



## Winter 2021 Newsletter

### New-to-NC native vascular plant!

Harry LeGrand was on a butterfly trip with two other people in Brunswick County on October 22, 2020, checking flowers just off the fairways at the Sea Trail Golf Club on the mainland portion of Sunset Beach. On a recently mowed grassy area near a pond, he noted a very small 4-petaled flower, barely an inch off the ground, growing amid mats of small round leaves. He asked one of his friends, Lori Arent, to take some photos. He knew it was a "bluet" (*Houstonia*) of some species unfamiliar to him, but at the time he was thinking it must be a non-native species. After he got home, he checked various references, looked at plenty of Google images, and realized it was a native species of the Southeast, ranging supposedly only up the coast to central South Carolina! He had found Roundleaf Bluet (*Houstonia procumbens*).

Later that night, he posted photos on the Rare Flora website for the Carolinas, letting folks know about this discovery. Was it really and truly this native species? If so, might the plants have been planted or escaped from a nearby planting? Nothing negative was received from commenters. Thus, we must assume this is indeed a new vascular plant species for NC, and best treated as a natural occurrence, especially as references say it often occurs in open sandy waste places and sandy lawns.

A new species account for *Houstonia procumbens* and two photos have been added to the website for the Vascular Plants of North Carolina: [Vascular Plants of North Carolina \(ncparks.gov\)](https://www.ncparks.gov).



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### Update on Bees

NCBP members Hannah Levenson and Nancy Adamson have been working to provide a compendium of all the bees, wasps, ants, sawflies and other Hymenopteran species, with pictures of each species, on the Hymenoptera of NC website. Last fall, they documented a large population of the specialist Parnassia bee, *Andrena parnassiae*, on *Parnassia asarifolia* at Wolf Mountain Overlook on the Blue Ridge Parkway.



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## Great Expectations!

Who doesn't love the Scytodidae, the spitting spiders? Well, good news: NC is now home to a third species in this family, *Scytodes atlacoya* (joining *S. longipes* and *S. thoracica*), thanks to NCBP member Donald Zepp. While this small (8-9mm), nocturnal spider has no common name, it is commonly found on (and therefore sometimes *in*) buildings--especially on door- and window frames--and invariably in semi-protected locations such as open porches or beneath overhangs.

All scytodids have highly modified venom glands that produce a sticky substance (and silk!) as well as venom. To accommodate these enlarged, multifunctional glands, scytodids have evolved a hump-backed cephalothorax.

They have notably poor eyesight, so they benefit from having long, delicate legs with which they detect potential prey. When a promising meal is found, they "spit" a zigzag of sticky silk from their fangs, literally gluing their victims to the substrate. Only then do they cautiously approach their ensnared prey, very carefully inject their venom to immobilize it, and ultimately feed.

*S. atlacoya* often hunts by waiting on a small, delicate web platform, and has been observed to enter the webs of other spider species where it mimics prey to lure the webs' rightful denizens to their demise! Of course, sometimes the reverse happens, and *atlacoya* becomes the meal! (Unpublished observations)

Females carry a roughly spherical ball of about 50 loosely bound eggs until they hatch. These spiders play well with others of their species, and spiderlings may not only stay with their mothers for months, but large numbers of widely varying ages have been observed sharing large, disorganized webs. (Unpublished observations)

Significantly, while *S. atlacoya* apparently originated in the Mexican or Texas deserts, records and misidentified images of it have been found from the Gulf States, and more recently northward through the Atlantic coastal plain. While its recognition in NC has been spotty thus far, its distribution and numbers suggest it has merely gone unnoticed for some time. The northernmost photographic record of it seen is from Portsmouth, VA!

So if you're in our Coastal Plain, take a flashlight out on your porch starting next April, and look for these shy, slow-moving, harmless spiders; oh, and be especially sure to check around any doors and windows!



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## NC Micromoths

Long-term efforts to document North Carolina's moth fauna continue to yield many new state records. The focus of NCBP's moth team has shifted during the last decade towards the micromoths, which include many taxonomically difficult taxa. Jim Petranka has written over 250 detailed species accounts during the last few years. Bo Sullivan has added hundreds of new species to the state fauna over the last two decades. In particular, he has tackled many of the genera that require dissection and that are extremely challenging given the very small size of many species.

