First report of *Cryptostroma corticale* causing sooty bark disease in California and first worlwide report of silver maple as a host.

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In November 2022 and February 2023, CAL FIRE tree health experts examined four maples (*Acer* spp.) planted decades earlier in a residential setting in Elk Grove, Sacramento Co., California (USA). Three of the trees were silver maples (*Acer saccharinum*) and one was a Norway maple (*A. platanoides*); both species are exotic to California. The trees were in an irreversible state of decline, with the canopy substantially thinned and browning. Extensive bark cankers elongating longitudinally along the stem were visible on all trees (Fig. S1). Cankers were filled by fungal stromata protruding through the bark and producing masses of elliptical dark brown conidia (Fig. S2), approximately 5.5 x 3.7 um in size, giving the cankers a sooty appearance. The cankered bark could be peeled off easily, revealing dark and discrete lesions in the phloem and xylem. Samples from the three trees were shipped to the U.C. Berkeley Forest Pathology and Mycology Laboratory and to the CDFA PPDC in Sacramento, CA. In the laboratories, small wood chips were taken from the margins of the lesions, surface sterilized by dipping them for 30 seconds in 70% Ethanol, rinsed for 30 seconds in sterile water and plated onto 2.5% Malt Extract Agar amended with 0.3g/L Streptomycin or onto one-half strength acidified potato dextrose agar (APDA). Two morphologically identical cultures were obtained, one (T2) from a silver maple and one (T6) from the Norway maple. Cultures were then grown in liquid 2.5% malt extract broth and, after one week, DNA was extracted using the Qiagen Plant DNeasy DNA extraction kit. The ITS sequences are diagnostic for this fungus (Li et al. 2021) and those of the two cultures (GB OR064033 and OR933565) were 100% homologous to GenBank sequences of *Cryptostroma corticale* (e.g. GB OP474010-11). The RPB2 sequence of T2 (GB OR992132) was 100% homologous to that of *C. corticale* (GB HG934116.1). The isolate obtained from silver maple was inoculated in four potted silver maples by removing a bark disk 50 mm in diameter with a cork borer in three spots staggered at different heights and sides on the stem, placing a colonized agar plug of *C. corticale* in contact with the phloem, replacing the bark disk and wrapping with parafilm. Two control trees were mock inoculated using sterile agar plugs. Trees were in 57 L pots, had an average stem caliper of 2.7 cm, an average height of 3.5 m and were kept in a lath house at average high temperatures of 18-24 ^{0}C. After ten

weeks, average lesion length was 15.4 cm (SE= 4.6) and 4.3 cm (SE=2.3) in the fungus-inoculated and control trees, respectively. An ANOVA test, nesting lesions sizes within tree, determined lesions lengths were different between inoculated and mock trees (P= 0.04). The fungus was reisolated from all points in all inoculated trees but never from control trees. *C. corticale* was first described in the UK from sycamore maple (*Acer pseudoplatanus*) (Gregory et al. 1949) and is an emerging problem in Europe (Muller et al. 2023). In North America, it has been reported from *A. negundo*, *A. campestre*, *A. macrophyllum* and *Cornus nuttallii* (Worral 2020), and it appears to be present in the Pacific Northwest (Brooks et al. 2023, Goree 1969). Norway maple is included in the European Plant Protection Organization list of hosts for *C. corticale* (EPPO 2023), however our finding of *C. corticale* on silver maple is a first report of this host worldwide and of this pathogen in California. This report is noteworthy, given that *C. corticale* is also a human pathogen infecting the respiratory system (Braun et al. 2021).

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Fig. S1. Elongated cankers on the stem of silver maple affected by Sooty Bark Disease. Note the bark is peeling and cankers are filled by fungal stromata protruding through the bark.

169x225mm (72 x 72 DPI)

Fig. S2. Conidia produced by Cryptostroma corticale on silver maple.

234x169mm (144 x 144 DPI)