

Bats, Organ Pipes NP, April 2018

City of Hume has a Living Green program to encourage its citizens to explore little-known aspects of the natural world and get outdoors a lot.



Michelle Wille for Hume organised a big group of mainly young adults to come to our batting day, so Steve had a lot of show-and-tell crowd around him.



I helped with emptying boxes until Dani took over, and found one big group of Gould's crowded into the bottom of their space.



Pia set up shop in the theatrette and soon had a big crowd around her – adults and children.



Dani also attracted a crowd in the small space at the front of the VC.



At 3 p.m. Lindy put on a Powerpoint to accompany a talk about the basics of bats & their place in the world



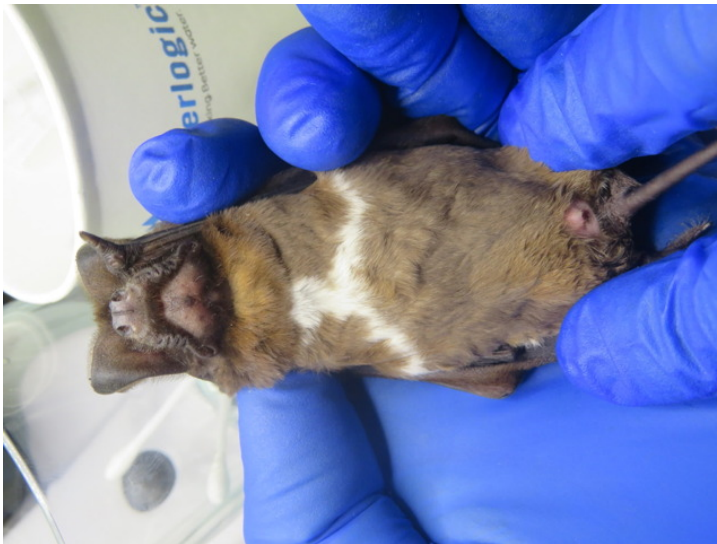
There were four species for the day, including a lone Chocolate Wattled Bat.



Steve, Casey and Andrew worked behind the front counter, checking bat history on the spreadsheet. None of the usual scribes came to help, so each bat handler did his/her own scribing.



Casey got a bag of Freetails which always take their time to make up their minds, so he sat one on his beanie for a minute before it flapped off.



Steve showed me a Freetail with an unusual belly stripe and one up its chest front too.

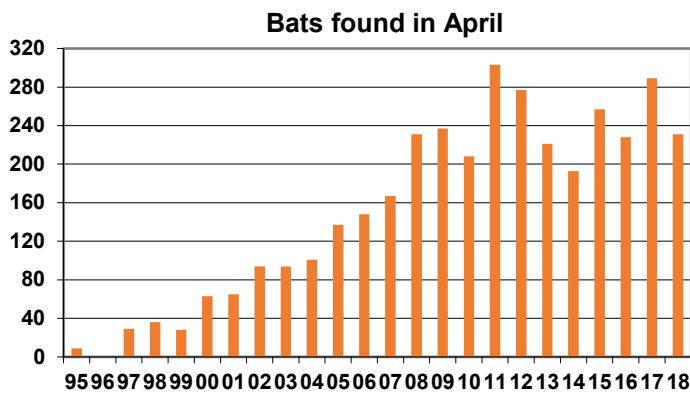


After dark, Lindy took the children outside to show them little bats flying off into the night. A demo first.

Box	Bat	Species	Adult		
			M	F	
C46	33	Gould's	14	19	
	3	Lge Forest	1	2	
C16	28	Gould's	5	23	
C32	22	Gould's	1	21	
C03	16	Gould's	10	6	
C07	15	Gould's	7	8	
C35	12	Gould's		12	
C30	11	Gould's		11	
C33	11	Gould's		11	
C15	10	Gould's	1	9	
	5	Freetail	2	3	
C20	9	Gould's	2	7	
C23	3	Gould's	1	2	
C27	2	Gould's	1	1	
C34	2	Gould's	1	1	
C41	2	Gould's	1	1	
C09	1	Gould's	1		
C17	1	Gould's	1		
	5	Freetail	3	2	
C18	1	Gould's	1		
C39	23	Lge Forest	5	18	
	1	Chocolate	1		
C45	1	Lge Forest	1		
C42	12	Freetail	6	6	1
C14	2	Freetail		2	
	231	Totals	66	165	1

Of the 231 bats 179 were Gould's, or 77%, far lower than usual, as the 27 Large Forest bats and 24 Freetails together made up another 22%.

