Three species of the Pearly-eye genus *Enodia* (Hübner, 1819) observed together in Colonial National Historical Park, Virginia

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ABSTRACT. Butterflies of the Pearly-eye group of satyrs (genus *Enodia*) are rarely observed together at the same site at the same time. This report documents an occurrence of *Enodia anthedon*, *E. portlandia* and *E. creola* together at a location near Jamestown, VA.

Editor's Note: *Enodia* is now recognized as a subgenus of *Lethe*.

INTRODUCTION

Three sibling Pearly-eye species of the genus *Enodia* are found on the East coast of the United States: *Enodia anthedon* (Northern Pearly-eye), *E. portlandia* (Southern Pearly-eye), and *E. creola* (Creole Pearly-eye). These woodland satyrs prefer shady interiors of dense forests and tend to remain close to the ground. Wetlands are often present where they are observed. Native cane (*Arundinaria sp.*) is typically present where Southern and Creole Pearly-eyes occur. Northern Pearly-eyes frequent stands of woodland grasses. Adults do not nectar on flowers, instead obtain nutrients from sap, dung, carrion, and decaying organic matter.

OBSERVATIONS

A butterfly survey (15 Aug 2016) conducted in the Neck of Land (NOL) area of Colonial National Historical Park, VA, recorded twelve Northern Pearly-eyes and a single Creole Pearly-eye. This was the first known sighting of a Creole Pearly-eye in James City County. A second butterfly survey conducted one year later in the general area recorded three Northern and two Creole Pearly-eyes. Subsequently a group of volunteers from the Historic Rivers Chapter of Virginia Master Naturalists and the Coastal Virginia Wildlife Observatory submitted a proposal to the National Park Service (NPS) to conduct a citizen science study of Pearly-eye butterflies in the NOL area. The NPS proposal was approved and a two-year study began in April 2018. All three Pearly-eye species were observed and documented. A Southern Pearly-eye was observed on 4 Sep 2018, representing the first known sighting of this species in James City County. A total of three Southern Pearly-eye species were observed on the same day: 4 Sept 2018, 18 May 2019, and 10 July 2019. All three species were photographed side-by-side on 18 May 2019, at a sap seep near the base of a Chestnut Oak (*Quercus montana*) (**Fig. 1**).

Observing all three Pearly-eye species together in the same location is a rare event according to Porter (2016). During a speech he presented at the University of Georgia, he reported finding all three Pearly-eye species in the Tallassee Forest in Athens-Clarke County, Georgia and commented: "The presence of three virtually indistinguishable, but genetically distinct species, at the same time and in the same place is almost unheard of outside the tropics." Pyle (2010) described finding all three Pearly-eye species on a farm in southern Illinois, and Cech & Tudor (2005) stated that all three Pearly-eye species can be found together in parts of Arkansas. Using the Regional Species Checklist generator on BAMONA (Lotts & Naberhaus, 2021) and selecting counties within states where the ranges of all three Pearly-eyes overlap, 28 counties in 10 states were identified where sightings of all three species have been reported. However, this is not confirmation that all three species were observed at the same place and at the same time within those counties.



Fig. 1. Three Pearly-eye species at sap seep on Chestnut Oak, near Jamestown, VA, 18 May 2019. Left to Right: *Enodia anthedon, E. portlandia, E. creola*.

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