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LILIES

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L. candidum—the madonna lily

LILIES

BEING ONE OF A SERIES
OF FLOWER MONOGRAPHS

BY

H. S. ADAMS

Author of

"Making a Rock Garden"
etc.



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LILIES

CHAPTER I

INTRODUCTION

OF all flowers, none is more beautiful than the lily. Nor is any more famous in song, in story and in art, or more sanctified by long garden association. Indeed, from remote antiquity, only the rose and the violet have been so strongly intrenched in the hearts of the people.

Yet, of all flowers, the lily is among the most neglected. Especially is this true of American gardens. Lilies have been cultivated in them since early colonial days, but the pioneer madonna lily is far from common even in New England and Virginia, where it doubtless had its first foothold. The old orange lily is tolerably scarce and the tiger lily has made no more than a fair amount of headway. Add the auratum and speciosum and the list of those that

are so much as tolerably familiar figures in the home garden stops at five. This despite the fact that there are a score or more of easy species, with numerous varieties and hybrids. And how many kinds of lilies are frequently seen in the greenhouse? Just one. Here are other glorious opportunities. In short what L. H. Bailey said in 1900: "Dozens of magnificent lilies are practically unknown" is quite as true to-day—more's the pity.

In the hope of helping to bring the lily into its own here, in both garden and greenhouse, this book has been written.

CHAPTER II

SUB-GENERA, WITH PRINCIPAL SPECIES

THE species of *Lilium*, the typical genus of the order *Liliaceae*, are divided by Baker into six groups, or sub-genera. For the most part the distinction lies in the shape and the arrangement of the blossoms. The sixth group is important only to the collector and sometimes is omitted altogether in the classification of this flower.

There are differences of opinion as to the technical correctness of this division and also as to which group some of the lilies belong. Both are far less serious differences in the garden than in the botanist's mind.

This list is not complete; it includes only the principal species.

1. **CARDIOLANUM** (heart-leaved). White blossoms, funnel-shaped. Leaves stalked, heart-shaped, ovate.

cordifolium

giganteum

2. EULIRION (true lilies). Large, funnel or trumpet-shaped blossoms, but shorter; mostly white or light tints. Lanceolate leaves.

Brownii

candidum

japonicum

longiflorum

Lowii

myriophyllum

neilgherrense

nepalense

Parryi

philippinense

primulinum

rubellum

sulphureum

Wallichianum

Washingtonianum

3. ARCHELIRION. Blossoms large, funnel-shaped, but open, the divisions spreading wide and turned back; pistil curved forward and stamens diverging from it.

auratum

Henryi

speciosum

tigrinum

4. ISOLIRION (upright-flowered lilies). Blossoms erect, more or less cup-shaped and generally early expanding; mostly orange or reddish orange.

bulbiferum

Catesbaei

concolor

coridion

croceum

dauricum

elegans

medeoloides

philadelphicum

Wallacei

5. MARTAGON. Blossoms mostly Turk's cap, or turn-cap type, the bell shape of *L. canadense* being an

exception. About half of the species have leaves in whorls.

<i>avenaceum</i>	<i>Leichtlini</i>
<i>callosum</i>	<i>maritimum</i>
<i>canadense</i>	<i>Martagon</i>
<i>carniolicum</i>	<i>monadelphum</i>
<i>chalcedonicum</i>	<i>pardalinum</i>
<i>columbianum</i>	<i>parviflorum</i>
<i>Grayi</i>	<i>parvum</i>
<i>Hansonii</i>	<i>polyphyllum</i>
<i>Heldreichii</i>	<i>pomponium</i>
<i>Humboldtii</i>	<i>pyrenaicum</i>
<i>Jankae</i>	<i>superbum</i>
<i>Kelloggii</i>	<i>tenuifolium</i>
	<i>testaceum</i>

6. NOTHOLIRION. Has only two species, that appear to be a link between the lily and the fritillary and are of difficult garden culture.

<i>Hookeri</i>	<i>roseum</i>
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CHAPTER III

GEOGRAPHICAL DISTRIBUTION

LILIES are flowers of temperate regions—which is fortunate indeed, as it makes a great many of the species available for gardens that have their extremely cold months and brings all of the others within the range of climates where the winter weather is mild.

The family is found only in the northern hemisphere. In North America the lily belt runs across the upper part of the United States and strays over the Canadian border; but it resolves itself into two important centers, one taking in California, Oregon and Washington and the other the northeastern states. In the western group are *L. pardalinum*, *L. Washingtonianum*, *L. parvum*, *L. Parryi*, *L. columbianum*, *L. maritimum*, *L. Humboldtii*, *L. Kelloggii* and *L. parviflorum*, constituting a list of admirable species in which American gardeners should take at least as much pride of cultivation as do the English. Of these, *L. Washing-*



L. pardalinum—the panther lily



L. philadelphicum—the Philadelphia lily

tonianum is the nearest approach to an American white lily that there is. In the eastern group *L. superbum* and *L. canadense*, which range from New Brunswick to the nearer south and as far west as Minnesota and Missouri, and *L. philadelphicum*, which is found from New England to North Carolina and as far west as the other two, are the chief species. The others, *L. carolinianum*, *L. Grayi* and *L. Catesbaei* are, respectively, so similar to the preceding as to seem southern variations; they are not found north of Virginia. Indeed, *L. carolinianum* is not always classed as a species.

Europe has lilies so far north as the lower part of Scandinavia, but most of the species are natives of the more southerly countries. Here, too, there is only one white lily, *L. candidum*, which is one of a few that recognize no geographical line between Europe and nearest Asia. Other important European species are *L. Martagon*, which also wanders into Asia; *L. croceum*, *L. bulbiferum*, *L. chalcedonicum*, *L. pomponium*, *L. carniolicum*, *L. pyrenaicum* and *L. Jankae*. These include, in *L. candidum*, the most beautiful of all garden lilies and several others than which none is more useful in the hardy border.

In Asia the great lily center is Japan and China, but the zone extends north into Siberia, and south to the Neilgherry hills of India and takes in the extreme west as well. Here are found all of the pure white and whitish lilies save one in each class and all of the pure pink and pink-tinged ones, as well as the most glowing red and orange kinds. Japan has furnished the incomparable list of *L. auratum*, *L. speciosum*, *L. longiflorum*, *L. japonicum*, *L. Hansoni*, *L. elegans*, *L. rubellum*, *L. Wallacei*, *L. Leichtlini*, *L. medeoloides*, *L. dauricum*, *L. cordifolium*, *L. coridion* and *L. callosum*; China, *L. Henryi*, *L. myriophyllum*, *L. tenuifolium* and *L. yunnanense*, and the two countries together, *L. tigrinum*, *L. Brownii*, *L. concolor* and *L. avenaceum*. Of these, *L. tenuifolium*, *L. dauricum* and *L. concolor* are natives of Siberia also. In India are found *L. nepalense* and *L. neilgherrense*; in Burmah, *L. Lowii*, *L. sulphureum* and *L. primulinum*; in the Himalayas, *L. giganteum*, *L. Wallichianum* and *L. polyphyllum* and in Persia, extending to Caucasus, *L. monadelphum*. The lilies of India and Burmah, unfortunately, are among the most tender as well as among the most beautiful.

There is, apparently, a certain kinship be-

tween lily species that are widely separated geographically. What *L. philadelphicum* is to America, for example, *L. elegans* and *L. dauricum* are to Asia and *L. croceum* is to Europe. Again, the *L. superbum* of the eastern United States differs immaterially from the western *L. pardalinum*, while *L. Hansonii* might be called an Asiatic counterpart and *L. Jankae* a European one. Then there are the American *L. canadense* and *L. maritimum*, the Asiatic *L. monadelphum* and the European *L. pomponium* that in form, if not so closely matched in color, put another lily girdle around the earth. Finally, *L. Washingtonianum* on this side of the Pacific, must be distantly related to the white and whitish trumpet lilies of the other side.

It is probable that there remain no undiscovered lilies. The only hope of any new species seems to be China—now the world's great botanical reserve and the lure of the most ardent inland voyages of discovery.

Just when the lily map was changed by the entry of this flower into garden cultivation it is impossible to say; doubtless the earliest movement from the wild is lost in antiquity. However, it is going far enough back into the

past to say that *L. candidum* has been grown in English gardens since 1596 and this must have been the first kind to cross the Atlantic. Soon after, *L. Martagon*, *L. croceum* and *L. chalcidonicum* probably found their way northward.

Eight kinds of lilies are mentioned in Gerard's Herbal (1597), but of these it is difficult to identify any excepting *L. candidum* and *L. bulbiferum*. In 1629, "Paradisi in Sole Paradisus Terrestris" speaks of *L. pomponium*, *L. chalcidonicum*, *L. carniolicum*, *L. Martagon* and *L. pyrenaicum*, as well as *L. canadense*, which therefore appears to be the pioneer American lily in Europe. While the eighteenth century saw a few more lilies in gardens, it was not until the last century found Japan and China open to western commerce and California a new field of venture because of the gold craze, that the real rush of lilies into cultivation began. The discovery of lilies, in short, is largely coincident with the entrance of the Pacific into the world's trade.

CHAPTER IV.

LILIES FOR NORTHERN GARDENS

ALL lilies are beautiful; one could pick at random and draw a prize. But the choice, so far as American gardens that know a real winter is concerned, necessarily is limited to a smaller number than the eighty or so known species. And there are some lilies that are rather too finicky for culture without extraordinary regard for their particular requirements. With these deductions from the list, however, there remain quite enough lilies in either the easy or the not very difficult class to constitute nothing less than an embarrassment of riches. No garden need be without at least one lily.

There being nothing but want of trying to stand in the way, let that one be the madonna lily (*L. candidum*). This is not only the loveliest of lilies, but the hardiest white kind. It is so adaptive to ordinary garden conditions that frequently it will stay in one spot for a generation or more if undisturbed. Ben Jonson

meant the madonna lily when, years ago, he asked: "Have you seen but a whyte lillie blow?" And it is to it that Maeterlinck refers when he says: "The great white Lily, the old lord of the gardens, the only authentic prince among all the commonalty issuing from the kitchen-garden, the ditches, the copses, the pools and the moors, among the strangers come from none knows where, with his invariable six-petalled chalice of silver, whose nobility dates back to that of the gods themselves—the immemorial Lily raises his ancient sceptre, august, inviolate, which creates around it a zone of chastity, silence and light." Certainly either of these quotations is appealing enough to bring to every American dooryard that knows it not, the lily of lilies—the emblem of purity, the inspiration of poet and painter for centuries and a benediction in the garden when June is melting into July. Of the two types, the one with wide petals is the better.

The next best garden lily, if sheer loveliness as well as complete hardiness be considered, is *L. speciosum*; which has no adequate common name. Handsome lily is indefinite and the old name, Japan lily, is confusing. Though a garden flower in the western world since 1830, it



L. speciosum—the handsome lily—among rhododendrons



does not begin to be grown as much as its merits warrant. These merits include late August and early September bloom, thus extending the lily season. There are both white and colored varieties. The white has a faint greenish stripe down each petal and it is one of the best of cool-looking flowers for midsummer. It deserves the widest cultivation—with, rather than in preference to, the type; which is white, faintly flushed and spotted with crimson. If more rosiness is desired, add the admirable variety *Melpomene*, which is quite a deep crimson margined with white. There are a number of other good kinds, running into somewhat confused nomenclature; but more minute distinctions than these three may well be left to Dutch, Japanese and English horticulturalists to settle among themselves. The so-called yellow *speciosum* is *L. Henryi*.

For its like hardiness, its glowing color and its rounding out of a little lily season of three months by blooming late in July and early in August, the tiger lily (*L. tigrinum*) is well entitled to third place. The particular shade of orange red, spotted with deep purple, is altogether unique among tall lilies and, when rightly employed, is a valuable tone in garden painting.

This is the one true lily that has so far Americanized itself as to have become an "escape"; it is occasionally found wandering out to the roadside from places where there was once a garden. The finest of the several varieties is *L. t. splendens*. The double form, though the best double lily, is not worth while.

Were its bloom not virtually coincident with that of *L. candidum*, third place would be given to the orange lily (*L. croceum*). It is "iron clad," having stood the cottage garden test—and there is no better recommendation for a lily—time beyond memory. The bright orange hue is wonderfully rich and glowing and the erect blossoms are set so closely together that the color is even more amenable to bold effects than that of the tiger lily.

These four lilies would glorify any garden and may be called a perfectly safe, if not the safest, quartet for northern precedence. Their selection, however, is purely arbitrary. Another, for perhaps quite as good reasons, might make a somewhat different choice; for example, *L. tigrinum splendens*, *L. speciosum rubrum* and *L. tenuifolium* have been grouped as the most desirable three lilies for everyone. And there you are. In the end it is the individual

who must decide what is best for his particular garden—best after considering not only his personal preferences but climate, soil, shade, shelter and other conditions. From this point to the end of the chapter, therefore, precedence of mention will have nothing to do with precedence of desirability.

