

# Crete

## *Spili & the White Mountains*

### A Greentours Trip Report

4<sup>th</sup> – 18<sup>th</sup> April 2006

Led by Terry Underhill, Kate Clow & Fabiana Barbalucca

#### **Day 1      Tuesday 4<sup>th</sup> April      Arrival**

Despite waking around Heathrow with a pair of binoculars around his neck, Terry caught the flight to Athens without making some form of contact with all the group. Boarding was delayed, resulting in having to wait on the tarmac for a flight slot, which eventually happened two hours late. A little time was made up in the flight, during which exceptionally fine views of the snow covered alps were enjoyed. A mad dash through Athens airport was needed to catch the flight to Heraklion, which was waiting. We all met up at Heraklion, the luggage coming in stops and starts. Now with Kate, Terry and Fabiana signed for three vehicles, which were quickly loaded, it was a steady drive along the North Road and down to Spili taking nearly 2 hours. With roadside *Acacia*, *Robinia*, *Calicotome* and crown daisies in bloom, caught in the headlights, we realised the season was well advanced. Heracles was there to welcome us on arrival at Spili, and helped some members to book in at the Rastoni Hotel. Goodnights, echoed around at midnight.

#### **Day 2      Wednesday 5<sup>th</sup> April      Spili to Gious Gambos**

A moderately strong cool wind, with clouds above Spili, was not the sort of weather we had hoped for, but Heracles 'Mammoth Breakfast' brightened things up, with his own eggs, yoghurt, home made preserves, fresh bread still warm from the bakery and ample coffee and tea. The three leaders had important shopping to do, so departure for the Gious Gambos was arranged for ten thirty. Climbing out of Spili, yellow dominated the route, with roadside *Calicotome*, spires of *Asphodeline luteus* and swathes of *Phlomis fruticosa*.

On arriving at the parking area alongside the famous mound, the party fanned out across the left hand-side meadow. Corn marigold was already in bloom and the blue *Anemone coronaria* were replaced by the latter-flowering brilliant red forms. Everywhere were pale spikes of *Orchis lactea* and huge spikes of the Italian man orchid - *Orchis italica*, interspersed with numerous two-toned yellow *Orchis pauciflora*. The spotted *Orchis boryi*, showed some of the nomenclature and identification anomalies of different authorities. The clouds quickly dispersed and the temperature rose, encouraging large drifts of the lovely *Anemone heldreichii* to lift up its drooping head and open to reveal blue stamens. Spikes of *Ophrys heldreichii*, *Ophrys tenthredinifera* and *Ophrys fusca* set the list of Orchids seen off to a good start.

Eventually the group walked across a water-filled ditch using the 'famous' prostrate trunk of a large black poplar just breaking into growth, to tackle the mound. *Iris tuberosa* had virtually gone over, but huge patches of *Smyrniium perfoliata* caught the photographers' eyes. Alongside was *Tordylium apulum*, and *Scandix pecten-veneris* - aptly named the shepherd's needle, already showing long narrow seed cases. The Spili mound was dotted all over with pink and cream *Daphne sericea*. A large patch of the endemic *Valeriana asarifolia* was worthy of special attention. Delicate *Orchis quadripunctatata* stole the show. Only a few flowers of a drift of *Tulipa saxatilis* were fresh enough to photograph. Sadly the nitrogen enriched surrounding fields had been further cultivated since last year and the red *Tulipa doefleri* appears to be rapidly decreasing in numbers, although the bulbs are at depths of 20-30cm safe from traditional cultivation, deep ploughing, but the use of Glycophosphate weedkiller is taking its toll. Eventually we moved to the little chapel, where in the shade of a large unfurling Oriental Plane everyone was treated to a Greentours 'special' picnic with a huge bowl of colourful fresh salad and a table packed with a wide range of tasty goodies.

Pristine *Ranunculus creticus* enjoyed cool cracks in the rocky cliff. Surprisingly *Onosma graeca* was still in bud. After packing the remains of the picnic back in the mini-buses we explored around the chapel. The moist area below the chapel spring held a few tall *Orchis laxiflora* and increasing numbers of *Oenanthe pimpinelloides*. Behind the chapel were spikes of *Ophrys cretica* and *Ophrys cretensis*. The yellow lutea ophrys kept keying out as *Ophrys sicula*. Nearby a moist area with bare soil attracted numerous bees, possibly drinking mineral rich moisture. Further up the track in the shade of a gully Kate found a group of fragrant *Narcissus tazetta italica* and our first *Barlia robertiana*, now classified as *Himantoglossum* on the ridge above. The very thin soil encouraged the rayless mayweed *Anthemis rigida*, diminutive deep red *Parentucellia latifolia* and the delicate *Plantago bellardii reflexa*. Lower down the more delicate heads of *Orchis tridentata* and butterfly *Orchis papilionacea* were found.

As time was now pressing and Terry had promised that we would return to Spili as soon after 5.30pm as possible, only a brief stop was made for a quality drift of *Tulipa saxatilis* further round the plain, followed by one in the quarry on the way down through the gorge to the main road, where we hoped griffon vultures were roosting – we were out of luck, and a stop for a pristine back-lit *Arum creticum*. There was an hour left to prepare for 7.00 supper at Maria and Kostas where local cuisine and wine was enjoyed, ending a wonderful day, although Kostas's family were a little sad due to a family bereavement.

### **Day 3            Thursday 6<sup>th</sup> April            Spili to Kourtaliotis Gorge and Plaxias**

Dawn broke to a clear sky which turned bluer as the sun went higher. Promptly at 9.00 we all departed for the Kourtaliotis Gorge, the first stop of a long day based around Plaxias. As we pulled into the parking area in the middle of the gorge, John W immediately noticed a lammergeier drifting above four circling griffon vultures. Kate's telescope, on Terry's tripod, soon joined the many binoculars looking skyward. While a group of 'birders' watched crag martins, choughs, etc, the 'planters' worked their way along the roadside base of the gorge side, enjoying the fragrances of thymes and savouries, and many of the plant delights, from *Euphorbia dendroides* and *Euphorbia acanthothamnus* to the sticky *Silene cretica*, strong pink *Silene colorata* and many chasmophytes. Crossing the road to a large rocky bluff just below the 'birders', we enjoyed a protected haven, packed with flowers, that tolerated the low nutrient soil above a scree of coarse rock. *Ricotia cretica* filled gaps, *Valantia*, various plantains, *Ophrys sicula*, *Orchis collina*, *Valeriana echinatus*, and many thistles and were to be found on the

ground while large clumps of *Origanum dictamnus* – Dittany, the ingredient of the famous Cretan herbal and mountain teas, *Stachelina fruticosa* and *Stachelina petiolata* survived on the rock face. A brief stop was made a little further down by a chapel, however the hoped for plants were obviously inside the stomachs of ‘religious’ goats that had spent a nights vigil in the chapel grounds.

After passing through Lefkogia the vehicles were parked just off the road in a track between fenced and unfenced olive groves. The use of glycophosphate weedkiller and nitrogenous fertilisers had reduced the immediate flora to Bermuda buttercup, heavily infested with the blue *Orobanche ramosa*, and the tall *Ferula communis*. The margins of the open field was spared the modern treatment and produced a number of good plants including *Ophrys holoserica maxima* (renamed *Ophrys episcopalis* by Delforge) and a number of tongue orchids. The margin of the fenced olive grove had a superb group of the white *Iris albicans*. Fortunately the steep part of the plantation had only had nitrogen fertiliser scattered around the base of the olive trees and the untreated ground was packed with plants. ‘Orchid’ Cynthia was in her element with a fabulous range of one and two spot *Serapias lingua*. Other plants included *Linaria pelisseriana*, *Orontium misopates* with little pink snapdragon-like flowers, *Fumana thymifolia*, and *Cistus creticus* many flowers hosting pollen beetles. With lunch time calling we tried the restaurants at Mithios, but alas they are due to open next weekend. We therefore tried our luck at Plaxias, eventually settling for a place on the prom, by the harbour.

Fed and watered, with the temperature still rising fast, we moved to the far eastern corner of Sweetwater - Plaxias bay, parking under what shade we could find from gnarled tamarisk. A wander along the beach, resisting the temptation to swim or paddle in Homer’s ‘wine dark sea’, revealed large patches of silver-leaved *Medicago marina*, masses of *Silene colorata*, sea spurge, the leaves of sea daffodil, *Cakile maritima*, (many with pollen beetles) and the occasional *Muscari spreitzenhoferi*.

At the junction of the dunes and the headland walk by an old lime kiln? we photographed *Aristolochia sempervirens*. At the foot of the rock face *Euphorbia dendroides* was in full bloom, while on the rock face *Capparis* was only just breaking into leaf, a few flowers were open on *Verbascum arcturus*, and *Scorzonera cretica*. There was a lovely mixture of flowers seen on our walk to the tunnel at the end of the headland, from orchids to tassel hyacinths, *Tulipa cretica* to the large blooms of *Aristolochia cretica*, the food plant of the Cretan festoon butterfly, many of which were seen flitting about. Our first large groups of white and delicate pink *Ranunculus asiaticus* was of special note, as was the view of sea and mountains. Over three hours passed very quickly, so it was ‘Home James and don’t spare the horses’ leaving only a short time for making a start on the lists, before an excellent meal at Marias and Kostas.

#### **Day 4            Friday 7<sup>th</sup> April            Spili to Triopetra and Spili Limodorum site**

Starting the day with one of Heracles’s ‘Mammoth Breakfasts’ followed by shopping for postcards, small door mats, and local sight seeing was made by group members before a 9.15 departure for Triopetra. Already griffon vultures were circling above. We hadn’t gone far, out of the village when an unscheduled stop was made to look at high-flying raptors. Almost immediately a cacophony of shouts and calls followed the discovery of numerous orchids, from many *Orchis quadripunctata*, to specimens of *Orchis papilionacea*, *Ophrys minoa?*, *Ophrys funerea*, and *Ophrys omegaiifera*.

Despite the possibility of finding more treasures, we moved on, not before having a chocolate break, and discovering Fabiana's love of the product of the tropical *Theobroma cacao* tree, making a number of stops for a fresh-looking collared flycatcher, a pair of ravens and crested larks, as well as interesting small fields, including one 'paradise field' massed with white and delicate pink *Ranunculus asiaticus*.

When we arrived at Triopetra 20 or more black-winged stilts took to the air.

We stopped outside a closed restaurant, where the owners family and friends were having lunch, getting permission to borrow their chairs and have our picnic on their terrace. It is amazing of just how much food 16 people can eat outdoors! We found the diminutive succulent *Mesembryanthemum nodiflorum* on the upper beach and unopened rosettes of *Centaurea raphanifolia* before commencing the climb up the rock slabs and on to the headland. We had to stop to use binoculars and scope to admire a night heron perched on an outcrop and numerous purple herons. Standing on the headland with swifts wheeling above we discussed whether it a wheatear on the distant outcrop close to a wagtail? There was little doubt that the big eared bunny that leapt up from our feet, and bounced away through the low garrigue was a hare. Pale pink *Convolvulus oleifolius*, and yellow borage *Neotostema apulum* was common among a sea of diminutive and 15-24 cm tall plantains - *Plantago bellardii* subsp *deflexa* and *Plantago lagopus*.

