

# A Twice-Lost Legume?

## Holmgren Milkvetch

<b>KINGDOM</b>	Plantae
<b>DIVISION</b>	Magnoliophyta
<b>CLASS</b>	Magnoliopsida
<b>SUBCLASS</b>	Rosidae
<b>ORDER</b>	Fabales
<b>FAMILY</b>	Fabaceae
<b>GENUS</b>	<i>Astragalus</i>
<b>SPECIES</b>	<i>holmgreniorum</i>

**H**OLMGREN MILKVETCH is a dwarf, short-lived, tufted, stemless, perennial—and wholly unassuming—member of the bean family. It is easily overlooked. Originally (and sometimes still) called paradox milkvetch, it was collected in 1941 by Melvin Ogden, who did not know that the species was undescribed. His specimen languished in a herbarium for decades, possibly with an incorrect identification. No one took note of the modest milkvetch again for 38 years. In 1979, it was discovered by Rupert Barneby and his fellow botanists, Drs. Patricia and Noel Holmgren; Barneby formally described the species and named it *Astragalus holmgreniorum* after his colleagues (see sidebar). He later joked that it was still a “pair a docs” milkvetch.

Now, this warm-desert locoweed may be lost forever, extinguished by buildings, exotic annuals and grasses, cattle, and the wheels of off-road vehicles.

The plant occurs on erosional slopes and washes of gravelly limestone near St. George, Utah, and in neighboring Mohave County, Arizona. Compound leaves branch from the root crown, and in April and May it sends up several pinkish-purple flowers with white-tipped wings. The fruit pods are 1–2 inches long and fully open at both ends.

Holmgren milkvetch was placed on the candidate list under the Endangered Species Act as early as 1980—and (like hundreds of other candidates caught in this legal limbo) there it stayed. Finally, in August of 2001, the Center for Biological Diversity and several other

## Rupert Barneby and the Discovery of the Holmgren Milkvetch

BY NOEL H. HOLMGREN

**R**upert Barneby, who passed away last winter at 87, is one of the best-known plant systematists of our time. He described 621 new species and 371 new varieties, many of which he discovered in the field—including the Holmgren milkvetch.

One late afternoon, in the spring of 1979, driving down a dusty road on the Arizona Strip, it was time to find a place to camp. Rupert had the perfect spot in mind, a place where he once stopped to collect plants near St. George, Utah. As I drove on I kept expecting him to tell me where to turn off, and finally I stopped at the Utah border and asked if he still had this “perfect place” in mind. He reiterated how nice a place it was. “When were you last there?” I asked.

A brief pause. “It was 1942. Why?”

“Was it anywhere near the Virgin River?”

“Yes,” he said, “it is a lovely place on the left bank of the Virgin River.”

Turning the truck around, I had to tell him what the last 37 years of urban sprawl had done to the town of St. George and the Virgin River. The lovely place he remembered was now covered with housing developments.

It was getting late so I took the first side road, a pair of tire tracks heading across the creosote bush desert. I chose an open, sparsely vegetated spot for camp. Rupert was out the door before I came to a stop. While maneuvering the truck, I could hear Rupert shouting. My first thought was that I had run over his foot. I quickly set the brake, jumped out, and ran around the truck. He was jumping up and down with excitement holding a plant in his hand. My wife Pat just shrugged, “He says he has never seen

this species of *Astragalus* before.” Rupert was ready to begin collecting; I was tired, hot, dusty, and hungry. I thought I doused his plans by saying “we can collect it after breakfast.”

The next morning, as usual, Rupert took off on foot to explore. After Pat and I climbed out of the camper, we realized that Rupert’s evening had not ended as early as ours. Next to each suitable plant was a carefully placed rock cairn, the tallest and neatest stack of pebbles by the individual which became the holotype for *Astragalus holmgreniorum*. I felt a twinge of guilt that I hadn’t let him collect the plants the previous night before supper. We made the collection and he named the plant for us, but the honor is all his.

*Noel and Patricia Holmgren are authors of Intermountain Flora, an eight-volume account of the vascular plants of the region that includes the Great Basin and most of the Colorado Plateau. For an excellent biography of Rupert Barneby, see Douglas Crase’s 2001 article in Brittonia, “Ruperti Imagines: A Portrait of Rupert Barneby” (53[1]: 1–40).*

# Species Spotlight

groups reached a remarkable agreement with Interior Secretary Gale Norton to expedite the protection of 29 highly endangered species across the country. As part of the settlement, the milkvetch received a final listing on October 29, 2001. But it may be protected only on paper: the all-important delineation of “critical habitat” as required under the ESA will not begin until federal funding becomes available.

