The belladonna lily: A beautiful woman

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When my parents moved into their new house in the wilds of Orakei, a short time before World War II started, my father decided that our quarter acre section should be a personal food bowl. I'm not sure if it was his innate thriftiness, or his forward-looking concerns about the imminence of war, but the front part was planted in fruit trees (5 apples, 4 plums, 3 citrus, a nectarine, a peach, a pear, and a quince). The back part of the section was devoted to a vege garden – beans, beetroot, Brussels sprouts, cabbages, carrots, kohlrabi, potatoes - you name it. So as you can imagine, the lawn was minuscule, and the flower bed was a narrow (1 ft by 12 ft) strip against the outside wall of the lounge. And the only flowers I remember seeing in it were the autumnal bursts of belladonna lilies. These were the first flowers I ever knew, and I've always had a soft spot for them, which makes it sad that they seem to have almost disappeared from the gardens of Auckland. To find them still, you really have to go to a house and garden that's been where it is for 70 years or so, where this old favourite still survives. And survive they do - belladonnas show considerable resilience to passing gardening fads, and make their presence known each autumn, after you'd forgotten they were there.

Let's start with some name-calling. The belladonna lily is Amaryllis belladonna. "Amaryllis" is a beautiful shepherdess, and belladonna translates as "beautiful woman" so the feeling of Linnaeus, the "father of taxonomy" who gave it its botanical name, was clearly that this is one lovely flower. Originally it was thought to be in a monotypic genus (despite that, giving its name to the whole family, the Amaryllidaceae, which includes such popular plants as Clivia, Hippeastrum, Lycoris, Narcissus, Nerine, and Scadoxus). However, in 1972 a second species of Amaryllis

was discovered in Richtersveld National Park, in Namaqualand, South Africa. There are fewer than 1000 plants from a single population in the wild, and the species was described and named A. paradisicola in 1998 this plant is rare in cultivation.

Amaryllis belladonna has a raft of popular names, depending on which country you live in. In the UK it is called the belladonna lily (the name mostly used in New Zealand) or the Jersey lily, because it was used as a symbol of Jersey2. The name naked lady appears to be a North American custom, coming from the very feminine flower on top of a naked stem with no leaves in sight. In Sicily it's the St Rosalina lily and in the rest of Italy, the Madonna lily. In Spain, where it's also a harbinger of summer's end, it's called meninas para escola (or the back-to-school girls), seen as echoing the schoolgirl's pink dresses. In its native South Africa, it's the March lily, because the summer ends in March there. In Portugal it's St Joseph's staff (bordão de São Jose), a name which has a religious connotation. The story is about the Virgin Mary, or rather about her husband, Joseph. The legend has it that a suitable husband was being selected for the young Mary, and that Joseph made an impression when he turned up with his long brown staff (his walking stick, of course) at the end of which a beautiful flower miraculously bloomed.

The belladonna lily is native to the Fynbos of the Western Cape area of South Africa. I have had trouble finding out when and how it reached Europe and entered cultivation. One version says that "during the slave trade that started in the 1500s, seafarers and merchants rounding the Cape of South Africa dug up naked lady bulbs and distributed them across Europe and on sugar cane plantations in Brazil and other parts of South America". I have doubts about this. Certainly the Portuguese were the

first Europeans to see the Cape of Good Hope when Bartolomeu Dias reached there in 1488, before turning back to Portugal. In 1497 Vasco da Gama extended the exploration right round to India, and set the path for a major spice trade. By 1511 the spice trade was firmly established, until slave trading from West Africa largely replaced it 40 years later. However there seems to be no history of exploration of the Cape area, and there were no settlements there until the Dutch established the first in 1652. Kaapstad. It seems much more likely that this was the point at which Europeans first saw the spectacular but ephemeral flowers of the belladonna lily growing in the Fynbos, and that Holland, with tulipomania at its height and a flourishing bulb trade from Turkey, would be the one to grab this new addition to its flourishing flower industry. This would fit with belladonna lily being first recorded in Britain in 1712. European botanical illustrations of belladonna date from the 1770s (Fig. 1A–C). In some ways, the best evidence that it did not enter Europe until about that time is found (or not found, to be more precise) in Gerard's Herbals of 1597 and 1633. There is no record of it there, whereas in contrast there are records of a number of American plants, including, in the 1633 edition, a description of the related Aztec lily (Sprekelia) which had come in from the West Indies by then. Columbus reached America in 1492, four years after Diaz reached the Cape of Good Hope, so the time available for plants of Amaryllis belladonna to reach Gerard was the same: the big difference was that European settlements in America were already being established by 1530, 120 years earlier than Kaapstad, giving plenty of time for Gerard to receive plants from there.

There is little evidence as to when Amaryllis belladonna first reached New Zealand. The earliest record

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² "Jersey Lily" became the nickname of Lily Langtry, a famous actress, beauty, and mistress of King Edward VII, and was further popularised by Millais' portrait of her, entitled 'A Jersey Lily'.