With the help of Terry's pliers we made a gap in the goat proof fencing, eventually finding patches of diminutive blue *Solenopsis*, and orchids, before another houdini act with the help of pliers got us back to our vehicles, only to watch 'skeins' of what we think were scoters flying a thousand metres or more off-shore.

Back at Spili, a group decided to find Terry and Ian Bennallick's *Limodorum abortivum* site. Winter rains made the top end of the track difficult to manoeuvre, but efforts were rewarded by many more spikes of the parasitic/saprophytic orchid than in previous years, but sadly non in flower. We did find *Ophrys lutea lutea* and the silver-hairy leaved *Thymelaea hirsuta* in flower. After a 45 minute list session at Heracles, we went to the Panorama a restaurant about 1.5km east of Spili. The table was loaded with tasty starters and we were all invited into the kitchen to choose from four prepared dishes. This gastronomic delight ended with sugared peel and yoghurt. We all slept soundly despite the strong overnight 'Gadafi' wind.

## **Day 5          Saturday 8<sup>th</sup> April          Spili to Psilloritis via Perama and Anogia**

The weather looked very promising at 8.45 as we departed for Psilloritis and within 30 minutes we were on the main North highway travelling east. Our first views of Psilloritis were enhanced by a wispy veil of light clouds. For a couple of kilometres beyond Perama a length of rocky roadside cliff had many interesting plants, including Maidenhair fern - *Adiantum capillus-veneris*. Entering Axos we negotiated piles of heavily lopping eucalyptus, finding a roadside taverna where we stopped for refreshments, sitting in the sun watching the world go by.

No sooner had we begun negotiating the twisting mountain road, when we stopped for a distant raptor, only to end up watching a Great Grey Shrike and botanising a rocky gully where we found the rare *Polygonum idaeum*. The area's dominant shrub is *Berberis cretica*, the main body of which are too dense and sharp for goats and sheep to reach the base, where other plants can survive. This is where *Scilla nana* and the district's special subsp *albescens* are mainly found. After much more twisting and turning we parked on a goat-grazed doline (flat soil-filled

sinkhole), the short turf awash with white star-like flowers of *Romulea bulbocodium*. An ideal spot for the day's picnic, having a long concrete water trough to sit on, and splendid views, especially of Psiloritis, which drifted in and out of wispy clouds. The birders were forever lifting their binoculars to enjoy black-eared wheatears, one of which was bathing in the water trough as we arrived, stonechats, wrens, which were seen and heard in abundance, and choughs. The 'planters' had by now seen the small forget-me-not like *Lithospermum incrassatum*, small white-flowered *Erophila verna* and *Lepidum hirtum*, *Alyssum simplex* and the lovely white and pink tubular-flowered *Corydalis uniflora*. The occasional dot of yellow coming from *Gagea bohemica* and purple/red from very dwarf *Lamium amplexicaule*.

With the picnic finished and packed away, we moved on past roadside drifts of snow to the car park – by the Analpisi taverna, parking on a wide bend in the track a little way further on overlooking the Niddha Plain. From here it is a slow, but easy walk to the Idean Caves, supposedly in Greek mythology to be the birthplace of Zeus, a cave being slowly and methodically excavated with a series of railway tracks leading from the cave entrance to a large spoil heap. Most notable on the walk, after the spectacular views, enhanced by sunlight and shadows on the limestone, and wisps of clouds, was all the *Berberis cretica* breaking into leaf. Blue *Viola cretica* mostly hidden within spiky *Astragalus* gave itself away by its fabulous sweet fragrance. It needed Terry's sharp eye to find on a scree the diminutive white *Viola rauliniana*. Once again *Prunus prostrata* was tight in bud, but white *Arabis alpina* was open, in sheltered pockets, as was nodding heads of *Anemone heldreichii*. Moist shady cracks on the rock cliffs were home to the yellow flowering *Umbilicus parviflorus* and *Saxifraga chrysosplenifolia* about to break into bloom. Not a flower bud was to be found on *Arum idaeum*.

Crag martins were flying in and out of the cavern entrance, with young calling their parents. On the return to the vehicles a hunt was made for amphibians in the low animal drinking troughs, where the overflow moistening the ground a little lower encouraged large patches of *Bellis longifolia* however Roger saw a 45cm or more Balkan green lizard, scampering into the safety of *Euphorbia acanthothamnus*, some of which were producing very attractive bright green/yellow fresh foliage.

No *Crocus seiberi* flowers were seen, only foliage, and a planned search on the return drive was aborted when it was realised that the temperature was dropping and any flowers would have closed. A comfort stop was made at Anogoia at a taverna overlooking the town, where Terry produced slices of very sticky baklava. It was then a non stop drive back to Spili, leaving enough time for a quick wash and brush up before another tasty meal at Marias and Kostas.

**Day 6            Sunday 9<sup>th</sup> April            Spili to Amari Plain, Monastiraki and Fourfouras**

We left promptly, as usual, at nine, making a brief detour to the bakers, after which the tantalizing smell of warm freshly baked bread whetted people's appetites. Today's route starts by driving towards the Gious Gambos, then taking a left turn and following a long track behind the Gious Gambos. Our first port of call was Antonis gorge. On the rocky cliffs at the entrance we admired *Linum bienne*, *Petromarula pinnata*, *Ragadiolus stellata* and *Hypericum empetrifolium*. Just inside was our first sightings of the endemic, delicately fragrant *Cyclamen creticum*. The gorge has a feel of a cloud forest jungle, with its moisture and light shade from oaks, *Styrax*, *Crataegus*, *Rhamnus* and *Phillyrea*. A picnic area held much *Viola cretica*, *Umbilicus*, *Adiantum capillus-veneris*, and *Saxifraga chrysosplenifolia*. Along the path the

Jersey fern - *Anogramma leptophylla* and procopiana - *Symphytum creticum* thrived. Kate walked up to a lookout close to a raptor nests and where she could get excellent views of kestrels, choughs, jackdaws, and much more.

Sharing a bar of chocolate encouraged the group to assemble and move off to the Amari valley stopping at a little Byzantine chapel, which was open. Cynthia found a miserable looking monkey orchid while Hilary found a large clump of *Orobancha caryophyllacea* with a delicious clove fragrance, with its *Galium aparine* host.

Eveline and Cynthia S were keen to examine the adjoining field with gladioli, pink-flowered *Allium nigrum*, *Anchusa italica* and spurge over which a number of clouded yellows flitted. A grassy hedge bank provided *Orchis laxiflora*, *Serapias bergonii* and *Ophrys heldreichii*. Next stop was beyond Monostiraki taking a straight road once lined with ancient gnarled olive trees, but recently grubbed out. A hairpin bend and a short distance along a track brought us to our lunchtime stop. While the picnic was prepared open blooms of *Tulipa doefleri* were photographed.

One hour was designated for bird and flower hunting after the picnic remains were packed away. Highlights were blue lupins and *Orchis commutata*. Back on the road and up to Fourforas offering wonderful views of Psilloritis with long drifts of snow. The wind was so strong that everybody felt that an hour would be long enough. 18 different orchids and huge drifts of blue *Gynandiris sisyrrinchium*, now renamed *Moraea sisyrrinchium*, were recorded. The next 80 minutes was a scenic drive round one side of the Amari valley going via Amari, Mesonas and Geriaki, ending with a drive over the Gious Gambos.

**Day 7            Monday 10<sup>th</sup> April            Spili to Damoni headland, Kotsifou Gorge and Agia Joannis**

What a wonderful morning to be driving off to Damoni headland next to Plaxias over looking Sweetwater/Plaxia bay, where out at sea a twister produced a mini water spout. The headland was not its usual sea of blue/purple *Echium plantagineum* and soft pink *Convolvulus oleifolius*, and the various campanulas on rocky faces were still in bud, but not ready to unfurl. The sharp limestone needed to be treated with respect but it protected much of interest such as the sea urchin-like flower and fruit heads of *Atractylis cancellata*, *Ranunculus asiaticus* white f, rayless chamomile - *Anthemis rigida*, and various orchids - *Serapias* and *Anacamptis*, with *Euphorbia dendroides* adding height and form to the scene.

It is only a short drive through Mirthios to the foot of the Kotsifou gorge where the vehicles carried out 'bunny hopping' to the top while the group slowly walked up. After about 45 minutes the wind built up in strength making progress uncomfortable and photography of plants difficult and even created problems for the birders, keeping their binoculars steady - choughs and kestrels being the dominant birds. Kent made the most of the early calm period photographing most of the chasmophytes and other attractive plants. Everyone seemed to photograph *Convolvulus elegantissima* its large pink flower complemented by silver filigree foliage, *Ricotia cretica* nestling in broken rock and *Silene greuteri*, *Senecio rupestris* was flowering by the chapel, but the numerous *Arum creticum* were all going over. Some of the group walked all the way, others had a lift up to the restaurant where we were scheduled for lunch. It had been open at the weekend, but was having a very quick internal re-paint. A team of

decorators had taken only a few hours to cover all the walls and ceilings and were just tidying up when we arrived.

After a welcoming raki we were invited into the kitchen to choose our food, most people selecting a combination of dishes including the very popular calamari stew. Almost everyone finished their meal with the cook's speciality - Mesythra - a soft sweet cheese topped with preserved grape slices.

Wing mirrors were folded in as the vehicles were 'squeezed' through the twisting alleyways of Agia Joannis, past the old wash place and up into the pine forest and the light oak woodland with areas dominated by *Erica arborea* and *Arbutus unedo*, although more and more is being removed for grassland. The fragrance of the masses of *Cyclamen creticum* reached us before they came into view. Countless photographs were taken, and Terry, John W and Penny removed some of the pruned branches which were covering some drifts of cyclamen. Virtually everyone took the steep clamber up the terraces through the woodland to the top of the hill and a chapel where *Dactylorhiza romana* grows among *Cistus salvifolius* on the roots of which the red parasite *Cytinus hypocistis* subsp *hypocistis* was found in profusion. Specimens of Strawberry clover and one *Limodorum abortivum* in flower were admired before descending to the vehicles, from where there were wonderful views across the Amari plain to Psiloritis. Back on tarmac roads, a stop had to be made for strong clumps of *Allium roseum* and fields massed with yellow *Ranunculus* and blue/purple *Echium plantagineum*. Time was left for some shopping at Spili, a wash and brush up before meeting at Heracles for the lists while sampling his preserved quince and dining at the Panorama.

## **Day 8            Tuesday 11<sup>th</sup> April            Spili to Festos and Agia Triada via Timbaki**

After a slightly earlier breakfast we departed for a day of culture - Festos via Timbaki. Sadly we left behind Kent and Marcia due to the overnight news of the death of Marcia's brother. It is not a birthday that Marcia will want to remember. It was the first day of the bakers in their new premises and the bread was just coming out of the ovens when we called for our daily supplies. Our first stop was by clay slopes looking across to Psiloritis, Normally very soft and sticky, the ground was hard and dry and the grass lush, hiding many orchids, of which *Serapias parviflora* was dominant. A small pink allium defied identification, but we had no problems with the robust *Allium nigrum*, *Onobrychis caput-galii*, white and pink forms of *Ranunculus asiaticus* and masses of *Gladiolus italicus*. The various legumes and herbs were admired.

