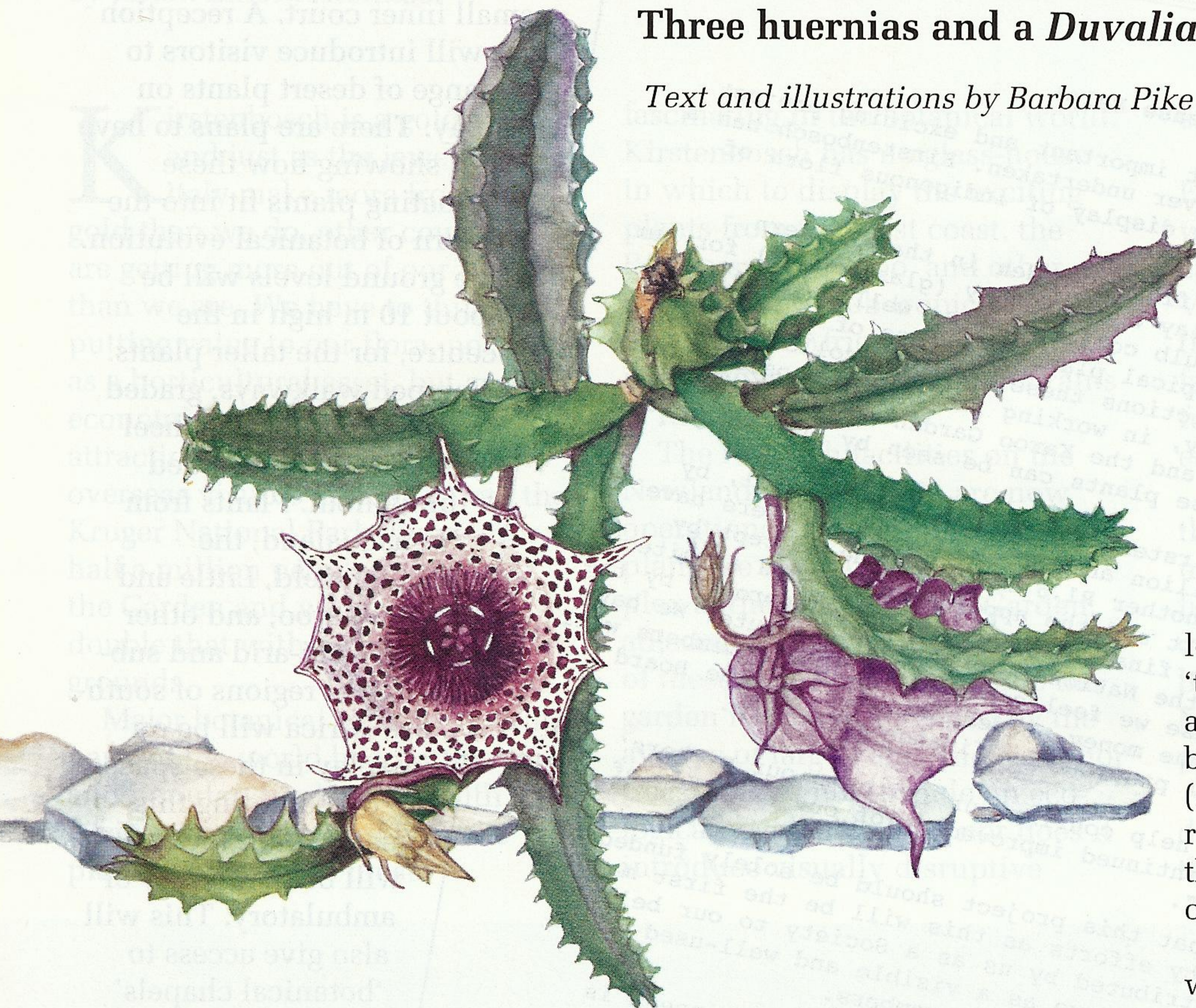


TREASURES OF SEMI-ARID AREAS

Three huernias and a *Duvalia*

Text and illustrations by Barbara Pike



Huernia kirkii has a dainty, penduline flower with a fused corolla. The inner surface is covered in raised maroon spots (papillae) usually tipped with short bristles which are more numerous and about 2 mm longer at the mouth of the corolla tube.

