

## Organ Pipes bat box check 13 Oct 2013

The forecast was for intermittent showers all day and that's what happened, but the rain was light and brief so we managed to get around the boxes anyway. Paul Bertuch brought a busload of students from Balcombe who helped Stephen and I with ladder, carrying bags, scribing and finding sticks to prop open ant-infested boxes.



There was a very large group of Gould's in C43



And another in C15



The students needed to be very patient as one box had 58 bats and took a long time to empty out. It is spring, so ant invasions were found in ten boxes, which were propped open



The ringtail had pulled the lid off C6 and settled in for a snooze



We were done by 5:30 and drove up to the visitor centre for some supper and to start processing. Pia and her mother Mary, and Caroline joined us. Four very old Gould's were among the 230 bats we got.





This one is 88883, probably ten years old now with 20 pups to her credit.



And a big surprise was a Large Forest Bat with a bird band, a style not used for over a decade. This is no. 13784



Everyone stayed right to the last bat so there were four bat handlers (Stephen, Pia, Caroline and me) and loads of scribes sharing the work around, fetching bags and snacks. We got to the last bat before 9 o'clock and all drove down into the valley



to release them, lined up and turned bags inside out. A few somewhat torpid Forest bats flopped to the ground but all were picked up and soon flew confidently off. By the end there were bats everywhere, flying around us



The students all expressed much appreciation for a great experience of field-work with bats and we expressed similar appreciation for their terrific help over more than 7 hours' work. One student at my request checked for duplication of band numbers and there were none. We were out of the park by 9:30. Amazing, and it remained dry for the release.

Box	Bats	Species	Adult		Esc
			M	F	
C32	58 1	Lge Forest Sthn Forest		58 1	
C43	46	Gould's	5	41	1
C01	32	Gould's		32	
C15	23	Gould's	5	18	
C09	22	Gould's	3	19	
C07	12	Gould's		12	
C36	12	Gould's	5	7	1
C41	6	Gould's	1	5	
C27	4	Gould's	2	2	
C35	3	Gould's	3		
C20	2	Gould's	2		
C31	1 1	Gould's Lge Forest	1	1	
C05	1	Gould's	1		
C14	1	Gould's	1		
C30	1	Gould's	1		
C33	1	Gould's	1		
C37	1	Gould's	1		
	<b>228</b>	<b>Totals</b>	<b>32</b>	<b>196</b>	<b>2</b>

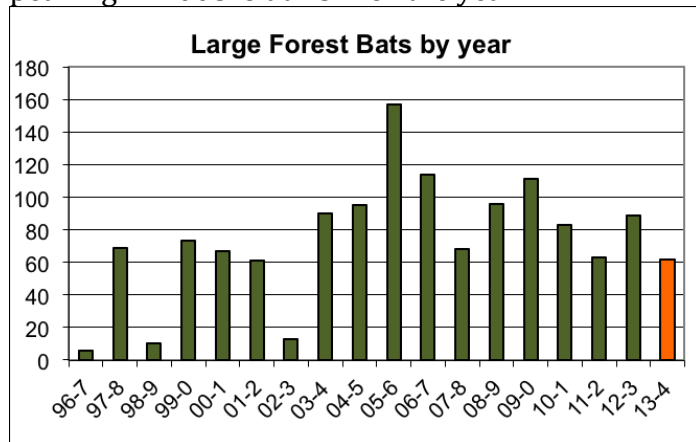
We had three bat species, dominated as always by Gould's. The large Forest bats all female and the Gould's 4.3 females to each male, about normal

this time of year. Nearly all the Gould's were far advanced in pregnancy, with big bulges in both ovaries, so all weighed over 20 grams, and one monstrous fatty weighed 28 grams. Caroline checked it twice and it was right – much heavier than we've ever seen before. The big surprise was there were no Freetails, which seemed to be using the boxes more in October over recent years.

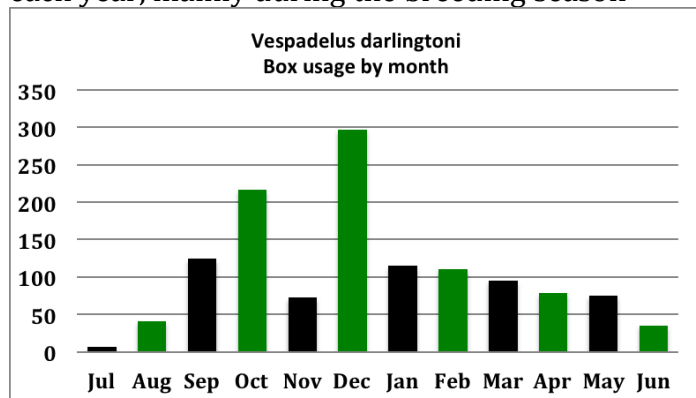
Year	2009	2010	2011	2012	2013
Gould's	156	152	216	221	168
Lge Forest	26	49	10	10	59
Freetail	14	16	16	38	
Sthn Forest					1
Sml Forest			1		
<b>Total</b>	<b>196</b>	<b>217</b>	<b>243</b>	<b>269</b>	<b>228</b>

### Large Forest Bats

For the first two years all we got was Gould's using the boxes, but in March '97 we found our first Large Forest bat, and that November there were 23. They have been using the boxes as breeding sites most years, the only species to do so other than the Gould's. We now have records of 1,327 bats of this species in the boxes, 7.2% of all bats found. Numbers have fluctuated widely each year, peaking in 2005-6 at 157 for the year.

