Annotated Bibliography for Sequestration of Plant Compounds by Herbivores

This study is typical of modern sequestration studies in that it looks at predator trials to ascertain that the herbivore is distasteful, and uses chemical analysis to test if the herbivore sequesters chemicals from its diet. They found that the bug does sequester glucosinolates and stores the chemical for extended periods.

This paper first introduces the hypothesis that host plant specificity in herbivores is driven by predators.

This interesting paper shows that males spend longer investigating females with more sequestered flavonoids in their wings than females without flavonoids. They hypothesize that females with more flavonoids are more fertile because flavonoid rich petals have more protein than flavonoid free leaves.

Chapter 17 (pages 411-457) in this book covers insects and toxic plants. This is the most detailed chemistry of the literature I found.

This chapter is an overview of animals that mimic toxin sequestering animals. Bowers proposes a mimicry continuum as a model for mimicry.

This is a synthesis of the sequestration literature.

This paper also uses predator trials and chemical analysis as proof of sequestration. The results are weakened by using a native butterfly and a non-native host plant.

This study looks at different genetic lines and their responses to toxins in their diets. Different strains were found to sequester different diets more efficiently, but not do as well on other diets.

This overview of sequestration is cited in most sequestration articles. It covers all aspects of sequestration including chemicals and mechanisms.


*Heliconius sara* is shown to be able metabolize cyanogens and sequester them as a chemical defense.


This is an overview of blue butterflies. It mentions studies of sequestration of cycasin and flavonoids by blue butterflies.


This paper argues that although cyanogenic glycosides do not deter all predators, they are part of a plants defense. Cases of *Heliconius* and other butterflies sequestering cyanogenic glycosides are included.


This study includes predator trials to show that *Neacoryphus bicrusis* sequesters alkaloids from its host plant. It also included chemical analysis of host plants and herbivores.


A coevolutionary system of plants producing cyanogens, moths sequestering them and wasps sequestering the cyanogens from the moths is illustrated.


This chapter is a review of chrysomelid beetle interaction with their host plants toxins. Topics include host plant variation and use of differing compounds by different developmental stages.


This paper illustrates the interesting interaction of salicin and *Phratora vitellinae*. *Phratora vitellinae* sequesters salicin and metabolizes it into salicylaldehyde. This reaction gives off glucose, so the beetle gains a defensive secretion and a nutritional reward.