Species Profile Lilium amabile Palibin

History and taxonomy (Dr Jamie Compton)

Lilium amabile Palibin, Trudy Imp. S. Petersburgsk. Bot. Sada 19: 113 (1902) = *L. fauriei* H.Lév. & Vaniot, Repert. Spec. Nov. Regni Veg. 5: 282 (1908)

This fine turkscap lily is native to Korea. It was discovered by the Polish zoologist Jan Kalinowski in mountainous areas near Seoul in July 1886. His dried plant specimens were later acquired by the Botanical Museum of the Academy of Sciences of St Petersburg. *Lilium amabile* was described by the Russian botanist Ivan Vladimirovich Palibin in 1902 based on Kalinowski's collections. The holotype and two isotypes are conserved today in the Komarov Herbarium in St Petersburg (LE).



The holotype of *Lilium amabile* collected by Jan Kalinowski in July 1886.

This lily was collected twice by the French missionary and botanist Urbain Jean Faurie in July 1907. The first collection was in the north-east of South Korea in Kan-wan-do Province which is modern day Gangwan-do. The second was found at the other end of the country on the volcanic Mt Hallasan on Quelpaert Island [now Cheju-do] a large island off the southern coast of Korea on 3 July 1907. This was described as *Lilium fauriei* by Augustin Abel Hector Léveillé and Eugène Vaniot in 1908. The syntype specimens (Faurie 653 and Faurie 2100) are now conserved in the Herbarium of the Muséum national d'Histoire naturelle, Paris (P). Both specimens refer to the earlier named *L. amabile* which according to ICN rules has priority and is therefore the correct name for this lily.

The 'lovely' lily (amabile = lovely or desirable) has ovate non-stoloniferous bulbs with fleshy white bulb scales each with an attenuate apex. Stems, leaves and pedicels are all clothed in fine pubescence. Stem leaves are sessile, pubescent, narrowly linear $40-90 \times 2-7$ mm with dark green upper surfaces and glaucous-green lower surfaces which are distinctly three-veined. Six to eight pendulous flowers are borne singly on the tall inflorescence which can reach 80 cm or more and are subtended by leafy bracts 20×2 mm. The tepals $50-60 \times 10-12$ mm are grenadine-red, strongly recurved and covered near the median towards the base with dark blackish spots. The nectary groove from the median to the base is covered in velutinous-fimbriate hairs. The anthers are brownish and the stigma rounded and three-cleft.

Its cultivation is best described by Ernest Wilson based on his erudite observation of plants in the wild: 'It grows in gritty loamy soil, likes good drainage and the friendly shelter of grasses and dwarf shrubs above and among which it flaunts its vivid-coloured flowers in late June and early July' (Wilson 1925: 81).

The lovely lily appears to be close to *Lilium leichtlinii* var. *maximowiczii* with red flowers and blackish speckling but which has more globose, stoloniferous bulbs and more ovoid bulb scales and a wider distribution across Japan and Korea. *L. leichtlinii* var. *leichtlinii* has yellow flowers with abundant dark purple speckling. There is also a spotted yellow flowered variant of *L. amabile* recognised as 'Luteum' in cultivation.

Reference

Wilson, E. (1925). The Lilies of Eastern Asia. Dulau and Co. Ltd. London.

Distribution and ecology (Prof Ki-Byung Lim)

Lilium amabile (Teoljungnari in Korean meaning Hairy Lily) is designated a rare plant by the Ministry of Environment in Korea. It is endemic to the country and grows in mountainous areas between 300 and 1,500 metres above sea level. Typical habitats are under deep mountain forests, in grasslands and deep valleys and it can



Lilium amabile growing on a sunny hillside at 400 metres above sea level on Mt Gaya, South Korea.

be found growing along with highland grass near the top of mountains, often in full sun. In nature the plants generally grow in well drained humous rich soils which are not too wet and are usually found as scattered individuals rather than dense clumps or stands.

In Korea the plants flower during the period from June to August depending upon their altitude and seed pods ripen from September to October. Normally they carry one to five flowers with the yellow form being an extremely rare occurrence in the high mountains.

Lilium amabile has traditionally been used in cosmetics, food and medicines.

Bulb

Flowering size bulbs of *Lilum amabile* are typically around 4 cm high, or just a little more, and about 2.5–3 cm in diameter. The fairly numerous whitish scales are closely imbricated and have acute attenuate tips.

