



# Two new African siblings of *Pulveroboletus ravenelii* (Boletaceae)

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### Abstract

This paper sorts out the taxonomy of species affiliated with *Pulveroboletus ravenelii* in the Guineo-soudanian and Zambezian woodlands of Africa. Morphological and genetic characters of African *Pulveroboletus* collections were studied and compared to those of North American and Asian species. A phylogenetic analysis showed that the African specimens form a subclade, sister to the Asian and American taxa. Although clamp connections have previously never been reported from *Pulveroboletus*, all specimens of the African subclade show very small clamp connections. Two new African species, *Pulveroboletus africanus* sp. nov. and *P. sokpontanus* sp. nov., are described and illustrated. Comments concerning morphology and identification, as well as distribution and ecology, are given for both species.

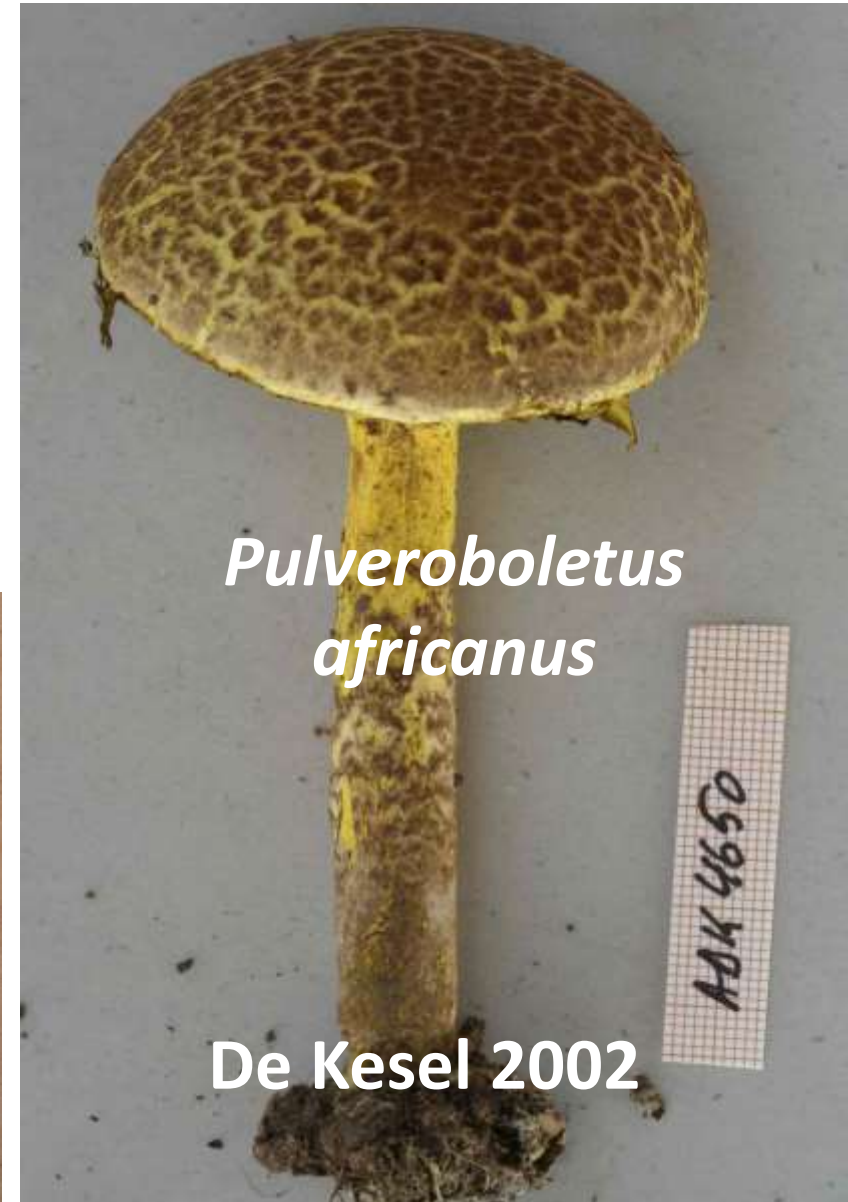
### Keywords

Boletales, Africa, *Pulveroboletus*, morphology, phylogeny, taxonomy

**MycoKeys (IF = 3,6)**

# Plan

- **Contexte**
- **Matériels et méthodes**
- **Résultats**
- **Conclusion**



# Matériels et méthodes 1/2



# Matériels et méthodes 2/2

- (ATP6, TEF1 et RPB2)
- Clade "Pulveroboletus group" par d'autres auteurs (Wu et al. 2014)
- Analyse de vraisemblance maximale (50 spécimens)

