SPIRITS OF NATURE
AN INTRODUCTION TO THE VARIATION IN THE APPARENT FACES ON THE THORAXES OF THE TEXAS GRAY, *GLENOIDES TEXANARIA* (LEPIDOPTERA: GEOMETRIDAE)

BY
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In 2010, in order to understand what drives insect diversity and abundance across sites, seasons and years, we began photographing moths and other creatures at lights (Pickering, 2015). We now have a million photographs online at www.discoverlife.org/moth, including 3,200 moth species from the United States (23 sites), Canada (1), and Costa Rica (1). Here I present unexpected patterns on some of their thoraxes. We are calling these '*Spirits of Nature*.'

In nearly 500,000 photographs taken over 4,500 nightly samples at Blue Heron Drive, Clarke County, Georgia, we have identified 1,405 species among 360,000 individual lepidopterans. The composite figure of 5 x 5 tiles shows the patterns on 23 of the 2,900 *Glenoides texanaria* individuals. It has two tiles for each of two individuals. Thus, it shows a total of 25 patterns.

I took the photographs with Nikon D50 cameras and AF Micro Nikkor 105mm lenses, using the built-in flash, aperture set at F stop 32, and shutter speed of 1/500th second. I cropped the original 3,008 x 2,000 pixel jpegs into close-up 200 x 320 pixel tiles and put these into the figure with PerlMagick image processing programs. No tiles are digitally doctored individually. However, the collective composite is brightened for printing here.

This year I have presented *Spirits of Nature* in two juried art exhibits, a caption for which read:

"Greek mythology tells of psychopomps who guided souls to their afterlife in the underworld. Charon, the ferryman of Hades, is one of the better known. He charged a coin to row each across the Acheron river, which divided the world of the living from that of the dead. Apparent faces such as these may have inspired such myths. They are close up photographs of the backs of moths. Please enjoy their wondrous diversity, beauty, and the challenge of finding some matches among them of the same individuals. It is a scientific mystery why some moths display such patterns. Note some have parasitic mites, which are red."

In the next issue I will compare the patterns on *G. texanaria* with other geometrid species, speculating on possible reasons why the patterns exist. Meanwhile I hope that you have fun trying to match the two pairs in the figure that are patterns from two individual moths.

Reference

Pickering, J., 2015. Find your dark side: Invitation to join Discover Life's Mothing project. *Southern Lepidopterists' News* 37 (4):205-208.

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Fig. 1. 'Spirits of Nature'

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