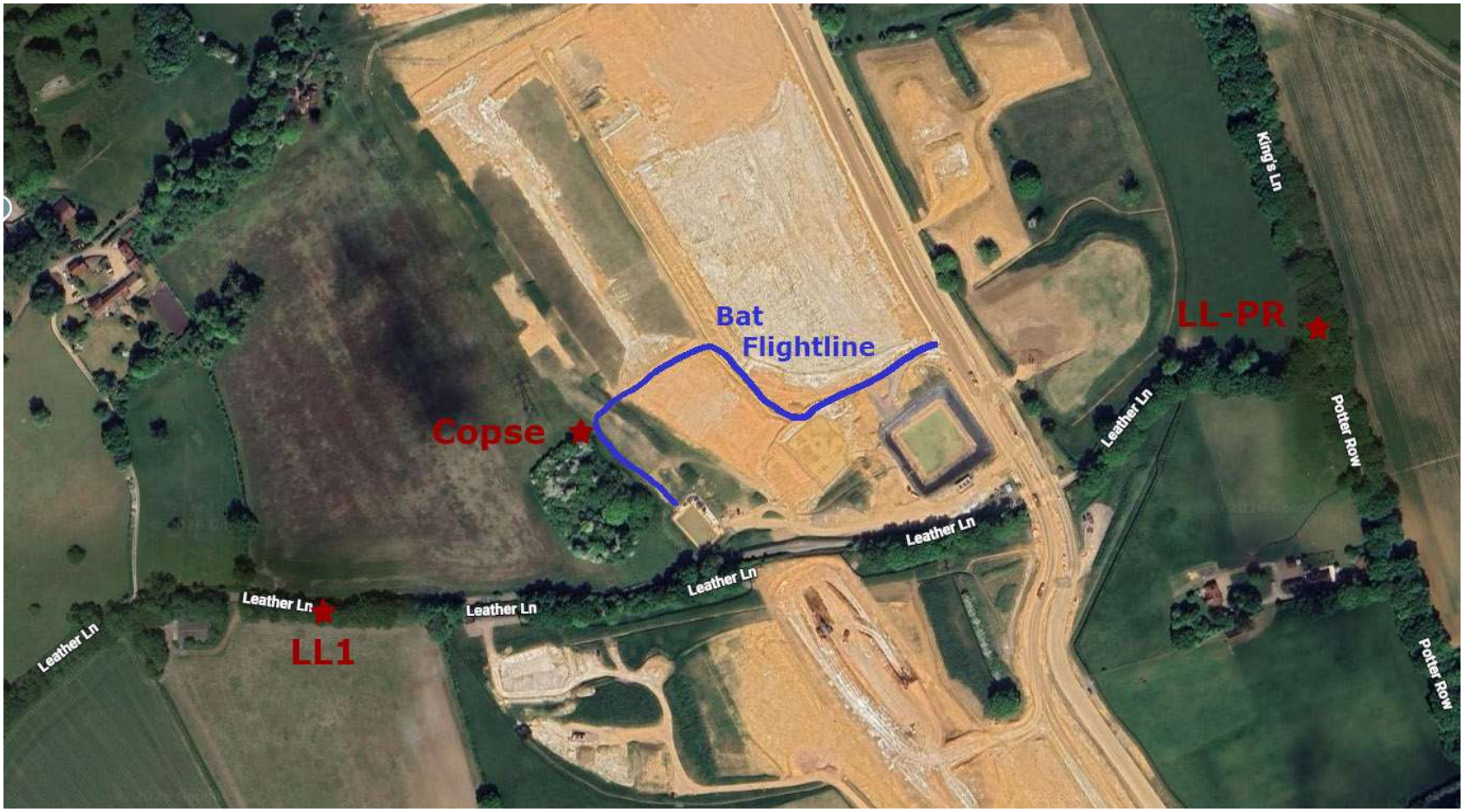
Bats at Leather Lane, 2025-26



The Leather Lane Conservation Group has now acquired 3 bat detectors, and so can monitor bat populations at 3 locations simultaneously; they were deployed at the locations shown above for 6 nights, 24-31 May 2026, during the 'heatwave'

LL1 On the S bank of Leather Lane, around 50m west of the west tie in for the new road. A similar deployment was made in 2025, some 5m further east, but that site has been covered in dead branches (by Bucks road maintenance ?)

