

Summary: Autumn Smith-Herron, Odonata (Dragonflies and Damselflies)

Autumn Smith Herron from Sam Houston State University began postDoctoral work on Gregarines within the Big Thicket in 2009.

The proposal, *Survey of Big Thicket Odonates: Preliminary Survey & Inventory of Odonates of the Primitive Texas Big Thicket* was found in the file but there is no record of payment unless through NPS. There was a period of time when NPS did directly pay a few researchers through Park Partnership.

Autumn Smith was awarded \$3000 for *SURVEY AND INVENTORY OF ODONATES AND THEIR GREGARINES WITHIN THE PRIMITIVE TEXAS BIG THICKET* on Oct. 8, 2010. Two checks were paid through the Thicket of Diversity. 70%, \$2100, on Nov. 3, 2010 and the final 30%, \$900, on April 17, 2012. It was paid through Park Partnership funds.

Autumn Smith Herron conducted the preliminary survey in conjunction with on-going survey work in the area. The \$3,000 paid for field transportation costs, and additional supplies. Basic collecting and material supplies were available through institutional or existing support. 12 sites were sampled.

The results were of interest because of climactic conditions, a period of drought. In the final report, Autumn Smith Herron stated

Many areas in Texas (including the Big Thicket National Preserve and surrounding areas) are currently listed within the D4 drought condition (exceptional conditions). This presents the opportunity to study the dynamics of Odonata populations under extreme conditions. During this survey, 59 species of Odonata were verified as residents of the Big Thicket National Preserve (and Primitive Big Thicket areas) by the presence of adults. However, the species assemblage documented during this survey do not reflect previous surveys of this group during non-drought years. Of the 30 known damselfly species documented from the Preserve, this year-long survey only recorded 14 of these. However, the current survey, and a revisit through the Sam Houston State University invertebrate museum (2005-2009) specimens, yielded several new county records, many of which were collected from ponds and lakes.

A google search of the researcher yielded over 30 publications on a variety of taxa including cockroaches, ants and bobwhites. Odonate data was submitted but some did not relate as the area was outside of the Big Thicket region that we have identified as within our range of study.

Submitted by Mary C. Johnston, Nov. 8, 2020

Data and records were reviewed by ToD Chair Mary C. Johnston and Intern, Natalia Doiron. No additions have been recorded to odonate research, thus no changes were made to the total number of species on the April 2026 Taxa Tally.

Submitted by Mary C. Johnston, April 2026