

120°W

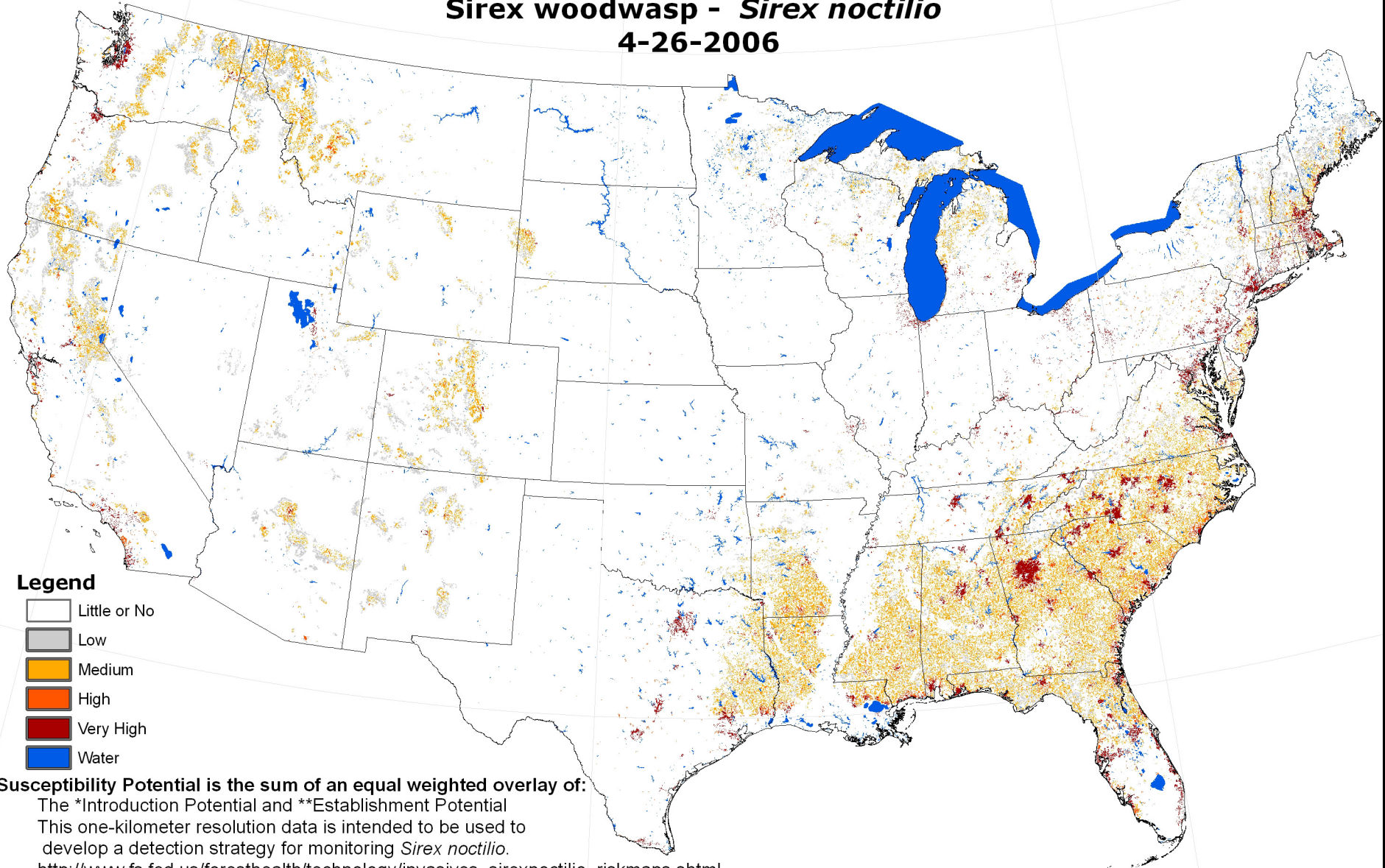
100°W

80°W

Susceptibility Potential

Sirex woodwasp - *Sirex noctilio*

4-26-2006



Legend

- Little or No
- Low
- Medium
- High
- Very High
- Water

Susceptibility Potential is the sum of an equal weighted overlay of:

The *Introduction Potential and **Establishment Potential

This one-kilometer resolution data is intended to be used to develop a detection strategy for monitoring *Sirex noctilio*.