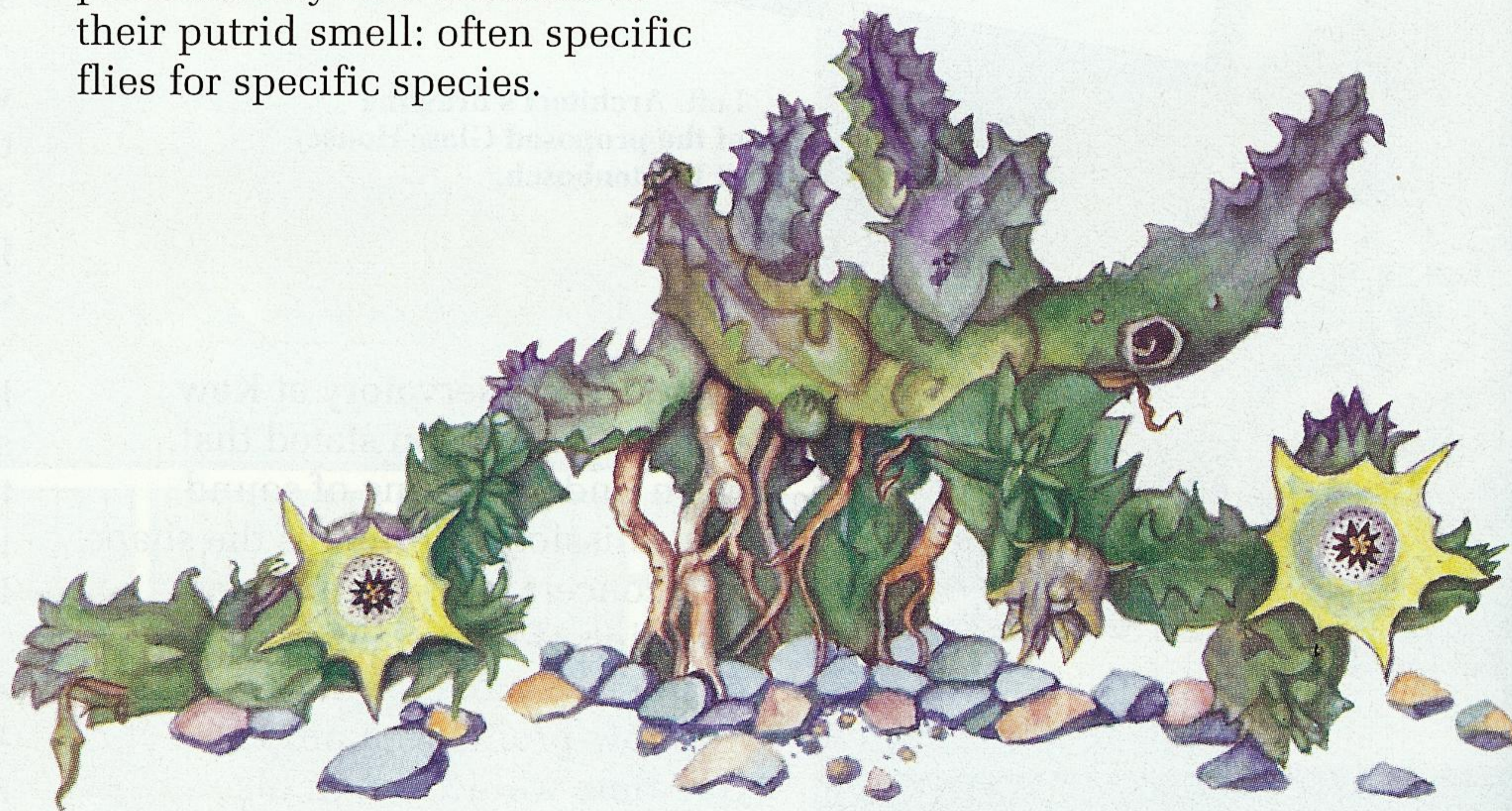
Huernia has 4 – 5 angled, leafless, branching stems that are ‘tubercled’ (toothed) along the angles, while *Duvalia* has decumbent to erect, 4 – 6 angled stems (occasionally underground) with rudimentary leaves arising from the centre of the tubercles (teeth) on the stems.

