

## Bats, Organ Pipes NP, 5 August 2018

Another beautiful winter day for being outdoors and we had a big team to help with the box check for two hours. The mild weather has brought ant invasions to some boxes. Propping the box open persuades them to leave.



I found one fair-sized group of Gould's, with three clinging to the lid of C44



And five more snoozing and torpid inside



Several boxes had Bat Fly Pupa cases – the subject of Lisa Godinho's PhD work a decade ago, when counting hundreds of pupal cases in each box was part of a day's work.



Eventually we arrived at the visitor centre to find a big team already set up, weighing, measuring and scribing



Several new recruits, so Dani and others explained a lot to the newcomers about bat field work and wee bats





One of the really nice things about the day was the number of children brought by parents to learn firsthand about bats – the McKernan family were rapt in seeing them for their first time



And the Thornely family, Michael and son Will



After it was all over I got to release the bats, and first enjoy the beauty of the last golden sunlight on the upper layers of the Pipes.



Most photos I took on the release were of white bags, with bats just emerging, but two were of bats flying off



This one had an odd curve to it. Beautifully aerodynamic.



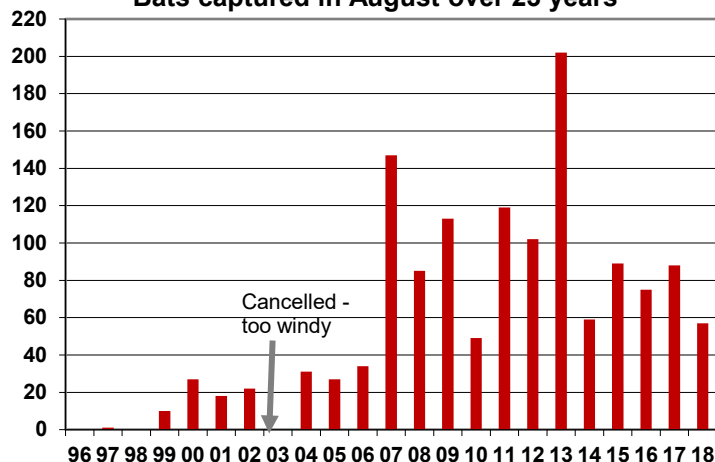
There were 57 bats, all Gould's but one

Box	Bat	Species	Adult	
			M	F
C28	20	Gould's	5	15
C46	17	Gould's	3	14
	1	Lge Forest	1	
C25	9	Gould's	2	7
C44	8	Gould's	5	3
C45	2	Gould's	1	1
	57	Totals	17	40

### August bats

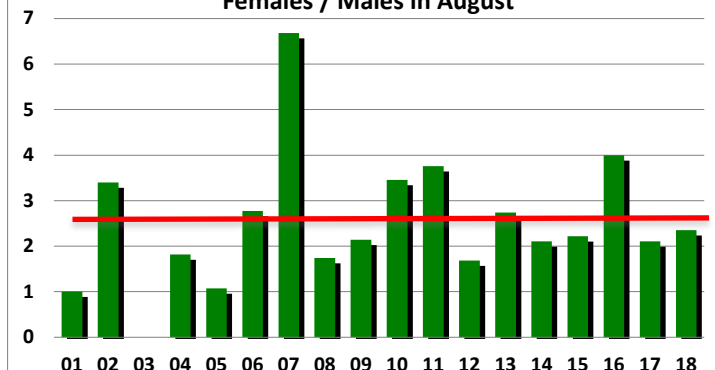
The number of bats found using boxes in August suddenly shot up in 2005 and generally remained quite large until 2013, but with the return of drought conditions it has fallen again to between 55 and 85, fluctuating each year, which makes for a shorter work shift extracting and examining them. Perhaps breeding success is less than it used to be in the wet years when the Millennium drought broke.

**Bats captured in August over 23 years**



The female to male ratio in August has been fairly stable, averaging 2.5 females for each male (this year 2.35:1) with an odd spike in females in 2007

