

JAPANESE ARISAEMAS

Part I

One of our Belgian Members, Guy Gusman, explores the fascinating world of the Japanese cobra-lilies in this, the first of a two-part article.

For those of us who enjoy woodland gardening, *Arisaemas* have much to offer as they are some of the most fascinating plants to grow under such conditions. Of the temperate genera associated with the arum family, Araceae, it is the largest with many more species than *Arum*, *Calla*, *Dracunculus*, *Zantedeschia*, or any other genus usually grown in our western gardens. The family itself is widespread from East Africa to North America and throughout all of Asia. No wonder that there are many local variations and that botanical specialists (Engler, Hara, Murata, Schott) have tried over the years to classify them in sections, according to those features that they have in common. One of these sections is also called Arisaema. Strangely enough, the generic name *Arisaema* was first given in 1831 by Martius to three Himalayan species, viz. *AA. costatum*, *nepenthoides* and *speciosum*, previously placed by Wallich in the genus *Arum*. Today most members of Section Arisaema (something like 20 species plus their varieties) are to be found in Japan.

Of these, space permits me to write only about those species that are particularly beautiful or rare and little known but which deserve to be more widely grown in gardens. For some the only existing information (besides the original Latin description published in some specialised scientific journal) is to be found in Japanese books (see references at the end). The species I am going to discuss in this article are *AA. monophyllum* Nakai, *iyoanum* Makino and *maximowiczii* (Engl.) Nakai, as well as their close cousin *A. serratum* Schott. They illustrate well the great diversity to be found in Japanese species of Arisaema.

If I was asked to give the name of one typical Japanese *Arisaema* I would answer *A. serratum*. In fact all three species referred to above look like the polymorphic and widely distributed *A. serratum* and, indeed, they are so closely related to it that out of flower they could be readily confused, one with the other.

Arisaema monophyllum Photo: Guy Gusman

Arisaema iyoanum Photo: Guy Gusman

A general overview of these three species could be written like this: they are medium-sized herbaceous plants, 30-80 cm. tall, with a stem, from a rather small tuber 3-5 cm diameter; the stem, actually a pseudostem, is nicely mottled and resembles a snakeskin. There is generally one leaf, or occasionally two leaves, per stem. The leaves are usually composed of 15-20 leaflets or segments, all of them attached to a common rachis. The pseudostem is wrapped in the lower part by two or three papery false leaves, the cataphylls, which are usually a brownish colour. The inflorescence appears from a small mouth-like hole at the boundary between pseudostem and petiole and is held at the same level as the leaf. The spadix appendage is slightly exerted from the tube of the showy spathe and the peduncle (flower stem) is rather short, although it is longer in female plants. At the end of the flowering period female plants produce an attractive head of shiny red berries.

In order to appreciate the differences between the three species under discussion it is necessary to work our way down Japan from the north to the south-west.

Our first stop is in Honshu, whose northern area from Tohoku to Tokyo is the habitat of *A. monophyllum*. This species bears one leaf, hence its name, and the terminal leaflet is long-stalked. In the north of its range specimens can be found with variegated leaves. The main characteristic of the species is its inflorescence: the spathe is plain green but inside, at the limb base and just above the tube, there is a nice, dark brown pattern that reminds one of a flying bird sketched in the purest Japanese screen style; this mark is also visible from behind. Sometimes this dark pattern extends to the extremity of the limb which

then becomes completely brown: logically, these plants were originally described as *A. atrolinguum*. They are now known as *monophyllum* forma *atrolinguum* (Maekawa) Kitamura.

Arisaema iyoanum* var. *Nakaianum Photo: Guy Gusman

The second stop is Shikoku, a very beautiful island, which is much less visited than Honshu, and still on the wild side. Its inner area is dominated by Mt Ishizuchi and Mt Tsurugi, mysterious mountains with an ancient history. Shikoku's peculiar atmosphere can be best experienced through Kenzaburo Oe's (1994 Nobel Prize for Literature) 'M/T to mori no fushigi no monogatari' (in French as 'M/T et l'histoire des merveilles de la foret', Gallimard. Paris [1989]). This, the smallest of the four main islands of Japan is the setting for a famous circular Buddhist pilgrimage: circular implies that after journeying to each of the 88 temples, the pilgrim would have completed a circle of some 1500 km. Shikoku is covered by old forest, cut by deep ravines. One of its largest gorges, Omogokei, is fantastic: located at the foot of Mt Ishizuchi, it has a wandering river and strangely shaped rocks and abysses completely hemmed in by old trees.

