



Ecobat Report

2025-11-11

Geo filter: region, Time filter: +- 1 month

Summary

Bats were detected on **39** nights between **25/04/2025** and **11/09/2025**, using **5** static bat detectors. Throughout this period, **7** species were recorded. **Table 1.**
Detectors were placed at the following locations:

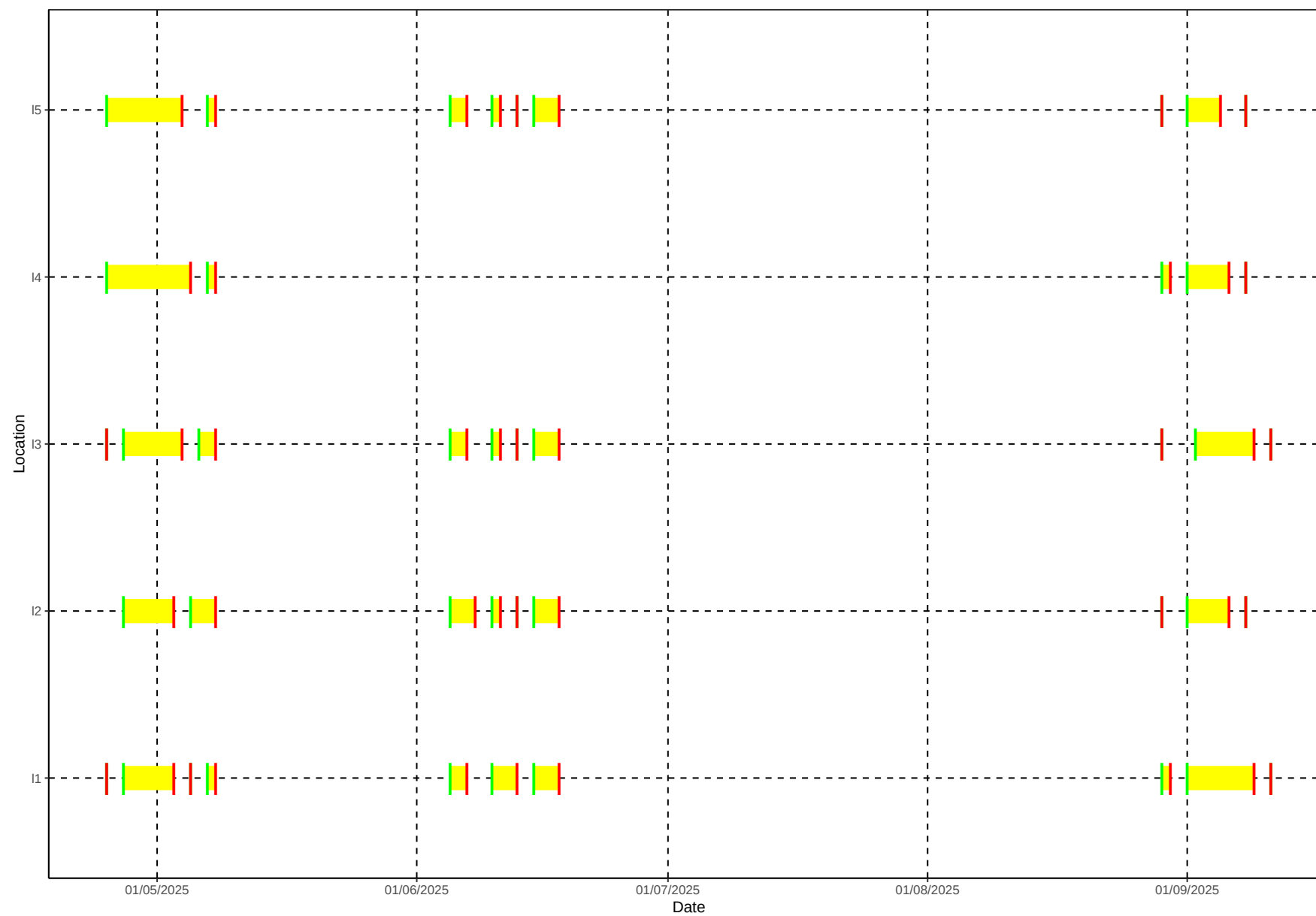
Detector ID	Latitude	Longitude
I1	55.40017	-4.412031
I2	55.39752	-4.406800
I3	55.39559	-4.412953
I4	55.38754	-4.414688
I5	55.38553	-4.407682

Survey Nights

Table 2. The number of nights that bats were detected on each recorder. This is not the same as the number of nights that detectors were active if there were nights when no bats were detected.

Detector ID	No. of Nights
I1	34
I2	30
I3	32
I4	25
I5	32

Figure 1. Horizontal bars show nights when acoustic detectors recorded bats.



Part 1: Percentile Analysis

This first part of the analysis looks at the relative activity levels of the bats you recorded. We take your value for the total bat passes each night for each species, and compare this to the values in our reference database. We tell you what percentile your data falls at, and therefore what the relative activity level is. For example, if the reference database has values of 5, 10, 15, 20 and you submit a value of 18, this will be the 80th percentile, and be classed as high activity.

Per Detector

Table 3. Summary table showing the number of nights recorded bat activity fell into each activity band for each species.

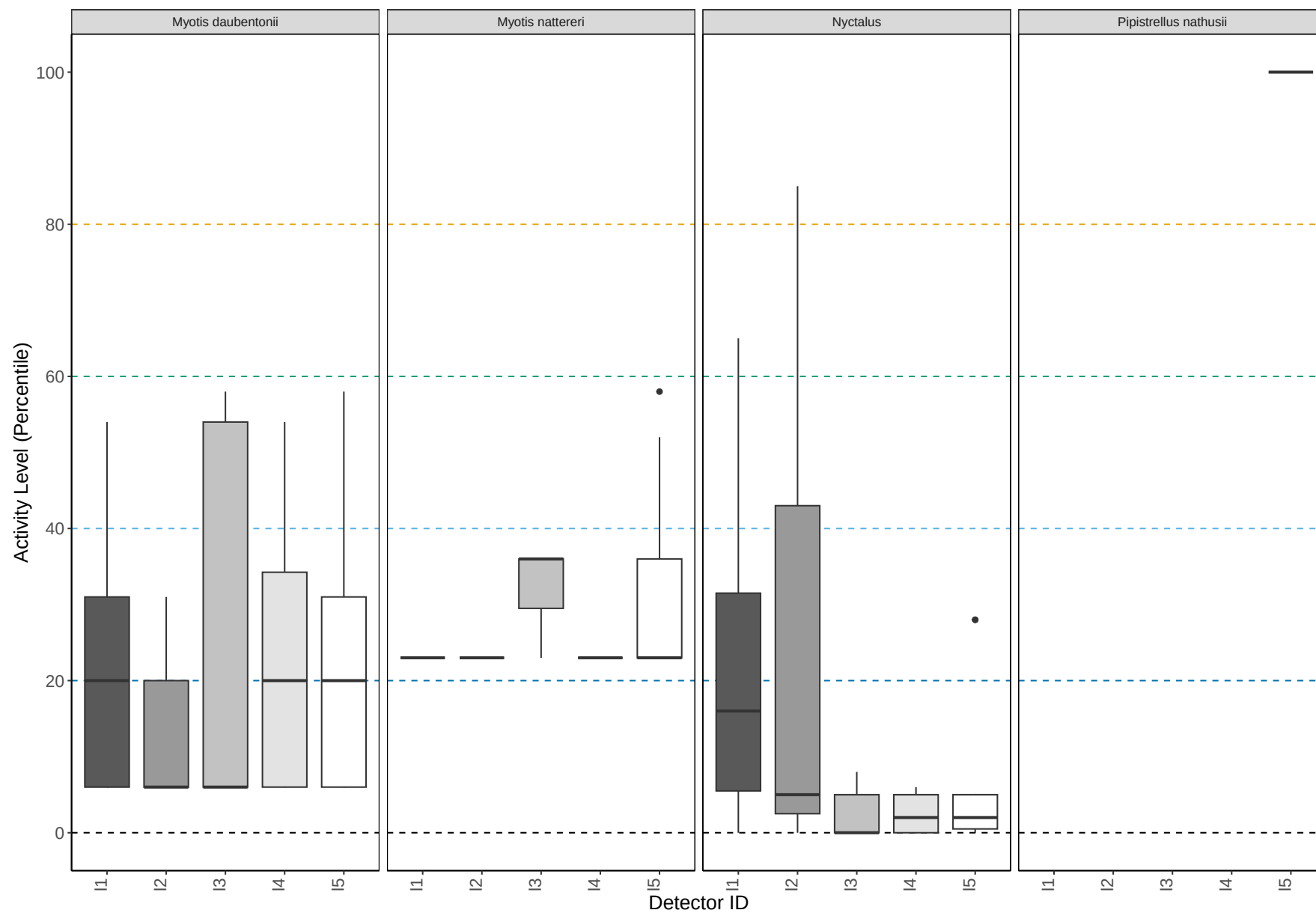
Detector ID	Species/Species Group	Nights of Exceptional Activity	Nights of High Activity	Nights of Moderate/High Activity	Nights of Moderate Activity	Nights of Low/Moderate Activity	Nights of Low Activity
I1	Myotis daubentonii	0	0	0	4	6	7
I1	Myotis nattereri	0	0	0	0	6	0
I1	Nyctalus	0	0	2	2	2	13
I1	Pipistrellus pipistrellus	0	0	0	0	0	30
I1	Pipistrellus pygmaeus	0	0	0	0	2	27
I1	Plecotus auritus	1	0	1	0	0	0
I2	Myotis daubentonii	0	0	0	0	5	8
I2	Myotis nattereri	0	0	0	0	3	0
I2	Nyctalus	0	2	0	3	2	12
I2	Pipistrellus pipistrellus	0	0	0	0	0	23
I2	Pipistrellus pygmaeus	0	0	0	0	0	20
I2	Plecotus auritus	0	0	0	4	0	0
I3	Myotis daubentonii	0	0	0	4	2	7
I3	Myotis nattereri	0	0	0	0	3	0
I3	Nyctalus	0	0	0	0	0	7
I3	Pipistrellus pipistrellus	0	0	0	0	0	25
I3	Pipistrellus pygmaeus	0	0	0	0	0	25
I3	Plecotus auritus	0	0	0	3	0	0
I4	Myotis daubentonii	0	0	0	4	7	5
I4	Myotis nattereri	0	0	0	0	4	0

Detector ID	Species/Species Group	Nights of Exceptional Activity	Nights of High Activity	Nights of Moderate/High Activity	Nights of Moderate Activity	Nights of Low/Moderate Activity	Nights of Low Activity
I4	Nyctalus	0	0	0	0	0	5
I4	Pipistrellus	0	0	0	0	0	18
I4	pipistrellus						
I4	Pipistrellus	0	0	0	0	0	14
I4	pygmaeus						
I4	Plecotus auritus	0	0	0	3	0	0
I5	Myotis	0	0	0	4	8	7
I5	daubentonii						
I5	Myotis nattereri	0	0	0	2	11	0
I5	Nyctalus	0	0	0	0	2	12
I5	Pipistrellus	1	0	0	0	0	0
I5	nathusii						
I5	Pipistrellus	0	0	0	0	0	28
I5	pipistrellus						
I5	Pipistrellus	0	0	0	0	0	19
I5	pygmaeus						
I5	Plecotus auritus	1	0	0	2	0	0

Table 4. Summary table showing key metrics for each species recorded. The reference range is the number of nights for each species that your data were compared to. We recommend a Reference Range of 200+ to be confident in the relative activity level.

Detector ID	Species/Species Group	Median Percentile	95% CIs	Max Percentile	Nights Recorded	Reference Range
I1	Myotis daubentonii	20	13 - 31	54	17	834
I1	Myotis nattereri	23	23 - 23	23	6	233
I1	Nyctalus	16	9.5 - 34	65	19	4235
I1	Pipistrellus pipistrellus	2	2.5 - 7	15	30	39556
I1	Pipistrellus pygmaeus	1	2.5 - 8	21	29	41573
I1	Plecotus auritus	85	84.5 - 84.5	97	2	136
I2	Myotis daubentonii	6	6 - 18.5	31	13	834
I2	Myotis nattereri	23	23 - 23	23	3	233
I2	Nyctalus	5	5 - 45	85	19	4235
I2	Pipistrellus pipistrellus	2	3 - 10	11	23	39556
I2	Pipistrellus pygmaeus	1	1.5 - 6	8	20	41573
I2	Plecotus auritus	52	52 - 52	52	4	136
I3	Myotis daubentonii	6	6 - 37	58	13	834
I3	Myotis nattereri	36	36 - 36	36	3	233
I3	Nyctalus	0	5 - 5	8	7	4235
I3	Pipistrellus pipistrellus	1	4.5 - 9.5	16	25	39556
I3	Pipistrellus pygmaeus	1	3.5 - 7.5	11	25	41573
I3	Plecotus auritus	52	52 - 52	52	3	136
I4	Myotis daubentonii	20	13 - 32	54	16	834
I4	Myotis nattereri	23	23 - 23	23	4	233
I4	Nyctalus	2	2 - 6	6	5	4235
I4	Pipistrellus pipistrellus	0	1 - 3	3	18	39556
I4	Pipistrellus pygmaeus	0	2 - 4	6	14	41573
I4	Plecotus auritus	52	52 - 52	52	3	136
I5	Myotis daubentonii	20	13 - 32	58	19	834
I5	Myotis nattereri	23	23 - 37.5	58	13	233
I5	Nyctalus	2	2 - 16.5	28	14	4235
I5	Pipistrellus nathusii	100	0	100	1	1
I5	Pipistrellus pipistrellus	3	4.5 - 11	17	28	39556
I5	Pipistrellus pygmaeus	1	1 - 8	12	19	41573
I5	Plecotus auritus	52	52 - 52	100	3	136

Figure 2. The recorded activity of bats during the survey. The centre line indicates the median activity level whereas the box represents the interquartile range (the spread of the middle 50% of nights of activity).



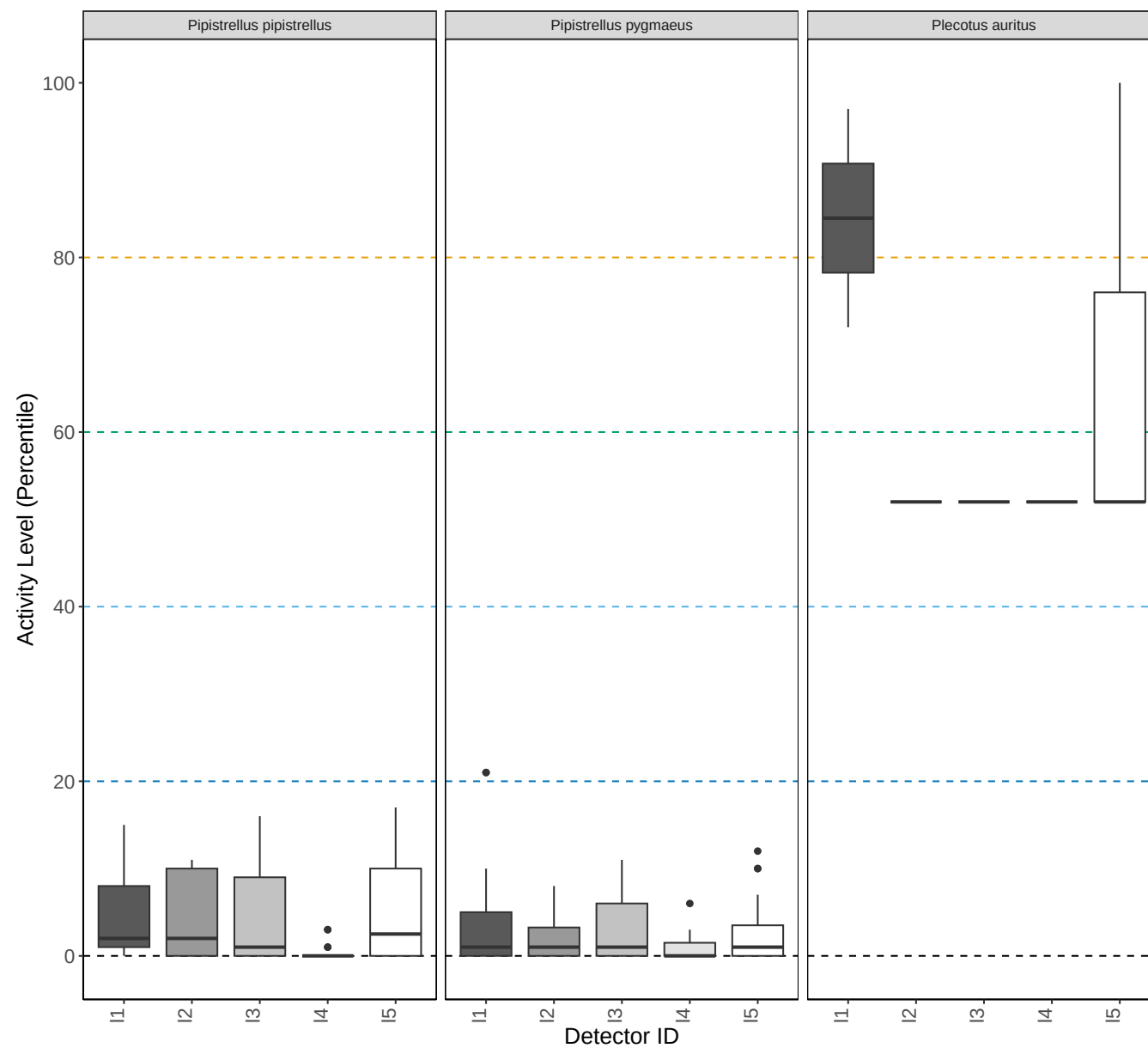
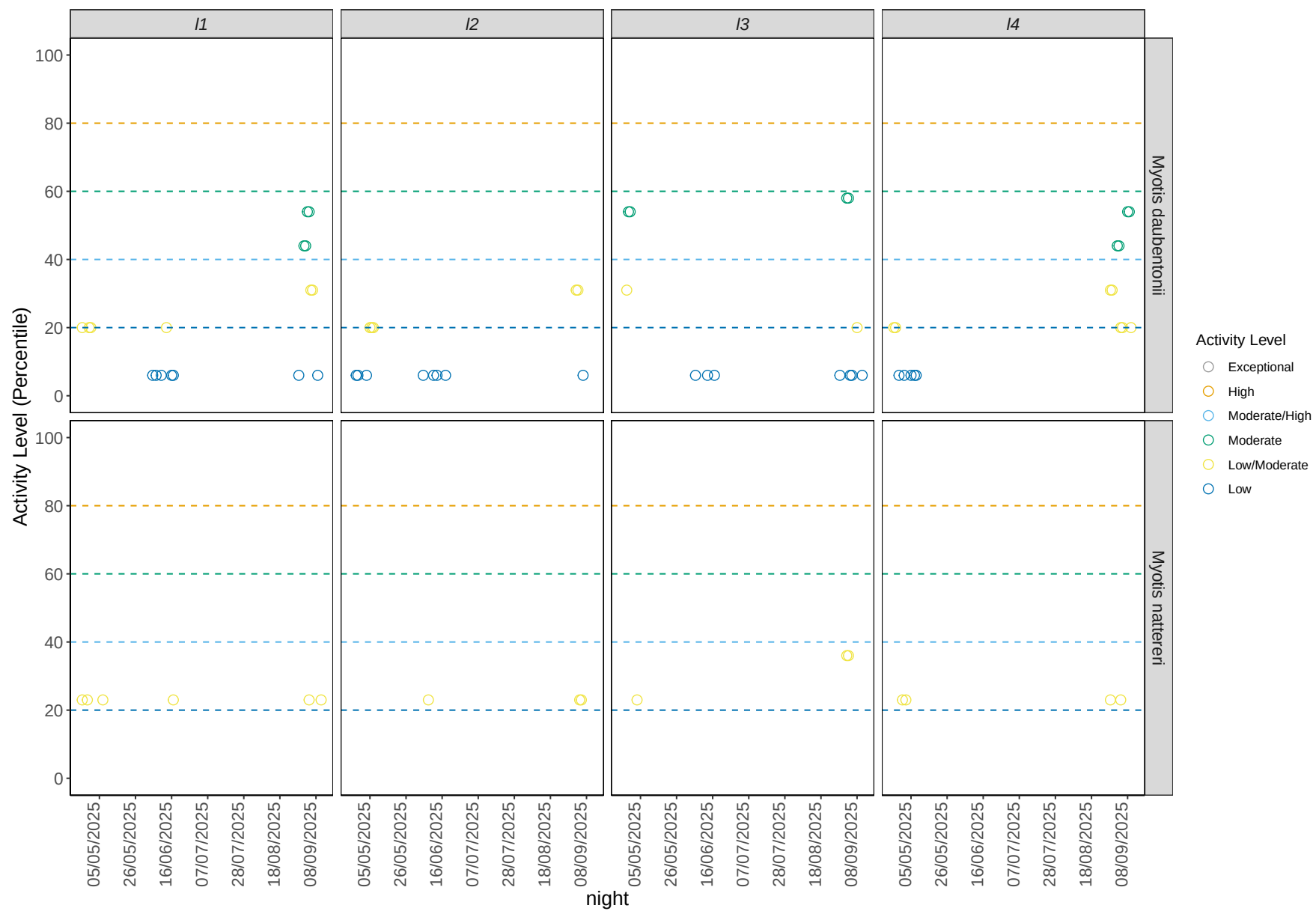
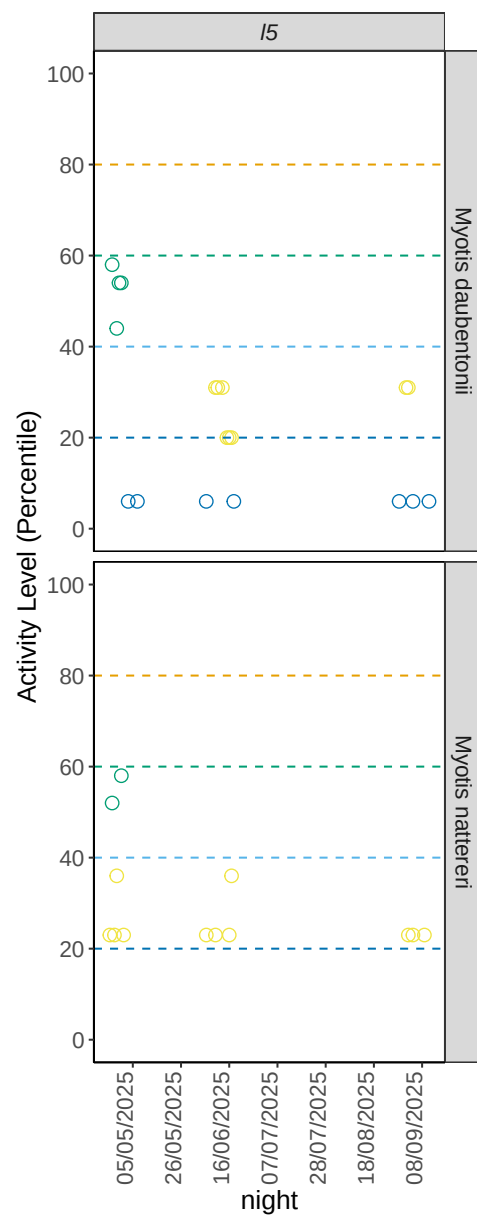
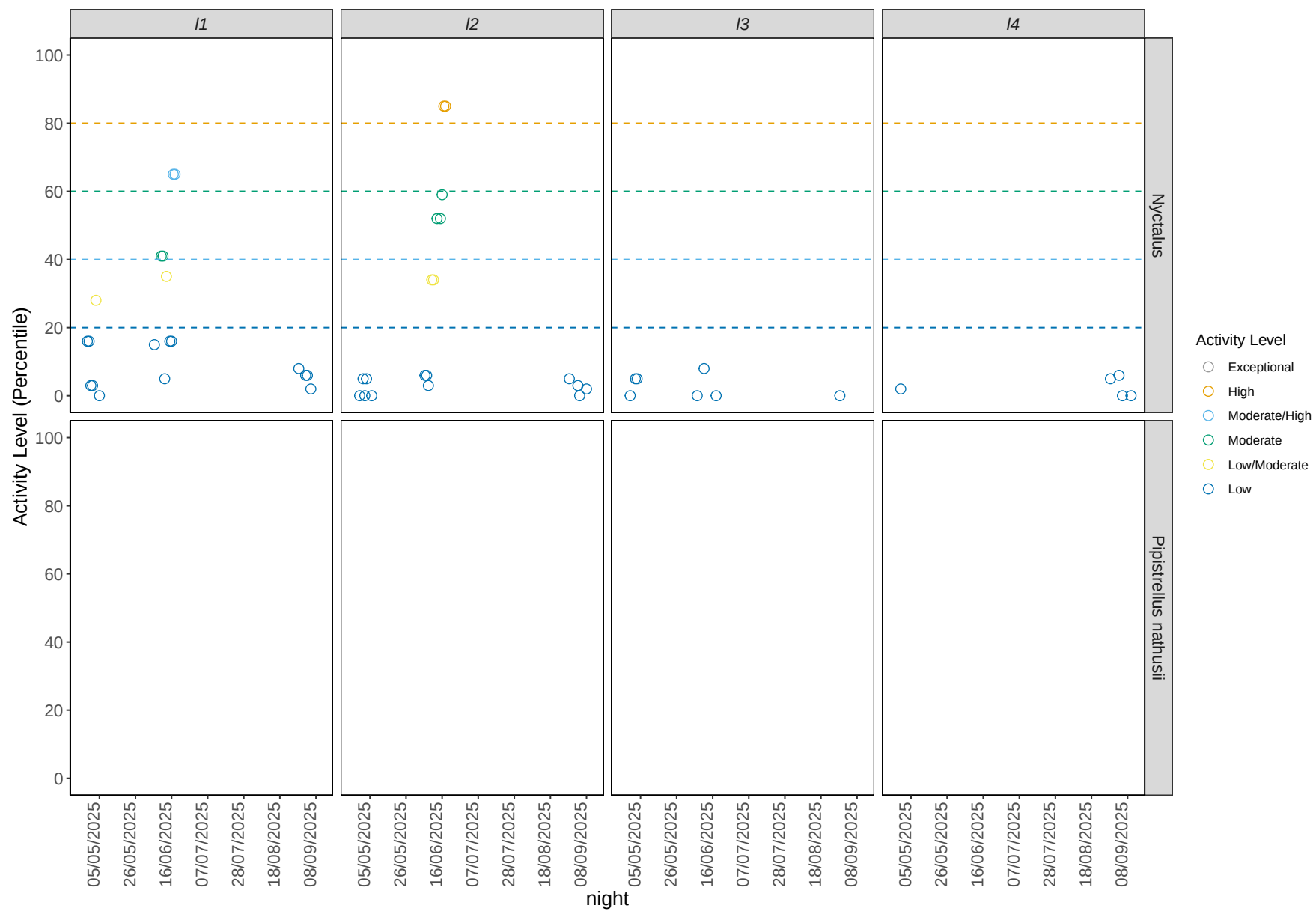
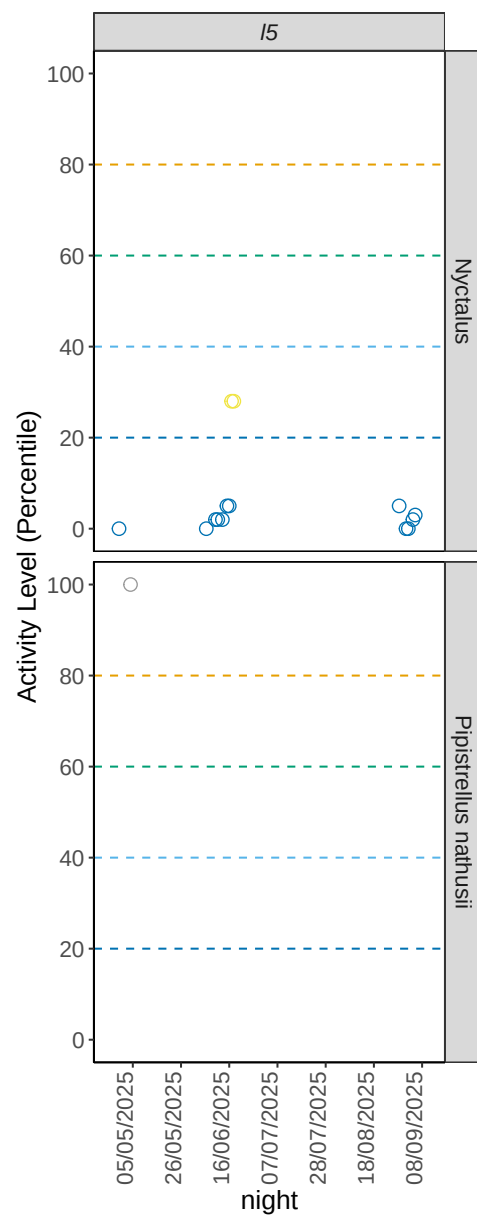


Figure 3. The activity level (percentile) of bats recorded across each night of the bat survey.









Per Detector, Per Month

Table 5. Summary table showing the number of nights recorded bat activity fell into each activity band for each species at each detector during each month.

