A New Report of *Phytophthora ramorum* on *Rhamnus purshiana* in Northern California. A. M. Vettraino, Department of ESPM-ES, 137 Mulford Hall, University of California, Berkeley 94720 and Department of Plant Pathology, University of Tuscia, Viterbo, Italy; and D. Hüberli, S. Swain, A. Smith, and M. Garbelotto, Department of ESPM-ES, 137 Mulford Hall, University of California, Berkeley 94720. Plant Dis. 90:246, 2006; published on-line as DOI: 10.1094/PD-90-0246C. Accepted for publication 28 November 2005.

Rhamnus purshiana, or cascara, is a deciduous tall shrub or small tree as much as 9 m high with thin, smooth, silver-gray bark. It is often present in shady sites in redwood and mixed evergreen forests of the North American west coast, from British Columbia to northern California. In July 2005, symptomatic leaves with irregular, black spots, 2 to 5 mm in diameter and concentrated toward the tips, were collected from four cascara plants in the Samuel P. Taylor State Park, Marin County, California. There was no evidence of defoliation. Pieces of necrotic tissue were plated on selective medium (PARP) and maintained at 19°C for 2 weeks. A *Phytophthora* sp. was consistently isolated and it was identified as *P. ramorum* on the basis of morphological and molecular traits published previously (3,4). The *P. ramorum* isolate Pr-418 has been deposited in the American Type Culture Collection (ATCC MYA-3676) and a portion of the internal transcribed sequence (ITS) of rDNA has been deposited in the NCBI database (GenBank Accession No. DQ168874). Koch's postulates were completed using the leaf-dip method (2) on detached leaves collected from three cascara plants growing at the University of California Botanical Garden at Berkeley. Zoospore inoculum was prepared by flooding a 2-week-old culture growing on V8 agar with sterile water for 4 days. The liquid was filtered after cold shocking at 4°C for 30 min and incubated at room temperature for 1 h. Fifteen leaves were dipped in the resulting zoospore suspension (1.6 × 10(^4) zoospores per ml) for either 1 min (experiment 1) or overnight (experiment 2). Leaves used as negative controls were dipped in sterile water. After removal from the inoculum, excess liquid was allowed to drain. Leaves were maintained in a moist chamber at 19°C with 13 h of natural light for 1 week. After 3 days of incubation, necrotic spots similar to those observed in the field had developed on leaves in experiment 2, while no symptoms were observed in experiment 1. Necrotic lesions were observed on 12 and 15 of 15 leaves in experiments 1 and 2, respectively, after 7 days of incubation. For each leaf, the necrotic area and percent necrosis was determined by placing the leaves in a flatbed scanner and processing the images with Assess (Version 1.01; The American Phytopathological Society, St. Paul, MN). Lesions extended from the tip of the leaves and covered 3 ± 1% of the total leaf area in experiment 1 and 33 ± 3% in experiment 2. Reisolation of *P. ramorum* on PARP was successful for all inoculated leaves. *P. ramorum* was never isolated from negative controls and no symptoms of infection were observed. The leaf-dip inoculation method is a rapid and reliable indicator of host susceptibility to *P. ramorum*, with many species developing necrosis when exposed to high concentrations of zoospores (3). Our results show that exposure time to the pathogen can play an important role in the development of symptoms. *R. purshiana* has been previously reported as a host in Oregon (1,2), but to our knowledge, this is the first report of cascara as a natural host of *P. ramorum* in the state of California. Our results confirm those from Oregon (2). The impact of infection by *P. ramorum* on cascara is unknown.

References: (1) J. M. Davidson et al. Plant Health Prog. DOI:10.1094/PHP-2003-0707-01-DG, 2003. (2) E. Hansen et al. Plant Dis. 89:63, 2005. (3) D. M. Rizzo et al. Plant Dis. 86:205, 2002. (4) S. Werres et al. Mycol Res. 105:1155, 2001.