If any lily is magnificent it is the gold-banded lily (*L. auratum*). Its color—white, spotted sparsely with reddish brown and each petal banded longitudinally with yellow—is comparatively modest, but there is a richness and elegance to it all that is singularly impressive in the July and August garden. Then there is the size of the blossoms—sometimes a full foot across, making this the largest of all lilies. The gold-banded lily has been in cultivation half a century, but its garden progress has been rendered pitifully slow by the fact that, though perfectly hardy, it is not in the easiest class. It rarely does its best in ordinary conditions and, for some reason or other, it is apt to peter out after two or three seasons, making frequent renewal necessary.

The Martagon lily (*L. Martagon*) is one of the most graceful of border lilies, yet it is rarely seen in American gardens. The finest kind is

and *L. Thunbergianum* and that the blood of both is mixed with each other and with *L. croceum*, and the confusion is worse confounded. The best way is to pick out some good varieties and let the authenticity of the species go to pot. In the elegans class the variety Batemannieae, sometimes called *L. Batemannieae*, is an exquisitely beautiful late-flowering apricot variety that grows as high as four feet. Of the dwarfs, Prince of Orange is a fine early apricot variety, Orange Queen all that its name implies and Alice Wilson a good pale yellow. The type is orange and less planted than the varieties and hybrids, which are the most numerous of any lily. Orange is also the type color of *L. dauricum*, but it is flushed with red and spotted with black. Of the varieties and hybrids, Diadem, bright crimson with a yellow band down each petal; Sensation, deep orange flushed with brownish red; incomparabile, deep crimson, and Sappho, light orange tipped with red, are all admirable. June and July are the blooming months. The bulb-bearing lily (*L. bulbiferum*) is similar to *L. dauricum*, but the type has brighter orange red blossoms and there are bulbils in the leaf axils. It is a very old, hardy garden plant, with a blooming season extending

from July to August. Then, in the same erect class, there is the red star lily (*L. concolor*), a bright scarlet species, spotted red, that makes a very good Asiatic substitute for the American *L. philadelphicum* where the latter does not do well. It blooms in June and July and is quite dwarf. The varieties Coridion, rich yellow; Partheneion, scarlet flushed with yellow, and pulchellum, deep crimson, are all good.

American lilies are grown mostly in English gardens—where every one of the species is treasured. The lack of home appreciation is nothing short of deplorable. One of the noblest of them, the swamp lily (*L. superbum*), will flourish amazingly in an ordinary border if it has only so much as a ground cover; in these circumstances, without its wonted peaty soil and moisture, it has been known to raise a cluster of nearly thirty bells full seven feet above the ground. Its orange blossoms, flushed with scarlet, spotted with brown and strongly recurved, are excellent for heightening the garden skyline in July and August. The somewhat similar panther lily (*L. pardalinum*) of the extreme West is quite as excellent for a like purpose. The blossoms, coming in July, are a rather bright red, the lower parts of the petals

being orange with red spots. There are a number of varieties, some of which are occasionally listed as species. Of its hybrids, Burbank's lily (*L. Burbanki*) is especially good. The Carolina lily (*L. carolinianum*) is hardy in the North, but is less striking than *L. superbum* and *L. pardalinum*. The Canada lily (*L. canadense*) lends itself to July garden use with the same readiness and, though less showy, both the yellow and the red types are to be generally recommended. Gray's lily (*L. Grayi*) is so nearly like the red form of *L. canadense* that it is scarcely worth while to have the two excepting in a lily collection. The Oregon lily (*L. columbianum*) grows readily in eastern gardens, but its small, golden-yellow blossoms, spotted with red, are among the least effective of lily blooms. It flowers in June and July.

The Nankeen lily (*L. testaceum*), though one of the choicest of border lilies and quite hardy, is rarely seen in American gardens. The dull apricot tone that gives it its name, set off by orange anthers, puts it in a color class by itself. Few lilies are more graceful. This lily, which blooms in June and July, has never been found growing wild; but it is regarded as a natural

hybrid of *L. candidum* and either *L. chalcedonicum* or *L. pomponium*.

Among the oldest and hardiest of border lilies is the turban lily (*L. pomponium*). The type is vermilion red and not unlike the scarlet Martagon lily, but it blooms earlier—in June. The variety *L. p. aureum* is possibly the same as the yellow Turk's cap lily (*L. pyrenaicum*) or the similar *L. Jankae*. In any event, both of these are meritorious yellow lilies. The smaller *L. carniolicum* is a good vermilion red lily for July.

Hanson's lily (*L. Hansoni*) is a Japanese variety that ought to be better known, as it is quite hardy and not at all difficult of culture. The color is bright orange, spotted with brown and the reflexed petals are very thick and waxy. It blooms in June and July and runs up to a height of four or five feet. The Marhan lily (*L. Marhan*) is a most attractive hybrid of it, the other parent being *L. Martagon album*. The color is a tawny orange, curiously spotted and streaked with reddish brown and the backs of the petals whitish. It has the Martagon habit and the blooming period is coincident with that of *L. Hansoni*.

Of the white, or whitish, lily species, the only one save *L. candidum* that can be placed in the



L. testaceum—the Nankeen lily



L. croceum—the orange lily

first rank of reliability is Brown's lily (*L. Brownii*). The sole drawback is that it requires replanting every few years. This is indeed a hardy garden treasure of July and August. The blossoms, usually solitary, are of the size and shape of the Easter lily; but they are suffused with reddish brown on the outside and the anthers are brown. There is a variety, Chloraster, that is suffused with green and the varieties leucanthum and odorum are creamy yellow.

A somewhat similar newcomer, from China, that appears to be both hardy and vigorous in American gardens is *L. myriophyllum*. Its funnel-shaped white blossoms, flushed with yellow in the center and the outside of the petals streaked with brown and tipped with pink, and its fine, narrow foliage commend it to general culture. It bears some resemblance to *L. Brownii leucanthum*, but has more refinement and it blooms a little earlier—in July.

Although neither Brown's lily nor *L. myriophyllum* has the purity of the species best known as Easter lily (*L. longiflorum*), the last-named is less to be preferred in the colder garden zone. It is hardy enough to have endured the winter so far north as Ottawa; but, unless

given unusual care, responds indifferently and must be renewed with frequency. The type, from Japan, is the best for planting out in the North; bulbs from Bermuda (*L. Harrisii*) might prove too tender. The variety *Wilsoni* is a fine one.

For a rather pale yellow color nothing is better than the Caucasian lily (*L. monadelphum*). The yellow is slightly tinged with purple and the anthers are a rich orange. It blooms in July and the stalks may run up as high as six feet. The variety *Szovitzianum*, sometimes called *L. Szovitzianum*, is straw color, spotted with black and has brown anthers. It is rather to be preferred to the type, but either makes a fine display.

The littlest of all, the coral lily (*L. tenuifolium*), is far too charming to have its present slight recognition. Coming as it does from Siberia and northern China, it is quite at home in gardens where the winter is severe; but, as it is a fairy among lilies, it is apt to be choked to death by neighboring giants. While it has a way of being at its best in its fourth year and then perishing, it is readily renewed by seed. The coral lily's little waxen, and strongly recurved, bells are deep scarlet and with from six

to ten of them on a stalk the contrast with the dark green foliage is charming. The average height is about a foot and a half and the blossoms appear in June and July. The variety *pumilum* is taller and stouter and there is a very beautiful clear apricot kind called Golden Gleam.

Here then are no less than twenty-eight lily species and two hybrids, with a great many varieties more or less distinctive, from which to choose without going outside of the range of hardy garden safety. Surely it is a generous enough list in point of numbers and it draws upon all the five important sub-genera, save only the heart-leaved lilies.

CHAPTER V

TENDER AND CAPRICIOUS LILIES

FORTUNATE indeed are the gardens that may open their gates to all the lilies. Such there are, lingering somewhere between northern and sub-tropical climes—with winters not too cold, nor yet too hot. For them are the glorious company of the tender and capricious lilies—those that will live in northern gardens only at the expense of overmuch coddling, if at all.

In this class, reluctantly, is placed the wonderful giant lily of the Himalayas (*L. giganteum*). This is a hardy lily and in some parts of England has been naturalized in woods; but it is not quite hardy enough to stand a very cold winter without an uncommon amount of protection. Even then there is a vast difference between merely blooming and attaining to perfection—which means throwing up a stalk ten to fourteen feet tall, with very fine heart-shaped foliage and crowned in July and August with from a dozen to a score of trumpet-shaped blos-

soms, nine inches long and five inches wide across the mouth. These blossoms pass as white, but actually they are tinged with purple inside and green outside. In the evening air their fragrance, though powerful, is very delightful. The heart-leaved lily (*L. cordifolium*) is a similar, but smaller and generally inferior, Japanese species of like tenderness and blooming about a month later. The variety Giehnii is the hardiest form of it.

It is no less trying to put the only two clear pink lilies into the tender class; but they, too, do not quite belong outside of it. These are Kramer's lily (*L. japonicum*) and the reddish lily (*L. rubellum*), both Japanese species and with such points of resemblance that the latter has been thought by some to be a smaller form of the other. They differ also in the point that *L. rubellum* has less open blossoms, broader leaves and shorter stems. Both are among the loveliest of lilies, their rose color and general refinement being hard to match. Kramer's lily is sometimes sold as *L. Krameri*. The very choice whitish variety, *Alexandrae*, is not hardy also; another variety, *Colchesterense*, which resembles *L. Brownii*, is rather more so. In mild parts of England *L. rubellum* is fairly hardy.

and on the whole is more reliable outdoors than Kramer's lily. It is one of the earliest of lilies, May and June. Kramer's lily follows in July and August.

While Henry's lily (*L. Henryi*) is called a hardy and vigorous border subject, it is difficult when it has to contend with extremely cold weather conditions. Still it well deserves its place among the preferred lilies for American gardens and the hope is that in them it will eventually attain to the superb luxuriance of bloom and foliage that it displays in England. There, where it rarely fails, it has been known to run up to twelve feet in height and to bear as many as thirty of its deep salmon orange blossoms on a stalk. It used to be called the yellow speciosum, as it is quite like *L. speciosum* in both form and habit. The blooming season is the same—July and August.

Several of the American lilies are either rather tender or capricious, or both. These include, unfortunately, three of the finest of the lot, the Washington lily (*L. Washingtonianum*), Humboldt's lily (*L. Humboldtii*) and Parry's lily (*L. Parryi*). The Washington lily, which flowers in June, is regarded as one of the best of western lilies for eastern gardens; but it is

nevertheless somewhat difficult of culture, even in England. It is a wood lily, from three to five feet tall, and the white funnel-shaped blossoms are tinged with pink or red and dotted with purple. A smaller variety, *rubescens*, is white changing to pink and the variety *purpureum* is a distinct pinkish lilac kind from the Siskiyou mountains. These varieties perhaps account for the confusing color descriptions of this lily. Humboldt's lily, a tall reddish yellow species spotted with maroon and blooming in June and July, resembles *L. superbum*, but is showier. It is in the capricious class. Parry's lily (*L. Parryi*) grows readily in gardens and comes into bloom at the same time, but is not very strong in cultivation. The citron hue, shaded with light brown on the inner bases, and the brown anthers, make it one of the most beautiful of yellow lilies. Of the others, the wood lily (*L. philadelphicum*), though perfectly hardy, needs coddling in the garden to keep it there. Where it can be made to stay, it is a handsome little lily, erect and with scarlet blossoms, the yellow center being dotted with maroon. The season is July and August. Its near relative, the southern red lily (*L. Catesbaei*) is quite similar and blooms

in July. It is tender and therefore rather unreliable in northern gardens. Kellogg's lily (*L. Kelloggii*), pinkish purple with maroon spots and somewhat resembling the purple Martagon lily; the coast lily (*L. maritimum*), a slender species with reddish orange blossoms spotted with purple, and the little lily *L. parvum*, light orange tipped with red, are a trio of quite delicate California lilies.

All of the very beautiful lilies of India and Burmah are so sadly tender that when any of them has been made to bloom well in gardens it has been in such mild parts of England as Cornwall and Devonshire. The Nepaul lily (*L. nepalense*), has flowered in such circumstances. This is a large lily, greenish yellow with a deep purple base. The Neilgherry lily (*L. neilgherrense*) is more funnel-shaped in form, but pale yellow. Both bloom in September, making them doubly unsafe in cold climates. The sulphur lily (*L. sulphureum*) is another September lily, and fairly hardy for its class. The trumpet-shaped blossoms are creamy white, suffused with yellow inside and tinged with red outside. It is comparatively easily in cultivation. Of the same form, but a soft primrose yellow color, is *L. primulinum*. Low's lily (*L. Lowii*) is a



L. sulphureum—the sulphur lily

handsome bell-shaped species, white spotted with purple, that blooms in September. Wallich's lily (*L. Wallichianum*), white tinged with green and funnel-shaped, is a July lily that is very difficult as well as very tender. The western Himalayan species, *L. polyphyllum*, greenish yellow tinged inside with purple and turban-shaped, and the Philippine form of *L. longiflorum* (*L. philippinense*), are in the same class. With heavy protection, *L. philippinense* has been wintered successfully in Ohio.

