Gibellulopsis nigrescens

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Gibellulopsis nigrescens complex

There are three key publcations, Zare et al. 2007, Inderbitzen et al. (2011) and Girald & Crous 2019 but unfortunately there is little overlap in genes used between the publications. All isolates in both have ITS data available. Although differences in ITS are small within the complex, these small differences appear to correlate well with more distinct differences in EF1a (used by Zare 2007) and TS (used by Inderbitzen 2011).

The *G. nigrescens* complex includes the type isolates of *G. nigrescens*, *G. piscis* and *Cephalosporium serrae*, each of which seems to fall in a different clade within the complex. Most isolates in GenBank with ITS data sit in one of these clades, but a few fall outside and these may represend additional taxa within the complex.

Based on TS data, ICMP isolates match *G. nigrescens* sensu stricto and *C. serrae*, but none match *G. piscis*. Another ICMP isolate has a unique TS sequence, but without other genes it cannot yet be matched to any other isolate.

Zare et al. 2007. Gibellulopsis, a suitable genus for Verticillium nigrescens, and Musicillium, a new genus for V. theobromae. Nova Hedwigia 85: 463—489.
Indrbitzen et al. 2011. Phylogenetics and Taxonomy of the Fungal Vascular Wilt Pathogen Verticillium, with the Descriptions of Five New Species. PlosONE
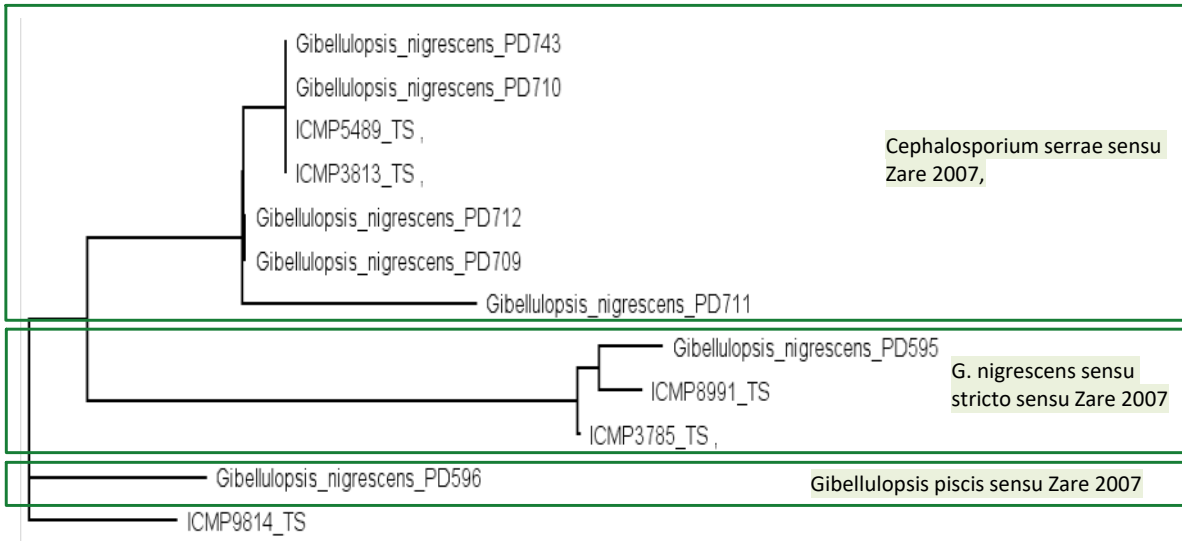Giraldo & Crous 2019. Inside Plectosphaerellaceae. Studies in Mycology 92: 227—286.