Here, *Omogo-tennansho* (literally 'the arisaema of Omogo'), *A. iyoanum*, is found. Outside Shikoku its habitat extends to Chugoku (south-west of Honshu, on the opposite side of Setonakai, the Inland Sea of Japan). Plants have one leaf (I have yet to see a two-leaved specimen) with 9-11 leaflets, which are sometimes nicely variegated. The inflorescence is fantastic, characterised by a very short peduncle, which is always shorter than the petiole and sometimes practically invisible. The whitish spathe-tube is 10 cm long, with purple dotted stripes and a revolute upper margin. The spathe-limb extends well above the tube, with a length equal to that of the tube and a strange greenish colour. The whole spathe has a nice pinkish transparency when illuminated from behind. The white spadix-appendage is purple-dotted. Slightly different specimens with large overlapping leaflets, up to 17 in all, inhabit the same valleys on Shikoku: they have a dark purple limb and are segregated out as *A. iyoanum* var. *nakaianum* (Ohba) Kitagawa & Ohba. The local name of this variety, *Shikoku-tennansho*, is well chosen as it cannot be found Outside Shikoku. It grows mixed with the typical plant and, as the purple spathe-limb colour is not always correlated with the presence of numerous and large overlapping leaflets, the relevance of varietal distinction has to be questioned. It is interesting to note that some forms of *A. serratum* described by Nakai and previously named *A. longilaminum* Nakai and *A. sinaoense* Nakai bear inflorescences with a similar long spathe-blade.

The last stop is on Kyushu where some years ago Unzen-san, a famous volcano to the east of Nagasaki, became active again. I saw it one year later, but by then it was only moderately active though many precautions were still being taken by the police to move aside the reckless tourists.

The volcano rises at the centre of the Unzen Peninsula and it is here that our last species, *A. maximowiczii*, is to be found. In the woods, one-leaved colonies can be seen growing together with two other inhabitants of Mt Unzen, *A. sazenzoo* (Blume) Makino and many nice forms of *Asarum* (= *Heterotropa*) *unzen* with its cyclamen-like foliage. Once more the spathe and spadix are the key identification features of *A. maximowiczii*. A green or purplish slender tube is surmounted by a similarly coloured, erect (to begin with) limb whose central part is whitish and translucent (like a high quality piece of china), so that the spadix can be seen through it. The spathe-limb tail is long-pointed and of a darker colour. The spadix appendage is extremely thin, 1.5-3 mm diameter. Another peculiarity is the sessile and adnate character of the lateral leaflets, which decrease rapidly in size away from the central leaflet. A little further up the mountain at about 1200 m above sea level, usually growing at the foot of small bushes, a closely related species can be found with two leaves, a green spathe with a white striped limb, and an extremely slender (less than 1 mm diameter), green or purple spadix appendage. This variant has been described as *A. unzenense* by Serizawa in his 'Studies of the genus *Arisaema* in Japan: Group of *Arisaema maximowiczii*'.

Arisaema iyoanum, *A. maximowiczii* and *A. monophyllum* are true woodland plants. Even if some of them are sometimes to be found amongst boulders in more open situations, the high humidity always present in these areas protects the plants from sun scorching. In cultivation it is thus advisable to grow them in moderate shade such as is provided by some small trees or shrubs, where they can be readily

watered during dry periods when they are in active growth. To obtain seed it is necessary to grow a group of plants of the same species: the inflorescences bear flowers of one sex only and, oddly, plants can change sex from one year to another; generally strong plants are female and weak plants are male. They are easy to grow except that they come into growth early (like so many Japanese plants) and the emerging shoots may be subject to some frost damage.

These Japanese arisaemas can be considered true aristocratic plants and our collections will greatly benefit from the addition of these elegant woodlanders.