Of the other species the oat-scale lily (*L. avenaceum*), a red Japanese kind similar to *L. tenuifolium*, is delicately constituted. The similar orange red *L. medeoloides* and the scarlet *L. callosum*, as well as Leichtlin's lily (*L. Leichtlini*), pale yellow with purple spots, are three more Japanese species that are not easily cultivated.

CHAPTER VI

PLANTING FOR THE BEST EFFECTS

NOWHERE in the garden can lilies be said to be out of place; the worst of circumstances will not close the eye to their beauty. There is, nevertheless, all the difference in the world, so far as effect is concerned, between the proper and the improper planting of lilies.

The ideal way to plant lilies would be in a lily garden. The lines from "Troilus and Cressida,"

"Give me swift transportance to those fields.

Where I may wallow in the Lily beds,"

suggest such a place apart. Who would not like to wallow, mentally and sentimentally, in a garden full of lilies? To come down to earth, R. W. Wallace, the English lily expert, makes this practical suggestion: "An ideal spot for lilies would be an open forest glade with a small stream running through it, near the banks of which the North American peat- and moisture-loving lilies would flourish; and higher up,

away from the water, clumps of *auratum*, *Washingtonianum*, *Humboldtii*, *giganteum*, and all our finest species, would readily grow." Many a country place, both large and small, has a spot approximating these conditions—thus easily convertible into a naturalistic lily garden. And there is no reason in the world, other than the negligible botanical one, why the planting should be confined to members of the *Lilium* genus. Some of the so-called lilies, not a few of which belong to the lily family, might be used for seasonal effects.

But whether one has the space for a lily garden, and the time and disposition to maintain it, or whether it is a matter of a species or two in ordinary dooryard conditions, there is a prime rule that should not be broken. A lily's beauty does not consist wholly in color; there is beauty of form, both in the blossoms and in the plant as a whole. Unless it is properly placed, the full of esthetic delight is therefore not experienced. If a lily's normal habit is dignified and stately, it must be set forth in all its dignity and stateliness to be at its best; if graceful, in all its gracefulness; if rather stiffly dwarfish, in its rather stiff dwarfishness, and so on.

Nature, as in so much else that concerns the disposition of plants in the garden, is the best guide. For example, when lilies grow naturally they rise from herbage or low shrubbery. There is never any overcrowding; the stalks have room to bend more or less to the breeze and not a trumpet or bell that does not stand out with individual prominence. You see in short, the lily in all its glory. There is, accordingly, no more effective way to plant lilies than among shrubs or, in the case of the dwarf species, in a low shrubbery foreground. Moreover, this plan kills two birds with one stone, as some lilies require, and all prefer, not to rise from bare ground and also to be protected from spring frosts.

Inasmuch as some of the lilies are particularly fond of peat too, the rhododendron bed, or a planting of any of the broad-leaved evergreen shrubs, is one of the best of places. Natural conditions are approximated and at the same time admirable use is made of unemployed ground space, and lilies that prefer not to be disturbed may follow their own sweet will. Of course, the shrubbery must not be too thickly set; that would crowd out the lilies. Such tall-growing species as the swamp lily (*L. super-*

bum), Hanson's lily (*L. Hansoni*), the Canada lily (*L. canadense*) and Henry's lily (*L. Henryi*) are seen to the very best garden advantage when planted, in naturalistic groups, among rhododendrons. The gold-banded lily (*L. auratum*) and the madonna lily (*L. candidum*) are quite as fine in their less colorful and less looming way, while in the foreground the Thunbergian lily (*L. elegans*) and other dwarf erect species, as well as the dainty coral lily (*L. tenuifolium*), may be used to decided advantage with ferns or other low growth.

Shrubbery may also be employed with excellent effect as the background of lilies and when it also breaks the force of strong winds so much the better. The taller lilies mentioned all look well against high shrubbery. To them may be added the Caucasian lily (*L. monadelphum*), the panther lily (*L. pardalinum*) and the purple and white Martagon lilies (*L. Martagon*). Where the background is lower the scarlet Martagon lily (*L. chalcedonicum*), Brown's lily (*L. Brownii*), the orange lily (*L. croceum*) and Batemann's lily (*L. elegans Batemanniae*) are admirably placed, or a dwarf foreground may be made with the red star lily (*L. concolor*) or *L. elegans Orange Queen*. In all cases the lilies

will be better, and look more at home, if there is an evergreen herbaceous ground cover, low or tall according to the flowering height of the dominant figures.

Lilies really require an appropriate background. A few, such as the madonna and Henry's lilies, are very, very beautiful standing out against a clear blue sky; but, generally speaking, green, and plenty of it, is the best setting, especially for the white, whitish, pink and pale yellow lilies. So, in massing in the border of hardy perennials, care should be taken that something appropriate rises higher behind them. ~~This is no drawback when it~~ shuts off some of the sun, for most lilies will stand a little shade and there are those that refuse to thrive well without it. Such massing is the most effective way of planting lilies where naturalistic methods are out of the question and here there may be a little more crowding. The more irregular the planting the more effective, save in purely formal designs—for which lilies are not often suitable. Any lily that will survive the garden winter is excellent for this purpose—all of those already spoken of in this chapter and the Nankeen lily (*L. tescatum*), the turban lily (*L. pomponium*), the

tiger lily (*L. tigrinum*) and the bulb-bearing lily (*L. bulbiferum*) as well. For purity the madonna lily stands alone, though *L. Martagon album* is very fine for a less chaste white, while for color the Nankeen, speciosum, gold-banded, Martagon, Hanson's, Henry's, turban and all of the hardier erect lilies, are always very useful.

The ~~most beautiful formal employment of lilies is to line a path, on one or both sides. For such planting nothing is better than the madonna lily, in a solid phalanx of purity.~~ Where a pergola is not densely shaded from above, the path may be lined on either side with this lily; that has been done, with most enchanting effect. The soft apricot Nankeen lily lends itself to the same purpose. A path in sparse woodland, or through shrubbery, may be lined with either Brown's or the speciosum lily, or *L. longiflorum* if more pains be taken, but in this case the planting must be thinner and ~~altogether~~ irregular. There these lilies will incline gracefully toward the path, instead of assuming the erectness that they have in the open garden.

One lily leaf, at least, may be taken from the cottage gardens. In them a self-arranged

clump now and then nestles up to the house by the side of the door and seems to belong to the home, as it does. This is a good way to plant the madonna, tiger, Nankeen and orange lilies, which thus placed will frequently take care of themselves for years. They need not be staked; in fact wherever this can be avoided in the garden it should be done. A lily tied to a stake can never be quite its natural self.

The out and out naturalization of lilies is more delightful to think about than easy to accomplish, because to most are denied the right conditions. Where these do obtain, it is far preferable to use lilies this way than in even a naturalistic garden. The swamp and Canada lilies it is cruel to place in a garden when they may be introduced to one's own bit of wild. Both are good subjects; so is the wood lily (*L. philadelphicum*), which does not take very kindly to cultivation.

For the rock garden any lily may be used, as the taller ones can be planted in recesses on the ground level and given the requisite setting. The dwarf, erect kinds, however, are to be preferred. For cool pockets the red star lily is a good subject. Very likely the reddish lily (*L. rubellum*) and the coast lily (*L. maritimum*)



L. tigrinum—the tiger lily

would be more amenable to culture in rock garden pockets than in other conditions.

Each lily species shows off to better advantage by itself. If mixing is done, it is wiser to place varieties together; the purple and white Martagon lilies, for example. Though a common enough practice, it is also a wiser plan not to mix lilies with other flowers. This as a rule; no one could possibly take exception to the garden juxtaposition of the madonna lily and tall blue larkspur or the swamp lily and black cohosh (*Cimicifuga racemosa*), and the low erect yellow, orange and red lilies may be used in a few combinations. The point is, as with entirely segregated planting, that there shall be neither detracting nor distracting influence.

Finally, unless one is collecting, the planting of many lilies of one or a few kinds, rather than a few lilies of many kinds, is to be strongly advised. In the first place, all lilies are not for all gardens. The selection in the average instance must narrow down to the most suitable kinds for individual conditions and of these a small choice should be made. Better two or three kinds in perfection than ten times as many in both imperfection and ineffectiveness.

CHAPTER VII

ESSENTIAL CULTURAL POINTS

A FEW of the lilies have become so domesticated that they will do well in any ordinarily good garden conditions; the tiger lily even refuses to let grass choke it to death. But most of them are not sufficiently remote from the wild to make it safe to deny them an approach to what they have been accustomed to in life, and there is not one that does not thrive better if its particular likes are catered to.

It goes without saying, therefore, that the culture of lilies should begin before the buying of the bulbs, so to speak. Their hardiness, their ease of culture, their soil preference and their shelter and shade requirements having been thoroughly digested, a straight start is easily made.

Soil preference is of the greatest importance and, fortunately, it is possible, with a little care, to supply almost any local deficiency. The majority of lilies grow naturally in very

good soil. It is usually rich in peat or vegetable mold, there is generous depth and though the degree of moisture required varies, this is tolerably uniform as to any species in the growing season. Garden loam, lightened with sand if too heavy and mixed with peat or leaf-mold, makes a good soil for lilies. Manure should not be used unless it is extremely well rotted. The better way is to employ it as a top dressing and trust to the rain to do the mixing. No lily tolerates fresh manure next to the bulb. Spading should be to a depth of at least three feet, and deeper still where, in chalk or clay conditions, it is necessary to excavate a trench and fill it with entirely new soil.

Partial shade from the sun, which scorches *L. Hansonii* and *L. Henryi*, and partial shelter from winds, are urgent demands of some of the lilies. To others they are grateful, but not necessary. Shade must not shut off light and air, however, and while the branches of trees may overhang the planting, care must be taken that the tree roots do not absorb all the lily food from the soil. Where this danger may not be dodged, lilies can be planted in a tub of soil sunk in the ground. As for moisture, all lilies need it when growing. Few of them stand

drought well and if once given a serious setback by it the bulbs rarely recover.

It is impossible to make a hard-and-fast planting rule in all these matters, for the reason that lilies have a way of following their own devices. In one garden a species will sometimes adapt itself to circumstances with the best of grace whereas in another it refuses to be comforted unless humored. For this reason lily cultural observations vary quite widely and now and then are absolutely contradictory. The only real solution is for each grower to create his own experience and then forget that of others. As an approximate guide in the making of such experience the following differentiations of the hardiest lilies may be used.

CULTURAL CHARACTERISTICS

Thrive in good light garden loam and in full sun. All are the better for some peat or leaf-mold in the soil and can stand partial shade. A ground cover is preferable, but not necessary; *L. candidum* makes its own. These are the easiest lilies to grow.

bulbiferum
canadense
candidum

carniolicum
chalcedonicum
concolor

<i>croceum</i>	<i>Martagon</i>
<i>dauricum</i>	<i>pomponium</i>
<i>elegans</i>	<i>pyrenaicum</i>
<i>Hansonii</i>	<i>speciosum</i>
<i>Jankae</i>	<i>tenuifolium</i>
<i>longiflorum</i>	<i>testaceum</i>
<i>Marhan</i>	<i>tigrinum</i>

May be grown in ordinary garden conditions, but are best off in soil with plenty of peat and leaf-mold, and should be planted out among shrubs where their roots can be shaded and a fair degree of moisture maintained.

<i>auratum</i>	<i>monadelphum</i>
<i>Brownii</i>	<i>myriophyllum</i>
<i>columbianum</i>	

Prefer shade, moisture and shelter from wind, with plenty of peat or leaf-mold in the soil and a well-drained root-run.