# Résultats 1/3



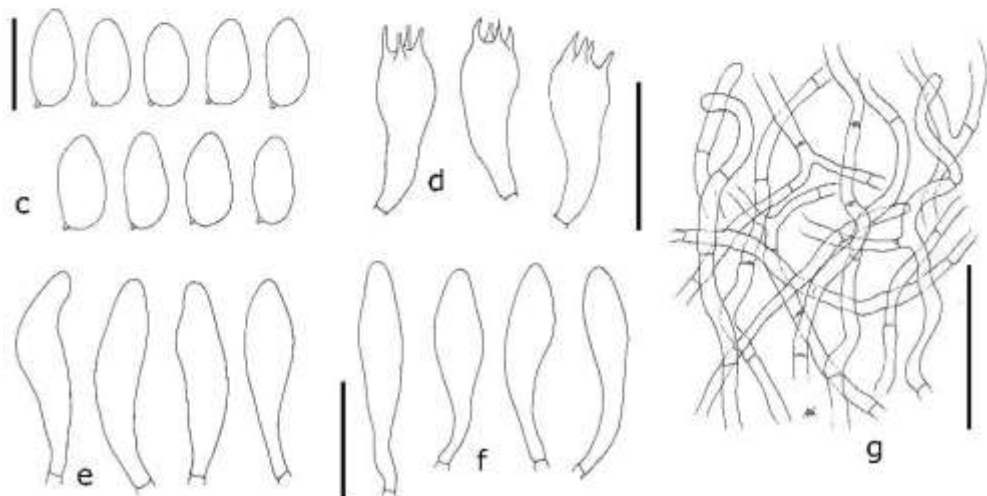
## *Pulveroboletus sokponianus*

- a. basidiomes;
- b. b. very young basidiomes;
- c. basidiospores;
- d. basidia; e. cheilocystidia;
- f. pleurocystidia;
- g. pileipellis with tiny clamps.