A brief stop was made for Peter to photograph the roadside blue lupins, before swiftly passing Agia Galini, the market gardens of polythene houses and working town of Timbaki to the ancient Minoan site of Festos, where the group divided between 'cultures' with Kate and Sue and 'planters' with Terry. The 'planters' spent a wonderful two hours on the hot and dry hillside finding many orchids including *Ophrys herae* and pure white *Anacamptis pyramidalis* among the low garrigue of *Thymelaea*, *Ebenus*, *Anagyris foetida* and *Calicotome*. Many lizards were seen swiftly scuttling to safety.

Using the walky-talkies we all met behind an old chapel, where the 'cultures' unbeknowingly had flushed out a hoopoe in full view of the 'planters'. There was time for a full picnic under the shade of a large olive tree sitting in a sea of crown daisies. While the food was being prepared we admired large drifts of *Serapias orientalis*. The 'cultures' were taken down to visit Agia Triada passing on the way swathes of *Ebenus creticus* and huge plants of the fragrant sandlewood *Osyris alba*, leaving the 'planters' to hunt for *Orchis simia*, which was found along

with masses of *Ophrys cretensis* and *cretica*. *Orobanche lavandulaceae* thrived on a bank, where its known host of *Galium* was not visible. While photographing a giant Tragopogon seed head and a large Balkan green lizard, Terry's digital camera broke, only working thereafter by the dexterous use of a wooden tooth pick.

A brief stop was made on the way down from Festos to photograph *Nicotiana glauca*. A lovely meal in a joyous atmosphere was had at K and M despite the various bereavements.

## **Day 9            Wednesday 12<sup>th</sup> April            Spili to Mourne and Drimiskos and Gious Gambos**

Today was Hilary's birthday, yesterday Marcia's and the day before Eveline's. Today, by popular demand the visit to the Mourne and Drimiskos 'Slag Heaps' was to be speeded up to allow time for a visit to the Gious Gambos to look for *Fritillaria messanensis*. Our first stop was below Mourne near the peak of Xiron, where we found many *Orchis sitiaca*, few dark coloured *Orchis anatolica*, and a vast patch of *Orchis simia* and some *Orchis italica* with very long flowers - we suspected that they were hybrids, but with what? On the slope the first flowers were opening on the three-leaved *Hypericum empetrifolium* and *Fumana arabica*, *Calicotome* filled the air with its perfume, *Vicia villosa* was running through low shrubs and at the top of the slope *Quercus pubescens* was breaking into leaf.

At Mourne church a brief stop was made, the quality of its frescos creating great excitement. The Jersey fern - *Anogramma leptophylla* enjoyed the cool north side of church. While Susan and Kate attempted to photograph a swallowtail, Terry was watching a stoat playing on a nearby pile of rocks.

At the X roads where a sign points to the sea, and the surrounds are ultrabasic we wandered looking at *Aethionema*, *Rumex*, some *Orchis pauciflora* and a considerable number of *Orchis sitiaca*. The area was drier and not so rich in flora as in previous years. Conversely, those who walked down to the Byzantine church where the day's picnic would be laid out, found a fantastic amount of orchids on the trackside mounds, causing them to reach the chapel when others had virtually finished eating.

Inside the church, Kate suspected that a faded wall painting was of a Byzantine princess possibly 800 AD. The area behind the chapel produced seventeen different species of orchids, about the same number as previous years, but some species were different. Despite extensive searching we could not find *Ophrys spruneri*. A little excitement was caused when Fabiana's vehicle became stuck on loose ground and a side ditch. After a lot of heaving and engine revving and 'Fangio' Clow at the wheel it was back in service. Driving along towards the sea, we found the site of *Orchis provincialis*, a delicate yellow, with spotted leaves. The mountain track through the hills towards Drimiskos was rough, rutted but dry, finally ending in smooth tarmac approaching Vatos. At the area of green and black ultrabasic rock, we parked, clambering around a pinnacle to find drifts of white and pink/white *Tulipa cretica*. We skipped the walk down the nearby grassy slope but made for the Chapel up on the Gious Gambos. Here we climbed up passing *Ophrys bilunulata*, *fusca*, *funerea* and *Orchis simia* finding numerous *Fritillaria messanensis* in bud and many open. Here we also discovered *Neottia maculata*, *Ophrys cretica ariadne* and *Aceras anthrophorum*, as well as numerous *Cyclamen creticum* and patches among the rocks of the endemic *Ranunculus cretica*.



Back at the Panorama we discussed over dinner the 33 different orchids seen during the day.

**Day 10      Thursday 13<sup>th</sup> April      Armeni cemetery - Viglotopi and Spili or  
Gious Gambos or Moni Preveli**

Today was full of promise, warming dramatically after a cool night. Research indicated that the Minoan cemetery of Armeni, about 10km south of Rethymon should be good for flowers with added archaeological interest. We were not disappointed finding a sea of flowers under a light canopy of the giant acorn and cup Valonia oak *Quercus ithaburensis* subsp. *macrolepis*, surrounding numerous 1500 BC graves. Most notable were the very pale *Ophrys tenthredinifera*. The tombs with indentations for doors or rocks were mostly reached by a short flight of steps, and an open topped passage, broader at the base than top, which was called a Drome and led from the old world to the new, and was in line with the morning sun. We knew that our stop at Viglotopi would not be as long as it once used to be as each year more and more of the superb orchid and plant site is converted to arable land or destroyed by high nitrogenous fertilisers, as the farmers attempt to increase the grazing for their sheep and goats. In the long grass we found some exceptionally vigorous *Orchis laxiflora* and lower down, away from the fertiliser some gigantic *Orchis papilionacea*.

We enjoyed lunch at the nearby Pirgor taverna overlooking Viglotopi.

We then divided into ‘shoppers and tourists’ spending the afternoon around Spili, ‘planters’ who went back to the Gious Gambos, spending time around the second mound, finding many nice plants including a luminous purple-red, hybrid between *Orchis italica* and *Aceras anthrophorum*, (John W’s discovery which we named X *Orchisaceras* ‘Gious Gambos’. ED – sorry its already got a name – X *Orchiaceras bivonae*!), and an *Ophrys fusca x sicula* hybrid, and the ‘birders’ who went to Moni Preveli having a good session, seeing a flock of 30 herons and a lammergeier.

Lists were done at Heracles while enjoying our host’s walnuts pickled in syrup before having a ‘starter banquet’ and main course, sweet and drinks for our last evening at Marias and Kostas.

**Day 11      Friday 14<sup>th</sup> April      Spili to Anapoli via Frangokastello and  
Aradena Gorge**

We had been wakened by stormy weather in the night, and it was still drizzling as we packed the vehicles and set off on the long drive from Spili to Anapoli, high above Hora Sfakion in the Lefka Ori (White Mountains). We drove to the Frangokastello plain along the coastal road via Mirthios, where, responding to popular demand, we briefly stopped outside a handicraft shop (unfortunately it was closed). The villages were pretty, with chapels tucked under the overhanging cliffs and garden and wild flowers spilling over the walls. The weather improved, and we reached the plain of Frangokastello in intermittent sunshine. We took advantage of the change to photograph poppies and some huge and smelly *Dracunculus vulgare*. Behind them, a flock of sheep grazed and in their footsteps many yellow wagtails fluttered, looking for the flies which the sheep had disturbed. From the petrol station, the birders walked slowly down a wide track towards the sea, surrounded by larksong and the rattle of stonechats. We soon saw a rustle of leaves in treetops, where a golden oriole was perched; we had excellent views of two birds in our scopes.

The seafront was a little disappointing; the wind was still fierce and the sea rough, so we retraced our steps, seeing more wagtails and a flycatcher en route, to find that the flower people had moved on to the small coastal settlement of Frangokastello, next to the shell of a Venetian castle. The picnic was laid out on a wall near a tiny harbour, under eucalyptus and tamarisk trees, with the magnificent snow-capped Lefka Ori mountains in the distance. The flower people had explored the beach and marshes, and found *Glaucium flavum* and many yellow-flowered composites, and small white, pink and yellow annuals nestling on the ground. Along the beach were *Medicago marina*, *Silene colorata*, *Eryngium maritimum*, *Parentucellia viscosa*, *Euphorbia paralias*, *Echium arenarium*, *Silene sedoides*, and surprisingly *Narcissus tazetta*, although in fruit. In a marshy area with rushes, numerous *Ophrys heldreichii*, and *Orchis parviflora* and Serapias, *Berula erecta* and *Hydrocotyle vulgaris*. After lunch, we bowled along in the sunshine for the short distance to Hora Sfakion.

We left the third, rather high-g geared vehicle in the Hora Sfakion carpark and made the trip up the precipitous, twisting road in two vehicles (one did two trips). The views back were fabulous, and the isolated plateau above noticeably cooler than the coast. The village of Anapoli sprawls along a winding country road between olive groves, with the forested slopes of Pachnes (2453m) rising above. Poppi welcomed us at her hotel cum taverna. After a welcome beer or coffee, we drove off to the Aradena gorge, only two km along a village road. Here, the lovely Byzantine church of St Michael the Archangel perches amidst ruins of a mainly abandoned village on the edge of a deep gorge. The dome over transept church has a nave extension added later. The frescoes date from the 14<sup>th</sup> century, so the church itself is probably from the second Byzantine period ending in 1204. There was a rush to photograph it; unfortunately it was locked, so the decorated screens and old faded frescos could only be glimpsed through the windows. In the churchyard were some vivid red *Ranunculus asiaticus* plants, and *Delphinium staphisagria* was everywhere – although only in bud.

We had crossed the gorge via a rumbling box girder bridge, which has replaced the original, beautifully constructed zigzag *kaldiran* or cobbled path. Kate, who collects old roads, with Penny and Cynthia, couldn't resist the challenge, and walked the old route, seeing a wren and crag martins en route. The stream bed at the bottom of the gorge was dry, and it would have been theoretically possible to walk between high cliffs down to the sea far below, although lower down it involves clambering down some exceptionally large rocks.

The others explored the old buildings around the church, and the birders surveyed a small pool, on which were two black-winged stilts, reflected in the muddy water. Egyptian vulture and meadow pipit were also seen.

We returned to Poppi's and took a short drive through *Pinus halapensis* ssp. *brutia* woodland north of Anapoli, where the trees are blackened by sooty mould from the masses of white woolly aphids, their secretion responsible for the delicious local honey, seeing many flycatchers through the trees.

The taverna was quite crowded for supper, as another group were also eating there. After rearranging the tables we settled down with wine and beer. Poppy's supper just kept on coming; salads, tzatziki, stuffed vegetables and piles of casseroled lamb. We finished with apples in cinnamon and cinnamon biscuits, with Greek coffee for those who fancied the taste. During the windy and stormy night, Scops owl called from the eucalyptus outside Terry's window.

## Day 12      Saturday 16<sup>th</sup> April      Kakovoli, Aradena and Agios Ioannis

Kate and Sue set out early to check the small pond at Aradena, seeing three new waders. They met the other birders at 7.0am, before the sun had risen, and drove north into the pine forest for an early morning search for golden orioles, which had been heard here on previous trips. At first all was quiet and still but soon pied and collared flycatcher were seen darting amongst the trees.

