

SAMPLE ABSTRACT

A Test of the Competitive Exclusion Theory in Two Related Species of Butterflies

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The food habits of larval butterflies of two related species Papilio splendens and Papilio blanchii in a zone of overlap near Oil City, Pennsylvania were examined. The theory of competitive exclusion predicts that food habits of closely related species should not overlap significantly where the species occur together. Transects in five different habitats were used to determine food and habit preferences in wild populations. Captive caterpillars were offered various foods in the laboratory; weight changes of foods and caterpillars were examined daily. Food habits in overlapping habitats were significantly different between the two species (ANOVA $p = 0.001$). Food habits in non-overlapping habitats were not significantly different (ANOVA $p = 0.52$). There were no differences in food preference (ANOVA $p = 0.76$) or growth rates (ANOVA $p = 0.88$) on different foods from laboratory populations. These species are able to co-exist because they are not competing for the same and limited food resources in the same area. These results support the theory of competitive exclusion because the two species did not use the same food resources in the same habitats.

HOW TO WRITE AN ABSTRACT

A properly written abstract presents a summary of the research conducted and the most significant conclusions reached. Abstracts are the chief means by which scientist decide which research reports to read.

The Title

Make your title concise, but also descriptive.

The Body of the Abstract

The abstract is a very brief overview of your **ENTIRE** study. The abstract tells the reader **WHAT** you did, **WHY** you did it, **HOW** you did it, **WHAT** you found out, and **WHAT** it means. The sequence of sentences is ordered in a logical fashion, beginning with an introduction that includes your hypothesis and proceeding to your test (e.g. materials, methods and procedures used), results (data or findings), discussion and conclusions.

Think of the most important items that crystallize each part of your research study. Leave out unimportant details. As a first draft, write one or two sentences that summarize each section. For your final draft, make sure the abstract flows logically. Give it to a friend, teacher, parent, mentor, etc., to read. Ask them to tell you what they think you actually did and what you found. Revise as necessary.