Successful storage of seed from threatened West Australian plants

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The rich and diverse flora of Western Australia comprises almost 2500 taxa that are listed as rare, threatened or poorly known. *Ex situ* conservation of these taxa as seed is important for their ongoing protection. The Threatened Flora Seed Centre (Western Australian Department of Conservation and Land Management) is the facility primarily responsible for the collection and storage of this material using conventional seed banking conditions (-18˚C, seed eRH 15%).

It has been suggested that storage under these conditions may result in unnecessary loss of seed viability. This would have profound implications for *ex situ* storage.

Germination data for collections from the Threatened Flora Seed Centre stored up to 11 years was examined for viability decline.

375 collections from 16 families, 44 genera and 176 taxa were examined.

In >95% there was no decline in viability.

Loss of viability appears to be due to initial seed quality.

Genera with no viability decline after storage in the medium term

Family	Genus	Storage time (Years)
Casuarinaceae	*Allocasuarina*	8.1
Epacridaceae	*Andersonia*	6.1
	Sphenotoma	6.9
Lamiaceae	*Microcorys*	7.1
	Prostanthera	9.0
Mimosaceae	*Acacia*	8.3
Myoporaceae	*Myoporum*	6.6
Myrtaceae	*Darwinia*	9.3
	Eucalyptus	8.1
	Melaleuca	9.7
	Verticordia	10.0
Papilionaceae	*Daviesia*	10.9
	Kennedia	8.4
	Pultenaea	5.4
Proteaceae	*Banksia*	10.8
	Dryandra	11.4
	Grevillea	9.0
	Isopogon	10.0
	Lambertia	9.7
Sterculiaceae	*Lasiopetalum*	5.0

***Ex situ* conservation of seed in Western Australia is actively and successfully contributing to flora conservation.**