Detector ID	Species/Species Group	month	Nights of Exceptional Activity	Nights of High Activity	Nights of Moderate/High Activity	Nights of Moderate Activity	Nights of Low/Moderate Activity	Nights of Low Activity
I1	Myotis daubentonii	Apr	0	0	0	0	3	0
I1	Myotis daubentonii	Jun	0	0	0	0	1	5
I1	Myotis daubentonii	Aug	0	0	0	0	0	1
I1	Myotis daubentonii	Sep	0	0	0	4	2	1
I1	Myotis nattereri	Apr	0	0	0	0	2	0
I1	Myotis nattereri	May	0	0	0	0	1	0
I1	Myotis nattereri	Jun	0	0	0	0	1	0
I1	Myotis nattereri	Sep	0	0	0	0	2	0
I1	Nyctalus	Apr	0	0	0	0	0	3
I1	Nyctalus	May	0	0	0	0	1	2
I1	Nyctalus	Jun	0	0	2	2	1	4
I1	Nyctalus	Aug	0	0	0	0	0	1
I1	Nyctalus	Sep	0	0	0	0	0	3
I1	Pipistrellus pipistrellus	Apr	0	0	0	0	0	4
I1	Pipistrellus pipistrellus	May	0	0	0	0	0	5
I1	Pipistrellus pipistrellus	Jun	0	0	0	0	0	10
I1	Pipistrellus pipistrellus	Aug	0	0	0	0	0	2
I1	Pipistrellus pipistrellus	Sep	0	0	0	0	0	9
I1	Pipistrellus pygmaeus	Apr	0	0	0	0	2	3

Detector ID	Species/Species Group	month	Nights of Exceptional Activity	Nights of High Activity	Nights of Moderate/High Activity	Nights of Moderate Activity	Nights of Low/Moderate Activity	Nights of Low Activity
I1	Pipistrellus pygmaeus	May	0	0	0	0	0	5
I1	Pipistrellus pygmaeus	Jun	0	0	0	0	0	9
I1	Pipistrellus pygmaeus	Aug	0	0	0	0	0	1
I1	Pipistrellus pygmaeus	Sep	0	0	0	0	0	9
I1	Plecotus auritus	Jun	1	0	0	0	0	0
I1	Plecotus auritus	Sep	0	0	1	0	0	0
I2	Myotis daubentonii	Apr	0	0	0	0	0	2
I2	Myotis daubentonii	May	0	0	0	0	3	1
I2	Myotis daubentonii	Jun	0	0	0	0	0	4
I2	Myotis daubentonii	Sep	0	0	0	0	2	1
I2	Myotis nattereri	Jun	0	0	0	0	1	0
I2	Myotis nattereri	Sep	0	0	0	0	2	0
I2	Nyctalus	Apr	0	0	0	0	0	1
I2	Nyctalus	May	0	0	0	0	0	4
I2	Nyctalus	Jun	0	2	0	3	2	3
I2	Nyctalus	Aug	0	0	0	0	0	1
I2	Nyctalus	Sep	0	0	0	0	0	3
I2	Pipistrellus pipistrellus	Apr	0	0	0	0	0	3
I2	Pipistrellus pipistrellus	May	0	0	0	0	0	4
I2	Pipistrellus pipistrellus	Jun	0	0	0	0	0	9
I2	Pipistrellus pipistrellus	Aug	0	0	0	0	0	1

Detector ID	Species/Species Group	month	Nights of Exceptional Activity	Nights of High Activity	Nights of Moderate/High Activity	Nights of Moderate Activity	Nights of Low/Moderate Activity	Nights of Low Activity
I2	Pipistrellus pipistrellus	Sep	0	0	0	0	0	6
I2	Pipistrellus pygmaeus	Apr	0	0	0	0	0	2
I2	Pipistrellus pygmaeus	May	0	0	0	0	0	3
I2	Pipistrellus pygmaeus	Jun	0	0	0	0	0	9
I2	Pipistrellus pygmaeus	Aug	0	0	0	0	0	1
I2	Pipistrellus pygmaeus	Sep	0	0	0	0	0	5
I2	Plecotus auritus	Apr	0	0	0	1	0	0
I2	Plecotus auritus	Sep	0	0	0	3	0	0
I3	Myotis daubentonii	Apr	0	0	0	2	1	0
I3	Myotis daubentonii	Jun	0	0	0	0	0	3
I3	Myotis daubentonii	Aug	0	0	0	0	0	1
I3	Myotis daubentonii	Sep	0	0	0	2	1	3
I3	Myotis nattereri	May	0	0	0	0	1	0
I3	Myotis nattereri	Sep	0	0	0	0	2	0
I3	Nyctalus	Apr	0	0	0	0	0	1
I3	Nyctalus	May	0	0	0	0	0	2
I3	Nyctalus	Jun	0	0	0	0	0	3
I3	Nyctalus	Aug	0	0	0	0	0	1
I3	Pipistrellus pipistrellus	Apr	0	0	0	0	0	4
I3	Pipistrellus pipistrellus	May	0	0	0	0	0	2
I3	Pipistrellus pipistrellus	Jun	0	0	0	0	0	9

Detector ID	Species/Species Group	month	Nights of Exceptional Activity	Nights of High Activity	Nights of Moderate/High Activity	Nights of Moderate Activity	Nights of Low/Moderate Activity	Nights of Low Activity
I3	Pipistrellus pipistrellus	Aug	0	0	0	0	0	1
I3	Pipistrellus pipistrellus	Sep	0	0	0	0	0	9
I3	Pipistrellus pygmaeus	Apr	0	0	0	0	0	3
I3	Pipistrellus pygmaeus	May	0	0	0	0	0	6
I3	Pipistrellus pygmaeus	Jun	0	0	0	0	0	9
I3	Pipistrellus pygmaeus	Aug	0	0	0	0	0	1
I3	Pipistrellus pygmaeus	Sep	0	0	0	0	0	6
I3	Plecotus auritus	Sep	0	0	0	3	0	0
I4	Myotis daubentonii	Apr	0	0	0	0	2	1
I4	Myotis daubentonii	May	0	0	0	0	0	4
I4	Myotis daubentonii	Aug	0	0	0	0	2	0
I4	Myotis daubentonii	Sep	0	0	0	4	3	0
I4	Myotis nattereri	Apr	0	0	0	0	1	0
I4	Myotis nattereri	May	0	0	0	0	1	0
I4	Myotis nattereri	Aug	0	0	0	0	1	0
I4	Myotis nattereri	Sep	0	0	0	0	1	0
I4	Nyctalus	Apr	0	0	0	0	0	1
I4	Nyctalus	Aug	0	0	0	0	0	1
I4	Nyctalus	Sep	0	0	0	0	0	3
I4	Pipistrellus pipistrellus	Apr	0	0	0	0	0	5
I4	Pipistrellus pipistrellus	May	0	0	0	0	0	3

Detector ID	Species/Species Group	month	Nights of Exceptional Activity	Nights of High Activity	Nights of Moderate/High Activity	Nights of Moderate Activity	Nights of Low/Moderate Activity	Nights of Low Activity
14	Pipistrellus pipistrellus	Aug	0	0	0	0	0	1
14	Pipistrellus pipistrellus	Sep	0	0	0	0	0	9
14	Pipistrellus pygmaeus	Apr	0	0	0	0	0	3
14	Pipistrellus pygmaeus	May	0	0	0	0	0	1
14	Pipistrellus pygmaeus	Aug	0	0	0	0	0	2
14	Pipistrellus pygmaeus	Sep	0	0	0	0	0	8
14	Plecotus auritus	May	0	0	0	1	0	0
14	Plecotus auritus	Sep	0	0	0	2	0	0
15	Myotis daubentonii	Apr	0	0	0	4	0	0
15	Myotis daubentonii	May	0	0	0	0	0	2
15	Myotis daubentonii	Jun	0	0	0	0	6	2
15	Myotis daubentonii	Aug	0	0	0	0	0	1
15	Myotis daubentonii	Sep	0	0	0	0	2	2
15	Myotis nattereri	Apr	0	0	0	2	3	0
15	Myotis nattereri	May	0	0	0	0	1	0
15	Myotis nattereri	Jun	0	0	0	0	4	0
15	Myotis nattereri	Sep	0	0	0	0	3	0
15	Nyctalus	Apr	0	0	0	0	0	1
15	Nyctalus	Jun	0	0	0	0	2	6
15	Nyctalus	Aug	0	0	0	0	0	1
15	Nyctalus	Sep	0	0	0	0	0	4
15	Pipistrellus nathusii	May	1	0	0	0	0	0

Detector ID	Species/Species Group	month	Nights of Exceptional Activity	Nights of High Activity	Nights of Moderate/High Activity	Nights of Moderate Activity	Nights of Low/Moderate Activity	Nights of Low Activity
15	Pipistrellus	Apr	0	0	0	0	0	5
	pipistrellus							
15	Pipistrellus	May	0	0	0	0	0	5
	pipistrellus							
15	Pipistrellus	Jun	0	0	0	0	0	9
	pipistrellus							
15	Pipistrellus	Aug	0	0	0	0	0	1
	pipistrellus							
15	Pipistrellus	Sep	0	0	0	0	0	8
	pipistrellus							
15	Pipistrellus	Apr	0	0	0	0	0	3
	pygmaeus							
15	Pipistrellus	May	0	0	0	0	0	2
	pygmaeus							
15	Pipistrellus	Jun	0	0	0	0	0	6
	pygmaeus							
15	Pipistrellus	Aug	0	0	0	0	0	1
	pygmaeus							
15	Pipistrellus	Sep	0	0	0	0	0	7
	pygmaeus							
15	Plecotus auritus	Apr	0	0	0	1	0	0
15	Plecotus auritus	Sep	1	0	0	1	0	0

Table 6. Summary table showing key metrics for each species recorded per month. Please note that we cannot split the reference range by month, hence this column is not shown in this table.

Detector ID	Species/Species Group	month	Median Percentile	95% CIs	Max. Percentile	Nights Recorded
I1	Myotis daubentonii	Apr	20	13 - 31	20	3
I1	Myotis daubentonii	Jun	6	13 - 31	20	6
I1	Myotis daubentonii	Aug	6	13 - 31	6	1
I1	Myotis daubentonii	Sep	44	13 - 31	54	7
I1	Myotis nattereri	Apr	23	23 - 23	23	2
I1	Myotis nattereri	May	23	23 - 23	23	1
I1	Myotis nattereri	Jun	23	23 - 23	23	1
I1	Myotis nattereri	Sep	23	23 - 23	23	2
I1	Nyctalus	Apr	16	9.5 - 34	16	3
I1	Nyctalus	May	3	9.5 - 34	28	3
I1	Nyctalus	Jun	35	9.5 - 34	65	9
I1	Nyctalus	Aug	8	9.5 - 34	8	1
I1	Nyctalus	Sep	6	9.5 - 34	6	3
I1	Pipistrellus pipistrellus	Apr	13	2.5 - 7	15	4
I1	Pipistrellus pipistrellus	May	1	2.5 - 7	10	5
I1	Pipistrellus pipistrellus	Jun	7	2.5 - 7	11	10
I1	Pipistrellus pipistrellus	Aug	1	2.5 - 7	1	2
I1	Pipistrellus pipistrellus	Sep	1	2.5 - 7	2	9
I1	Pipistrellus pygmaeus	Apr	10	2.5 - 8	21	5
I1	Pipistrellus pygmaeus	May	0	2.5 - 8	10	5
I1	Pipistrellus pygmaeus	Jun	1	2.5 - 8	7	9
I1	Pipistrellus pygmaeus	Aug	0	2.5 - 8	0	1
I1	Pipistrellus pygmaeus	Sep	1	2.5 - 8	5	9
I1	Plecotus auritus	Jun	97	84.5 - 84.5	97	1
I1	Plecotus auritus	Sep	72	84.5 - 84.5	72	1
I2	Myotis daubentonii	Apr	6	6 - 18.5	6	2
I2	Myotis daubentonii	May	20	6 - 18.5	20	4
I2	Myotis daubentonii	Jun	6	6 - 18.5	6	4
I2	Myotis daubentonii	Sep	31	6 - 18.5	31	3
I2	Myotis nattereri	Jun	23	23 - 23	23	1
I2	Myotis nattereri	Sep	23	23 - 23	23	2
I2	Nyctalus	Apr	0	5 - 45	0	1
I2	Nyctalus	May	3	5 - 45	5	4

Detector ID	Species/Species Group	month	Median Percentile	95% CIs	Max. Percentile	Nights Recorded
I2	Nyctalus	Jun	43	5 - 45	85	10
I2	Nyctalus	Aug	5	5 - 45	5	1
I2	Nyctalus	Sep	2	5 - 45	3	3
I2	Pipistrellus pipistrellus	Apr	11	3 - 10	11	3
I2	Pipistrellus pipistrellus	May	0	3 - 10	3	4
I2	Pipistrellus pipistrellus	Jun	4	3 - 10	10	9
I2	Pipistrellus pipistrellus	Aug	0	3 - 10	0	1
I2	Pipistrellus pipistrellus	Sep	6	3 - 10	10	6
I2	Pipistrellus pygmaeus	Apr	8	1.5 - 6	8	2
I2	Pipistrellus pygmaeus	May	0	1.5 - 6	1	3
I2	Pipistrellus pygmaeus	Jun	0	1.5 - 6	4	9
I2	Pipistrellus pygmaeus	Aug	0	1.5 - 6	0	1
I2	Pipistrellus pygmaeus	Sep	2	1.5 - 6	7	5
I2	Plecotus auritus	Apr	52	52 - 52	52	1
I2	Plecotus auritus	Sep	52	52 - 52	52	3
I3	Myotis daubentonii	Apr	54	6 - 37	54	3
I3	Myotis daubentonii	Jun	6	6 - 37	6	3
I3	Myotis daubentonii	Aug	6	6 - 37	6	1
I3	Myotis daubentonii	Sep	13	6 - 37	58	6
I3	Myotis nattereri	May	23	36 - 36	23	1
I3	Myotis nattereri	Sep	36	36 - 36	36	2
I3	Nyctalus	Apr	0	5 - 5	0	1
I3	Nyctalus	May	5	5 - 5	5	2
I3	Nyctalus	Jun	0	5 - 5	8	3
I3	Nyctalus	Aug	0	5 - 5	0	1
I3	Pipistrellus pipistrellus	Apr	4	4.5 - 9.5	8	4
I3	Pipistrellus pipistrellus	May	0	4.5 - 9.5	0	2
I3	Pipistrellus pipistrellus	Jun	10	4.5 - 9.5	16	9
I3	Pipistrellus pipistrellus	Aug	1	4.5 - 9.5	1	1
I3	Pipistrellus pipistrellus	Sep	1	4.5 - 9.5	9	9
I3	Pipistrellus pygmaeus	Apr	6	3.5 - 7.5	6	3
I3	Pipistrellus pygmaeus	May	0	3.5 - 7.5	0	6
I3	Pipistrellus pygmaeus	Jun	3	3.5 - 7.5	11	9
I3	Pipistrellus pygmaeus	Aug	6	3.5 - 7.5	6	1
I3	Pipistrellus pygmaeus	Sep	4	3.5 - 7.5	9	6
I3	Plecotus auritus	Sep	52	52 - 52	52	3

Detector ID	Species/Species Group	month	Median Percentile	95% CIs	Max. Percentile	Nights Recorded
I4	Myotis daubentonii	Apr	20	13 - 32	20	3
I4	Myotis daubentonii	May	6	13 - 32	6	4
I4	Myotis daubentonii	Aug	31	13 - 32	31	2
I4	Myotis daubentonii	Sep	44	13 - 32	54	7
I4	Myotis nattereri	Apr	23	23 - 23	23	1
I4	Myotis nattereri	May	23	23 - 23	23	1
I4	Myotis nattereri	Aug	23	23 - 23	23	1
I4	Myotis nattereri	Sep	23	23 - 23	23	1
I4	Nyctalus	Apr	2	2 - 6	2	1
I4	Nyctalus	Aug	5	2 - 6	5	1
I4	Nyctalus	Sep	0	2 - 6	6	3
I4	Pipistrellus pipistrellus	Apr	0	1 - 3	0	5
I4	Pipistrellus pipistrellus	May	0	1 - 3	0	3
I4	Pipistrellus pipistrellus	Aug	0	1 - 3	0	1
I4	Pipistrellus pipistrellus	Sep	0	1 - 3	3	9
I4	Pipistrellus pygmaeus	Apr	2	2 - 4	2	3
I4	Pipistrellus pygmaeus	May	0	2 - 4	0	1
I4	Pipistrellus pygmaeus	Aug	0	2 - 4	0	2
I4	Pipistrellus pygmaeus	Sep	0	2 - 4	6	8
I4	Plecotus auritus	May	52	52 - 52	52	1
I4	Plecotus auritus	Sep	52	52 - 52	52	2
I5	Myotis daubentonii	Apr	54	13 - 32	58	4
I5	Myotis daubentonii	May	6	13 - 32	6	2
I5	Myotis daubentonii	Jun	20	13 - 32	31	8
I5	Myotis daubentonii	Aug	6	13 - 32	6	1
I5	Myotis daubentonii	Sep	19	13 - 32	31	4
I5	Myotis nattereri	Apr	36	23 - 37.5	58	5
I5	Myotis nattereri	May	23	23 - 37.5	23	1
I5	Myotis nattereri	Jun	23	23 - 37.5	36	4
I5	Myotis nattereri	Sep	23	23 - 37.5	23	3
I5	Nyctalus	Apr	0	2 - 16.5	0	1
I5	Nyctalus	Jun	4	2 - 16.5	28	8
I5	Nyctalus	Aug	5	2 - 16.5	5	1
I5	Nyctalus	Sep	1	2 - 16.5	3	4
I5	Pipistrellus nathusii	May	100	0	100	1
I5	Pipistrellus pipistrellus	Apr	0	4.5 - 11	0	5

Detector ID	Species/Species Group	month	Median Percentile	95% CIs	Max. Percentile	Nights Recorded
I5	Pipistrellus pipistrellus	May	0	4.5 - 11	0	5
I5	Pipistrellus pipistrellus	Jun	15	4.5 - 11	17	9
I5	Pipistrellus pipistrellus	Aug	3	4.5 - 11	3	1
I5	Pipistrellus pipistrellus	Sep	4	4.5 - 11	10	8
I5	Pipistrellus pygmaeus	Apr	0	1 - 8	0	3
I5	Pipistrellus pygmaeus	May	0	1 - 8	0	2
I5	Pipistrellus pygmaeus	Jun	9	1 - 8	12	6
I5	Pipistrellus pygmaeus	Aug	0	1 - 8	0	1
I5	Pipistrellus pygmaeus	Sep	1	1 - 8	6	7
I5	Plecotus auritus	Apr	52	52 - 52	52	1
I5	Plecotus auritus	Sep	76	52 - 52	100	2

Per Site

In this 'Per Site' section of the analysis, all values are taken from across all of the detectors to provide site-wide averages/medians.

Table 7. Summary table showing the number of nights recorded bat activity fell into each activity band for each species.

Species/Species Group	Nights of Exceptional Activity	Nights of High Activity	Nights of Moderate/High Activity	Nights of Moderate Activity	Nights of Low/Moderate Activity	Nights of Low Activity
Myotis daubentonii	0	0	0	16	28	34
Myotis nattereri	0	0	0	2	27	0
Nyctalus	0	2	2	5	6	49
Pipistrellus nathusii	1	0	0	0	0	0
Pipistrellus pipistrellus	0	0	0	0	0	124
Pipistrellus pygmaeus	0	0	0	0	2	105
Plecotus auritus	2	0	1	12	0	0

Table 8. Summary table showing key metrics for each species recorded.

Species/Species Group	Median Percentile	95% CIs	Max. Percentile	Nights Recorded
Myotis daubentonii	20	6 - 37	58	78
Myotis nattereri	23	36 - 36	58	29
Nyctalus	5	9.5 - 34	85	64
Pipistrellus nathusii	100	0	100	1
Pipistrellus pipistrellus	1	4.5 - 9.5	17	124
Pipistrellus pygmaeus	1	3.5 - 7.5	21	107
Plecotus auritus	52	84.5 - 84.5	100	15

Figure 4. The activity level (percentile) of bats recorded across each night of the bat survey for the **entire site**.

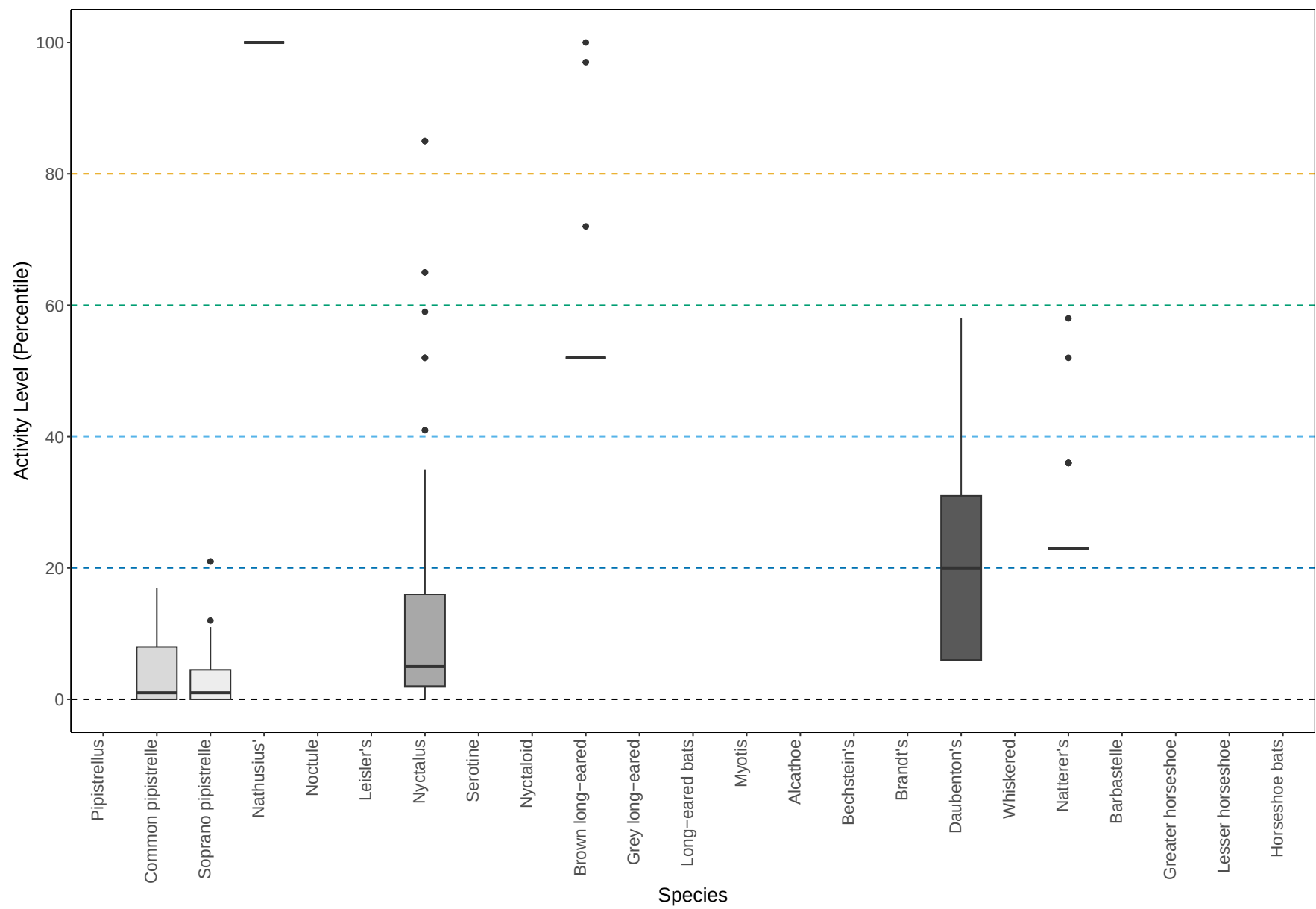
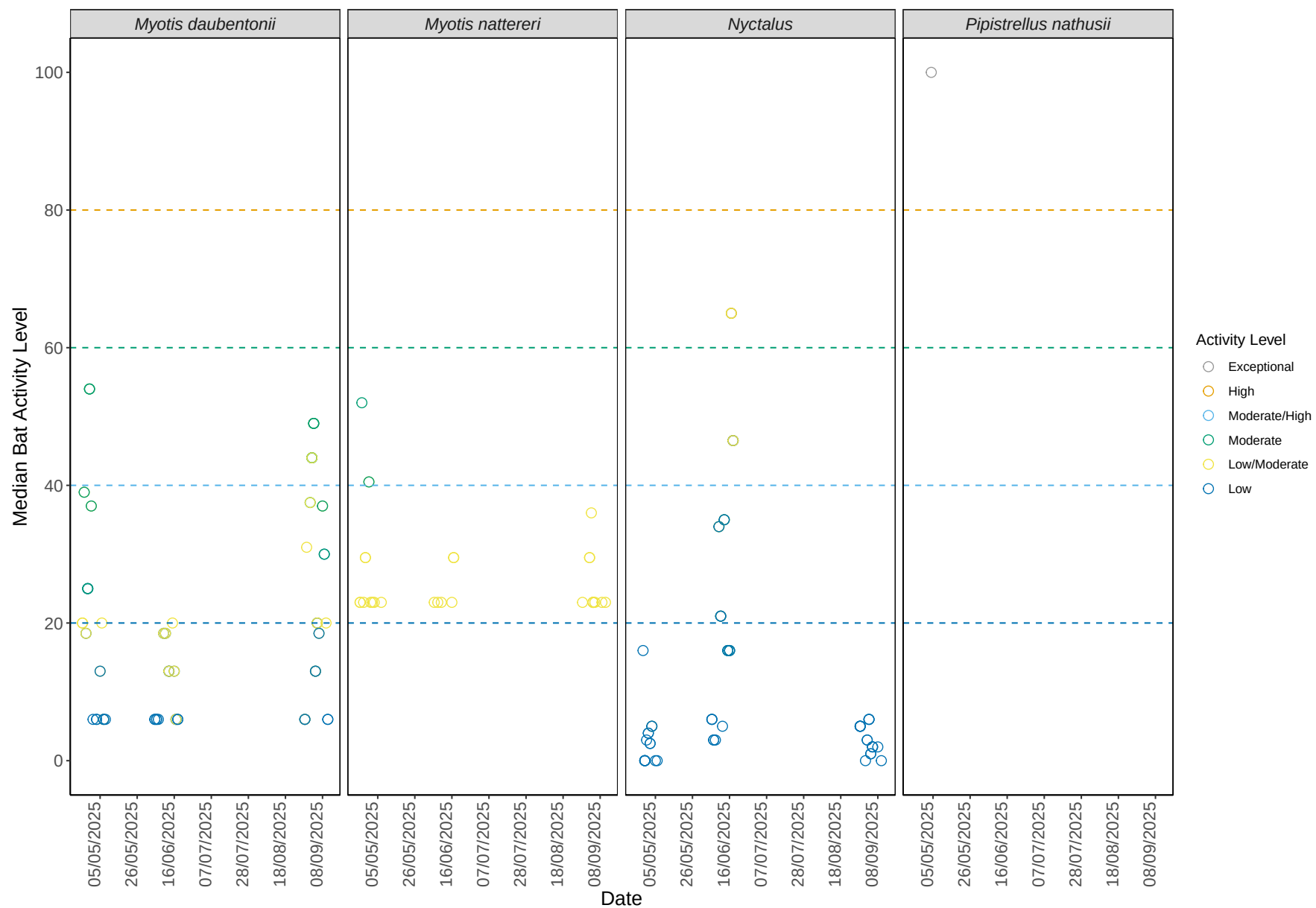
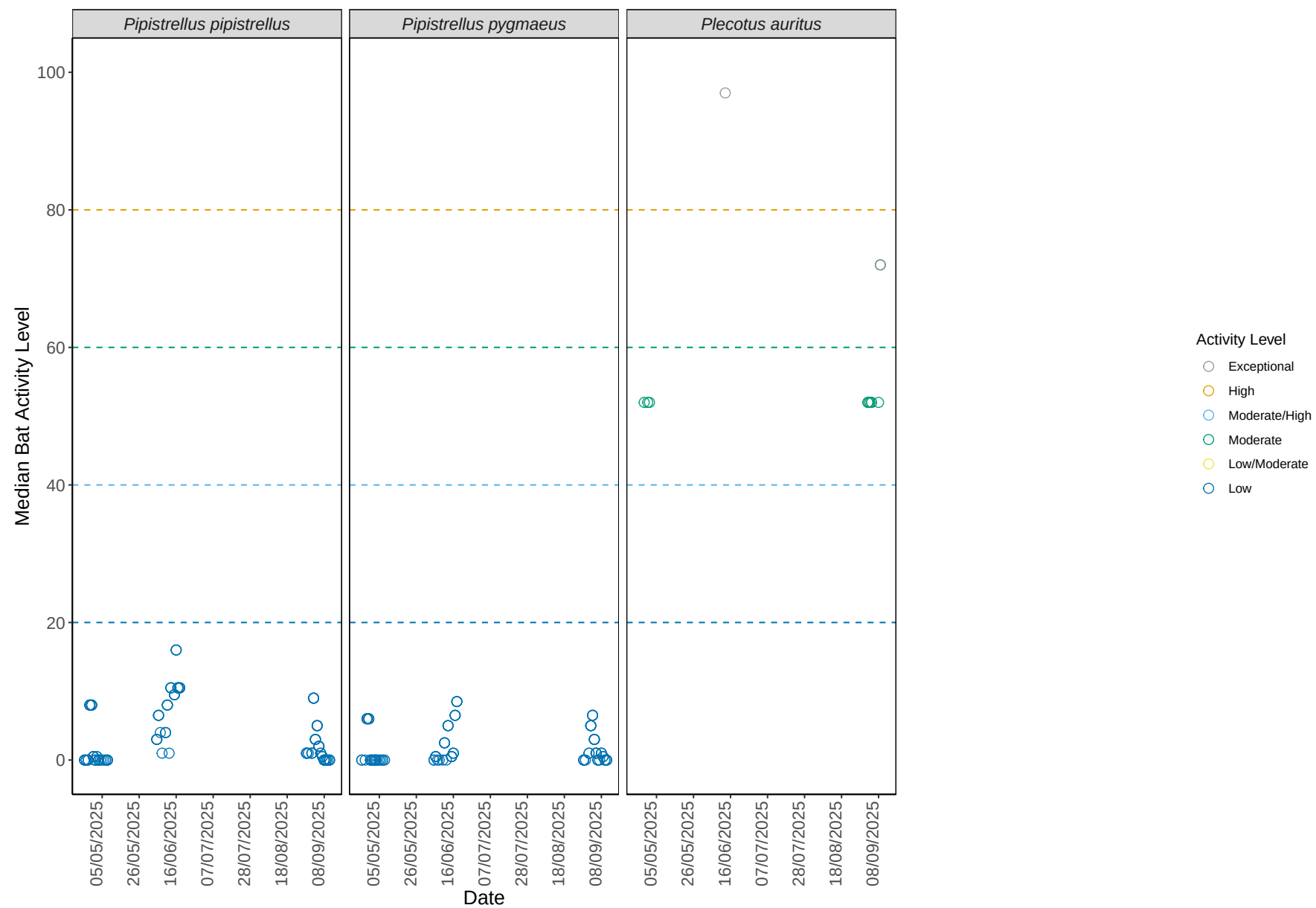


Figure 5. The median activity levels of bats recorded across all detectors each night.





Per Site, Per Month

Table 9. Summary table showing the number of nights recorded bat activity fell into each activity band for each species during each month.

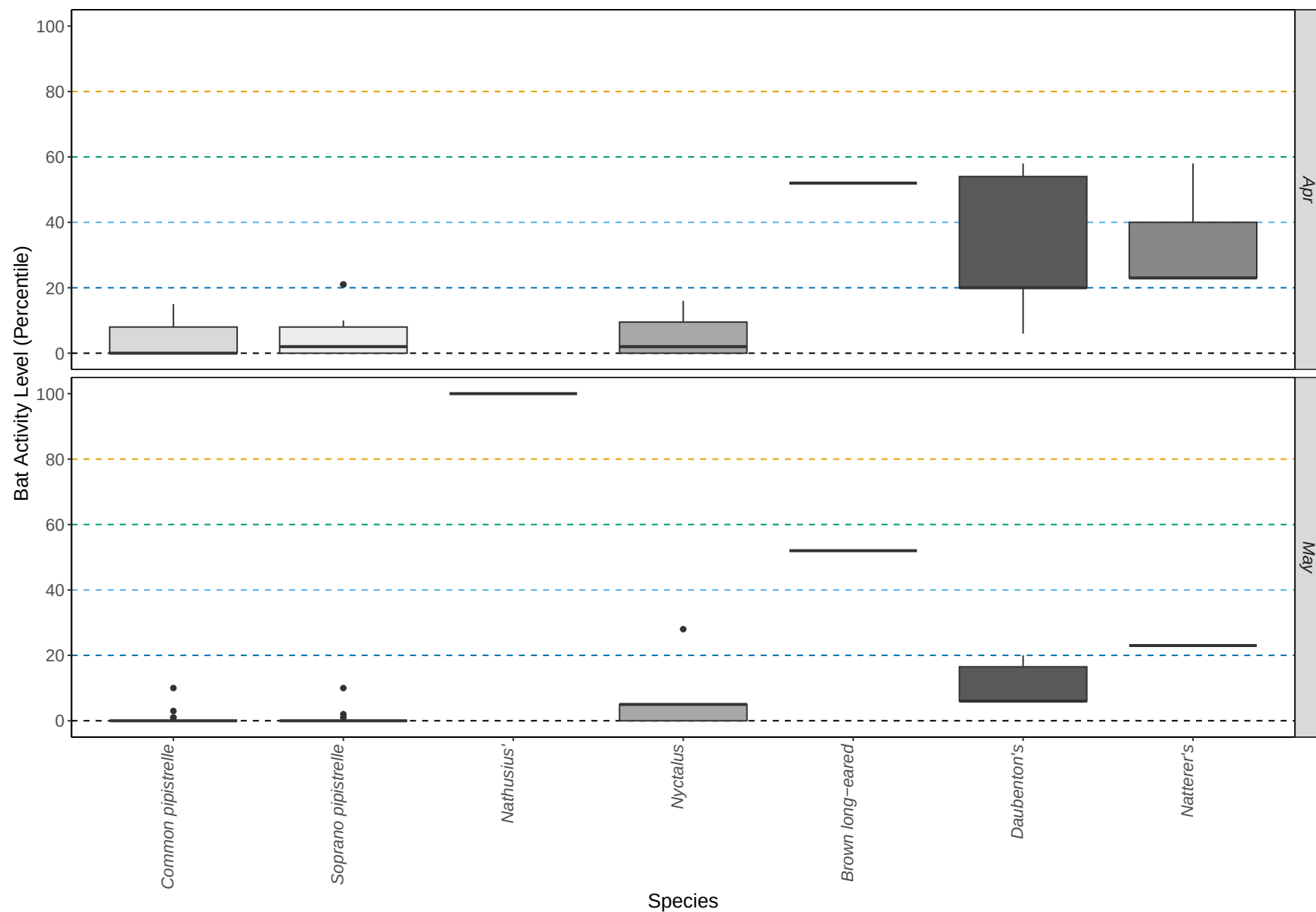
Species/Species Group	month	Nights of Exceptional Activity	Nights of High Activity	Nights of Moderate/High Activity	Nights of Moderate Activity	Nights of Low/Moderate Activity	Nights of Low Activity
Myotis daubentonii	Apr	0	0	0	6	6	3
Myotis daubentonii	May	0	0	0	0	3	7
Myotis daubentonii	Jun	0	0	0	0	7	14
Myotis daubentonii	Aug	0	0	0	0	2	3
Myotis daubentonii	Sep	0	0	0	10	10	7
Myotis nattereri	Apr	0	0	0	2	6	0
Myotis nattereri	May	0	0	0	0	4	0
Myotis nattereri	Jun	0	0	0	0	6	0
Myotis nattereri	Aug	0	0	0	0	1	0
Myotis nattereri	Sep	0	0	0	0	10	0
Nyctalus	Apr	0	0	0	0	0	7
Nyctalus	May	0	0	0	0	1	8
Nyctalus	Jun	0	2	2	5	5	16
Nyctalus	Aug	0	0	0	0	0	5
Nyctalus	Sep	0	0	0	0	0	13
Pipistrellus nathusii	May	1	0	0	0	0	0
Pipistrellus pipistrellus	Apr	0	0	0	0	0	21
Pipistrellus pipistrellus	May	0	0	0	0	0	19
Pipistrellus pipistrellus	Jun	0	0	0	0	0	37
Pipistrellus pipistrellus	Aug	0	0	0	0	0	6

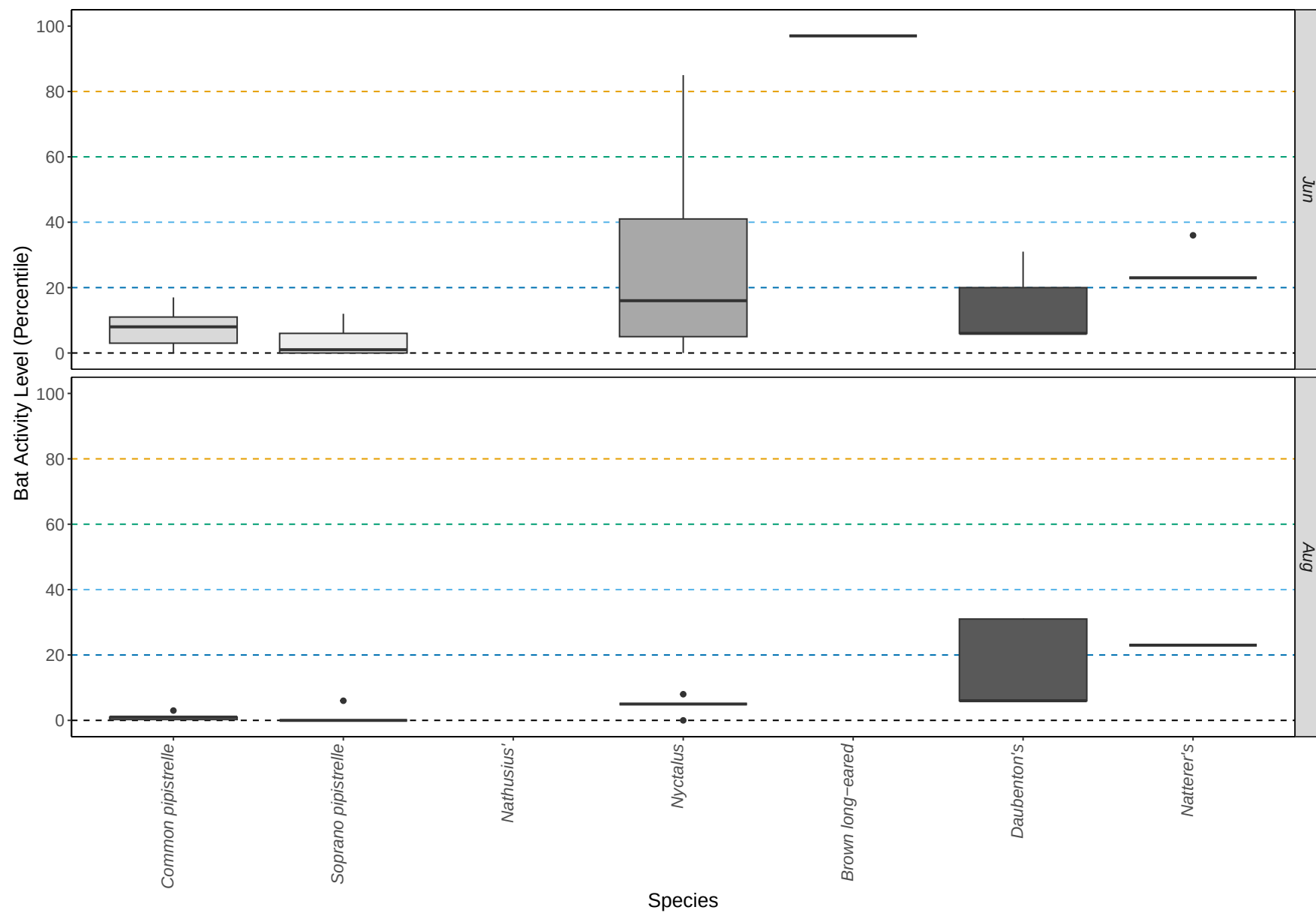
Species/Species Group	month	Nights of Exceptional Activity	Nights of High Activity	Nights of Moderate/High Activity	Nights of Moderate Activity	Nights of Low/Moderate Activity	Nights of Low Activity
Pipistrellus	Sep	0	0	0	0	0	41
pipistrellus							
Pipistrellus	Apr	0	0	0	0	2	14
pygmaeus							
Pipistrellus	May	0	0	0	0	0	17
pygmaeus							
Pipistrellus	Jun	0	0	0	0	0	33
pygmaeus							
Pipistrellus	Aug	0	0	0	0	0	6
pygmaeus							
Pipistrellus	Sep	0	0	0	0	0	35
pygmaeus							
Plecotus auritus	Apr	0	0	0	2	0	0
Plecotus auritus	May	0	0	0	1	0	0
Plecotus auritus	Jun	1	0	0	0	0	0
Plecotus auritus	Sep	1	0	1	9	0	0

Table 10. Summary table showing key metrics for each species recorded per month.

