

How to Help Overwintering Insects

By Wizzie Brown

If you want to help insects survive winter, there are some things you can do to provide them with shelter during colder times of the year.

First of all, why should you provide shelter for insects during winter? Not all insects are pests! It is estimated that less than 5% of insect species are considered pests which means the majority of insects are beneficial or just hanging around the landscape. Any of you that have heard me speak before know that I say that you can't pigeonhole an insect as being bad or good based on what the insect is. You need to consider where the insect is located and what it is doing. Now that everyone is on board with helping insects out over the winter, let's get into what you can do to help.

Leave the leaves. There seems to be a movement on social media with this particular slogan (hopefully it's not trademarked). Essentially, it asks people to leave the leaves that fall to the ground in the fall as overwintering habitat for various animals. I do this in my own yard- although I have live oaks and those leaves don't drop until spring. Fortunately, my neighbor across the way has a burr oak that drops leaves in the fall

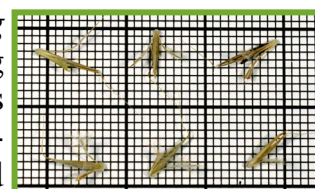


(Continued on page 2)

Starting *Schizachyrium scoparium* Seed

By Howard Nemerov

A previous *What's Growing On?* article—"Seed Starting at Home"—discussed various methods of mimicking Nature's ways of breaking seed dormancy, a mandatory requirement for germination.¹ Nature provides unusual variations on the three main dormancy-breaking methods, and *Schizachyrium scoparium* (Little Bluestem) is an example.



Schizachyrium scoparium seed on centimeter grid

There's a lack of easily-accessible, science-based guidance on germinating many native seeds, prompting a research journey. My first Little Bluestem seed came from Native American Seed. Three germination trials resulted in 0% germination. Was it bad seed? After trying 30 days of cold/moist stratification and another sample germinated under lights with no other input, they recommended using garden soil because it's closest to native soil. It's generally recommended not using soil in

(Continued on page 3)

Inside this issue:

Help Overwintering Insects (continued)	2
Starting <i>Schizachyrium scoparium</i> Seed (continued)	3-4

and all those leaves magically blow into my yard. Leaf litter makes great habitat not only for insects but also a bunch of other ground dwelling animals. I usually rake my leaves into my beds and then mulch over top of the leaves in the late spring.

Leave the stems. I know this doesn't flow off the tongue as well as the previous slogan, but it's of similar thought. This requires you to leave any hollow stemmed plants to allow insects that overwinter/ nest inside to have spaces that are cozy to spend the winter. I do this in my landscape as well, and if I get a letter from the HOA, I write them back with an explanation as to how I am helping native pollinators as there are numerous native bees that nest in hollow stemmed plants. Once new plant growth begins to emerge the following spring, I cut back the old stems, but I don't throw them away just yet. I place the cut stems into a back corner of my yard for any stragglers that may be taking their time to emerge.



Partially bury a log in your yard. Do you still have logs leftover from Snowpocalypse? If so, choose one to partially bury in the yard to create a habitat for various arthropods. This is another strategy that I am using in my yard, although I think that I need to move my buried log to a location that gets better sunlight in the morning. By partially burying the log, you allow moisture in which allows it to be more habitable to a larger number of arthropods. You can have arthropods overwintering in the log, under the bark, or under the log itself.

Create or buy an insect house. Insect houses can be as large or as small as fits your landscape and can fit any budget. I have both purchased insect houses- these are specifically native bee houses/ nurseries- and made insect houses. You can upcycle any water-resistant container into an insect house by filling it with other recycled items such as toilet paper tubes, shredded paper, pine cones, twigs, leaves, bamboo, paper egg cartons, or other natural materials. Insect houses can be placed on the ground, in the crotch of tree branches, or attached to fences or other objects.



By providing a few simple things as overwintering areas for insects, and having to do a lot less yard work, you can ensure that you create a more insect-friendly landscape.

For more information or help with identification, contact Wizzie Brown, Texas AgriLife Extension Service Program Specialist at 512.854.9600.

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(Continued from page 1)

germination flats, so I amended with sand and perlite. Still no germination.

After that, I bought a few starts at a Lady Bird Johnson Wildflower Center sale and planted them into the pocket prairie. When they produced seed, I tried again on the off-chance I bought stale seed. Two more times I tried cold/moist stratification for 30 days and had 8% germination (4 plants from 48 seeds planted).

Special stratification requirements

Online research for simple terms like “Schizachyrium scoparium seed starting” returned no information, underscoring the hidden nature of this plant’s needs. Trying various search parameters for “Schizachyrium scoparium” plus extension and government agencies finally discovered useful research by the USDA Forest Service which corroborated my experience, and guided me to successful seed starting. In the section on germination, the article confirmed that using garden soil isn’t helpful: “Germination in the field appears to be low, with seedlings widely spaced or absent.”

