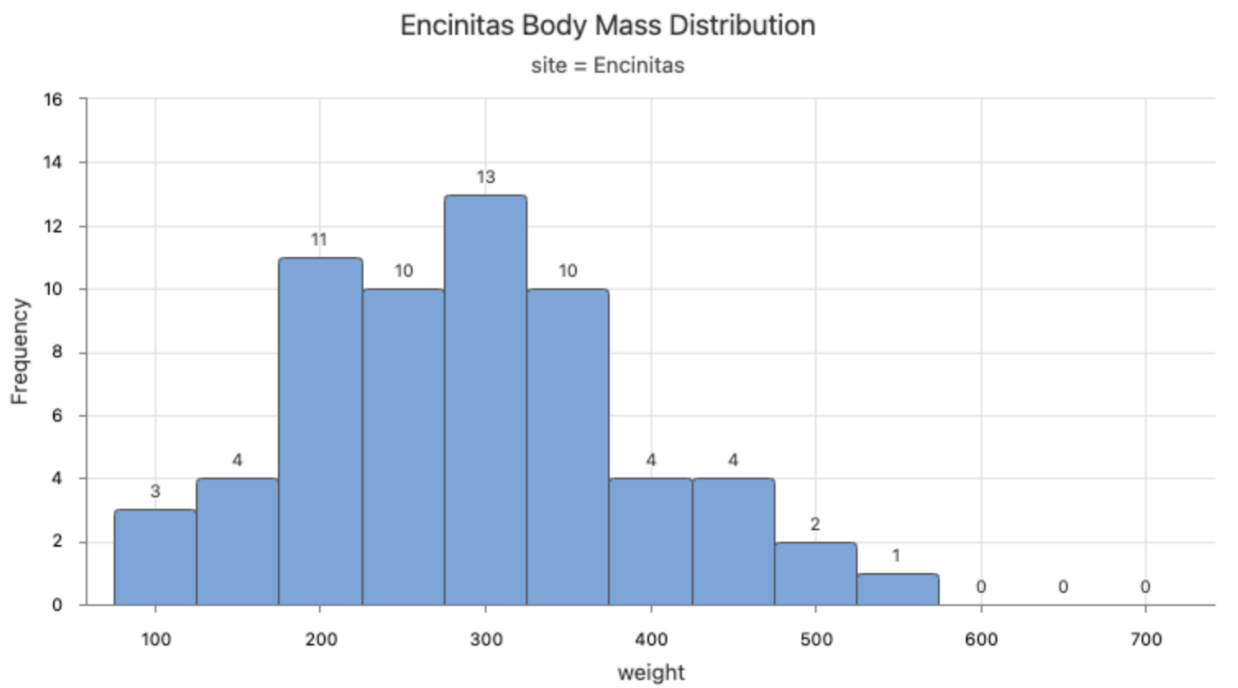
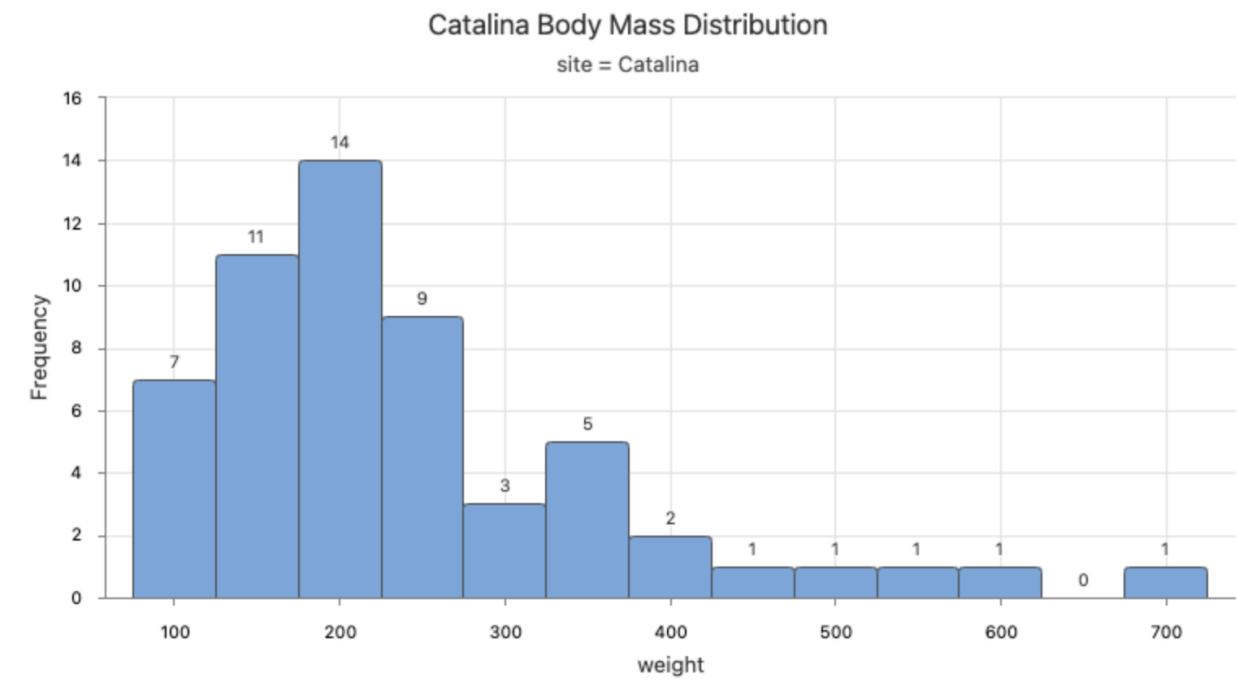