<i>Burbankii</i>	<i>Grayi</i>
<i>carolinianum</i>	<i>pardalinum</i>
	<i>superbum</i>

The rule to plant lily bulbs three times their depth is not to be taken literally. The two lilies in the heart-leaved group are planted with the top of the bulb about on a level with the surface of the ground. With these exceptions, the

depth of soil above the top of the bulb should be from three to seven inches. The normal size of the bulb—some are quite small—and the vigor of the species are determining factors. But there is a third highly important point to bear in mind. Some lilies root from the base of the bulb only, while others throw out later a second set of roots from the stem a little way above the bulb. As the stem-roots are vital elements in the production of perfect bloom, the stem-rooting lilies must be planted deep enough to avoid exposure of this second set. It is difficult to draw a precise line between the two classes, but a fair division, with the inches of soil above the bulb, is as follows:

LILIES WITH STEM-ROOTS

<i>auratum</i> ¹ (6 to 8)	<i>japonicum</i> (3 to 4)
<i>Brownii</i> (5 to 6)	<i>Leichtlini</i> (3 to 4)
<i>bulbiferum</i> (5 to 6)	<i>longiflorum</i> (5 to 6)
<i>concolor</i> (3 to 4)	<i>neilgherrense</i> (5 to 6)
<i>croceum</i> (5 to 6)	<i>nepalense</i> (5 to 6)
<i>dauricum</i> (5 to 6)	<i>rubellum</i> (3 to 4)
<i>elegans</i> (3 to 4)	<i>sulphureum</i> (5 to 6)
<i>Hansonii</i> (5 to 6)	<i>tigrinum</i> ² (5 to 6)
<i>Henryi</i> (6 to 8)	

¹ In cold, wet soil not so deep.

² Plant mammoth bulbs 6 to 8 inches.

LILIES WITH NO STEM-ROOTS, OR FEW

<i>canadense</i> (3)	<i>pardalinum</i> (4)
<i>candidum</i> (4)	<i>Parryi</i> (3)
<i>carniolicum</i> (4)	<i>parvum</i> (3)
<i>chalcedonicum</i> (4)	<i>philadelphicum</i> (3)
<i>columbianum</i> (3)	<i>pomponium</i> (3)
<i>cordifolium</i> (none)	<i>pyrenaicum</i> (4)
<i>giganteum</i> (none)	<i>superbum</i> (4)
<i>Grayi</i> (3)	<i>tenuifolium</i> (3)
<i>Humboldtii</i> (4)	<i>testaceum</i> (4)
<i>Martagon</i> (4)	<i>Washingtonianum</i> (3)
<i>monadelphum</i> (4)	

The madonna lily should be planted in August, as it puts out a new growth of foliage in the early autumn. The scarlet Martagon lily makes an early root growth and therefore ought to be in the ground by the middle of October. Aside from these two species, ~~lilies may be planted in the autumn any time before the ground freezes.~~ Not infrequently it is difficult to get imported bulbs in season to do that; in such an event, the ground may be prepared and kept from freezing by means of a heavy temporary covering of manure. Then the bulbs can be planted as late as December. A few of the lilies will do well if bulbs carried through the winter in cold storage are planted in April

or May; but spring planting at best is a poor second choice—no matter how great the care, the bulbs are apt to be shriveled.

Plumpness is very important to the strength of lily bulbs. As some of them will shrivel if allowed to dry for only a day or so, it is best to plant them at once. If they are slightly shriveled when received, they can be plumped by laying them on moist cocoanut fiber in a cool place for a few days. Bulbs that show signs of a little decay or mold, may be disinfected by sprinkling a little powdered charcoal or sulphur over them; but if badly off in this respect, or much shriveled, they would better be thrown away. The bulb scales protect the germ and must be in at least fair condition.

It is always a good plan to dust lily bulbs with powdered sulphur, letting it get under the scales, before planting; this to prevent fungous disease. Excepting in extremely light soil, it is also a good plan to put a little sand under and all around the bulb. A little peat under the bulb promotes root growth and in the case of the Nankeen lily a couple of inches of fresh sphagnum has been tried with success.

If the lily bed is not protected by growing shrubs, there should be provision made against

the spring frosts; the young shoots are often very susceptible to frost, and injury of this sort is an unsuspected cause of failure. Branches of any evergreen are the safest protection, but even bare boughs will break the force of the frost.

Some lilies are a bit tricky in one particular; they may decide to take a rest for a year and then, when you have set them down as "goners," fool you by "bobbing up serenely." Again certain lilies put in an appearance the first spring, but either give unsatisfactory bloom or none at all. Most of the lilies that root only from the base of the bulb establish themselves so slowly that they are rarely at their best for a year, and occasionally they may be two or three years getting about it. Of the Martagon group, *L. Hansonii* is about the only one that can be relied upon to bloom well the first season. The no-hurry kinds further include *L. giganteum*, the buds of which should be pinched off the first spring if any do appear, in order that root-growth may be encouraged; *L. monadelphum*, *L. Humboldtii* and *L. pardalinum*. So patience with, as well as understanding of, lilies is called for.

One secret of the success of the madonna and

scarlet Martagon lily in cottage gardens is the fact that usually they are let alone for years at a time. These resent disturbance. The same thing is true of most of the Martagon group, including *L. pardalinum*.

A surface mulch of manure is good for lilies and the ground should have a winter covering of either this or leaves, unless it is well blanketed with an evergreen herbaceous plant. Very frequently lilies perish because they have insufficient winter protection in exposed places.



L. Hansonii—Hanson's lily

CHAPTER VIII

LILIES UNDER GLASS

THERE are three reasons for growing lilies under glass—all of them good. In the first place they are among the most decorative of indoor plants. Then again there is no more valuable cut flower. Finally, by this means only is it possible to grow successfully in a cold climate some of the most beautiful species.

The ideal indoor planting of the tender Indian, Burmese, Himalayan, Japanese and Philippine species is in a bed in a cool greenhouse where, among ferns and other plants, they may grow in a close approach to natural conditions. That is the Kew plan and in even a greenhouse of quite modest proportions it is possible to adopt, or at any rate adapt, the plan. The following lilies are best treated this way:

cordifolium
giganteum
japonicum
Lowii

neilgherrense
nepalense
philippinense
polyphyllum

primulinum
rubellum

sulphureum
Wallichianum

All of these, however, are prime subjects for pot plants—with the exception of neilgherrense, whose flower spike is thrown out horizontally from the bulb before leaving the ground; as are also

auratum
Brownii
candidum
Hansoni
Henryi

longiflorum
Marhan
speciosum
tigrinum

The following are also good, though rather less satisfactory than the others:

concolor
croceum
dauricum

elegans
tenuifolium
testaceum

A few lilies are not suitable for pot culture, as they have rhizotamous or creeping bulbs. These include:

*canadense*¹
Leichtlini
*pardalinum*¹

*Parryi*¹
*superbum*¹

Lilies grown in pots serve two purposes. They can be used indoors or they may be the

¹ All the American lilies are better outdoors.

means of advancing, or ekeing out, the lily season outdoors. Potted lilies, brought into flower under glass, are extremely convenient to place temporarily in bare spots in the shrubbery or the hardy border, where the pots may be sunk in the ground, or to brighten up the piazza or living-room. The most serviceable kinds for such disposition are *L. longiflorum*, *L. japonicum*, *L. auratum*, *L. speciosum* and *L. candidum*.

The best compost for potting lilies consists of two-thirds fibrous loam and one-third fibrous peat with a little leaf-mold and sand. This suits almost all lilies. For the madonna lily a small amount of lime rubbish may be added and *L. rubellum* will do well in stony, sandy soil if the drainage is perfect. Pots should be roomy and for stem-rooters there must be plenty of depth. These are planted low and the pots filled up with a somewhat richer compost when the stem-roots appear. In the case of *L. auratum* and *L. speciosum* this top dressing should be followed by an application of weak liquid manure. After planting, the pots are plunged in a bed of ashes four inches deep and later transferred to the greenhouse or a coldframe. Potting is done in October for early bloom indoors and later for indoor succession or for

outside use. Bulbs potted for outdoors should be kept in a cool place but safe from frost. During the growing and blooming season a great deal of water is required. After blooming the watering should be gradually decreased until the stems turn yellow—when the bulbs may be repotted and kept rather dry in a coldframe for use the following winter. If *L. longiflorum* is wanted early, it is advisable to keep it in a moist atmosphere and well watered and syringed.

CHAPTER IX

PROPAGATION

THERE are three ways of propagating lilies—by seed, by scales and by offsets. Seed, no doubt, is the best means of acclimatizing some of the more tender and capricious species, but only a lily enthusiast would care to use so slow a process of reproduction. It requires about seven years for *L. giganteum* to bloom from seed and the other species take their own time. A few of the lilies produce seed very freely, among them *L. Henryi*, *L. superbum*, *L. rubellum* and *L. tenuifolium*; others are chary of it. Lily seed should be planted in a sheltered place, as soon as well ripened, in light, moist soil and not allowed to dry out until the second year, as germination may not take place the first spring. Sow seed of Martagon lily, *L. monadelphum*, *L. dauricum*, *L. croceum*, *L. superbum* in open ground if desired, but most kinds germinate better in pans indoors. The young bulbs can be transplanted when a year old and grown on

until large enough for permanent placing. If seed is sown broadcast in a suitable spot, no transplanting is necessary.

Scales should be healthy ones from the outside of the bulb, which is not injured by the careful removal of a few. They may be taken from the bulbs as soon as ripe (*L. candidum* in August), or in early spring, and planted in the open ground, but it is better to put them in pans of loose soil kept fairly moist. They form bulblets the first season.

Three kinds of lily offsets are produced—from the bulb, from the lower part of the stalk and from the axils of the leaves; the last are known as bulbils. All these are simply planted in the open ground, or in pans in the case of *L. sulphureum*, and allowed to grow to flowering size.

Most lilies can be propagated all three ways. Their weak response is to attempts at hybridization. The genus is very unusual in the stubbornness with which it resists being influenced by foreign pollen. Seedlings of any species, if crossed, are very apt to resemble the one that bears them. The result is that there are comparatively few lilies that are not species or variants of species. The natural hybrid *L. testa-*

ceum and the garden hybrids *L. Burbanki*, *L. Dalhansoni*, *L. Marhan* and *L. Kewense* are notable exceptions and doubtless forerunners of numerous others. Still, with so many beautiful species, the world stands in no particular need of more. The chief advantage of hybridizing lilies would seem to be to couple the blood of the Indian and Burmese species with hardiness.

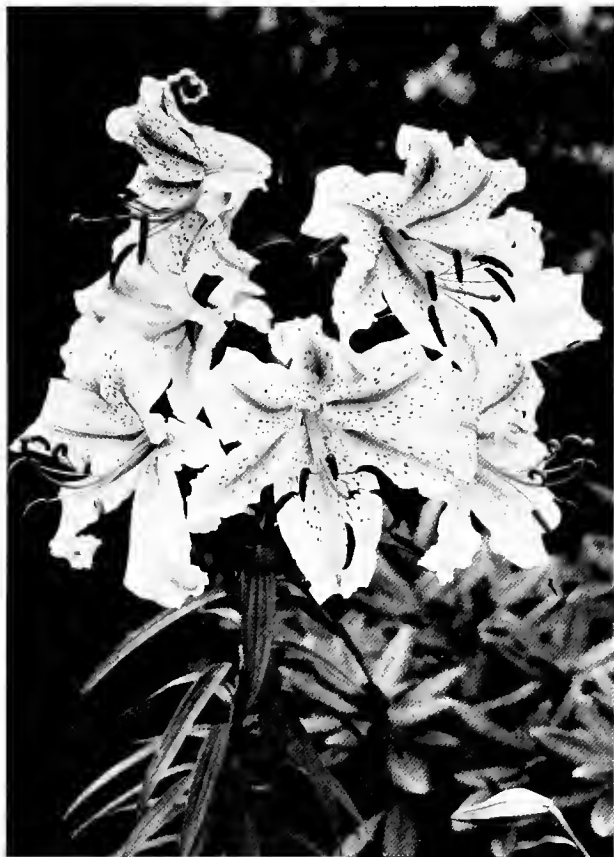
CHAPTER X

INSECT PESTS AND DISEASES

THREE kinds of lilies, *L. longiflorum*, *L. speciosum* and *L. auratum*, are subject in their early stages of growth to onslaughts of the green fly (aphides). These insects get in the unfolding leaves and will cause imperfect bloom if not checked. They are particularly trying in the case of *L. longiflorum*, which has denser foliage than the others. Immediate fumigation and more of the same thing later is a good remedy; or syringing, first with a nicotine solution and then with tepid water, may be substituted.

The most destructive of the three parasitic fungi and the commonest is *Botrytis cinerea*. This shows itself in brown, or brownish, specks on the stems, foliage and buds. Eventually it turns into a soft gray mold; sometimes into little black spots that become imbedded in the scales.

This fungus, which is very trying in the case of *L. candidum* and *L. testaceum* in the garden,



L. auratum—the gold-banded lily

attacking *L. auratum* as well if in the full sun, is best treated by Bordeaux mixture when the trouble is above ground. Dissolve one pound of sulphate of copper in a wooden tub and slake one pound of fresh quicklime in another receptacle. When slaked, pour the quicklime into the sulphate of copper solution and add ten gallons of water. Spray gently with this mixture and repeat the operation in a week. Bulbs that are seriously affected would better be destroyed. The rust known as *Uromyces Erythronii* causes discolored patches. As the bulbs are not attacked, the best treatment is to burn the diseased stems and thus prevent a spread of the fungus. The third fungus, *Rhizopus necans*, gets into the bulbs through injured roots and causes them to rot.

