

## Bats Organ Pipes NP 9 June 2019

We had a beautiful early winter day for it, a public holiday weekend too so the park had many visitors – many opportunities for public education about bats.



A Freetail clinging to the lid of C14. All the day's 13 Freetails were in this box.



Gould's in C29



Stephen attached several refurbished boxes he had clad

in plastic sheet. They are nearly all done now. Whip snake curled up for the winter under a rock beneath C39, turned over by Andrej



Bat Fly Pupae (BFP) on the back wall of a box: they tend to hatch in spring when there are likely to be bats in the roost, jump aboard and remain on the bat for life.



We had several families of casual park visitors wander in for a show-and-tell and introduction to their first-ever





microbats. Emmi explaining what she was doing, to one woman and several young children.

Andrej Hohman rejoined us after a long absence (he now works in Bendigo), at Casey and Sian's table.



Anita worked with Emma Window



Anita did some show-and-tell for another family, the children being home-schooled, said their father.

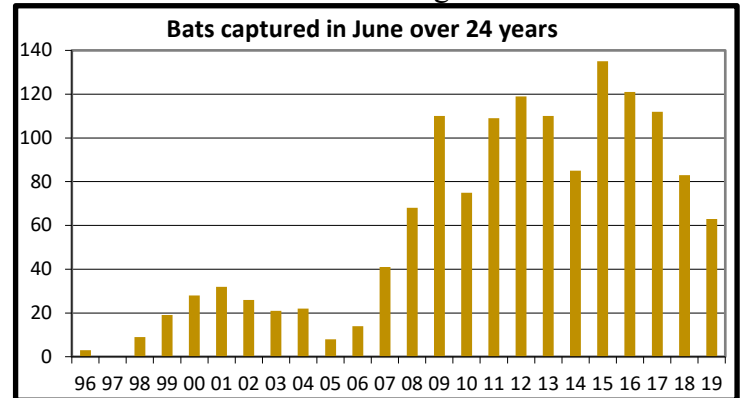
Box	Bat	Species	Adult		Juvenile	
			M	F	M	F
C14	13	Freetail		13		
	6	Gould's	4	2		
C46	8	Gould's	4	3		1
	5	Lge Forest	1	4		
C29	9	Gould's	6	3		
C40	8	Gould's	7	1		
C45	6	Gould's	2	4		
C16	4	Gould's	3	1		
C37	4	Gould's	1	3		
C15	1	Freetail		1		
C20	1	Gould's	1			
	63	Totals	28	34		1

1.2 females for each male, suggesting it may be the tail end of mating season and still a few male adolescents

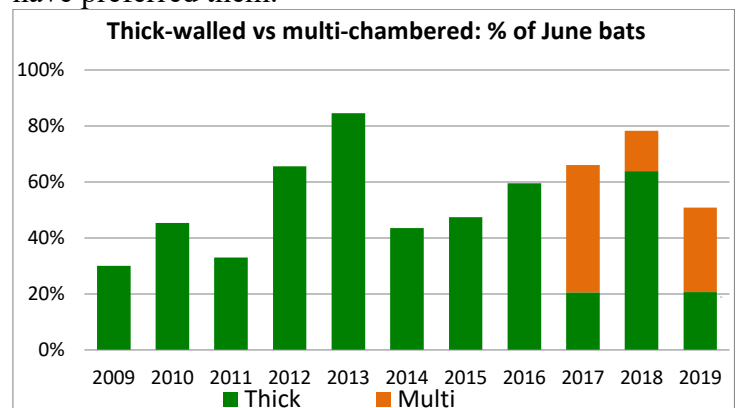
have not yet left home. One little female Gould's still classified as sub-adult – pretty amazing so late in the year, winter already here.

