

**PSEUDOXENETUS REGALIS**  
**(HETEROPTERA: MIRIDAE: ORTHOTYLINAE):**  
**SEASONAL HISTORY AND DESCRIPTION OF FIFTH INSTAR**

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*Abstract.*—The seasonal history of the mirid *Pseudoxenetus regalis* (Uhler) was followed on white oak, *Quercus alba* L., in central Missouri during 1984–1986. This univoltine species is a specialist feeding only on oaks. Overwintering eggs hatched in early April; adults first appeared in early May and are present until the end of May. Notes are given on the North American distribution, polymorphism, and host plants. The fifth-instar nymph is described and illustrated.

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*Pseudoxenetus regalis* (Uhler) is widely distributed in eastern North America (Carvalho, 1958) and one of many plant bugs restricted to feeding on oaks, *Quercus* spp. Despite this wide distribution, virtually nothing is known regarding the biology of this species. Two color morphs exist and were initially described as separate species by Uhler (1890). The morph “*scutellatus*” usually has a black pronotum and white scutellum and “*regalis*” usually has an orange pronotum and white scutellum. Henry (1985) concluded that *regalis* and *scutellatus* were conspecific and placed *regalis* as the senior synonym of *scutellatus*.

Herein I outline the seasonal history of *P. regalis* based on samples collected in Missouri during 1984–1986, discuss the distribution, polymorphism, and the host plants of this species, as well as describe and illustrate the fifth instar nymph.

STUDY SITE AND METHODS

The study site in Columbia (Boone Co.), Missouri, was an open field dominated by large white oak, *Quercus alba* L., and shagbark hickory, *Carya ovata* (Mill.) K. Koch, with an understory of closely mowed grasses and forbs, surrounded by a mature oak-hickory woodland border.

I sampled weekly from early May to mid-June 1984. In 1985–1986, sampling began in late March to determine earliest eclosion and thereafter collections were made every 3–4 days until adults were no longer collected (early June). Mirids were sampled by sweeping branches with a standard 15-inch beating net. All specimens taken during ca. 20 minutes of sampling were captured. The number taken was small, with a typical sample consisting of only 4–10 specimens. Immatures were placed in alcohol and sorted to instar in the laboratory; adults were killed using ethyl acetate, mounted, labeled, and deposited, with the immatures, as voucher specimens in the Wilbur R. Enns Entomology Museum (EMUM), University of Missouri–Columbia.

To determine oviposition sites, adults were caged on twigs of white oak in the laboratory and any oviposition noted.