Molecular identification of *Colletotrichum* species causing anthracnose in berries in Santa Catarina state, Brazil

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Anthracnose is an important disease that affects berries cultivation worldwide. In Brazil, strawberries (*Fragaria × ananassa*) and blueberries (*Vaccinium ashei*) are highly affected. Severe anthracnose symptoms including fruit rots, leaf spots, twig blights or petiole necrosis were observed on blueberry and strawberry plants organically cultivated in Santa Catarina, Brazil. Isolates were obtained from lesions and monosporic cultures were grown on potato dextrose agar at 25°C and with a 12 h photoperiod. Multilocus phylogenetic analysis using seven loci (ACT, TUB2, CAL, GAPDH, GS, ITS, and ApMAT) allowed the identification of two new species causing anthracnose in Brazil, *Colletotrichum chrysophilum* (blueberry) and *C. karstii* (strawberry). To confirm pathogenicity, one-year-old and 90-day-old plants of blueberry and strawberry, respectively, were inoculated by spraying a suspension of 1×106 conidia/ml, incubated in a moist chamber in the dark for 48 h, and then kept in the greenhouse. Plants sprayed with sterile distilled water served as control. Blueberry-inoculated plants exhibited the first symptoms in twigs 10 days after inoculation (dai). Infected twigs showed initially dark brown spots that coalesced and became necrotic. Reddish-brown lesions on leaves appeared at low intensity at 15 dai. Strawberry-inoculated plants showed irregular and circular dark brown leaf spots at 15 dai that evolved to necrotic lesions frequently surrounded by chlorotic halos, reddish-brown, and depressed petioles lesions. For both species, fruit rots had sunken areas associated with an abundant orange mucilaginous mass of acervuli and conidia. Identifying these species causing anthracnose is crucial to improving disease control strategies and resistance breeding.