## June bats

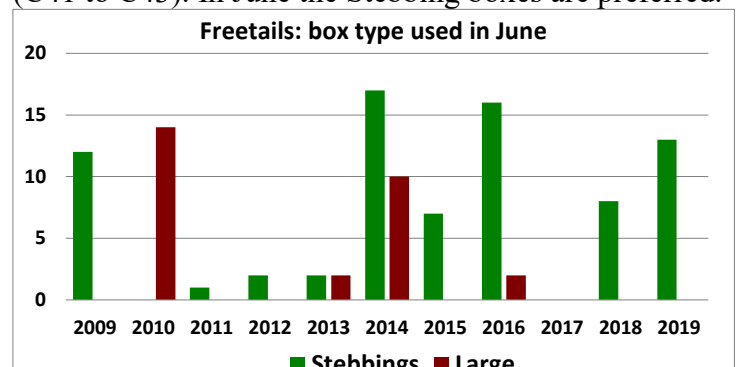
June capture numbers peaked in 2015 and are now in marked decline, back below the 2008 level. The project got started in late 1994 but we didn't check the boxes in winter the first year, 1995. Robert Irvine was very keen to make it every month from 1996 and that was when this pattern set in. Until Stephen installed boxes 45 and 46 last year, the installation of new boxes had ceased in 2005 with C41 to C43, so the increase from then was not the result of more boxes being available.



Winter used to entice most of the bats to use the boxes made of 45 mm timber (C28 to C37), but since Stephen installed the two multi-chambered boxes, many bats have preferred them.

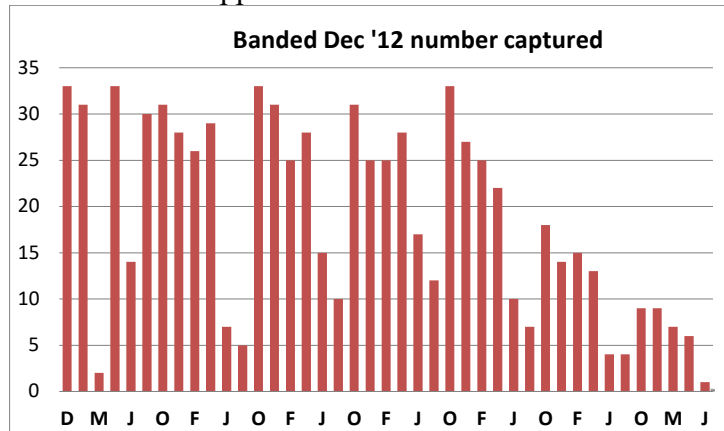


The Freetails are always found either in the 1996 Stebbings boxes (C13 to C17) or in the three large boxes (C41 to C43). In June the Stebbing boxes are preferred.



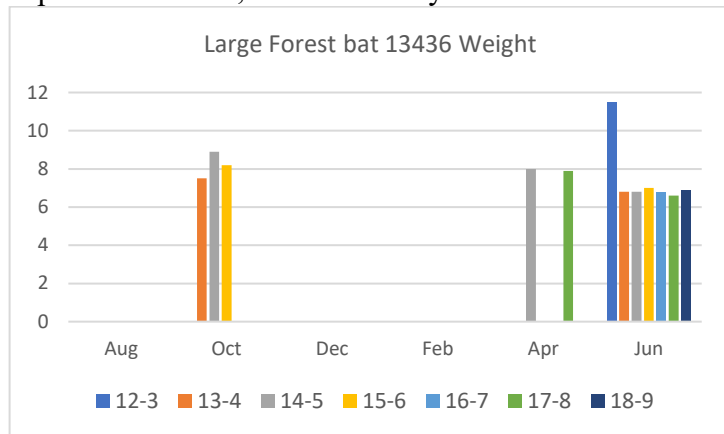
## Bats banded in December 2012

In April 6 of the original 33 mature females were still present, but this month only one: 92386, in C46 with several generations of younger bats. All of them were assessed as post-lactating when banded, and may have already been 2 or 3 years old. We are about to see the last of them disappear from our boxes.



## Large Forest bats

The five bats of this species sharing C46 with 8 Gould's included one banded in June 2013. She has now been captured 12 times, almost entirely in June and October.



The first record, of 11.5 gm in June must be wrong, but the others are very consistent, her weight peaking in Oct. and much lighter early winter. She has been in C19 (a small box intended to attract the smaller species) four times and two other small boxes once each.

