

Bat box check: Organ Pipes NP 23 Feb

We had a fine day for batting, and a good team to help with the big workload. Phillip Marshall of Thornbury joined us for the first time, along with Mark Scida (long-time member of FOOP) and daughter Charlotte. Quite a few boxes had many bats in them and, as often happens in Feb., skittish young bats are easily spooked and fly off as the ladder approaches. We estimated about 130 bats flew out of various boxes. Most settled into other boxes and quite a few were eventually captured, but many escaped. These were in C15



Next to C15 is the little Queensland box C35, and it had a tragedy inside – six bats apparently cooked on some recent very hot day, desiccated skeletons



We placed the ladder very quietly against each tree but still there were escapee bats flying around in great numbers much of the day, circling and looking for a safe place to settle. About 30 flew out of C17, 20 from C5 and another 50 from C7, plus smaller groups from other boxes. A processing group got started once there were about 50 bats to work on, up in the Visitor Centre, led by Lindy

Lumsden



Tanja, Mark and Charlotte, Phillip

A few boxes had ant colonies with multitudes of eggs and young ants, and were propped open to induce them to leave. The one Freetail escaped when I left box 15 open a few seconds too long.



After my team had been around the boxes at the south end of Main Flat a second time, and collected a lot of the escapees (who were not pleased about it), we joined the busy team in the Visitor Centre



There were eight bat handlers: Lindy, Pia, Stephen, Jessica, Casey, Eva, Tanya Loos and Tanja Straka, and several were kept busy banding the 77 juveniles judged big enough to be banded. And there were plenty of scribes: Phillip, Jessica's mother Brigitte, Anita, Pia's partner Alex Munro and Mary Thorpe. Several contributed to the ample feast.



Tanya Loos hunting for the nipple for repro con.



Casey Visintin and Anita Torrance



Lindy and Phillip

During the afternoon one little bat escaped and flew around the room a few hundred times, then settled on the semicircular bracket at the top of the data projector pole. It was eventually stirred into flight again, discovered the door and flew out, having only missed it about 100 times.

Processing of 204 bats was all done by 7, and we had to wait about until dark to drive down to the Pipes and release the bats. Most flew off as soon as they were out in the open, some had to re-orient themselves for a minute or two but releasing over 200 bats took only a few minutes then we drove off home about 9:30

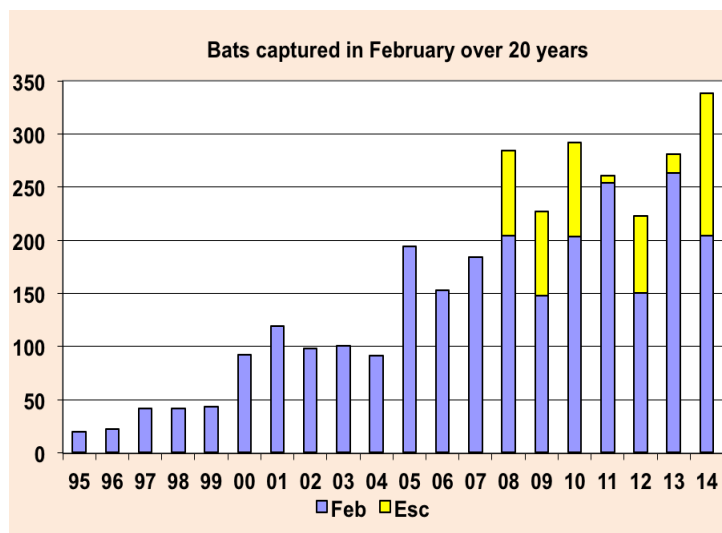
Box	Bat	Species	Adult		Juvenile		Esc
			M	F	M	F	
C41	44 1	Gould's Lg Frst	8 1	16	7	5	8
C15	31	Gould's	1	9	10	11	
C34	27	Gould's	1	10	7	9	
C05	43	Gould's	5	15	1	2	20
C39	28	Gould's		9	10	9	3
C17	22	Gould's	2	11	3	6	
C38	19	Gould's		7	3	8	1
C40	18	Gould's	7	10		1	
C27	23	Gould's	4	7			12
C17	40	Gould's	1	8	1		30
C22	9	Gould's	2	6		1	
C28	6	Gould's	4	2			
C09	3	Gould's		3			
C23	3	Gould's	1	2			
C10	3	Gould's	1	1			1
C20	2	Gould's	1	1			
C03	9	Gould's	1				8
C13	1	Gould's	1				
C16	1	Gould's		1			
C29	1	Gould's	1				
C01	4	Gould's					4
C07	50	Gould's					50
	338	Totals	40	98	29	37	134

The above table shows 338 bats, but 134 flew out of boxes before they could be captured. So we only got 204 bats. Quite a few of the boxes held escaped bats but many probably eluded us, including unfortunately the only Freetail for the day in C15. The real number of bats in the boxes before we disturbed them is somewhere between 204 and 338, my guess being about 275.



Number of bats in February fluctuates rather wildly, with Gould's being the main variable. The number of escapees flying off before the box exit is blocked has been quite large most of the last seven years. But the main development shown in the chart is the huge growth in number of bats since 1995, from about 20 to about 340. It really took off in 2005 when the three very large boxes were installed.