Next, it explained *Schizachyrium scoparium*’s unique needs.

*Stratification generally requires 30 to 60 days of 41 degrees Fahrenheit (5 °C); after this, germination initiates in 4 days if temperatures are 86 degrees Fahrenheit (30 °C). With this stratification and temperature regime, approximately 50% of little bluestem seed germinates within 6 days.*²

After reading this, I stratified for 60 days and then planted those seeds into flats, placing them on the top shelf of my growing stand where they’d get heat rising from the three shelves below. A digital hygrometer next to the flat reported temperatures in the 85–86° range during the day. This time, I got 35% germination (22 of 62 seeds) with emergence commencing in two days after sowing. Breaking this down further, the first flat came from seed harvested off my original Lady Bird plants (accession 1) which produced 13% germination (4 of 31 seeds). The other flat of 31 seeds came from the four plants grown from seed harvested off the Lady Bird plants (accession 2). This latter flat had 58% germination (18 of 31 seeds).

[Note: For best germination results, you’ll need an indoor growing setup.³ This seed requires unusual temperature extremes to break dormancy—attained in a controlled environment. Otherwise, just buy starts at our Master Gardener plant sales.]

Mycorrhizae produce healthier plants

Another tidbit from the USDA Forest Service article taught the value of including mycorrhizae in seedling and growing mixes, and the importance of not over-watering:

*Little bluestem hosts arbuscular mycorrhizae which seem to be most important with water stress. Mycorrhizal colonization increases with declining water availability.*⁴

As with many local natives, *Schizachyrium scoparium* grows well with little input once established. While not the most robust compared to previous years, it survived this year’s hot weather and produced seed this fall.

Best cultural practices

To produce the healthiest plants, a University of Maryland publication discusses cultural practices. On page 2, it discusses biology such as shade tolerance (none), mature height, disease resistance, and toler-

(Continued on page 4)

ance of wet soils. It also discusses features like erosion control and other ecosystem benefits.⁵ While somewhat redundant, the USDA’s plant guide includes more discussion on care and culture, along with uses and management considerations.⁶

Pollinator hosting

If all this science seems daunting, there’s a big payoff: many native butterflies—usually in the Skipper and Satyr families—host on native grasses. Lady Bird Johnson Wildflower Center notes that *Schizachyrium scoparium* hosts at least six butterfly species.⁷ I’ve seen larvae on mine.

Further features and benefits

Having grown *Schizachyrium scoparium* for three seasons now, its relatively petit size makes it an excellent addition to your low-maintenance landscape. It’s perfect for smaller pocket prairies, providing the prairie feel without crowding neighboring plants or distracting from other landscape investments. Its deep root system “punches” holes in soils compressed by development, letting rainfall enter into local aquifers. Once established, it needs little maintenance beyond trimming last year’s top-growth in late winter for best appearance in the coming season. Letting last year’s growth persist until spring creates a focal point during winter, and also provides shelter and nesting for various insects. Its blue-green color and vase-like habit provide eye-catching accents to any landscaping. Deer run down the road with the pocket prairie six feet away, but they seem to leave *Schizachyrium scoparium* alone.



Schizachyrium scoparium in the pocket prairie, with *Asclepias asperula* (Antelope-horns Milkweed) in the background. Native grasses and milkweeds do well together.

If you’re going to grow one native bunchgrass, *Schizachyrium scoparium* should be on your short list.

Endnotes

¹ Nemerov, Howard. “Seed Starting at Home.” What’s Growing On? December 2020, pages 4–7. Accessed November 16, 2022. <https://txmg.org/bastropcounty/files/2020/12/12-Dec.pdf>

² Steinberg, Peter D. “Species: *Schizachyrium scoparium*.” U.S. Department of Agriculture, Forest Service. Accessed November 7, 2021. <https://www.fs.usda.gov/database/feis/plants/graminoid/schsc/all.html>

³ Nemerov, Howard. “Setting Up an Indoor Growing System.” What’s Growing On? February 2022, pages 3–5. Accessed November 18, 2022. <https://txmg.org/bastropcounty/files/2022/02/02-Feb-2.pdf>

⁴ Steinberg, Peter D. “Species: *Schizachyrium scoparium*.” U.S. Department of Agriculture, Forest Service.

⁵ “Little Bluestem.” University of Maryland, Center for Environmental Science. Accessed November 7, 2021. <https://www.umces.edu/sites/default/files/Little-bluestem-summary.pdf>

⁶ “Little Bluestem.” USDA Natural Resources Conservation Service. Accessed November 16, 2022. https://plants.sc.egov.usda.gov/DocumentLibrary/plantguide/pdf/pg_scsc.pdf

⁷ “*Schizachyrium scoparium*.” Lady Bird Johnson Wildflower Center. Accessed November 16, 2022. https://www.wildflower.org/plants/result.php?id_plant=SCSC