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Lineages in Nectriaceae: Generic status of *Fusarium*

The ascomycete family *Nectriaceae* (*Hypocreales*) includes numerous important plant and human pathogens, several of which are used extensively in industrial and commercial applications as biodegraders and biocontrol agents. Members of the family are unified by phenotypic characters such as uniloculate ascomata that are yellow, orange-red to purple, not immersed in a well-developed stroma and with phialidic asexual morphs. Presently, the generic concepts in *Nectriaceae* are still poorly defined, since sequence data are only now becoming available for many of these genera. To address this issue we performed a multi-gene phylogenetic analysis using partial

sequences of the *acl1*, *act*, *cmdA*, *hisH3*, ITS, LSU, *rpb1*, *rpb2*, *tefl* and *tub1* gene regions for available type and authentic strains representing known genera in *Nectriaceae*, including several genera for which no sequence data were previously available. Supported by morphological observations, the data resolved more than 40 genera in the *Nectriaceae*. We re-evaluated the generic status of several genera, including the genus *Fusarium*, which were shown to represent several genera previously introduced for these fungi. Additionally, two new genera are introduced for fungi previously treated as *Fusarium*.