

endangered by Jill Pryde



Rottnest Island pine community

Callitris preissii and *Melaleuca lanceolata* forest and woodland is a threatened ecological community restricted to the Quindalup coastal dunes on white calcareous sands and sometimes brown sands near Perth.

The community's dominant plant species include the Rottnest Island pine (*Callitris preissii*), the Rottnest teatree (*Melaleuca lanceolata*) and occasionally tuart (*Eucalyptus gomphocephala*). Although these species are found scattered in Western Australia's south-west they only co-occur as a community with a group of mainly coastal-related shrubs, including basket bush (*Spyridium globulosum*), the spiky prickly lily (*Acanthocarpus preissii*), berry saltbush (*Rhagodia baccata*) and a suite of annual herbs including the pretty blue lace

flower (*Trachymene coerulea*) in locations around Perth.

While the community was identified as rare in 1994, it historically occurred in a continuous belt along the coast. The remaining occurrences extend from Trigg in the north to Woodman Point in the south with a few remaining disturbed stands along the Swan River around Peppermint Grove. It also occurs on Garden and Rottnest islands. Quokkas often take refuge under the dense canopies of Rottnest Island pine and Rottnest teatree on Rottnest Island while tammar wallabies inhabit the State's best example of this plant community on Garden Island. Since European settlement the community is thought to have been reduced by 70 to 90 per cent due to clearing and probably by too frequent fire. Only about 500 hectares remain, of which about 20 hectares occur in conservation reserves.

The *Callitris* plant community

is a very simple one and typically contains a very narrow range of flora species in the understorey. As a consequence, it is highly prone to weed invasion and is easily degraded by threats such as too frequent fire and recreational overuse. Most occurrences have suffered some level of weed invasion. The Rottnest Island pine that generally typifies the community can live up to 100 years but generally dies of old age from about 80 years. It is killed by fire, but regenerates well from seed if the fire occurs after it has reached maturity. Historically, *Callitris* forests were cut for timber and firewood.

The Department of Environment and Conservation is conducting several studies and working to conserve this important plant community on Garden Island and other coastal sites with help from other groups and Department of Defence personnel, who manage some of the sites.

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