ITS tree, based on selected types fide Giraldo & Crous 2019 (red), Inderbitzen (PD... isolates) and other GenBank isolates
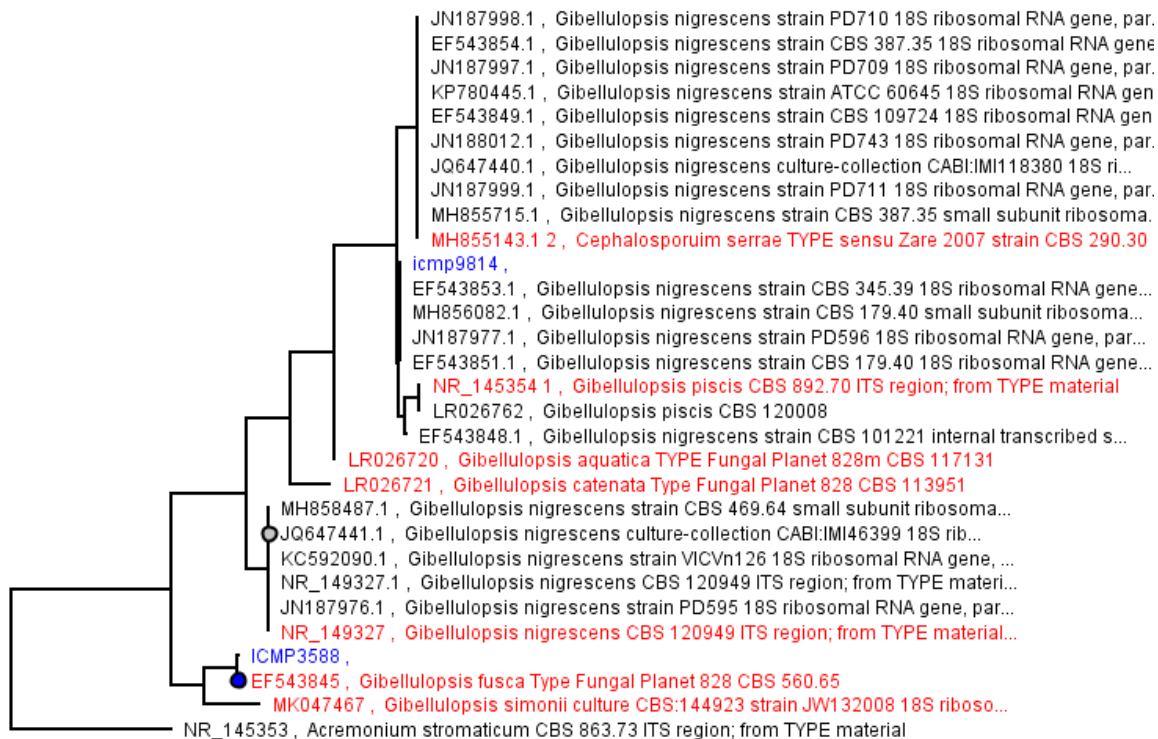
TS tree based on ICMP isolates plus Inderbitzen isolates

Labels to the right based on relationships suggested by ITS analysis using Zare and Inderbitzen isolates. ICMP 9814 cannot be matched to anything in the complex with the data available.

Gibellulopsis_nigrescens_PD743
Gibellulopsis_nigrescens_PD710
ICMP5489_TS ,
ICMP3813_TS ,
Gibellulopsis_nigrescens_PD712
Gibellulopsis_nigrescens_PD709
Gibellulopsis_nigrescens_PD711