CHAPTER XI

LILIES AS CUT FLOWERS

As has been said already, lilies are among the most valuable of cut flowers, but—there is a great big but. The fact is that, although they are invariably beautiful, some of them have shockingly bad taste in the matter of the odor that they exhale. These must be barred from the house altogether and there are others that, though classed as fragrant, have odors so overpowering that they must needs be placed near an open window or in a hall where there is a good passage of air.

The most agreeably odorous lily in the house is *L. longiflorum* and its fragrance is the safest for the sick-room. The similar fragrance of *L. japonicum Alexandrae* and *L. philippinense*, the delicate and distinctive aroma of *L. neilgherrense* and the restrained scent of *L. speciosum*, put them well at the head of the list; and there is the delicious perfume of *L. candidum*, that is not too strong unless a great many of the blos-

soms are in a closed room. Other pleasantly fragrant lilies are *L. giganteum*, *L. testaceum*, *L. Brownii leucanthum*, *L. rubellum*, *L. japonicum Colchesterense*, *L. sulphureum*, *L. monadelphum*, *L. Kellogii* and *L. Burbanki*.

Indoors the odor of *L. pomponium* is scarcely bearable. The Martagon lilies are not much better; *L. pyrenaicum* and *L. monadelphum Szovitzianum* have heavy and unpleasant scents. The odor of *L. auratum* is less disagreeable, but is too rank for the house unless in a very airy place. The odor of *L. Parryi* and *L. carolinianum* is similar, but not so overpowering as the others.

Where it can be grown, *L. japonicum* is admirable for indoor use; so are *L. tigrinum* and *L. canadense*. This brings the safe list up to large enough proportions.

Lilies should be cut with long stalks, as otherwise it is impossible to arrange them effectively. Unless the stalks curve gracefully, through growing on the edge of shrubbery, it is best to use a vase that does not flare much at the top. Nor, as a rule, is it wise to employ any other flower foliage with them. Maidenhair fern, however, goes well with *L. candidum* or *L. testaceum* and a good gray foliage, such as lavender

cotton (*Santolina Chamæcyparissus*), with the upright orange and red lilies.

If lilies are wanted for vases in the house, a very sensible plan is to plant a reserve stock for cutting—say in rows next to the vegetable garden. Some of the more tender lilies can be grown in coldframes and the glass lifted off about the end of May. Such pains would be well worth while to secure bouquets of Kramer's lily or *L. rubellum*.



L. longiflorum—the Easter lily

CHAPTER XII

SPECIES, VARIETIES AND HYBRIDS

THIS list is not absolutely complete; but it includes most, if not all, of the important subjects. Nor does it pretend to be absolutely correct in either a botanical or a horticultural sense. When botanists do not altogether agree on species, no mere layman can straighten out the matter of nomenclature with any degree of definiteness or finality. As for the vendors of lilies, they also differ among themselves in both botanical and horticultural names. After all, it matters very little to the plain, everyday flower-lover whether the exquisitely beautiful Kramer's lily is *L. japonicum*, as the Kew authorities maintain, or *L. Krameri*, as others quite as stoutly opine, and Batemann's lily displays a no less glowing apricot hue in the garden as *L. elegans Batemanniae* than as plainer *L. Batemanniae*. In this confused state of things, no doubt some actual duplication of names occurs.

So, too, the descriptions are sometimes approximate, rather than strictly accurate. Observers do not always see precisely alike and there is no universal standard of color terms. Then again, various conditions may alter not only the color shades but the height and the period of bloom, not to mention throwing the matter of culture into the easy or difficult class. Here, as well, differences of opinion, or of observation, are of slight consequence. For one thing, no lily color will ever prove unsatisfying if given a fair chance to display its particular charm. The writer found the Washington lily at Kew fairly describable as pink. But no one, if he succeeds in growing this choice American species and its varieties will have any fault to find if it proves to be "white, tinged with pink or red and dotted with purple," or "white, purple-spotted blooms that become tinged with purple after expansion," or "white, with purple tinge on back," or "white, shading off to lilac."

L. Alexandrae

See *japonicum*

Alexandra's lily is classed by Kew as a variety of *L. japonicum*, but is sometimes called a natural Japanese hybrid, *L. auratum* x *L. longiflorum*.

- L. angustifolium* See *pomponium*.
L. aurantiacum See *bulbiferum*.
L. auratum Gold-banded lily.¹

Japan. Introduced 1862. White, spotted sparsely with reddish brown and yellow band down each petal; 6 to 12 in. across; 3 to 30 on stalk. July, August. 4 to 8 ft.

Quite hardy, but prone to run out. Renew stock every three years or so. Thrives in ordinary garden soil, but prefers moist peat or leaf-mold and sand, with good drainage. Does well in cool woodland or thinly planted rhododendron bed; better still among alpine rhododendrons and low azaleas or kalmias, but must not be crowded. Protect from cold spring winds and direct rays of summer sun. Plant 6 to 10 in. deep. Mulch with rotted manure and water frequently. In bad soil dig holes 4 to 6 ft. deep and fill with peat and sand, or sandy loam, leaf-mold, rubbish ashes and some well-rotted manure.

var. *cruentum*—Same as *rubro-vittatum*.

var. *macranthum*—Less spotted and more robust; best of all.

var. *pictum*—Crimson band and spots.

var. *platyphyllum*—Same as *macranthum*.

var. *platyphyllum virginale*—Slightly spotted with yellow.

¹ Known also as golden-rayed lily and Japan lily.

var. *rubro-vittatum*—Bright crimson band.

var. *virginale*—No spots.

var. *Wittei*—Same as *virginale*.

L. avenaceum Oat-scale lily.

Japan, Manchuria, Kamchatka. Red, drooping, reflexed tips. Similar to *L. tenuifolium*. 1 to 2 ft. The bulbs are eaten in Kamchatka. Delicate constitution.

L. Bakeri Baker's lily.

Washington and British Columbia.

L. Bakerianum

India.

L. Batemanniae See *elegans*.

The origin of Batemann's lily is somewhat obscure, but it is regarded as a variety of *L. elegans*.

L. Berensi

Hybrid; *L. testaceum* x *L. chalcedonicum*.
Dull apricot; fragrant.

L. Bloomerianum See *Humboldtii*.

L. Bolanderi

California. Dull pomegranate, spotted; shape of *L. canadense*. June. 2 ft.
Recommended only to collectors.

*L. Brownii*¹

Brown's lily.

China, Japan. White, outside of petals suffused with reddish brown; brown anthers; trumpet-shaped; usually solitary; fragrant. Handsome foliage; brownish stalk. July, August. 3 to 4 ft.

Hardy and quite vigorous, but requires re-planting every few years. Plant deep in light, peaty soil and warm, sheltered position. Will stand almost pure sand with a little manure, also heavier soil. In cold, heavy soil lay something on ground to shoot off winter wet. The Japanese plant the bulb on the side to avoid damage by water.

var. *Chloraster*—Suffused with green.

var. *leucanthum*—Shaded yellow; stems green; very fragrant.

var. *odorum*—Pale yellow, changing to cream; shorter and less heavily tinged. From Central China. Same as *L. odorum*, *L. Colchesterense* and *L. japonicum Colchesteri*.

*L. bulbiferum*²

Bulb-bearing lily.

Central Europe, Southeastern Scandinavia. Orange red. Similar to *L. dauricum*, but distinguished by brighter and less crowded blossoms.

¹ Syn. *L. japonicum Brownii*.

² Syn. *L. auriantiacum*.

soms and bulbils in leaf axils. July, August.
2 to 4 ft.

Very hardy. Has stood test of many years in gardens. Does well in light, rich garden soil and in an open position.

L. Burbanki

Burbank's lily.

Garden hybrid; *L. pardalinum* x *L. Washingtonianum* x *L. Parryi*.

Orange, spotted with brown and flushed with crimson on the tips; 25 to 30 in loose, graceful spike. Very fragrant. July. 4 to 6 ft.

Prefers moist, peaty soil and partial shade.

var. "Selected"—Orange red recurving and evidently *L. pardalinum* x *L. Humboldtii*. Free-flowering. 4 ft.

L. californicum

See *Humboldtii* and *pardalinum*.

L. callosum

Japan. Introduced 1840. Scarlet, drooping. 1 to 3 ft.

Difficult of culture.

*L. canadense*¹

Canada lily.²

Eastern United States. Light orange, spotted with brown. July. 3 ft.

¹ Syn. *L. penduliflorum*.

² Known also as meadow lily, Canadian lily and wild yellow lily.



L. Brownii—Brown's lily

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Very hardy. Excellent for naturalizing. Thrives in ordinary garden conditions, but prefers moist, peaty soil with a low ground cover.

var. *flavum*—Common orange type.

var. *rubrum*—Orange red outside, yellow inside.

L. candidum

Madonna lily.¹

Southern Europe. Introduced 1596. White; yellow anthers. Broad and narrow petal types. June, July. 4 ft.

Very hardy. The oldest lily in cultivation. Thrives in well-drained garden loam and open position. Dislikes to be disturbed. Transplant in August, as there is new leaf growth in September.

var. *flore plenum*—Very poor double.

var. *foliis aureo-marginatis*—Foliage bordered with yellow.

var. *monstrosum*—Same as *flore plenum*.

var. *peregrinum*—Purplish stem, narrow leaves and petals.

var. *speciosum*—Later; 20–30 blooms on stem, which is black. 5 to 6 ft.

var. *spicatum*—Same as *flore plenum*.

var. *striatum*—Blossom streaked with purple.

¹ Known also as white, annunciation, Bourbon and June lily.

L. carniolicum

Carniolian lily.

Lombardy, Dalmatia, Bosnia. Vermilion red; smaller and less bright than *L. pomponium*. July. 3 ft.

Thrives in ordinary garden soil. Has done well even in clay.

*L. carolinianum*¹

Carolina lily.

Southeastern United States. Orange red, spotted with black and marked with yellow; recurved. Resembles *L. superbum*, but less striking and foliage is broader. July, August. 3 ft.

Quite hardy. Will thrive in ordinary garden soil, if well-drained.

L. Catesbaei

Southern red lily.

North Carolina to Florida and Kentucky. Orange red, spotted with purple and yellow; generally solitary. July. 1½ ft.

Tender and rather unreliable in northern gardens. Prefers sandy or gravelly peat and a cool, moist, partially shaded place. Often found in pine barrens. Good for rock garden.

*L. Cattaniae*See *Martagon*.

¹Syn. *L. superbum carolinianum*.

L. chalcedonicum Scarlet Martagon lily.¹

Greece. Bright red; small, turban-shaped, in loose clusters; unpleasant odor. July. 3 ft.

Very hardy in English gardens for over a century. Resents disturbance and generally flowers poorly first season. Thrives in ordinary light garden loam, or heavier soil if well drained. Transplant not later than October, as roots make early growth. Bears drought well.

var. *excelsum*—Larger and superior; petals spotted black at base.

var. *Heldreichi*—Improved form; color paler on outside. Very like *L. Heldreichi*.

var. *maculatum*—Same as *excelsum*.

var. *major*—Same as *excelsum*.

L. claptonense See *primulinum*.

L. Colchesterense See *Brownii* and *japonicum*.

L. colchicum See *monadelphum*.

*L. Columbianum*² Oregon lily.

Oregon, Washington, British Columbia.
Golden yellow, spotted with red; small; turban-

¹ Known also as Turk's cap lily and red lily. Probably the "red lily of Constantinople" of Parkinson.

² Syn. *L. nitidum*, *L. parviflorum* and *L. Sayi*.

shaped. June, July. 2½ ft. Some regard it as small form of *L. Humboldtii* and it seems to be identical with *L. pardalinum parviflorum*.

One of the easiest of western lilies, but not highly effective in the garden. Prefers soil with peat and sand and a shady, sheltered position.

L. concolor ¹

Red star lily.

China, Japan, Siberia. Bright scarlet, dark red spots; erect, star-like, waxen; about two inches across. Several on stem and two to three stems from one bulb. June, July. 1 to 1½ ft.

No longer considered difficult. Good and graceful garden lily. Does well in ordinary garden soil. Prefers light loam with peat, leaf-mold and sand and a moist, well-drained and partly shady location. Will stand slaty soil. Excellent for cool parts of rock garden. In good soil and cool spot increases rapidly.

var. *Buschianum*—Crimson. Siberia.

var. *Coridion*—Rich yellow; larger blossoms. Same as *L. coridion*.

var. *Partheneion*—Scarlet, flushed yellow.

var. *pulchellum*—Deep crimson, narrower petals. Same as *L. p. punctatum*.

¹ Syn. *L. sinicum* (China).

L. cordifolium Heart-leaved lily.

Japanese and Kurile islands. Greenish white, tubular, 3 to 5 in. across; 5 to 10 on stalk. Leaves more heart-shaped and deeper green than those of the nearly related *L. giganteum* and sometimes tinged with red. Inferior to *L. giganteum*. August, September. 2 to 3 ft.