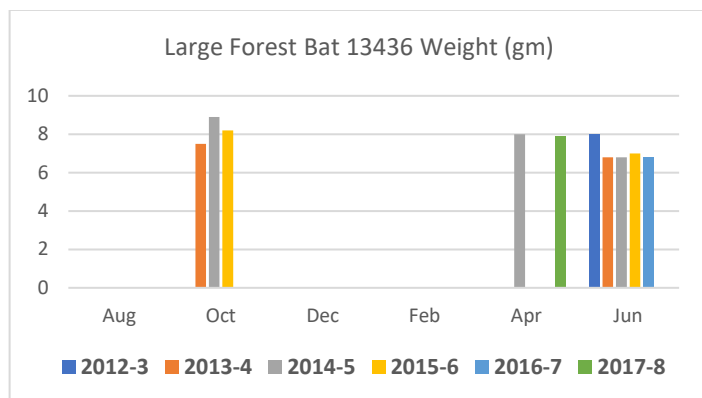
Total bats peaked in 2011 and have since fluctuated between 200 and 300



Large Forest Bats

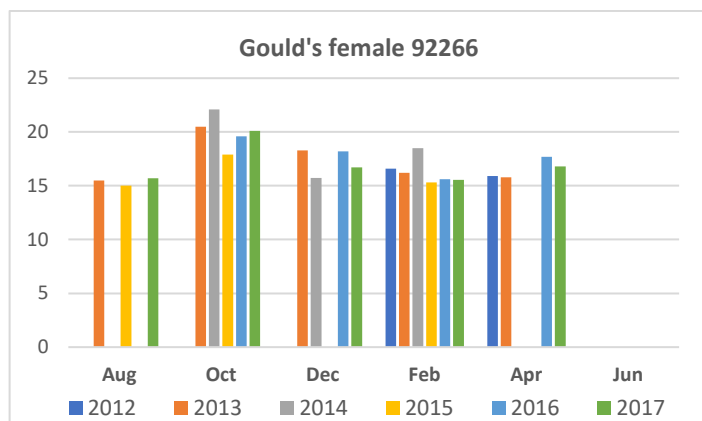
Of the 27 of this species, 17 were retraps and 10 were new. One of the retraps had been an orphaned rescue-bat hand-reared by Louise Bonomi over many months that she and I released into the park last month with 5 others. So five were not recaptured and one (the smallest of the six) was.

Of the 17 retraps, the most-captured were all females (bar one) and the oldest was banded in June 2013, now captured 10 times, band 13436. She has been found almost entirely in October and June.



Gould's banded Dec 2012: female 92266

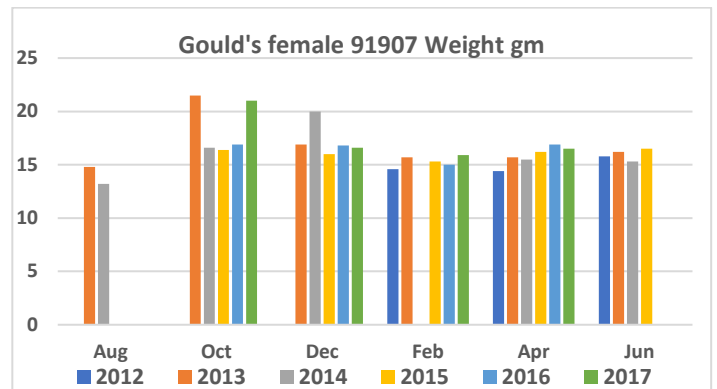
Twelve of the Gould's banded at our first session in Dec 2012 were still among this month's catch, including 92266, now captured 24 times. The "peak" pregnancy weight in October has fluctuated up and down, probably because pregnancy varied in its state of advancement, if a cold wet winter resulted in a delayed start.



Of the 24 captures, 5 were in C14, 3 in C30 (on the same tree) and 3 in C41, so she is definitely a member of Clan A – these three are their most-preferred boxes.

