Evidence for Novel Viruses by Analysis of Nucleic Acids in Virus-like Particle Fractions from Ambrosia psilostachya

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INTRODUCTION

Hypotheses:

• The number of viral species in the world is much larger than the number currently recognized (Fig. 1).

• More viruses infect plants causing only subtle symptoms of infection.

To test these hypotheses, the Plant Virus Biodiversity and Ecology team has undertaken to sample specimens of plant species (Palmer, 2008) growing in the Tallgrass Prairie Preserve of northeastern Oklahoma (The Nature Conservancy, Fig. 2) for the presence of viruses.

We report here the discovery of signatures of viruses associated with one Tallgrass Prairie species, western ragweed, Ambrosia psilostachya.