South West Region (SWR) 2014 DRF and TEC annual report.

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Translocations

- Almost 400 plants of DRF species that are endemic to the Busselton Ironstone TEC were planted into existing translocation sites in 2014. A summary of plantings occurs below.

Site	*Darwinia whicherensis*	*Gastrolobium papilio*	*Grevillea maccutcheonii*	*Lambertia echinata subsp. occidentalis*	*Petrophile latericola*
Negus	85	38	41	40	9
Oates	39	38	62	38	1
Total	**124**	**76**	**103**	**78**	**10**

- The *Grevillea brachystylis* ssp. *grandis* translocation: excellent results are still being achieved with 93% survival of translocated plants (as of May 2014, 248 plants). In late in 2014, 15 self-sown seedlings were observed onsite.

- *Commersonia erythrogyna* - all occurrences of this species were surveyed in 2014, which showed only 17 translocated plants are surviving, no plants of the original wild population are alive. An existing translocation site was "seeded" in 2013 prior to a planned burn, while the burn did not occur seedling germination was observed in July 2014. Over forty seedlings were noted to have germinated without any burn stimulus. To restrict grazing cages were put over these seedlings, but by December 2014 numbers had declined to less than 50% with 16 seedlings remaining. The main cause of death is suspected to be drought stress by the onset of summer.

Listed Flora population surveys

Thanks to a strong survey programs in the districts and good herbarium volunteer involvement 2014 had seen the most number of listed flora populations surveyed across the region in the last five years (figure 1). Of the populations surveyed almost half of those were DRF (figure 2).

Figure 1: Listed Flora survey effort over the last 5 years (409 populations)

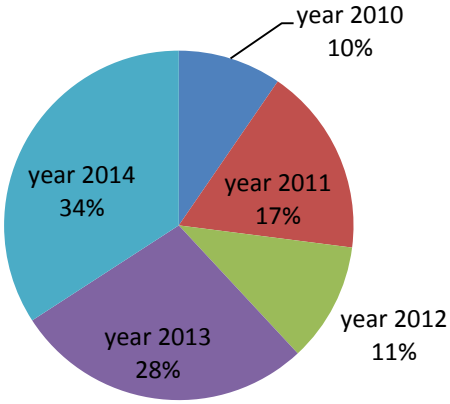
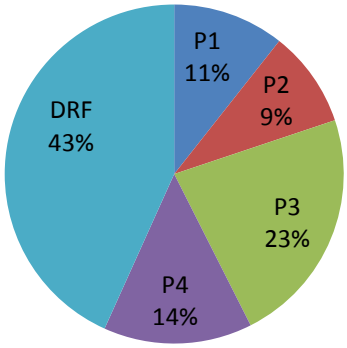


Figure 2: Distribution of 2014 survey effort
(141 populations)



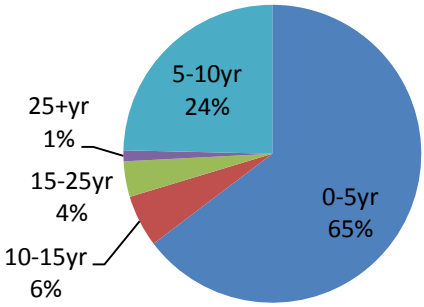
Some highlights of the flora surveys would be,

- Volunteer orchid surveys have found new populations of *Caladenia dorrienii* (DRF) and *Caladenia* sp.Keninup (P1) in our eastern reserves and *Diuris drummondii* (DRF), *Caladenia* sp. Island Point (P1) and *Corybas abditus* (P3) in our near coastal reserves

- Staff surveys have found several new populations of *Eleocharis keigheryi* (DRF) and *Wurmbea* sp. Cranbrook (P3) in the eastern side of the region, records of the *Wurmbea* are the first for the region and an extension of the species known range. Also found are new pops of the highly restricted *Stylidium hygrophilum* (P1) and *Actinotus whicherensis* (P2). New disjunct range end populations of *Banksia meisneri var. ascendens* (P4) have also been found in the Busselton area; these populations are potentially significant in regards to genetic conservation as previously known disjunct populations have suffered significant decline in recent years. With the assistance of a volunteer a 15yr old herbarium record of *Grevillea acropogon* (DRF) has been relocated, population extent established and seed collected.

Of the regions 337 known DRF populations of almost 90% have been surveyed in the last 10 years with over 200 of those populations in the last 5 years (figure 3).

Figure 3: Age distribution of SWR DRF population records



The regional survey focus for 2014 was DRF species and priority listed flora that are endemic to the region. The following DRF species/endemic Priority flora had all their SWR populations visited,

- *Austrostipa jacobsiana* (DRF) – population is very healthy
- *Caladenia dorrienii* (DRF) – same numbers recorded as was found in a 1998 survey, which is significantly less than recorded in 2007 (probably a reflection of survey effort)
- *Commersonia erythrogyna* (DRF) – wild population has been lost, very few translocated plants surviving
- *Drakaea confluens* (DRF) – a population of this species that was subject to fire in 2011 was monitored with the results showing that the same number of plants that was present pre-fire is still present 3 years post-fire
- *Gastrolobium papilio* (DRF) – wild population scored with a small decline in mature plants noted that has been offset by the recruitment of seedlings.
- *Grevillea acropogon* (DRF) - the only SWR population has been relocated and seed collected
- *Grevillea rara* (DRF) – populations are healthy and in relatively large numbers
- *Jacksonia velveta* (DRF) – species is known from low numbers, seed collected in 2014
- *Synaphea* sp. Fairbridge Farm (DRF) – numbers indicate the species has declined over the last 5 years
- *Verticordia carinata* (DRF) – population has stable, healthy numbers
- *Banksia* sp. Boyup Brook (P1) – two large populations monitored
- *Caladenia pholcoidea ssp. augustensis* (P1) – populations in very low numbers further surveys required in 2015
- *Calochilus* sp. Boyup Brook (P1) – species only known from a very small population
- *Stylidium perplexum* (P1) – populations surveyed, the species is in low numbers further surveys required

Other Recovery Actions Undertaken

- Annual phosphite spraying of the Busselton Ironstone TEC occurrences and associated endemic DRF was completed.

- An extensive Typha and Watsonia control program was commenced in Byrd Nature reserve; the reserve supports an occurrence of the claypan TEC FCT09.

- An ongoing bulbous weed control program in Waterloo NR was continued (occurrences of FCT08 and 03c) and Bridal Creeper control was undertaken in Wild Horse Swamp NR (occurrence of the P2 listed Blackwood Alluvial Flats PEC).