

## New Records for the Leafy Liverwort *Calypogeia peruviana* Nees et Mont. (Calypogeiaceae) on the Delmarva Peninsula

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**Abstract.** *Calypogeia peruviana* Nees et Mont. is a tropical-subtropical leafy liverwort that has been reported as far north as the southeastern Coastal Plain of North Carolina. This report now extends the range of *C. peruviana* northward along the Atlantic Coastal Plain to the Delmarva Peninsula, with stations in Delaware, Maryland and Virginia.

### INTRODUCTION

*Calypogeia peruviana* Nees et Mont. (Calypogeiaceae) is a tropical-subtropical leafy liverwort that is widespread in South and Central America and Mexico, and extends eastward through the Gulf Coastal Plain, to as far north as the southeastern Coastal Plain of North Carolina. Westward this species has been reported from the mountains of North and South Carolina, as well as in east Tennessee (Schuster 1969, Hicks 1992). *Calypogeia peruviana* has also recently been reported from the Ouachita Mountain region near Hot Springs, Arkansas (Haley and Marsh 2002). The present report extends the range of *C. peruviana* northward along the Atlantic Coastal Plain to the Delmarva Peninsula.

### DISCUSSION

The Delmarva Peninsula lies entirely within the Atlantic Coastal Plain physiographic province of the eastern United States and consists of the Eastern Shore's of Maryland and Virginia, and the majority of the state of Delaware [the northern portion of Delaware lies within the Piedmont Physiographic

province (Plank & Schenk 1998)]. In 2003, the first author collected *C. peruviana* from a *Taxodium distichum* Rich. swamp in Worcester Co., Maryland, where it was found growing on hummocks and in hollows with other bryophytes. These include: *Syrrophodon texanus* Sull. and *Telaranea nematodes* (Gott.) Howe (two other species with more southern or Atlantic Coastal Plain distributions), *Odontoschisma prostratum* (Sw.) Trev., *Pallavicinia lyellii* (Hook.) Carruth., and *Trichocolea tomentella* (Ehrh.) Dum. This record marks a northern range extension for the species and a new addition to the hepatic flora of Delmarva (McAvoy, Biechele, and Knapp, *Annotated Checklist of the Liverworts and Hornworts of the Delmarva Peninsula*, 2006, in prep). This collection (Worcester Co., Maryland, 2003, McAvoy 622BR, pers. hb.; ABSH) was confirmed by Dr. Raymond Stotler from Southern Illinois University, where a duplicate specimen has been deposited. This record marks a northern range extension for the species and a new addition to the hepatic flora of Maryland. Subsequent to the 2003 collection, the first author has since discovered this distinctive species with blue-green leaves (the result of blue oil bodies) in the following counties of Delmarva, where it grows primarily on humus and logs in shady, wet swamps, often with Atlantic white cedar [*Chamaecyparis thyoides* (L.) BSP]: Delaware, Sussex Co., 2005, McAvoy 825BR, pers. hb.; Maryland, Dorchester Co., 2004, McAvoy & Biechele 786BR, pers. hb.; Virginia, Accomack Co., 2004, McAvoy 779BR, pers. hb. The Sussex Co., DE collection marks the northern extreme for the species and is about 300 miles (483 kilometers) north of the

Onslow Co., NC occurrence reported in Hicks (1992).

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