Copse At the NE corner of the copse, near the act limits. This is the closest accessible point to the 'bat flightline' , which is intended to provide a route connecting the oak trees at either side of the trace.

LI-PR At the corner of LL and Potter Row. Less affected by construction works, and with a large bat population.

Site		Total	Bbar	MbraMmys	Mdau	Mnat	NSL	Paur	Ppip	Ppyg
LL-PR [1]	Ranger	2990.7	1.3[2]	0.0	0.0	0.7	26.3	0.0	2954.7	7.7
Copse	Ranger	52.5	0.0	0.0	0.0	0.0	0.8	0.0	51.0	0.7
LL1, 2026	Anabat Express	411.3	**0.0**	0.0	0.0	0.0	2.8	0.0	390.0	18.5
LL1, 2025		602.8	**8.5**	1.0	0.5	0.2	9.9	1.7	552.6	28.4

Bat passes/night

[1] Data from 3 nights only, as the SD card filled up

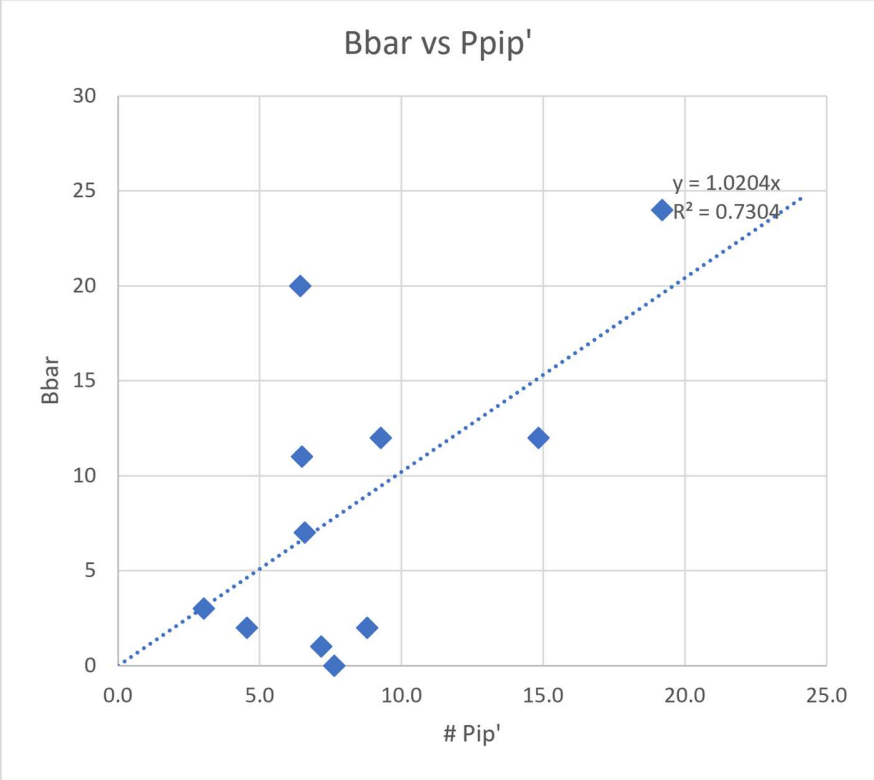
[2] 4 Barbastelle candidates, 3 of which had a higher probability of Pipistrelle ID

Bats were identified by Anabat Insight auto-id, with probability > 90%. LL-PR recorded 8 times more passes than LL1, which in turn recorded around 8 times more than the Copse – which suggests that the new flightline is not much used. LL1 recorded 2/3^{rds} of the number of passes observed in 2025, and *no barbastelles*. NSL were the only species observed other than Ppip,Ppyg which shows an absence of the more exotic species.

Expected number of Barbastelles

	Total	05-31 - 06-01	06/01 - 06/02	06/02 - 06/03	06/03 - 06/04	06/04 - 06/05	06/05 - 06/06	06/06 - 06/07		06/08 - 06/09	06-09 - 06-10	06-10 - 06-11	06-11 - 06-12
Bbar	94.0	2.0	7.0	24.0	20.0	1.0	0.0	11.0	0.0	12.0	12.0	2.0	3.0
Ppip*0.0155	94.0	8.8	6.6	19.2	6.4	7.2	7.6	6.5	0.0	9.3	14.8	4.5	3.0

Barbastelle and scaled Pipistrelle passes, LL1 2025



6079 Pipistrelles and 94 Barbastelle passes were observed over 11 nights in 2025. Scaling the Ppip passes by 0.0155 reduces the total to 94. A plot of the number of Barbastelles vs scaled Pipistrelles shows a reasonably high degree of correlation – 0.67. This suggests that some factors (temperature, insect abundance) affect the activity of both species, and so the Pipistrelle passes may be used to estimate the expected number of Barbastelle passes.