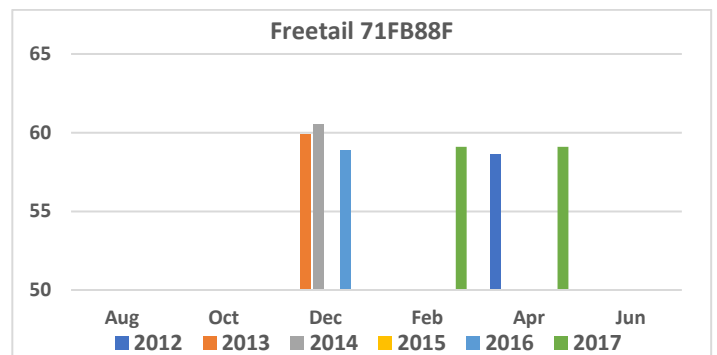
Old female 91907

Female 91907 was banded in March 2013, now captured 27 times. Unlike 92266 she has nearly always remained in the boxes through early winter. Her pregnancy weight is a bit erratic about when it peaks, and there seems to be almost no autumn pre-winter weight gain, but she has been around for 5 years now and is doing well. She too is in Clan A.

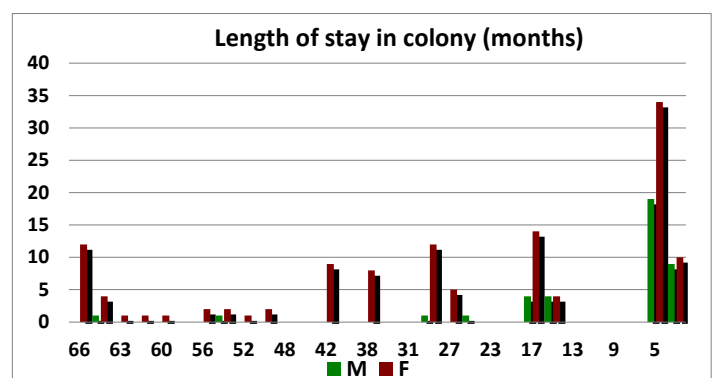


Freetails

A male and female Freetail have now been captured 6 times each. Female 71FB88F was chipped in April 2013, visited repeatedly in early summer and now twice this year, 3 times in C15 and twice in C42 so she seems to have strong preferences about season and which boxes are nice to occupy.

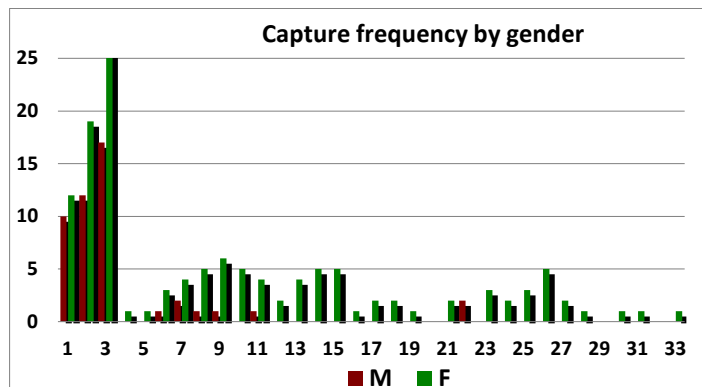


Community structure

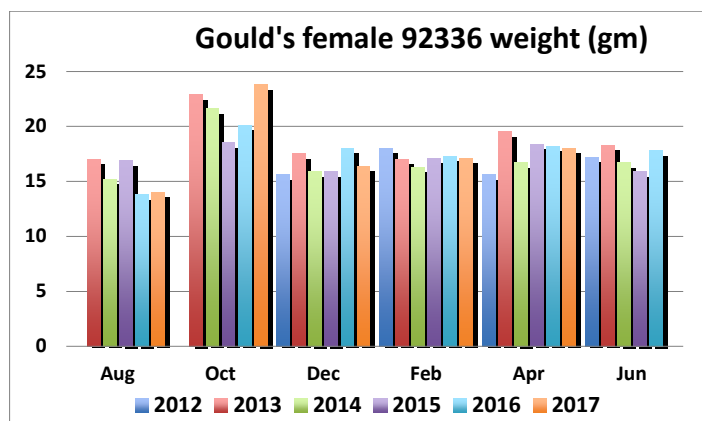


The 12 bats banded Dec 2012 are at far left. This month's distribution of length of stay shows the usual

mix of bats with us for 5, 4, 3, 2 years, 1 year and this summer's adolescents, most of which will be gone by late spring. The tall peak at 66 months shows that cohort is a mixed-age group, with 5, 6, 7 and perhaps even 8-year-olds that we can't unpack into year-cohorts

