Uromycladium tepperianum is a microcyclic rust that infects more than one hundred species of Acacia (Gathe 1971) and several other genera in the Fabaceae, causing large, conspicuous galls (Morris 1987). Acacia pycnantha Benth., cultivated in Australia for its bark, is severely affected by U. tepperianum, which causes significant yield losses and eventually the death of the host (Gathe 1971). However, this rust has potential as a biocontrol agent for weedy acacias outside of Australia, for example, U. tepperianum has been proven a highly effective against A. saligna in South Africa (Morris 1997, Wood & Morris 2007).


Spermogonia minute, brownish then black, globose, 150 µm diam; spermatia hyaline, ellipsoid.

Aecia and uredinia unknown.

Telia develop on galls on leaves, branches, inflorescences, and fruits; infections causing swollen, distorted galls up to 18 × 6 cm, and witches' brooms of different shapes and sizes, cinnamon to chocolate brown, powdery; teliospores composed of a cluster of three probasidial cells at top of a single pedicel, depressed globose to globose, cinnamon brown, thickly vertically striate, margin crenulate, wall 2-3 µm, at apex up to 5 µm thick, 14-22 µm high, 18-25 µm wide, one apical germ pore; pedicel hyaline, septate, deciduous.

Hosts: Species of Acacia, Albizia and Racosperma (Fabaceae)

Geographic Distribution Australia, Java, New Caledonia, New Zealand, Papua New Guinea, and South Africa.

Uromycladium is characterized by the production of teliospores composed of 1-3 probasidial cells, with or without cysts, on a single pedicel. Eight species of Uromycladium have been described occurring primarily on Acacia in Australia and New Zealand. Teliospores of Uromycladium tepperianum and U. notabile McAlpine have three probasidial cells and no cysts (Burges 1934). Uromycladium notabile produces uredinia, and the probasidial cells have linear verrucae, while no uredinia are known for U. tepperianum and the probasidial cells are distinctly striate. Uromycladium acaciae (Cooke) P. Syd. & Syd. produces teliospores with two probasidial cells and no cysts. Teliospores of Uromycladium simplex McAlpine and Uromycladium robinsoni McAlpine have one globose probasidial cell and one cyst. Uromycladium fusisporum (Cooke & Masssee) Savile has teliospores with one probasidial cells and no cyst (Savile 1971). Uromycladium maritimum McAlpine and Uromycladium alpinum McAlpine produce teliospores with two probasidial cells and one cyst.

References:


