

Bat box check: Organ Pipes NP 19 Feb.

Steve and Dani started at noon, with many other helpers to empty the boxes. When I arrived at 2:15, there were only Pia and her mother, Mary, processing and scribing in the Visitor Centre.



Emptying boxes was almost complete, with Steve, Dani and Casey kitted up for that task, Caroline and new recruit Astrid Scott assisting.



Steve wanted me to take a smiley photo.



Breeding time is usually late spring, but some older

females have tried a second pregnancy, so there were mothers with half-grown suckling pups.



All soon migrated uphill to the VC, where Astrid scribed for Anita.



And Michelle scribed for Lindy, who had quite a few newly grown bats to band, as did Casey, Pia and Steve.



We ended up with 14 people who came along to help with the large workload of assessing nearly 300 bats, and were very busy all afternoon.



And a surprise, with Eva Reda reappearing, after doing much travelling, with friend Shaun. We last saw her 3 years ago. She scribed for Caroline, and Shaun had his introduction to the world of bats.



Almost the last bat for the day was old 88866, a female Gould's banded by Natasha Schedvin probably 2005, so perhaps now 12 years old, still feisty and a good weight



The mighty workload was all done by 6:30, then loads of packing up, and still over an hour until dark. Dani helped with the few mum-and-pup groups that had to be

returned to their boxes, then had to go off to prepare for post-grad requirements, leaving Andrew and I to release the other 250 bats. We finished up at 9:30 and headed for home.

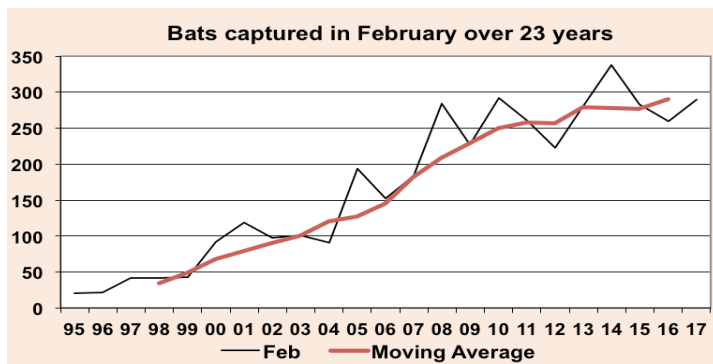


Box	Bat	Species	Adult		Juvenile	
			M	F	M	F
C45	64* 2	Gould's Lge Forest	9 2	21	22	12
C16	41	Gould's		15	14	12
C44	39	Gould's	5	24	2	8
C03	37*	Gould's	4	16	10	7
C31	24	Gould's		10	4	10
C27	22	Gould's		8	7	7
C35	13	Gould's		5	6	2
C17	9#	Gould's	3	6		
C24	8	Gould's	1	7		
C23	7	Gould's	2	5		
C07	5	Gould's	1	2	2	
C06	3	Gould's	2	1		
C25	3	Gould's	1	1		1
C28	2	Gould's		2		
C05	1	Gould's		1		
C13	1	Gould's	1			
C22	1	Gould's	1			
C46	1	Gould's	1			
	283	Totals	33	124	67	59

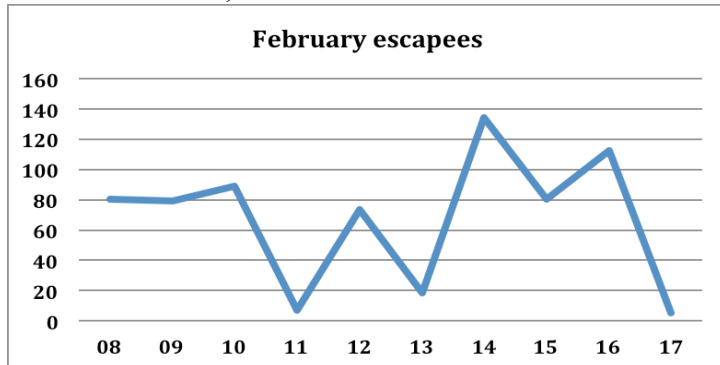
* = 1 escaped # = 3 escaped, 2 recaptured in C45

