A beautiful *but deadly lady*

Amaryllidaceae: Amaryllis belladonna

IN THIS SERIES I WILL DEAL alphabetically with the various wildflower species, topics and concepts. To start with, here's a brief explanation of how plants are classified and named.

While common plant names are often descriptive and familiar to most of us, they can be confusing. Some common names are used for a variety of different plants – for instance "sore-eye flower", which is used for various species of bulbous plants – and the same plant can have different names in different languages and regions. To avoid confusion we need to understand the scientific name for a particular plant, as that name is accepted internationally.

In the late 1700s Carl Linnaeus, a Swedish botanist, devised a simple classification system that is still used, which groups plants into categories based on their common characteristics. We need only be concerned with the last three parts of the classification system – families, genera and species.

Families, genera and species

Plant families are fairly large groupings of similar plants. For instance, daisies and related plants are grouped in the very large family *Asteraceae* (plants with aster-like flowers). This family includes the familiar Namaqualand daisy, the poisonous senecios and the thistles. Legumes are broadly grouped into the family *Fabaceae*, which includes all plants with pea-like seed pods. Iris-like plants with corms and sword-like leaves, including Watsonias, gladioli and moraeas (tulp) belong to the *Iridaceae* family, and so on.

Within each family plants are classified in genera and species – very much like names in a human family, where each person has the same surname (the genus) and their own first name (the species).

Amaryllidaceae is a large family represented by a number of genera in Southern Africa, for example *Brunsvigia* (candelabra flowers), *Cyrtanthus* (fire lilies), *Haemanthus* (bottlebrush flowers) and *Gethyllis* (kukumakranka). In this series we will look at several species.

'The March lily was the first species encountered by the early Dutch settlers at the Cape.'

Typically they have one inflorescence stalk (peduncle) with the individual flowers carried in an umbel at the top of the stalk, which means the individual flower stalks (pedicels) all arise from the tip of this inflorescence stalk. In some, such as *Gethyllis*, the flower stalk is below ground and the flower tube emerges straight from the soil.

Most *Amaryllidaceae* flower in midsummer and autumn before the leaves emerge, but in the summer rainfall region some have leaves at flowering time.

Amaryllis belladonna (March lily) was the first species encountered by the early Dutch settlers at the Cape and is undoubtedly the best known, being now a popular garden plant throughout the world, especially in Mediterranean climates.

Its very appropriate name, *belladonna*, means "beautiful lady". It has a large bulb (very poisonous), propagated by offsets and seed, which it produces in copious quantities. It is common in the Western Cape, where its spectacular tall flower heads of strongly-scented, trumpet-like pink blooms emerge in late summer. Peak flowering is in March, hence its common name.

Typically it is found in deep sandy soil in depressions and near watercourses, but it can occur elsewhere – for instance, there is a large population on the slopes of Lion's Head above Cape Town. After flowering and seed set, a large number of dark-green linear leaves appear and last until late spring when the bulb goes dormant.

For many years it was thought to be the only species in the genus, but recently a second species was discovered in the Richtersveld. This exciting rare and localised plant was described by Dr D Snijman in 1998 and named *Amaryllis paradisicola*. – *Cameron McMaster (cameron@haznet.co.za).* **|fw**

***Amaryllis belladonna* (March lily) flowering near Napier, Western Cape.**

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Calculating maximum sustained yield

The optimal harvesting strategy that produces the best yield and minimises the risk of over-harvesting and extinction over time is that which operates on a critical threshold below which harvest does not take place and above which the "excess" animals are harvested. Such an approach, say the researchers, requires only annual estimates of the size of the harvested population. In theory, the threshold should be set at a level near the point of maximum sustained yield (MSY) – the maximum number of animals that can be removed periodically from a population without driving it to extinction – something that happens at the point where the population grows the fastest. In game, this point is expected to be somewhere between 0,5K and 0,8K (where K = carrying capacity)

While Ward and Staltz suggest that because K varies over time, a general estimate of the threshold can be set somewhere between the minimum and maximum annual estimation, although in the case of small populations the threshold

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