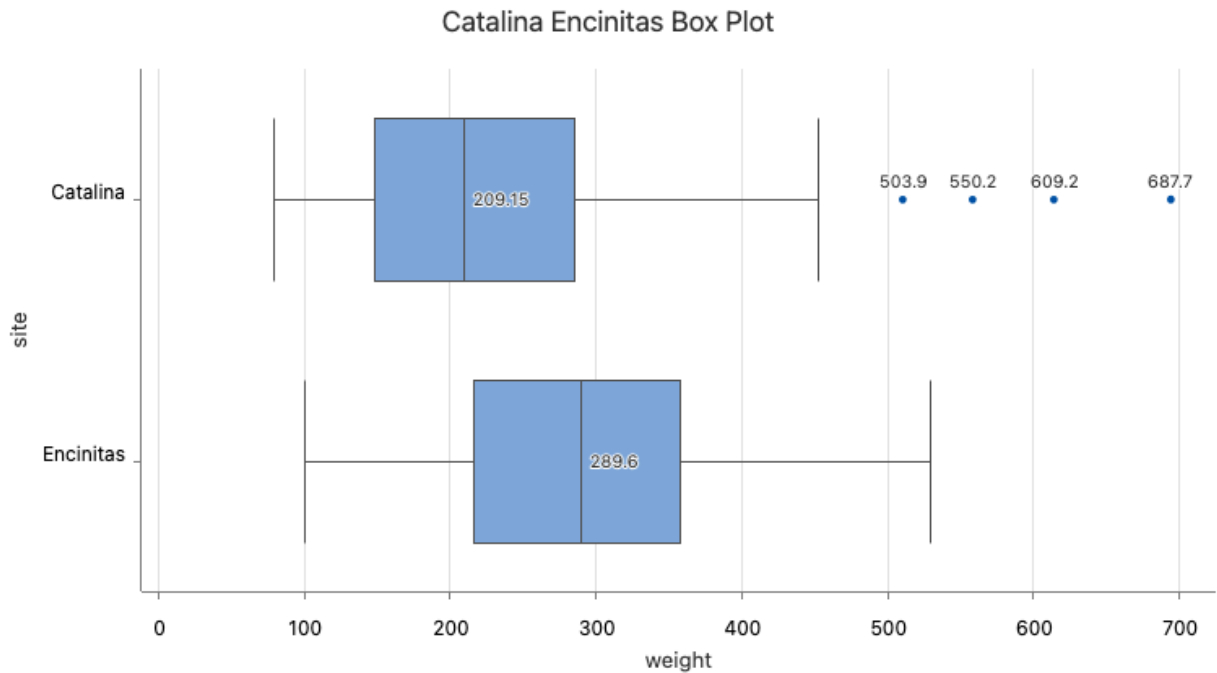