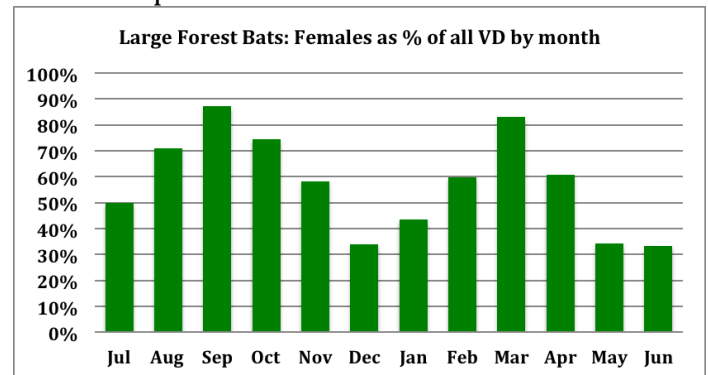


Since 2006-7 we have found between 60 and 100 each year, mainly during the breeding season



The odd-numbered months are in black because we have not been checking the boxes in those months since early 2008. The big peaks are clearly Oct (late pregnancy) and Dec (lactation), and that fits with this month's 59 females and last Dec's 72.

From 1997 we started installing smaller boxes with smaller entrance slits (now 12 mm) in the hope of attracting smaller bats and it seems to have worked for this species. Boxes 19 to 25 have these small volumes and small entrances and have had 67% of the Large Forest Bats. The thick-walled boxes, 28 to 37, have had another 29%, while the very large boxes and the ones with larger entrances have had very few of this species. So box design does seem to matter in suiting the needs of different species.

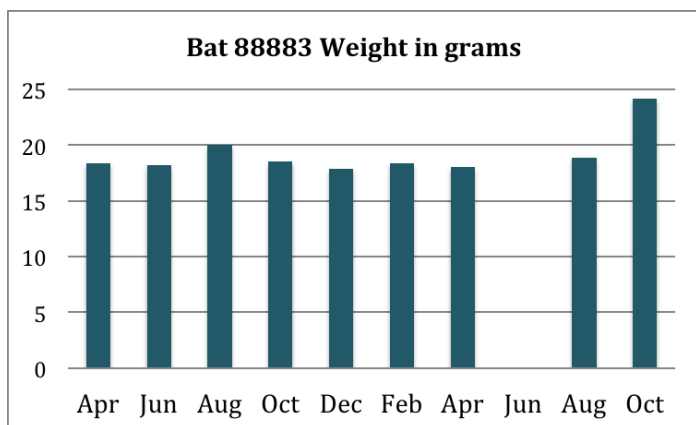


The Vespadelus seem to have been overwhelmingly female (4:1), but for about 26% of the records I have no information about gender. Most of the very high values occur in spring and autumn, and the very low ones in winter and early summer

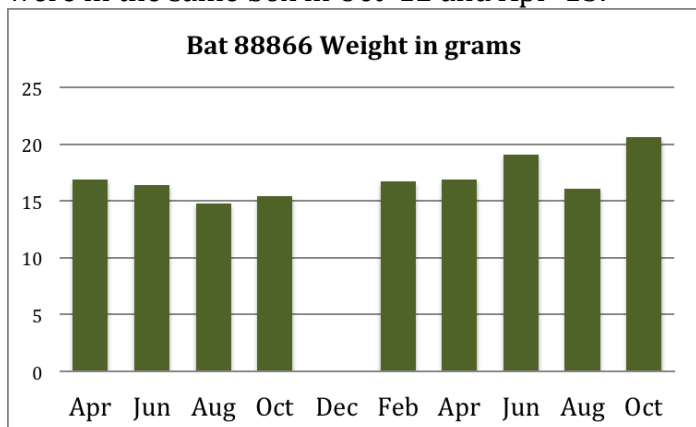
### Frequently captured bats

This month 4 very old Gould's and two very old Forest bats were among the captives. Since I have been maintaining records, from Apr '12, boxes have been checked ten times, plus we had the harp trapping in March. Two of the Gould's have been in boxes 9 out of 10 times: 88883 and 88866, and 85380 has been captured 7 times.