Year	2010	2011	2012	2013	2014
Gould's	200	243	178	261	203
Lge Forest	1	10	8	2	1
Freetail	2	1			
Total	203	254	186	263	204



Our little project started in Nov. '94 and banding began in Feb '95 so this is the 20th February of the project's life – it is into its 20th year.

Banded bats

We now have records of 658 banded bats, 12 of them Gould's and 5 Forest bats from the mid-2000s, banded by Natasha Schedvin, now all about 10 years old. Two of them were captured this month: 88866 and 88883 – both have been in a box every monitoring session since April 2012. The other 641 bats have been banded since my research permit was issued in Dec '12.

Species	Bats	Male	Female	%
Gould's	597	240	357	90.7
Large Forest	47	3	44	7.1
Small Forest	10	10		1.5
Chocolate	3	2	1	0.5
Sthn Forest	1		1	0.1
Total	658	255	403	100
Percent	100.0%	38.8%	61.2%	

6 of the Gould's bands have had to be removed due to minor banding injuries (4 female, 2 male), leaving 597 Gould's. The population using the boxes has been over 90% Gould's since the start – they just seem more ready to adapt to a new type of roost. Dominated by females 3:2

Gould's	Total	Male	Female	%
Adult '05	12		12	2.0%
Adults	270	86	184	45.3%
Sub-adult	60	29	31	10.1%
Juveniles	254	125	129	42.6%
Total	596	240	356	100.0%
Percent	100.0%	40.3%	59.7%	

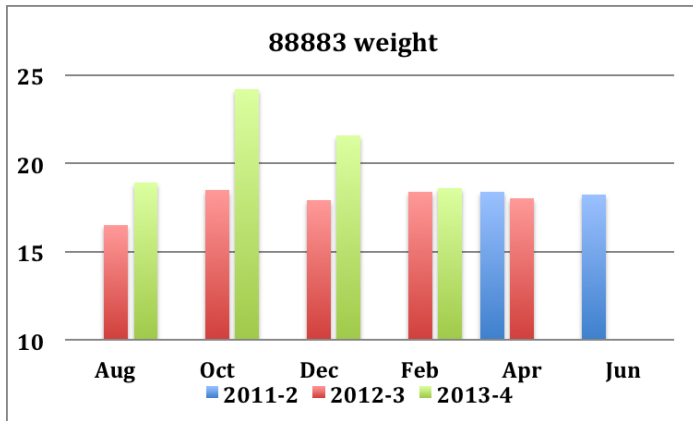
The 45% of bats banded as adults includes the new year's young that we only captured at the end of their infancy, either because they were attached young when first found or were independent but judged too small for banding and the next time we captured them they were adult.

The inequality of the sexes is probably the mixed result of an initial population dominated by females, somewhat evened out by nearly equal numbers of male and female juveniles each spring.

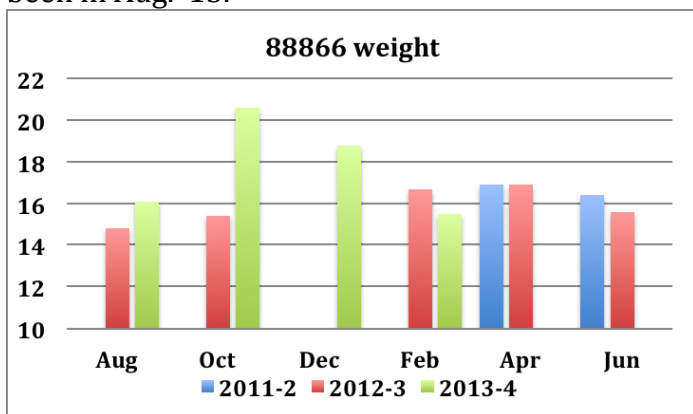
Old bats

The two old Gould's females we capture almost every monitoring visit have provided us with records of their weights through two breeding seasons now.

Next box check will be Sunday 13 April at 2 p.m.



88883 has been captured 11 times since April '12. She seems to have had a year off breeding in 2012 as her weight showed no sign of a pregnancy spike and she was assessed as post-lactating. But in 2013 she went through a pregnancy (assessed as PX, pregnant, in Oct), reaching peak weight in October, probably close to full term. She had put on an extra 6 grams. She was assessed as pregnant again in Dec., and must have become pregnant almost immediately after giving birth in October, so she is one of the bats who have bred twice this year. She has now returned to the weight she had been in Aug. '13.



This bat, also captured 11 times since Apr '12, apparently went through a pregnancy both years, though the weights in Oct differ by 5 grams. She was assessed as lactating in Dec '12, not weighed as she had a pair of attached young, and as pregnant in Aug and Oct '13 but seems to have had one pregnancy, not two this year. Both bats must be about a decade old, and still breeding vigorously.

Several others have been around this past year 85362 was last seen in Dec. '13, 70944 in Oct. '13, 82354 in Aug. '13, 85380 in Jun '13, 88824 in Apr '13. Given they are all about the same age, it is likely some of the ones not seen the past few months have got to the end of life and died.