Species/Species Group	month	Median Percentile	95% CIs	Max. Percentile	Nights Recorded
Myotis daubentonii	Apr	20	6 - 37	58	15
Myotis daubentonii	May	6	6 - 18.5	20	10
Myotis daubentonii	Jun	6	6 - 37	31	21
Myotis daubentonii	Aug	6	6 - 37	31	5
Myotis daubentonii	Sep	31	6 - 37	58	27
Myotis nattereri	Apr	23	23 - 37.5	58	8
Myotis nattereri	May	23	36 - 36	23	4
Myotis nattereri	Jun	23	23 - 37.5	36	6
Myotis nattereri	Aug	23	23 - 23	23	1
Myotis nattereri	Sep	23	36 - 36	36	10
Nyctalus	Apr	2	9.5 - 34	16	7
Nyctalus	May	5	9.5 - 34	28	9
Nyctalus	Jun	16	9.5 - 34	85	30
Nyctalus	Aug	5	9.5 - 34	8	5
Nyctalus	Sep	2	9.5 - 34	6	13
Pipistrellus nathusii	May	100	0	100	1
Pipistrellus pipistrellus	Apr	0	4.5 - 9.5	15	21
Pipistrellus pipistrellus	May	0	4.5 - 9.5	10	19
Pipistrellus pipistrellus	Jun	8	4.5 - 9.5	17	37
Pipistrellus pipistrellus	Aug	1	4.5 - 9.5	3	6
Pipistrellus pipistrellus	Sep	1	4.5 - 9.5	10	41
Pipistrellus pygmaeus	Apr	2	3.5 - 7.5	21	16
Pipistrellus pygmaeus	May	0	3.5 - 7.5	10	17
Pipistrellus pygmaeus	Jun	1	3.5 - 7.5	12	33
Pipistrellus pygmaeus	Aug	0	3.5 - 7.5	6	6
Pipistrellus pygmaeus	Sep	1	3.5 - 7.5	9	35
Plecotus auritus	Apr	52	52 - 52	52	2
Plecotus auritus	May	52	52 - 52	52	1
Plecotus auritus	Jun	97	84.5 - 84.5	97	1
Plecotus auritus	Sep	52	84.5 - 84.5	100	11

Figure 6. The activity level (percentile) of bats recorded across each night of the bat survey for the entire site, split between months.





Part 2: Nightly Analysis

Entire Survey Period

Sunrise and Sunset Times

Table 11. The times of sunset and sunrise the following morning for surveys beginning on the date shown.

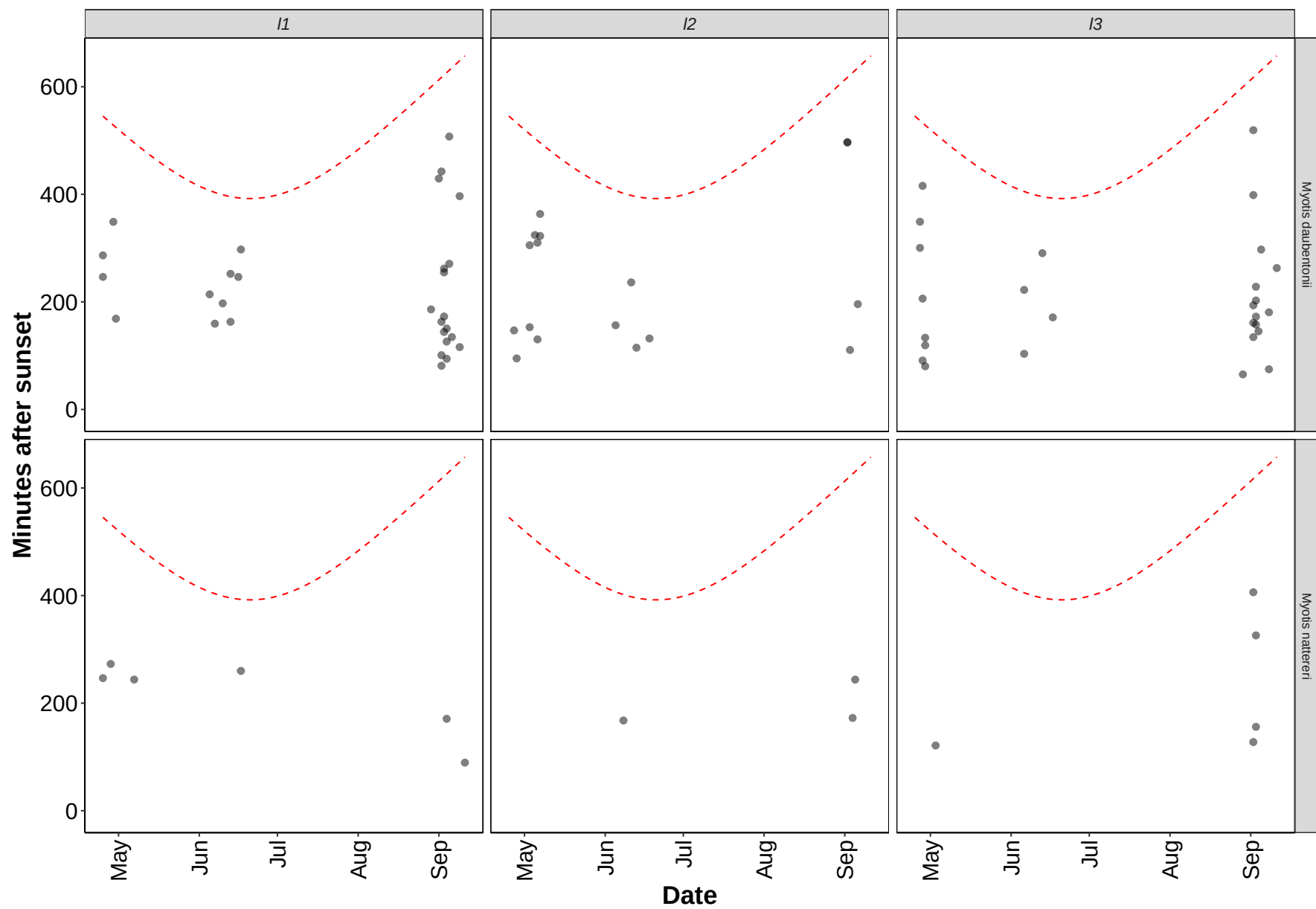
Night (y-m-d)	Sunset (h:m)	Sunrise (h:m)	Night Length (hours)
2025-04-25	20:42	05:48	9.1
2025-04-26	20:44	05:46	9.0
2025-04-27	20:46	05:43	8.9
2025-04-28	20:48	05:41	8.9
2025-04-29	20:50	05:39	8.8
2025-04-30	20:52	05:37	8.7
2025-05-01	20:54	05:34	8.7
2025-05-02	20:56	05:32	8.6
2025-05-03	20:58	05:30	8.5
2025-05-04	21:00	05:28	8.5
2025-05-05	21:02	05:26	8.4
2025-05-06	21:04	05:24	8.3
2025-05-07	21:06	05:22	8.3
2025-05-08	21:08	05:20	8.2
2025-06-05	21:53	04:40	6.8
2025-06-06	21:54	04:39	6.8
2025-06-07	21:55	04:39	6.7
2025-06-08	21:56	04:38	6.7
2025-06-10	21:58	04:37	6.7
2025-06-11	21:59	04:37	6.6
2025-06-12	22:00	04:37	6.6
2025-06-13	22:01	04:36	6.6
2025-06-15	22:02	04:36	6.6
2025-06-16	22:02	04:36	6.6
2025-06-17	22:03	04:36	6.5
2025-06-18	22:03	04:36	6.5
2025-08-29	20:21	06:20	10.0
2025-08-30	20:18	06:22	10.1

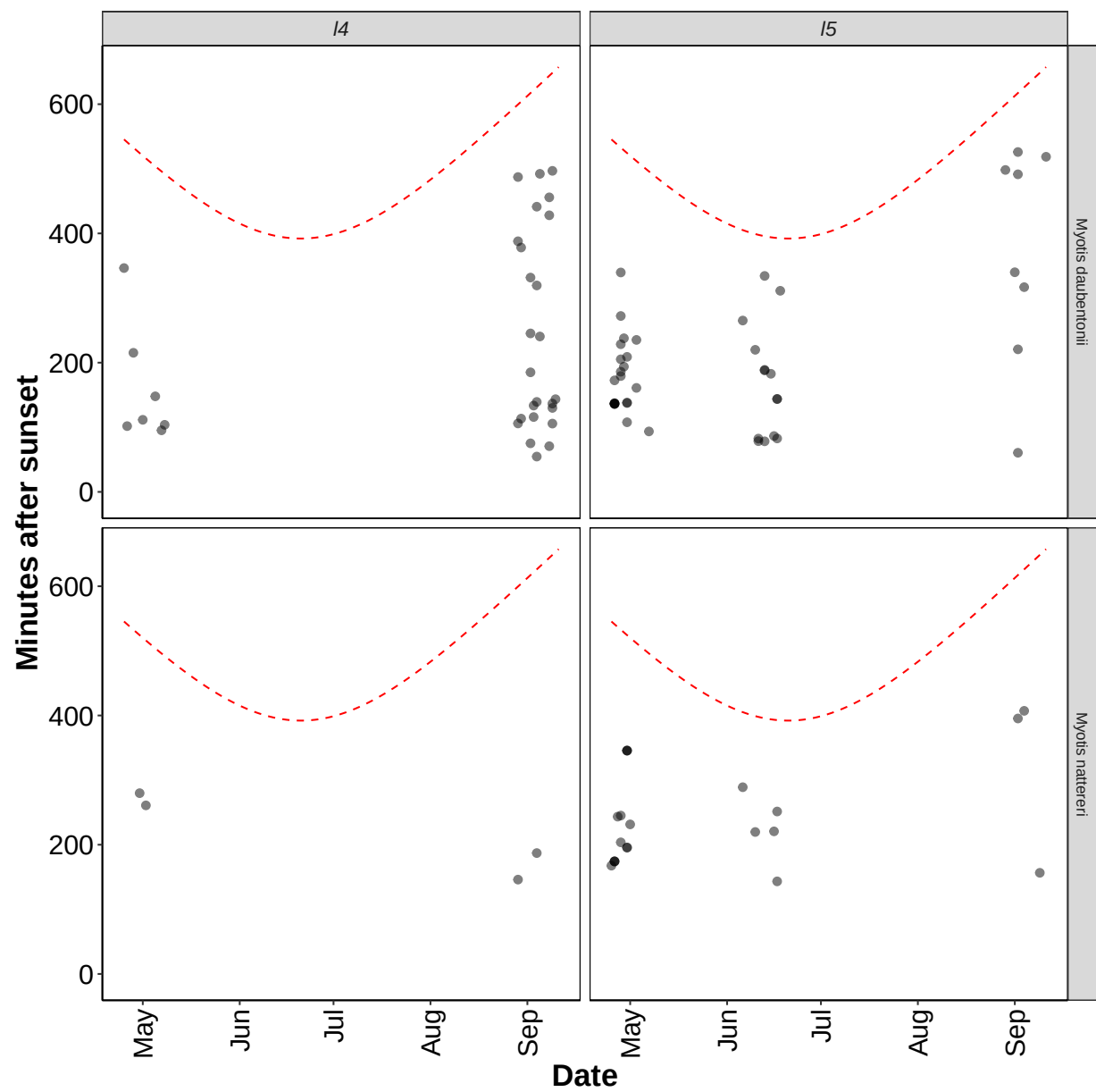
Night (y-m-d)	Sunset (h:m)	Sunrise (h:m)	Night Length (hours)
2025-09-01	20:13	06:26	10.2
2025-09-02	20:11	06:28	10.3
2025-09-03	20:08	06:30	10.4
2025-09-04	20:06	06:32	10.4
2025-09-05	20:03	06:34	10.5
2025-09-06	20:00	06:35	10.6
2025-09-07	19:58	06:37	10.7
2025-09-08	19:55	06:39	10.7
2025-09-09	19:53	06:41	10.8
2025-09-10	19:50	06:43	10.9
2025-09-11	19:47	06:45	11.0

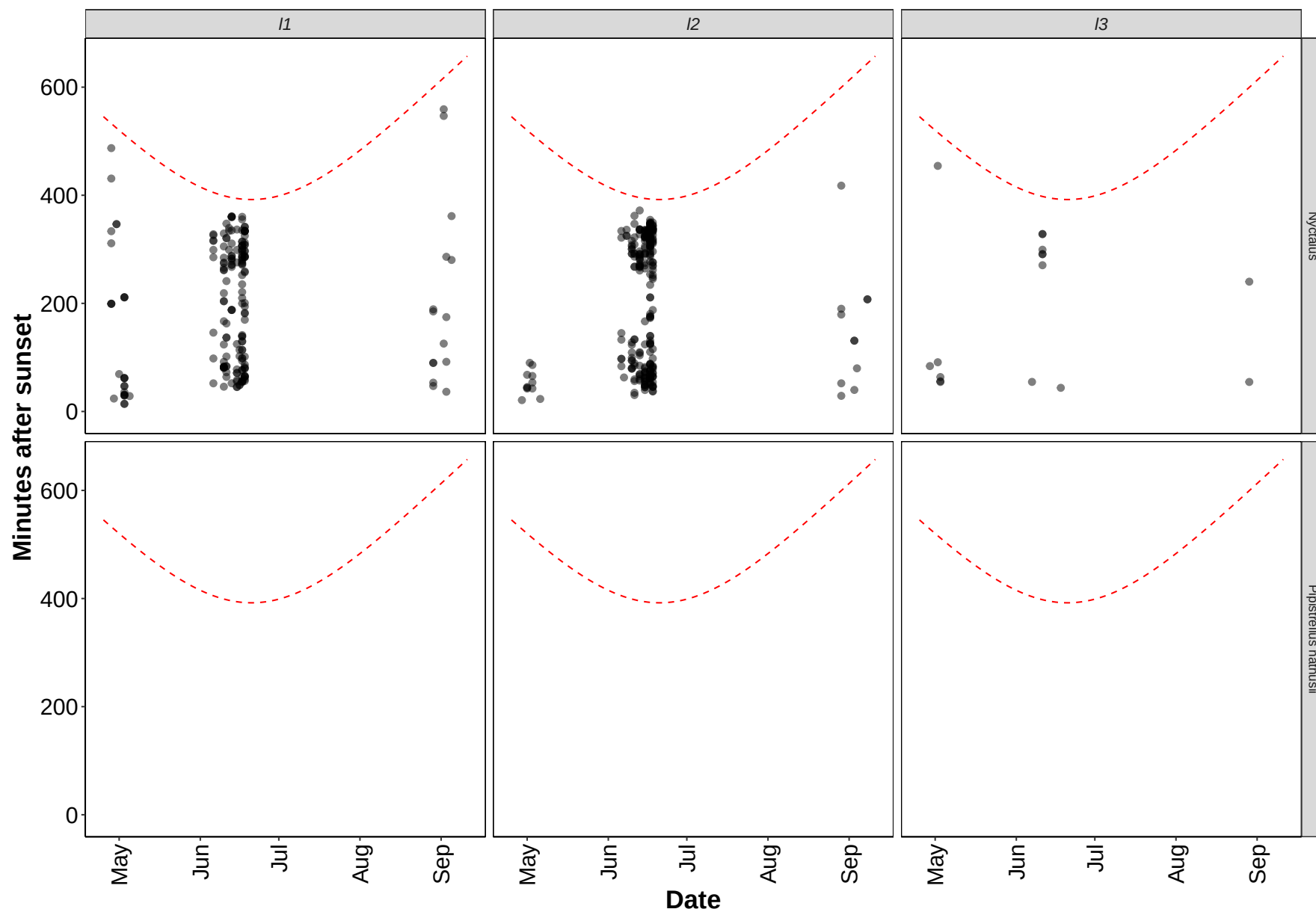
Distribution of Bat Activity Across the Night through Time

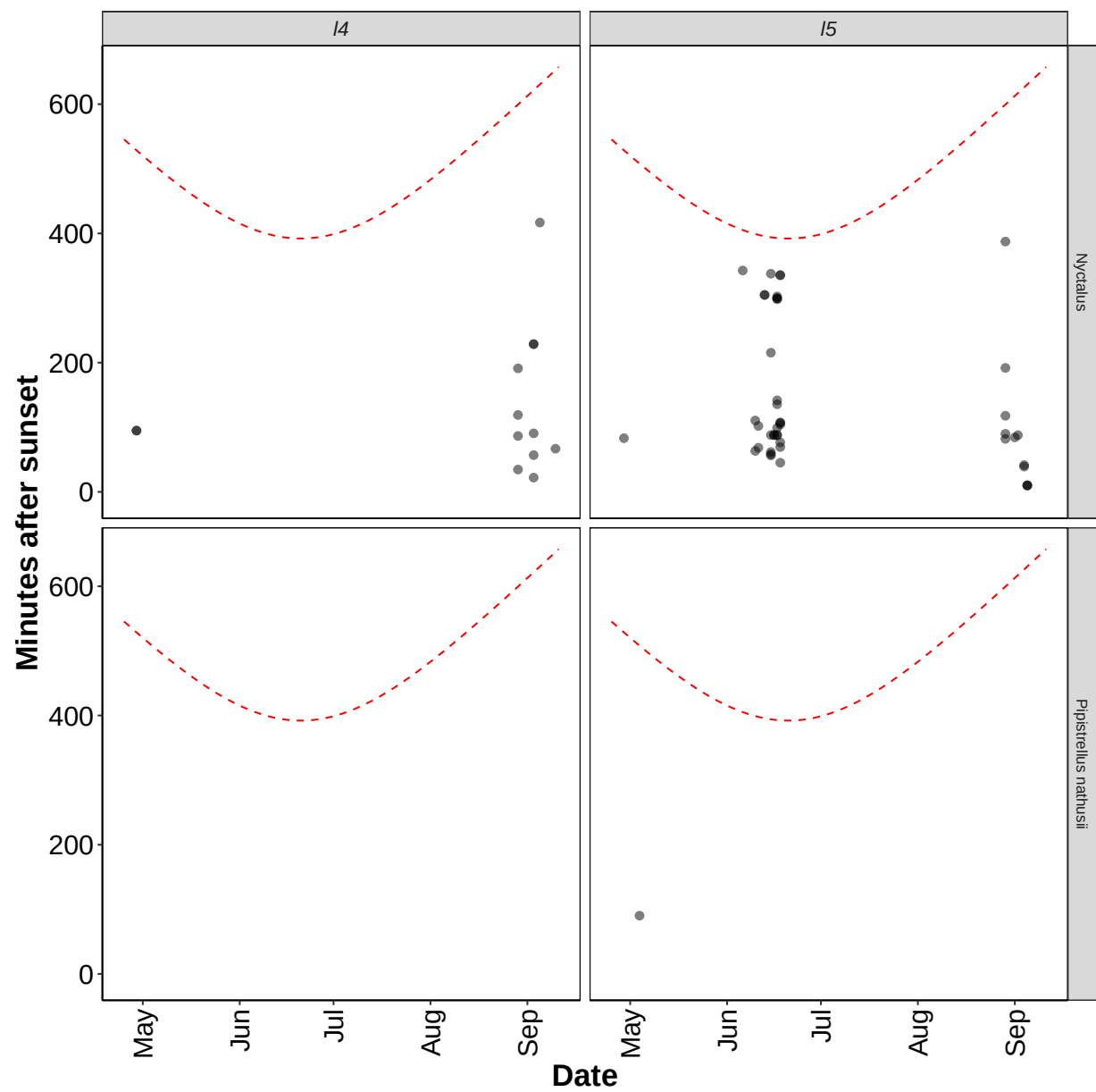
Per Detector

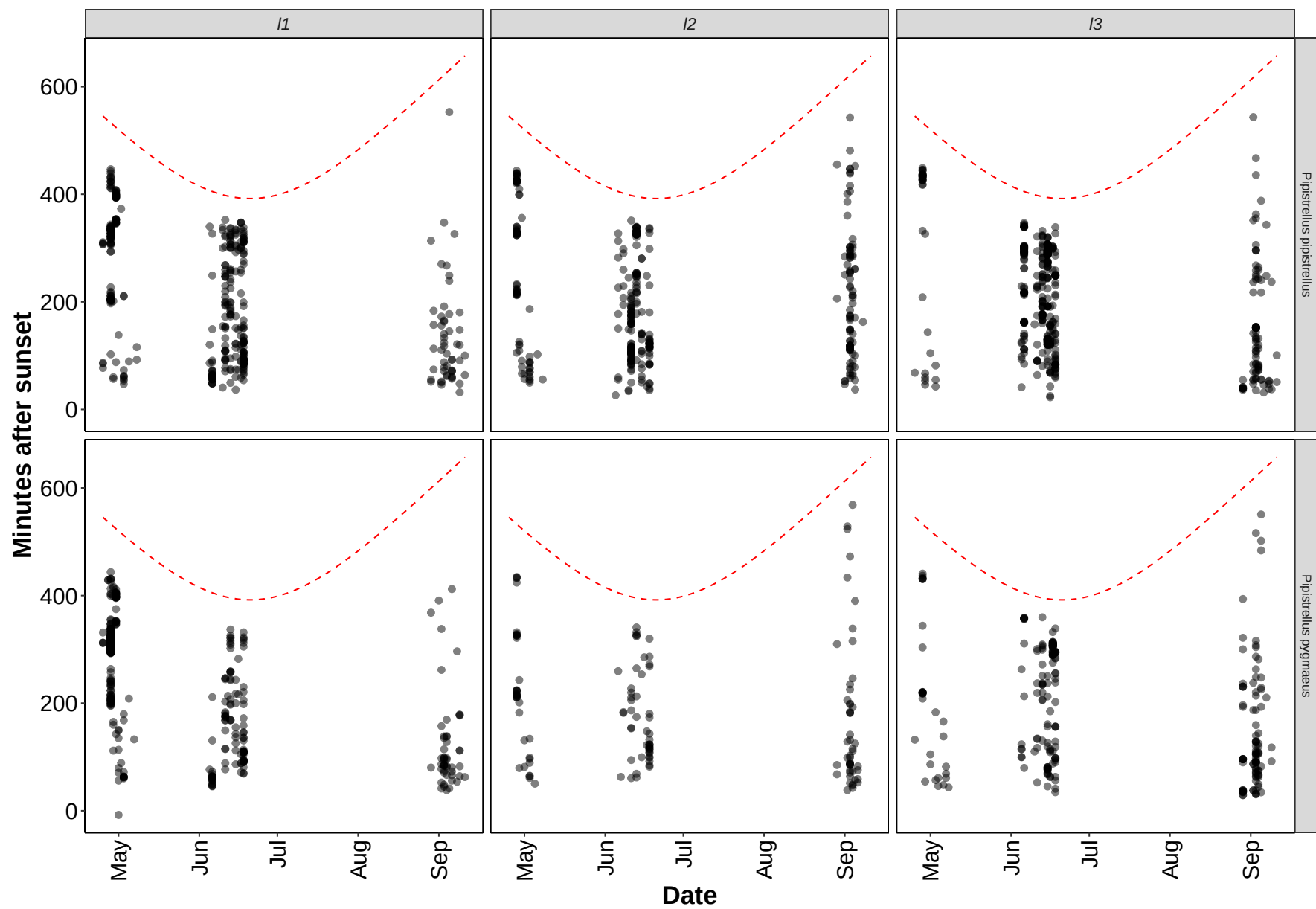
Figure 7. Timing of bat calls plotted as minutes before/after sunset, whereby 0 on the y axis represents sunset. Sunrise throughout the survey period is depicted as the red dashed line. Colours indicate kernel densities, with darkest colours showing peaks of activity. These colours are comparative only within each plot, and do not account for overall activity.

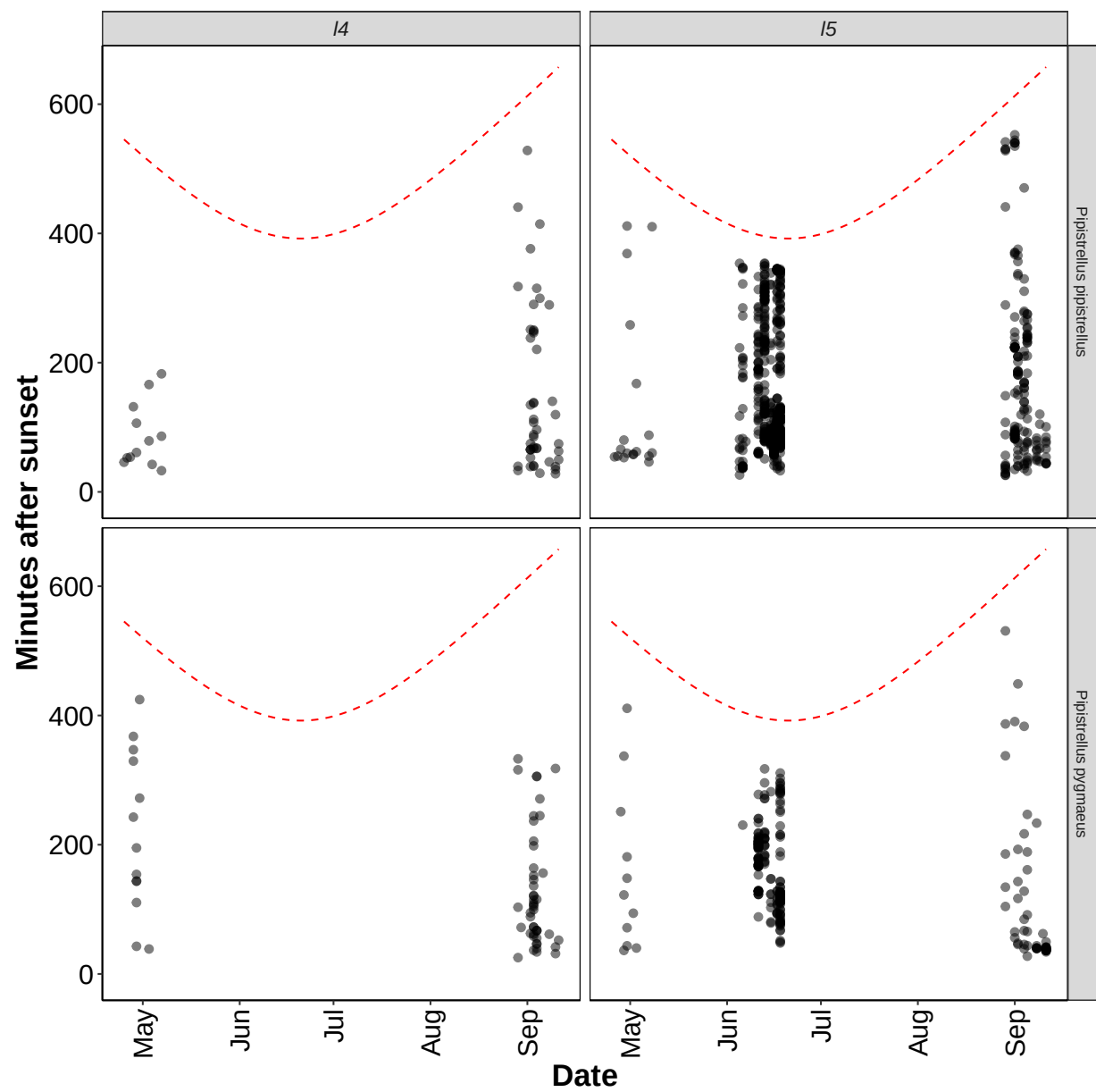












Roost Emergence Time and Bat Observation

Based on: Russ, Jon. 2012. British Bat Calls a Guide to species Identification. Pelagic Publishing.

Bat Passes Potentially Indicating Close Proximity to a Roost (Russ 2012)

Table 12. Number of bat calls recorded before the upper time of the species-specific emergence time range, and which therefore may potentially indicate the presence of a nearby roost.

