



First report of box blight caused by *Cylindrocladium pseudonaviculatum* in the Eastern Black Sea region of Turkey

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Boxwood (*Buxus sempervirens*) is a small native tree mostly growing along the coastal areas of Marmara and Black Sea regions of Turkey on approximately 1000 hectares. In November 2011, severe blight and leaf shedding were observed in the Eastern Black Sea region. Leaves had greyish brown, round diffuse spots, scattered throughout the leaf surface (Fig. 1). Thick branches and fine roots did not show any symptoms but young side branches showed small dark necrosis as streaks. Disease samples containing leaves, branches and roots were collected from the provinces Trabzon and Artvin and examined in our laboratory.

Samples with leaf spots and stem necrosis produced large numbers of yellowish, columnar spore bodies when incubated on moist blotter paper and 2% water agar. Roots did not yield any similar sporulation. Spore bodies consisted of penicillately branched reniform or acicular phialides and a sterile stipe (110-150 µm long) ending with a navicular shaped vesicle. Conidia were hyaline, one-septate, and cylindrical with rounded ends measuring 48-65 x 4-6 µm (Figs. 2, 3). Colonies grown on 2% malt extract agar (MEA) were whitish on the peripheries and orange coloured in the centre (Fig. 4) producing numerous microsclerotia with age (Fig. 5). The above-mentioned characteristics of the disease and the morphological characteristics observed match the description of *Cylindrocladium pseudonaviculatum* (synonym *C. buxicola*), given by Crous *et al.* (2002) as the causal agent. A representative isolate was stored in cryo-vials at -80°C at the department of Plant Protection, Faculty of Agriculture of Ankara University.

Five healthy boxwood stems, approximately 20 cm long, were inoculated with a spore suspension of the representative isolate (1.5 x 10⁴ conidia/ml) until run-off and incubated in flasks filled with water in a moist chamber at 18°C. After one week, typical leaf spots were observed. Identical sporulation of *C. pseudonaviculatum* was observed on these spots. Healthy controls did not show any symptoms. This pathogen has been reported as *C. buxicola* in various countries in Europe (Henricot *et al.*, 2000; Crepel & Inghelbrecht, 2003; Cech *et al.*, 2010) and in Georgia (Gorgiladze *et al.*, 2011), which is a neighbouring country to the east of Turkey. This disease is also known in the USA (Norm *et al.*, 2011) and New Zealand (Crous *et al.*, 2002). To our knowledge, this is the first report of the presence of *C.*

pseudonaviculatum on *B. sempervirens* in Turkey.

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Figure 1

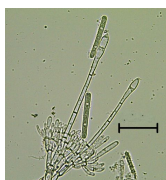


Figure 2



Figure 3

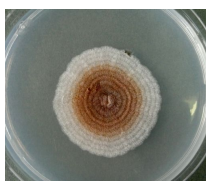


Figure 4



Figure 5

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