From the track we also saw a glimpse of a larger bird, which was soon identified as cuckoo. It obligingly stayed on an exposed branch as we set the scopes on it. Meanwhile, as the sun warmed the forest the flycatchers were becoming more and more active and numerous, perching very close to the track, but no orioles were seen.

The birders returned to a breakfast of new warm bread, Anapoli-made yoghurt and orange juice, and lots of coffee – a good preparation for the drive up the mountain. During the night, fresh snow had fallen and dusted the upper slopes, freezing our poor crocus. We were aiming at a pass below the peak of Kakovoli (2214m), accessed by a very bumpy forest track, which the shepherds use to reach to their summer pastures. Bee hives were placed along the track, and woodchat shrike were poised to take the bees. We first stopped beside rocky phrygana for many beautiful plants of *Ophrys spruneri*, a rich chocolate brown labellum with iridescent blue speculum and pink sepals and tepals. The rocky track zigzagged up the slopes and soon everyone became used to the potholes and bumps and enjoyed the fantastic views down to Anapoli and beyond.

*Pinus halapensis* ssp. *brutia* was the main tree at lower altitudes, but *Juniperus oxycedrus* ssp. *oxycedrus* joined it over about 1200m, with some *Acer sempervirens* just coming into leaf. The *Quercus coccifera* had been chewed into extraordinary shapes by the marauding goats. A short stop in a small gully where large clumps of *Paeonia clusii* grows was rewarded with good plants in bud, but no flowers, although they would burst forth in a few days. In the stony ground we found only one *Muscari neglectum* but *Cerastium scaposum* was everywhere, with a few *Gagea chrysantha*, and *Myosotis incrassata*. *Cupressus sempervirens* stumps were all around, and some of the junipers had also been cut, presumably for fuel; others had grown in giant bonsai shapes, contorted by the wind.

We emerged above the treeline at about 1600m, and turned into a narrow pass in a high valley between Kakovoli and Troharris (2410m), where we parked in a roadmakers quarry just off the main track. The wind was fierce and cold, although the sun streamed across the hillside. The plants living on these limestone scree slopes have to be able to survive not only long, waterless summers, but also the attentions of the goats. Most are protected by spines, dense hairs or an unpleasant taste. Others, like the *Aubrietia deltoidea*, sheltered inside cracks in the rocks. *Scilla nana* ssp. *nana* (which has bluer tepals than ssp. *albescens* found on other Cretan mountain ranges) grew safely inside *Berberis cretica* bushes.

Almost immediately, Kate saw two birds flying across the opposite rock face, and, as the flower people fell upon the tiny closed *Crocus sieberi* ssp. *sieberi*, the birders got into the shelter of a rock and scoped out chukar hopping around on the rocks. The picnic was laid out in the shelter of the quarry, and we had just finished re-loading the van when we saw a Montagu's harrier against the mountain slope. It was struggling against a head wind racing off the pass, and not making much headway. We were able to watch it for at least five minutes before it sank out of sight into the rocks below, presumably to try its luck later when the wind dropped. The crocus around the snowmelt had opened in the warm sun, and we photographed the many variations

with bronze or purple borders and streaks on white backgrounds, and also the dwarf, creeping *Prunus prostrata*.

The drive down was scenic, with the views of the island of Gavdos off the south coast. As we rounded a corner, a kestrel, followed by two Egyptian vultures took off and flew away towards the sea. We stopped to photograph the masses of yellow *Asphodeline lutea* silhouetted against the mountain.

After quick drinks at Poppi's, Kent and Marcia set off for a walk up the hill over the village; some others drove towards the village at the end of the road, Agios Ioannis, where we wandered amongst high-banked lanes, below the neat church. Not many inhabitants were around; most must have migrated down to the coast and only return for the summer. Around the olive groves, a white form of *Scrophularia peregrina* was found with *Silene cretica*, *Salvia verbenaca* and *Sinapis alba*. Meanwhile, Kent and Marcia had seen a woodcock flapping across the fields from the hotel balcony. Poppi cooked another really tasty meal, with both goat and rabbit for the main course, followed by more cinnamon biscuits and apples. Driving home thru' the starry night, Kate and Sue were surprised by an owl flying across the road, too big to be Scops, but they heard Scops owl calling during the night.

**Day 13      Sunday 16<sup>th</sup> April      Anapoli to Omalos via Hora Sfakion,  
Imbros, Georgiupoli, Agia Reservoir &  
Lakki**

A day of travelling lay ahead and Sue and Kate, first packed and ready, called again at their muddy pool, identifying wood sandpiper as well as the stilts. The first vehicle set off, with the birders, at 8am, and, after stopping to photograph the view down the coast, they breakfasted in a seafront café. Meanwhile, the others breakfasted at Poppi's and drove down. By 9.40 all were reunited and we set off with three vehicles up the Imbros gorge. Two brief stops, the second at a café in Imbros for coffee, and we were soon in the small mountain plain of Askifou.

Roadworks had made the drive dusty in places, but we stopped to photograph a wonderful yellow field of *Chrysanthemum segetum* mixed with white corn chamomile and red poppies. Stopping for lunch at the freshwater springs west of Georgiupoli, the pool lay under sparkling sun, with nothing stirring. A few coots, moorhen and little grebe drifted on the surface, the male coots fighting occasionally over females. Fabiana wandered off in search of butterflies on a field of thistles, and the birders took a scope up the road to scan the rear part of the pools, disturbing plate-like terrapins in the process. One little egret peered from the reeds, but after lunch an osprey appeared and circled overhead, very close; a lovely and surprising sighting.

At Georgiupoli, a shopping stop, we parked close to the beach and the non-shoppers photographed the chapel on a breakwater, against a background of deep blue sea and snow-dappled peaks. We trained the scope on a small beach, where Sue had glimpsed a common sandpiper, but it disappeared. The boats along the river mouth were a colourful spectacle, and the tri-lingual signs and tourist clutter in the shops made us realise what a busy centre it must be in summer.

Our next stop at Agia Reservoir was most rewarding for the birders, less so for plant people as a bank of Mediterranean flora had been sprayed with weedkiller. But they took refuge from the hot sun in a pleasant, modern taverna, where ice creams and fresh orange juice made up for lack

of plants. Over the surface of the lake, as well as Yellow-legged gulls, were Swallows, Red-rumped Swallows, House Martins, Sand Martins and Alpine Swifts swooping for insects. Hundreds of Coot, Moorhen and Little Grebe flocked, with a few mallard and shoveler, and were disturbed only slightly by a Marsh Harrier. The bird list grew and grew, with egrets, grey heron and little crane in the reeds, more waders including redshank, ruff, greenshank and little ringed plover. A squacco flew over and a kingfisher perched on a tree branch over a weir. We had close sightings of little crane from only about 3 metres, but they nervously dived back into undergrowth, while a black-headed wagtail perched cheekily on an exposed branch. Sated by all the birds, we all gathered in the swish taverna and then recommenced our journey.

As we climbed into the Lefka Ori from the northern side, the scenery became lush and greener, and the mountain villages more attractive. At Lakki, a village perched on a steep hillside, we photographed a statue of three men standing one on top of the other. Later we heard that they symbolised three generations, grandfather, father, son, all gazing out to different horizons. Through rocky hills and small plains, we climbed until just over a ridge the circular plain of Omalos came into view, spread out below. A very gentle cruise amidst the banks and fields of *Tulipa bakeri* (now considered a variant of *Tulipa saxatilis*) revealed the plants in fine fettle, well-displayed under the evening sun. We resisted photography until the following morning and, after checking into our comfortable rooms with lovely olive-wood furniture, (and, more important, hot showers) sat down to a good meal.

**Day 14      Monday 17<sup>th</sup> April      Omalos plain and path to Gingilos, Agia Irimi Gorge**

Many people set off for a trip to two small lakes on the south Omalos plain at 7am. There was virtually no wind, so by approaching quietly we were able to see larks and meadow pipits on the bushes, a corn bunting on a wire, more woodchat shrikes, and, on the first shallow pond, eight wood sandpiper and a ruff.

Breakfast was welcome and afterwards we headed for the carpark above the Samaria Gorge, where a wooden staircase takes walkers down into the gorge. Descending from the vehicle, Sue called 'Lammergeier' and there it was - cruising overhead, its head a clear white and belly glowing a lovely shade of chestnut. Kate and John set off on another wooden staircase (or rather, a path shored up with neatly trimmed and anchored tree branches). This led us to the summit of a hill overlooking the gorge, and, a hundred metres on, to a point where we could sit in the shade of a juniper and scan the far hillside for wild goats. None were seen, but ravens and crag martins wheeled in the gorge and a wren practically perched on Kate's boot. Northern wheatear and Sardinian warbler were everywhere, and on the return we saw a hoopoe. John photographed aubretia and an *Arum idaeum* (white arum). The rest of the group set off to photograph the tulips. Two colour forms of the tulips were noted and comments made about the difference in growth and habitat of the *Tulipa saxatilis* on the Gious Gambos. We photographed of *Gagea amblyopetala*, *Ochis tridentata* and a solitary *Dactylorhiza romana*.

As John and Kate were returning towards the hotel, we met the other vehicles, so all turned and made for the ponds. Here, more wood sandpiper had appeared, along with Temminck's stint and more ruff. Returning for lunch, we saw a curlew bunting.

After a long and lazy lunch, we set off for the Aghia Irimi Gorge, which lies west of and lower than the Samaria Gorge. The gorge contains a well-used path which follows a stream shaded by

olive and pine trees. Plane trees with their gnarled roots in the water were coming into leaf. Peter and Terry saw a short-toed treecreeper disappearing into a clump of the ivy which festoons the gorge sides. Further down, Terry and Kate listened to much rustling in the stream bed and Kate saw the rear end of a jay, our first. The gorge was a delightful change of altitude and therefore of season, from the plateau, with lots of *Cyclamen creticum* massed under the trees, their fragrance wafting on the light breeze.

We had time to finish packing before the various lists were finalised outside while we had snacks of the remaining picnic pistachio nuts, followed, inside, by a very pleasant dinner with delicious starters and roast pork or lamb. Roger made a short but graceful thank you speech to the leaders, and we all ate the remains of the helva and toasted the island which had given us so much pleasure.

### **Day 15      Tuesday 18<sup>th</sup> April – Amalos to Chania airport**

Kate left early to catch her flight, leaving Terry and Fabiana to make the drive down to Chania after an early breakfast. Cynthia, having a late flight to Cyprus was still tucked up in bed. Dawn was breaking, and the views were lovely. Hillary recording them with her video camera. After Lakki the perfume of the flowering citrus was a positive delight. We had plenty of time before our flight to Athens where we said farewell to Fabiana, The flight to Heathrow was uneventful and everybody was united with their luggage.

# Systematic List Number 1      Plants

With thanks to members of the 2006 tour, and previous leaders and tour members who have helped compile plant lists.