Table 12: Table continues below

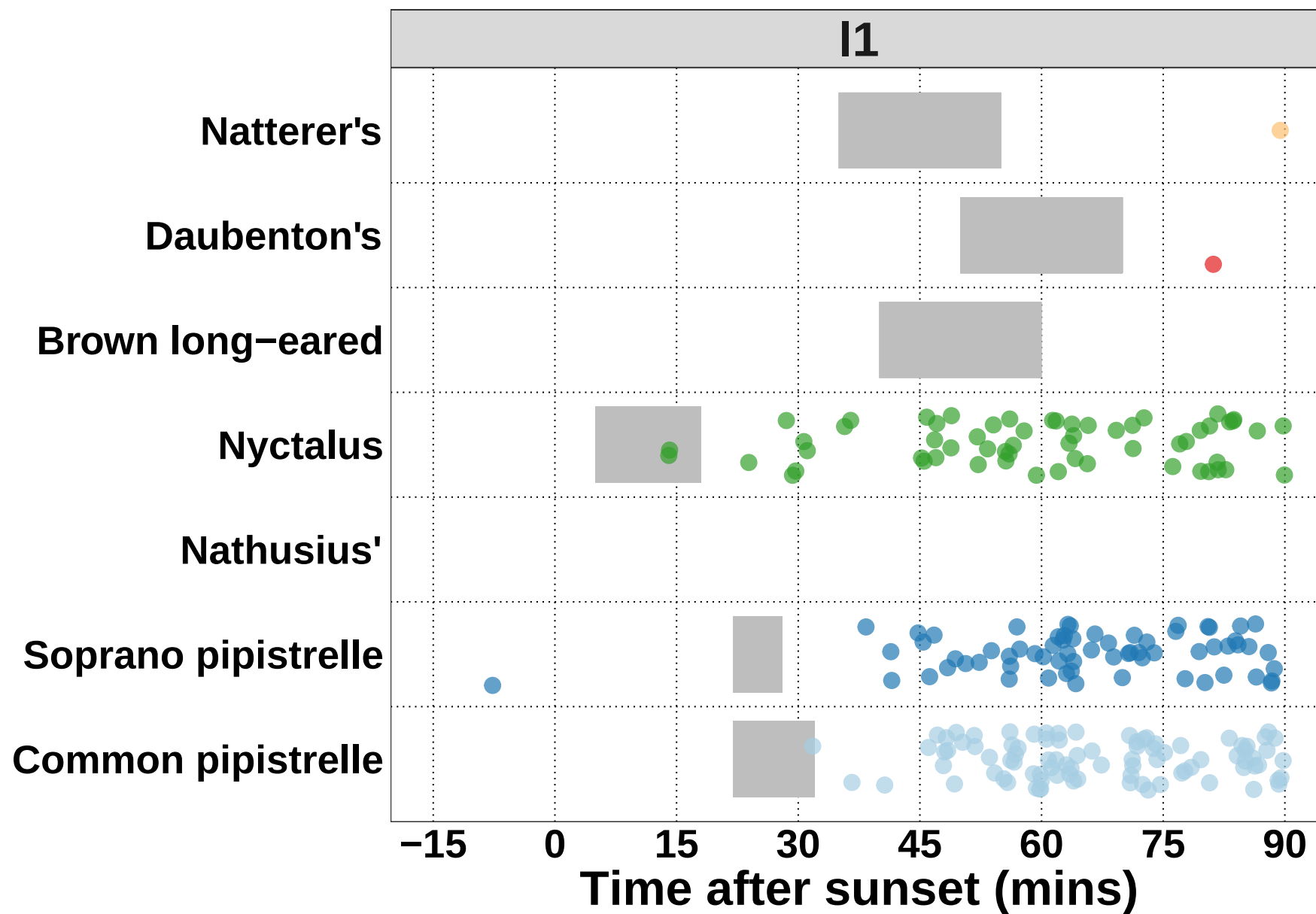
Species	Detector ID	2025-05-01	2025-05-03	2025-06-05	2025-06-16	2025-08-29
Common pipistrelle	I1	0	0	0	0	0
Common pipistrelle	I2	0	0	1	0	0
Common pipistrelle	I3	0	0	0	2	0
Common pipistrelle	I4	0	0	0	0	0
Common pipistrelle	I5	0	0	1	0	4
Soprano pipistrelle	I1	1	0	0	0	0
Soprano pipistrelle	I4	0	0	0	0	1
Soprano pipistrelle	I5	0	0	0	0	0
Nyctalus	I1	0	2	0	0	0
Nyctalus	I5	0	0	0	0	0
Daubenton's	I3	0	0	0	0	1
Daubenton's	I4	0	0	0	0	0
Daubenton's	I5	0	0	0	0	0

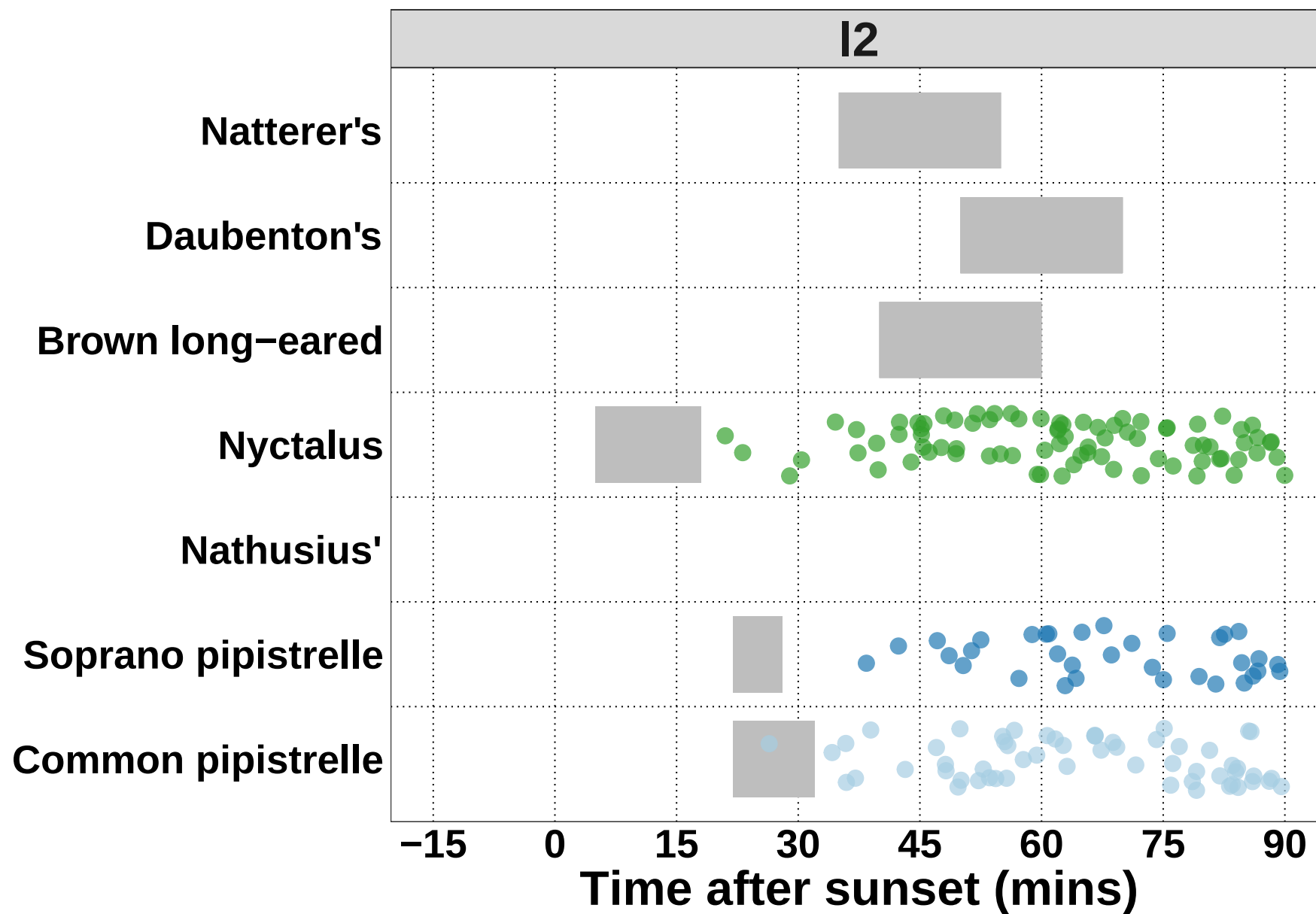
2025-09-02	2025-09-04	2025-09-05	2025-09-06	2025-09-09	2025-09-10
0	0	0	0	1	0
0	0	0	0	0	0
0	0	0	1	0	0
0	0	1	0	0	1
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	1	0	0	0

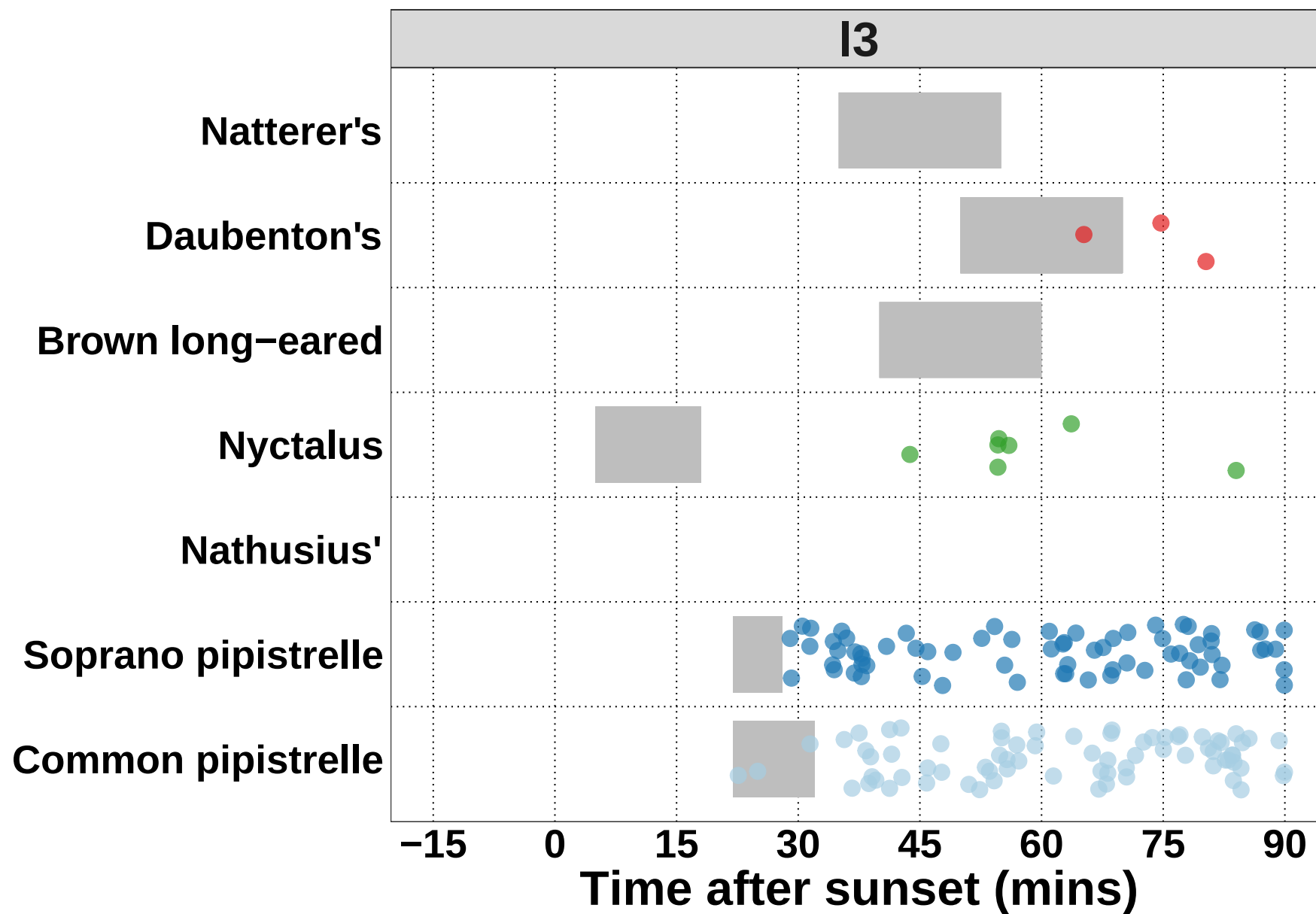
2025-09-02	2025-09-04	2025-09-05	2025-09-06	2025-09-09	2025-09-10
0	0	0	0	0	0
0	0	3	0	0	0
0	0	0	0	0	0
0	1	0	0	0	0
1	0	0	0	0	0

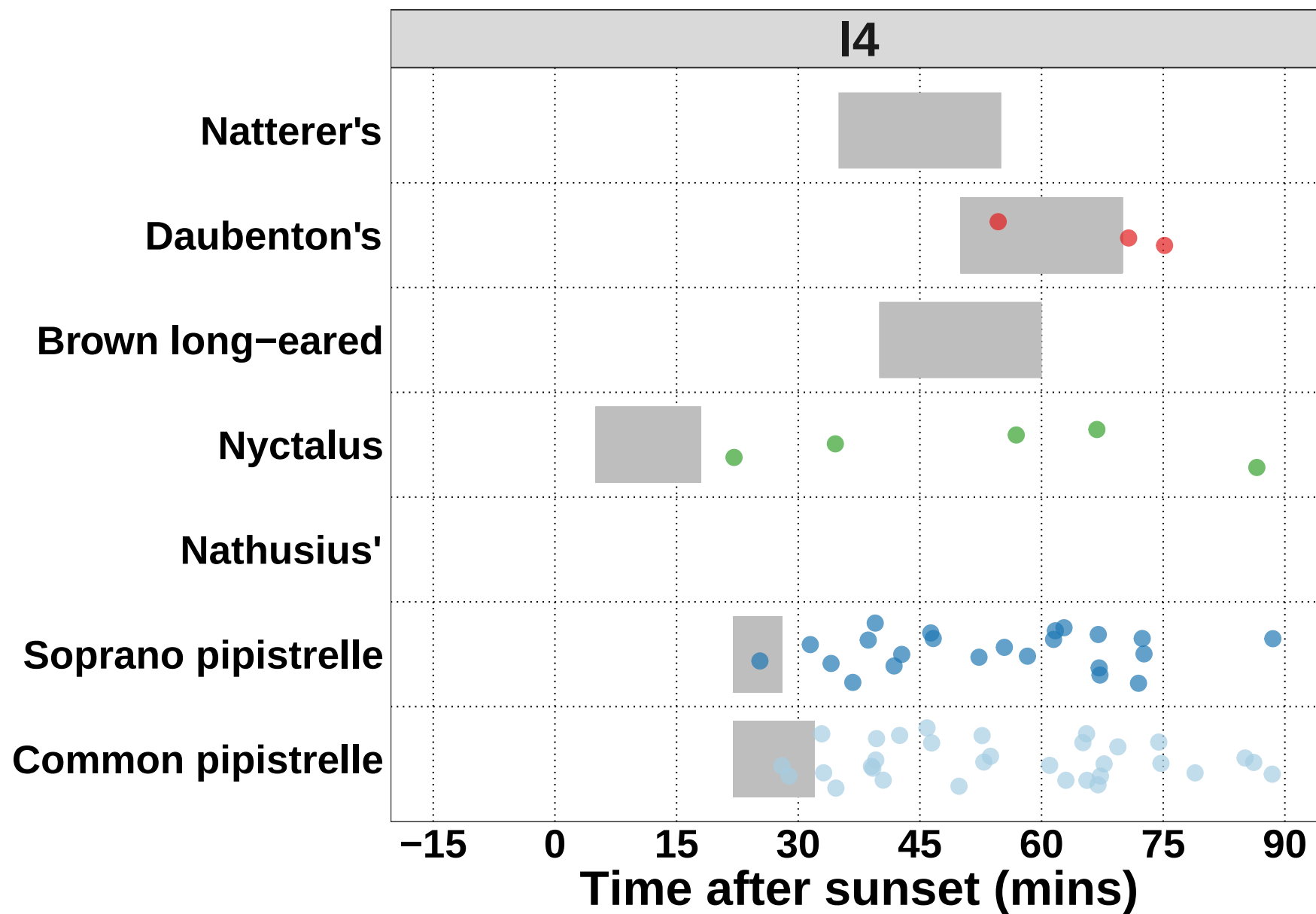
Bat Passes Potentially Indicating Close Proximity to a Roost (Russ 2012)

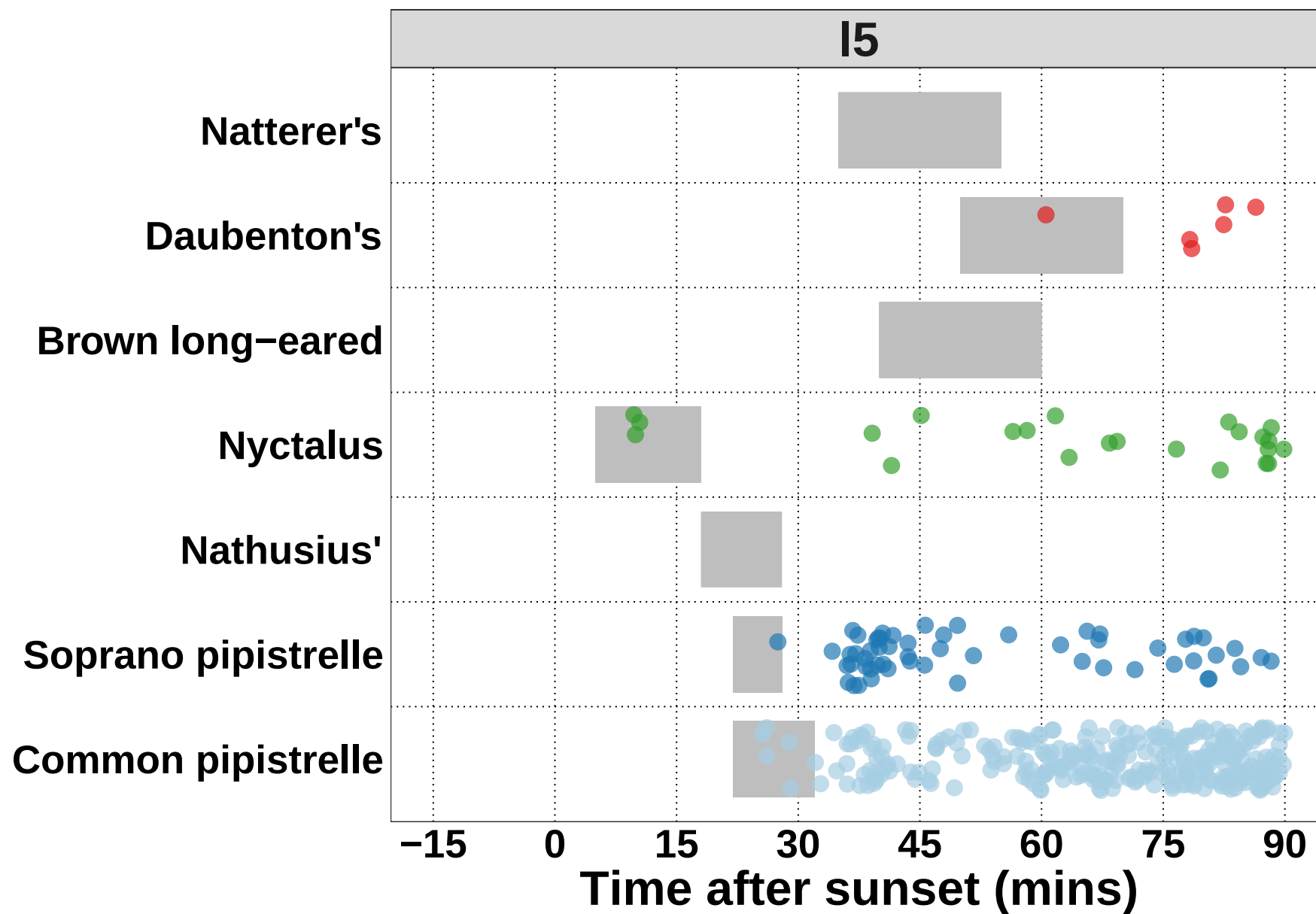
Figure 8. Time from 15 minutes before to 90 minutes after sunset. Species-specific emergence time ranges are shown as grey bars. Bat passes overlapping species-specific grey bars, or occurring earlier than this time range, may potentially indicate the presence of a nearby roost.







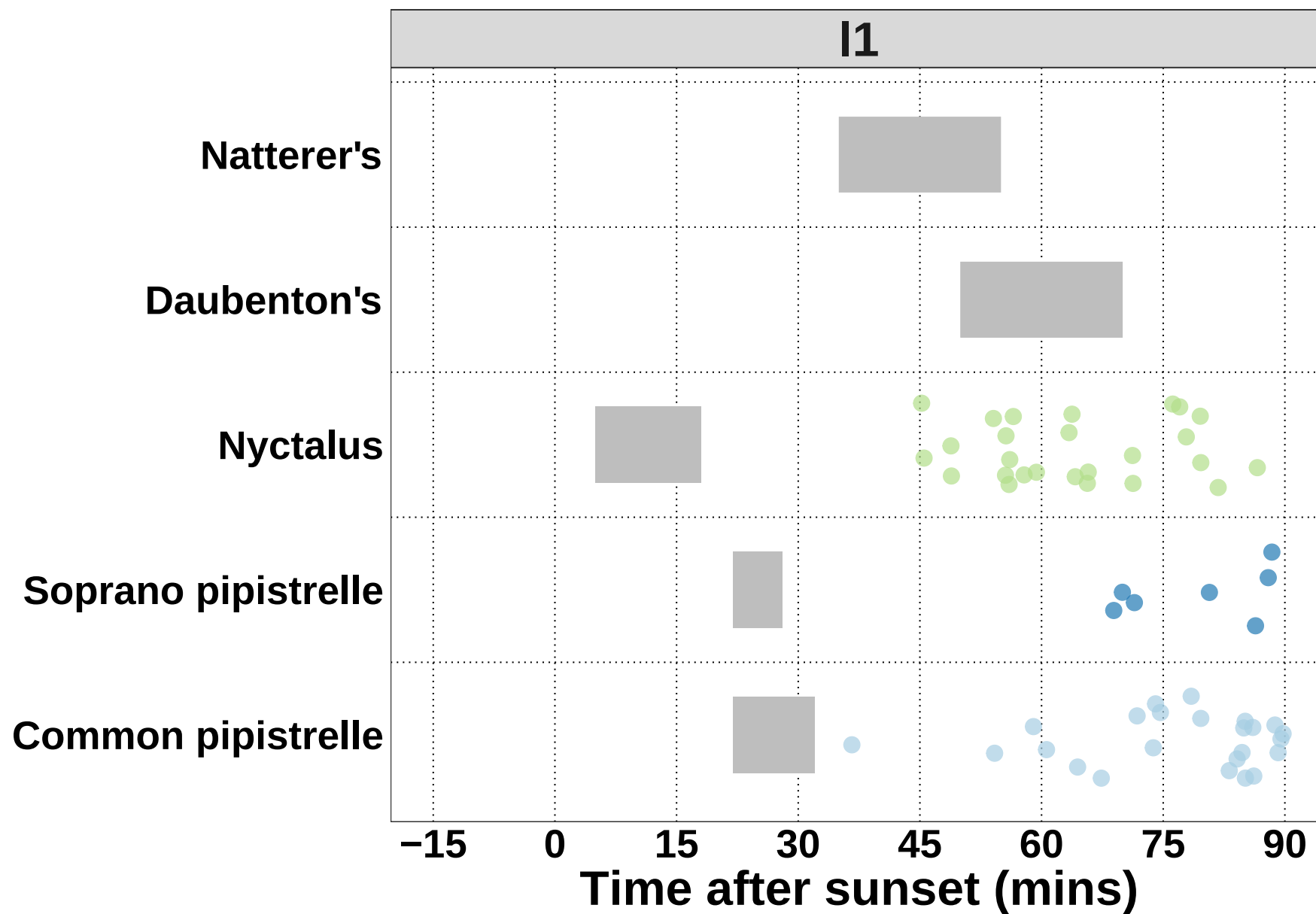


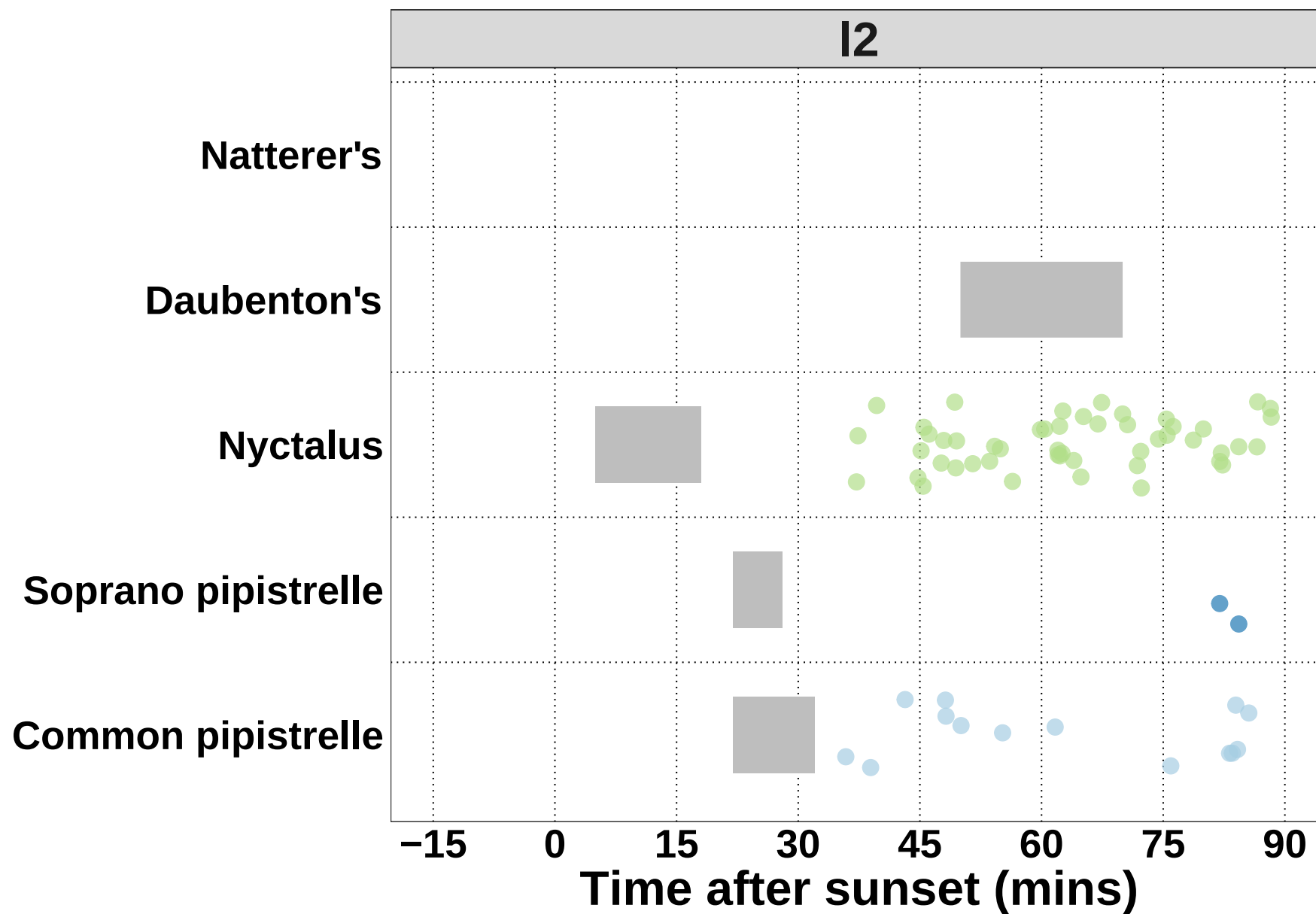


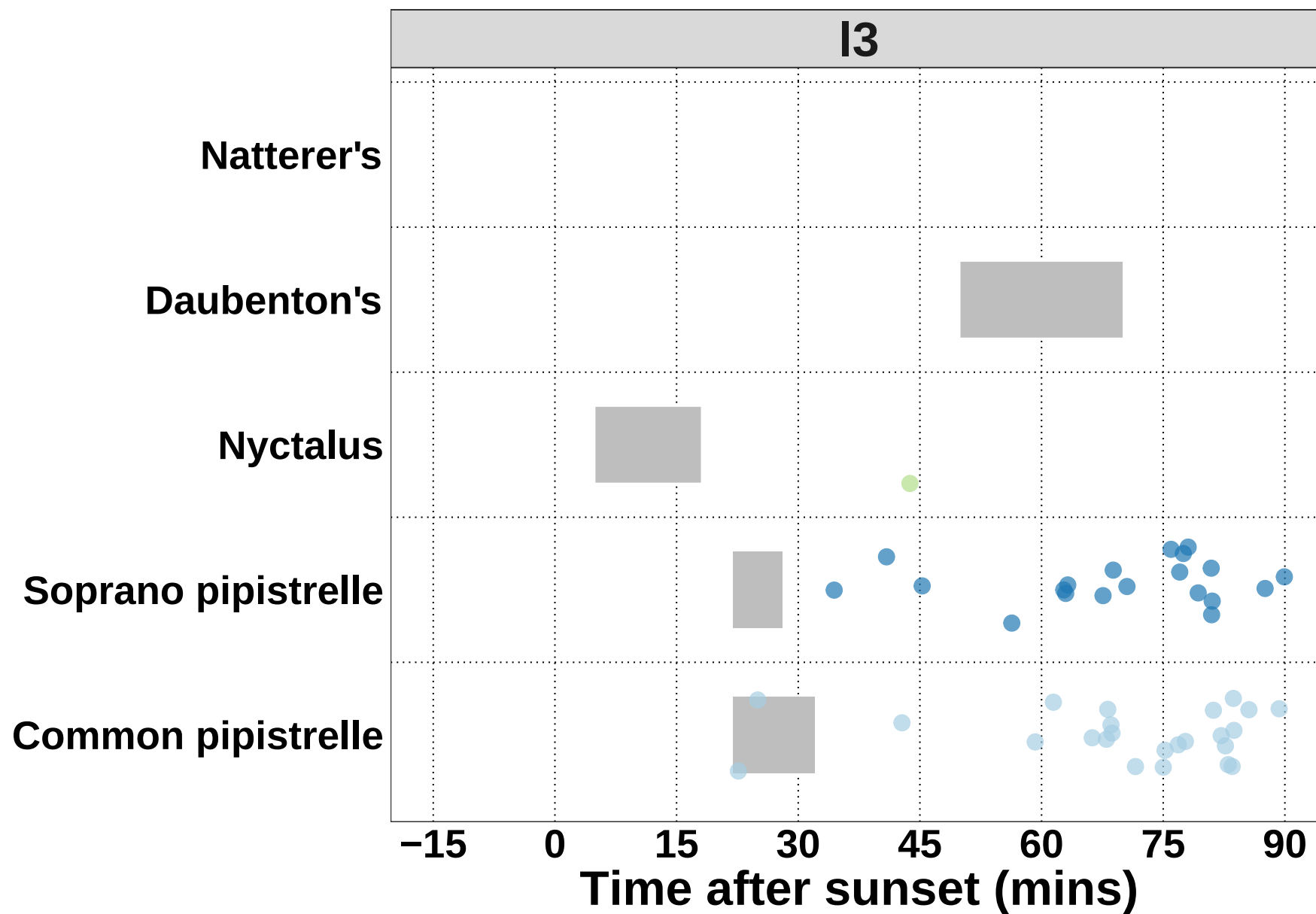
Bat Passes Potentially Indicating Close Proximity to a Roost (Maternity Period Only) - *Maternity period defined as 15th June - 30th July.

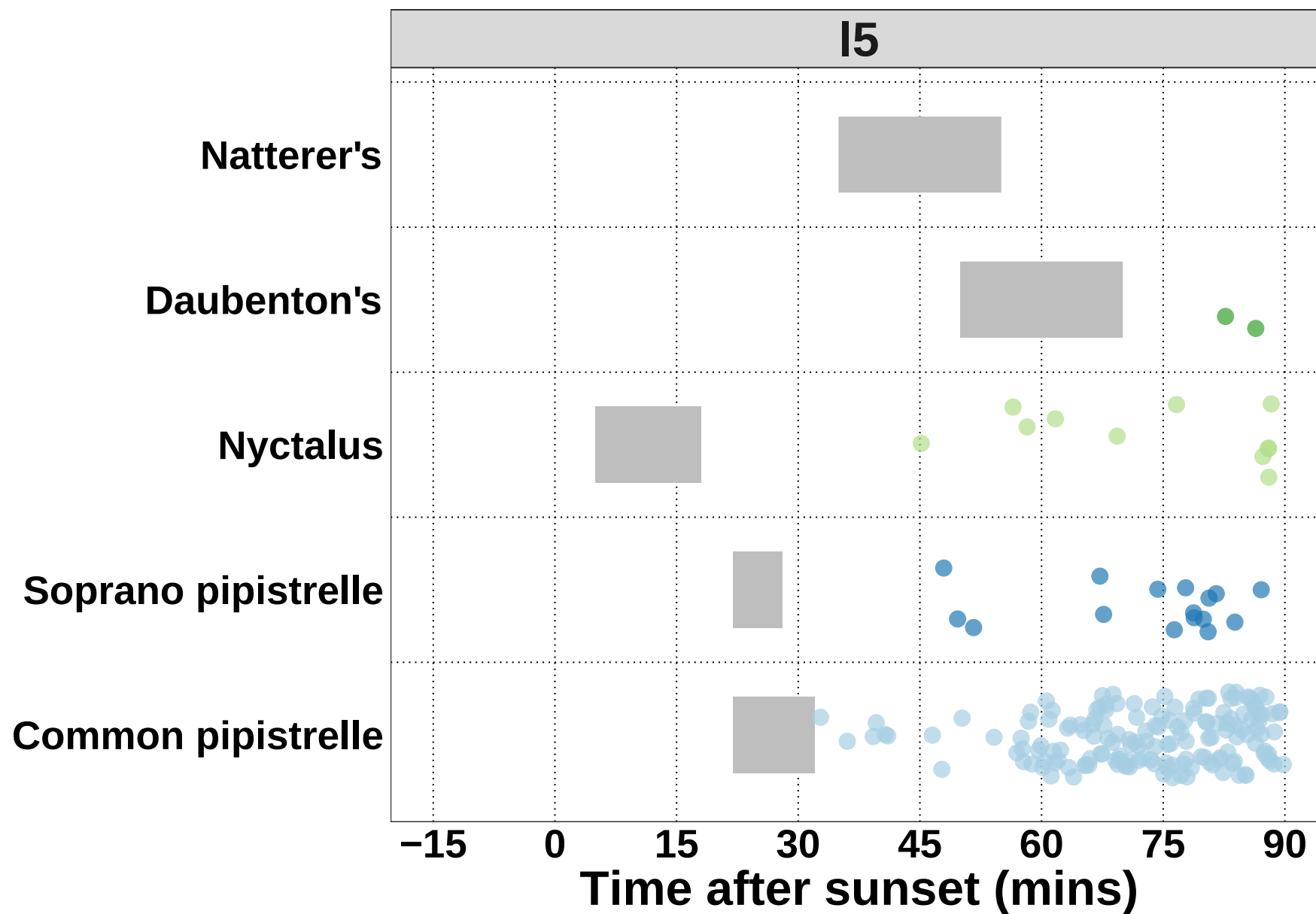
Species	Detector ID	2025-06-16
Common pipistrelle	I3	2

Bat Passes Potentially Indicating Close Proximity to a Roost (Maternity Period Only) - Maternity period defined as 15th June - 30th July.









