Table 5.16: Number of Instances of Skylark Foraging Compared between Solar Plots (S) and Control Plots (C) for Each Site using Chi-Square Test. An Overall Comparison between Solar and Control using Mann-Whitney U Test is Shown in the Bottom Row

Site	No. Foraging Instances		Significance
	S	C	
Site 1	0	1	NS (P=0.32)
Site 2	11	1	HSD (P=<0.01)
Site 3	2	2	NS (P=1.00)
Site 4	8	0	HSD (P=<0.01)
Site 5	0	0	N/A
Site 6	1	1	NS (P=1.00)
Site 7	0	1	NS (P=0.32)
Site 8	3	0	NS (P=0.08)
Site 9	0	0	N/A
Site 10	3	9	NS (P=0.08)
Site 11	0	3	NS (P=0.08)
Overall comparison of solar plots and control plots			NS (P=0.81)

5.5 Bats

5.5.1 Both the numbers of bats recorded and the species diversity were examined for solar plots and control plots. Due to equipment failure, only eight of the eleven sites were surveyed.

5.5.2 Overall, when looking at the number of bat species found on all solar plots combined (8) compared with control plots (8), there was no difference. There was, however, a significantly higher total number of bat passes on the control plots when compared with solar (Chi-Squared P=<0.001), as shown in Figure 5.4.

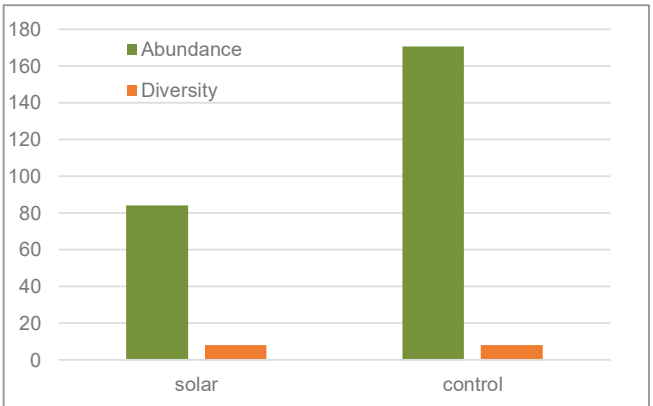

Figure 5.4: Overall Comparison of Solar and Control Plot Bat Diversity and Activity

Comparing Bat Activity Between Solar and Control Plots

5.5.3 The number of bat passes per night ranged from 1.78 to 24.44 on solar plots and 7.22 to 71.5 on control plots. When considering all sites combined, there was no significant difference between the numbers of bat passes between solar and control plots (P=0.08), as shown in Table 5.17.

5.5.4 When comparing the number of bat passes per night between solar plots and control plots, three of the sites showed significantly higher numbers of bat passes within the control plots when compared with the solar plots (and this was a highly significant difference). The five remaining sites showed no significant

difference when comparing solar to control plots, although it should be noted bat activity was higher in control than solar plots in four out of the five sites.

Table 5.17: Bat Activity Compared between Solar Plots (S) and Control Plots (C) for Each Site using Chi-Square Test. An Overall Comparison between Solar and Control using Mann-Whitney U Test is Shown in the Bottom Row

Site	Mean Passes per Night		Significance
	S	C	
Site 1	10	9	NS (P=0.81)
Site 3	2	14	HSD (P=0.003)
Site 4	7	13	NS (P=0.20)
Site 5	3	9	NS (P=0.053)
Site 6	6	11	NS (P=0.23)
Site 9	24	50	HSD (P=0.003)
Site 10	2	7	NS (P=0.07)
Site 11	27	72	HSD (P=<0.001)
Overall comparison of solar plots and control plots			NS (P=0.09)

Comparing Bat Diversity Between Solar and Control Plots

5.5.5 The number of species recorded by the static detectors on the solar plots ranged from 4 to 7, while on the control plots the number of species ranged from 3 to 8. When assessing all of the survey sites combined, there was no statistically significant difference between the number of species recorded within the solar plots when compared with the control plots (P=0.55).

5.5.6 When comparing the species diversity of bats recorded within the solar and control plots on a site-by-site basis, it can be seen that no statistically significant difference was found when comparing solar to control plots across any sites, as shown in Table 5.18.

Table 5.18: Bat Diversity Compared between Solar Plots (S) and Control Plots (C) for Each Site using Chi-Square Test. An Overall Comparison between Solar and Control using Mann-Whitney U Test is Shown in the Bottom Row

Site	No. Species Recorded		Significance
	S	C	
Site 1	7	5	NS (P=0.56)
Site 3	5	8	NS (P=0.41)
Site 4	8	7	NS (P=0.80)
Site 5	5	7	NS (P=0.56)
Site 6	7	8	NS (P=0.80)
Site 9	5	6	NS (P=0.76)
Site 10	4	5	NS (P=0.74)
Site 11	5	3	NS (P=0.48)
Overall comparison of solar plots and control plots			NS (P=0.55)