## Key

- \*      **Not in flower**
- 1      **Gious Gambos**
- 2      **Kourtaliotis Gorge - Plakias**
- 3      **Triopetra - Spili Limodorum site**
- 4      **Psiloritis**
- 5      **Antonis Gorge - Monastiraki- Fourfourus -**
- 6      **Damoni - Kotsifou Gorge - Agia Ioanis**
- 7      **Faestos -- Agia Triada-**
- 8      **Mourne - Drimiskos - Gious Gambos Frits**
- 9      **Armeni cemetry -Viglotopi - (Spili, Moni-Preveli - Gious Gambos**
- 10     **Frangokastello - Anapoli - Aradena**
- 11     **Kakavoli - Aradena - Agia Johanis**
- 12     **Georgiupoli - Agia - Omalos**
- 13     **Above Samaria Xilaskalon -Omalos - Agia Irinis Gorge**

## Aceraceae

### *Acer sempervirens* - Cretan Maple

(1-3, 5, 6, 8-13) [Small tree with 3-lobed leaves, and yellowish-green flowers].

## Aizoaceae

### *Carpobrotus edulis* - Hottentot-fig

(3, 7, 10, 12) Near coast by roads, on sand and rocks. [Mats of succulent leaves and pink daisy-like flowers].

### *Mesembryanthemum nodiflorum* - "Ice-plant"

(3) Rare in compacted sand at Triopetra. [Prostrate with narrow succulent leaves, white flower-buds].

## Anacardiaceae

### *Pistacia lentiscus*- Mastic Tree

(3, 5, 6, 8-10, 12, 13) Forming dense thickets along coast [Evergreen shrub whose pinnate leaves normally have no terminal leaflet].

### *Pistacia terebinthus* - Turpentine Tree

(4) Scrub [Small deciduous tree, whose pinnate leaves have a terminal leaflet; branched brownish flower-panicles].

### *Schinus molle*- Californian Pepper-tree

\* (7) [Small tree with pendulous branches, pinnate leaves, many narrow leaflets].

## Apocynaceae

### *Nerium oleander* - Oleander

(1-13) Though planted along the north coast road, clearly native by streams and wet gullies: [Shrub with long leathery leaves, and gaudy pink flowers]

### *Vinca major*- Greater Periwinkle

(5) Naturalised by road [Scrambling plant with opposite leathery leaves and blue flowers].

## Araliaceae

### *Hedera helix*- Ivy

\* (1, 2, 4-6, 8, 10, 12, 13) [Familiar evergreen climber with lobed leaves].

### *Hedera helix poetica*- Poets Ivy

\* (6) Yellow berried form

## Aristolochiaceae

### *Aristolochia cretica* - **Cretan Birthwort**

(2,) Occasional Plakias headland [Low scrambling plant with heart-shaped leaves and large brown flowers like "Dutchman's Pipe". Endemic].

### *Aristolochia sempervirens*

(2) Climber with small trumpets and yellow mouth

## Berberidaceae

### *Berberis cretica* - **Cretan Barberry**

\* (4, 11-13) [Low shrub with 3 spines at each node, and leaves emerging].

## Boraginaceae

### *Anchusa caespitosa* (**an alkanet**)

\* (11) Stony ground from 1500-1900m on Kakovoli, and at 1600m above Xiloskalon. [Cushion of strap-shaped leaves and bright blue flowers. Endemic].

### *Anchusa hybrida*- **undulate Alkanet**

(7) Dry disturbed ground. [Bristly herb with wavy leaves and bluish funnel-shaped flowers].

### *Anchusa italica*- **large Blue Alkanet**

(1-12) Frequent by roads and in disturbed areas:. [Large bristly herb with open panicle of big bright blue flowers]

### *Borago officinalis*-**Borage**

(4, 5, 7, 9, 10, 12, 13) Waste ground. [Blue, star-like and almost nodding flowers, oval bristly leaves].

### *Cerinth m. major* - **Honeywort**

(2-4, 7) By Kourtaliotis Gorge Chapel - Roadsides: [Patch-forming, grey with white swellings, and nodding yellow flowers with reddish-purple base].

### *Cynoglossum creticum*- **Blue Hound's-tongue**

(1-3, 6-10) Pathsides and rough ground. [As latter but with larger dark-veined pale blue flowers].

### *Cynoglossum sphacioticum*- (**a hound's-tongue**)

(1, 8, 9) Stony ground [Slender with purple-maroon flowers, oblong leaves. Endemic].

### *Echium angustifolium*- **Narrow-leaved Bugloss**

(7) Verges [Typical bugloss, but with narrow leaves and red flowers]

### *Echium arenarium* - **Rough Bugloss**

(10) Beach at Frangocastello [Very bristly, low growing, with terminal purple flowers]

### *Echium italicum*- **Pale Bugloss**

( 1-3, 5, 7, 8, 10, 11) Verges and waste ground: [Distinctive pyramidal inflorescence of bluish-white flowers].

### *Echium plantagineum*- **Purple Viper's-bugloss**

(1-3, 5-10, 12) Verges: [Big violet-blue funnel-like flowers].

### *Lithodora hispidula* – (**a shrubby gromwell**)

(13) Cliffs at Argia Irini gorge [small shrub with tubular blue flowers]

### *Lithospermum incrassatum*- (**a gromwell**)

(4, 11) Among scree above tree-line [Small decumbent herb with narrow in rolled leaves, and regular blue flowers].

### *Neatostema apulum*- **Yellow Gromwell**

(3) Rocky hillside near point at Triopetra. [Typical small erect gromwell, with small yellow flowers].

### *Onosma graecum*- **Greek Golden-drop**

(1, 3, 6, 8, 9) Rough ground:. [Erect, very bristly - orange/purple tinged yellow flowers].

### *Paracaryum lithospermifolium*- . Subsp. *cariense*]. (**no common name**)

(11) Rocky ground at 1900m. [Low, grey with narrow leaves; tiny violet-blue flowers]

### *Symphytum creticum*- **Procopiania**

(5, 6, ) On and below gorge cliffs:. [Like a small white comfrey, but with divided flowers, lobes recurved].

## Cactaceae

### *Opuntia ficus-barbarica*- **Barbary-fig**

\*(2-4, 7-10 ) Verges and olive groves. [Large cactus, made up of flattened jointed stems]

## Campanulaceae

### *Campanula erinus* - **Annual Bellflower**

\* (2, 6) Plakias,. Old walls and rocks. [Tiny herb with toothed leaves, and 3-5mm blue bells].



*Campanula tubulosa*- **(a bellflower)**

\* (6 ) Rock-crevices [Oblong-leaved and hairy, with pale blue bell-flowers. Endemic].

*Petromarula pinnata*- **Cretan Blue-lettuce**

(1, 2, 5, 6, 13) Despite its endemic status, common on wall) as well as gorges [Pinnate leaves (toothed leaflets) and spikes of pale blue flowers with recurved lobes].

*Solenopsis m. minuta* - **Laurentia**

(3 ) Moist stony slope at Triopetra. [Tiny blue plant resembling Lobelia].

## Capparidaceae

*Capparis spinosa*- **Caper**

\* (2,) Cliffs [Decumbent, purplish stems with round leaves and paired stems; probably both subspecies *rupestris* and *spinosa* present).

## Caprifoliaceae

*Lonicera etrusca*- **Etruscan Honeysuckle**

\*(8 ) [Typical honeysuckle, with leaves fused in pairs below flowers].

*Sambucus ebulus* -**Dwarf Elder**

\*(4)

*Sambucus nigra* - **Elder**

(1-8) [Typical shrub of the countryside]

## Caryophyllaceae

*Cerastium brachypetalum* - **Grey Mouse-ear**

(5, 8)

*Cerastium comatum*

(10, 12)

*Cerastium glomeratum*- **Sticky Mouse-ear**

(1, 5 ) Roadside gravel, also under pines,. [Erect sticky, regularly branched annual mouse-ear].

*Cerastium scaposum*- **(a mouse-ear)**

(11-13) Common in stony places, through and above forest [Compact mouse-ear with large white flowers on long stalks. Endemic].

*Petrorhagia velutina*- **(an annual pink)**

(1, 2, 6, 9, 10) Disturbed ground and rocks: [Slender pink, brown papery bracts].

*Polycarpon tetraphyllum* - **Four-leaved Allseed**

(2,) Bare ground and rocks:. [Short much-branched annual, leaves in “whorls” of 4, clusters of white flowers]

*Silene bellidifolia* **(a catchfly)**

(1, 2) [Erect annual, with one-sided spike of pink flowers with reflexed petals].

*Silene colorata* **(a catchfly)**

(1-3, 5, 6, 8-10, 12 ) Common on sand at coast also on roadside gravel in Kourtaliotis gorge. [Short annual with narrow leaves and showy rose-pink flowers, deep-notched petals].

*Silene cretica* - **Cretan Catchfly**

(2, 8-12) Widespread in rocky and disturbed places: [Slender sticky annual with rose-pink flowers].

*Silene gigantea* **(a catchfly)**

(2,6, 13) Rocks in gorges: Spili, Kotsifou, Kourtaliotis and Agia Irini. [Lower leaves in houseleek-like rosette, sticky stems and nodding yellowish-green flowers].

*Silene greuteri*

(6)

*Silene vulgaris* Subsp. *macrocarpa* - **Bladder Campion**

( 2, 9 ) Rough land: [Grey hairless perennial with white flowers and inflated calyces. ].

*Stellaria media* - **Common Chickweed**

(1, 2, 5, 10, 11 ) Disturbed ground, [The familiar weed].

## Chenopodiaceae

*Salsola kali* - **Saltwort**

(10 ) Upper beach: [Succulent, prickly annual].

*Tetragonia*

(1, 3)

## Cistaceae

### *Cistus creticus* - **Cretan Cistus**

(1-10, 12, 13 ) Common in phrygana and garigue:. [Short shrub with oval crinkly leaves and rose-pink flowers 4-6cm]

### *Cistus parviflorus* - **Small-flowered Cistus**

(1, 4, 7, 8, 10) Phrygana. [Similar to last, neater, pale pink flowers ca 2-3cm wide].

### *Cistus salvifolius* - **Sage-leaved Cistus-**

(4-10, 12 ) Roadsides [Sage-like leaves and white flowers 3-5cm wide].

### *Fumana arabica* - **Arabian Fumana**

( 2, 8, 10 ) Kourtaliotis gorge. Open phrygana [Like a narrow-leaved yellow rockrose, with 12-18mm flowers, all leaves alternate].

### *Fumana thymifolia*- **Thyme-leaved Fumana**

(2, 8, 9 ). [Similar, but most leaves opposite, and flowers only 9-14mm wide].

### *Helianthemum salicifolium* - **Willow-leaved rockrose**

(3 ?)

### *Tuberaria guttata* - **Spotted Rockrose**

( 1, 5, 9 ) Open phrygana under pines. [Similar to latter, but with basal rosette, and petals with purplish-brown blotch].

## Compositae (Asteraceae)

### *Anthemis arvensis* - **Corn Chamomile**

(5, 9, 10, 12 ). [Scented branched chamomile, with leaves woolly beneath].

### *Anthemis chia*- **Chian Chamomile**

( 1, 2, 8, 11-13) Locally abundant in rocky or fallow land:[Similar to latter, but generally unbranched and hairless].

### *Anthemis rigida*- **Rayless Chamomile**

( 1, 6, 8-11) Near sea, gorge; and by tracks from 1200-1850m above Anopoli and Omalos. [Short, often mat-forming annual, with yellow heads bearing no rays].