Count of Bat Passes

All Detectors

Table 14. The total number of passes recorded for each species across all of the detectors.

The 'Total' percentage may not be exactly 100% due to rounding of the percentages per species.

Species	Passes (no.)	Percentage of Total (%)
Myotis daubentonii	148	3.9
Myotis nattereri	39	1.0
Nyctalus	534	13.9
Pipistrellus nathusii	1	0.0
Pipistrellus pipistrellus	1986	51.7
Pipistrellus pygmaeus	1114	29.0
Plecotus auritus	21	0.5
Total	3843	100.0

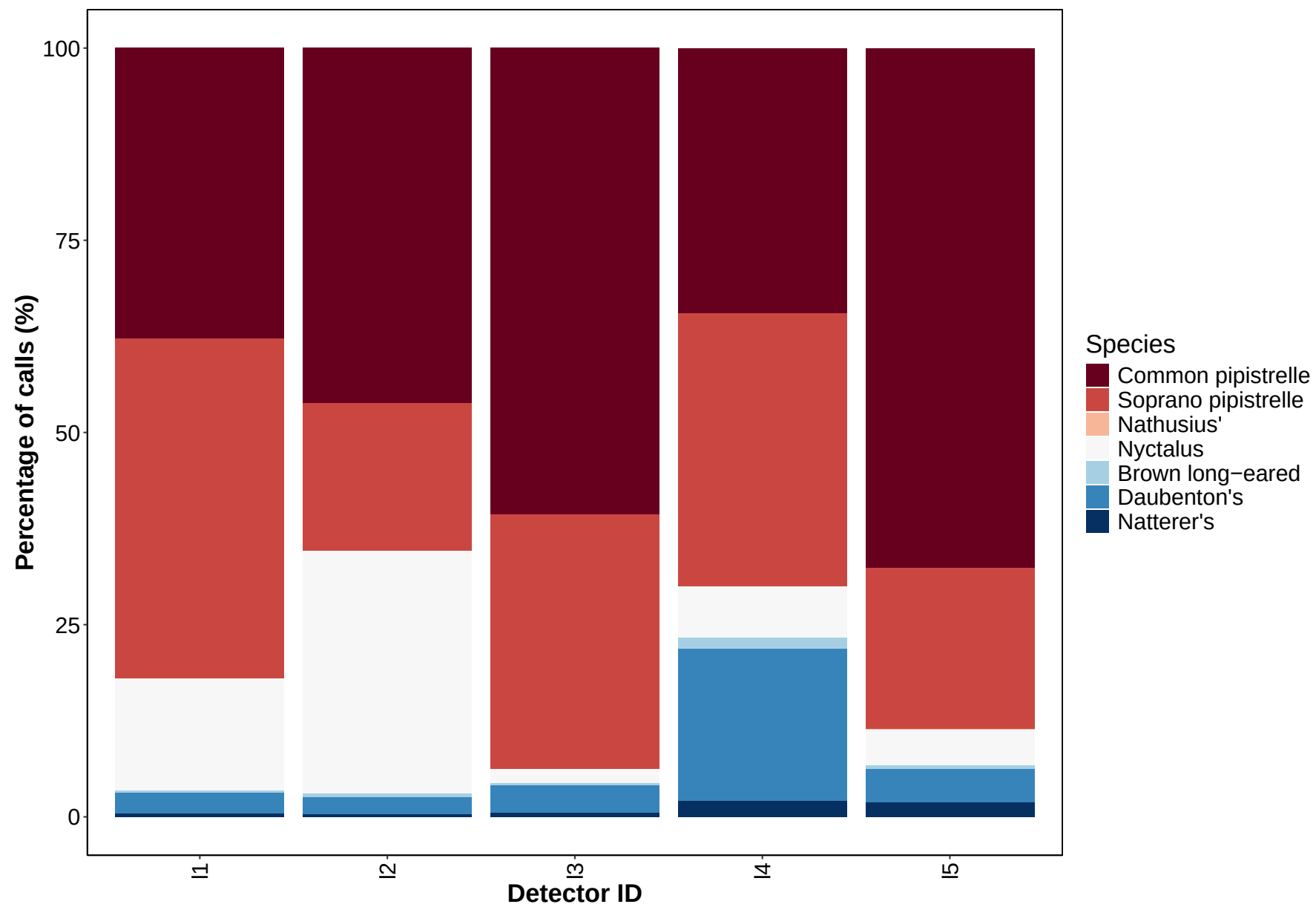
Per Detector

The number of passes recorded for each species at each detector.

Species	Detector ID	Count (no.)	Percentage by Detector (%)
Common pipistrelle	I1	391	37.4521073
Common pipistrelle	I2	346	44.8767834
Common pipistrelle	I3	439	58.6114820
Common pipistrelle	I4	59	34.5029240
Common pipistrelle	I5	751	67.7797834
Soprano pipistrelle	I1	417	39.9425287
Soprano pipistrelle	I2	137	17.7691310
Soprano pipistrelle	I3	259	34.5794393
Soprano pipistrelle	I4	60	35.0877193
Soprano pipistrelle	I5	241	21.7509025
Nathusius'	I5	1	0.0902527
Nyctalus	I1	196	18.7739464
Nyctalus	I2	264	34.2412451
Nyctalus	I3	16	2.1361816
Nyctalus	I4	13	7.6023392
Nyctalus	I5	45	4.0613718
Brown long-eared	I1	5	0.4789272
Brown long-eared	I2	4	0.5188067
Brown long-eared	I3	3	0.4005340
Brown long-eared	I4	3	1.7543860
Brown long-eared	I5	6	0.5415162
Daubenton's	I1	29	2.7777778
Daubenton's	I2	17	2.2049287
Daubenton's	I3	27	3.6048064
Daubenton's	I4	32	18.7134503
Daubenton's	I5	43	3.8808664
Natterer's	I1	6	0.5747126
Natterer's	I2	3	0.3891051
Natterer's	I3	5	0.6675567
Natterer's	I4	4	2.3391813
Natterer's	I5	21	1.8953069

Species Composition

Figure 10. Percentage species composition of passes at each detector.



Part 2a: Presence Only

THE NEXT SECTION OF THE REPORT FEATURES THE RAW DATA SUPPLIED TO ECOBAT AND ONLY TAKES INTO ACCOUNT THE PRESENCE, AND NOT THE ABSENCE, OF EACH BAT SPECIES. FOR EACH NIGHT, THERE IS NO 'ZERO DATA' FOR WHEN SPECIES WERE NOT DETECTED.

Nightly Bat Passes Per Hour

Median Per Detector

Table 16. The median Nightly Pass Rate (bat passes per hour, per night) of each species. If NA, then no bat passes.

Bat pass rates are often highly variable between nights, with some nights having few or no passes and other nights having high activity. In these circumstances, the median is likely to be a more useful summary of the 'average' activity than is the mean. For further information see: Lintott, P. R., & Mathews, F. (2018). Basic mathematical errors may make ecological assessments unreliable. *Biodiversity and Conservation*, 27(1), 265-267. <https://doi.org/10.1007/s10531-017-1418-5>

Species	Detector ID	Median Pass Rate
Common pipistrelle	I1	1.1
Common pipistrelle	I2	1.2
Common pipistrelle	I3	0.9
Common pipistrelle	I4	0.2
Common pipistrelle	I5	1.1
Soprano pipistrelle	I1	0.9
Soprano pipistrelle	I2	0.7
Soprano pipistrelle	I3	0.9
Soprano pipistrelle	I4	0.3
Soprano pipistrelle	I5	0.6
Nathusius'	I5	0.1
Nyctalus	I1	0.9
Nyctalus	I2	0.5
Nyctalus	I3	0.1
Nyctalus	I4	0.2
Nyctalus	I5	0.3
Brown long-eared	I1	0.3
Brown long-eared	I2	0.1
Brown long-eared	I3	0.1
Brown long-eared	I4	0.1
Brown long-eared	I5	0.1
Daubenton's	I1	0.2
Daubenton's	I2	0.1
Daubenton's	I3	0.1
Daubenton's	I4	0.2
Daubenton's	I5	0.3
Natterer's	I1	0.1
Natterer's	I2	0.1
Natterer's	I3	0.2
Natterer's	I4	0.1
Natterer's	I5	0.1

Mean Per Detector

Table 17. The mean Nightly Pass Rate (bat passes per hour, per night) of each species at each detector. Values are given to 1 decimal place.

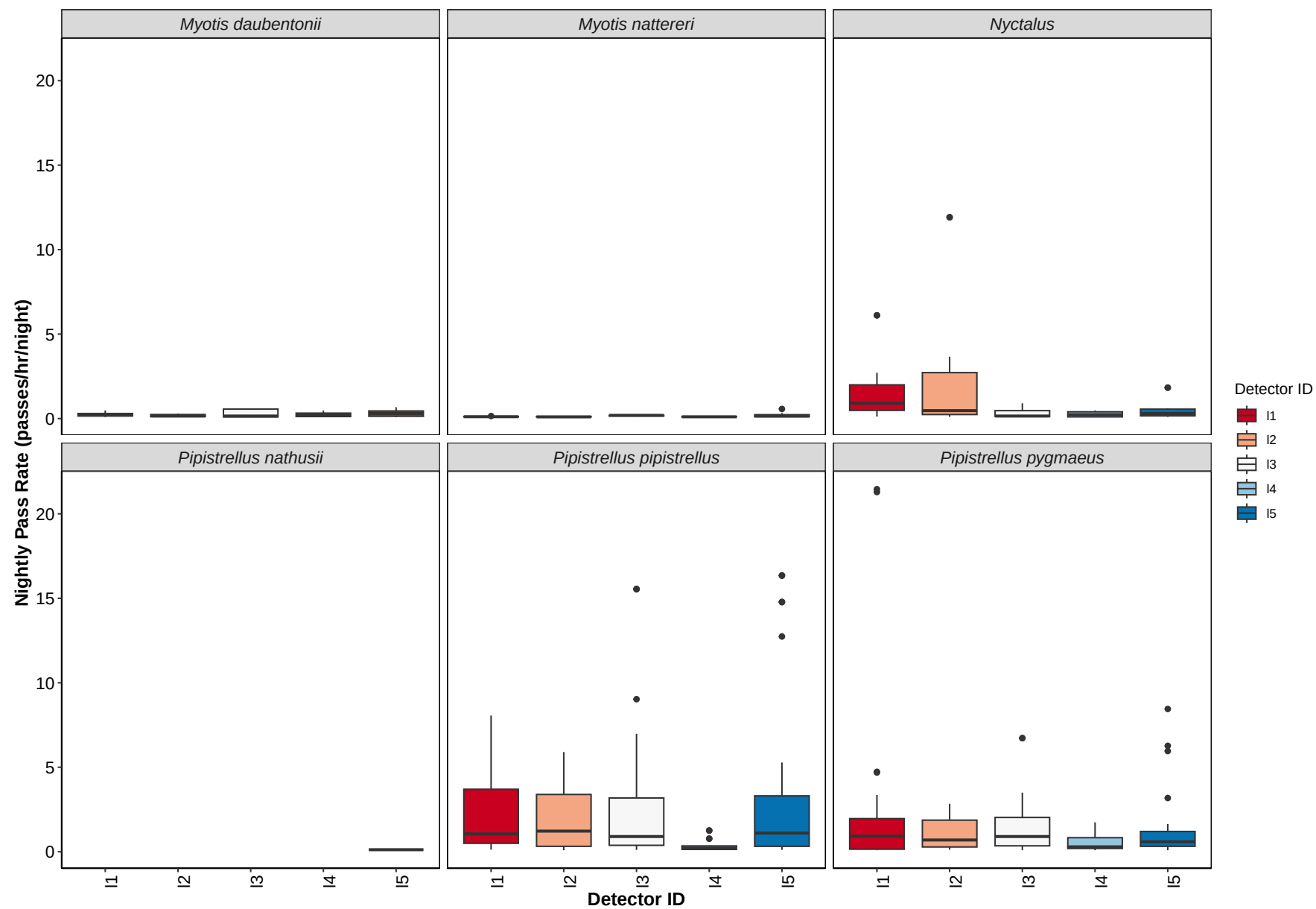
We recommend using the median values given above, for the reasons stated above, but provide the mean values in the table below.

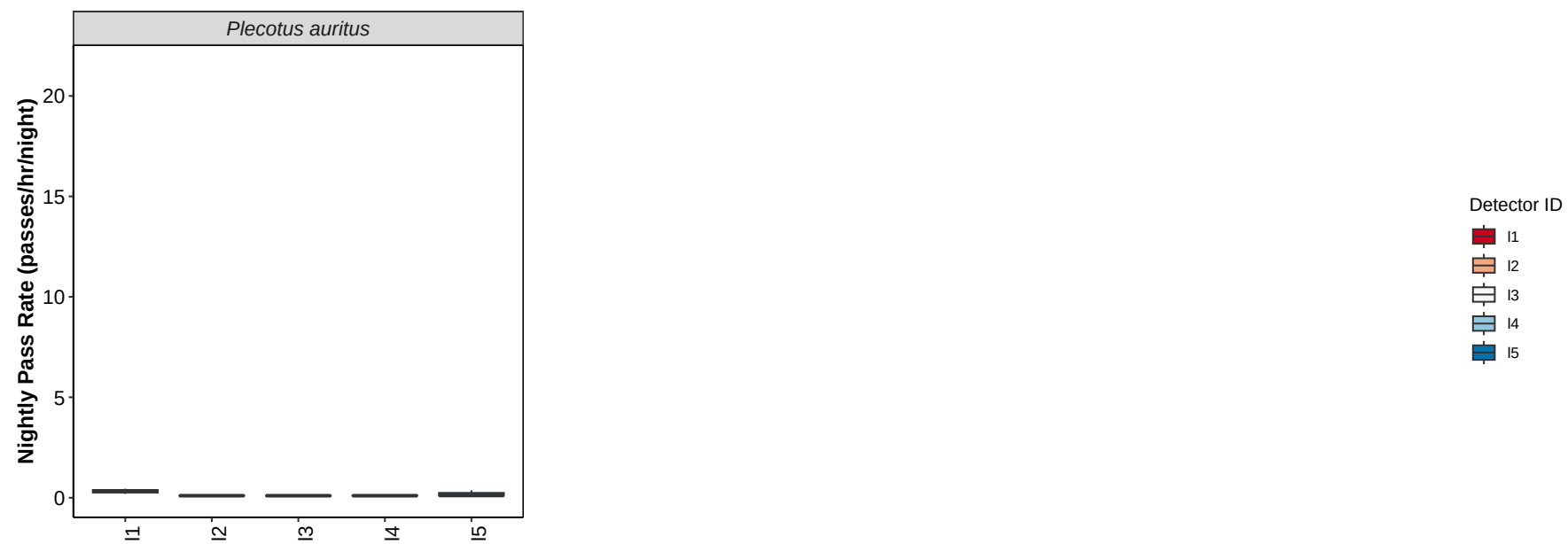
Species	Detector ID	Mean Pass Rate
Common pipistrelle	I1	2.4
Common pipistrelle	I2	2.3
Common pipistrelle	I3	3.2
Common pipistrelle	I4	0.4
Common pipistrelle	I5	3.8
Soprano pipistrelle	I1	2.6
Soprano pipistrelle	I2	1.0
Soprano pipistrelle	I3	1.6
Soprano pipistrelle	I4	0.5
Soprano pipistrelle	I5	1.7
Nathusius'	I5	0.1
Nyctalus	I1	1.6
Nyctalus	I2	2.2
Nyctalus	I3	0.3
Nyctalus	I4	0.3
Nyctalus	I5	0.5
Brown long-eared	I1	0.3
Brown long-eared	I2	0.1
Brown long-eared	I3	0.1
Brown long-eared	I4	0.1
Brown long-eared	I5	0.2
Daubenton's	I1	0.2
Daubenton's	I2	0.2
Daubenton's	I3	0.3
Daubenton's	I4	0.2
Daubenton's	I5	0.3
Natterer's	I1	0.1
Natterer's	I2	0.1
Natterer's	I3	0.2
Natterer's	I4	0.1

Species	Detector ID	Mean Pass Rate
Natterer's	I5	0.2

Per Detector

Figure 11. Boxplots for the number of bat passes per hour each night, for each detector. The 'box' shows the interquartile range, which is where the middle 50% of the data lie. The line dividing the box is the median, the mid-point of the data. The 'whiskers' extend from the box and represent the ranges for the bottom 25% and the top 25% of the data values, excluding outliers. An outlier is any extreme value that lies further away from the box than 1.5 times the interquartile range. Outliers are shown as dots. Where very few passes are recorded it is not possible to produce the box, so the data are shown as a line.





Detector ID

Split by Month

Total Bat Passes per Detector each Month

Table 18. The total number of bat passes of each species in each month at each detector.

This table simply tells you how many bats of each species were recorded passing each detector during each month. These numbers are not standardised by the night length, or how many nights each detector was active for during each month.

Species	Detector ID	Apr	May	Jun	Aug	Sep
Common pipistrelle	I1	180	53	248	10	61
Common pipistrelle	I2	110	17	171	1	119
Common pipistrelle	I3	59	4	402	8	110
Common pipistrelle	I4	6	5	0	2	55
Common pipistrelle	I5	7	12	580	13	140
Soprano pipistrelle	I1	425	53	94	1	73
Soprano pipistrelle	I2	50	10	48	2	64
Soprano pipistrelle	I3	37	15	146	18	101
Soprano pipistrelle	I4	20	1	0	6	43
Soprano pipistrelle	I5	13	2	163	3	52
Nathusius'	I5	0	1	0	0	0
Nyctalus	I1	19	16	160	6	12
Nyctalus	I2	1	10	265	4	6
Nyctalus	I3	1	8	8	1	0
Nyctalus	I4	2	0	0	4	7
Nyctalus	I5	1	0	39	4	7
Brown long-eared	I1	0	0	3	0	2
Brown long-eared	I2	1	0	0	0	3
Brown long-eared	I3	0	0	0	0	3
Brown long-eared	I4	0	1	0	0	2
Brown long-eared	I5	1	0	0	0	5
Daubenton's	I1	6	0	7	1	25
Daubenton's	I2	2	7	4	0	7
Daubenton's	I3	13	0	3	1	17
Daubenton's	I4	5	4	0	6	24
Daubenton's	I5	20	2	17	1	8
Natterer's	I1	2	1	1	0	2
Natterer's	I2	0	0	1	0	2
Natterer's	I3	0	1	0	0	4
Natterer's	I4	1	1	0	1	1
Natterer's	I5	12	1	5	0	3

Survey Effort

Table 19. The number of survey nights per month per detector.

month	Detector ID	No. of Survey Nights
Apr	I1	5
Apr	I2	4
Apr	I3	5
Apr	I4	6
Apr	I5	6
May	I1	6
May	I2	7
May	I3	7
May	I4	7
May	I5	6
Jun	I1	11
Jun	I2	11
Jun	I3	10
Jun	I5	10
Aug	I1	2
Aug	I2	1
Aug	I3	1
Aug	I4	2
Aug	I5	1
Sep	I1	10
Sep	I2	7
Sep	I3	9
Sep	I4	10
Sep	I5	9

Nightly Bat Passes for Each Month

Median Per Detector

Table 20. The median Nightly Pass Rate (bat passes per hour, per night) of each species throughout each month. If NA, then no bat passes.

Bat pass rates are often highly variable between nights, with some nights having few or no passes and other nights having high activity. In these circumstances, the median is likely to be a more useful summary of the 'average' activity than is the mean. For further information see: Lintott, P. R., & Mathews, F. (2018). Basic mathematical errors may make ecological assessments unreliable. *Biodiversity and Conservation*, 27(1), 265-267. <https://doi.org/10.1007/s10531-017-1418-5>

Species	Detector ID	Apr	May	Jun	Aug	Sep
Common pipistrelle	I1	5.9	0.9	3.6	0.5	0.6
Common pipistrelle	I2	5.9	0.2	2.3	0.1	2.1
Common pipistrelle	I3	1.7	0.2	5.3	0.8	0.6
Common pipistrelle	I4	0.1	0.2	NA	0.2	0.4
Common pipistrelle	I5	0.1	0.3	12.7	1.3	1.5
Soprano pipistrelle	I1	4.7	0.1	1.1	0.1	0.7
Soprano pipistrelle	I2	2.8	0.2	0.3	0.2	0.9
Soprano pipistrelle	I3	2.0	0.3	1.8	1.8	1.2
Soprano pipistrelle	I4	1.0	0.1	NA	0.3	0.3
Soprano pipistrelle	I5	0.6	0.1	4.6	0.3	0.7
Nathusius'	I5	NA	0.1	NA	NA	NA
Nyctalus	I1	0.9	0.3	2.6	0.6	0.5
Nyctalus	I2	0.1	0.3	2.7	0.4	0.2
Nyctalus	I3	0.1	0.5	0.1	0.1	NA
Nyctalus	I4	0.2	NA	NA	0.4	0.1
Nyctalus	I5	0.1	NA	0.5	0.4	0.1
Brown long-eared	I1	NA	NA	0.4	NA	0.2
Brown long-eared	I2	0.1	NA	NA	NA	0.1
Brown long-eared	I3	NA	NA	NA	NA	0.1
Brown long-eared	I4	NA	0.1	NA	NA	0.1
Brown long-eared	I5	0.1	NA	NA	NA	0.2
Daubenton's	I1	0.2	NA	0.1	0.1	0.4
Daubenton's	I2	0.1	0.2	0.1	NA	0.3
Daubenton's	I3	0.6	NA	0.1	0.1	0.1
Daubenton's	I4	0.2	0.1	NA	0.3	0.4
Daubenton's	I5	0.6	0.1	0.3	0.1	0.2
Natterer's	I1	0.1	0.1	0.1	NA	0.1
Natterer's	I2	NA	NA	0.1	NA	0.1
Natterer's	I3	NA	0.1	NA	NA	0.2
Natterer's	I4	0.1	0.1	NA	0.1	0.1
Natterer's	I5	0.2	0.1	0.1	NA	0.1

Mean Per Detector

Table 21: The mean Nightly Pass Rate (bat passes per hour, per night) of each species throughout each month. Values are given to 1 decimal place.

We recommend using the median values given above, for the reasons stated above, but provide the mean values in the table below.

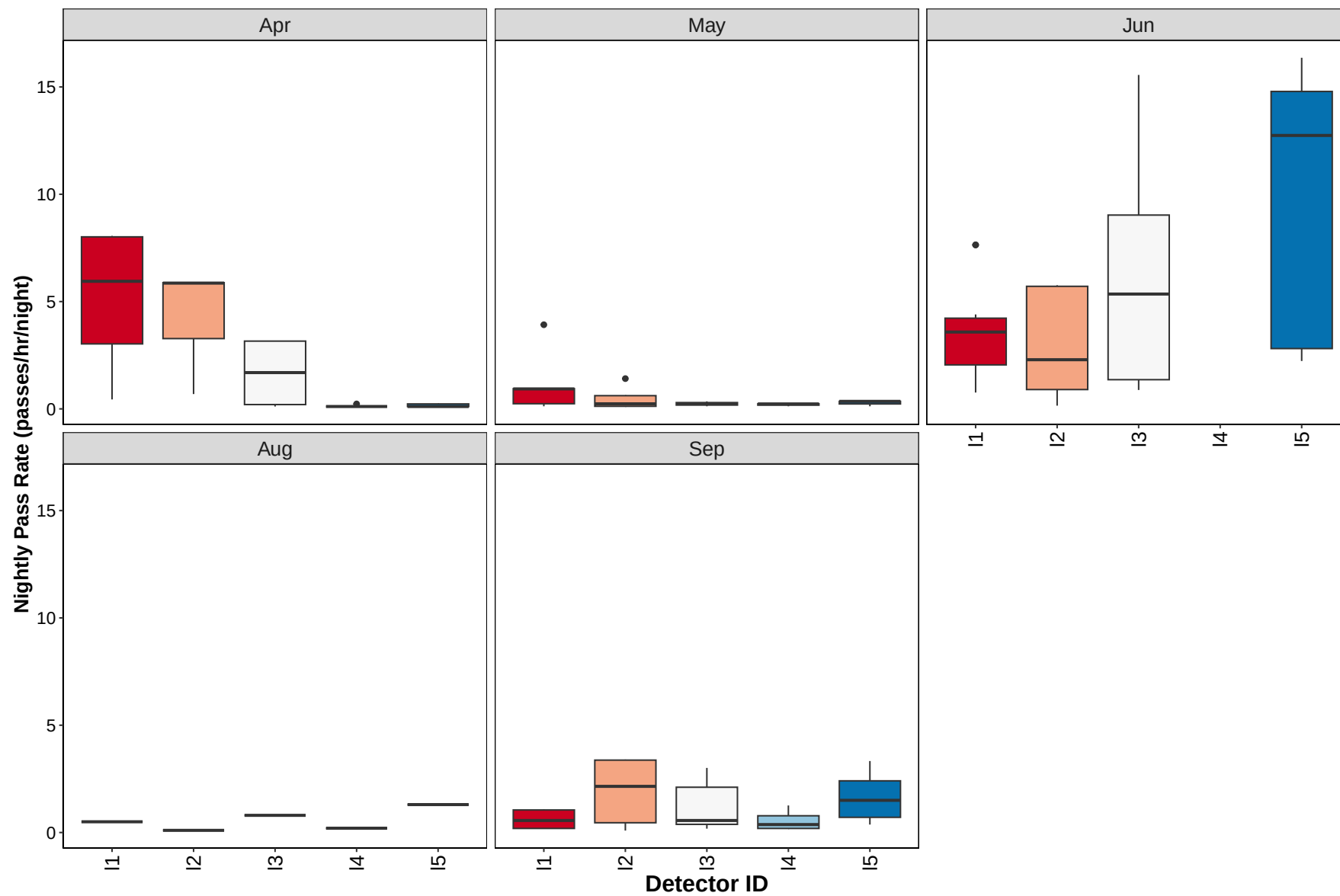
Species	Detector ID	Apr	May	Jun	Aug	Sep
Common pipistrelle	I1	5.1	1.2	3.8	0.5	0.6
Common pipistrelle	I2	4.2	0.5	2.9	0.1	1.9
Common pipistrelle	I3	1.7	0.2	6.8	0.8	1.2
Common pipistrelle	I4	0.1	0.2	NA	0.2	0.6
Common pipistrelle	I5	0.2	0.3	9.8	1.3	1.7
Soprano pipistrelle	I1	9.6	1.2	1.6	0.1	0.8
Soprano pipistrelle	I2	2.8	0.4	0.8	0.2	1.2
Soprano pipistrelle	I3	1.4	0.3	2.5	1.8	1.6
Soprano pipistrelle	I4	0.8	0.1	NA	0.3	0.5
Soprano pipistrelle	I5	0.5	0.1	4.1	0.3	0.7
Nathusius'	I5	NA	0.1	NA	NA	NA
Nyctalus	I1	0.7	0.6	2.7	0.6	0.4
Nyctalus	I2	0.1	0.3	4.0	0.4	0.2
Nyctalus	I3	0.1	0.5	0.4	0.1	NA
Nyctalus	I4	0.2	NA	NA	0.4	0.2
Nyctalus	I5	0.1	NA	0.7	0.4	0.2
Brown long-eared	I1	NA	NA	0.4	NA	0.2
Brown long-eared	I2	0.1	NA	NA	NA	0.1
Brown long-eared	I3	NA	NA	NA	NA	0.1
Brown long-eared	I4	NA	0.1	NA	NA	0.1
Brown long-eared	I5	0.1	NA	NA	NA	0.2
Daubenton's	I1	0.2	NA	0.2	0.1	0.3
Daubenton's	I2	0.1	0.2	0.1	NA	0.2
Daubenton's	I3	0.5	NA	0.1	0.1	0.3
Daubenton's	I4	0.2	0.1	NA	0.3	0.3
Daubenton's	I5	0.6	0.1	0.3	0.1	0.2
Natterer's	I1	0.1	0.1	0.1	NA	0.1
Natterer's	I2	NA	NA	0.1	NA	0.1
Natterer's	I3	NA	0.1	NA	NA	0.2
Natterer's	I4	0.1	0.1	NA	0.1	0.1

Species	Detector ID	Apr	May	Jun	Aug	Sep
Natterer's	I5	0.3	0.1	0.2	NA	0.1

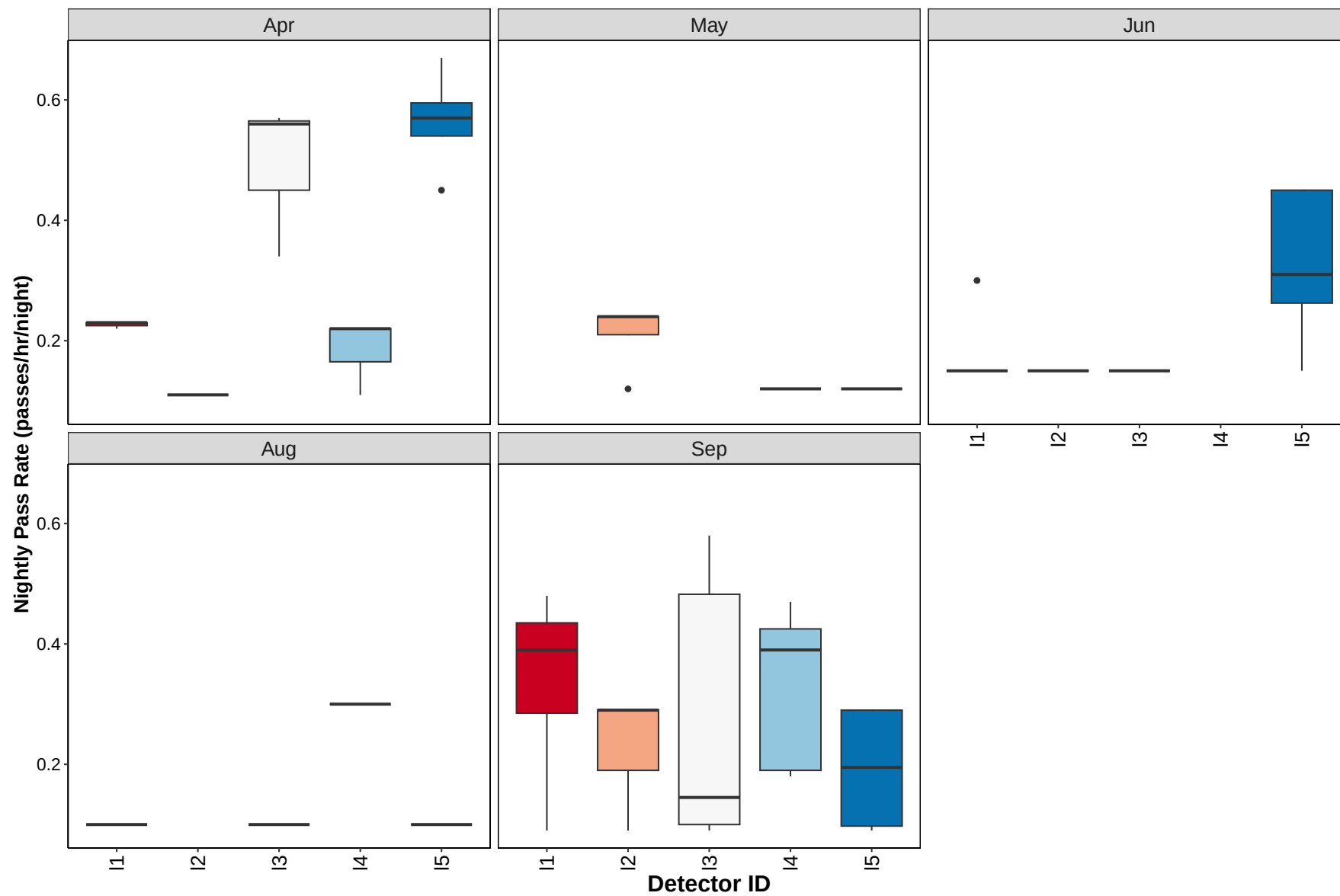
Per Detector

Figure 12. Figures show boxplots for the number of bat passes per hour by detector, for each month. The 'box' shows the interquartile range, which is where the middle 50% of the data lie. The line dividing the box is the median, the mid-point of the data. The 'whiskers' extend from the box and represent the ranges for the bottom 25% and the top 25% of the data values, excluding outliers. An outlier is any extreme value that lies further away from the box than 1.5 times the interquartile range. Outliers are shown as dots. Where very few passes are recorded it is not possible to produce the box, so the data are shown as a line.

