

## **Identification of mycorrhizae associated with South African orchids**

The Orchidaceae is one of the largest and most diverse angiosperm families. However, orchid diversity is rapidly declining due to over exploitation and habitat destruction. Orchids have non-endospermous seeds lacking nutrients for seedling development. They therefore require mutualistic associations with mycorrhizal fungi that promote seed germination and nourish the developing seedling. At maturity, mycorrhizae also help the plants to absorb nutrients from the substrate. Therefore, orchid mycorrhizal interactions are important for the survival of orchids in natural habitats. The diversity of the mycorrhizae associated with orchids is poorly documented and only a few studies have been conducted to identify and characterize these fungi. To contribute to capturing the mycorrhizal diversity of South African orchids, this study proposes the identification and characterization of the orchid mycorrhizae associated with the roots of two species each of the South African endemic and endangered orchid genera, *Habernaria* and *Brachycorythis*. Results from this study will provide a comprehensive catalogue of fungal associates of these two important South African orchid genera. This information is essential for propagating endangered orchids from seed, for implementation of ex-situ conservation strategies.