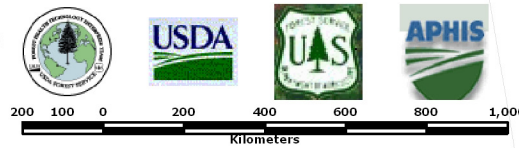
http://www.fs.fed.us/foresthealth/technology/invasives_sirexnoctilio_riskmaps.shtml

*Introduction Potential is determined by the locations of the:

- Ports that handle commodities with soild wood packing materials shipped from countries where *Sirex noctilio* exists.
- Distribution centers
- Markets

**Establishment Potential is determined by:

- Pine basal area
- Presence of susceptible host
- Soils Wetness Dryness Index
- Plant Hardiness



Albers Equal Area Conic Projection

Map Produced by FHTET
Fort Collins, CO on 5-9-2006. MFT
file: susceptibility_soils.mdx
GRID: suscept13_rc
Tool = Sirex_NewYork.model = Sirex_fn

30°N

30°N

100°W

80°W

Summary of Susceptibility Potential for *Sirex noctilio* April 26, 2006 Website
URL: <http://www.fs.fed.us/foresthealth/technology/products.shtml>

The Susceptibility Potential Surface for *Sirex noctilio* was produced for the Conterminous United States (CUS) in 1 square kilometer (km²) units by the U.S. Forest Service, Forest Health Technology Enterprise Team's (FHTET) Invasive Species Steering Committee (Table 1). The product's intended use is to develop a detection strategy for *Sirex noctilio*. The Risk of Susceptibility Surface was produced by combining the *Sirex noctilio* Introduction and Establishment Potential Surfaces in a final equal weighted overlay. Table 1 shows that 58,518,600 hectares of pine forest are at risk from *Sirex noctilio*. The datasets used in the Introduction and Establishment analyses, as well as the assigned arithmetic weights for each, can be seen in Tables 2 and 3.

Table 1
Steering Committee Members

Marla C. Downing, FHTET Lead
 Daniel M. Borchert, APHIS PPQ
 Donald A. Duerr, USFS R8
 Dennis A. Haugen, USFS NA
 Frank H. Koch, USFS SRS
 Frank J. Krist Jr., USFS FHTET
 Frank J. Sapio, USFS FHTET
 Bill D. Smith, USFS SRS
 Borys M. Tkacz, USFS FHP

Table 2
 Introduction Variables and
 Arithmetic Weights

| Variables | Weight |
|----------------------|---------------|
| Principal Ports | 33% |
| Markets | 33% |
| Distribution Centers | 34% |

Table 3 Summary of Susceptibility Potential for *Sirex noctilio*.

| Category | Number of km² Grid Cells | Hectares | Percent |
|---------------------|--|-------------------|----------------|
| Low | 173,812 | 17,381,200 | 29.70 |
| Medium | 291,388 | 29,138,800 | 49.79 |
| High | 49,419 | 4,941,900 | 8.45 |
| Very High | 70,567 | 7,056,700 | 12.06 |
| Total | 585,186 | 58,518,600 | 100 |
| | | | |
| <i>Little or No</i> | <i>7,204,738</i> | <i>720,473,80</i> | |

Table 3 Establishment Datasets and
 Arithmetic Weights.

| Variables | Weight |
|-----------------------|---------------|
| Total Pine Basal Area | 40% |
| Host Species | 40% |
| Soil Wetness Dryness | 20% |

Point of Contact

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