Huernia flowers are bell-shaped with a small, 5-sepalled calyx and a characteristic 10-lobed corolla (5 lobes alternating with 5 very small lobes). The corolla is usually covered with hairs on the inner surface for protection against unwelcome insects and for trapping pollinating flies. Sometimes the corolla has a prominent annulus (a ring-like

They are bisexual, perennial dwarf plants, with intricate, gem-like flowers and appear unexpectedly in dry and hostile surroundings, usually on stony or rocky ground that provides the plants with partial shade. Their flowers are 5-lobed and star-shaped, and are pollinated by flies attracted to their putrid smell: often specific flies for specific species.

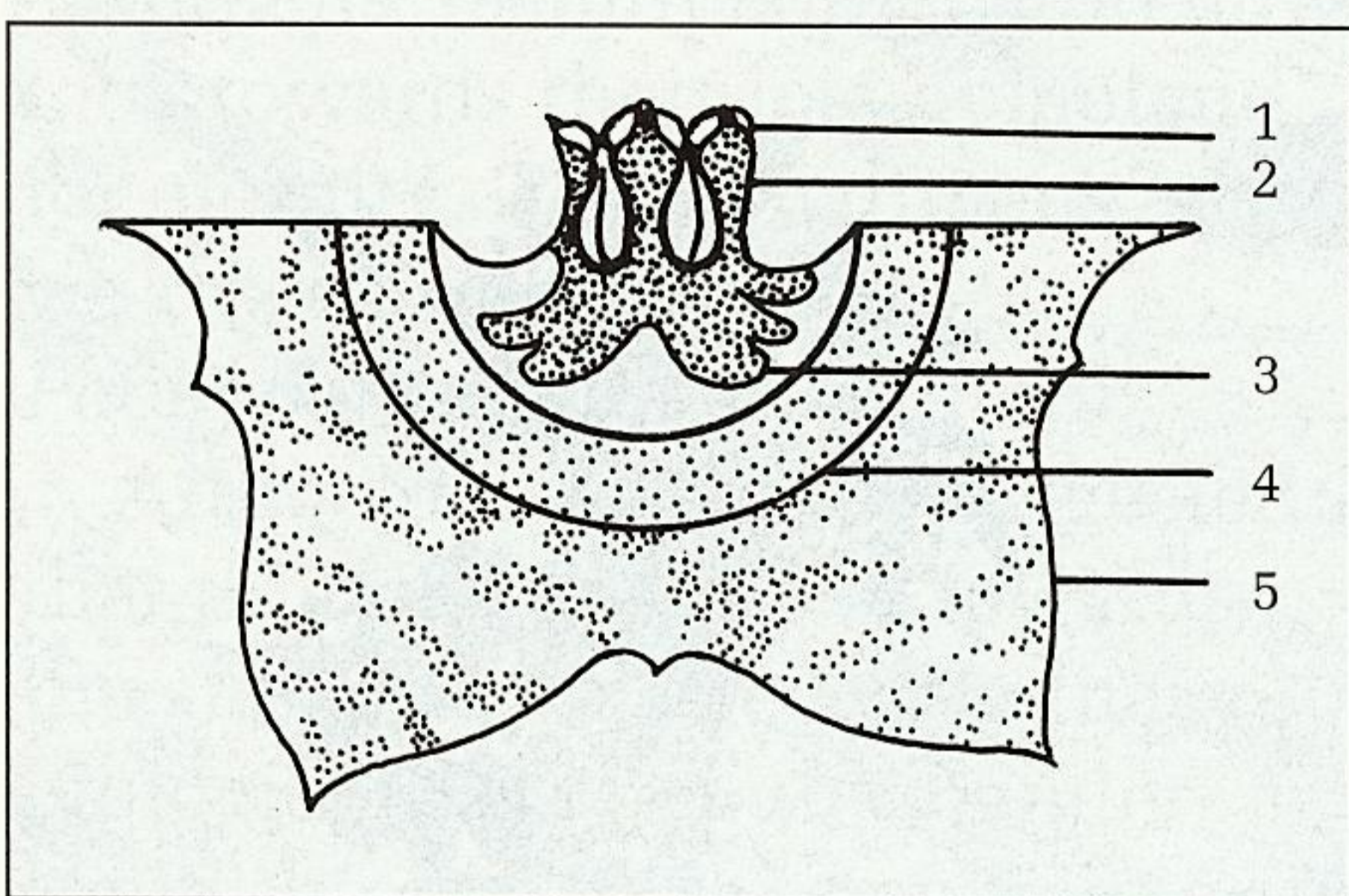
These unusual plants have held a great fascination for botanists and succulent collectors for centuries. Indigenous to Africa, they are widely grown in gardens and hothouses in many countries. They are small succulents belonging to the family Asclepiadaceae (which includes the famous *Stapelia*, or carrion flower). Although placed in separate genera now, *Huernia* and *Duvalia* appear, at first glance, to belong to the same genus and there have been many differing views about the distinction between them.

