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Zoology

Why Do We Not See Butterflies in the Winter?

Have you ever wondered why you never see butterflies in the winter time? Could it be that their life cycle is dependent on the temperature of their environment? If the temperature of the environment is decreased then, the length of time the butterflies spend in each stage of life will be increased.

Received by expedited shipping, two separate cups containing Painted Lady caterpillars and their food each arrived in the same package. One cup, Group A, was placed at room temperature indoors, where a daily log monitoring temperature was kept. The second cup, Group B, was placed in an unfinished basement setting, without a direct heat source. A daily temperature log was kept for Group B. Temperature for both Groups was checked between 5 and 7pm daily and recorded in Celsius. Following the instructions from Carolina Biological Supply Company, the insects were transferred to a butterfly net when all the insects in one group reached the chrysalis phase and maintained it for three days. After the first butterfly hatched in each group, the insects were provided with a sugar water solution as food, which was replaced every other day. The progress of each group of insects was closely monitored for the effect of temperature on the length of time in each phase of the Painted Lady Butterfly life span. The experiment ran for 31 days.

Group A had an average temperature of 23.8 degrees Celsius over 31 days. Group B had an average temperature of 17 degrees Celsius over 31 days. There was a 6.8 degree temperature average difference. Group A stayed in the caterpillar form for 8 days, while Group B spent 29 days as caterpillars. Group A was in chrysalis form for 8 days, while Group B was in chrysalis for 12 days. Group A, as of day 31 and the final day of the experiment, had spent 23 days as Painted Lady Butterflies. Group B, as of the final day of the experiment, had hatched two butterflies of the six chrysalis'. As the results indicate, temperature has a significant effect on the lifespan of Painted Lady Butterflies. Group B grew much slower and spent a much longer time in each phase of the lifespan than Group A, which was raised at a warmer temperature. It is clear that butterflies prefer a warmer climate, and that's why we do not see them in the winter.