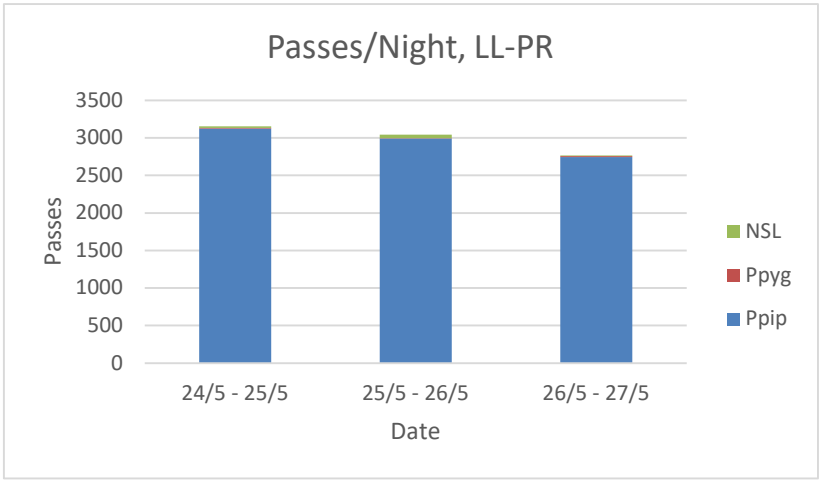
(The line plotted is constrained to pass through (0,0). If this constraint is removed, the gradient changes to 1.09, which does not have a significant effect on the results)

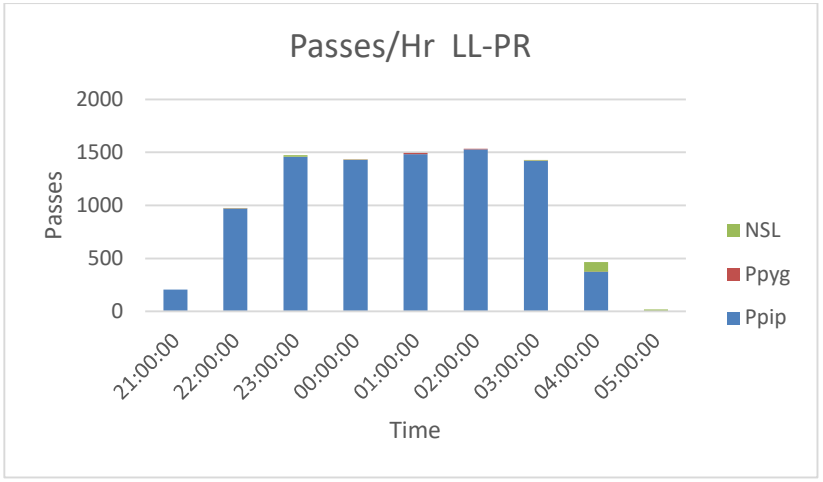
	Avg / Night	Total	24/5 - 25/5	25/5 - 26/5	26/5 - 27/5	27/5 - 28/5	28/5 - 29/5	29/5 - 30/5
Ppip	390	2340	215	544	250	550	497	284
Bbar'	6.2	36.9	3.4	8.6	3.9	8.7	7.8	4.5

Pipistrelle and predicted Barbastelle passes, LL1 2026

If the ratio of Pipistrelle to Barbastelle passes was unchanged in 2026, then the number of Barbastelle expected is shown in the above table – 36.9 in all – while none were actually observed. Assuming Poisson statistics, the probability of observing no events when 36.9 are expected is $e^{-36.9}$ or 10^{-17}, i.e. negligible. The non-observation of Barbastelle is therefore statistically highly significant, and it is clear that they were not using the Lane for foraging or commuting while the meters were deployed.

Leather Lane – Potter Row





Large numbers of bats were frequently observed at this junction, during bat walks, and with additional meters this was chosen as a reference point for bat activity in the area. Unfortunately, this was such a success that the (32Gb) SD card was full up partway through the 4th night. However, it does indicate a great deal of activity, overwhelmingly Pipistrelles, which might be expected during the hot weather.

