

## *Dalea carthagenensis* var. *floridana* (Florida prairieclover)

The sub-shrub *Dalea carthagenensis* var. *floridana* is listed as endangered by FDACS and critically imperiled by IRC. It is a candidate for the USFWS endangered species list, and it is endemic to South Florida. Miami-Dade County natural areas that contain *D. carthagenensis* var. *floridana* include Crandon Park, The Deering Estate, and R. Hardy Matheson Preserve. Our work with this species at Crandon Park is partially funded by FDACS but is included here for the sake of simplicity.

We have censused *D. carthagenensis* var. *floridana* at The Deering Estate and R. Hardy Matheson Preserve twice annually since fall 2003. When we conduct a census, we keep a tally of all seedlings that we see, although we are not conducting a seedling study in which we thoroughly search for and tag individual seedlings.

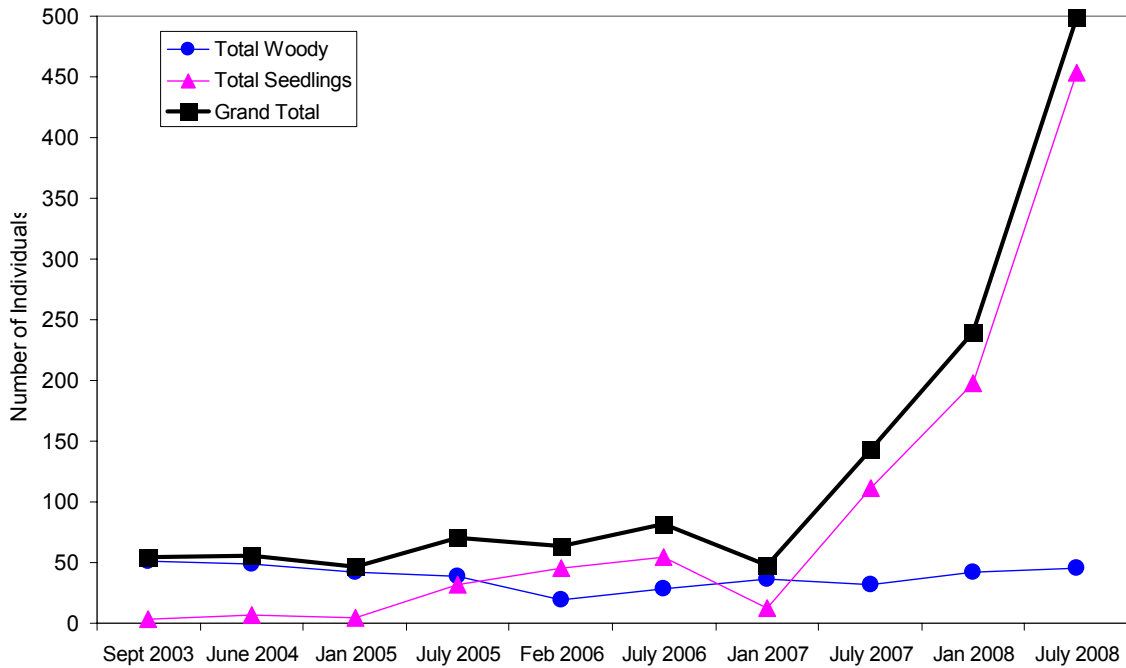


*Dalea* blooming at Fairchild's nursery 12/8/08

Crandon - The population of *Dalea carthagenensis* var. *floridana* at Crandon Park appears very healthy but is only known to exist in a 145m<sup>2</sup> area. In February 2007 we initiated a demographic study of the population. We installed a 3 x 10 m plot within the population. We tagged, measured and collected coordinate locations for each plant within the plot. We counted 200 plants of various sizes within the sampling plot, and extrapolated this to estimate that 966 plants occur in the entire 145m<sup>2</sup> area. During our February 2008 census, we documented 110 plants surviving from the previous year. We also documented 43 new seedlings. We cannot explain why 90 plants died since our 2007 observations, but short lifespan or plant dormancy are possible be factors. We plan to continue monitoring the study plot annually, and hope to shed more light on the biology of this species.

The Deering Estate – Since 2003, the number of woody *Dalea* at the Deering Estate has declined slightly from 51 to 46, but this has been offset by a dramatic increase in seedling establishment. Whereas we counted <10 seedlings in the years 2003, 2004 and 2005, we estimated there were 499 seedlings in July 2008. We are uncertain how to explain this increase. NAM crews thinned hardwoods around the *Dalea* population in March 2008, but this was after the increase in seedlings began. However it is important to note that the thinning did not dampen the positive trend in seedling establishment, and may have even accelerated it.

***D. carthagenensis* var. *floridana* at the Deering Estate**



R. Hardy Matheson Preserve – Since 2003, the number of woody *Dalea* has declined dramatically at R. Hardy Matheson Preserve—from 31 to one. Unlike the population at the Deering Estate, this decline is not being offset by an increase in seedling establishment. We last counted 11 seedlings at this site in September 2008. Overall, the population of *Dalea* at R. Hardy Matheson has fared poorly. This is likely related to the sites' decades-long lack of fire.

Fairchild maintains an ex situ collection of 152 *Dalea carthagenensis* var. *floridana*, including 21 individuals grown from seed collected at R. Hardy Matheson Preserve. These plants currently reside in our nursery. We have collected almost 17,000 seeds from these plants for use in germination trials and to send to the National Center for Genetic Preservation. Germination trials showed that the seeds are orthodox and will germinate at close to 100% with scarification from a blade or acid or by freezing at -20°F for one week. We are currently in the process of collecting more seed from our nursery collections to use in an experimental planting at R. Hardy Matheson Preserve in 2009.

***D. carthagenensis* var. *floridana* at R. Hardy Matheson**