Quite tender. Difficult in culture. Safest to pot, and winter in coldframe. Plant in cool and well-drained spot, sheltered from strong sunshine. Give good root-run of leaf soil.

var. *Giehnii*—Hardest form.

L. coridion See *concolor*.

L. croceum Orange lily.

Switzerland, France, Northern Italy. Bright orange, with small crimson spots; upright; 3 in. across; several on stalk. June, July. 3 to 4 ft. Resembles *L. dauricum*, but blossoms better in substance and duration.

Very hardy old cottage garden lily. Flowers well first season. Thrives in any soil in a sunny garden border, or among shrubs in half shade.

var. *Chaixi*—Dwarfer than type.

L. dahuricum See *elegans*.

L. Dalhansonii Dalhanson lily.

Garden hybrid; *L. Hansonii* x *L. dalmaticum*.
Dark brownish purple. June. 5 ft.

L. dalmaticum See *Martagon*.

*L. dauricum*¹ Dahurian lily.

Siberia, North Japan. Orange, flushed with red and spotted with black; erect; 6 to 8 in umbel. Species more slender than modern garden forms and has smaller blossoms and shorter leaves. Resembles *L. croceum*, but smaller and more slender. Resembles still more closely *L. elegans*, with which it is easily confounded. June, July. 2 ft.

Very hardy dwarf lily. Does well in ordinary light garden loam.

var. *Diadem*—Bright crimson; yellow band down petal. Fine hybrid.

var. *erectum*—Orange and scarlet. Early.

var. *grandiflorum*—Light orange red.
Large.

var. *incomparabile*—Deep crimson. Very fine.

var. *maculatum*—Deep orange; spotted.
Tall.

¹ Syn. *L. davuricum*, *L. spectabile* and *L. umbellatum*. Miss Jekyll says that *L. davuricum* is said to be identical with "*L. pennsylvanicum*."

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var. multiflorum—Orange red. More blossoms.

var. Sappho—Light orange, tipped with red.

Hybrids of *L. umbellatum* and *L. elegans*.

var. Sensation—Deep orange, flushed with brownish red.

var. aurantiacum multiflorum—Orange yellow, tipped with orange red.

The following forms are perhaps hybrids of *L. croceum* and *L. elegans*:

var. aurantiacum—Orange.

var. Cloth of Gold—Bright yellow.

var. Tottenhami—Bright yellow, large heads.

L. Davidi See *primulinum*.

L. davuricum See *dauricum*.

L. Delavayi

China. Wine red; trumpet-shaped.

*L. elegans*¹ Thunbergian lily.

Japan. Orange; erect. Less vigorous growth than *L. croceum*, which it resembles in general form. Resembles still more closely *L.*

¹ Syn. *L. Thunbergianum*, *L. dahuricum* and *L. lancifolium*.

dauricum, with which it is easily confounded.
May, June, July. $\frac{1}{2}$ to 1 ft.

Very hardy. One of the best border lilies.
Thrives in ordinary garden soil, but prefers
light loam, peat and leaf-mold. Stands full ex-
posure. Fine for rock garden or naturalizing.

- var. Alice Wilson—Lemon. Dwarf.
- var. alutaceum—Apricot. Dwarf. Early.
- var. alutaceum Prince of Orange—Apricot
with black spots.
- var. armeniacum—Orange red. Late.
- var. atrosanguineum—Deep red.
- var. Batemanniae—Apricot. Late. 4 ft.
Same as *L. Batemanniae*.
- var. Beautiful Star—Orange red.
- var. bicolor—Yellow, streaked with red.
- var. biligulatum—Brownish red.
- var. flore-pleno—Deep red, semi-double.
- var. fulgens—Red. Same as *L. fulgens*.
- var. hoematochrom—Dark crimson.
Fine.
- var. Horsmanni—Same as hoematochrom.
- var. lateritium—Same as biligulatum.
- var. Leonard Joerg—Orange red, crimson
spots.
- var. marmoratum aureum—Deep yellow,
crimson spots.
- var. Orange Queen—Bright orange. 1 ft.
Very fine.
- var. Othello—Blood red, tinged with
orange.



L. Leichtlini—Leichtlin's lily



L. elegans—the Thunbergian lily

- var. Peter Barr—Soft yellow; few spots; very fine.
- var. pictum—Same as bicolor.
- var. Prince of Orange—Apricot, dwarf, early.
- var. reticulatum—Salmon with yellow bar, spotted purple.
- var. sanguineum—Light red, black spots. Same as *L. sanguineum*.
- var. semi-plenum—Half double crimson.
- var. Van Houttei—Fine bright crimson, large and fine.
- var. venustum—Same as armeniacum.
- var. Wilsoni—Apricot, purple spots; late.
- var. Venustum macranthum—Bright orange, no spots, late. 2 ft.
- var. Wallacei—Apricot, early August. Same as *L. Wallacei*.
- var. Willie Barr—Orange yellow, spotted crimson.

L. excelsum See *testaceum*.

L. eximium See *longiflorum*.

L. Fargesii

China. Yellow; small; Martagon type.

L. Formosum

White. Resembles *L. elegans* in form.

*L. fulgens*See *elegans*.*L. giganteum*

Giant lily.

Himalaya mountains. White, tinged with purple inside and with green outside; trumpet-shaped, 8 to 9 in. long and 5 in. wide; 12 to 20 on stalk. Delicious, but powerful, fragrance. Very fine foliage, heart-shaped. July, August. 10 to 14 ft.

Hardy. Quite vigorous and not very difficult when conditions suit it. Naturalizes readily in English woods. Needs protection in very cold climates. Flourishes finely in a greenhouse border. Requires quite deep soil containing leaf-mold or sandy peat with well-rotted manure and moist sub-soil. A light, loamy soil in woodland will do. Give shelter and partial shade. Does well in rhododendron beds. Roots must be well established to insure perfect flower development and it is therefore better to sacrifice the first season's bloom in the case of bulbs of flowering size. The best permanent results are from small bulbs left undisturbed, but that may mean a few years' waiting. Protect growing shoots with evergreen boughs in spring.

L. Grayi

'Gray's lily.

Mountains of Virginia and North Carolina. Reddish orange, spotted with maroon. Similar to *L. canadense*, but petals slightly less curved;

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possibly a southern form of it. Foliage in whorls. June, July. 4 ft.

Culture quite easy. Thrives best in moist, peaty soil, but does well in any light, well-drained garden soil.

*L. Hansoni*¹

Hanson's lily.²

Japan. Introduced 1882. Bright orange, spotted with brown; thick, waxen, reflexed petals. Fragrance not heavy. Leaves in whorls. June, July. 4 to 5 ft.

Quite hardy and easy of culture. Does well in light loam. Plant among shrubs and low plants to protect young shoots, this being one of the earliest lilies to appear in spring. Avoid full sun, as blossoms bleach easily.

L. Harrisii

See *longiflorum*.

L. Heldreichi

Mountains of Greece. Bright reddish yellow. Narrow leaves, thickly set on stem. 2 to 3 ft. Similar to *L. chalcedonicum* *Heldreichi*.

Plant in loamy soil, in partly shaded place.

L. Henryi

Henry's lily.³

Ichang, Western China. Introduced 1888. Deep salmon orange; as many as thirty on

¹ Syn. *L. maculatum*.

² Known also as Japanese yellow Martagon lily and spotted lily.

³ Known also as yellow speciosum.

stalk. Uncommonly fine foliage. Similar to *L. speciosum* in habit. August, September. 6 to 12 ft.

Vigorous and one of best border lilies. Hardy, but rather difficult in very cold climate. Best under glass where outdoor conditions are unfavorable. Has done well in both light and heavy loam, but prefers soil with a mixture of peat. Requires moisture toward blooming season. Shelter from wind and full force of sun. Plant deep. Seeds freely.

L. Humboldtii

Humboldt's lily.

California. Reddish yellow, spotted with maroon, reflexed petals; in loose triangular cluster. Stout stems, with whorls of leaves. Similar to *L. superbum*, but showier. June, July. 4 to 8 ft.

Rather capricious. Prefers deep, peaty soil, but will grow in any well-drained soil. Thrives best in a moist atmosphere. Very poor bloomer the first season. Plant shallow.

var. *Bloomerianum*—Small-growing form and same as *L. Bloomerianum*, *L. californicum* and *L. puberulum*.

var. *Bloomerianum magnificum*—The finest form.

var. *magnificum*—Freer bloomer and larger spots; from Southern California.

var. *ocellatum*—Same as *magnificum*.

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L. Isabellinum

See *testaceum*.

L. Jankae

Mountains of Transylvania. Clear yellow, slightly dotted with brown. Similar to *L. pyrenaicum*, but broader leaves and larger blossoms.

Thrives in good loam.

*L. japonicum*¹

Japanese lily.²

South Japan. Clear rose, occasionally paler; funnel-shaped, 6 in. long, carried horizontally; generally one on stem, but sometimes up to seven. Slender growth. July, August. 2½ ft. Type sometimes described as purple, or purplish, with white inside and *L. Krameri* then distinguished as *L. j. roseum*. In this case it is also confused with *L. Brownii*.

Very erratic and in cold climates safest in pots. Prefers light, rich sandy loam or peat and good drainage. Peat is said to make color darker. Does well among rhododendrons, but requires frequent renewal. Grows in pine woods in Japan. Plant deep.

var. *Alexandrae*—White, shaded with green at base; pale green foliage; 2 to 3 ft. Resembles somewhat both *L. auratum* and *L. longiflorum*,

¹ Syn. *L. Krameri* and *L. roseum*.

² Known also as Kramer's lily.

and sometimes regarded as a natural hybrid of them, but shorter flower tubes than latter. First introduced from Japan as *L. Uki-uri*. Not hardy and best in pots.

var. *Brownii*—Same as *L. Brownii*.

var. *Colchesterense*—Resembles *L. Brownii*, but less brown and more erect, and known also as *L. Brownii odorum*, *L. odorum* and *L. Colchesterense*.

var. *roseum*—Same as *L. Kramerii* and *L. roseum*.

L. Kelloggii Kellogg's lily.

Northwestern California. Pinkish purple, with maroon spots; drooping; petals much reflexed; very fragrant. Bears some resemblance to *L. Washingtonianum* and the purple Martagon lily.

Prefers moist peat, or leaf-mold and sand, with good drainage.

L. Kewense Kew lily.

Garden hybrid, *L. Henryi* x *L. Brownii*.

Creamy buff, changing to nearly white; something like a small *L. auratum*.

L. Kramerii See *japonicum*.

L. lancifolium See *elegans* and *speciosum*.

L. Lankongense

Yunnan, China.

*L. Ledebouri*See *monadelphum*.*L. Leichtlini*

Leichtlin's lily.

Japan. Introduced 1867. Pale yellow, with purple spots. Slender stems; long, narrow leaves. Very graceful lily. August. 3 to 4 ft. The so-called red *L. Leichtlini* is *L. tigrinum jucundum* (or *Maximowiczii*).

Needs very careful treatment. Prefers sandy soil, lightened with peat. Comes out early and must have protection from frost. Put sharp sand around bulbs.

*L. Loddigesianum*See *monadelphum*.*L. longiflorum*St. Joseph's lily.¹

Japan. Pure white, trumpet-shaped; delicate perfume. Good foliage. July, August. 3 ft.

Quite hardy in right conditions, but runs out easily. Best grown in pots. Does well in good garden soil, but better in peat, loam and sand, well drained and kept moist during growth. Give shelter and partial shade.

var. *eximium*—Taller and more robust than type. This is the Bermuda lily.

¹ Known also as Easter lily and trumpet lily, and the Harrisii variety as Bermuda lily.

- var. *Harrisii*—Same as *eximium* and *L. Harrisii*.
- var. *giganteum*—More blossoms and stronger growth.
- var. *foliis albo-marginatis*—Foliage with white margin.
- var. *formosanum*—More slender than type, blossoms tinged with purple on outside. Native of Formosa.
- var. *formosum*—Formosa type cultivated in Japan.
- var. *Livkin*—Similar to type.
- var. *multiflorum*—Same as *giganteum*.
- var. *robustus*—Same as *giganteum*.
- var. *Takesima*—Stems and flower buds flushed with brown.
- var. *grandiflorum*—Improvement of Continental type, bloom slightly brown on outside.
- var. *Wilsoni*—6 to 8 large blossoms and dwarfer growth.
- var. *Wilsoni* (of Leichtlin)—Same as *eximium*.

*L. Lowii*¹

Low's lily.

Upper Burmah. Introduced 1893. White, thickly or thinly spotted with purple; bell-shaped. Narrow leaves, slender growth. September. 3 ft.

¹ Not very hardy. Best for pots or greenhouse border.

