Stream Baiting in Southern Louisiana for *Phytophthora ramorum*[1]

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Abstract

The use of stream monitoring is an important method for early detection of *Phytophthora ramorum*. Five different waterway locations representing different ecosystems and potential *P. ramorum* inoculum sources across southern Louisiana were monitored for *P. ramorum* using bait bags containing whole *Rhododendron* 'Cunningham's White' leaves from December 2010 to January 2011. After 1 week, the leaves were retrieved and 30 leaf disks (11 mm diameter) per bait bag were taken from necrotic areas of the exposed leaves and placed on a *Phytophthora*-selective agar medium (PARPH+V8) or 2 percent water agar and incubated in the dark at 20 ºC. Plates were monitored for mycelial growth, and suspected *Pythium* and *Phytophthora* species were transferred individually to V8 agar to obtain pure cultures. The pure cultures were identified using internal transcribed spacer polymerase chain reaction (ITS PCR). Thirty-four cultures containing 10 different Oomycete species were positively identified from all locations, including: *Phytophthora* sp. (2.9 percent), *P. cryptogea* (11.8 percent), *P.* taxon *sylvatica* (11.8 percent), *Pythium* sp. (14.7 percent), *Py. aphanidermatum* (2.9 percent), *Py. diclinum* (14.7 percent), *Py. litorale* (29.4 percent), *Py. sterilum* (2.9 percent), *Py. tumidum* (5.9 percent), and *Py. undulatum* (2.9 percent). The Amite River was the only stream baiting study area to contain species of *Phytophthora*. *Phytophthora ramorum* was not found.

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