

MEDITERRANEAN MIRROR?



Pancratium maritimum



Cyclamen cilicicum

After the first storms of autumn, the dry earth begins to stir, and some of the Mediterranean's loveliest geophytes start to emerge. Outrageous *Pancratium maritimum* is one of the first with huge clumps bursting from the deep sands around the coast. They are in peak flower now and are a remarkable, resilient bulb, persisting alongside beach umbrellas in the glaring sun. In truth their bulbs are deep in the much cooler sand below. Spires of *Drimys aphylla* will be next, crowding the macchie and any open ground and a buzz with bees. Not far behind these will be *Cyclamen graecum* subsp. *anatolicum* (or *C. maritimum* as it is

known by some). Both are very common and the latter creates wonderful drifts in pinewoods and exposed rocky slopes, followed by those exquisite marbled leaves. But now we have a quandary. The northern European perception of the seasons, rooted in cold winters (at least they were once upon a time), dictates that the first flowers appear in spring and those in the autumn are thus late. But is that really the case, at least as far as the Mediterranean lowlands are concerned? Here the season, not just for bulbs, but also many annual plants, begins with the rain, which arrives in the autumn and continues through to April or May. Drought is



Cyclamen alpinum



Cyclamen graecum subsp.
anatolicum



Cyclamen persicum



Narcissus tazetta

what brings much of the flora to a halt, less so the cold. It is essentially a much earlier season than in the north and much less interrupted by winter. Nonetheless, mountain areas do adhere to a familiar seasonality, but there again increased altitude is the equivalent to greater latitude, and so climbing fifteen hundred metres into the Taurus, is a bit like driving from Antalya to Edinburgh, both result in a drop in temperature of fifteen degrees Celsius. Frequent sunny days seem to push things along up in the Taurus though and the woodlands up here are normally carpeted in *Cyclamen alpinum* by early March.

So, when *Cyclamen graecum* or the crisp white *Galanthus peshmenii* pop up from cracks in the limestone in October, are these not early flowering rather than late-flowering species? *Galanthus peshmenii* continues through to January, even February, by which time the first *Galanthus elwesii* are starting to appear, carrying on the snowdrop season until April or May. This is the same for a number of genera here, the equivalent shift for *Cyclamen* is when *C. persicum* and *C. alpinum* appear (after *C. graecum*) in February-



Galanthus elwesii

March in the Taurus. In the past I have called the autumn and spring flowering of such geophytes a floral mirror, but this still sticks to the notion of northern seasons. Though there may be a short break because of cooler weather or reduced light levels, growth is more or less continuous from autumn onwards. Genera which gaze into my now slightly cracked mirror include: *Cyclamen*, *Crocus*, *Colchicum*, *Sternbergia* (just), *Galanthus*, *Biarum* and *Narcissus*.

Some species such as the very widespread *Narcissus tazetta*, begin to flower as early as November (in the southern Peloponnese) and continue through the winter until April (on coastal Corsica) depending on location in the Mediterranean. I find them in January-February near Antalya. There is a *Crocus* in flower somewhere in the Med from October to May. A dramatic surge begins in October with at least as many species flowering then as in March, when the second wave peaks. Seasonality is stronger with crocuses because they are mainly mountain species and colder temperatures and snow bring about a distinct pause in their season. That said,



Galanthus peshmenii



Crocus biflorus



Sternbergia clusiana wild under cedars

SPRING



Crocus biflorus



Crocus biflorus nubigena



Crocus fleischeri



Crocus antalyensis



Crocus flavus



Crocus baytopoium

if there is little snow, many of these (and other bulbs such as *Galanthus*) can flower weeks earlier. However, there are some interesting differences in flower colour between the two 'seasons'. There is no yellow-flowered autumn-flowering crocuses, these only appear in spring. It would seem reasonable that whatever pollinates yellow is not on the wing in the autumn. It may be a coincidence, but autumn is when most golden *Sternbergia* appear (the only spring species in the Med is the highly localised white *S. candida*). Are they outcompeting the crocus or just filling a gap? Pollination can be very specific. I've probably mentioned before the close relationship of *Crocus wattiorum* with a pollinating drone fly, a species that is highly territorial and actively prevents other insects (even its own kind) from visiting these beautiful flowers. This localised species can only

be found in a few canyons near Antalya and they flower from early November, well into December. Cooler winter temperatures do not necessarily prevent plant growth, may still be enough to prevent some insects from flying. An example at this time is butterflies, which only begin to reappear in March-April, but are still very much on the wing in October-November. I have witnessed butterflies attending crocuses on many occasions, likewise hoverflies, another insect that is scarce in early spring. Winter moths on the other hand are tough customers, and they are known to pollinate some cyclamens. It is commonly supposed that *Cyclamen* are buzz pollinated by large bees, but this has been shown (at least by studies in Israel on *C. persicum*) to be rare and instead, pollination is carried out by thrips, hoverflies and moths. The world of little things never ceases to amaze.

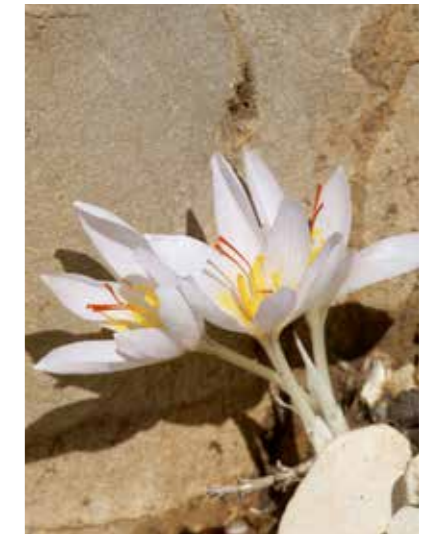
AUTUMN



Crocus mathewi



Crocus wattiorum with pollinating drone fly



Crocus asumaniae



Crocus cancellatus



Crocus pallasii



Crocus speciosus

Most *Colchicum* flower in October-November (though this year I did find *Colchicum boissieri* in flower even earlier, in late August 2500 metres on the heights of Ak Dagi, and some snowmelt species can still be seen in June so they are almost year-round!). They certainly are at their best in October-November, with stunning *Colchicum variegatum* one of several lovely chequered species. It is catholic in its tastes, growing on exposed limestone or in pinewoods on serpentine, and flowers from September to November. The rare *C. sfikasianum* of the Peloponnese is also chequered and I've only ever found it in compacted stony vehicle tracks, vulnerable to being run over. However, it would seem some of our habits rather suit some plants and, in this situation, little else was able to grow in the tracks and compete with the *Colchicum*. The few spring *Colchicum* species

are upland ones, often found near snow melt or where snow accumulates, sometimes appearing in huge numbers in seasonally wet ground.

There is a suite of geophytes that almost never consider putting their heads above ground until spring, possibly because of pollinator availability; *Fritillaria*, *Iris*, orchids and squills. There is the delicate orchid; autumn lady's tresses, *Spiranthes spiralis*, and *Iris unguicularis* starts blooming in December (*I. planifolia* even earlier, in November, in Morocco), plus the rather feeble *Muscari parviflorum* and abundant autumn squill, *Prospero autumnalis*, possibly the commonest of all autumn bulbs in terms of sheer numbers on the ground. But these are very much exceptions.

The early bird may very well get the worm, but the early flower gets the moth, the butterfly, the bee, the beetle, the hoverfly.....