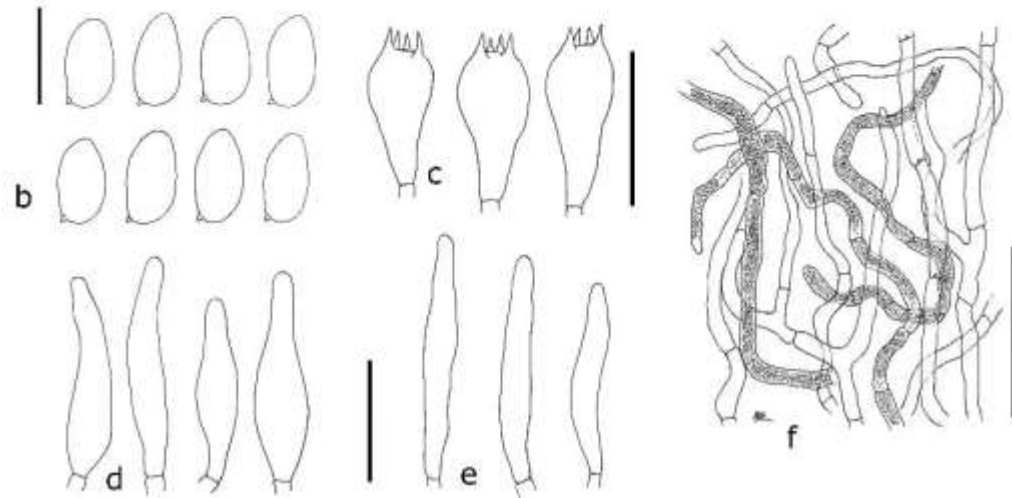
Scale bars for a-b = 25mm, c

= 10 $\mu$ m, d = 25 $\mu$ m, e-f =

25 $\mu$ m, g = 50 $\mu$ m



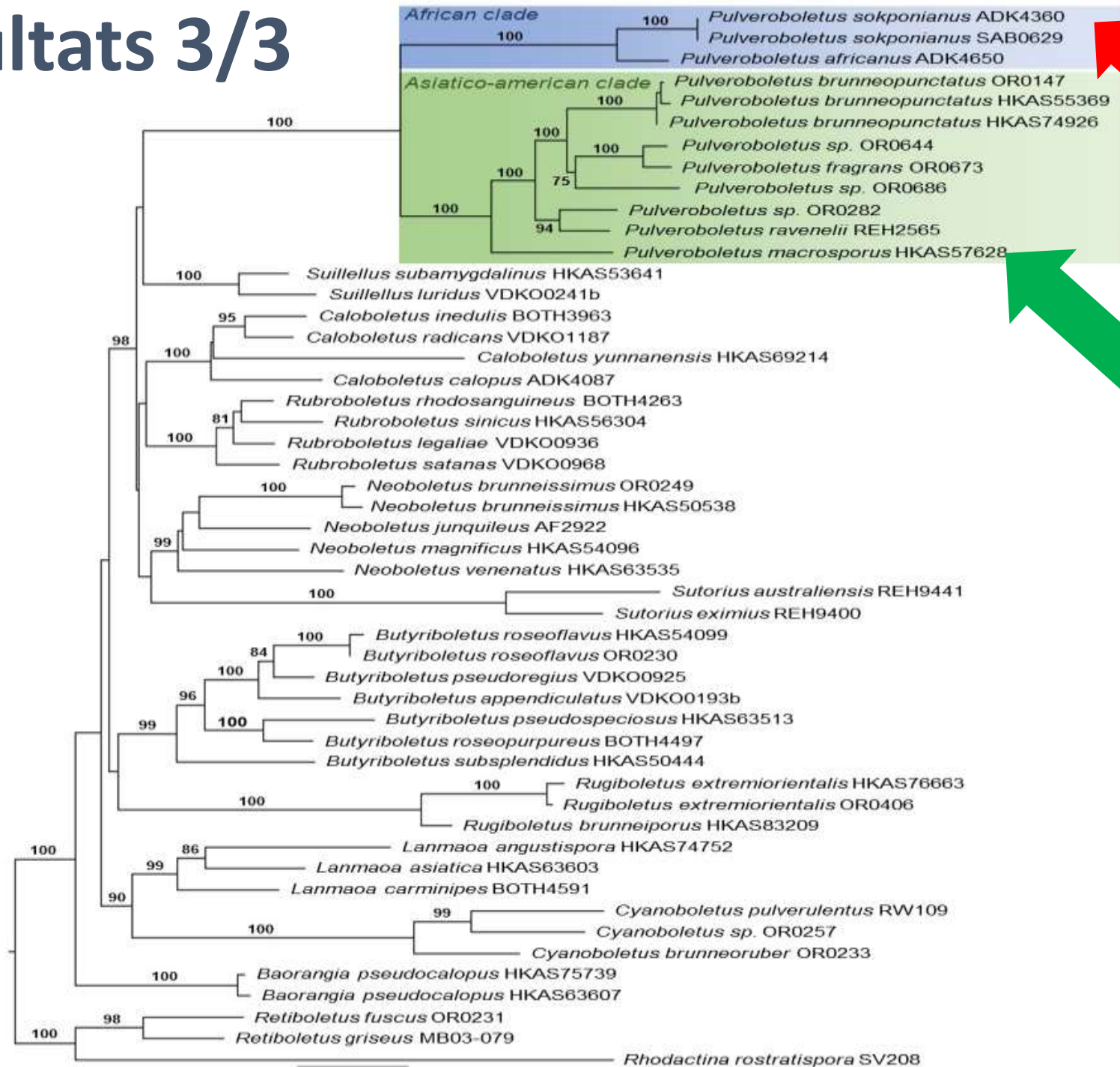
# Résultats 2/3



*Pulveroboletus africanus*  
(De Kesel 4650, holotype):  
a. basidiomes;  
b. basidiospores;  
c. basidia;  
d. cheilocystidia;  
e. pleurocystidia;  
f. pileipellis hyphae with  
intracellular pigments and  
tiny clamps. Scale bars for  
a = 25mm, b = 10 $\mu$ m, c =  
25 $\mu$ m, d-e = 25 $\mu$ m, f =  
50 $\mu$ m.



# Résultats 3/3

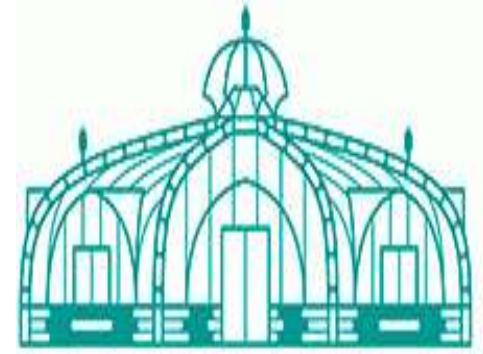


# Conclusion 1/1

- Les spécimens de *Pulveroboletus* étudiés, y compris les deux nouvelles espèces ( *Pulveroboletus sokponianus* et *P. africanus*), forment un clade monophylétique fortement supporté (BS = 100%).
- Il est intéressant de noter que les spécimens des deux nouvelles espèces africaines forment un sous-clade distinct (BS = 100%), séparé du sous-clade frère formé par les espèces américaines et asiatiques.



Point Focal National Belge pour  
l'Initiative Taxonomique Mondiale



Jardin botanique  
Meise

Merci de votre aimable attention

**CEBios**