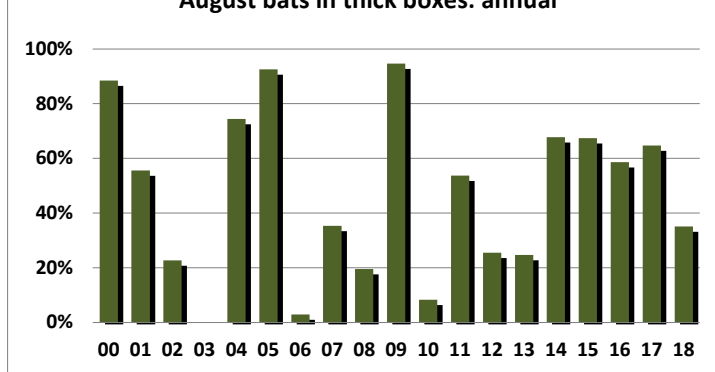
**Females / Males in August**



**August box preferences**

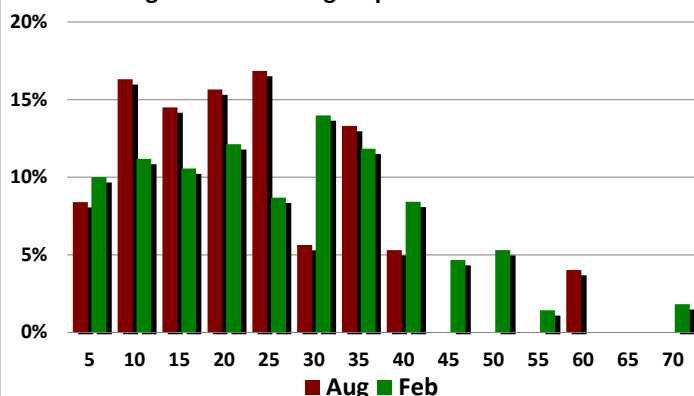
Winter convinces the bats that the thick-timbered (45 mm) boxes are nicer to snooze in, sometimes nearly all the bats choosing these 9 boxes, but this year the new multi-chambered C46 was equally attractive.

**August bats in thick boxes: annual**



Group size is always smaller in winter, with fewer bats in big group and more in small groups. Comparing late winter with late summer shows this very clearly – many more bats in groups of 6 to 25 bats (63% in Aug., 43% in Feb.) and fewer in bigger groups.

**August v Feb bats: group size as % of all bats**



**Bats banded in December 2012**

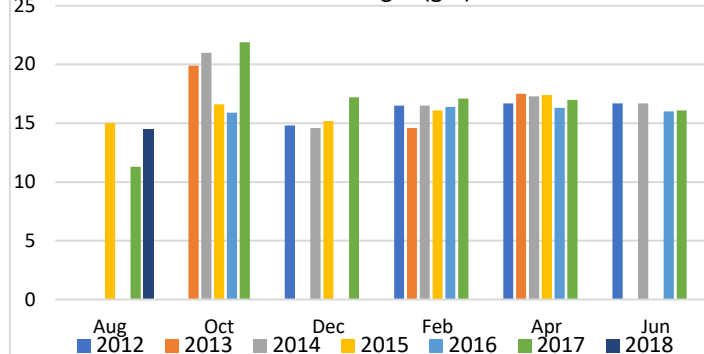
After a long break, banding (then PIT-tagging) began again in late 2012, so has now been under way for almost 6 years. Only four of the female Gould's from that first banding were in the boxes this month, all of them having been now captured very many times as the boxes are their homes.

**92312**



She has now been captured 28 times, rarely in August, and been through a pregnancy each year (found pregnant or lactating each spring and summer) and had the usual fluctuations in her weight over that period.

**92312 weight (gm)**



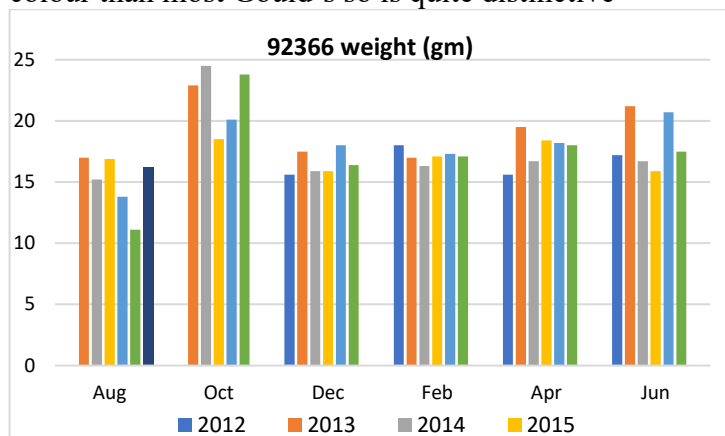


She was assessed as PL (post-lactating) when banded in 2012, so may well be much older than 6 years. The 11.3 gm weight for Aug 2017 must be an error. She has been found in 8 boxes twice and in one three times, so seems to have definite territory preferences.

