

## ***Vryburgia trionymoides* (DeLotto) (Pseudococcidae), a Pest of Succulents<sup>1</sup>**

Ian C. Stocks<sup>2</sup>

**INTRODUCTION:** On several occasions in 2011, succulents (Crassulaceae; Figure 1) for sale at retail stores in Florida were found with infestations of the mealybug *Vryburgia trionymoides* DeLotto. A traceback revealed that the succulents originated in California, where this mealybug is known as an occasional greenhouse pest. *Vryburgia trionymoides* was first detected in Florida in 2002 at several discount retailers in Volusia, Lake and Palm Beach counties, and was not detected again until 2005, again in Volusia County, nor after that until 2011 in Nassau County.

**DESCRIPTION:** The mealybug (Figure 2) is pinkish-purple, with a light coating of white wax over the body, and thick white filaments arising from the tip of the abdomen. The pinkish-purple body color may be obscured by the powdery wax coating. Other mealybug species likely to be encountered on Crassulaceae include *Planococcus citri* (Risso) (citrus mealybug), *Phenacoccus solani* Ferris (solanum mealybug) and several species of *Pseudococcus*. In general, identification requires slide-mounting to observe morphological characteristics.

**BIOLOGY:** Little is known about the biology of this species. It is most commonly collected on succulent plants in the Family Crassulaceae. Occasionally, the similar species *Vryburgia brevicurris* (McKenzie), known from California, is found infesting succulents in Florida. Specimens intercepted or found in retail stores often were well-hidden in the axillary region near the stem, making detection more challenging.

### **HOSTS:**

Asclepiadaceae—*Caralluma dummeri* (N. E. Br.) A.C. White and B. Sloane, *Huernia* sp.

Aizoaceae—*Aeonium* spp., *Carpobrotus* spp.; *Lithops* sp.

Crassulaceae—*Aeonium* spp., *Crassula* spp., *Dudleya* spp., *Echeveria* spp., *Graptopetalum* sp., x *Pachyveria*, *Sempervivum* spp.

Asteraceae—*Senecio* sp.

Liliaceae—*Aloe* sp., x *Amarcrinum* (Gillian Watson, personal communication, CDFA)

**ECONOMIC IMPORTANCE:** There are no published reports of economic losses caused by this species. Gillian Watson (personal communication, CDFA) reports that even though an untreated infestation can kill a plant, it has not had an economic impact on succulent production in California.

**DISTRIBUTION:** Described originally from Kenya, this species is presumed to be native to Africa. Outside of Africa, it has been intercepted in South Korea (Soo Jung Suh, personal communication, National Plant Quarantine Service, Republic of Korea), once in the U.S. from Mexico (Greg Evans, personal communication, USDA-APHIS-PPQ), and is considered at least locally established in parts of southern California (Gillian Watson, personal communication).

**NATURAL ENEMIES:** There is no published report of natural enemies. The Universal Chalcidoidea Database contains records for four species of parasitoids associated with an unidentified *Vryburgia* species, and one species (*Anagyrus fusciventris* Girault) for the related mealybug *V. lounsburyi*, which is also known from California. *Anagyrus fusciventris* is recorded from Florida, and a second species, identified only as *Aphycus* sp., is listed from Florida.

<sup>1</sup> Contribution No. 1226, Bureau of Entomology, Nematology and Plant Pathology—Entomology Section

<sup>2</sup> Taxonomic Entomologist, Florida Department of Agriculture and Consumer Services, Division of Plant Industry, P.O. Box 147100, Gainesville, FL 32614–7100

## LITERATURE CITED

**Anonymous. 1994.** California plant pest and disease report. [http://www.cdffa.ca.gov/phpps/ppd/PDF/PPPDR\\_1994\\_13\\_5-6.pdf](http://www.cdffa.ca.gov/phpps/ppd/PDF/PPPDR_1994_13_5-6.pdf). (Last accessed 10 September 2012.)

**DeLotto, G. 1961.** New Pseudococcidae (Homoptera: Coccoidea) from Africa. *Bulletin of the British Museum (Natural History) Entomology* 10: 211–238.

**Lafin, H., P.J. Gullan and M.P. Parrella. 2004.** Mealybug species (Hemiptera: Pseudococcidae) found on ornamental crops in California nursery production. *Proceedings of the Entomological Society of Washington* 106(2): 475–477.



**Figure 1.** Succulents from California at a Florida distribution center ready for shipment to retailers. Photography courtesy Ian Stocks, FDACS-DPI.

**Figure 2.** Adult females of *Vryburgia trionymoides* on a succulent leaf. Photography courtesy Lyle Buss, UF-Entomology and Nematology.