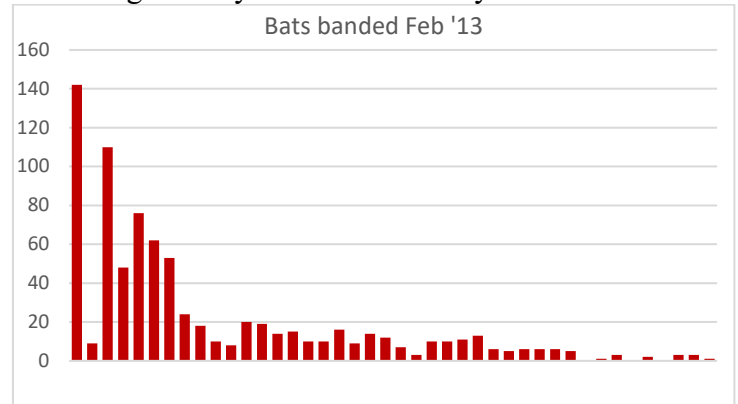
## White-striped Freetails

There were 13 of them in C14, all of them female; only 6 were recaptures. Emmi PIT-tagged the other 7, 3 of them post-lactating and 4 pre-parous. Of the recaptures, one is from June '15 (5<sup>th</sup> capture this time, 4 of them in June), one from Oct '15, 2 from 2017 and two from 2018. So our boxes are becoming a regular roosting site for several of the female Freetails, especially in June.

## Gould's banded in 2013

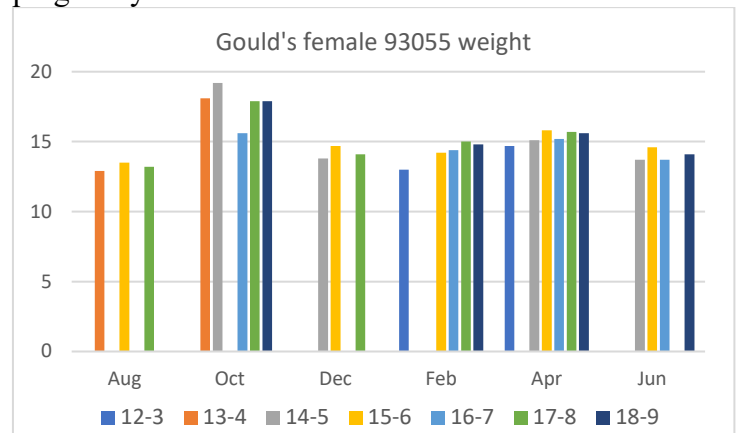
As the ageing bats from Dec '12 are at the end of their lifespan, it may be of interest to look at the ones banded over 2013 to see what's happened to them. The ones banded in February would have almost all been adol-

escents born the previous October, so dispersed out of our colony over the following months. The chart shows the bats banded in Feb '13 at left and those of the recaptured at each subsequent box monitoring, dwindling steadily down to now only one bat:



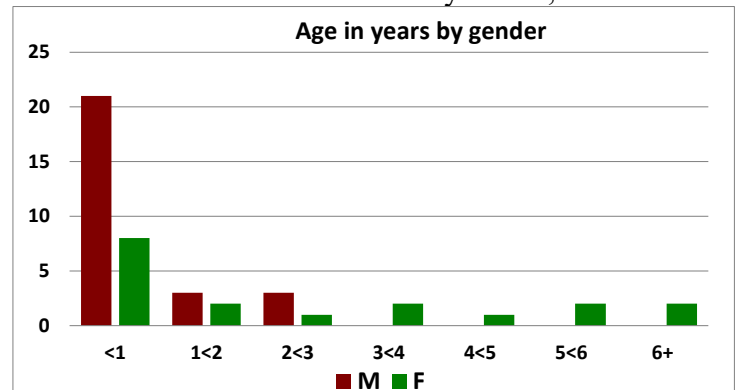
And that's what seems to have happened – very few remained in the Organ Pipes colony after the summer of '13-14, and all but one were females. 93025 was a male last seen in Oct '18, so he remained with the colony for over 5 years.

