency rules adopted to solve the problem expire in somewhat over a year. A nursery in Maryland received ash trees infested with the Emerald Ash Borer in 2002; unsuspecting, it sold those trees to landowners in both Maryland and Virginia. Maine, New Hampshire and Vermont have made strenuous efforts to prevent introduction of hemlock woolly adelgid through the movement of inadequately inspected nursery stock. APHIS should play a more assertive role in preventing repetitions of these problems. The Nature Conservancy recently submitted testimony to USDA APHIS recommending that individual states be granted greater authority to adopt more protective measures against the introduction of forest pests.

Fifth, the GAO report's call for improved science advisory panels should be broadened beyond scientific issues. For example, controlling the movement of ash firewood in the Midwest is not primarily a scientific issue—it requires marketing expertise, regulatory expertise, and experience with business practices in that industry. We need advisory panels that represent affected stakeholders, including include political, conservation, and business leaders as well as individuals with marketing and regulatory expertise.

Finally, the GAO report also calls for improved estimates of program costs. It is our experience that program officers' estimates of costs are constrained by what they believe will be acceptable to either their superiors or Congress. Congress should request reviews of program cost estimates from independent outside experts, possibly through annual oversight hearings.

Thank you very much for the opportunity to address this critical issue. The Nature Conservancy stands ready to assist the committee in any way that we can.