Stem and leaves

The stem, which can reach around 90 cm but is usually shorter, produces roots in the section just above the bulb and often





Above, *left*, the large stem bulblets were formed a year ago whilst the small ones are the present season's. *Above*, *right*, the many fine hairs which cover the stem, leaves and buds give this plant its Korean name 'Teoljungnari' meaning 'Hairy Lily'.

small stem bulblets below the soil surface. It is round in cross-section and entirely covered in a dense, short, pale grey, hispid pubescence.

Leaves are almost absent from the lower third of the stem and scattered on the upper part, becoming more numerous towards the inflorescence. They are sessile, 4–9 cm long, 0.5–1 cm wide and oblong-lanceolate to lanceolate in shape, usually with three obvious nerves. The tips of the leaves, which are acute or slightly obtuse, terminate in a slightly thickened, dark coloured mucro and the margins are slightly recurved and ciliolate, both surfaces are hispid.

Buds and flowers

In nature the racemose inflorescence usually carries one to five flowers but well cultivated plants can carry more (one grower has reported a plant with 13) each flower subtended by one or two leafy bracts. Like the rest of the



The typical orange flowered form growing in Korea (note the 'frosting' of the nectary furrows).

plant these bracts, the ascending and spreading pedicels and the outer surface of the buds are covered in a short hispid pubescence. The buds having a notable and characteristic dark brownish apex.

A typical plant has flowers of a shade of orange, which ranges from very light to almost scarlet. They are spotted with very dark brown, sometimes heavily and at other times more lightly, some of the spots near the nectaries being raised. Each tepal carries two or three dark chocolate coloured raised lines at the end of the nectary furrow which is edged with fine white papillae or 'frosting'. The yellow coloured *Lilium amabile* 'Luteum', a pure recessive which produces all yellow offspring when pollinated by another yellow flowered individual, carries lighter brown spots and a rare unspotted 'Immaculatum' form is also known.

The floral segments are 5–5.5 cm long and strongly reflexed. The sepals being lanceolate and narrowed at the base whilst the petals are lanceolate-ovate with a clawed base and slightly papillose apex. The nectary furrows, which are about 2 cm



Top, **left**, The upper portion of a stem of *Lilium amabile* and **right**, the buds with characteristically darker coloured apexes. **Above**, **left**, the flowers of *Lilium amabile* 'Luteum' and **right**, an unspotted or 'immaculate' orange flowered individual.



long, are bordered with fine papillae.

The stamens are shorter than the floral segments and have glabrous filaments carrying dark chocolate-brown anthers which dehisce to release cinnabar-red pollen (sometimes yellowish-brown in *Lilium amabile* 'Luteum'). The slightly angular ovary is about 1.25 cm long and the style, which curves with age, is thickened upwards terminating in a large, dark coloured, trilobed stigma (paler coloured in yellow flowered plants.

Seed Capsule

The erect, obovoid seed capsule is from 2.5–3 cm long and 1.25–2 cm in diameter with furrowed sides and a depressed apex.

Seed and Germination

Lilium amabile seed is of the 'heavy' type. It is a darkish cinnamon brown and typically measures 7×5 mm with the shape approximating the sector of a circle. The wing like lateral extension to the testa is narrow and both endosperm and embryo are usually clearly visible when the seed is candled. Plants are easily raised from seed which shows rapid immediate epigeal germination, usually within 18–30 days, and the young plants generally begin to produce a flower or two in their third year.





Above, left, Lilium amabile seeds and right, young plants pushing through prior to the emergence of mature shoots.

Cultivation

This lily takes well to cultivation, both in the ground and in pots. When grown in an improved red sandstone soil the plants grew strongly and multiplied by both natural bulb division and the production of plentiful bulblets below the soil surface. These bulblets can be used for propagation or to allow clumps to build up over time. In the spring these young plants push above ground several days before the shoots of more mature bulbs.

The species has proven to be fully frost hardy in a garden very close to 60° North in Sweden and with an acidic soil, thriving in semi shade and full sun, and is reported as 'growing like a weed' on New Zealand's South Island.

It does exhibit the usual lily requirements for good drainage and a neutral to slightly acid soil with plenty of humus and grit added but nothing beyond that. Some protection from excessive winter wet would be advisable, especially in areas with heavy winter rainfall.

References

Fox, D. (1987). *Growing Lilies*. Christopher Helm, pp83-84.
Synge, P. M. (1980). *Lilies*. Batsford, pp51-53.
Wilson, E. (1925). The Lilies of Eastern Asia. Dulau and Co. Ltd. London.
Woodcock, H. B. D. and Stearn, W. T. (1950). *Lilies of the World*. Country Life, London; C. Scribner's sons, New York, pp139–140.

Members' contributions

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