Host-specific differentiation among populations of Venturia inaequalis causing scab on apple, pyracantha and loquat

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Résumé en anglais	Patterns of multilocus DNA sequence variation within and between closely related taxa can provide insights into the history of divergence. Here, we report on DNA polymorphism and divergence at six nuclear loci in globally distributed samples of the ascomycete Venturia inaequalis, responsible for scab on apple, loquat, and pyracantha. Isolates from different hosts were differentiated but did not form diagnosable distinct phylogenetic species. Parameters of an Isolation-with-Migration model estimated from the data suggested that the large amount of variation shared among groups more likely resulted from recent splitting than from extensive genetic exchanges. Inferred levels of gene flow among groups were low and more concentrated toward recent times, and we identified two potentially recent one-off shifters from apple and pyracantha to loquat. These findings support a scenario of recent divergence in allopatry followed by introgression through secondary contact, with groups from loquat and pyracantha being the most recently differentiated.
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