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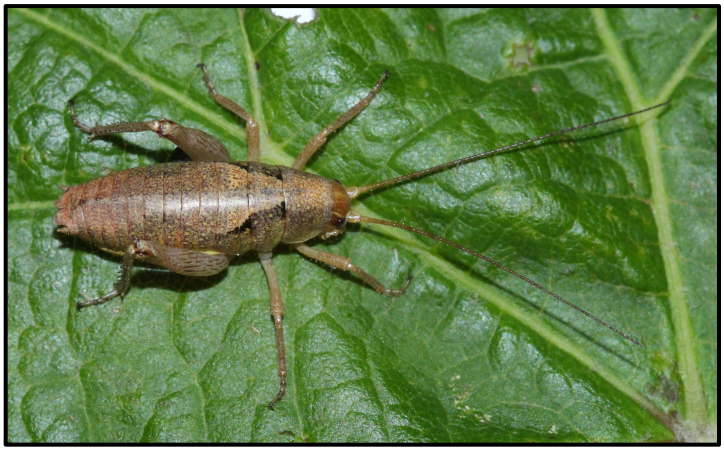
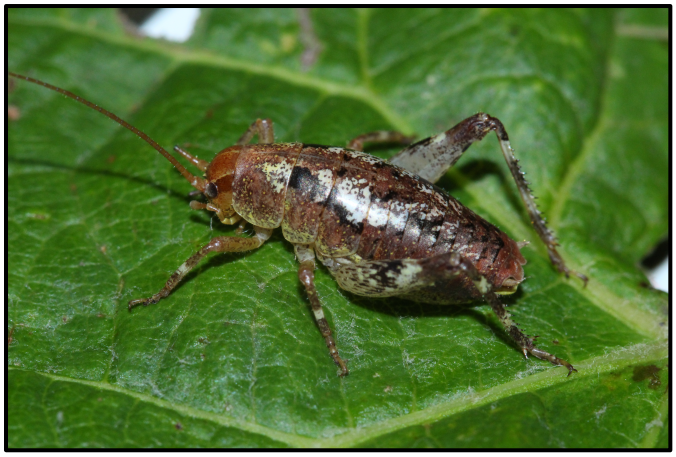
LEAF SYMPTOMS: In April, 2015 we observed unusual leaf symptoms in select hillside vineyards immediately adjacent to oak woodlands in Napa County. Feeding activity results in a "lace-like" appearance to damaged leaves, as seen in the photos below. In March 2017, we observed feeding damage to expanding buds (E-L 3).

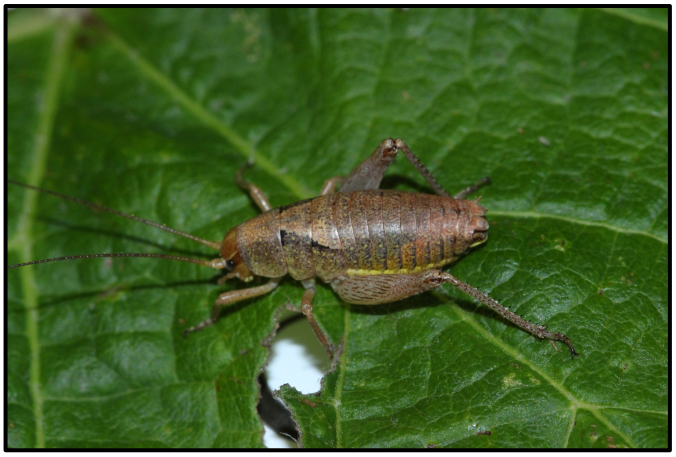
ARBOREAL CAMEL CRICKET:

Gammarotettix bilabatus (Orthoptera: Rhaphidophoridae)

The insect associated with this damage is the arboreal camel cricket[2]. The adult crickets do not have wings. They have one generation per year; adults appear in April and are absent by July. In the literature, grape is not recognized as a major host for this species. Vineyards surrounded by suitable cricket habitat may experience some level of damage annually. However, drought conditions in their arboreal range could have resulted in the more widespread damage reported in 2015. Male crickets with 2 different patterns of markings are pictured below.







Host plants include[1]:

Ceanothus cuneatus
(California lilac)

Heteromeles arbutifolia
(Christmas berry)

Quercus agrifolia
(coast live oak)

Umbellularia californica
(California bay)

Pinus radiata
(Monterey pine)

Robinia pseudoacacia
(black locust)

Aeusculus californicus
(California buckeye)

Mahomia = Berberis sp.
(barberry)

1. Stidham. T. A., 2005. Additions to the natural history of *Gammarotettix bilobatus* (Orthoptera: Rhaphidophoridae). *Journal of Orthoptera Research* 14(2): 149-151.

[2]The authors gratefully acknowledge specimen identification by Dr. Rosser Garrison at CDFA.