This month only one was present, a female 93055, now captured 27 times. She puts on weight each October (pregnancy), but much less so in April, preparing for winter. Despite being now over 6 years old, she is quite light compared to other bats of that age, down to ~13 gm in August and only 18-19 gm at near full-term pregnancy.

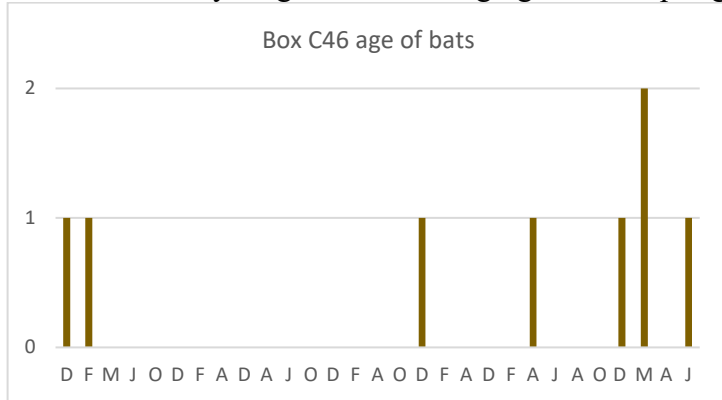


## Community structure

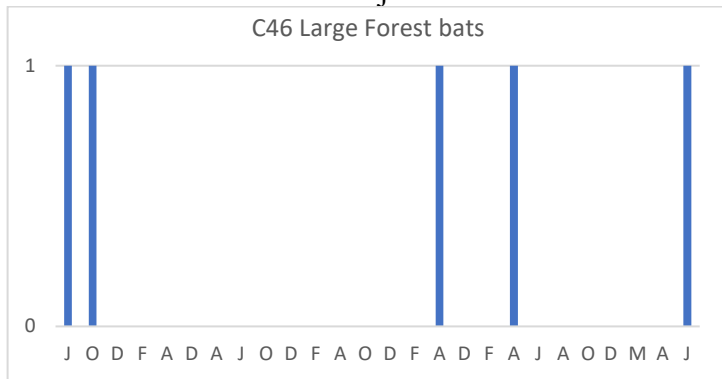
As usual most bats are under one year old, with a



sprinkle of older bats, each year of age represented by 1 or 2 bats, all the ones older than 3 years being females. The big imbalance between males and females under one year old suggests the female adolescents left in late autumn and the young males are hanging on until spring



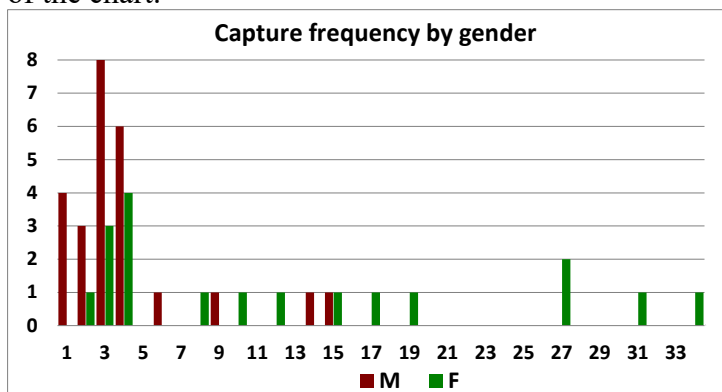
Box C46 had a mix of 6-year-olds, 3,2, 1-year-old and three adolescents – these are just the Gould's.



The 5 large Forest bats in the dame box had a similar age structure, with two elders (about 6) and three generations of younger bats.

### Capture frequency

Gould's female 92386 has now been captured 34 times, and all the bats captured over 15 times were female. Many adolescents, born last spring, crowd the left end of the chart.



### New bats

Seven of the Freetails (all female, 3 of them post-lactating) were not retraps, plus one Large Forest bat female (also post-lactating) and two male Gould's. So some of the new bats are not dispersing adolescents, but mature adult bats trying out new accommodation.