

1. PaDIL Species Factsheet



Scientific Name:

Websdanea lyginiae (Websdane, Sivasithamparam, K.W. Dixon & Pate) Vánky
Basidiomycota, Ustilaginomycetes, Ustilaginales, Websdaneaceae

Common Name

Lyginia Smut

Live link: <http://www.padil.gov.au:80/aus-smuts/Pest/Main/140124>

Image Library

Smut Fungi of Australia

Live link: <http://www.padil.gov.au:80/aus-smuts/>

Partners for Smut Fungi of Australia image library



Agri-Science Queensland, DEEDI
<http://www.deedi.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) Lyginia Smut(*Websdanea lyginiae*) Updated on 12/8/2010 Available online: PaDIL - <http://www.padil.gov.au>

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2.2. URL

Live link: <http://www.padil.gov.au:80/aus-smuts/Pest/Main/140124>

2.3. Facets

Columella: absent

Distribution: WA

Host Family: Restionaceae

Peridium: absent

Sorus position: stems

Sorus shape: bullate (blister-like swellings), long cylindrical

Spore balls: present

Spore mass texture: granular, powdery

Spore shape: globose or subglobose, irregular, ovoid to ellipsoidal, polyhedral or subpolyhedral

Spore surface ornamentation: smooth

Status: Native Australian Species

Sterile cells: absent

2.4. Other Names

Ustilago lyginiae Websdane, Sivasithamparam, K.W. Dixon & Pate

2.5. Diagnostic Notes

****Sori**** as bullate dark reddish brown striae on the distal internodes of the culms, c. 1–50 mm long and 1 mm wide, covered by the epidermis which ruptures at maturity exposing the black granular-powdery mass of irregular loose spore balls. Swollen sori developing in longitudinal depressions in the culm, beginning from a ±narrow isthmus of sporogenous hyphae and host cells permeated by inter- and intracellular hyphae. Groups of spore balls differentiating within the basal sporogenous hyphae of young sori; during maturation these are pushed toward the periphery. When young, groups of spore balls separated into irregular lobes by fascicles of sporogenous hyphae that penetrate into the sori. During maturation, these fascicles disappear towards the periphery. Infection systemic; usually all culms of a plant affected; smutted culms sterile.

****Spore balls**** subglobose, ovoid to usually irregularly elongate, 45–200 × 30–90 µm, dark olivaceous brown, opaque, composed of many readily separating spores.

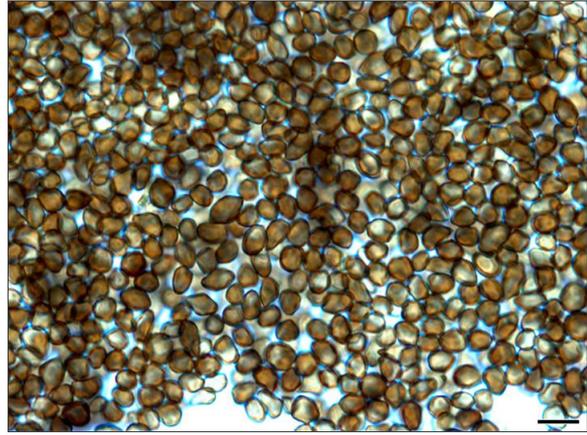
****Spores**** subglobose, ovoid, irregularly subpolyhedral or polyhedral, elongate, often prolonged into 1 or 2 subacute or acute tips, (6–) 7–13 (–16) × (5–) 6–9 µm, olivaceous brown; wall unevenly thick, 0.5–1.5 µm; in LM smooth; in SEM outer spores inconspicuously low-verruculose, inner spores smooth.

****Spore germination**** resulting in (1–) 2–4-celled basidia c. (6–) 20–40 × 1.5 μm. Basidiospores fusiform or ovoid, produced successively on well-developed sterigmata, 3.5–12.0 × 1.0–1.5 μm; basidiospores budding and giving rise to smaller fusiform or ovoid cells or hyphae. Alternatively, richly branched hyphae produced on the basidia, with only a few ovoid basidiospores at the tips of short or long branches.

3. Diagnostic Images



Websdanea lyginiae on Lyginia barbata - BRIP 26822. Scale bar = 5 mm.
Host symptoms: Roger Shivas DEEDI



Websdanea lyginiae on Lyginia barbata - BRIP 26822. Scale bar = 10 μ m.
Light micrograph: Roger Shivas DEEDI

Results Generated:

Tuesday, July 16, 2019