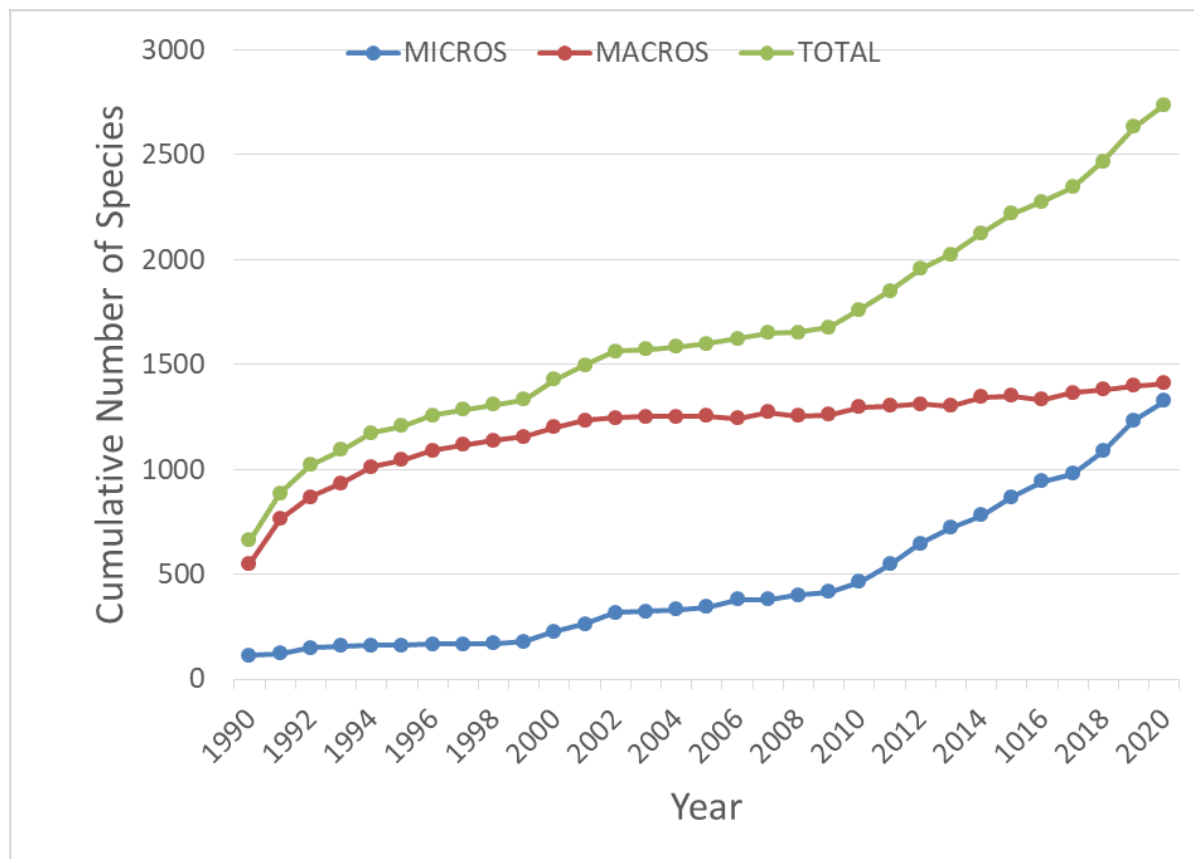
Jim Petranka and Tracy Feldman have been spearheading efforts to better document leaf-mining species. These tiny moths feed on the internal tissues of leaves and create distinctive patterns that are often species-specific. Because the adults of many species rarely visit lights, the mines provide the best way to document the distribution and abundance of species within the state.

Steve Hall, Kyle Kittelberger, Gary Maness, Mark Shields, and numerous other contributors have provided thousands of photographic records of micromoths, with many new state records and range extensions. These collective efforts have greatly enhanced our understanding of moth diversity in North Carolina. In the year 2000, our database contained records for 1428 moth species, including 1200 macros and 228 micros. In 2010, the total was 1761 species, with 1297 macros and 464 micros. With a focus on micros during the last decade, the state total as of December 10, 2020 was 2736 species, with 1409 macros and 1327 micros. Amazingly, the total number of moths in the NC fauna continues an upward trajectory even after many decades of work.

In September and October, Sullivan and Hall made visits to begin documenting the lepidopteran fauna of the Sandhills Gamelands. The area had once been of interest to museum personnel from New York and Philadelphia who in the 20's and 30's would take their families to Pinehurst on the train either as a destination or en route to Florida. They made collections locally and described a number of new species from the area, some of which have not been collected since.

With the help of Jeff Beane and Todd Pusser, several promising areas were identified as potentially rich sites based on their plant composition and soil types, and Sullivan and Hall focused on the Gamelands in the tri-county area (Moore, Scotland, Richmond) near Hoffman. Normal years now produce one or two new macrolepidopterans yearly, yet in September they added 2 new species, one recently described and known only from two sites in Louisiana. Ed Corey visited the area earlier in October and photographed another new macrolepidopteran which was confirmed during their second visit in October.

In addition to adding large numbers of new county records, Sullivan and Hall also discovered at least 3 undescribed species of microlepidoptera while adding many species to our database. The potential of the area has already been realized even though the sampling was at a time of year when most spring and summer species are no longer active adults. None of the missing species from the 1920's and 30's were relocated but given the timing, that is not surprising.



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