

Two New Species in the Chinenses Series - One New to Science, Both New To Gardeners

The Iris world is fortunate that Darrell Probst, the "Epimedium Man", has been a SIGNA member since he was a teen. On his search to collect, grow and distribute all of the known Chinese Epimedium species he has been collecting irises as well. Below are two accounts - the discovery of a new species and finding Iris henryi in China.

Iris species novum *

Jan Sacks

Considering the number of new *Epimedium* species Darrell has discovered in China, it should not have been a surprise that he has discovered a new *Iris* species, nevertheless I was stunned (and thrilled) as this special event unfolded. In addition to his own collecting trips to China, Darrell has planned and funded expeditions by a young Chinese woman, Joanna Zhang.

[She] was the interpreter during my 2000 trip to China, hired by Mr. Mou, my official host. She was also charged with accompanying me and providing assistance whenever I ventured out into the wild. A college student at the time, she was due to graduate the following spring with a degree in English. During the trip she came to enjoy searching for *Epimediums* so much that after graduation I hired her to assist me with my studies. Since then she has been on many expeditions, visiting herbariums in several Provinces, and working with taxonomists to help locate many different species. Her success has been remarkable. (From Darrell Probst's Garden Vision Catalog 2003)

Whenever Joanna went on excursions, her primary goal was *Epimedium*, but she knew from their previous collecting trips that there were other genera that Darrell was interested in and *Iris* was high on the list. She has sent him several tender Evansias, including some lovely *I. japonica*. In this particular instance, however, in January of 2002, Joanna sent Darrell a box containing two plants labeled "Ophiopogon." Darrell knew immediately as he unwrapped them that they were irises. They had little starch storage tubers on the roots, which are characteristic of irises in the Chinenses Series (at that time of year). Darrell, Marty Schafer and I spent an afternoon examining these two iris plants. One had green leaves, while the other's leaves were flushed with red. They seemed to be tightly clumping - not at all like *I. odaesanensis* or *I. koreana*. Darrell thought it might be a new species. I was skeptical. Darrell potted and cared for the irises all season and in early March 2003 came the call - "The first clone is about to bloom". Out to Hubbardston we went. When I saw the flower I was totally charmed. The signal captivated me. It was unlike anything I had ever seen in an iris - in person or in photos. After hours of photographing and just gazing at this tiny but beautiful iris, I went home to comb the Waddick/Zhao book *Iris of China* and the *Iris* section of *Flora of China*. Darrell was right - no such *Iris* had ever been described.

Because the new species is from China, Darrell is arranging for it to be named, described and published by a Chinese taxonomist. I will give you my layman's description plus the interesting location data from Joanna's collection notes, herbarium specimens, and site photos. Each of the two clones came from a different location in the mountains of northern Guizhou Province (1700 to 1800 feet elevation). The lowlands of this province

verge on subtropical and even in the mountains it is hot in the summer. (The irises were growing with *Epimedium brachyrrhizum* which is hardy in New England. Next spring we will have more information on whether or not this species can survive our winter.) The irises were found on steep north-facing slopes. The first clone was growing in loose, rich and moist soil on a 60 degree slope between rice paddies among short grasses and ferns. The second clone was on a 40 degree slope under short pines among briars and grasses. The soil was rocky, dry and limestone. So far these irises have not been difficult to grow either in peaty potting mix or in our typical acid, sandy New England soil.

About a month after the first clone bloomed we saw the second one. It was even more beautiful than the first, with an even more exceptional signal. The flowers of both plants are small, about 1 ½ inches across. The buds are light yellow with violet stitching on the edges. Surprisingly, the flower opens light blue with no stitching visible from above. The standards and falls are pale blue (difficult to capture on film), and the stylearms are a darker shade of blue-violet. The standards and falls are about the same length but the falls are wider in the blade than the standards. The first clone had somewhat lax standards, holding them below horizontal, but the second clone had better form with the standards held firmly flaring - nearly horizontal. The hafts of the standards are a clean self color. The hafts of the falls have irregular markings of soft blue-violet with a prominent central ridge of medium yellow which continues out onto the fall and into the signal. In one flower the yellow ridge is lightly dotted with blue-violet and in the other it is unmarked. The signal is a wonderfully pure, pale yellow surrounded by a dark blue-violet outline which is sharp-edged on the inside and diffused on the outside. We dubbed the shape of the signal of the first clone "Batman" because it reminded us of the Batman symbol. The second signal is more like a Native American symbol for an eagle. There are three flowers per bloomstalk. The perianth tubes on both flowers are very short. The second clone, which has red flushed leaf bases, has a reddish spathe also, which was quite decorative. The leaves on both clones are about 3/8 inch wide with distinct vertical ribs.

Later in the spring of 2003 Joanna went back to the same area and collected twenty-five more clones of the new species, saw them in bloom, took site photos, and made herbarium specimens. The second visit gave us a new perspective on the bloom habit. The plants grow on such steep slopes that their foliage cascades gracefully down the slope. The leaves can be as long as 19 inches. The much shorter bloomstalks, about 4 ½ inches, nevertheless are totally visible as they are erect above the base of the cascading foliage. To grow and enjoy this iris properly in gardens, we may need to mimic the natural habitat. Unlike many irises in the wild, these plants were blooming generously with several bloomstalks per plant, all clustered in the center of the clump. In the wild they seem to be more clump forming than other irises in the Chinenses Series (with the possible exception of *I. rossii*). The leaves are evergreen. We will have to see how they behave in cultivation in different climates. With twenty-five new clones to view, I can't wait for what new variations we will see in the flowers.



**Iris species novum* (*I. sp. nov.*) is the botanical name used for a new species until the plant is officially described and published and given a name.

