

1. PaDIL Species Factsheet



Scientific Name:

Jamesdicksonia brunckii (Ellis & Galloway) J. Walker & R.G. Shivas

Basidiomycota, Exobasidiomycetes, Georgefischeriales, Georgefischeriaceae

Common Name

Dichanthium Smut

Live link: <http://www.padil.gov.au/aus-smuts/Pest/Main/140015>

Image Library

Smut Fungi of Australia

Live link: <http://www.padil.gov.au/aus-smuts/>

Partners for Smut Fungi of Australia image library



Queensland Queensland Government
Government <https://www.daf.qld.gov.au/>

2. Species Information

2.1. Details

Specimen Contact: Roger Shivas - roger.shivas@deedi.qld.gov.au

Author: Roger Shivas

Citation: Roger Shivas (2010) *Dichanthium Smut* (*Jamesdicksonia brunkei*) Updated on 12/2/2010 Available online: PaDIL - <http://www.padil.gov.au>

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2.2. URL

Live link: <http://www.padil.gov.au/aus-smuts/Pest/Main/140015>

2.3. Facets

Columella: absent

Distribution: WA

Host Family: Poaceae

Peridium: absent

Sorus position: leaves

Sorus shape: indistinct (includes leaf spots)

Spore balls: absent

Spore mass texture: granular, powdery

Spore shape: globose or subglobose, ovoid to ellipsoidal

Spore surface ornamentation: smooth

Status: Native Australian Species

Sterile cells: absent

2.4. Diagnostic Notes

****Sori**** on adaxial surface of leaf sheaths, forming striae fusing into a blackish brown agglutinated to granular-powdery coat of spore masses, showing through the outer surface of the leaf sheaths between the veins as pale lead-coloured striae of varying length.

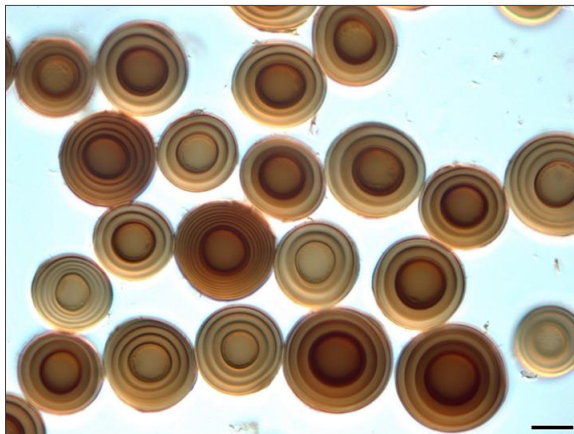
****Spores**** globose, subglobose to ovoid (subpolyhedrally irregular in some specimens), 10–20 (–24) × 10–18 μm, yellow to dark reddish brown; wall 3–8 μm thick, consisting of a homogenous endospore 1–2 μm thick and a smooth multilayered exospore, sometimes with a short hyaline papilla. [Spore measurements made in unheated lactophenol; in heated lactophenol or in water the spore wall and the spores swell considerably.]

****Spore germination**** resulting in holobasidia producing 4–8 apical allantoid to fusiform symmetrical septate basidiospores that do not fuse but germinate apically to produce ballistoconidia. Asymmetrical ballisto-basidiospores also produced on basidial sterigmata.

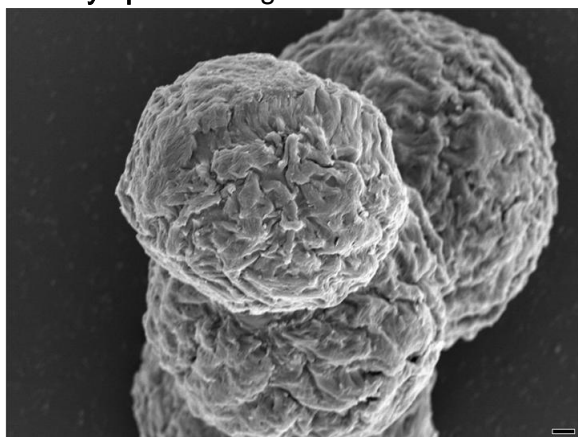
3. Diagnostic Images



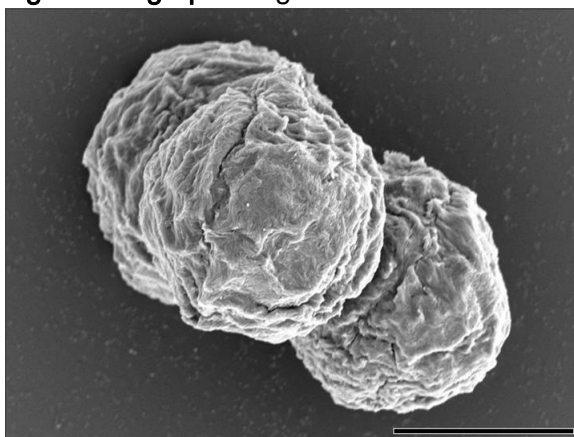
Jamesdicksonia brunckii on Dichanthium sericeum - DAR 65755. Scale bar = 5 mm.
Host symptoms: Roger Shivas DEEDI



Jamesdicksonia brunckii on Dichanthium sericeum - BRIP 49093. Scale bar = 10 μ m.
Light micrograph: Roger Shivas DEEDI



Jamesdicksonia brunckii on Dichanthium sericeum - BRIP 49093. Scale bar = 1 μ m.
Scanning Electron Micrograph: Desley Tree DEEDI



Jamesdicksonia brunckii on Dichanthium sericeum - BRIP 49093. Scale bar = 10 μ m.
Scanning Electron Micrograph: Desley Tree DEEDI

Results Generated:

Thursday, January 21, 2021

