Hidden Beauty at Soldiers Delight

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Figure 1: Daphne on the Serpentine Trail in May

When I first visited the 1,900-acre Soldiers Delight Natural Environmental Area, I determined that it was nothing to write home about. Devoid of the lush greenery I reveled in exploring throughout the mid-Atlantic region since moving here from my childhood home in central California, Soldiers Delight reminded me more of the landscape where I grew up - hard, rocky terrain and open fields of dry grass. But in the midst of the pandemic, as we've all become more observant of the world around us, I returned to Soldiers Delight with fresh eyes and renewed curiosity - and was not disappointed.

Located along the largest remaining serpentine barren in the eastern United States, this rare and unusual ecological area covers a layer of metamorphic rock called <u>serpentinite</u>, which indeed bears a striking resemblance to snake skin, and was likely forced upward millions of years ago when a large land mass collided with North America. Soil containing the group of minerals known as <u>serpentine</u>, which comprise serpentinite, is lacking in major plant nutrients such as calcium, and conversely rich in chromium and nickel, elements that are toxic to plants.

The infertile conditions at Soldiers Delight have weeded out many plants, leaving only those that are well suited for such a harsh environment. I spent one September afternoon looking for some of these "survivors."

My main interest was the lovely <u>fringed gentian</u> (Gentiana crinita). Soldiers Delight is the only place in Maryland where you'll find it...if you're lucky. It is named after King Gentius of Illyria who supposedly found that the roots could be used as an emetic, cathartic, and tonic. I never found this beauty which unfortunately is sometimes illegally taken - an unethical practice which can be detrimental to this fragile population.



Figure 2: Fringed gentian. Photo courtesy of Christopher Winton

So what did I end up finding? On the Serpentine Trail, I saw <u>gray goldenrod</u> (Solidago nemoralis), <u>chicory</u> (Cichorium intybus), <u>partridge pea</u> (Chamaecrista fasciculata), and <u>blazing-star</u> (<u>Liatris spp.</u>), all of which are well adapted to the full sun and dry soil commonly found at Soldiers Delight.



Figure 3: Gray goldenrod



Figure 4: Blazing-star

But not all of Soldiers Delight is dry. Cutting through the open field, Chimney Branch creates a sort of "oasis" where an interesting variety of flora and fauna maintain a foothold. In this area, I discovered the moisture-loving <u>rose pink</u> (Sabatia angularis) and <u>New York ironweed</u> (Vernonia noveboracensis). I also spotted tadpoles and a small patch of <u>pixie cup lichen</u> (Cladonia asahinae) growing on some moss. Resembling a golf tee, this lichen is said to release powdery soredia (reproductive structures) if touched.



Figure 6: Daphne at Chimney Branch



Figure 5: Rose pink



Figure 8: New York ironweed



Figure 7: Pixie cup lichen

A very common plant, <u>Indian grass</u> (Sorghastrum nutans), flourishes in the open sections along the Serpentine Trail, giving the area a prairie-like feel. By late summer, each stalk produces a multitude of yellow flowers so minute they could easily be mistaken for seeds. Indian grass is part of the "fire climax" community. For at least 10,000 years, Native Americans engaged in land clearing and fire-hunting (a technique used to drive large game into places that made hunting easier) to keep such areas as "<u>barrens</u>." Today, the Serpentine Ecosystem Restoration Program (SERP) is working to restore the area to its pre-European settlement habitat with the help of the Maryland Department of Natural Resources (DNR), which conducts annual prescribed burns. Without such efforts, plants such as Indian grass would likely be displaced over time.



Figure 9: Indian grass

Displacement of plant species is part of a natural process called <u>forest succession</u>. Left to nature, the serpentine grassland of Soldiers Delight would be taken over by Virginia pines and eventually turn into a stunted forest comprised of post or blackjack oak. These trees become a more common sight on the Choate Mine, Red Run, and Dolfield (sometimes spelled Dolefield) trails. On the latter, I found <u>sundrop</u> (Oenothera spp.), <u>purple false foxglove</u> (Agalinis purpurea), <u>milkweed</u> (Asclepiadoideae), and <u>swamp thistle</u> (Cirsium muticum).



Figure 10: Swamp thistle

The eastern side of Soldiers Delight was more reminiscent of the Maryland that I know. The previously rocky trail was now packed dirt...much easier for walking. In some areas, fresh water from Red Run flowed past, while dense foliage provided shade. All this moisture harbored some interesting fungi. One was the highly-sought black trumpet (Craterellus cornucopioides) mushroom, a delicacy for mycologists.

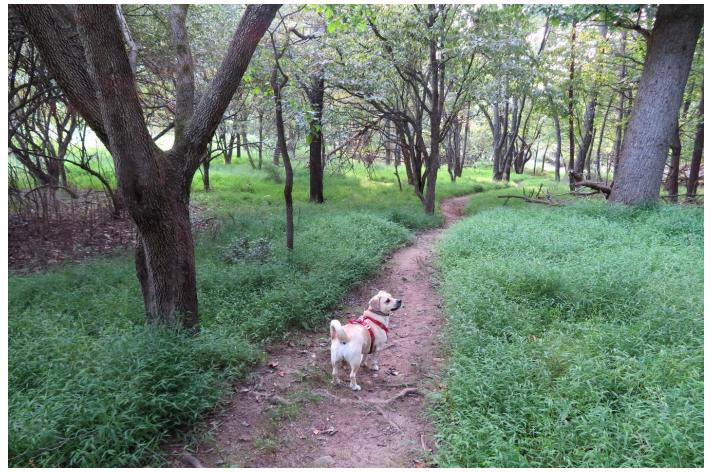


Figure 11: Daphne on the eastern side of Soldiers Delight



Figure 12: Black trumpet

The Choate Mine Trail led me past the flooded Choate Mine, once an important source of chrome ore. Chrome was first discovered in Baltimore County, and mines like this provided almost all the world's chromium from 1828 to 1850.

As I completed my hike, I concluded that one of the most striking features about Soldiers Delight is the diversity of terrain. Within a couple hours, I went from rocky barrens lined by grassy fields to stunted forests, and then lush greenery bordering clear streams to industrial remnants. Each zone presented a new opportunity to look for plants, fungi, and lichen. If you visit, you'll want to take the time to really experience and savor the area, paying close attention to the understated finer details because as Confucious says, "Everything has beauty, but not everyone sees it."

The first time I did this hike, I started at the <u>Visitor Center</u>, where I picked up a free trail map at the kiosk. On one of my subsequent visits, I commenced at the <u>overlook</u>, which, though lacking toilets, provides easy access to different trailheads. I suggest wearing thick-soled shoes to protect your feet on the rocky trails. Be prepared for lots of sun since trees are often scarce. Also, I recommend hiking after a few days of dry weather since some of the trails east of Deer Park Road can get quite muddy. Have fun!

For more information, see

- Maryland DNR Soldiers Delight, Baltimore County
- U.S. Geological Survey Field-trip Guide to the Southeastern Foothills of the Santa Cruz Mountains in Santa Clara County, California
- "Finding Wildflowers in the Washington-Baltimore Area" by Fleming, Lobstein, and Tufty
- Friends of Soldiers Delight Serpentine Ecosystem Restoration Program
- The Maryland Natural Resource Magazine, "Soldiers Delight A Remarkable Natural Area in the Suburbs of Baltimore," by Arnold "Butch" Norden, Spring 2007
- Maryland's Choate Chromite Mine, 1830-1920