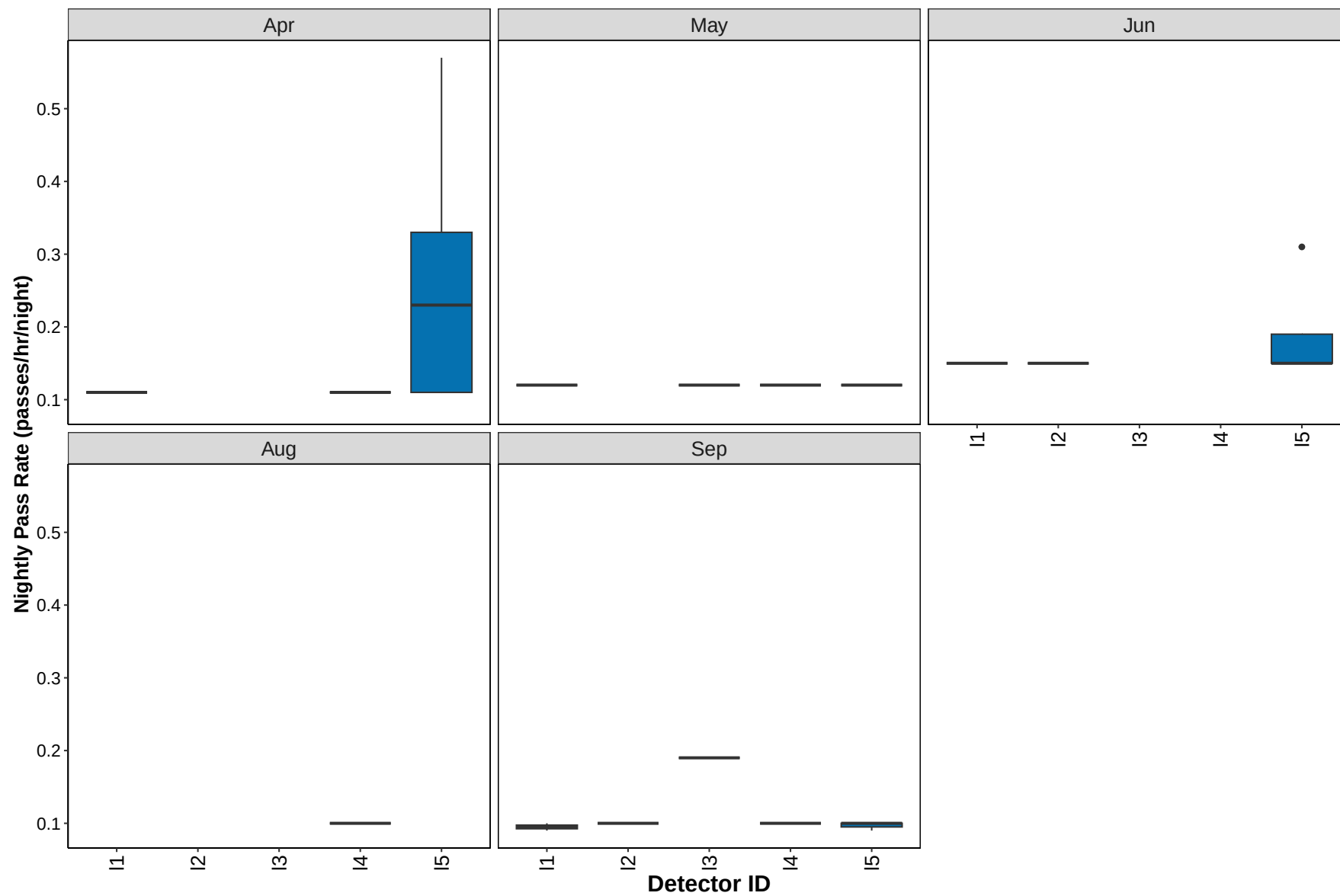
Common pipistrelle



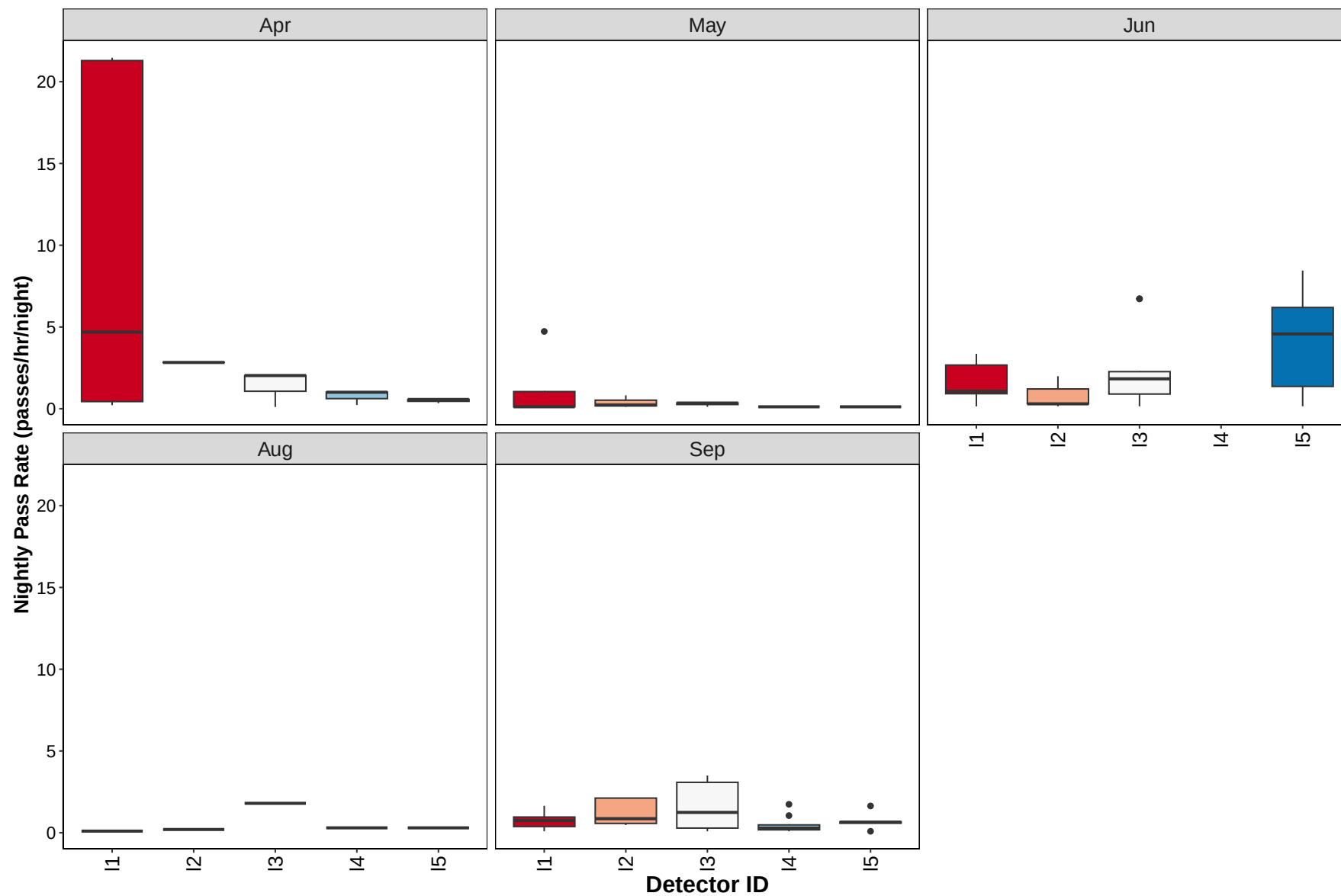
Daubenton's



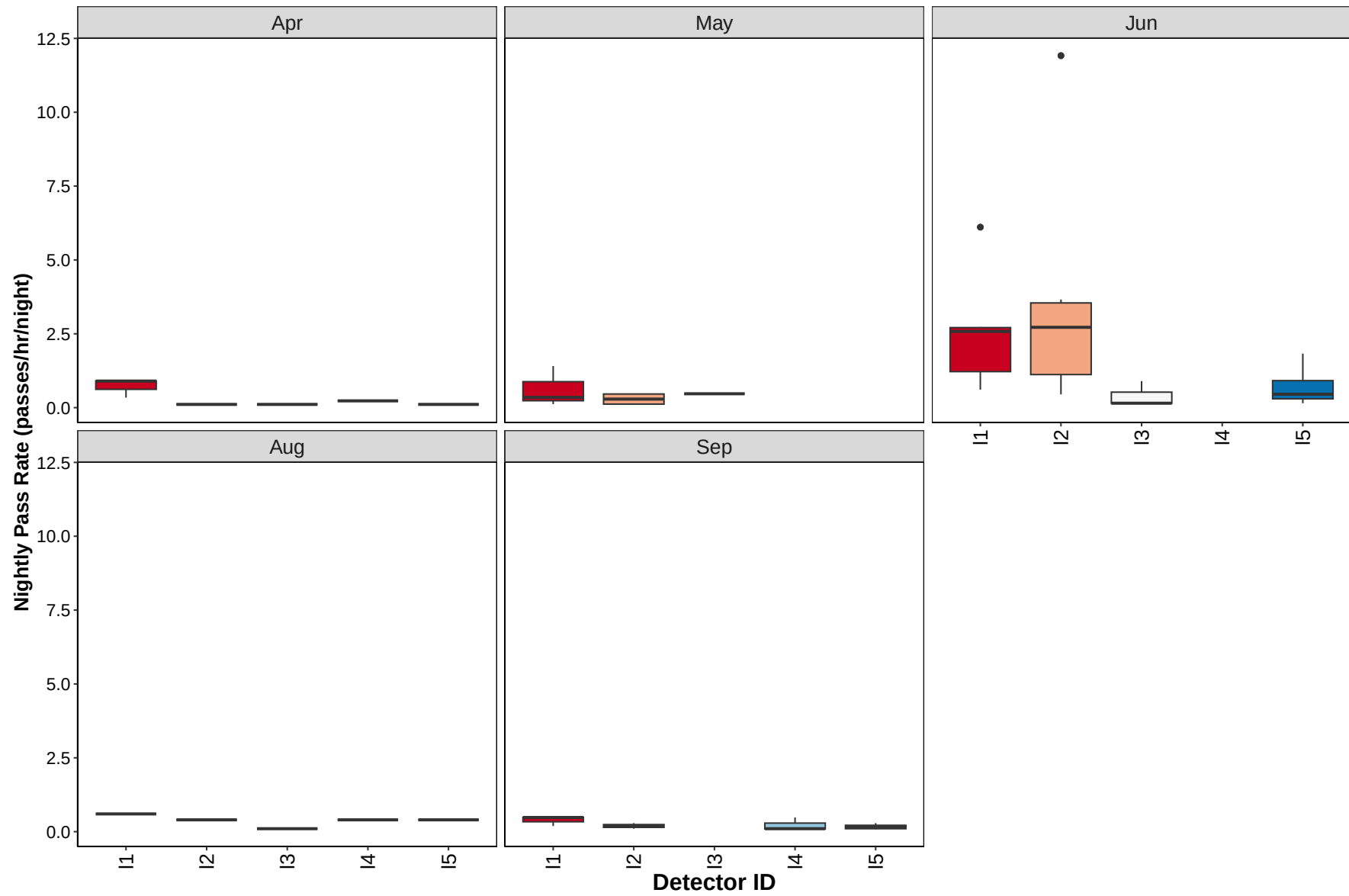
Natterer's



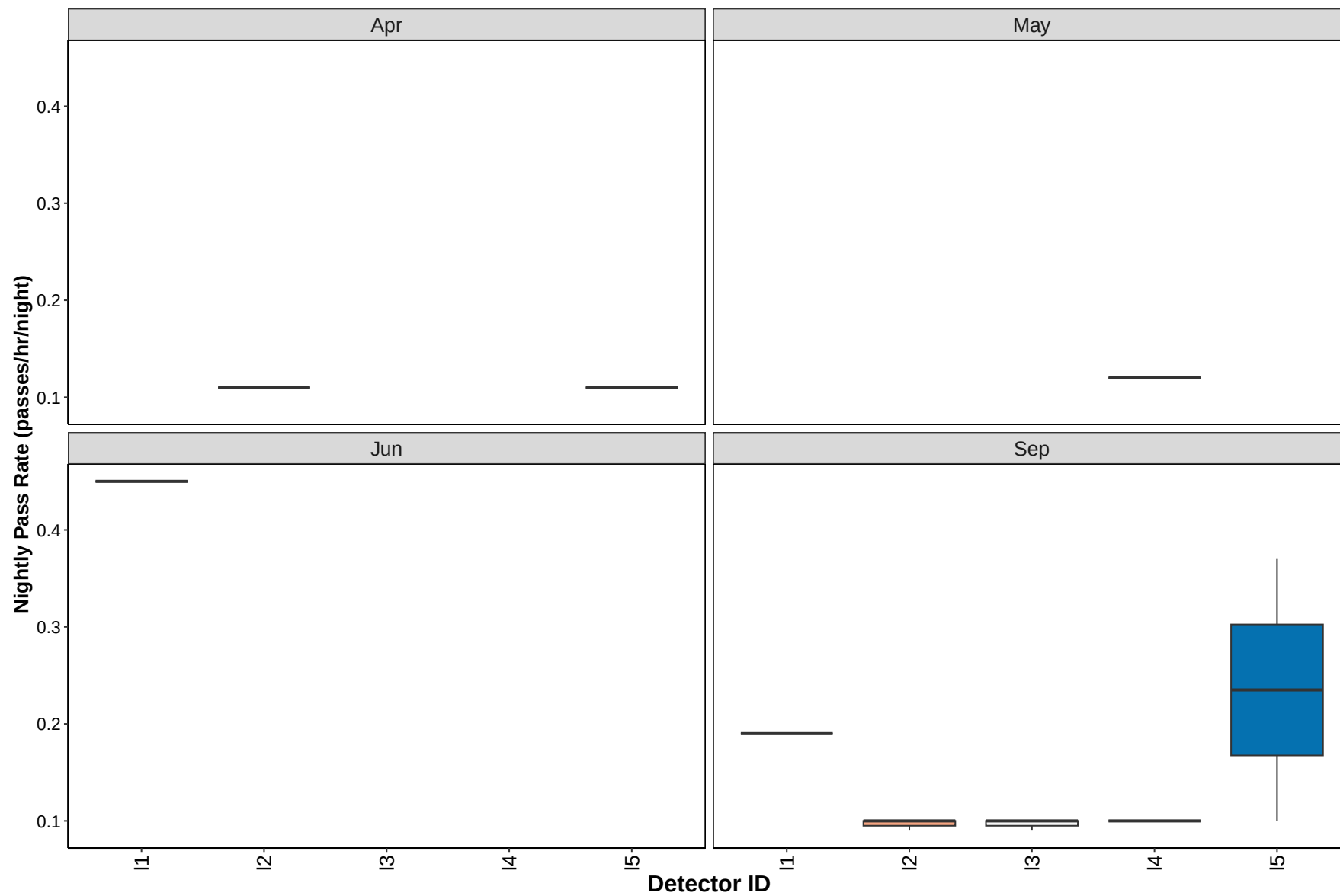
Soprano pipistrelle



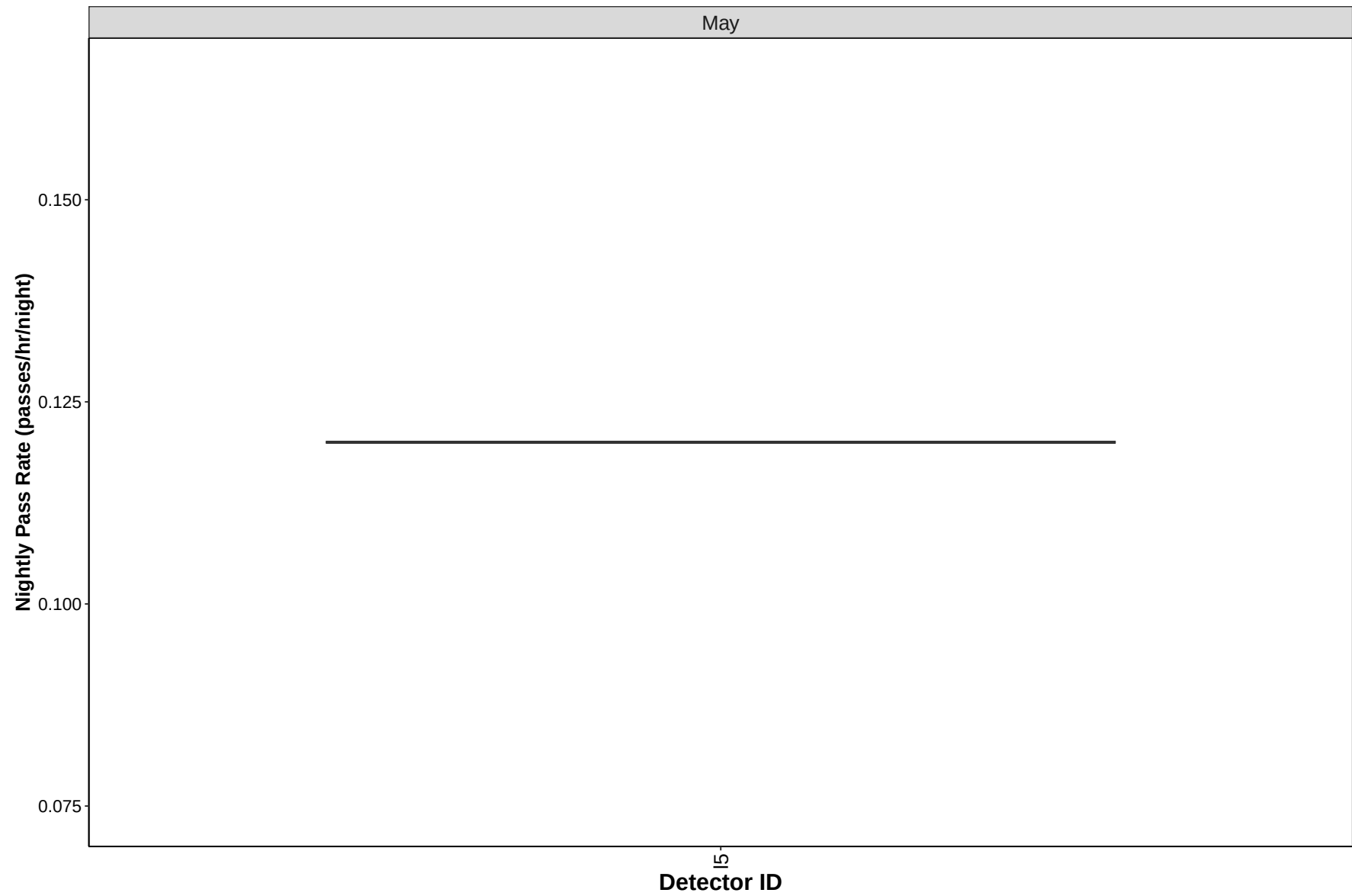
Nyctalus



Brown long-eared



Nathusius'



Bat Activity per Detector Location

Figure 13. Detector ID reference:

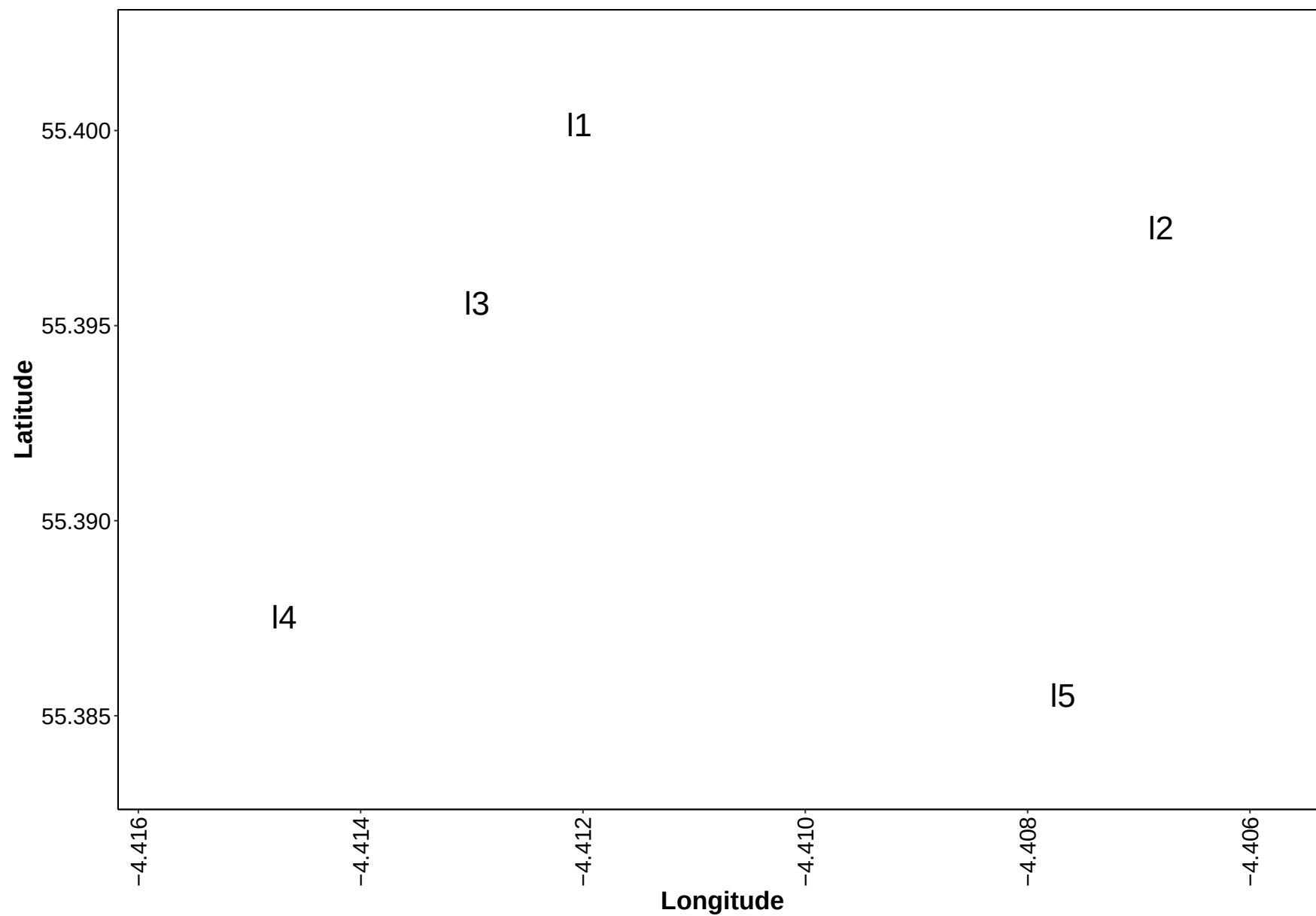
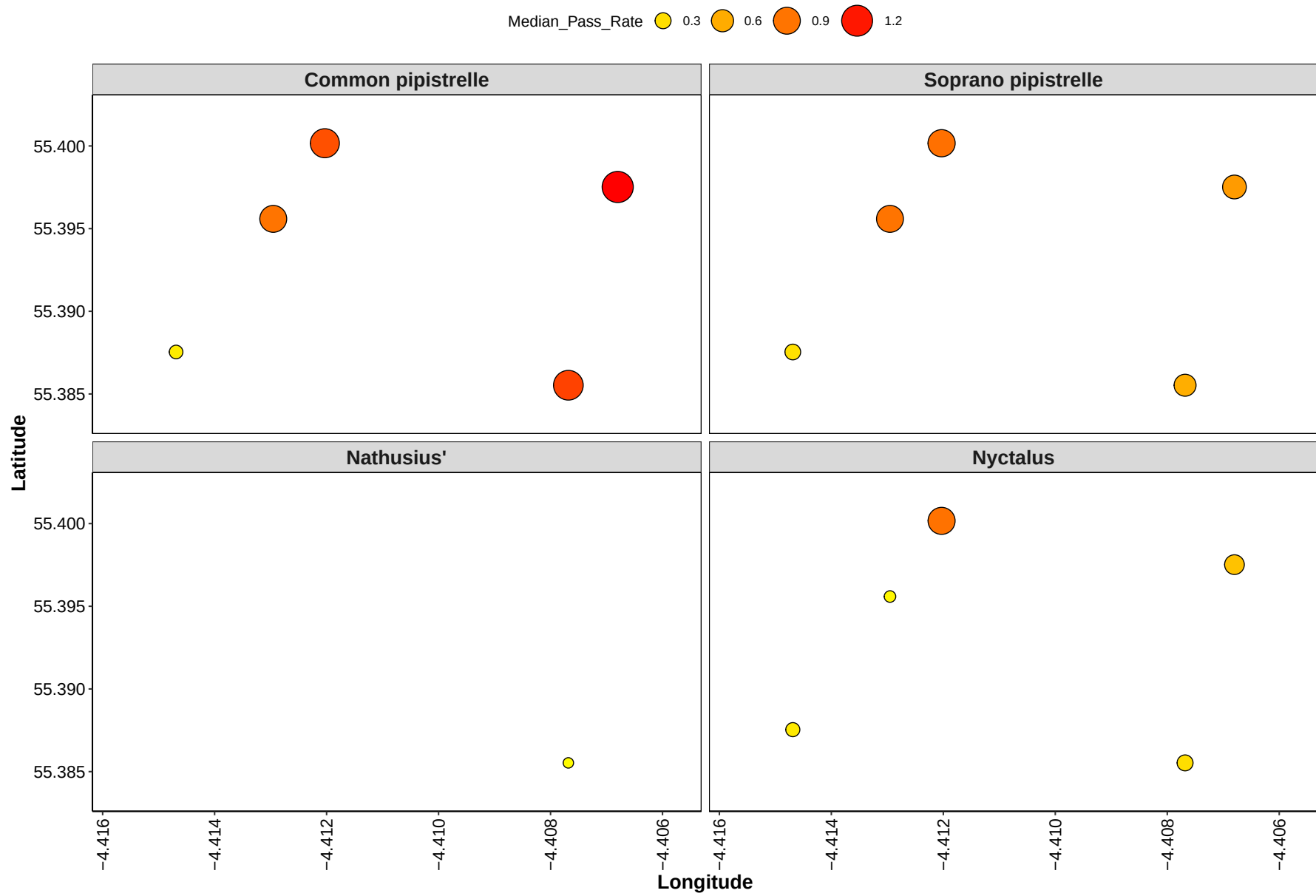


Figure 14. Median Nightly Pass Rate (bat passes/hr/night) throughout the survey period - represented by the size and colour of the point at each detector location.



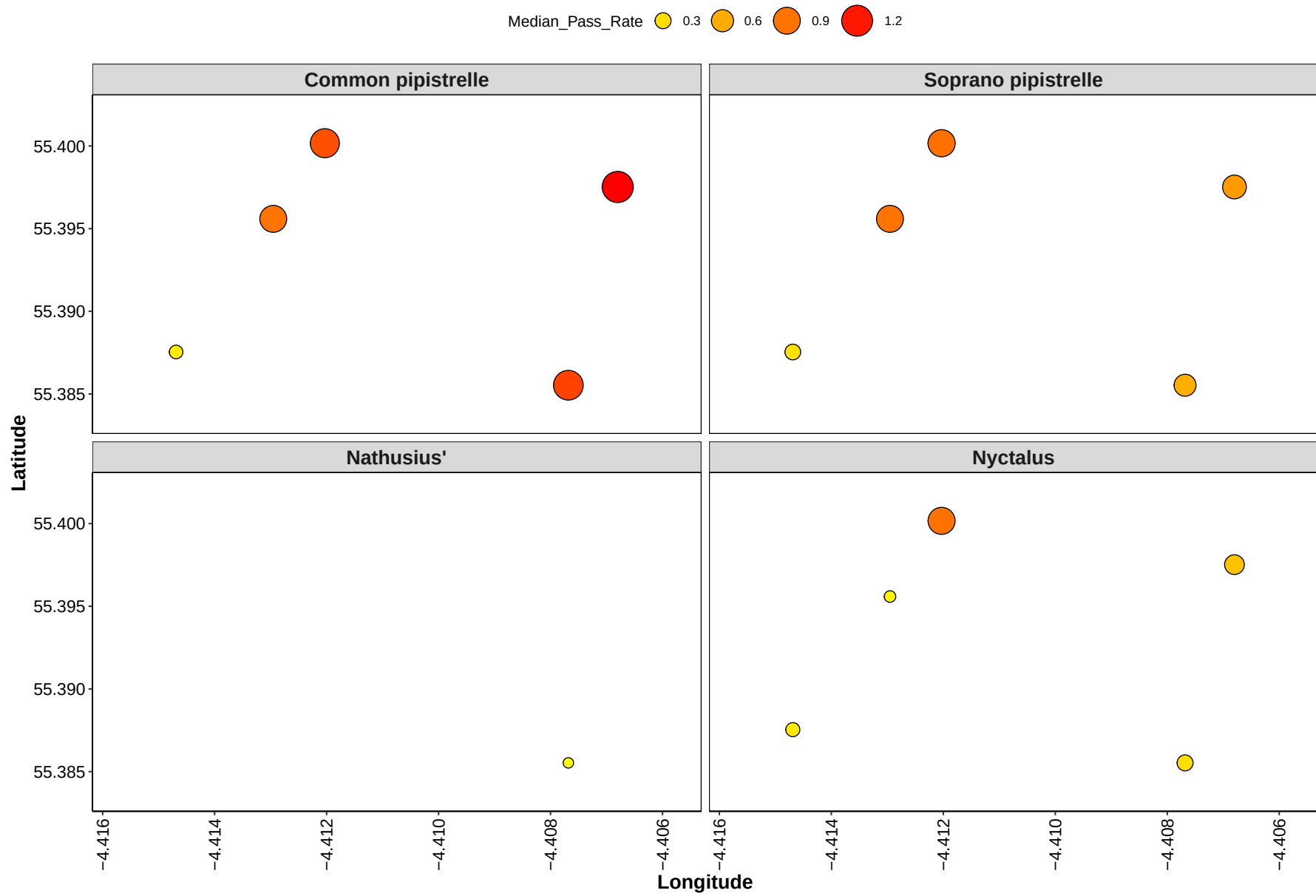
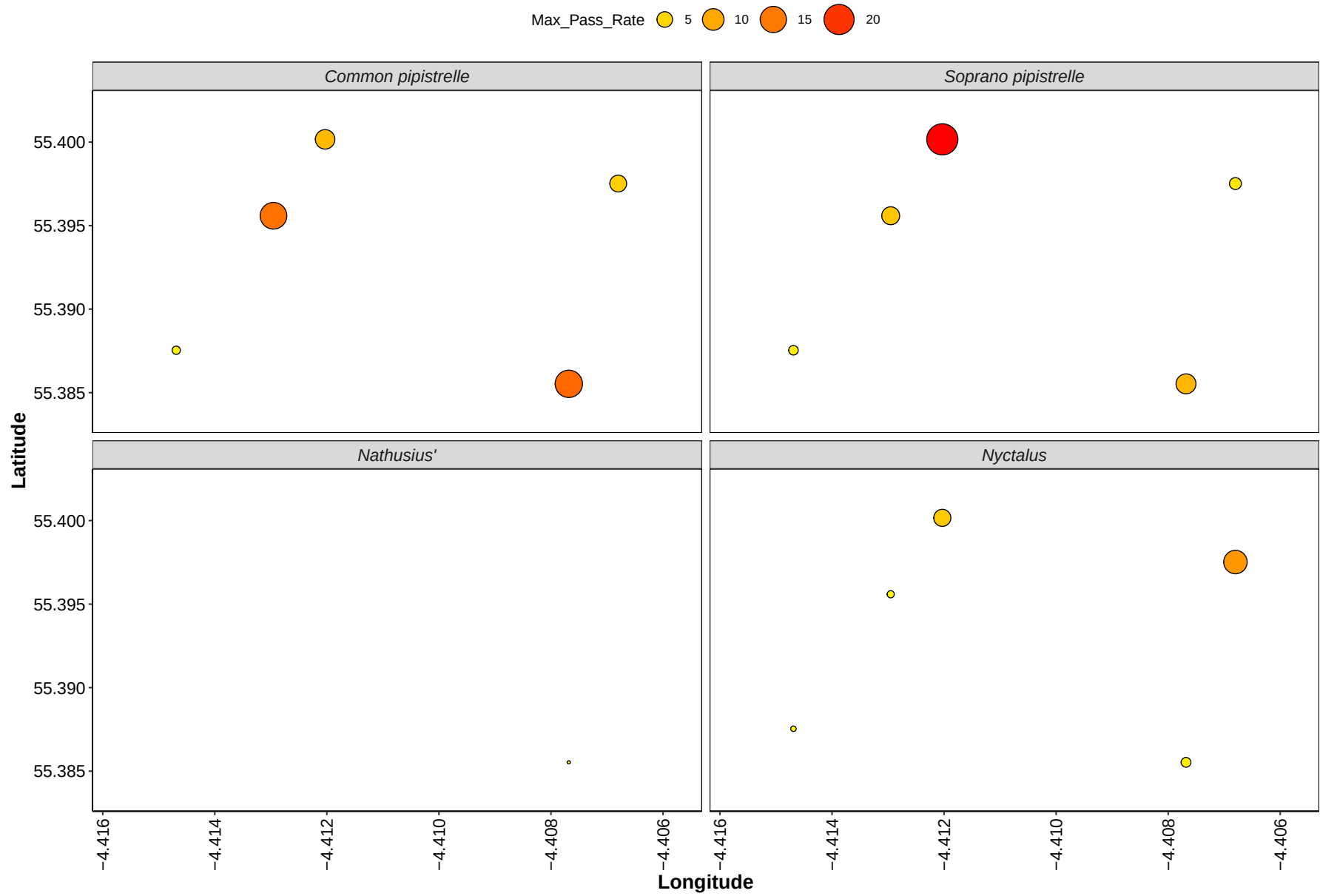
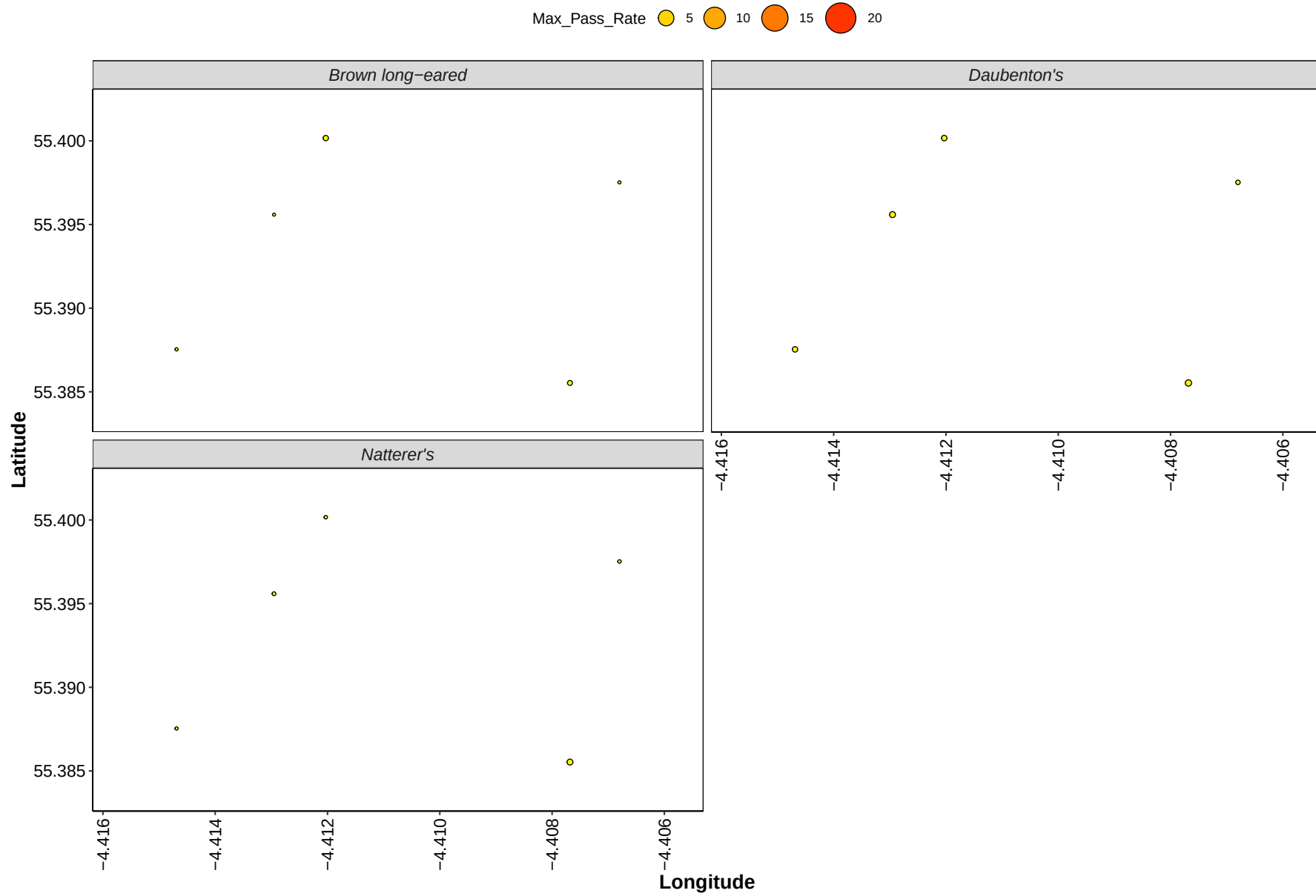