February bats

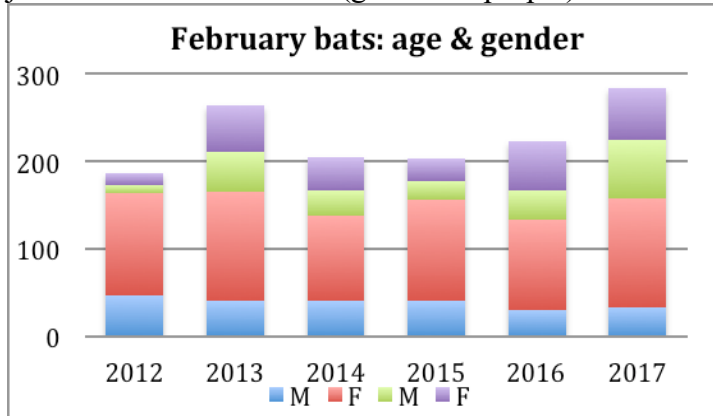
The project started off in a small way in late 1994 with enough bats to keep one assessor busy for an hour. The chart shows almost continuous growth from 20 bats in Feb. '95 to a peak of 338 in Feb '14 with some fluctuation. We found that Gould's were breeding from the first year, but the number of young has grown from a handful then to over 130 now, which means a great deal of banding and PIT-tagging.



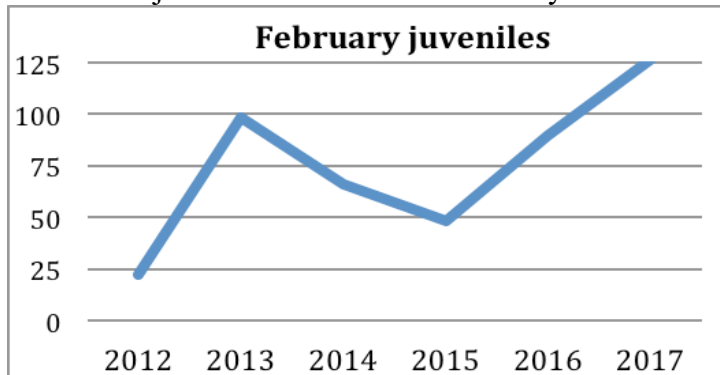
The number of escapees has been at its worst in February, with adolescents unfamiliar with our intrusion into their space very prone to panicky exits when a ladder is placed against their tree. Fortunately, this year there were very few, and two of them were found later in one of the new boxes, C45.



February's catch is always dominated by adult females, with a fairly steady minority of adult males (blue and red) and much fluctuation in number of recently born juveniles and adolescents (green and purple).

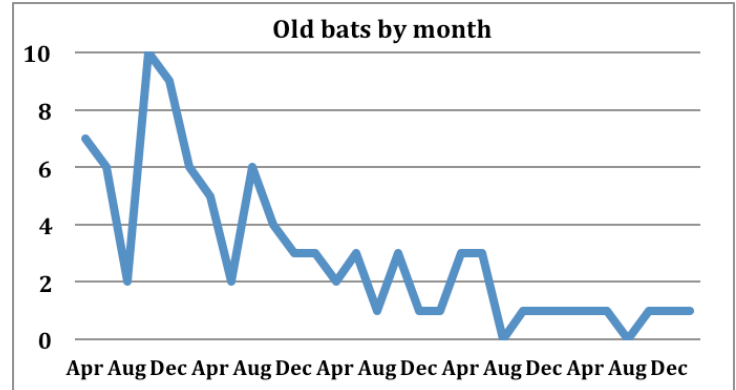


Number of juveniles hit a new record this year.