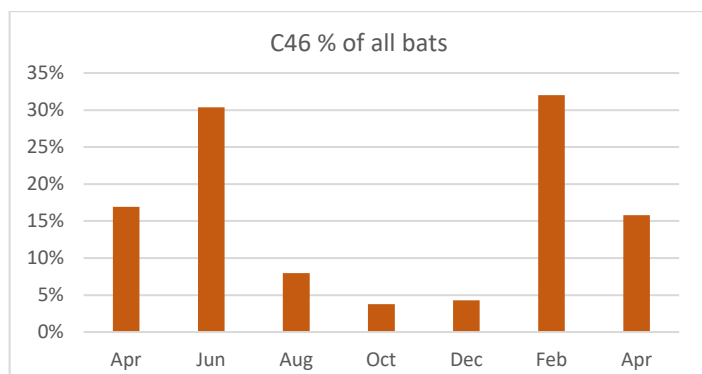


The distribution of capture frequency is quite similar, with a big group of young bats captured only 1-3 times and each year group shrinking a little as older bats die off. The one bat captured 33 times is of course 92336, matriarch of Clan A.



She has been found in C30 8 times, in C14 5 times, 4 in C36, 3 in C16, all strongly favoured by Clan A. For two years she was one of those deceptive females that, after several pregnancies, resembled a PP adolescent, but that has not happened since we started providing the spreadsheet history for checking.

Box C46



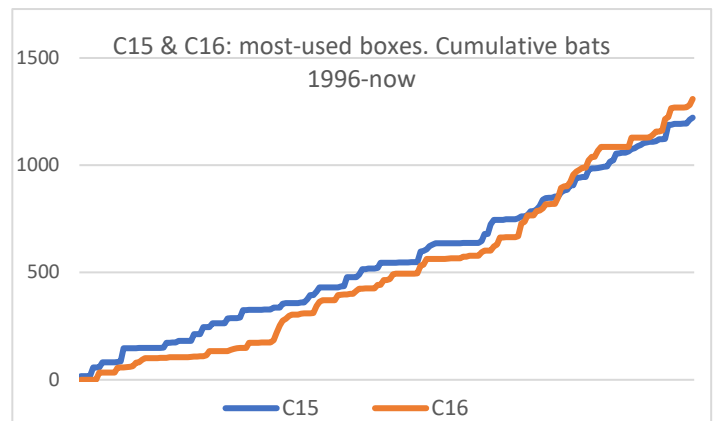
This is one of the big multi-compartment boxes Steve set up two years ago. It has proved very popular, but is quite difficult to extract the bats wriggling around

in the multiple narrow compartments. This month it had 33 Gould's and 3 Large Forest bats, 16% of all the bats captured. In June 2017, and Feb 2018, it was over 30%.

Boxes 15 & 16

These were both installed early 1996, and rapidly became the most-used boxes. C15 outdid C16 for a decade, but C16 overtook it in Feb 2011 and has remained ahead. Each has attracted a bit over 5% of all bats for 22 years, so 10.7% of bats using 4.7% of the boxes.

Part of the cause was probably a large growth of epicormic shoots just below C15 which obstructed entry and exit for a few months until I ripped it all off



Total bat capture since 1994 is 23,875, of which C16's share has been 1309 and C15 1,222.

The two least-used boxes are on the same tree: C18 (198, 0.8%), C21 (280, 1.2%). Then C24 (290, 1.2%) and C33 (338, 1.4%). Three of these are small boxes with small internal volumes and small entrance slits, mainly attractive to Large Forest bats, and C33 has long had a big issue with ants.

Next box check: Sunday 24 June from 12 noon