### *Asteriscus maritimus* – **Yellow Sea Aster**

(3) On Triopetra beach [dwarf non-spiny pallenis]

### *Asteriscus spinosus*- **Pallenis**

(-3, 6-10, 13) Kourtaliotis gorge, Near coast in sandy and rocky sites. [Like a yellow-flowered marigold or fleabane with spine-tipped bracts around the heads].

### *Atractylis cancellata*- **(no common name)**

( 6). [Tiny thistle with heads surrounded in a “bird-cage” of bracts].

### *Atractylis gummifera* - **Atractylis**

(12) [Very prickly thistle-like plants, still bearing last year’s 3-7cm stalkless heads].

### *Bellis annua* - **Annual Daisy**

(1, 5, 9-11, 13 ) Bare (seasonally damp) clay [Very like common daisy, but tiny, annual and with heads only 5-15mm across].

### *Bellis longifolia* (**a daisy**)

(4, 10, 13) Crevices in limestone rocks. [Like next, but with long toothed leaves. Endemic].

### *Bellis perennis* - **Daisy**

(1, 2, 4, 8, 10, 11, 13 ) Moist grassland: [The familiar lawn daisy].

### *Calendula arvensis* - **Field Marigold**

(1, 3, 5, 9-12 ) Stony land: [Like small-flowered orange Pot Marigold].

### \**Carduus argentatus* (**a thistle**)

(seen) Rocky ground, often below cliffs: [Prickly thistle with silver undersides to leaves, and long-stalked heads very variable in size].

### \**Carduus pycnocephalus*- **Plymouth Thistle**

(3, 5, 12) Waste land:[Typical tall slender leafy thistle with many small rose-purple heads]

### \**Carlina corymbosa* *Subsp. graeca* - **Flat-topped Carlina Thistle a**

(1-5, 7) Phrygana [Like Atractylis, but branched leafy stems and remains of last y ear’s head].

### *Centaurea calcitrapa* - **Red Star-thistle**

(seen ) Roadsides. [Softly-leafy below (pinnately cut) but with heads of straw-coloured spines].

### *Centaurea idaea* - **Cretan Star-thistle**

( 1, 4, 8, 10, 12, 13 ) Frequent on stony ground:. [Grey leaved star-thistle, young heads with straw-coloured spines. Endemic].

*Centaurea raphanina*- **Stemless Knapweed**

(2, 4, 6, 8, 12, 13) Common on cliffs and rocky phrygana from sea-level to above tree line [Distinctive rosette of pinnate leaves, with pinkish thistle-like stemless heads. Subsp. raphanina is endemic].

*Centaurea spinosa* - Spiny cornflower (7, 10) [Like spiny chicory but covered in silky white hairs]

*Chrysanthemum (Glebionis) coronarium*- **Crown daisy**

(1-10, 12) Common by roads: [Tall 2-pinnately leaved herb with yellow heads 3-6cm wide]

*Chrysanthemum (Glebionis) coronarium bicolor*

(1-10, 12) Common by roads: [Tall 2-pinnately leaved herb with yellow and white heads 3-6cm wide]

*Chrysanthemum (Glebionis) segetum*- **Corn Marigold**

(1, 4-10, 13) Rocky and fallow [Greyish annual with toothed (or lobed) leaves and large yellow daisy-like heads].

*Cichorium intybus* – **Chicory**

(4) Roadside – Tall stems with blue flowers, well spaced.

*Cichorium spinosum*- **Spiny Chicory**

\*(4, 8-11, 13) Rocky ground also on upper beach. [Spiny, much branched and woody, blue heads like dandelions].

*Cnicus benedictus*

(seen)

*Cynara cornigera*- **(a cardoon)**

\*(1-3, 5, 8, 11, 13) Rocky places. [Like a short very prickly globe artichoke].

*Cynara scolymus* - **Globe Artichoke**

(2, 5, 7, 9,) Roadsides - almost certainly cultivated [Big non-prickly pinnately-cut leaves].

*Echinops spinosissimus* - **(a globe thistle)**

(7) [Pinnately-cut prickly leaves and erect stems bearing dense bluish globular heads].

*Evax (Filago) pygmaea* subsp. *pygmaea*

(1-3, 8, 9, 13)

*Galactites tomentosa* - **Galactites**

(1, 2, 4-9, 12, 13) Common on roadsides [Thistle-like annual with white veined leaves, and purple-lilac rayed heads]

\**Hedypnois cretica* - **Hedypnois**

(1) Rocky slopes and coastal sand). [Dandelion-like plant with stalks thickened below heads, bracts incurved in fruit]

*Helichrysum barrelieri* - **(an everlasting)**

(1-4, 6-9) Phrygana; quarry; stabilised sand and rocks. [Tufted, woody-based; whitish stems, linear leaves, clustered small golden-yellow globular heads].

*Helichrysum microphylla*

(seen)

\**Hypochoeris radicata*- **Common Cat's-ear**

(3) Fallow. [Leaves all basal and rough hairy, stem branched bearing dandelion-like heads].

\**Notobasis syriaca* - **Syrian Thistle**

(4, 10)

*Phagnalon graecum* - **(a phagnalon)**

(8) Rocky phrygana: [Dwarf shrub, with narrow leaves white-felted beneath, and with long-stalked yellowish button-like heads]

\**Picnomon acarna* - **Picnomon**

(2) Phrygana and verges; [Grey thistle-like plant with golden spines].

*Ptilostemon chamaepeuce*- **Shrubby Ptilostemon**

\*(1, 2, 6, 13) Frequent on cliffs in gorges around Spili on rocky banks and by fountain, and at coast. [Small, rather pine-like, shrub with white undersides to leaves].

*Rhagadiolus stellatus*-**Star Hawkbit**

(5, 6, 8, 13) Shady and disturbed sites:[Like low weedy Nipplewort, distinctive star-like fruiting heads]

*Scorzonera cretica* - **Cretan Vipers-grass**

(2, 3, 5, 8) Cliffs: coastal. [Many linear cottony leaves, and dandelion-like heads].

*Senecio rupestris*

(6) [deep golden daisies]

*Senecio squalidus* - **Oxford Ragwort**

(6) Debris below cliff, Kotsifou. [Familiar weed]

*Senecio vulgaris*- **Common Groundsel**

(1, 2, 8, 9, 13) Bare soil:. [Familiar weed]

*Silybum marianum*

\*(1-13) [large thistle-like leaves heavily blotched white]

*Sonchus asper* - **Spiny Sow-thistle**

(7, 9, 10) Waste [Thistle-like plant with milky sap, and many small dandelion-like heads].

*Sonchus oleraceus*- **Smooth Sow-thistle**

(1-10) Waste ground. [Similar to latter, but almost without prickles]

*Stachelina fruticosa*- **(a Stachelina)**

\*(2, 5, 10) Frequent on cliffs. [Small tufted shrub, lanceolate green leaves, remains of last year's thistle-like flowers]

*Stachelina petiolata* - **(a Stachelina)**

\*(2, 6, 10) Limestone cliffs in [1m shrub, with oval leaves, white beneath. Endemic]

*Tanacetum parthenium*- **Feverfew**

(1-10) Trackside in groves, spili roadside. [Strongly-scented leafy herb, pinnately divided]

*Taraxacum bithynicum s.l* - **(a dandelion)**

(4, 9, 11, 13). Bare soil at high altitudes [A typical, if rather neat, dandelion].

*Tragopogon hybridus*

(6, 7)

*Tragopogon sinuatus*- **(a salsify)**

(2, 4, 6, 7, 10, 12 ) Rocky or sandy sites: [Like leek with lilac dandelion-like heads, forming large "clock"].

*Voluntaria lipsii*

(7)

## Convolvulaceae

*Convolvulus althaeoides*- **Mallow-leaved Bindweed**

(2, 4, 7, 9, 12) Rough grass [Clamberer with cordate or lobed leaves and decorative deep pink funnel-like flowers - see also below].

*Convolvulus dorychnium* – **(a shrubby bindweed)**

(3) by roadside to Triopetra [large leaved and more open habit than *C. oleifolius*]

*Convolvulus elegantissimus* - **Bindweed**

(6, 9) Gorge edge. [Form of *C. althaeoides*, differing in its finely-divided silvery leaves]

*Convolvulus oleifolius*- **Olive-leaved Bindweed**

(3, 6) Rocky slopes by roads [Low erect woody, with narrow silvery leaves and pink flowers].

*Cuscuta epithymum*- **Common Dodder**

(1-3, 6, 8, 9) Phrygana/verges: [Parasite with reddish thread-like stems, globular clusters of 5-lobed flowers]

## Crassulaceae

*Crassula alata*- **(a mossy stonecrop)**

\*(4) Compacted soil: pine groves fallow and near cave. [Tiny erect reddish herb with linear leaves, dense clusters of flowers]

*Rosularia serrata* - **(no common name)**

\*(3-5, 13) Ideal cave on Psilloritis, Cliffs and ledges: [Rosettes like neat grey houseleek].

*Sedum amplexicaule subsp. tenuifolium* - **(a stonecrop)**

(Seen) [Decumbent narrow-leaved succulent, leaves clasp stem.].

*Umbilicus horizontalis* - **(a wall pennywort)**

(2, 10) Walls and rocks: [Typical small navelwort, with reddish-green flowers].

*Umbilicus parviflorus* - **Small-flowered Navelwort**

(4, 5, 8-11, 13) Walls by track also on rocks. [Typical navelwort with large yellow flowers].

## Cruciferae (Brassicaceae)

*Aethionema saxatile subsp. Creticum* - **Burnt Candytuft**

(1, 8, 11, 13) [Short herb, crowded oval grey untoothed leaves, dense head of pink & white flowers.].

*Alyssum foliosum*- ? **(an alison)**

(11) Gravel at 1900m in Kakovoli pass. [Dwarf herb with narrow crowded ciliate leaves and dense heads of tiny yellow flowers]

*Alyssum fragillimum* - ? **(an alison)**

(11) By path above Xiloskalon at 1600m. [Similar but broader, less crowded leaves. Endemic].

*Alyssum sphacioticum*

(2, 13)

*Arabis (alpina) caucasica* - **Alpine Rockcress**

(4) Cliffs and rocks above 1800m [Low perennial cress with coarse toothed leaves and large (>1cm) white flowers].

*Arabis verna* - **Spring Rockcress**

(5, 13 ) Open rocky areas [Low cress, oval toothed leaves and yellow-eyed purple flowers].

*Aubrieta deltoidea* - **Aubrietia**

(11, 13 ) Rocky places [Low straggling grey cress with big purple flowers and long-beaked fruit].

*Biscutella didyma*- **Buckler Mustard**

(1-6, 10-13 ) Gravel verges and stony land: [Hairy annual with yellow flowers and distinctive pods comprising two joined disks].

*Brassica c. cretica* - **Cretan Cabbage**

(1, 2, 6 ) Gorge cliffs:. [Tall cabbage with pale yellow flowers]

*Brassica nigra*- **Black Mustard**

(Seen) Road verges. [Tall yellow mustard with thin pods appressed to stem].