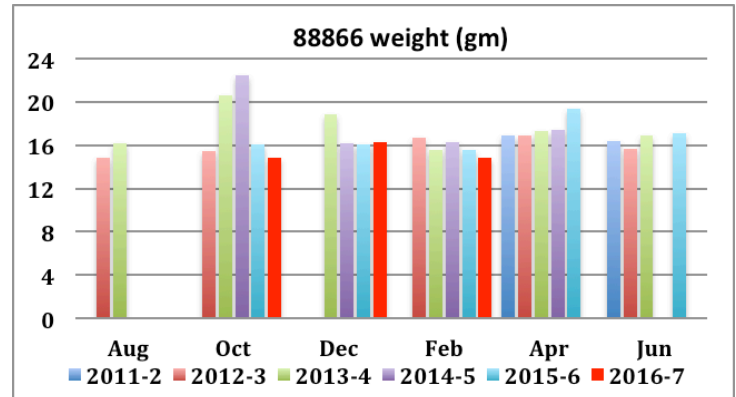


Old female 88866

This is the last of the bats banded in the mid-2000s, probably early 2005, so she may now be 11 or 12 years old. When banding recommenced in Dec. '12, there were still 10 of these old bats, and we are now down to one as they have steadily died off. She has been captured on 27 of the 30 box checks since Dec '12. So 88866 is a national treasure.

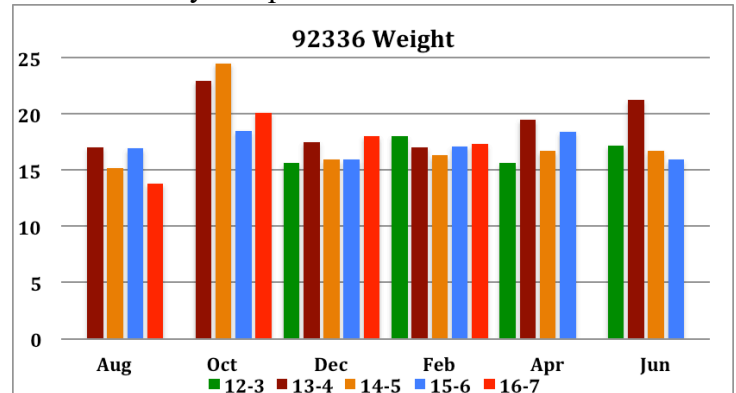


It's hard to say whether she bred this year, her weight lacked the expected spring pregnancy spike and there was no sign of pregnancy in Oct or Dec. She may have retired from all that.



Middle-aged female 92336

She was among the first batch banded in Dec '12, was lactating at the time, so obviously not one of that year's young, and has been captured every box check since, so we have a very complete record of her.

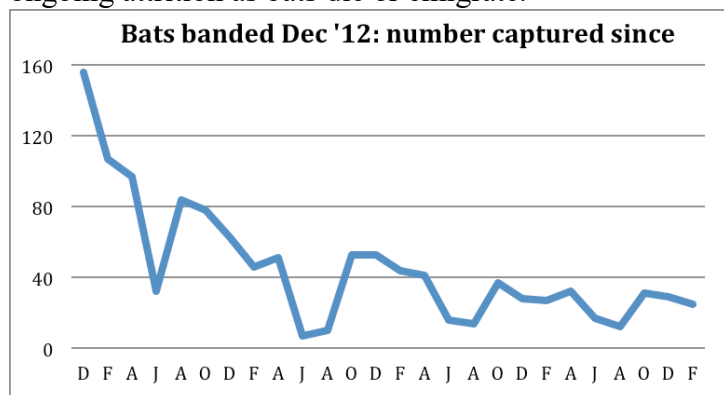


She has been pregnant each breeding season, and is one of those undergoing a second breeding this month. She was lactating in Dec., and again in Feb.,

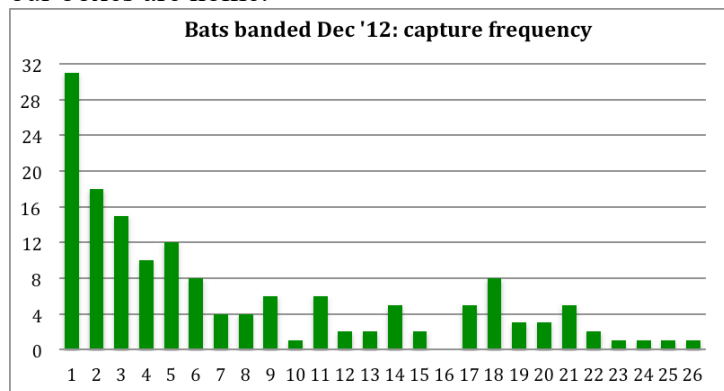
almost certainly a different pair of pups.