L. maculatum See *Hansoni*.

L. Marhan Marhan lily.

Garden hybrid; *L. Martagon album* x *L. Hansoni*. Tawny orange, curiously spotted and streaked with reddish brown; backs of petals whitish. Has Martagon blossoms and habit, with thick petals of other parent. June, July. 4 to 5 ft.

Thrives in good garden loam.

var. Ellen Willmott—Finest and most robust form.

L. maritimum Coast lily.

Coast of Northern California. Reddish orange, spotted with purple; drooping, bell-shaped; petals much reflexed. Slender growth. July. 3 ft.

Very difficult in cultivation. Being a native of peaty meadows, it prefers moist peaty soil, in partial shade. Good for the rock garden.

*L. Martagon*¹ Purple Martagon lily.²

Central and Southern Europe into Asia. Dull purplish pink, somewhat spotted; small, turban-shaped; in large pyramidal clusters; rather unpleasant odor. June, July. 2 to 5 ft. The bulbs are eaten by the Cossacks.

¹ Syn. *L. dalmaticum*.

² Known also as Turk's cap lily.

Three centuries' test in English gardens. Very vigorous and effective lily. Loamy soil in almost any position, but prefers cool and damp places, though thriving in coldest climates. Plant shallow.

var. *album*—Pure white and very beautiful. A lilac-tinted form has stronger growth and more shining foliage.

var. *dalmaticum*—Light to dark wine color and very waxy; 30 to 40 blossoms on stalk; unopened buds with whitish covering; same as *L. dalmaticum*. 6 ft.

var. *Cattanii*—Almost black, probably a darker form of *dalmaticum*. Same as *L. Cattaniae*.

var. *flore-plenum*—Valueless double form.

L. Masseyi

See *philadelphicum*.

L. Maximowiczii

See *Leichtlini* and *tigrinum*.

Japan. Red to yellow; 6 to 8 on stem. 2 to 3 ft. Maximowicz's lily is quite distinct, but seems to be identical with *L. tigrinum jucundum*. Is sometimes called the red *L. Leichtlini*. Origin is obscure.



L. monadelphum—the Caucasian lily

L. medeoloides.

Japan and Korea. Orange-red; reflexed petals. Similar to *L. avenaceum*, but taller. 12 ft.

Difficult in cultivation.

L. mirabile

China. A variant of *L. corifolium*.

*L. monadelphum*¹

Caucasian lily.

Caucasus, Persia. Bright yellow, slightly tinged with purple; orange anthers; nodding; 20 to 30 on raceme; fragrant. July. 4 to 6 ft.

Thrives in good light loam, well drained, and in an open situation, but likes partial shade. Rarely does well the first year. Easily grown from seed.

var. *Szovitzianum*—Straw color, spotted with black; brown anthers; larger blossoms; strong scent. Sometimes classed as species, the stamens being free at base whereas in the type they are joined. Better than type. Same as *L. Scovitzianum*.

L. montanum

See *philadelphicum*.

¹ Syn. *L. colchicum*, *L. Loddigesianum*, *L. Ledebouri* and *L. Szovitzianum*.

L. myriophyllum

China. White, flushed with yellow in center; outside of petals streaked with brown and tipped with pink. Fine, narrow foliage. Resembles *L. Brownii leucanthum*, but blossoms smaller and more funnel-shaped and blooms earlier. In general it has more refinement. July. 3 to 4 ft.

Hardy and vigorous. Thrives in any good peaty soil, when acclimatized.

L. neilgherrense

Neilgherry lily.

India. Pale yellow, purplish on outside; thick petals; trumpet-shaped; one to three on stalk. Distinct, delicate aroma. September. 3 to 4 ft.

Too tender for outdoors and even in pots needs frequent renewal. Blooms well first season, but inclined not to do so thereafter. Plant in equal parts of loam, peat and sand, preferably in a greenhouse bed.

L. nepalense

Nepaul lily.

Nepaul, India. Greenish yellow, with deep purple base; funnel-shaped; 5 in. across; segments recurved; slightly fragrant. September. 4 to 6 ft.

This very striking lily has flowered outdoors in Devonshire and Cornwall, England, but there only in a sheltered position. In cold

climates should be cultivated in a greenhouse. Prefers a moist, peaty soil and a light position where it is in no danger of being scorched by the summer sun.

L. nigrum Black lily.

Dubious species; syn. *Sarana kamschatkensis* and *Fritillaria kamschatica*.

L. nitidum See *columbianum*.

L. occidentale

Orange red, with crimson tips and black spots. 2 to 4 ft.

L. ochroleucum See *sulphureum*.

L. ochraceum

China.

L. oxypetalum See *yunnanense*.

L. odorum See *Brownii* and *japonicum*.

L. papilliferum

Yunnan, China. Dull red. Form of *L. superbum*.

*L. pardalinum*¹

California. Bright red. Lower parts of petals orange with red spots; variable color.

¹ Syn. *L. californicum*.

large; strongly recurved; 20 to 30 on stem; long blooming period. Very stately, with whorls of dark green leaves. July. 6 to 9 ft.

Very hardy and robust. Fine for the garden. Does well in good well-drained garden loam, but prefers moist, peaty soil in sun or partial shade. Must have plenty of light and air and protection from high winds. Dislikes being disturbed and blooms poorly first season. Increases rapidly.

var. *angustifolium*—Orange red, with brown spots; slender growth.

var. *Bourgaei*—Darker than type and more robust.

var. *californicum*—Deep orange; maroon spotted, scarlet tips. Same as *L. californicum*.

var. *luteum*—Orange, spotted with crimson.

var. *Ellacombei*—Smaller and later than type.

var. *Johsoni*—Fine British Columbia kind.

var. *Michauxii*—Same as *Ellacombei* and *L. carolinianum*.

var. *minor*—Beautiful early form.

var. *pallidifolium*—Lighter color and smaller blossoms.

var. *parviflorum*—Same as *minor*. Same as *L. parviflorum* and *L. Sayi*.



L. Myriophyllum in the garden

var. *puberulum*—Same as *pallidifolium* x *L. puberulum*.

var. Red Giant—Burbank hybrid, crimson and red, spotted maroon.

var. *Roezlii*—Bright yellow, purplish brown dots in center; leaves rarely in whorls. Same as *L. Roezlii*.

var. *Robinsoni*—Strongest grower and deepest color.

var. *Warei*—Beautiful, apricot shade.

L. Parkmanni

Parkmann's lily.

Garden hybrid, *L. auratum* x *L. speciosum*.

White, spotted and banded with crimson.

One of the finest of hybrids, but disease caused it to almost, or quite, disappear from cultivation.

L. Parryi

Parry's lily.

California. Citron, the inner bases shaded with light brown; brown anthers; funnel-shaped; pendulous; several on stem; delicate fragrance. June, July. 3 to 5 ft.

Easily cultivated, but not very strong. Admirable yellow lily. Plant in moist, but well-drained, peaty soil in partial shade and where sheltered from wind. In California this lily is found at an altitude of 7,000 to 10,000 ft. in alpine meadows and near streams where the soil is about two-thirds granitic sand and one-third peat or vegetable mold.

*L. parviflorum*¹ Small-flowered lily.

California. Golden yellow, spotted brown.
June. 3½ ft.

L. parvum Little lily.

Sierra Nevada Mountains, California. Light orange, tipped with red; drooping; recurved petals; several on stalk. June, July. 4 to 5 ft.

Constitution not very strong. Prefers moist, but well-drained, peaty soil in partial shelter from sun and wind.

var. *flore-pleno*—Double form.

var. *hybridum*—Richly colored hybrid.

var. *luteum*—All yellow.

L. penduliflorum See *canadense*.

L. peregrinum

Asia Minor.

L. philadelphicum Wood lily.²

Eastern United States and Canada. Scarlet, center yellow, dotted with maroon; cup-shaped; very narrow segments. July, August. 18 in. Southern form, *L. Masseyi*, has narrow perianth segments and western form, *L. montanum*, has broader leaves.

¹ Syn. *L. columbianum*, *L. pardalinum minor* and *L. Sayi*.

² Known also as wild orange-red lily and Philadelphia lily.

Very hardy, but rather uncertain in the garden. Requires good soil, preferably with leaf-mold. Grows naturally both in thin woods and fully exposed places and will stand sun or shade if there is a low ground cover.

L. philippinense

Philippine lily.

Philippines. White; similar to *L. longiflorum*, but more drooping and generally solitary; fragrant. A tropical form of *L. longiflorum*, taller and with extremely narrow leaves.

Has proved hardy in Ohio with protection, but perished in Connecticut. Too tender for northern winter and even in the greenhouse not very robust. Requires moist, but well-drained, peaty soil in partly shaded and sheltered position. Must be watched carefully.

L. polyphyllum

Western Himalayas. Greenish yellow, tinged inside with purple; turban-shaped; 4 to 6 on stalk; fragrant. August, September. 2 to 5 ft.

Very tender and dislikes winter wet. Has been grown in open air in England and Northern Wales, but there is better under glass. Even in a greenhouse the bulbs are likely to perish after flowering. Plant in loam, peat and sand. Will grow in fairly dry loam, but in India is found in gravel and vegetable soil on northern slopes.

*L. pomponium*¹ Turban lily.²

Northern Italy. Vermilion red, strongly reflexed. Similar to *L. chalcedonicum*, but earlier. Very strong scent. June. 3 to 4 ft. Also called *L. p. verum*.

Very hardy. It is among oldest of border lilies. Plant in light soil, well drained.

var. *aureum*—Yellow. The same as *L. pomponium pyrenaicum* (see *L. pyrenaicum*).

*L. primulinum*³ Primrose lily.

Upper Burmah. Soft primrose yellow; large; trumpet-shaped.

Quite tender. In cold climates suitable only for greenhouse culture.

L. puberulum See *Humboldtii* and *pardalinum*.

L. pulchellum punctatum See *concolor*.

L. pumilum See *tenuifolium*.

L. Purdyi Purdy's lily.

Washington and British Columbia. Orange red, spotted; fragrant. 2 to 5 ft.

¹ Syn. *L. rubrum* and *L. angustifolium*.

² Known also as scarlet pompone.

³ Syn. *L. claptonense* (suppressed) and *L. Davidi*.

*L. pyrenaicum*¹ Yellow Turk's cap lily.

Greenish yellow, with greenish spots; reflexed petals; 10 or so on stalk; very small; odor disagreeable, but faint. Foliage narrow and very dense. May, June. 2 ft. Sometimes called *L. p. flavum*.

Quite hardy, and long grown in cottage gardens. Plant in loamy soil, in an open position.

var. *rubrum*—Orange scarlet, spotted with maroon.

L. Roezlii Roezl's lily.

Orange red to yellow, spotted with purple; 5 to 10 in raceme. Blossoms resemble those of *L. Humboldtii* in shape. June. 2 to 3 ft. Sometimes listed as species and sometimes as *L. pardalinum Roezlii*.

L. roseum See *japonicum* and *Thompsonianum*.

The name is confusing, referring alike to a true lily and a fritillary.

L. rubellum Reddish lily.

Japan. Introduced 1898. Deep rose, varying to nearly white; yellow anthers; usually three on stalk; fragrant. Similar to *L. japonicum*, but smaller and less open blossoms, broader leaves and shorter stems. May, June. 1½ ft.

¹ Syn. *L. pomponium pyrenaicum*.

Fairly hardy in England. More reliable than *L. japonicum*, but bulbs likely to disappear. Easily renewed by seed. Vegetable soil and loam, preferably light and sandy, are the best for it. It has, however, thrived in poor and rather dry, stony soil under deciduous shrubs. Sometimes it has been found beneficial to place rubble around the bulb to prevent direct contact with the soil. This lily requires partial shade and is fine in thin woodland or among low shrubs. In deep shade the bloom will be a lighter color.

L. rubescens See *Washingtonianum*.

L. rubrum See *pomponium*.

L. sanguineum See *elegans*.

L. Sargentiae Sargent's lily.

China. Similar to *L. Brownii leucanthum* and possibly identical; but blossoms are held horizontally and seem to have richer shading of brown. August. 6 to 8 ft.

L. Sayi See *columbianum* and *parviflorum*.

L. sinensis See *tigrinum*.

L. sinicum See *concolor*.

*L. speciosum*¹Handsome lily.²

Japan. Introduced 1830. White, faintly flushed and spotted with crimson; reflexed petals. August, September. 3 ft.