Statistics

Variable	site	N	Mean	StDev	Minimum	Median	Maximum	IQR
Weight	Catalina	56	242.116	129.202	78.3	209.15	687.7	137.12
	Encinitas	62	290.156	101.050	99.8	289.6	529.2	140.6





### 3) Analysis:

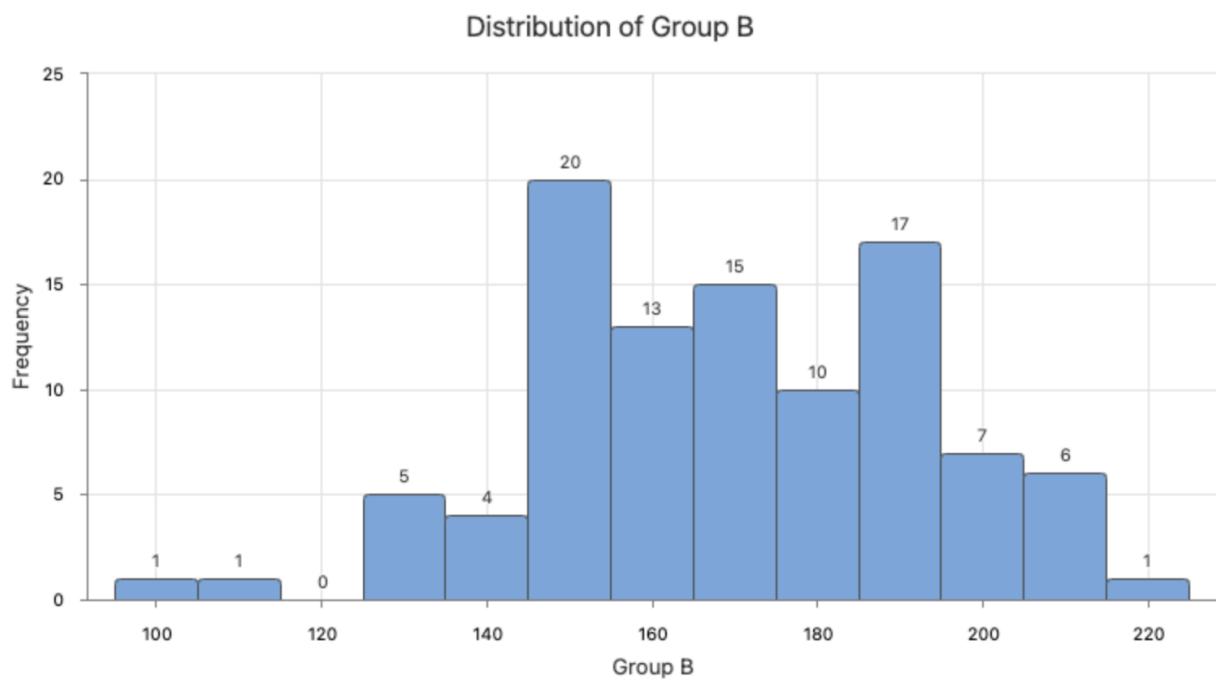
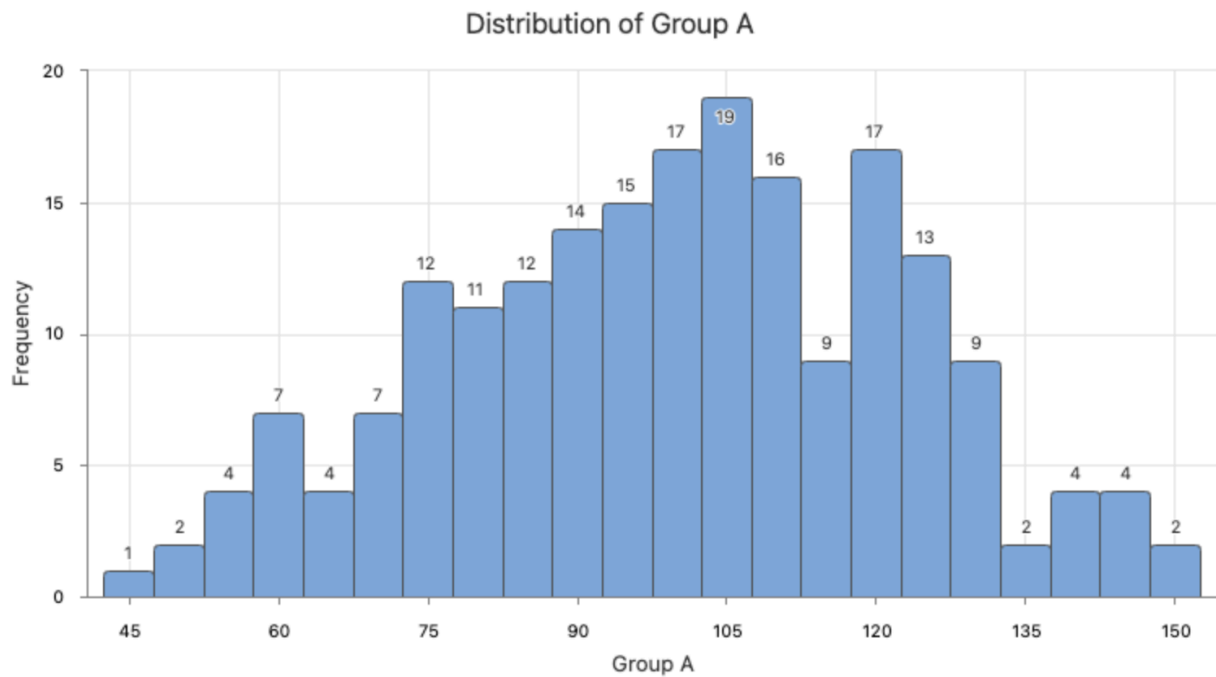
The average body mass of spiders in Catalina is 242.12 mg, while in Encinitas, it is 290.16 mg. Although Catalina has a lower mean body mass, the data shows more variability, as shown by the greater number of outliers. The Catalina Body Mass Distribution graph is right-skewed, with a tail extending toward higher values, suggesting some exceptionally large spiders. In contrast, the Encinitas distribution is more symmetrical, indicating a more consistent spread of spider body masses around the mean. The standard deviations of 129 mg for Catalina and 101 mg for Encinitas further highlight this difference in spread.

### 4) Conclusion

Despite Catalina having higher maximum values, the overall difference in means and similar standard deviations suggest a significant distinction between the two groups. Encinitas spiders, on average, weigh more than those in Catalina, supporting the conclusion that the body masses of spiders from the two sites differ.

## Statistics

Variable	N	Mean	StDev	Minimum	Median	Maximum	IQR
Group A	201	99.7904	22.7429	43.3999	100.5	149.8	34.2913
Group B	100	169.932	23.7951	100.5	172.579	223.642	39.2472



- 1) The interval between Group A and B is  $[100.5, 149.8]$  found by using Group B's minimum value and Group A's maximum value
- 2) The Percentage of Group A's data that overlaps with Group B's is approximately 50% shown by the overlapping area in each bar graph.
- 3) The percentage of Group B's data that overlaps with Group A is approximately 20-25% again shown by the overlapping in the bar graphs above.