The Bat flightline

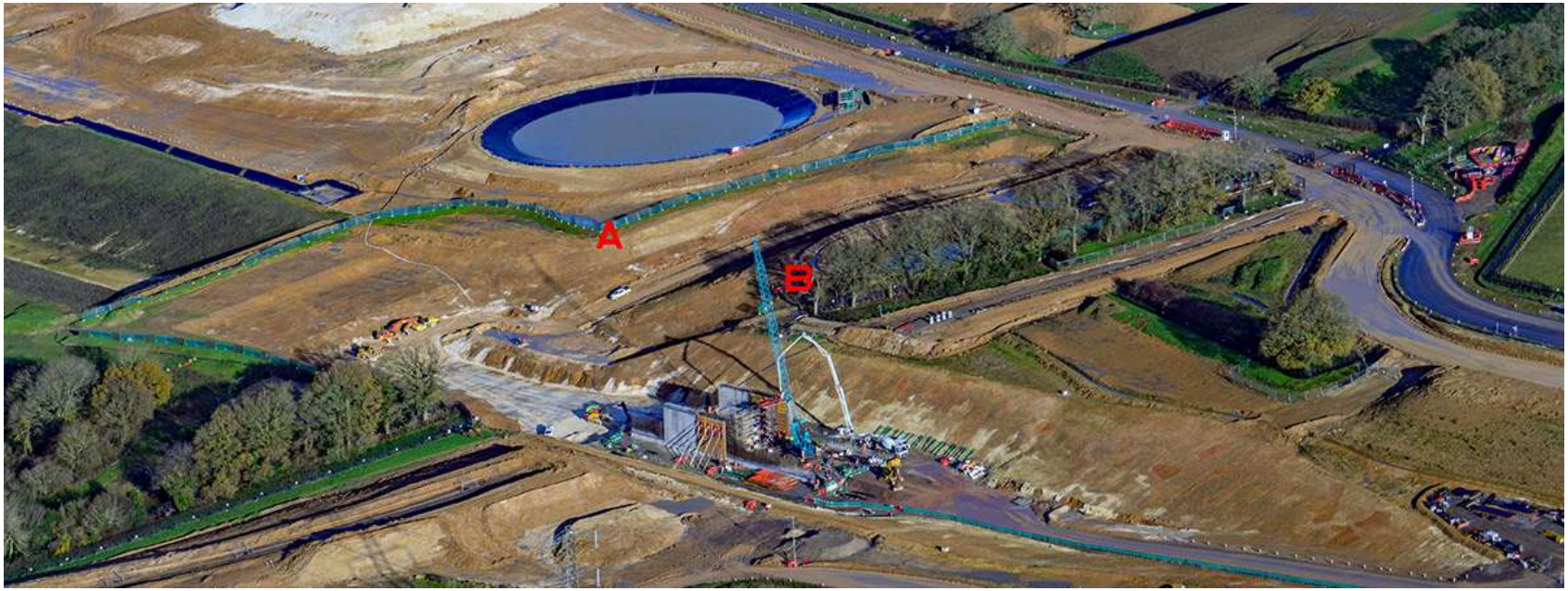


In March 2021, 12 oaks were felled where the track trace crosses the lane – far earlier than necessary – and brash from these trees was left in place, forming a connection across the gap. In February 2025, this brash was removed as excavation of the cutting advanced towards the lane, and was replaced by an artificial flightline, consisting of camouflage netting supported by a double layer of fencing. This appeared to work reasonably well, and bats were observed flying above it.

In September 2025 the Lane was closed as bridge construction commenced, and the old lane was excavated to form the cutting. Initial plans for a bat crossing at the GMI/2 bridge, 350 metres away, were abandoned, and another flightline created, which crosses the trace at the boundary between Align and EKFB works, which will remain in place. However, this is a less substantial structure, with only one layer of fencing, and netting covering every 3rd fence panel –