Bats banded in Dec 2012

Banding recommenced that month, with 156 Gould's banded in one day, catching up on about 7 years of no banding, so they were a mix of old and young bats. 25 of those bats were captured this month, part of the ongoing attrition as bats die or emigrate.



31 of the 156 were captured once only, and one has been present at all 26 box monitoring visits: 92336. She was in the same box, C16, with 92337, captured 25 times. 92393 has been found 24 times. So for these bats, our boxes are home.



Of these 26 monitoring events, 92336 and 92337 were found in the same box 13 times, which suggests they are very good friends. 92354 was with her 10 times, 92266 nine times, 92382 and 92386 eight times each. I suspect this reveals something about the strength of the relationship between the bats. Of the bats captured 13 or more times over these four years, 7 bats have never been in the same box with 92336. So there seem to be tribes or clans of bats, with groups choosing to roost with members of the same clan and avoid members of other clans. One of the bats never roosting with 92336 is 92261. The 6 other bats that never roost with 92336 are all best friends with 92261.

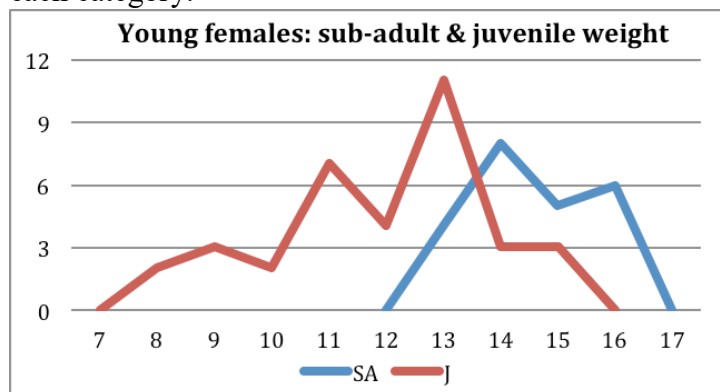
Multi-chambered boxes

Steve built and installed two quite large multi-chambered boxes late in 2016, and both were occupied this month. The idea of a multi-chambered box is that each chamber has different temperature and humidity, as they are more or less sheltered from full sun, so the bats

have choices as to where they want to roost for the day. One of them, C45, had the biggest group for the day, spread over several chambers – a big maternity group of Gould's with 34 young bats, and the only two Large Forest Bats for the day. C46 had one bat. This may be the bats exploring a new experience, and about to return to their old preferences, or may herald a big shift in box usage patterns.

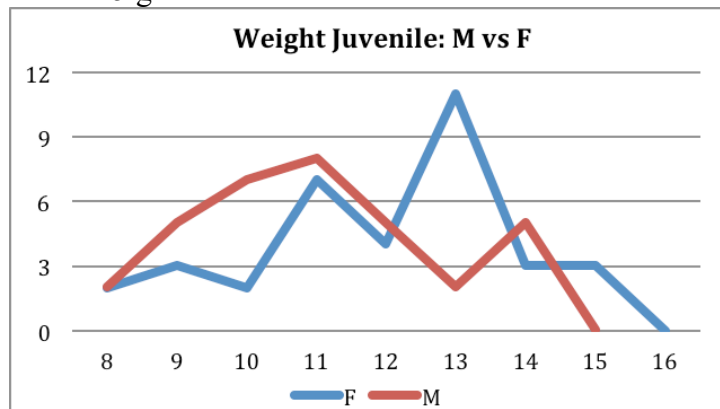
Double breeders

The unusually wet spring seems to have induced many of the older bats to try a second pregnancy, almost certainly started about the time they weaned the first pups. 30 female Gould's were lactating this month, of which 24 were also lactating in December, so all 24 have probably ventured on a second pregnancy, which explains why the young bats have weights and forearm lengths spread over such a wide range – those born in Nov. have grown much larger than those born in Jan. or Feb. The young bats were rated as juveniles or as sub-adults, probably separating the two breeding events, with roughly equal number of males and females in each category.



The female juveniles are markedly smaller than the sub-adults. There is a similar pattern for the males.

In addition, there is evidence females grow faster than males. The male curve is more heavily weighted towards the smaller figures. Mean F = 12.4 gm, mean M = 11.5 gm



Next box check: Sunday April 23, 2 p.m.