

# *Cadophora luteo-olivacea* isolated from apple (*Malus domestica*) fruit with post-harvest side rot symptoms in northern Italy

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## Abstract

Recently, *Cadophora luteo-olivacea* has been reported as a post-harvest pathogen of side rot of apple (*Malus domestica*) in Latvia, and of pear (*Pyrus communis*) in Italy and the Netherlands. In 2018 and 2019, in South Tyrol (northern Italy) 11 fungal cultures, identified as *C. luteo-olivacea* based on ITS (internal transcribed spacer region) sequence data, were obtained from apple fruit displaying post-harvest side rot symptoms. The fruit were sampled in packinghouses representing different apple growing areas of South Tyrol. For a more accurate taxonomic assignment, two additional molecular genetic loci,  $\beta$ -tubulin (TUB2) and translation elongation factor 1 $\alpha$  (TEF-1 $\alpha$ ), of seven isolates were amplified and sequenced. Phylogenetic analysis based on multi-locus DNA sequence data confirmed that isolates from apple fruit with side rot symptoms indeed represented *C. luteo-olivacea*. A pathogenicity test performed on apple fruit of ‘Golden Delicious’ confirmed the virulence of a representative isolate. So far, *C. luteo-olivacea* represents a minor post-harvest pathogen of apple but considering the losses that this fungus can cause to other crops, the awareness about this potential apple disease should be raised.