

Presentation Abstract

Presentation Title: Identification of vegetation community with the potential to revegetate mine wastes at the Nifty mine site, Great Sandy Desert, Western Australia.

Abstract

Nifty copper mine is located in the western part of the Great Sandy Desert. A legacy of past mine activities there is a shortage of topsoil suitable for spreading on mine waste rock dumps. As a result there is an imperative need to find species suitable for vegetation restoration on mine wastes without a topsoil cover. Attempts to date of using seed from species collected around the mine site, associated with sandplains and sand dunes, have failed to successfully establish directly on siltstone waste rock. This is mostly attributed to differences in physical and chemical properties between siltstone and topsoils resulting in lower seedling emergence and higher seedling mortality in siltstone than topsoil. Field and glasshouse experiments have shown that siltstone on the waste rock dump is highly variable in physical and chemical properties with seedling emergence and growth responding accordingly. Research is currently focusing on identify the most favourable siltstone for plant growth and finding a suitable self-sustaining vegetation community for restoration on siltstone cover on waste dumps at Nifty mine site.