Very hardy and one of the most reliable border lilies. Does well in ordinary garden soil and in either sun or partial shade. Prefers deep, moist, sandy loam, with leaf-mold and peat. Protect with ground cover.

var. *albiflorum*—White; slight suffusion of pink, outside. Continental form.

var. *album*—Same as *albiflorum*.

var. *album*—Same as *Kraetzeri*.

var. *album Kraetzeri*—Same as *Kraetzeri*.

var. *album novum*—Anthers larger than *Kraetzeri* and not brown.

var. *Crown Princess*—White.

var. *cruentum*—Dwarf of *Melpomene*.

var. *gloriosides*—White, spotted with pink.

var. *Kraetzeri*—Pure white, greenish stripe halfway down petal, brown anthers.

var. *macranthum*—Distinct deep rose kind.

var. *magnificum*—Japanese variety of *rubrum*, rich and earlier than *Melpomene*.

var. *Melpomene*—Deep crimson heavily spotted with narrow margin of white.

¹ Syn. *L. lancifolium* (erroneous; this belongs to *L. elegans*).

² Known also as Japan lily.

- var. *punctatum*—White, shaded and spotted pink.
- var. *punctatum album*—Weak constitution; same as *a. novum*.
- var. *purpureum*—Same as Japanese *rubrum*.
- var. *roseum*—Japanese form. Much pinker than type.
- var. *roseum multiflorum*—Resembles *Melpomene*.
- var. *roseum superbum*—Similar to *Melpomene*. Large. Early.
- var. *rubrum*—Japanese form. Still deeper color.
- var. *rubrum*—Dutch form. White, with heavy pink spots.
- var. *Schrymakersii*—Deep rose, spotted with purple. Early and free blooming form of *rubrum*.

L. spectabile

See *dauricum*.

*L. sulphureum*¹

Sulphur lily.

North Burmah. Creamy white, suffused with yellow inside and tinged with red on outside; large; tubular; fragrant. This lily has bulbils in leaf axils. September. 6 ft.

Fairly hardy for its class. Has flowered outdoors in England. Best grown in pots in

¹ Syn. *L. ochroleucum* and *L. Wallichianum superbum*.

the open and removed to greenhouse for flowering. Easily cultivated and quite prolific.

L. superbum

Swamp lily.¹

Eastern United States to Canada. Orange, flushed with scarlet and spotted with brown; recurved; 12 to 30 on stem, in cone-shaped clusters. Color varies somewhat. July, August. 6 to 8 ft.

Very hardy. Highly satisfactory border lily. Does well in ordinary garden soil, if given good drainage, partial shade and a ground cover. Preference is for swampy soil, but any moist location will do. Good among low shrubs.

var. *Carolinianum*—Southern type, Virginia to Florida. Same as *L. carolinianum*.

L. Sutchuense

Su-Tchuen lily.

Reddish orange, spotted with black. Described as form of *L. tenuifolium* and also called syn. of *L. Wallacei*.

L. Szovitzianum

See *monadelphum*.

L. Taliense

Talien lily.

China. White. Form of *L. Martagon*.

¹ Also known as American Turk's Cap lily.

L. tenuifolium

Coral lily.

Siberia, North China. Deep scarlet; waxy; strongly recurved; very small; 6 to 10 on stalk. Leaves dark green; very numerous. June, July. 1½ ft.

Quite hardy, but too delicate of growth to be with rank plants. Best in its fourth year, after which it dies away. Easily renewed by seed. Plant in good moist loam in cool and partly shaded location.

var. Golden Gleam—Clear apricot. Very fine.

var. *pumilum*—Stouter and taller stems, narrower leaves. Same as *L. pumilum*.

var. *stenophyllum*—Same as *pumilum*.

*L. testaceum*¹

Nankeen lily.

Supposed natural hybrid, *L. candidum* x *L. chalcedonicum* or *L. pomponium*; but never found in wild state.

Dull apricot, of quite unique shade; orange anthers; nodding; very fragrant, but fairly strong odor. Has texture of *L. candidum* but shape is along Martagon lines. Extremely graceful habit. June, July. 6 to 7 ft.

Quite hardy and one of the choicest border lilies. Thrives in good light garden loam.

¹Syn. *L. excelsum* and *L. Isabellinum*.



L. tenuifolium—
the coral lily



L. canadense—the
Canada lily

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Very fine in generous plantings among ferns or on the edge of woodland. Plant shallow.

L. Thompsonianum Thompson's lily.

Dubious species; syn. *Fritillaria Thompsonianum*. Same as *L. roseum*.

L. Thunbergianum See *elegans*.

*L. tigrinum*¹ Tiger lily.

Japan, China. Orange red, spotted with deep purple; large; reflexed petals. July, August. 6 ft.

Very hardy. Increases rapidly by self-sown bulbils. The bulbs are eaten in Japan and China. Thrives in almost any soil, but prefers friable sandy loam and peat or leaf-mold. Avoid drought and provide shelter from high winds. Plant 7 inches deep.

var. *flore-pleno*—Best double lily, but far less beautiful than type.

var. *Fortunei*—Flowers slightly paler, sometimes fifty on stem.

var. *Fortunei giganteum*—Larger blossoms and greener stems. Woolly down on stems.

var. *Fortunei giganteum* fl. pl.—Double variety of same.

¹ Syn. *L. sinensis*.

- var. *jucundum*—Vermilion, spotted with maroon; no bulbils. More slender and quite distinct.
- var. *Leopoldii*—Larger and brighter blossoms, with larger and fewer spots; fewer leaves; lower stems smooth and black.
- var. *Maximowiczii*—Same as *jucundum*.
- var. *plenescens*—Double.
- var. *pseudo-tigrinum*—Same as *jucundum*.
- var. *splendens*—Same as *Leopoldii*, the true *splendens* considered the best.

L. Uki-uri (Ukeyuri) See *japonicum*.

L. umbellatum See *dauricum*.

*L. Wallacei*¹ Wallace's lily.

Japan; possibly a garden hybrid. Kew calls it a variety of *L. elegans*. Rosy apricot, thickly spotted. Very graceful. July. 2 to 5 ft.

Quite hardy in the border. Plant in a damp place; this lily loves moisture.

L. Wallichianum Wallich's lily.

Central Himalayas. White, tinged with green on the outside; funnel-shaped, 8 or 9 in. long with wide mouth; usually solitary; very strong perfume. July. 4 to 6 ft.

¹ Syn. *L. elegans Wallacei* and *L. Sutchuense*.

Too tender for northern winters and rather difficult of culture. Requires peaty soil and a light position without full exposure. Does well in shrubbery where the winter is not too severe.

var. *superbum*—Same as *L. sulphureum*.

L. Washingtonianum

Washington lily.¹

Sierra Nevada Mountains, California. White, tinged with pink or red and dotted with purple; funnel-shaped, 6 in. across and nearly erect; reflexed petals; 12 to 20 on stalk; fragrant. Color descriptions of this lily vary greatly. June. 3 to 5 ft.

One of the best western lilies for eastern gardens, but rather difficult in cultivation when conditions are not quite right. Requires a deep soil of peat, leaf-mold and gritty loam, with perpetual moisture at the roots. Being a wood lily, it likes partial shade.

var. *minor*—Of smaller growth.

var. *purpureum*—Striking pinkish lilac variety found in Siskiyou Mountains in Cascade range. Of smaller growth and blossoms arranged differently on spike.

var. *rubescens*—White, changing to pink. Smaller, more compact and more

¹ Known also as Nevada lily.

slender. A little less difficult than the type.

L. yunnanense

Yunnan lily.

Yunnan, China. Pink; small; drooping; 1 to 3 on stalk. Narrow leaves; slender growth. 1 to 2 ft. high. Probably allied to *L. oxypetalum*, now regarded as a fritillary.

Requires a peaty soil.



L. tigrinum, var. *flore-pleno*—the double tiger lily

CHAPTER XIII

LILIES THAT ARE NOT LILIES

THE name lily has always been used very loosely in all garden talk that is not in Latin. So it has come about that there are many so-called lilies which are not lilies at all, in the true sense; some of them are not even liliaceous, but belong to genera quite distinct botanically. A number of these are here grouped for easy reference.

African—*Agapanthus umbellatus*.

African corn—*Ixia*.

Amazonian—*Eucharis amazonica*.

Arum—*Richardia africana*.

Arum, golden—*Richardia Elliottiana*.

Atamasco—*Zephyranthes Atamasco*.

Avalanche—*Erythronium citrinum*.

Barbadoes spice—*Amaryllis equestre*.

Belladonna—*Amaryllis Belladonna*.

Bengal—*Crinum longiflorum*.

Bermuda spice—*Amaryllis Johnsoni*.

Black¹—*Sarana kamschatkensis*.

¹ Same as *Lilium nigrum* (dubious species) and *Fritillaria kamschatika*.

- Blackberry—*Pardanthus chinensis*.
 Brisbane—*Eurycles sylvestris*.
 Butterfly—*Hedychium coronarium*.
- Caffre (Kaffir)—*Schizostylis coccinea*.
 Calla—*Richardia africana*.
 Cape—*Crinum Capense*.
 Checkered—*Fritillaria meleagris*.
 Chilian—*Alstrœmeria chilensis*.
 Chinese sacred—*Narcissus tazetta orientalis*.
 Climbing—*Gloriosa superba*.
 Corfu—*Funkia subcordata*.
 Cuban—*Scilla*.
 Custard—*Hemerocallis flava*
- Day, blue—*Funkia ovata*.
 Day, tawny—*Hemerocallis fulva*.
 Day, white—*Funkia subcordata*.
 Day, yellow—*Hemerocallis flava*.
- Fairy—*Zephyranthes rosea*.
 Fayal—*Ornithogallum arabicum*.
 Flax—*Phormium tenax*.
- Ginger—*Hedychium coronarium*.
 Glory—*Gloriosa superba*.
 Good Luck—*Narcissus polyanthus*.
 Guernsey—*Nerine sarniensis*.
- Herb—*Alstrœmeria*.
- Inanda—*Cyrtanthus sanguineus*.
- Jacobean—*Amaryllis formosissima*.

Lent—*Narcissus pseudo-narcissus*.

Lotus—*Nymphæa Lotus*.

Mariposa—*Calochortus*.

Milk and wine—*Crinum fimbriatulum*.

Mount Etna—*Sternbergia lutea*.

Nassau—*Crinum fimbriatulum*.

Natal—*Moræa iridioides*.

Of the field ¹—*Sternbergia lutea*.

Of the Incas—*Alstræmeria Pelegrina*.

Of the Nile—*Richardia africana*.

Of the palace—*Aulica platypetala*.

Of the valley—*Convallaria majalis*.

Persian—*Fritillaria persica*.

Peruvian—*Alstræmeria*.

Plantain—*Funkia*.

Pond, white—*Nymphæa odorata*.

Pond, yellow—*Nuphar advena*.

Queen—*Phædranassa*.

Queen—*Curcuma petiola*.

Rain—*Zephyranthes alba*.

Rush—*Sisyrinchium*.

St. Bernard's—*Anthericum liliago*.

St. Bruno's—*Anthericum liliastrum*.

St. James—*Sprekelia formosissima*.

Satin—*Sisyrinchium Bermudianum*.

Scarborough—*Vallota purpurea*.

¹ May be Syrian red lily or the red anemone (*A. coronaria*).

Snake's head—*Fritillaria meleagris*.
 Spanish—*Pancratium Caribbæum*.
 Spider—*Tradescantia virginica*.
 Spider—*Pancratium Caribbæum*.
 Swamp, Peruvian—*Zephyranthes candida*.
 Sword—*Gladiolus*.

Thompson's ¹—*Fritillaria Thompsonianum*.
 Toad—*Tricyrtis hirta*.
 Torch—*Tritoma uvaria*.
 Trout—*Erythronium americanum*.

Water, blue—*Nymphæa zanzibariensis*.
 Water, Cape Cod—*Nymphæa rubra*.
 Water, fringed—*Limnanthemum peltatum*.
 Water, Royal—*Victoria regia*.
 Water, white—*Nymphæa odorata*.
 Water, yellow—*Nuphar advena*.
 Wood—*Trillium*.

The lily of antiquity was undoubtedly *L. candidum*, and therefore a true lily. In mythology this white lily (*Rosa junonis*) was supposed to have sprung from the milk of Hera. As the plant of purity, it was contrasted with the rose of Aphrodite. All through the Middle Ages this lily was the symbol of heavenly purity. As is indicated in the preceding table, there is confusion of opinion as to whether the biblical

¹ Same as *Lilium Thompsonianum* (dubious species).

“lilies of the field” were true lilies. Pliny mentions a red Syrian lily and in springtime the red anemone is a common flower of the Galilean hillsides; but there seems to be quite as good reason for surmising that the plant is *Sternbergia lutea*.

BIBLIOGRAPHY OF LILIES

Review of the Order Liliaceæ, J. G. Baker, 1874.

Botanical Review of Genus, Botanical Gazette, 1899.

Monograph of the Genus *Lilium*, J. H. Elwes, 1880.

Report of Conference on Lilies (new species and varieties since 1880), Journal of the Royal Horticultural Society, 1901.

Lilies for English Gardens, Gertrude Jekyll, 1903.

The Book of the Lily, William Goldring, 1905.

Notes on Lilies, A. Wallace.

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