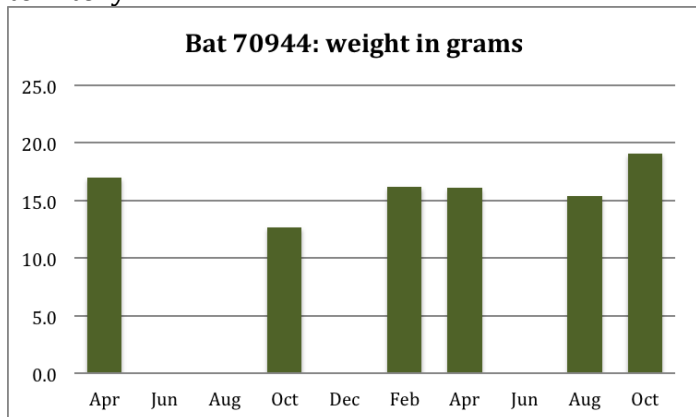
Bat 88883 had a year off breeding in 2012 but is back into it this year, very pregnant and very heavy at 24.2 grams. She has been in box 7 three times, and boxes 34 and 22 twice each, so possibly uses them as her "home territory". She's an amazing hunter, as her weight has not dropped below 18 grams even in late winter.



Bat 88866 bred last year, was found with 2 attached young last December, so was not weighed then, and is pregnant again this year. She has used the three very large boxes (41 to 43) four times, and three of the thick-walled boxes, so her "home territory" differs from 88883's. These two bats were in the same box in Oct '12 and Apr '13.

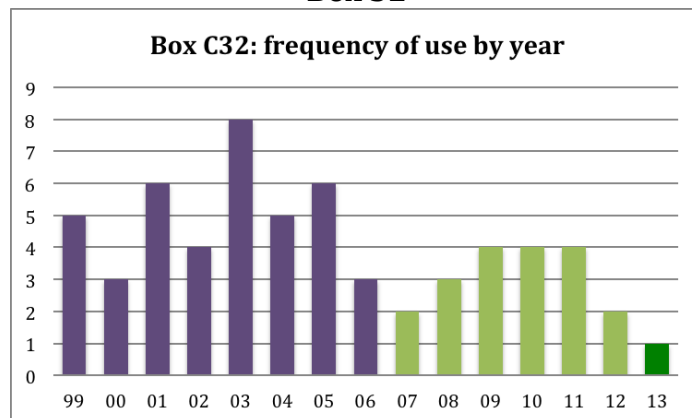


Bat 70944 has a less complete record, was not weighed in Dec '12 as she had attached young, and is pregnant again this year. She has been caught four times in box 30 and has not been found in the same box as the other frequently captured females so again has a different set of boxes as her "home territory".

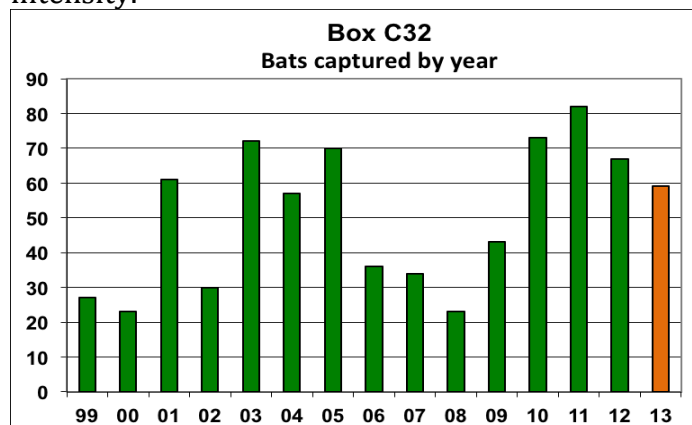


Since August, these three bats have gained weight: 5.3, 4.5 and 3.7 grams respectively, so weight gain varies quite a bit in late pregnancy from bat to bat.

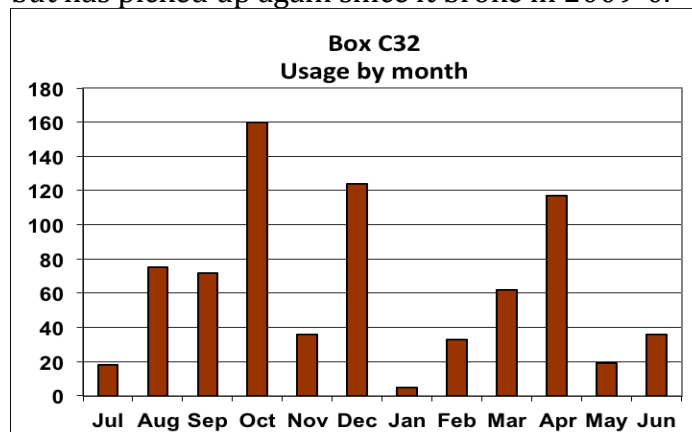
## Box 32



This was installed in 1999 and has now had 757 bats captured from it on 60 occasions. The apparent decreasing frequency of usage is just because we went from 12 box checks a year to 6 in early 2008, so its usage seems to be about the same intensity.



Usage dipped towards the end of the long drought but has picked up again since it broke in 2009-0.



This month's big group of Forest Bats stretches October usage way above any other month. But peak usage of the box is Oct, Dec and April, with minor usage in Aug, Feb, Jun. Nearly all the Dec usage has been in the last two years so this is a sign of changing bat preferences.

**Next box check Sunday 15 December 2 p.m.**