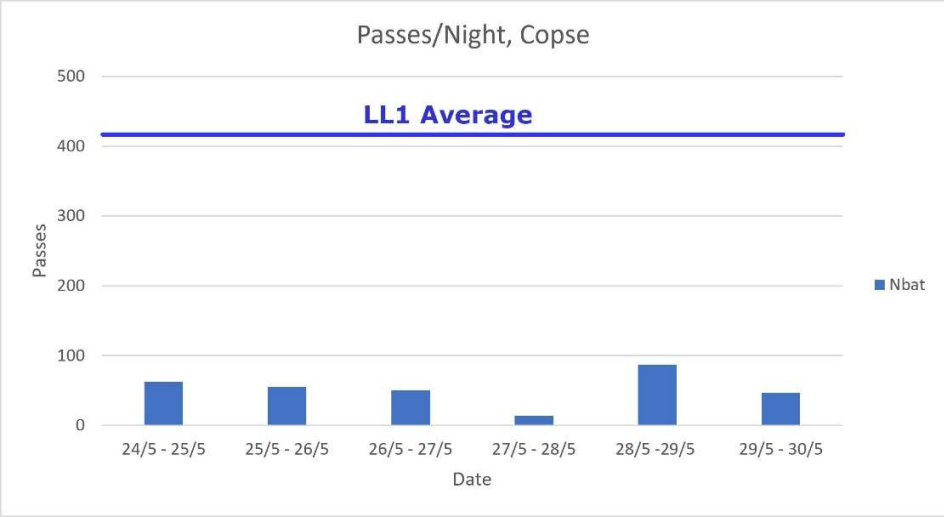


9-Jun-2026



In addition to the insubstantial construction, the flightline ends at the haul road, and so does not connect with the remaining oaks to the east of the trace. These deficiencies were pointed out to Align in an Email sent on 16-March 2026, and a connection between points A and B above was suggested.

Use of the flightline



The number of bat passes/night recorded at the corner of the copse is compared with the 410/night average at LL1 (West end of the Lane.) All were pipistrelles, except for 4 Ppyg & 5 NSL in total, recorder over the 6 nights.

Clearly the flightline use is insignificant, even compared with the reduced numbers recorded on the Lane.

Conclusions

1. The Barbastelles have abandoned the Lane

2. Pipistrelle numbers on the Lane are reduced when compared to 2025

3. The effect of the Bat Flightline appears negligible

It remains to be seen if an improved flightline would encourage bats to return, or if they will re-appear once the green bridge is opened. It is hard to understand why, after going to the expense of redesigning the bridge, the temporary bat flightline was not constructed to a similar standard as its predecessor.

Dr Jim Conboy, C.Phys
Leather Lane Conservation Group
June 20206

11	Avg / Night	Total	05-31 - 06-01	06/01 - 06/02	06/02 - 06/03	06/03 - 06/04	06/04 - 06/05	06/05 - 06/06	06/06 - 06/07		06/08 - 06/09	06-09 - 06-10	06-10 - 06-11	06-11 - 06-12
Bbar, Bbar	8.5	94	2	7	24	20	1	0	11		12	12	2	3
Bbar, Ppip, Bbar, Ppip	2.0	22	0	4	8	2	2	0	1		1	2	2	0
MbraMmys, MbraMmys	1.0	11	2	1	0	2	1	1	2		0	1	1	0
Mdau, Mdau	0.5	5	1	0	1	0	1	0	0		0	2	0	0
Mdau, Ppip, Mdau, Ppip	0.1	1	0	0	0	0	0	0	0		0	1	0	0
Mnat, Mnat	0.2	2	0	0	0	0	0	0	0		0	1	1	0
NSL, NSL	9.9	109	25	15	22	5	0	0	1		4	7	10	20
NSL, Ppip, *	0.7	8	0	1	3	0	0	0	0		0	4	0	0
NSL, Ppyg, *	0.2	2	1	0	1	0	0	0	0		0	0	0	0
Paur, Paur	1.7	19	5	5	4	1	1	0	1		1	1	0	0
Paur, Ppip, *	1.2	13	0	0	9	1	0	1	0		0	2	0	0
Ppip, Ppip	552.6	6079	569	426	1242	416	464	493	420		600	959	294	196
Ppip, Ppyg, Ppip, Ppyg	73.1	804	86	47	151	64	45	32	62		97	135	36	49
Ppyg, Ppyg	28.4	312	31	14	31	26	21	42	17		16	91	14	9
All	680.1	7481	722	520	1496	537	536	569	515	0	731	1218	360	277
Ppip > Bbar	1.5E-02	94.0	8.8	6.6	19.2	6.4	7.2	7.6	6.5	0.0	9.3	14.8	4.5	3.0

Bat passes/ night, Leather Lane West 2025 Anabat Express