Iris henryi in the Wild

Darrell R. Probst

China in spring, an invitation no plant hunter could resist. Such an invitation was extended to me at the end of a successful expedition in November of 2000 by my host, Mr. Ke-hua Mou of the Sichuan Research Institute of Forestry, Chengdu, in Sichuan Province. Home to many fascinating things including the Giant Panda breeding facility, it has received much attention in recent years for the number of new species in the genus *Epimedium* that have been discovered. It was my interest in *Epimediums* which lead me to accept Mr. Mou's invitation and return to China and eventually the northeast corner of Sichuan Province in early May, 2001.

In this area the 8-9,000 foot peaks of the NW Daba-shan (mountain) range give way to lower peaks and a warmer climate. Spring bloom was at its peak with wild cherries, rhododendrons and lady slipper orchids in full bloom among many other plants familiar to gardeners. Nearly three weeks into the expedition, which had begun in SE Sichuan Province with many exciting "finds" already, I was returning to a specific mountain where I had discovered a new *Epimedium* species with remarkably narrow, spiny leaves on the previous trip. The mountain was very steep and dry with many east-facing rock cliffs on which the *Epimedium* was growing. It was almost dark when I was there the last time, with little time to explore. Now with over half a day we began climbing, my young interpreter Joanna and I.

After an hour or so we headed over a ridge and found ourselves on the east side of a long valley which ran south to north down the mountain with the peak itself several thousand feet higher than where we were and obviously too steep for us to climb without ropes. As it was, the narrow animal trail we were on was the only place we could stand, among dense shrubs and with about a 500 foot drop to the bottom of the valley. Not only am I terribly afraid of heights, but the path was riddled with large snakes taking a rest. We counted 7 total. It was only the possibility of seeing more of this *Epimedium* species that kept us from turning around.

Although still climbing in elevation, the path led us to the dry stream bed in the valley. We began climbing our way up through the boulders. Again we saw the *Epimedium*, now on both the east and the west sides of the valley. Suddenly, after about three hours into the climb I noticed one plant of an *Iris* in bloom above my head growing out of the steep 90° east facing side wall of dense clay soil. I climbed to inspect it. Wow! I told Joanna we weren't leaving until we found a lot more of it. Off she went to look for more while I took slides and a small division. Soon she exclaimed she had found more. Once finished I was off to see. For the next hour I crawled up the east facing side beneath shrubs and small trees looking at one plant after another, now growing on a more gentle 60° slope with sedges, ferns and the *Epimedium*. The soil here was well-drained, organic rich humus.

The *Iris* was in peak bloom with its small, pale, smokey-lavender flowers dotting the hillside. There was quite a lot of variation in flower form as well as color, ranging from very pale to a few with flowers that opened relatively dark lavender, then faded as they aged a day or two later. Without a trained eye it would have been nearly impossible to distinguish the extremely narrow, 1/8th inch wide leaves of the *Iris* from the sedge foliage as the two grew intertwined and were of similar proportions and color. Out of bloom I might have walked right by it. In the wild in this location it had what seemed to be long, thin rhizomes spreading about 4 inches a year, but this could be caused in part by the competition with the more vigorous sedge.

Joanna and I explored the area thoroughly and found it limited to the one area of approximately 100 by 100 feet, the same area carpeted with the sedge. One might surmise that this was the only area where the soil and other conditions were correct for the *Iris* to grow, but it might also be something that is susceptible to local wildlife and the tough, less tasty sedge provided the perfect disguise. In all I collected small divisions from 30 different clones to get a good sample of the genetic diversity. Satiated with both the *Iris* and *Epimedium* we began our long descent from the 3,740 foot elevation where the *Iris* grew.

I awoke the next morning to pouring rain and decided to give my hosts the day off to rest while I caught up on cleaning and processing plants. The *Iris* was first on the list. I soon found that hidden inside each dead leaf were hundreds of tiny mealybug-like insects feeding on the living leaves. All dead foliage was carefully removed to be sure to eliminate all of the insects. Excited by my find I went out to a pay phone and called Marty Schafer back in Massachusetts to share the news and see if we could figure out what it was. *Iris proantha* seemed to fit it best, but we weren't sure. I carried the plants for the rest of the trip and mailed them by Express Mail back to the states.

Unfortunately they sat at customs/USDA in San Francisco for a week before getting inspected and sent on to me. The stench from the box when I opened it made me sick; the plants had cooked! I carefully cleaned off the mush that used to be green leaves. There wasn't much left. All were potted in a loose mix of equal parts ProMix, granite grit and fine bark for good drainage and placed in bright light, but out of direct sun. Within a few weeks green leaves began to sprout from some of the tiny rhizomes. They grew slowly through the first summer producing a few fans each. Some were large enough by fall to slice off single fan divisions to plant in the nursery for hardiness trials. All of the main pots were kept in a protected coldframe over the winter. At present there are 11 survivors and all are planted in the ground. The original fans that were planted in the ground have survived two winters without damage.

Meanwhile, shortly after my return from China, Marty Schafer, Jan Sacks and I determined that it was *Iris henryi* after looking through several books and comparing descriptions. It was discovered and named in the late 1800's in honor of Augustine Henry, a well respected botanist of the time who explored many areas in China. The location for where the original collection was made some hundred years prior was along the Yangtze River in western Hubei Province which may well have been at the SE end of the same Daba-shan range. It was not in cultivation prior to this. It has grown well here, blooming and producing a few good seeds this year. With any luck it will be the third species in the Series *Chinensis* we will have seed of in the SIGNA Seed Exchange next year - stay tuned.



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New Irises from China

- photos by Jan Sacks -



Iris henryi



Iris species novum