Cephalosporium serrae sensu Zare 2007,

Gibellulopsis_nigrescens_PD595
ICMP8991_TS
ICMP3785_TS ,

G. nigrescens sensu stricto sensu Zare 2007

Gibellulopsis_nigrescens_PD596
ICMP9814_TS

Gibellulopsis piscis sensu Zare 2007

TEF tree ex Zare et al 2007

labels to the right based on relationships suggested by ITS analysis using Zare and Inderbitzen isolates; ICMP matches based on TS analysis using ICMP and Inderbitzen isolates
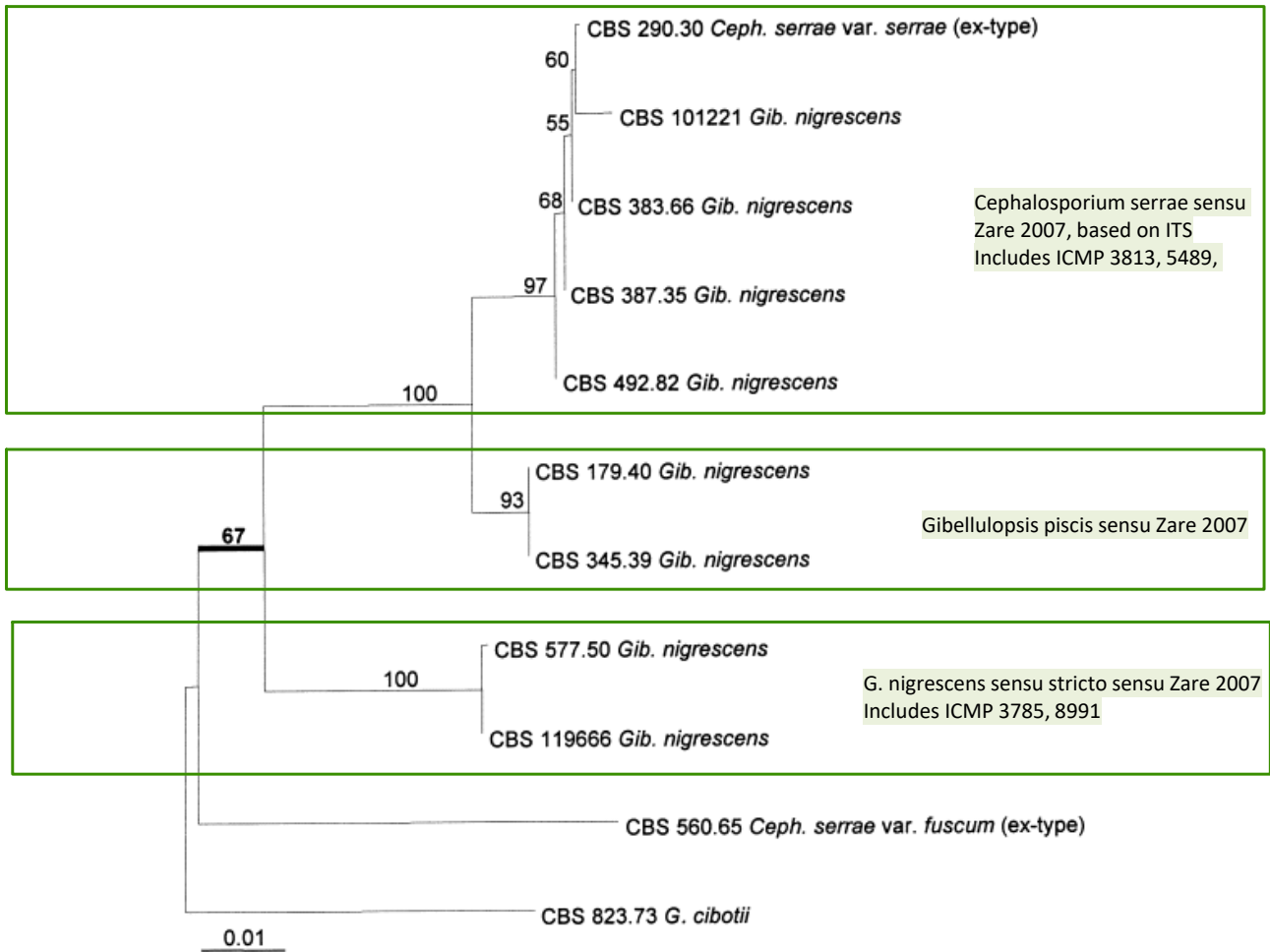

Fig. 3. Neighbour-joining tree based on partial *tef*1 sequences. Numbers above branches indicate bootstrap support values. Abbreviations as in Fig. 1.