### 92336

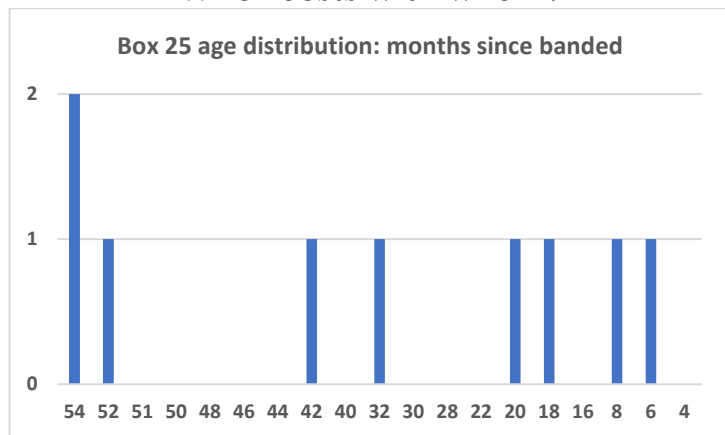


This is the current matriarch, captured now 36 times, and has never been absent. She seems a much lighter colour than most Gould's so is quite distinctive



She has been found in C30 eight times, in C14 and C36 four times each and 3 other boxes twice, so has strong territory preferences. She leads Clan A.

### Who roosts with whom?



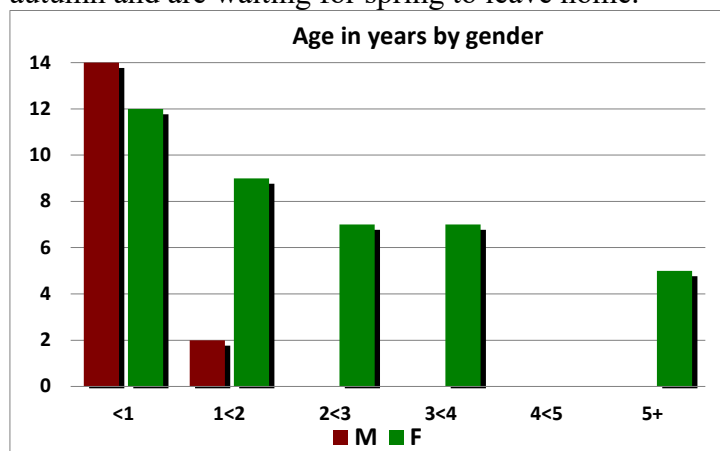
92366 was roosting with one other bat from Dec 2012,

92266 (also found most often in C14 and C30), and seven other younger bats: a 4-year-old, two 3-year-olds, two 2-year-olds and two young bats from the birthing in spring 2017.

C46 had two other Dec 2012 bats, 92386 (most often found in C30 and C14, so Clan A) and 92312 (Clan B), accompanied by three 4-year-olds, two 2-year-olds and ten young bats. The two old bats quite often roost together.

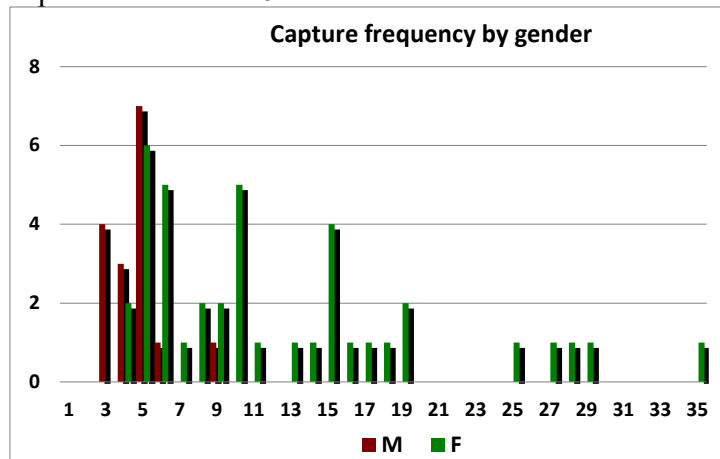
### Community structure

We have long seen that all the older bats found each visit are female, the males being generally all quite young. August was no exception. Nearly all the male bats were adolescents, with just two over a year old. Quite possibly didn't disperse with the majority in late autumn and are waiting for spring to leave home.



### Capture frequency

92335 has now been captured 35 times, and all the bats captured more than 9 times were females.



The team this month was: Stephen, Danielle, Caroline, Michael Thornely and Alona Charuvi, with 7-year old son Will; Kat McKernan with children Lachlan & Lily; Alice Duong, Ashleigh Murray, Ashley Bubatt, Caitlin Tolsma, Kris Krunes, and me

**Next box check: Sunday 28 October from midday**