Fig. 1 Early botanical illustrations of belladonna lily. A, Amaryllis belladonna in J. Miller, Illustratio systematis sexualis Linnaei, t. 18 (1770-1777). B, A. belladonna var. pallida in Botanical Register, Vol. 9, t. 714 (1823). C, A. belladonna var. rubra in L. van Houtte, Flore des serres et des jardin de l'Europe, Vol. 14, t. 0 (1845). Images courtesy www.plantillustrations.org.



located in Papers Past (http:// paperspast.natlib.govt.nz) is an advertisement offering it for sale in 1913. Improved selections were being sold by Duncan and Davies nursery during the 1920s, but the odds are that such a beautiful, tough, easily transported bulb was brought to New Zealand before 1880 with the early settlers. It was already being grown in Australia by that time, and apparently a successful cross between it and Brunsvigia (B. josephinae) had already been made in 1841 by J. C. Bidwill at the Sydney Botanical Garden, Australia. A second cross was made at the MacArthur estate in Camden Park, N.S.W. where Bidwill later took charge of the Arboretum.

In tracking the history of introduction, one of the confusing matters is that Hippeastrum species, mainly endemic to America, are frequently called "amaryllis", and that there has been sufficient naturalising of belladonna lily in South America for some authors to mistakenly believe that its natural home was there. From The flower expert: "Amaryllis is a monotypic (consisting of only one species) genus of flowering plants containing the belladonna lily, popularly known as the Amaryllis belladonna lily. Amaryllis is native of South and Central America and the Caribbean".

And now to the matter of poison. My father was a cautious as well as thrifty man, and emphasised to the young Roderick that the belladonna lily was poisonous. So for a large part of my life I travelled under the impression that the poison atropine, alias belladonna, was from the belladonna

lily. The story of course is that the belladonna (poison) got its name from its cosmetic use in Italy, where a droplet in each eye caused the iris to fully dilate, creating a fascinating darkeyed beauty. Indeed Cleopatra herself is reputed to have used atropine (in this case from Hyoscyamus) in this way. But atropine doesn't come from our garden beauty - it comes from the totally unrelated deadly nightshade, Atropa belladonna, a member of the Solanaceae, and with Datura and Hyoscyamus as other sources. But daddy wasn't entirely wrong: the belladonna lily does have a poison, and a potent one, but in this case it's a toxic alkaloid called lycorine, also found in Lycoris, Narcissus and Clivia miniata (where it has found uses with herbalists).

So will the real belladonna stand up? Who has owner's rights to the name? Is it the aptly descriptive appearance of the "beautiful lady", or the oblique reference to its use in cosmetics for personal beautification that came first? Linnaeus doesn't help us, as he gave both plants the same specific name, Amaryllis belladonna and Atropa belladonna. But there's a bit of a smoking gun in the Herbals of Gerard. The Amaryllis could not have come out of the Cape much earlier than 1520, and as mentioned before, despite Gerard's obsessive collecting of plants and information, there appears to be no mention of it in his Herbals. In contrast, there is plenty about the dwale, "Solanum Lethale" or deadly nightshade; and in Gerard's list of "The Names" for dwale, he says "the Venetians and Italians call it Bella dona". So I'm afraid the

metaphorical use of the name trumps the descriptive.

Finally, what to do if you want to grow them? The main thing to remember is that they are from the Fynbos and evolved to grow in poor, welldrained soil. The strap-like leaves are produced after autumn flowering, remain green throughout the winter, but die off in summer when the bulb becomes dormant, an odd behaviour called "hysteranthy". Events are almost explosive when it's time to flower. I've measured the time taken from the first appearance of green at the bulb tip to opening of the flowers on a 40 cm stem at 12 days. At its peak, the flower stem is extending by 5 cm a day. Bulb and perennial expert, the late Hugh Redgrove notes that for Auckland they naturalise well:

"thriving in any open, well-drained space or even under large trees, as long as it is not too shady for the bulbs to ripen properly. The foliage is untouched by animals, so the plants readily adapt themselves to almost any position where heavy frosts do not occur. Permanent plantings can be made against fences, along drives, on poor, dry, sunny banks or in similar odd corners... Transplant bulbs when dormant in late summer and autumn. They should be partly buried with the necks protruding or half above the ground" (New Zealand handbook of bulbs and perrenials).

As to choice of cultivar, the bulbs of the old, common, pink form of Amaryllis belladonna still give a delightful subject for naturalising

(Fig. 2A-B). There are also a number of improved selections with larger flowers and broader, less pointy petals. Colour of these selections range from white, through white with a creamy throat, a creamy white, a creamy-salmon through to the classical deep pink (Fig. 3A-B).

There have been attempts to cross Amaryllis with Hippeastrum, but as far as I know without any success. Who cares? You have to be hard up to not get joy out of naked ladies, however humble they are.

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Fig. 2 The classical deep pink form of Amaryllis belladonna. A, edging a patch of bush on Waiheke Island. B, close-up of flowers. Photos: Rod Bieleski.

Fig. 3 The belladonna lily in its various guises. A, a white form naturalised in Dr Hammett's garden. Photo: Dr K.R.W. Hammett. B, a blush-pink form by a heritage home in Devonport, Auckland. Photo: Rod Bieleski.