Huernia namaquensis was discovered in Little Namaqualand by Pillans. It has a small, pale primrose-yellow, star-shaped flower, the inside of which is white, slightly spotted with purple, becoming lightly papillate (spotted) near the mouth.



structure) opening out from the central tube. The tube is made up of a 2-seriate corona that surrounds the central column. The outer, lobed corona is adpressed on the corolla, and the 5 inner corona lobes appear as a dome-like structure that resembles a crown (hence the name 'corona'). These lobes lie over the backs of the anthers. (See accompanying diagram).

Each anther consists of 2 pollinia which hold the pollen masses. They are detached by trapped insects and, once this happens, the corona becomes flaccid, releasing the pollen-carrying insect to hopefully transfer pollen to the next



The floral structure of *Huernia zebra*.
 1. Anthers containing pollinia.
 2. Inner corona,
 3. Outer corona,
 4. Annulus,
 5. Corolla.

flower. The superior 2-carpellate ovary is in the centre of the column. The fruits are 2-horned follicles with many silky, tufted seeds: ideal for wind dispersal.

Huernia zebra has a raised, glossy, wine-red ring or 'annulus' around the mouth of the corolla tube. The corolla varies in size and is usually patterned with wine-red zebra stripes which vary in colour intensity.

Duvalia has a similar basic structure to *Huernia*, but with an abruptly raised annulus and an entire, flat corona. The smaller corolla lobes are short and not lengthened into points. Only 5 slender, reflexed corolla lobes are obvious. The calyx is 5-sepalled and small.

The flowering time for *Huernia* and *Duvalia* is between October and May. There are about 50 species of *Huernia* in Africa and the middle East, most of which are found in southern Africa and Namibia, and about 20 species of *Duvalia* with a similar distribution. 🌿

Acknowledgments

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Further reading

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Duvalia reclinata.

This highly variable and widespread species has dark purple-brown flowers and occurs throughout the Cape. It is inconsistent in stem and flower formation, giving rise to the idea that the species is part of a genus still in a state of active evolution, which could evolve into a new species if geographically isolated. It is able to pollinate itself and produce offspring from self-crosses.

