Behavioural studies on two colour morphs of the two-spot ladybird (Adalia Bipunctata)

Contents

1 Abstract

This experiment examined the behaviours of two colour morphs of the two-spot ladybird (Adalia Bipunctata). Adalia bipunctata L. is a tree-dwelling lady beetle native to Europe, Central Asia, and North America that is commercially available for aphid control in Europe and North America. Lady beetles are home to a diverse range of symbionts, including parasitoids, viruses, eugregarines, fungi, bacteria, nematodes, and microsporidia (Steele and Bjørnson, 2014). The comparison of Weight average between Melanic and Typical morphs and The assessment of time it took to attack aphid on female and male two spot ladybirds was tested using a unpaired t test in r studio. The results proved my hypothesis and displayed melanic morphs having a mating advantage due to their fitness and secondary female two spot ladybirds having a slower paid attack compared to males. These results have important implications for understanding and analysing the behavioural studies of two spot ladybirds.

2 Introduction

As the field of ecology expands, so does analysing the behaviour studies on two -spot ladybirds. Coccinellidae, known as ladybirds, is from the family of the Coleoptera. The family of Beetles are the most diverse and species-rich group of insects (Zhang et al., 2018) with around 300,000 described species (Woodcock et al., 2013). A study has shown that not all ladybirds have the same predominant colour BOOK. the colours vary, for example, Adalia bipunctata known as two spot ladybirds have a red ground colour with black spots known as typical morphs whereas melanic morphs have a black ground colour with red spots. The two spot ladybird are becoming more widespread and survival of species in their areas. The main objective of this report was to determine if there was any behavioural differences between two colour morphs of the two-spot ladybird. As a result of the two colour morphs of the two spot ladybird, it is important that the behaviour is analysed. Currently, there is an abundance of research regarding this. Several studies state that melanics of both sexes have a general mating advantage over the typical morph due to the influence of body weight (Tomlinson, Kearns and Veltman, 1995). Whereas some studies suggest that melanic morphs will have a selective advantage over the non-melanics due to the greater ability to absorb solar radiation. Therefore clarification is needed.