

## The fungal endophytes of erythrorchis cassythoides - is this orchid saprophytic or parasitic?

Dearnaley, John (2006) *The fungal endophytes of erythrorchis cassythoides - is this orchid saprophytic or parasitic?* Australasian Mycologist, 25 (2). pp. 51-57. ISSN 1441-5526



PDF (Published Version)

Dearnaley\_PV.pdf

[Download \(1210Kb\)](#)

Official URL: <http://bugs.bio.usyd.edu.au/AustMycolSoc/Journal/2...>

### Abstract

[Abstract]: Erythrorchis cassythoides is a common climbing orchid in eastern Australia. The plant lacks chlorophyll and typically is rooted at the base of mature trees suggesting the orchid receives its carbon supply via root fungi from either rotting vegetation or indirectly from living tree roots. We have analysed the fungal DNA within the roots of the orchid using ITS-PCR analysis, cloning and molecular sequencing to gain insight into the mode of nutrition of this orchid. Fungal ITS rDNA sequences were successfully amplified and cloned from roots of three orchid plants occurring at different localities in SE Queensland. Comparison of these sequences with ITS rDNA in GenBank revealed that the fungal community of E. cassythoides roots consists of a saprotrophic homobasidiomycete and ectomycorrhizal fungal species thus suggesting that the orchid is potentially capable of both saprophytic and parasitic modes of nutrition.



[Statistics for this ePrint Item](#)

**Item Type:** Article (Commonwealth Reporting Category C)

**Refereed:** Yes

**Item Status:** Live Archive

**Additional Information:** Deposited with blanket permission of publisher.

**Faculty / Department / School:** Historic - Faculty of Sciences - Department of Biological and Physical Sciences

**Date Deposited:** 11 Oct 2007 00:44

**Last Modified:** 02 Jul 2013 22:38

**Uncontrolled Keywords:** Erythrorchis cassythoides, fungal endophytes

[06 Biological Sciences > 0607 Plant Biology > 060702 Plant Cell and Molecular Biology](#)

**Fields of Research :** [06 Biological Sciences > 0607 Plant Biology > 060799 Plant Biology not elsewhere classified](#)

[06 Biological Sciences > 0607 Plant Biology > 060703 Plant Developmental and Reproductive Biology](#)

**URI:** <http://eprints.usq.edu.au/id/eprint/1460>

### Actions (login required)



Archive Repository Staff Only