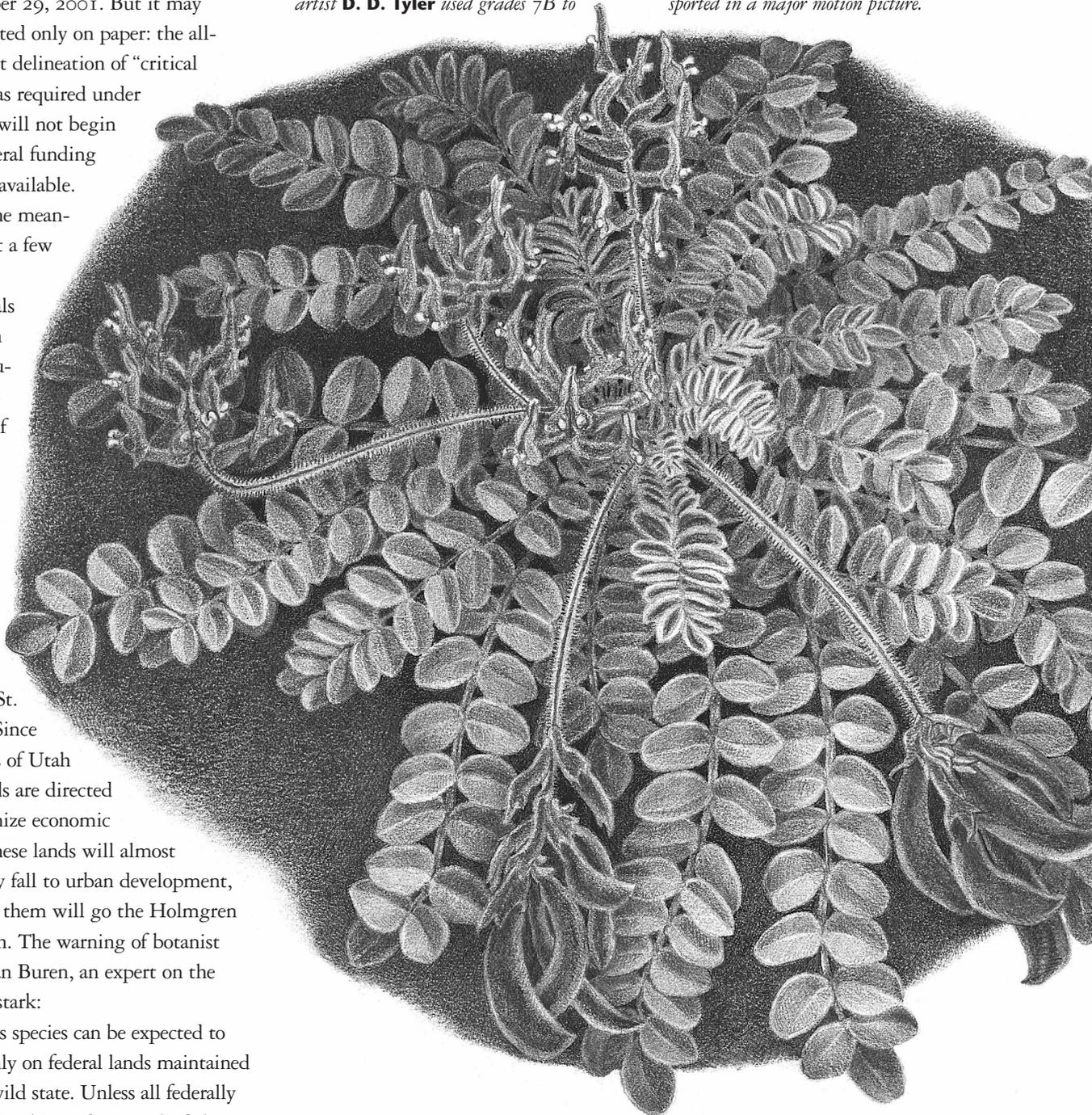
In the meantime, just a few thousand individuals are left in four populations—about half of which occur on land owned by the State of Utah, near burgeoning St. George. Since managers of Utah state lands are directed to maximize economic return, these lands will almost inevitably fall to urban development, and with them will go the Holmgren milkvetch. The warning of botanist Renee Van Buren, an expert on the plant, is stark:

“This species can be expected to persist only on federal lands maintained in their wild state. Unless all federally controlled habitat of *Astragalus holmgreniorum* is retained in public owner-

ship and closed to all forms of human-related disturbances, the continued existence of this species is unlikely.” ☞

**Joshua Brown** is Wild Earth’s assistant editor. Long-time contributing artist **D. D. Tyler** used grades 7B to

2H pencil to create this drawing. For 30 years, she has interpreted natural history in book illustrations, paintings, posters, and over 100 t-shirt designs. Some shirt designs—to her delight—have been sold at the Louvre, spotted around the world, and sported in a major motion picture.



Sources: Renee Van Buren, PhD, Biology Department, Utah Valley State College, Orem, Utah  
Center for Biological Diversity, [www.biologicaldiversity.org](http://www.biologicaldiversity.org)