First report of leaf disease on *Cinnamomum subavenium* caused by *Colletotrichum fioriniae* in China

W. Sun, Y. Y. Su, L. Cai, State Key Laboratory of Mycology, Institute of Microbiology, Chinese Academy of science, Beijing, 100101, China; and W. Sun and W. Sha, School of biological Science, Agriculture and Forestry, Qiqihar University, Qiqihar, Heilongjiang, China.

*Cinnamomum subavenium* Miq. (Lauraceae) is a subtropical arbor plant widely distributed in southwest China. It has a long history of cultivation and has been widely used in traditional Chinese medicine, food flavors, and industrial materials. In August 2010, a serious leaf disease was observed on wild *C. subavenium* growing in Gutianshan Nature Reserve, Zhejiang, China. Lesions were about 1.0 cm dia, with the margin of the lesions light to dark brown, and the middle gray to pale yellowish. Necrotic lesions were surface disinfected with 1% sodium hypochlorite for 1 minute, and 70% ethanol for 3 minutes, and isolations were made from lesion edges onto potato dextrose agar (PDA). Three plants were tested, and a fungus was consistently isolated from lesions. Colonies of this fungus on PDA were at first gray, becoming pinkish gray with age, with salmon pink conidial masses, and the reverse of the colony was pink. The growth rate was 10.82-11.95 mm per day ($\overline{x} = 11.58 \pm 0.25, n = 6$) on PDA at 25°C. Conidia were oblong or cylindrical with acute ends, occasionally guttulate, hyaline, 7.5-14.5 × 2.5-4.3 µm ($\overline{x} = 11.25 \pm 0.5 \times 3.4 \pm 0.4, n = 30$). These characteristics matched the descriptions of *Colletotrichum fioriniae* (Marcelino & Gouli) R.G. Shivas & Y.P. Tan (2). DNA was extracted from one isolate and the rDNA-internal transcribed spacer (ITS) region was amplified and sequenced using primers ITS1 and ITS4 (1). The ITS sequence of the isolate (Accession No. JN208890) shared 100% identity to the holotype of *C. fioriniae* (Accession No. EF464594). The pathogenicity of *C. fioriniae* on *C. subavenium* was confirmed through inoculation. Three freshly harvested, healthy leaves were washed under running tap water, immersed in 5% sodium hypochlorite for 3 minutes, then 70% ethanol for 1 minute, rinsed three times in sterilized water and finally dried by using
sterilized tissue paper. Plant leaves were inoculated with a concentration of $2.5 \times 10^6$ spore/ml. Sterilized water was used for controls. All the leaves inoculated with *C. fioriniae* were symptomatic with round to elliptical lesions with brown margin after 14 days post-inoculation. The fungus was re-isolated from symptomatic leaf tissue had the same morphological and cultural characteristics of *C. fioriniae*. Although *C. gloeosporioides* has been reported from several species in the genus *Cinnamomum* (http://nt.ars-grin.gov/fungal databases/), this is the first report of leaf disease on *Cinnamomum subavenium* caused by a *Colletotrichum* species.