

An Assessment of the Vulnerability of Eastern Pygmy Possums to Climate Change Exacerbated Drought in the Ku-ring-gai Area

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Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2013							0	0	0	0	0	0

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ACADEMIA.EDU: <https://mq.academia.edu/BoBIJones>

I have been searching for possible Eastern Pygmy Possum (EPP) *Cercartetus nanus* habitat in the Ku-ring-gai Municipality since 1 December 2013. Following on from Dr Brad Law’s lecture the previous day, I walked from West Pymble to South Turramurra along the Lane Cove Valley to check out occurrences of the EPP food plant heath-leaved banksia *Banksia ericifolia* (BE).

Of the 28 nest box deployments the host species was:

Seasonal Variations in Nest Box Occupation

By number of observed occupations by pygmy possums:

Nest Box Program Phases

Number of observed occupations by pygmy possums

2014	0	0	0	0	1	0	0	0	0	1	0	0
2015	0	Pilot Upper Lane Cove Valley at Canoon Road area					0	0	0	0	0	0
2016	1	2	1	0	0	0	0	0	0	0	0	0
2017	0	0	0	5	1	6	5	2	0	0	0	1
2018	0	0	0	0	1	1	2					

Number of observed juvenile pygmy possums

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
2013							0	0	0	0	0
2014	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0
2016	0	3	3	0	0	0	0	0	0	0	0
2017	0	0	0	4	2	6	4	0	0	0	0
2018	0	0	0	0	1	1	2				

	Complete Upper Lane Cove Valley Program and Start Cowan Catchment Program
	Break in program – nest boxes left in place
	Build Cowan Catchment Program and Middle Harbour Catchment Program
	Hand over Program to KMC using Fulcrum app

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2013							0	0	0	0	0	0
2014	0	0	0	0	1	0	0	0	0	1	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0
2016	1	2	0	0	0	0	0	0	0	0	0	0
2017	0	0	0	4	1	6	5	3	0	0	0	1
2018	0	0	0	0	1	1						

Possible Determining Factors influencing Nest Box Occupation

Possible Trends in Abundance:

Fluctuation in Nest Box Occupation from year to year

Fluctuations in Number of Nights taken to Detect Pygmy Possum occurrence with Wildlife Cameras

Results

Many nest boxes were occupied by EPP females and their offspring shortly after the start of the *Banksia ericifolia* flowering season in mid-March with 4 of the 6 nest boxes deployed to known pygmy possum habitat for 18 months having pygmy possums in them when monitored and the other 2 having definite indications that pygmy possums did occupy them at some stage. Shortly before the end of the *Banksia ericifolia* flowering season in mid-September the pygmy possum families had moved on. In October it was found that pygmy possums were feeding on *Callistemon citrinus* blooms in wetter areas of Coastal Upland Swamp characterized by *Gahnia sieberiana* adjacent to the *Banksia ericifolia* containing areas where the nest boxes were deployed, but not on *Callicoma serratiolia* blooms in the adjacent gully areas. This may indicate horizontal rather than vertical migration of pygmy possums to chase flowering food sources.

EPPs were found at

Map