*Cakile maritima* - **Sea Rocket**

(2, 3, 10 ) Sandy beaches: [Decumbent succulent annual, with pinkish flowers and lanceolate pods]

*Capsella bursa-pastoris* - **Shepherd's-purses**

(1, 2, 4, 8-13 ) Disturbed areas, fine scree to 1700m on Kakovoli. [Familiar white cress with triangular fruit].

*Cardamine graeca*- **(a bittercress)**

(seen) Shady rocks [Wide-branched bittercress with 3-lobed leaflets, white flowers and large flattened pods].

*Cardaria draba*- **Hoary Pepperwort**

(7 ) Verges. [Patch-forming grey perennial, wide “frothy” white heads of flowers].

*Erophila verna s.l* - **Early Whitlow-grass**

(4, 8) . Bare stony ground:. [Tiny white cress, all leaves basal and pods ca 6mm. All plants seen are probably *E. verna* in the strict sense]

*Eruca sativa* - **Eruca**

(1, 2, 5, 7-9, 11) Fallow land on Gios Kambos. [Weedy annual with large white flowers veined in purple]

*Erucaria hispanica*- **Spanish Mustard**

(7) Waste ground: [Pinnately cut leaves with narrow segments, long-clawed mauve flowers].

*Erysimum mutabile* - **(a wallflower)**

(13 ) Rocks. [Rather slender erect perennial with yellow flower spikes. Endemic].

*Erysimum raulinii*- **(a wallflower)**

(1, 8, 9) Craggs. [Similar but more densely tufted. Endemic].

*Malcolmia chia* - **Chian Stock**

(6) Rocky slope [Pink-flowered cress with long narrow pods]

*Matthiola sinuata (incana)* - **Sea Stock**

(2 ) Cliff by chapel, Kourtaliotis. [Large hairy stock with coarse toothed leaves and pinkish flowers].

*Raphanus raphanistrum* - **Wild Radish**

(1) Field-weed [Similar to *Eruca*, but with jointed fruit]

*Ricotia cretica* - **Ricotia**

(2, 6, 11-13) Scree/rubble in gorges:. [Low pink cress, distinctive pods like “purple mange-tout”. Endemic].

*Rorippa nasturtium-aquaticum* -**Water-cress**

(1, 5, 6, 8 ) Stream/ditches: [Familiar aquatic with pinnate leaves and white flowers].

*Sinapis alba* - **White Mustard**

(1 ) Waste ground: [Coarse yellow mustard, pods with beak].

*Sisymbrium officinale* - **Hedge Mustard**

(1-3, 7-12 ) Pathsides [Erect yellow cress with pinnately-lobed leaves and pods appressed to stem]

## Cucurbitaceae

*Bryonia c. cretica* -**White Bryony**

(2, 4-5, 11, 13) Scrub/rubble in gorges. [Climber with mottled maple-like leaves opposite tendrils, greenish-white flowers]

*Ecballium elaterium* - **Squirting Cucumber**

(12) Waste ground. [Coarse bristly scrambler with heart-shaped leaves, yellow flowers and 4-5cm long fruit].

## Dipsacaceae

*Knautia integrifolia* - **(a scabious)**

(2, 8, 9, 12 ) Rocky phrygana:. [Tall typical scabious, variable leaves; subsp. mimica].

## Ericaceae

### *Arbutus unedo* - **Strawberry-tree**

(5, 6, 13) Maquis and common in pine woods [Evergreen tree with lanceolate leaves and warty berries]

### *Erica arborea*- **Tree Heath**

(5, 6, 8, 13) [1-4m tall, but otherwise a typical white-flowered heather]

### *Erica manipuliflora*- **(a heath)**

(1-3, 6, 8-10, 13) [Shorter species, in fruit, with longer leaves].

## Euphorbiaceae

### *Euphorbia acanthothamnus*- **Greek Spiny-spurge**

(1-13) Phrygana, often coastal. [Intricately branched domed, spiny shrubby spurge].

### *Euphorbia characias* - **Large Mediterranean Spurge**

(1, 2 4-13) Scrub and rocky slopes:). [Tall tufted hairy perennial]

### *Euphorbia dendroides* - **Tree Spurge**

(2, 6, 10) Rocky slopes. [Thick-stemmed hairless shrub]

### *Euphorbia helioscopia*- **Sun Spurge**

(1, 2, 5-13) Disturbed ground: [Familiar weedy spurge, toothed leaves]

### *Euphorbia paralias*- **Sea Spurge**

(2, 10) Low dunes, [Fleshy greyish perennial, many oblong leaves]

### *Euphorbia peplus*- **Petty Spurge**

(1, 2, 5, 10, 12, 13) Damp soil: [Similar to Sun Spurge, but untoothed, smaller]

### *Annual Mercury* - **Mercurialis annua**

(1-10) Olive groves and walls: [Like neat nettle, with erect green spikes]

### *Ricinus communis* - **Castor Oil Plant** \*

(4, 7) Waste ground. [Coarse purplish shrub, with palmate leaves].

## Fagaceae

### *Quercus coccifera*- **Kermes Oak**

(3-6, 8-13) Scrub and garigue,[Shrub or tree with evergreen, holly-like leaves].

### *Quercus ilex*- **Holm Oak**

(3-5, 8, 12) Upper Kotsifou gorge, among pines, Arkadi and Aradena gorge. [Evergreen tree with lanceolate leaves paler (downy) beneath]

### *Quercus ithaburensis* subsp. *Macrolepis* .**Valonia Oak**

(5, 9, 11) Scattered trees: [Tree with large leaves, lobed with pointed teeth; huge acorn-cup;

### *Quercus pubescens*- **Downy Oak**

(2, 4-6, 8-10) Woodland and scrub [Small tree/shrub, typical oak-leaves, downy].

## Gentianaceae

### *Blackstonia perfoliata* subsp. *intermedia* - **Yellow-wort** \*

(5) Damper or compacted soil in phrygana or under trees; [Greyish erect annual with leaves joined in pairs around stem;].

### *Centaurium pulchellum* - **Lesser Centaury**

(3, 7, 8) Compacted soil in phrygana [Tiny annual with opposite leaves and rose-pink flowers].

## Geraniaceae

### *Erodium cicutarium* - **Common Stork's-bill**

(2, 4, 6, 9-13) Pathsides and disturbed ground: [Typical stork's-bill with fern-like leaves, pink flowers and beaked fruit].

### *Erodium gruinum* - **Long-beaked Stork's-bill**

(1-4, 6, 8, 11) Pathsides: [Large annual with lobed leaves, violet flowers 4cm wide, and very long (6-11cm) fruit]

### *Erodium malacoides*- **Soft Stork's-bill**

(2, 3, 5, 7-9) Olive groves. [Like E. cicutarium, but with oblong, slightly-lobed leaves].

### *Geranium dissectum* - **Cut-leaved Crane's-bill**

(1-3, 5, 6, 8, 9, 12, 13) Damp soil. [Similar to latter, but with smaller flowers, notched petals]

### *Geranium lucidum* - **Shining Crane's-bill**

(5, 6, 8, 9, 11) Walls and shady rocks: [Shiny bluntly-lobed palmate leaves, and pink flowers].

### *Geranium molle* - **Dove's-foot Crane's-bill**

(6, 8-13) Disturbed ground. [Like G. dissectum, but wedge-lobed and with more purplish-pink flowers].

*Geranium purpureum* - **Little Robin**

(1-3, 5, 6, 8-13) Shaded rocks:. [Aromatic herb with fern-like leaves and unnotched pink petals].

*Geranium rotundifolium* - **Round-leaved Crane's-bill**

(5, 8) Groves and waste ground,[Like *G. molle*, but shallowly-lobed, unnotched petals]

## Guttiferae (Hypericaceae)

*Hypericum empetrifolium* - **Shrubby St. John's-wort**

(1, 5, 8, 9, 13) Garigue and phrygana: [Dwarf heather-like shrub with many yellow flowers. Mostly Subsp. *oligatum*, though the Lefka Ori plants are probably subsp. *tortuosum*. Both endemic].

*Hypericum triquetrifolium* - **Crisped St. John's-wort**

(5, 7) Rough ground:. [Much branched, forming a leafy pyramid; leaves with wavy edges].

## Juglandaceae

*Juglans regia*- **Walnut**

(1, 2 4--13) Planted. [Trees with fragrant pinnate leaves and coarse catkins].

## Labiatae (Lamiaceae)

*Ballota acetabulosa* - **Garden Horehound**

(11) Rough banks. [Grey-downy perennial, oval leaves and purple/white flowers].

*Ballota nigra* Subsp. *uncinata* - **Black Horehound**

(10, 12) Pathsides. [Strongly scented, with coarsely toothed leaves, small purple flowers. ].

*Ballota pseudodictamnus* - **False Dittany**

\*(10, 12, 13) Often abundant on coastal verges. [Woody-based perennial, woolly-felted, oval, almost untoothed leaves]

*Coridothymus capitatus*

(3, 7)

*Lamium amplexicaule* - **Henbit**

(, 2, 4, 6, 8, 10-13) Disturbed ground:., [Annual pink dead-nettle, long flowers].

*Lamium bifidum albomontanum*

(5) [ Variegated foliage, white flowers with pronounced double lower lip]

*Lavandula stoechas* - **French Lavender**

(12) Rocky verges: [Linear-leaved shrub, flower spikes with purple tassel]

*Marrubium vulgare* - **White Horehound**

(12) Rough verges:. [Like *Ballota*, but white-downy, small white flowers].

*Mentha longifolia* - **Horse Mint**

\*(5, 7, 8) Ditch edges. [Very like a more hairy garden spearmint].

*Mentha pulegium* - **Pennyroyal**

\*(7) Damp turf and fallow:[Patch-forming strong-smelling mint].

*Nepeta scordotis* - **?(a catmint)**

\*(numerous sightings) Rocky terraces. [Blue branched spikes and heart-shaped leaves].

*Origanum dictamnus* - **Dittany (diktamus)**

\*(2, 5) Limestone cliffs, mainly in gorges: [White-woolly round-leaved, with overlapping bracts. Endemic]

*Origanum microphyllum* - **(a dwarf dittany)**

\*(13) [Like a dwarf patch forming form of true dittany. Endemic].

*Origanum vulgare subsp. hirtum* - **Marjoram**

\*(1, 8, 9) Rocky ground: [Typical marjoram, white flowers;].

*Phlomis cretica* - **(a Jerusalem Sage)**

(1, 7,) [Much shorter and more orange flowers].

*Phlomis fruticosa* - **Jerusalem Sage**

(1-10, 12) One of typical dominants of rocky slopes: [Grey-felted shrub, with leaves like a sage, and dense heads of 23-35mm long flowers].

*Prasium majus* - **Shrubby Woundwort**

(1-11) Banks in groves etc and on rocks: [Evergreen shrub, with white flowers and aroma similar to a *Stachys*].

*Rosmarinus officinalis* - **Rosemary**

(10-12) [Familiar shrub].

*Salvia fruticosa* - **Three-leaved Sage**

(1-10, 12, 13) Garigue,s (bearing abundant galls). [Typical lilac-flowered shrubby sage with 3-lobed leaves]

*Salvia pomifera* - **(a sage)**

(11-13) Lower cliffs [Sage-scented shrub, with long, narrow wavy-edged leaves].

