

# Alabama Appalachian Fern Encounters

Article and Photos by Mike Heim  
Hayward, WI

Last summer (August of 2022) I decided to explore a part of the U.S. new to me, the Appalachian Mountains of Alabama. This ancient mountain system reaches its southernmost point in the east-central part of the state with both the Cumberland and the Blue Ridge Ranges terminating there. That made me wonder how the flora, including ferns, might differ from montane areas farther to the north.

All the soils that I saw were well-drained and acidic, having developed over the eons from the weathering of quartzite or sandstone, the latter being the more commonly encountered bedrock. Even tho the soils are virtually identical to those of similar elevations to the east in the Carolinas, there are some distinct and often quite obvious differences in the flora. For instance, I did not see any eastern white pine (*Pinus strobus*) or Canadian hemlock (*Tsuga canadensis*) in the wild anywhere in northeastern Alabama, while amongst the ferns, the same applied to the netted chain fern (*Woodwardia areolata*) and Hartford fern (*Lygodium palmatum*).

Even so, the ferns that I did encounter were wonderful. Two species were particularly common in woodlands, the Christmas fern (*Polystichum acrostichoides*) and cinnamon fern (*Osmundastrum cinnamomeum*). Back home in Wisconsin, cinnamon fern is limited to swampy woods, being replaced by interrupted fern (*Osmunda claytoniana*) on drier sites. Not so in Alabama, where cinnamon fern thrives even within relatively dry woods on ridgetops, with interrupted fern nowhere to be seen. Christmas fern favored its usual haunts, typically the sheltered slopes of ravines.

It was exciting to see my first maiden fern (*Thelypteris kunthii*) in the wild. It was a real standout with its glowing green color, forming a small genet, i.e. clonal population, on a stream flat.



ASPLENIUM RHIZOPHYLLUM ON SS BOULDER

Finally, a couple of mossy sandstone boulders laying in the deep woods not far apart from one another really caught my attention. One was carpeted in walking fern (*Asplenium rhizophyllum*), while the other was graced with a patch of the tiniest form of gray polypody (*Polypodium polypodioides*) that I had ever seen. These beauties are a great example of founder control, where the first plant propagule (in this case a spore) to colonize a new site ends up being dominant there. I see examples of this all the time when exploring our northern Wisconsin *Sphagnum* bogs. Two bogs next to one another, but not connected, will frequently have different species depending upon which arrived first.

If you enjoy botanizing on your travels, then I highly recommend exploring the backroads of northeastern Alabama. There are many living treasures, ferns and otherwise, to be discovered. In summer if you can tolerate extreme heat and humidity (and like to avoid crowds) or other times of year if you prefer more comfortable hiking conditions.



POLYPODIUM POLYPODIOIDES ON SS BOULDER

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HFF Fall Sale  
Bellevue Botanical Garden  
September 9th, 2023 from 10:00 - 3:00.