

## **Enhancement of Sphaeropsis Canker of Aleppo Pine by the Israeli Pine Bast Scale**

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An interaction between the fungal pathogen *Sphaeropsis sapinea* (Fr.) Dyko & Sutton, causal organism of Sphaeropsis canker, and the Israeli pine bast scale *Matsucoccus josephi* (Homoptera: Margarodidae), causal agent of pine decline, was studied, since both were prevalent on Aleppo pine (*Pinus halepensis*) stands. *Sphaeropsis sapinea* was isolated from larvae (stage II) and molts of the Israeli pine bast scale collected in four Aleppo pine stands. When Aleppo pine saplings were infested with pine bast scale and subsequently inoculated with *S. sapinea* most plants died, whereas mortality of seedlings inoculated with *S. sapinea* alone without previous scale infestation was negligible. Scale infestation of saplings without subsequent fungal inoculation caused the death of one third of the plants. Wounding of pine shoot apices by removal of needle fascicles enhanced infection by *S. sapinea*. The results support the assumption that *M. josephi* can play an important role in transmitting the fungal inoculum to the host tree as well as enabling its penetration to the shoots through wounds in the bark.

KEY WORDS: *Sphaeropsis sapinea*; *Matsucoccus josephi*; *Pinus halepensis*; *P. pinea*; *P. canariensis*; infection; wounding.

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