Figure 15. Maximum Nightly Pass Rate (bat passes/hr/night) recorded in a single night throughout the survey period - represented by the size and colour of the point at each detector location.





Part 2b: Includes Absences

THE NEXT SECTION OF THE REPORT FEATURES THE DATA SUPPLIED TO ECOBAT BUT TAKES INTO ACCOUNT SPECIES ABSENCES, AND THEREFORE INCLUDES 'ZERO DATA' FOR WHEN SPECIES WERE NOT DETECTED AT EACH DETECTOR ON A NIGHT. THIS DRAMATICALLY LOWERS THE MEANS AND MEDIANS OF THE DATA PRESENTED.

Nightly Bat Pass Rate

Median per Detector

Table 22. The median Nightly Pass Rate (bat passes per hour, per night) of each species. If NA, then no bat passes.

Bat pass rates are often highly variable between nights, with some nights having few or no passes and other nights having high activity. In these circumstances, the median is likely to be a more useful summary of the 'average' activity than is the mean. For further information see: Lintott, P. R., & Mathews, F. (2018). Basic mathematical errors may make ecological assessments unreliable. *Biodiversity and Conservation*, 27(1), 265-267. <https://doi.org/10.1007/s10531-017-1418-5>

Species	Detector ID	Median Pass Rate
Brown long-eared	I1	0.0
Brown long-eared	I2	0.0
Brown long-eared	I3	0.0
Brown long-eared	I4	0.0
Brown long-eared	I5	0.0
Common pipistrelle	I1	1.0
Common pipistrelle	I2	0.8
Common pipistrelle	I3	0.6
Common pipistrelle	I4	0.2
Common pipistrelle	I5	0.7
Daubenton's	I1	0.0
Daubenton's	I2	0.0
Daubenton's	I3	0.0
Daubenton's	I4	0.1
Daubenton's	I5	0.1
Nathusius'	I1	0.0
Nathusius'	I2	0.0
Nathusius'	I3	0.0
Nathusius'	I4	0.0
Nathusius'	I5	0.0
Natterer's	I1	0.0
Natterer's	I2	0.0
Natterer's	I3	0.0
Natterer's	I4	0.0
Natterer's	I5	0.0
Nyctalus	I1	0.3
Nyctalus	I2	0.2
Nyctalus	I3	0.0
Nyctalus	I4	0.0
Nyctalus	I5	0.0
Soprano pipistrelle	I1	0.7
Soprano pipistrelle	I2	0.3
Soprano pipistrelle	I3	0.4
Soprano pipistrelle	I4	0.1
Soprano pipistrelle	I5	0.1

Mean per Detector

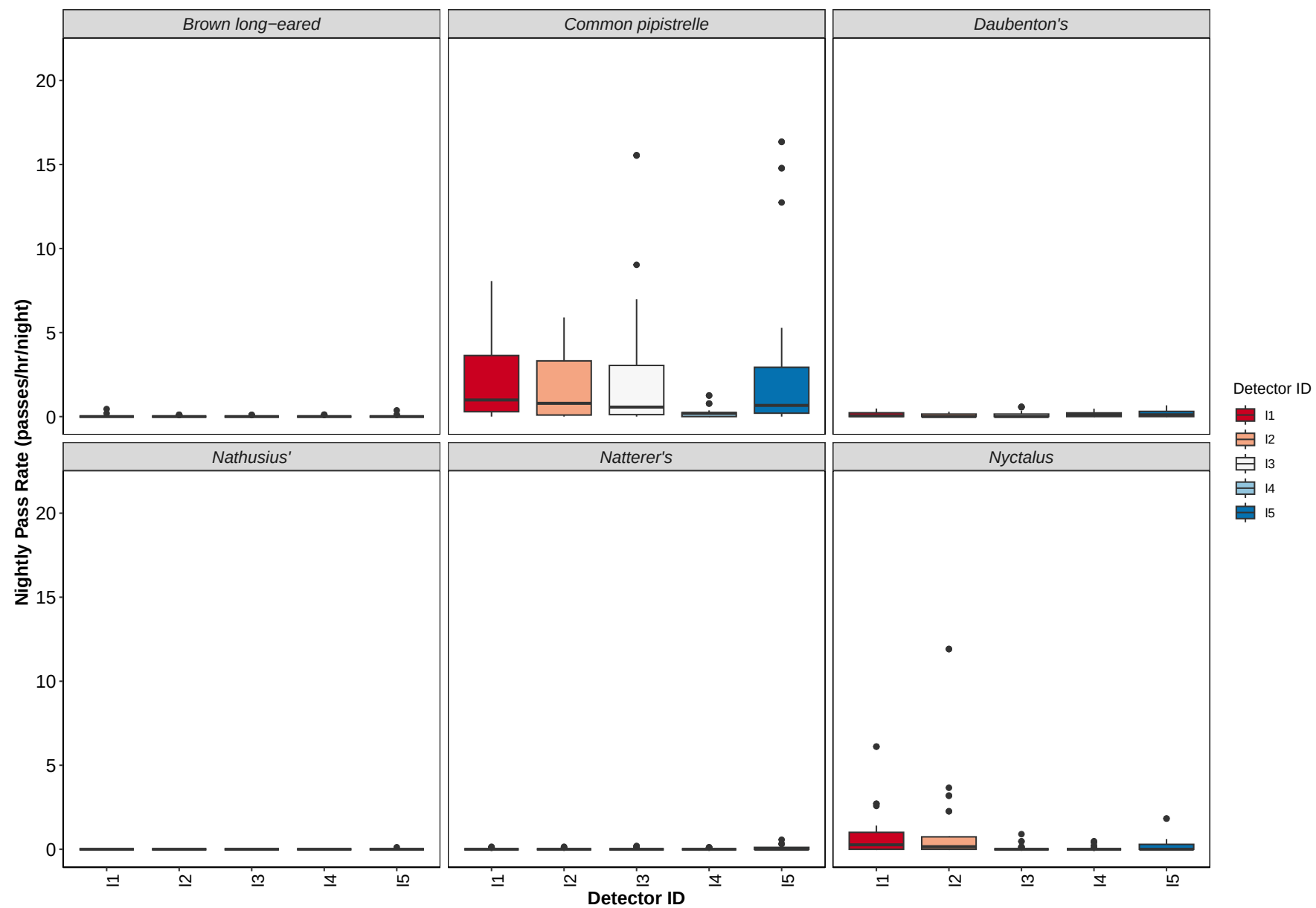
Table 23. The mean Nightly Pass Rate (bat passes per hour, per night) of each species at each detector. Values are given to 1 decimal place.

We recommend using the median values given above, for the reasons stated above, but provide the mean values in the table below.

Species	Detector ID	Mean Pass Rate
Brown long-eared	I1	0.0
Brown long-eared	I2	0.0
Brown long-eared	I3	0.0
Brown long-eared	I4	0.0
Brown long-eared	I5	0.0
Common pipistrelle	I1	2.1
Common pipistrelle	I2	1.7
Common pipistrelle	I3	2.5
Common pipistrelle	I4	0.3
Common pipistrelle	I5	3.3
Daubenton's	I1	0.1
Daubenton's	I2	0.1
Daubenton's	I3	0.1
Daubenton's	I4	0.2
Daubenton's	I5	0.2
Nathusius'	I1	0.0
Nathusius'	I2	0.0
Nathusius'	I3	0.0
Nathusius'	I4	0.0
Nathusius'	I5	0.0
Natterer's	I1	0.0
Natterer's	I2	0.0
Natterer's	I3	0.0
Natterer's	I4	0.0
Natterer's	I5	0.1
Nyctalus	I1	0.9
Nyctalus	I2	1.4
Nyctalus	I3	0.1
Nyctalus	I4	0.1
Nyctalus	I5	0.2
Soprano pipistrelle	I1	2.2
Soprano pipistrelle	I2	0.7
Soprano pipistrelle	I3	1.2
Soprano pipistrelle	I4	0.3
Soprano pipistrelle	I5	1.0

Per Detector

Figure 16. Figures show boxplots for the number of bat passes per hour each night, for each detector. The 'box' shows the interquartile range, which is where the middle 50% of the data lie. The line dividing the box is the median, the mid-point of the data. The 'whiskers' extend from the box and represent the ranges for the bottom 25% and the top 25% of the data values, excluding outliers. An outlier is any extreme value that lies further away from the box than 1.5 times the interquartile range. Outliers are shown as dots. Where very few passes are recorded it is not possible to produce the box, so the data are shown as a line.





Detector ID

Survey Effort

Table 24. The number of nights bats were detected per month per detector.

month	Detector ID	No. of Survey Nights
Apr	I1	5
Apr	I2	4
Apr	I3	5
Apr	I4	6
Apr	I5	6
May	I1	6
May	I2	7
May	I3	7
May	I4	7
May	I5	6
Jun	I1	11
Jun	I2	11
Jun	I3	10
Jun	I5	10
Aug	I1	2
Aug	I2	1
Aug	I3	1
Aug	I4	2
Aug	I5	1
Sep	I1	10
Sep	I2	7
Sep	I3	9
Sep	I4	10
Sep	I5	9

Nightly Bat Pass Rate for Each Month

Median per Detector

Table 25. The median Nightly Pass Rate (bat passes per hour, per night) of each species throughout each month. If NA, then no bat passes.

Bat pass rates are often highly variable between nights, with some nights having few or no passes and other nights having high activity. In these circumstances, the median is likely to be a more useful summary of the ‘average’ activity than is the mean. For further information see: Lintott, P. R., & Mathews, F. (2018). Basic mathematical errors may make ecological assessments unreliable. *Biodiversity and Conservation*, 27(1), 265-267. <https://doi.org/10.1007/s10531-017-1418-5>

Species	Detector ID	Apr	Aug	Jun	May	Sep
Brown long-eared	I1	0.0	0.0	0.0	0.0	0.0
Brown long-eared	I2	0.0	0.0	0.0	0.0	0.0
Brown long-eared	I3	0.0	0.0	0.0	0.0	0.0
Brown long-eared	I4	0.0	0.0	NA	0.0	0.0
Brown long-eared	I5	0.0	0.0	0.0	0.0	0.0
Common pipistrelle	I1	3.9	0.5	3.5	0.6	0.5
Common pipistrelle	I2	3.3	0.1	1.2	0.1	0.9
Common pipistrelle	I3	0.2	0.8	5.3	0.0	0.6
Common pipistrelle	I4	0.1	0.1	NA	0.0	0.3
Common pipistrelle	I5	0.1	1.3	9.0	0.3	0.9
Daubenton's	I1	0.2	0.0	0.1	0.0	0.3
Daubenton's	I2	0.1	0.0	0.0	0.1	0.0
Daubenton's	I3	0.3	0.1	0.0	0.0	0.1
Daubenton's	I4	0.1	0.3	NA	0.1	0.2
Daubenton's	I5	0.5	0.1	0.3	0.0	0.0
Nathusius'	I1	0.0	0.0	0.0	0.0	0.0
Nathusius'	I2	0.0	0.0	0.0	0.0	0.0
Nathusius'	I3	0.0	0.0	0.0	0.0	0.0
Nathusius'	I4	0.0	0.0	NA	0.0	0.0
Nathusius'	I5	0.0	0.0	0.0	0.0	0.0
Natterer's	I1	0.0	0.0	0.0	0.0	0.0
Natterer's	I2	0.0	0.0	0.0	0.0	0.0
Natterer's	I3	0.0	0.0	0.0	0.0	0.0
Natterer's	I4	0.0	0.0	NA	0.0	0.0
Natterer's	I5	0.2	0.0	0.0	0.0	0.0
Nyctalus	I1	0.3	0.3	1.2	0.1	0.0
Nyctalus	I2	0.0	0.4	2.3	0.1	0.0
Nyctalus	I3	0.0	0.1	0.0	0.0	0.0
Nyctalus	I4	0.0	0.2	NA	0.0	0.0
Nyctalus	I5	0.0	0.4	0.3	0.0	0.0
Soprano pipistrelle	I1	4.7	0.0	0.9	0.1	0.7
Soprano pipistrelle	I2	1.4	0.2	0.3	0.0	0.6
Soprano pipistrelle	I3	0.1	1.8	1.4	0.3	0.2
Soprano pipistrelle	I4	0.1	0.3	NA	0.0	0.2
Soprano pipistrelle	I5	0.2	0.3	0.5	0.0	0.6

Mean per Detector

Table 26. The mean Nightly Pass Rate (bat passes per hour, per night) of each species throughout each month. Values are given to 1 decimal place.

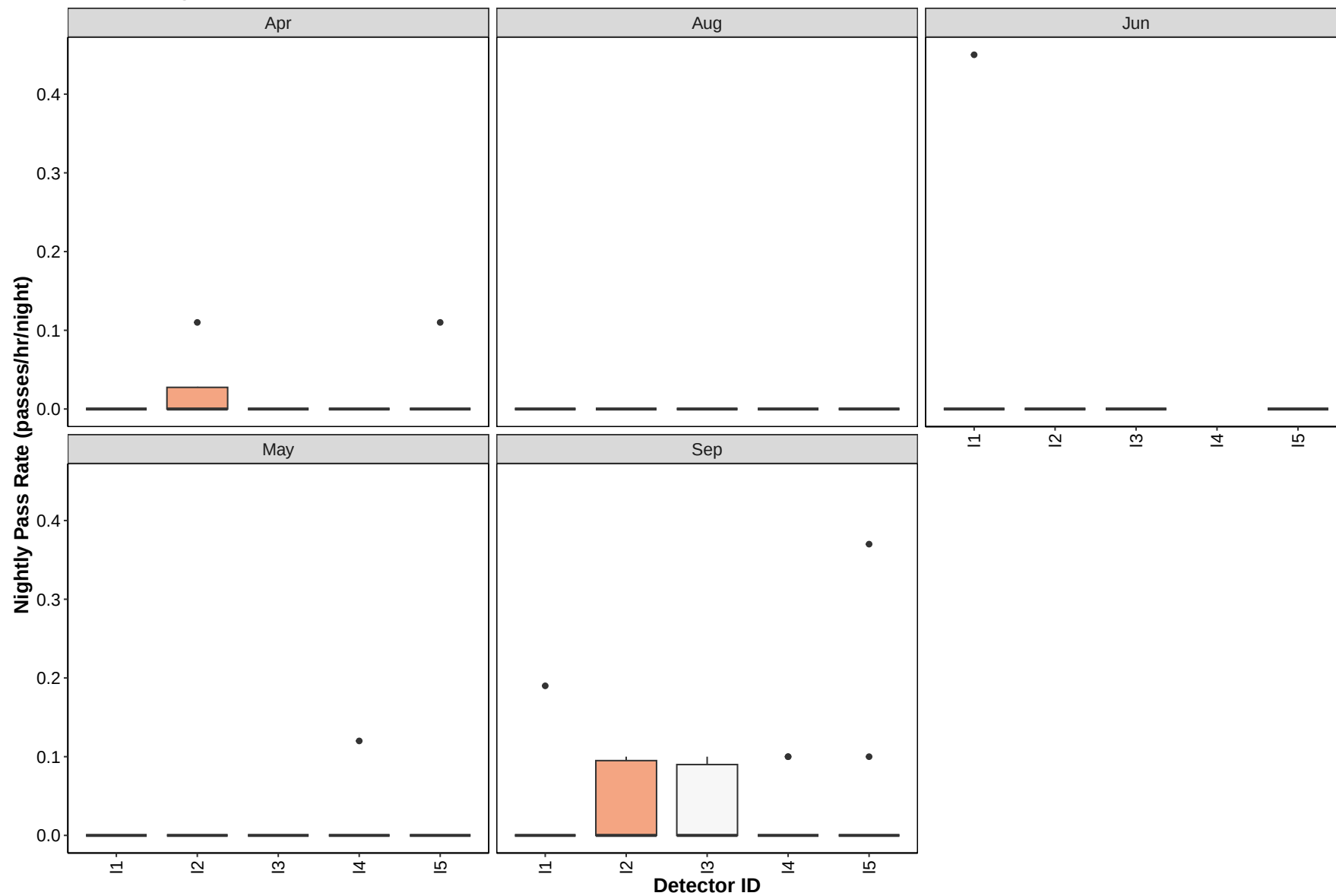
We recommend using the median values given above, for the reasons stated above, but provide the mean values in the table below.

Species	Detector ID	Apr	Aug	Jun	May	Sep
Brown long-eared	I1	0.0	0.0	0.0	0.0	0.0
Brown long-eared	I2	0.0	0.0	0.0	0.0	0.0
Brown long-eared	I3	0.0	0.0	0.0	0.0	0.0
Brown long-eared	I4	0.0	0.0	NA	0.0	0.0
Brown long-eared	I5	0.0	0.0	0.0	0.0	0.1
Common pipistrelle	I1	4.1	0.5	3.4	1.0	0.6
Common pipistrelle	I2	3.1	0.1	2.4	0.3	1.6
Common pipistrelle	I3	1.3	0.8	6.1	0.1	1.2
Common pipistrelle	I4	0.1	0.1	NA	0.1	0.5
Common pipistrelle	I5	0.1	1.3	8.8	0.2	1.5
Daubenton's	I1	0.1	0.0	0.1	0.0	0.2
Daubenton's	I2	0.1	0.0	0.1	0.1	0.1
Daubenton's	I3	0.3	0.1	0.0	0.0	0.2
Daubenton's	I4	0.1	0.3	NA	0.1	0.2
Daubenton's	I5	0.4	0.1	0.3	0.0	0.1
Nathusius'	I1	0.0	0.0	0.0	0.0	0.0
Nathusius'	I2	0.0	0.0	0.0	0.0	0.0
Nathusius'	I3	0.0	0.0	0.0	0.0	0.0
Nathusius'	I4	0.0	0.0	NA	0.0	0.0
Nathusius'	I5	0.0	0.0	0.0	0.0	0.0
Natterer's	I1	0.0	0.0	0.0	0.0	0.0
Natterer's	I2	0.0	0.0	0.0	0.0	0.0
Natterer's	I3	0.0	0.0	0.0	0.0	0.0
Natterer's	I4	0.0	0.0	NA	0.0	0.0
Natterer's	I5	0.2	0.0	0.1	0.0	0.0
Nyctalus	I1	0.4	0.3	2.2	0.3	0.1
Nyctalus	I2	0.0	0.4	3.7	0.2	0.1
Nyctalus	I3	0.0	0.1	0.1	0.1	0.0
Nyctalus	I4	0.0	0.2	NA	0.0	0.1
Nyctalus	I5	0.0	0.4	0.6	0.0	0.1
Soprano pipistrelle	I1	9.6	0.0	1.3	1.0	0.7
Soprano pipistrelle	I2	1.4	0.2	0.7	0.2	0.9
Soprano pipistrelle	I3	0.8	1.8	2.2	0.3	1.1
Soprano pipistrelle	I4	0.4	0.3	NA	0.0	0.4
Soprano pipistrelle	I5	0.2	0.3	2.5	0.0	0.5

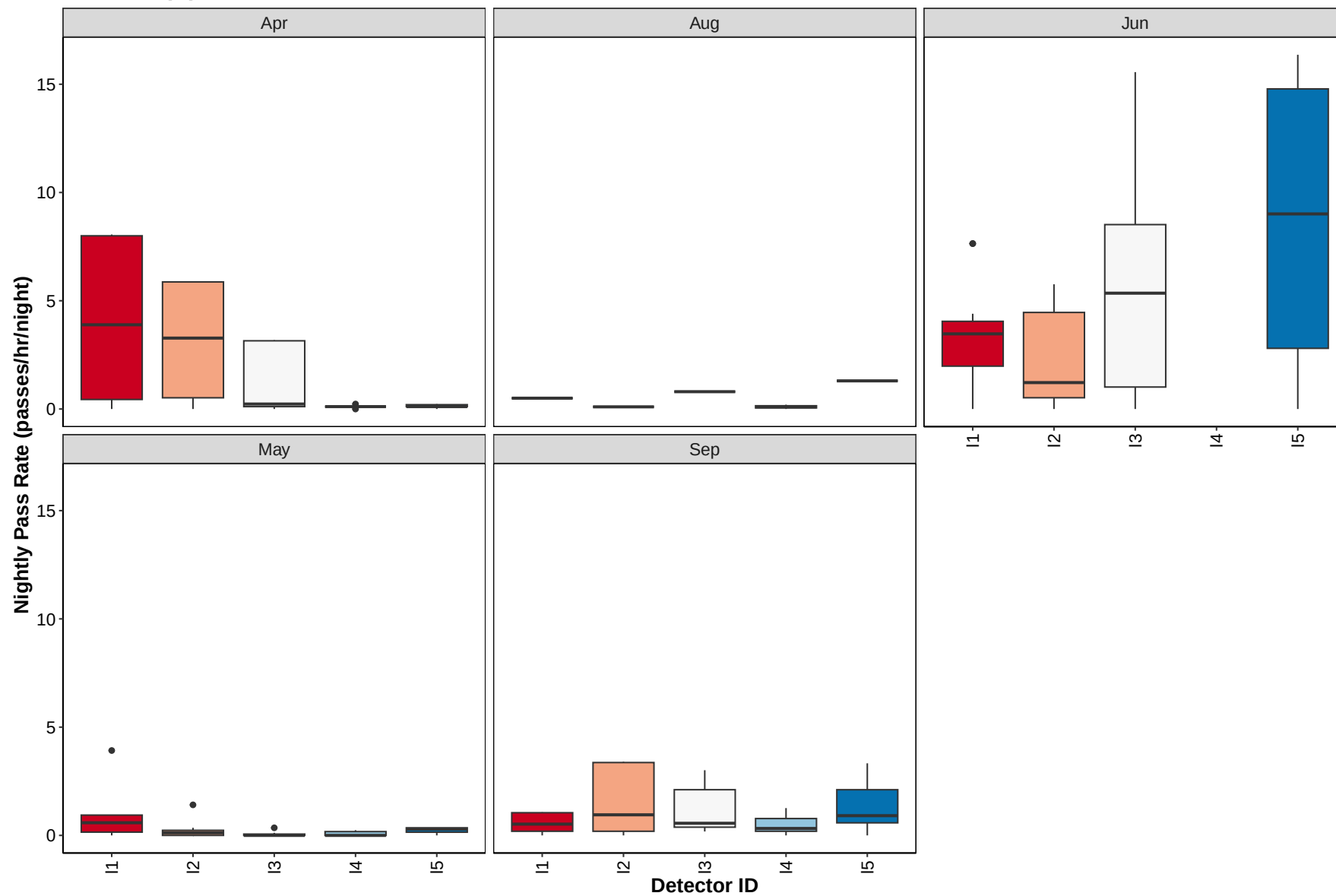
Per Detector

Figure 17. Figures show boxplots for the number of bat passes per hour by detector, for each month. The 'box' shows the interquartile range, which is where the middle 50% of the data lie. The line dividing the box is the median, the mid-point of the data. The 'whiskers' extend from the box and represent the ranges for the bottom 25% and the top 25% of the data values, excluding outliers. An outlier is any extreme value that lies further away from the box than 1.5 times the interquartile range. Outliers are shown as dots. Where very few passes are recorded it is not possible to produce the box, so the data are shown as a line.

