Alpine Garden Society

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Arisaema

The following account of the ACE trip to China encounters with *Arisaema* is by Ron McBeath.

Many people dismiss the cobra lilies, even despise them, thinking that they are dowdy, greenish brown flowers with a disagreeable odour, of doubtful hardiness and with no useful place in the rock garden. On the other hand, others love and adore them, will enthuse at their subtle charm and intricate detail, and will go to any length to acquire every species and every possible variant of flower colour and leaf shape that this variable genus has to offer. World wide there are some 150 species [1], with greatest concentration along the Himalaya and in China and Japan.

Our first encounter with *Arisaema* was on our very first day when we visited the western hills, just outside Kunming, an area explored by many of the early plant hunters who came to south-west China. Today thousands of people flock here for a day out in the country; here they can relax and get away from the hustle and bustle of Kunming. Amongst the 'tourist traps' on this severely degraded, rugged limestone hillside, *Arisaema* can be found growing in limestone crevices, with their roots buried in the cool, humus-filled crevices, their leaves and flowers proudly flaunting themselves in the warm sun, or they can be found growing in the hard red earth in short turf or in the shade of scattered trees and shrubs.

At least two species grow on the Western Hills; the first is the ubiquitous *A. consanguinium*, which is probably the most common and variable species found throughout the Himalaya and across much of western China. It varies greatly in stature, from over 30 cm [12"] to over 1 m [3' 4"] tall. The stems are green, mottled with dark olive brown, and the leaves consist of as many as 17 leaflets. Each leaflet is quite narrow, often with undulating margin, green above and frequently glaucous below, and often with long tail-like 'drip-tips'. The flowers are variable in colour: the basic colour is green but there are varying amounts of brown on the hood and tube. A number of ACE seed collections will undoubtedly turn out to be this species (especially ACE 2031 & 2036). It was particularly common in the region of the Cangshan Mountains as well as Yulong Shan and the area to the east of Zhongdian, towards Haba Shan.

The other species we found on the Western Hills was *A. yunnanense* (ACE 1022). This plant, from 8 to 45 cm [3.25 to 18"]tall, has relatively plain green trifoliate leaves. The flowers have a green spathe with white stripes and a green spadix. How hardy it will prove to be I am not sure, as the seeds were collected at an altitude of only 2400 m [8000']. Previous collections cultivated at the Royal Botanical Garden, Edinburgh have proved reasonably hardy outdoors but at the time of writing they have not yet experienced a severe winter. On a previous visit to the Western Hills I collected *A. talense* [2] growing in the same general area as our collection of *A. yunnanense*.

On the road between Kunming and Dali we collected *A. talense* [3] at 2300 m [7700'] in dry open pine scrub. It was 30 cm [12"] tall with plain green, trifoliate leaves, the spathe also green and with white lines. ACE 1022, 1094 and 1111 may be *A. talense* [4], *A. yunnanense*, or *A. lobatum*.

After crossing the Yangtse river we drove towards Zhongdian up through the Jiang He valley, a very steep sided, wooded gorge, with crumbling cliffs, rushing torrents and damp shaded woodland. Suddenly there was an excited call to stop, for one of the party had spotted a white-flowered *Arisaema* above us on a high shaded ledge. We rushed back and scrambled up the rotten, moss-covered rocks to admire and photograph *A. candidissimum*; this was not easy as ti is difficult to hold a camera steady at the correct distance from the subject when at any moment you might fall down the cliff. Eventually we got our photographs and did some exploring of the

surrounding slopes and, as is usually the case, we soon found better specimens which could be photographed with no risk to life or limb, or to other passing vehicles which had passed blissfully unaware of the risk of dislodged boulders crashing on top of them. The plants were leafless at the time of flowering on the 9th of June; the relatively large flowers have a spathe which is white to pale pink, with green stripes, the whole suffused with green in the basil half, while the spadix is pale green. *A. candidissimum* was found at between 2000 and 2300 m [6700 - 7700']. Nearby we also found *A. consanguinium*, *A. Elephas*, and *A. yunnanense*. Unfortunately, in the autumn the seeds were still a long way from being ripe, which was a big disappointment, but a tuber was brought back to Edinburgh Botanic Garden as we were most anxious to have a wild origin specimen in the collection. However, this subsequently flowered and turned out to be *A. purpureogaleatum* (ACE 1119), a species we never saw in flower and which must have come up and flowered after we had visited the site.

One of my favorites is *A. elephas* (syn *A. wilsonii*) which grows in some abundance on the Zhongdian Plateau, especially in the meadows and wooded slopes *en route* to Tainchi Lake. It is also common on the eastern bank of the Beima Shan and in the roadside forests between Zhongdian and the Big Snow Mountain. This species can form strong clumps with many leaves and flowers, or it may occur as a solitary individual. The leaves are trifoliate, rugose, a deep bright green, often flushed with purple and with a red margin. The flower stems are up to 45 cm [18"] tall. The spathe is lined with many parallel deep purple and translucent white stripes, while the spadix is blackish purple; a striking and handsome plant which has been found to be reasonably easy to cultivate at Edinburgh (ACE 1182).

Arisaema ciliatum somewhat resembles a smaller version of *A. consanguinium* but can be distinguished from that species by the cilia (fringing hairs) on the margins of the spathe; they resemble small splinters of glass and are best seen with a hand lens. We found it growing in hot dry pine forest between 3200 and 3300 m [10700 - 11000'] on the road to the Haba Shan mountain and north of the Big Snow Mountain in Sichuan. It is also common in the Yulong Shan, particularly in the Gang-ho-ba and at Beishui. It is up to 50 cm tall with green stems mottled with purple or darker green. the spathe is green or brownish purple, with pale green or purple stripes, while the spadix is green marked purple, with a purple appendix.

Near San-ba on the road to Haba Shan from Zhongdian there were large colonies of *A. consanguinium* together with a few scattered groups of very attractive and elegant species growing along the edge of ditches and rivulets in scrub. This proved to be *A. franchetianum* which has three-parted leaves not unlike those of *A. candidissimum*. The very elegant spathes are delightfully striped with white and purplish drown and have a long-pointed tail-like tip, whereas the spadix is hidden within the tube of the spathe.

In the autumn the fleshy, orange red seed-heads of *Arisaema* are easy to collect but the job of cleaning the seeds out of the fleshy pulp was not very popular with the expedition members. Nonetheless, this task had to be done to enable the seeds to be brought back dry and in good condition.

A total of 18 herbarium collections was made during the reconnaissance expedition, but we failed to find *A. handelii* or *A. auriculatum* in flower; both species grow in this area but I presume we were either too early or too late to see them in flower.

During the autumn expedition we made 19 seed collections.

A word of warning about *Arisaema* seed. In the autumn often all that remains of the plant is a cone of red fleshy seed, lying on the ground amongst some rotten leaves. It is difficult to be sure

that the seed you are collecting are from the same species that you saw in the spring, or in fact that they are only from one species, as often more than one species will grow together. As different species may flower at other times, we will never know all that are in a particular area and there is always the possibility of seed collections being mixed, with two or perhaps more species under one number. As most take a minimum of five years to flower from seed we will all have to be patient until they begin to come into flower, when positive verifications can be made.

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Footnotes and dimensional equivalents by G. R. Stilwell, Jr.
Illustrations: *A. elephas* (p.186), *A. franchetianum* (p.188) are not reproduced.

1. There are actually 260 recognized species names and 90 variants.
2. The author spelled it A. taliense, an unpublished name.
3. Ibid
4. ibid