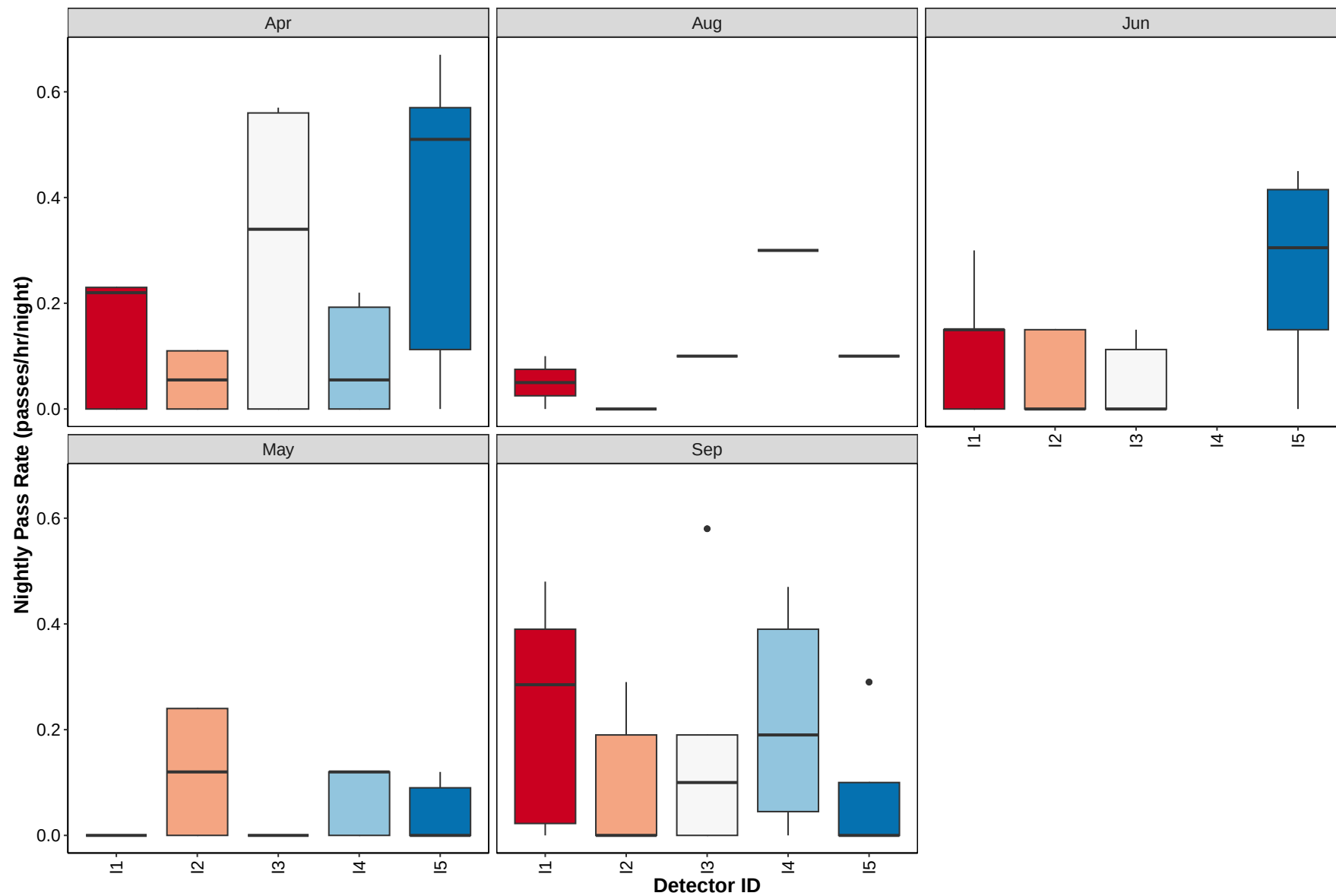
Brown long-eared

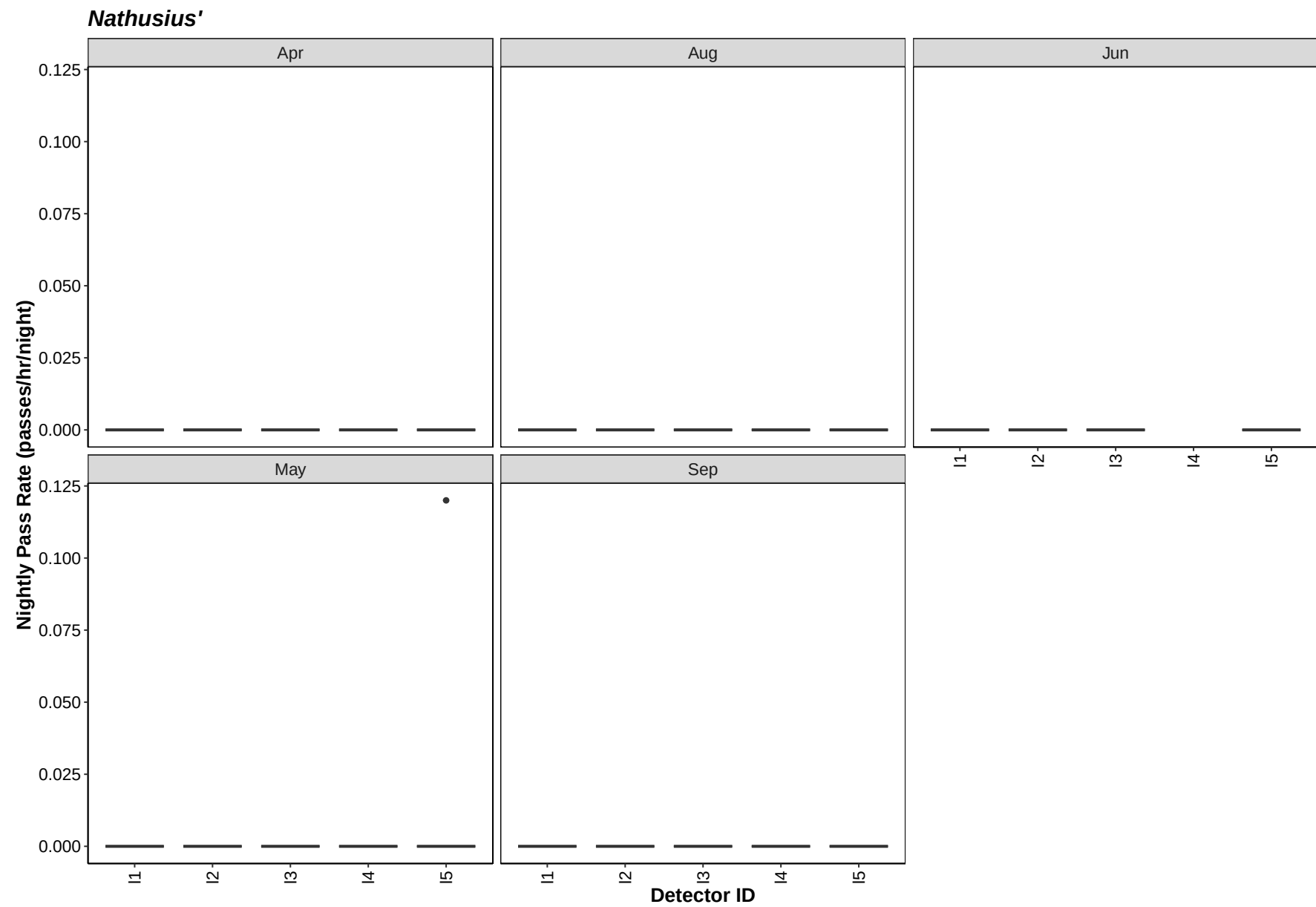


Common pipistrelle

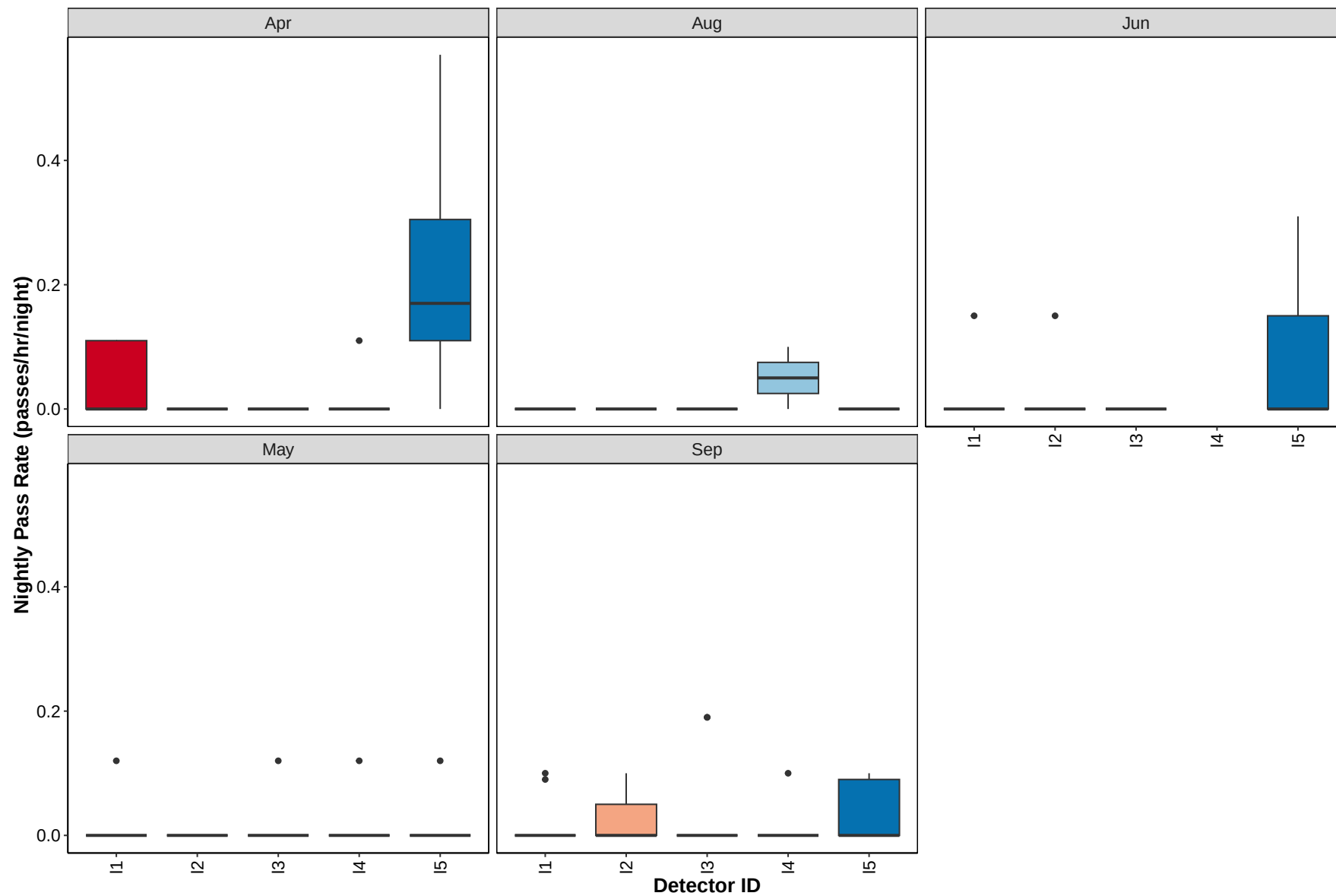


Daubenton's

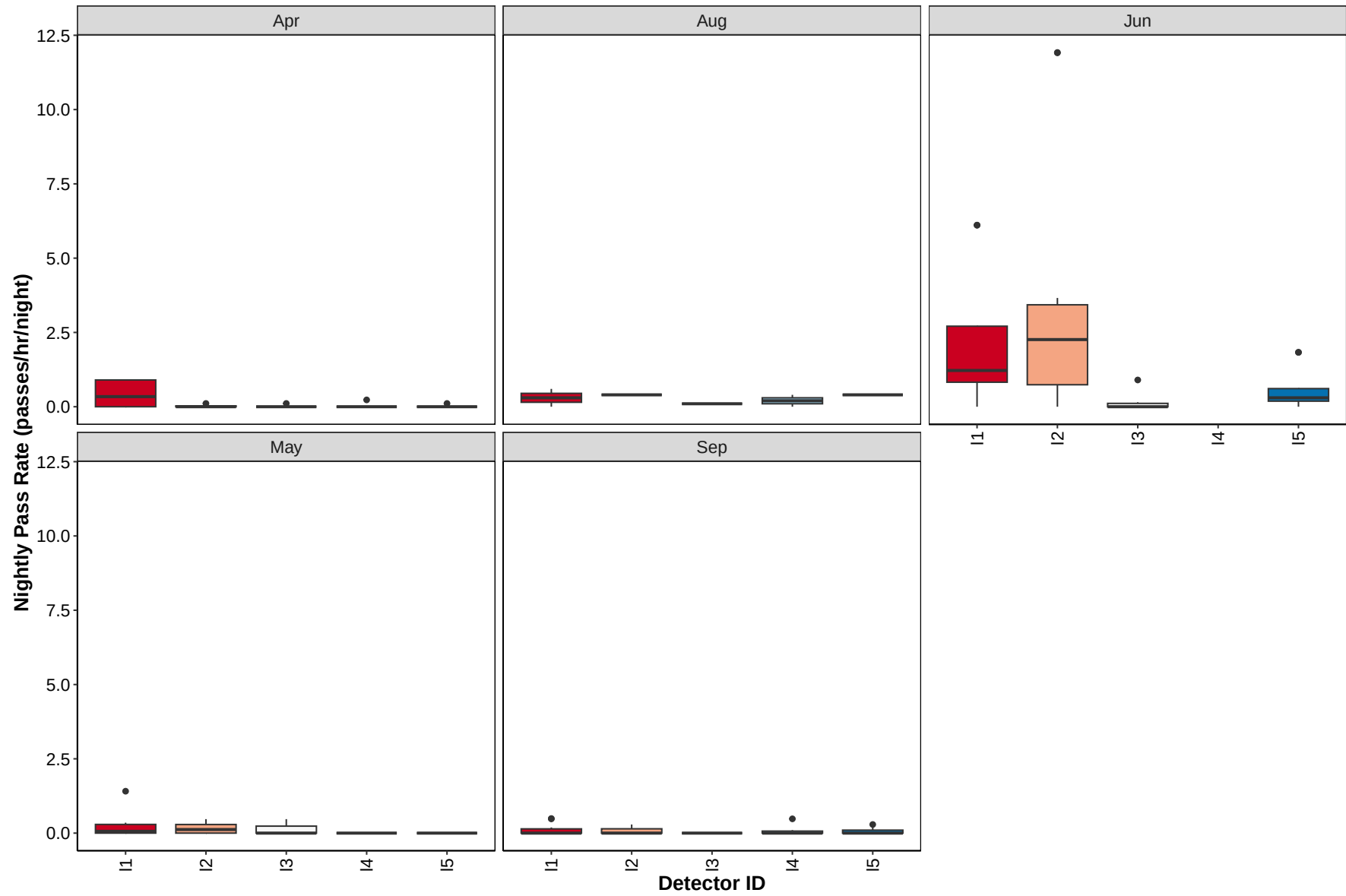




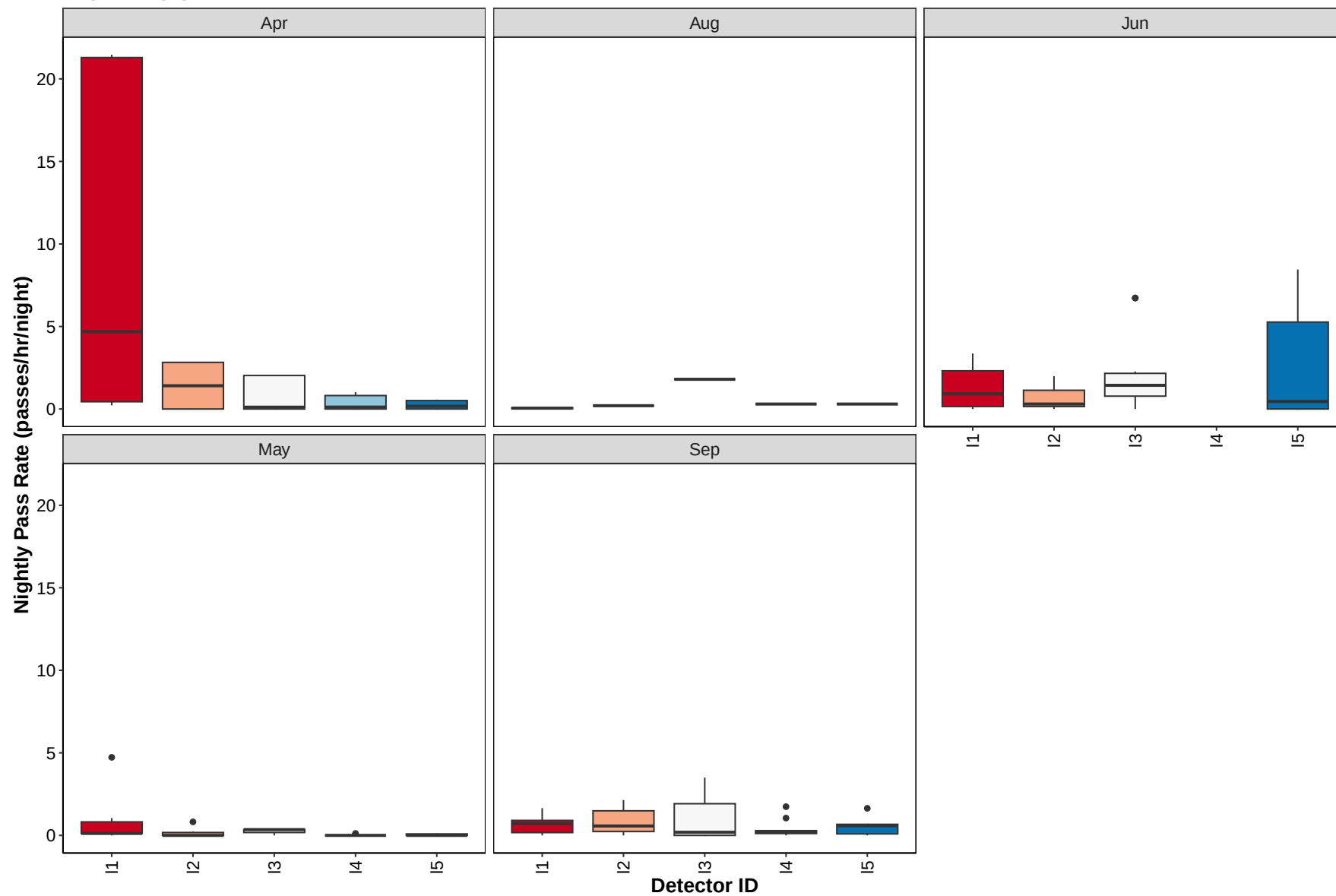
Natterer's



Nyctalus



Soprano pipistrelle



Bat Activity per Detector Location

Figure 18. Detector ID reference:

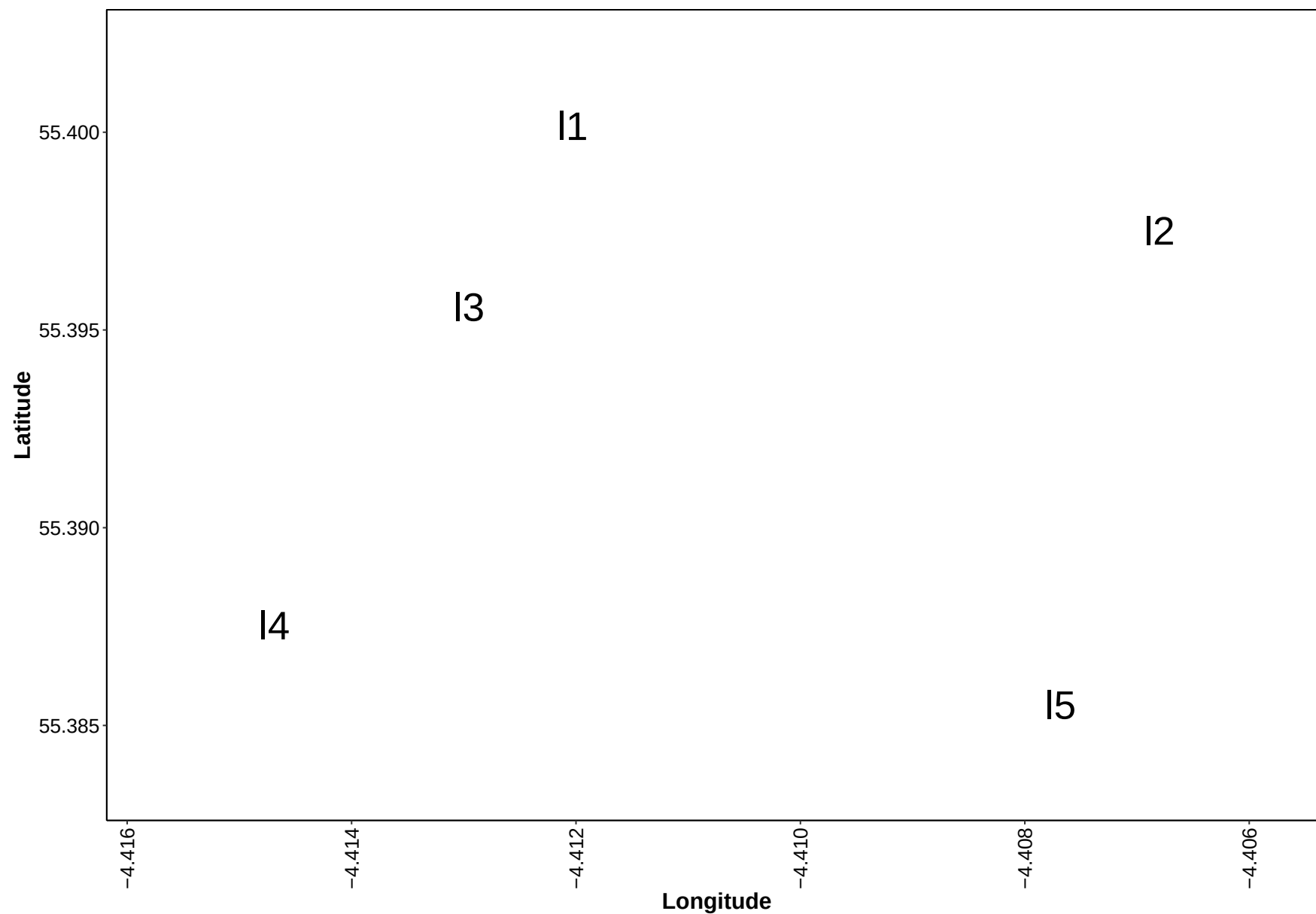
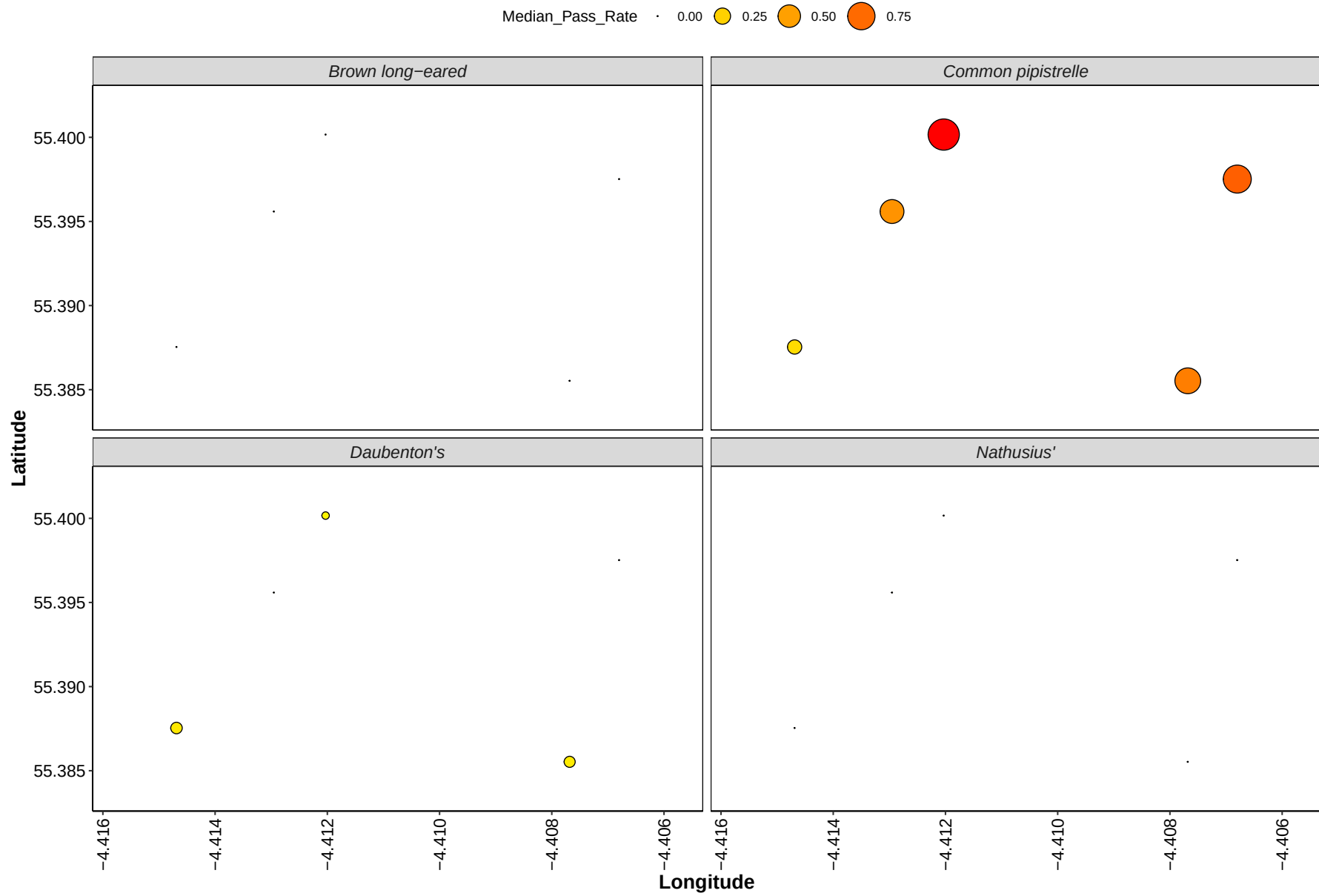


Figure 19. Median Nightly Pass Rate (bat passes/hr/night) throughout the survey period - represented by the size and colour of the point at each detector location.



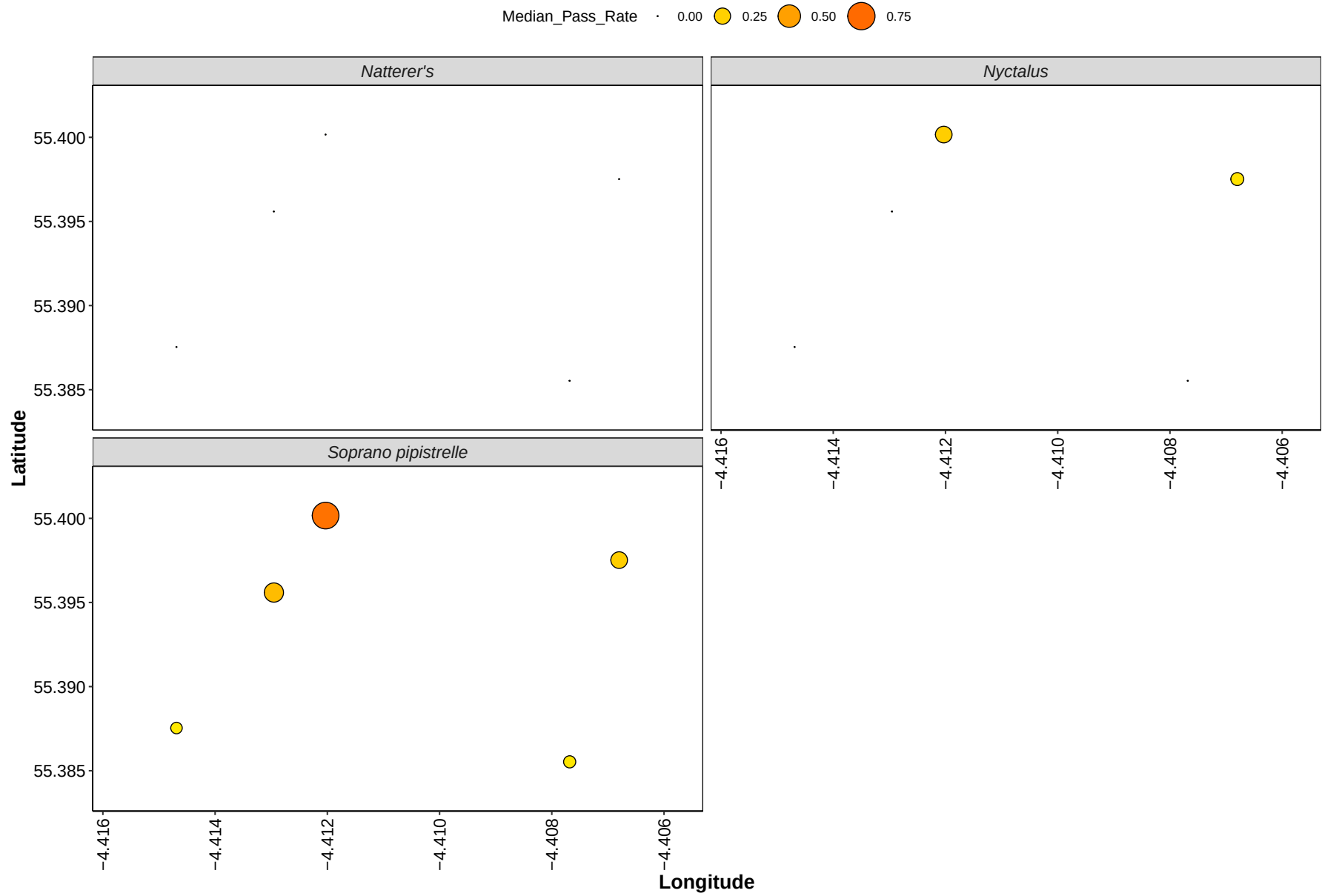
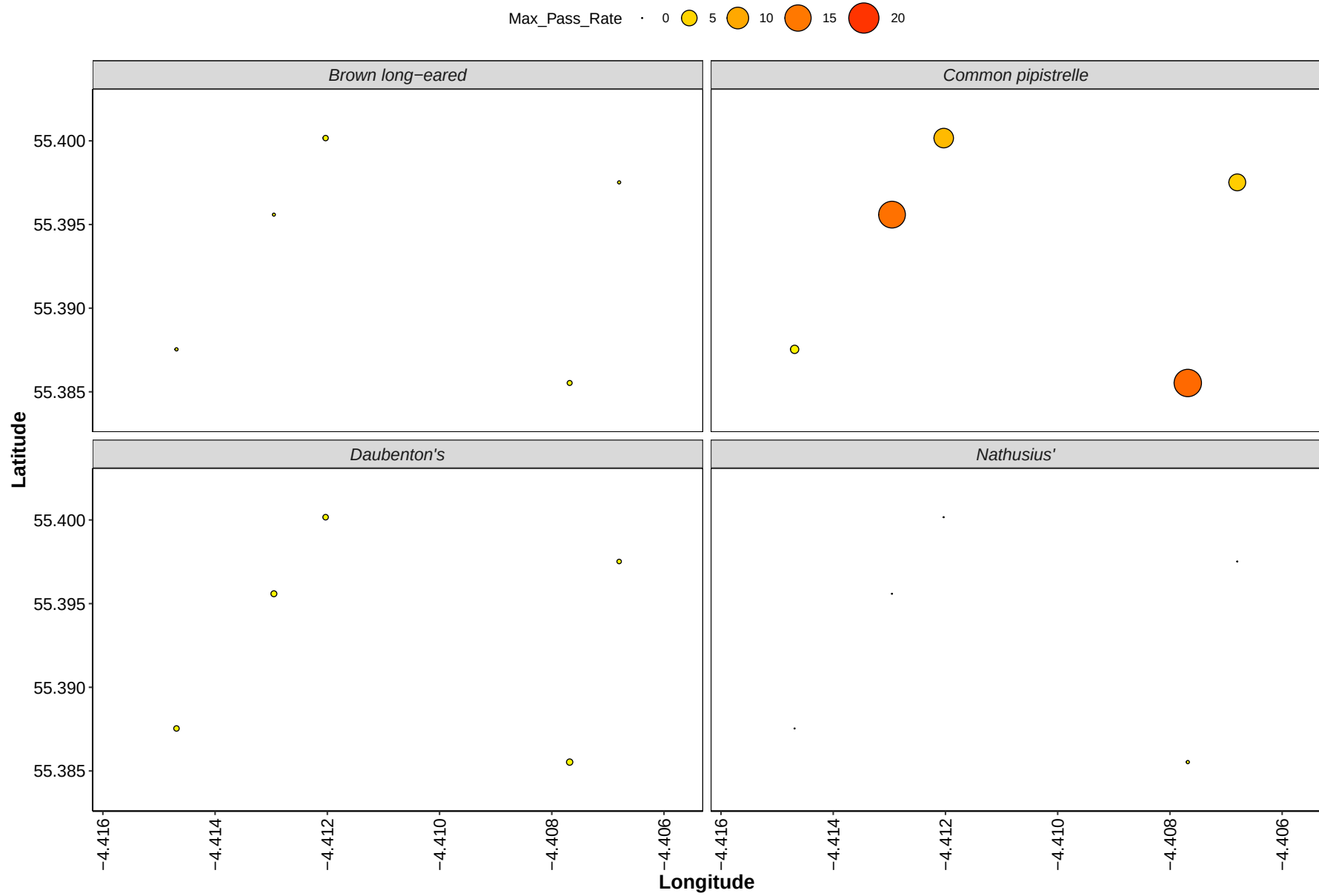
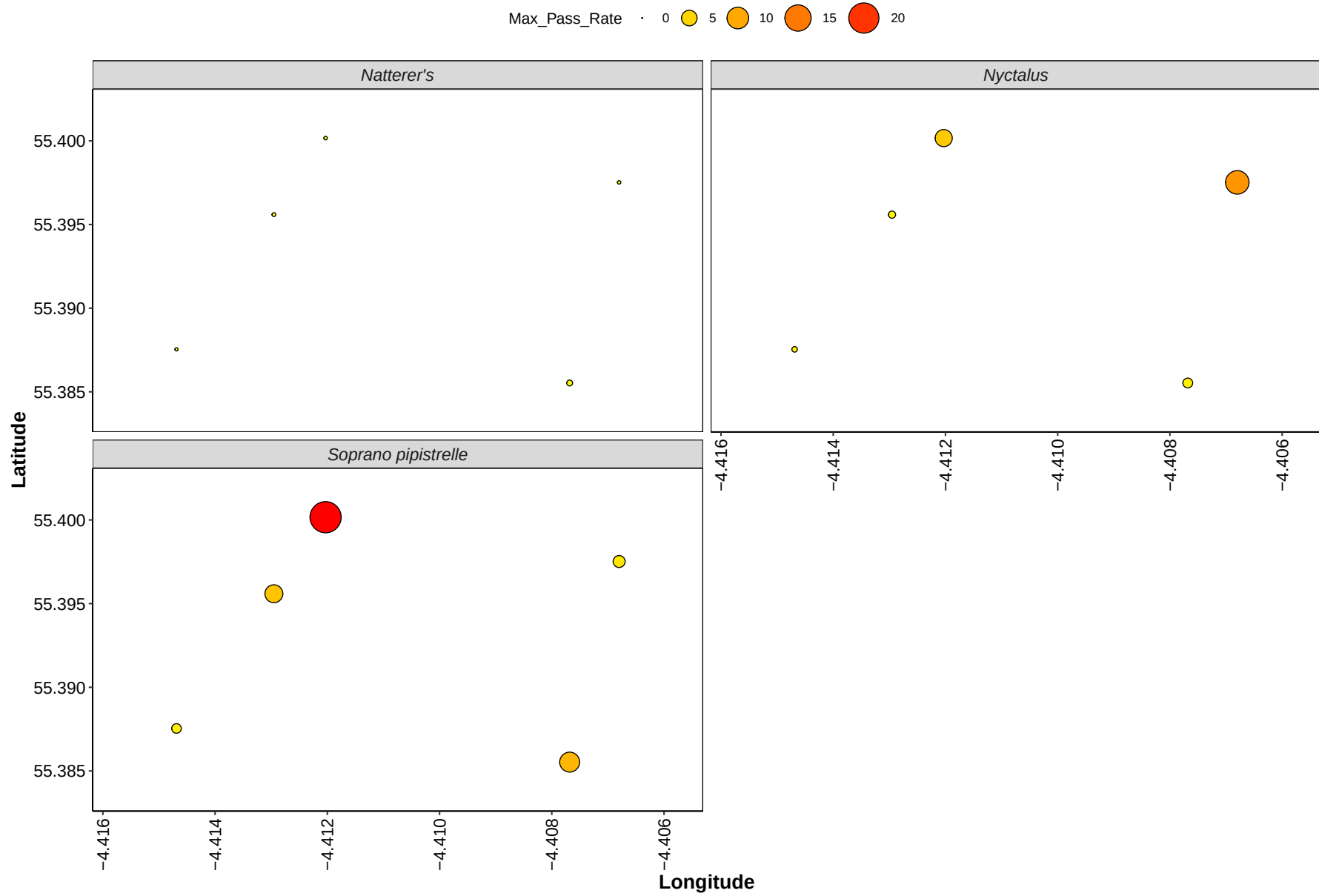


Figure 20. Maximum Nightly Pass Rate (bat passes/hr/night) recorded in a single night throughout the survey period - represented by the size and colour of the point at each detector location.





Thank you for using Ecobat!