*Salvia verbenaca multifida* - **Wild Clary**

(2, 5, 8, 11, 12) Disturbed ground. [Herb with wrinkled leaves, and spike of dense purple whorls].

*Salvia viridis* - **Red-topped Sage**

(3, 6) Stony land and rocks: [Short neat annual, with bright green bracts].

*Satureja nervosa* - (**a Micromeria**)

(2, 7, 10) Phrygana etc.: [Slender shrub, with small-leaves and whorls of purple flowers above].

*Satureja thymbra* - **Satureja**

(2) Scrub and phrygana: [Like a large-leaved, very aromatic, pink thyme].

*Scutellaria sieberi* - (**a skullcap**)

(1, 2) Crevices in gorges [Neat scentless herb, with triangular-ovate leaves, and crowded curved spikes. Endemic].

*Stachys arvensis* - **Field Woundwort**

(5) Stony fallow fields below Viglotopi. [Annual with heart shaped leaves and white/pink flowers]

*Stachys cretica* - **Mediterranean Woundwort**

(1- 7, 10) Rocky slopes, often by roads: [Like a slender white-felted pink "Lamb's-ears"]

*Stachys spinosa* - **Spiny Woundwort**

(3?,) Triopetra promontory. [Low tussock shrub with narrow silky leaves and spines].

## Lauraceae

*Laurus nobilis*- **Laurel**

\* (6) With *Quercus ilex* in upper Kotsifou gorge. [Evergreen tree with scented leaves].

## Leguminosae (Fabaceae)

*Acacia sp.* - (**an acacia**)

(Seen often) Planted by roads. [Shrubs with grey willow-like "leaves" and yellow mimosa blooms].

*Anagyris foetida*- **Bean Trefoil**

(5, 7, 10, 11) Tracksides. [Trefoil shrub 1-4m tall and foetid].

*Anthyllis vulneraria subsp. rubriflora* - **Kidney Vetch**

(1-3, 5, 7-9, 13) Rocky phrygana: [Typical kidney vetch, but here red-flowered].

*Astragalus angustifolius*- (**spiny milk-vetch**)

(Seen) Open rocky slopes. ["Vegetable hedgehog", pinnate leaves with 6-10 pairs of leaflet].

*Bituminaria bituminosa* - **Pitch Trefoil**

(1-10, 12-13) Olive groves and verges: [Dull green, often tall trefoil, flower-heads violet-blue, and smelling of bitumen].

*Calicotome villosa* - **Spiny Broom**

(1-10, 12-13) Often abundant in garigue. [Like an elegant gorse, scenting the air with honey].

*Ceratonia siliqua* - **Carob**

(2-8, 10, 12) Olive groves and scrub: [Evergreen tree with coarse pinnate leaves and big hanging pods].

*Cercis siliquastrum* - **Judas-tree**

(2, 4, 5, 7, 9, -10, 12) Planted: [Small tree, heart-shaped leaves, and pink flowers on stems].

*Coronilla velutina*

(9, 13) (yellow heads, leaflets retuse ends)

*Ebenus cretica* - **Shrubby Sainfoin**

(2, 6, 7, ) Cliffs and steep banks. [Shrub, palmate leaves and silky heads of pink flowers. Endemic].

*Genista acanthocloida*- (**a greenweed**)

(1-10, 12, 13) Phrygana: [Similar to Cretan Dwarf-broom, but with tiny leaflets, and coming into flower].

*Hedysarum spinosissimum* - **Spiny Sainfoin**

(4, 5) Open ground; [Low hairy annual, pinnate leaves, pinkish flowers and jointed spiny fruits].

*Hymenocarpus circinnatus* - **Disk Trefoil**

(1-3, 5, 8, 9) Similar habitats to last: [Pinnate-leaved; big terminal leaflet, flowers orange-yellow; fruit a toothed disc 1-1.5cm across]

*Lathyrus annus* - **Yellow Pea**

(2, 8, 9, 11) Margins and fallow. [Pale yellow vetch with tendrils].

*Lathyrus cicicera* *Trigonella balansae* - (**a fenugreek**)

(13) (pale creamheads - delicate purple veining and basal hue)

*Lathyrus laxifolius*

(7)

*Lathyrus clymenum* (**a vetchling**)

(5, 7) narrow-winged with orange-red flowers

*Lathyrus setifolius* - (**a vetchling**)

(1, 2, 6, 8, 9) Tracksides: [Similar but narrow-winged with orange-red flowers].



*Lupinus albus*

(6)

*Lupinus pilosus* - **Hairy Blue Lupin**

(5-8, 10) Striking patches by roads, fallow. [Bright blue hairy lupin].

*Medicago arabica* - **Spotted Medick**

(5-9) Olive groves and fallow:. [Bur-fruited yellow trefoil, dark blotches on leaflet].

*Medicago arborea* - **Tree Medick**

(7) Naturalised by roads:. [Silvery leaved scrub, golden-yellow heads].

*Medicago intertexta* - **Medick**

(7)

*Medicago marina* - **Sea Medick**

(2, 3, 8, 10) Sandy beaches, low dunes: [White-downy creeping perennial trefoil with yellow heads].

*Medicago murex*- **(a bur medick)**

(10) Coastal rocks:. [Typical yellow medick with dense cylindrical bur fruit].

*Medicago orbicularis* - **Large Disk Medick**

(6) Waysides: [Typical yellow medick with large smooth spiral disc fruit].

*Onobrychis aequidentata*- **(a sainfoin)**

(2, 5, 7-9) Phrygana and tracksides: gorge,, quarry [Pinnate-leaved, few pink flowers and fruit with cockscomb crest]

*Onobrychis caput-gallii*- **Cockscomb Sainfoin.**

(7) [Similar, flowers smaller and bur fruit].

*Ononis viscosa subsp. breviflora* - **Annual Yellow Restharrow**

(7, 8) Tracksides, Faestos. [Sticky annual, trefoil leaves small pure yellow flowers;].

*Robinia pseudoacacia* - **False Acacia**

(Arrival, 10, 12, 14) Planted/naturalised by coast road etc. [Spiny tree with pinnate leaves, pendent white racemes]

*Scorpiurus muricatus*- **Scorpiurus**

(9) Rocky banks:. [Long elliptical undivided leaves, yellow flowers and pods like coiled caterpillars].

*Spartium junceum* - **Spanish Broom**

(1-5, 7-10, 12) Roadsides: [Shrub with many rush-like branches and large yellow flowers].

*Tetragonolobus purpureus* - **Dragon's Blood**

(1-3, 5-10) Groves and disturbed ground:[Hairy trefoil herb, crimson flowers, big winged pods].

*Trifolium angustifolium* - **Narrow-leaved Crimson Clover**

( 6.) [Clover with very narrow leaflets and long pink heads with star-like calyx teeth].

*Trifolium boissieri* - **Brown Trefoil**

(3, 7, 10) Rocky slope. [Low annual yellow clover, turning brown with age].

*Trifolium campestre* - **Hop Trefoil**

(2, 3, 5-9) Rocky places: [As latter, but not going brown].

*Trifolium fragiferum* - **Strawberry Clover**

(6) Moister turf of paths:. [Creeping clover with pink flowers, and inflated fruit heads, resembling raspberries! ].

*Trifolium repens* - **White Clover**

(3, 5, 8-10, 13) Phrygana and damp turf:. [Familiar clover: creeping, rooting at nodes]

*Trifolium resupinatum* - **Reversed Clover**

(2, 7) Sandy ground: [Pink annual clover, flowers are “upside down”].

*Trifolium stellatum* - **Star Clover**

(1-3, 5-7, 9, 13) Stony areas: [Hairy annual clover with round leaflets, globose pink heads, calyx teeth spreading star-like, reddish].

*Trifolium tomentosum*- **Woolly Trefoil**

(7-9) Stony turf:. [Like T. resupinatum, but flowers “right way up”, fruit heads like balls of cotton].

*Trifolium uniflorum*- **(no common name)**

(1-5, 9, 12, 13) Locally common on rocky turf and phrygana: to 1600m. [Mat or cushion-forming perennial, with stalkless white flowers in ones (-3) not heads].

*Tripodion tetraphyllum* - **Bladder Vetch**

(2, 3) Disturbed and open ground:. [Prostrate kidney-vetch with inflated fruiting calyces].

*Trigonella balansae* - **(a fenugreek)**

(7) Banks [Like a short leafy melilot, with sickle fruit].

*Vicia cretica* - **Cretan Vetch**

(Seen) Low thorny phrygana: plain and to 1600m. [Like slender pale Tufted Vetch, growing up through Sarcopoterium].

*Vicia hybrida* - **Hairy Yellow-vetch**

(1, 2, 8, 9) Banks in groves and by roads: (especially by spring) and below Viglotopi. [Large yellow-flowered vetch, hairy standard]

*Vicia laxiflora*

(9)

*Vicia lutea* - **Yellow Vetch**

(8, 9) Waste areas:. [Like smaller *V. hybrida*, but standard hairless and flowers cream].

*Vicia peregrina*

(9)

*Vicia sativa* - **Common Vetch**

(2, 4, 6-9, 12, 13) Tracksides and fallow: [Familiar pink leafy vetch].

*Vicia villosa* - **Fodder Vetch**

(8, 9, 12) Olive groves:. [Like a bright red-purple Tufted Vetch; subsp. *varia*].

## Linaceae

*Linum arboreum*- **Shrubby Flax**

(1, 2, 5, 6, 10, 13) Limestone gorge cliffs:. [Small shrub, spatulate leaves, yellow flowers]

*Linum bienne*- **Pale Flax**

(2-11, 13) Roadsides, rough grass: (prostrate). [Slender pale blue flax]

*Linum strictum* - **Upright Yellow Flax**

(4, 9) Dry phrygana. [Yellow-flowered flax with crowded leaves and spicate inflorescence].

*Linum trigynum* - **(a flax)**

(7, 8) Open ground in coastal phrygana: [Small yellow-flowered flax, alternate leaves].

## Lythraceae

*Lythrum junceum* - **(a loosestrife)**

(, 5, 7, 9 n ) Seasonally wet places, ditches:. [Larger often ascending perennial, petals 5-6mm].

## Malvaceae

*Hibiscus rosa-sinensis* - **Hibiscus**

(7) Planted along roadsides near Rethymno. [Shrub with irregularly palmately toothed leaves]

*Lavatera cretica* - **Small Tree-mallow**

(1-12) Disturbed. [Like Common Mallow, but broad epicalyx lobes].

*Malva cretica* - **Cretan Mallow**

(6, 9) Rocks near sea also in gorges (lower Kotsifou, Kourtalotis and Aradena gorge. [Like a dwarf, delicate Musk Mallow – pale pink flowers]

*Malva sylvestris* - **Common Mallow**

(1, 2, 5, 7, 8, 10) Roadsides. [Familiar pink-purple biennial/perennial].

## Moraceae

*Ficus carica* - **Fig.**

\*(1-13) [Familiar shrub/tree with large palmately-lobed leaves]

*Morus alba* - **White Mulberry**

\*(4-7, 9-12) Planted. [Tree with oval and cordate leaves, dense flower spikes].

## Myrtaceae

*Eucalyptus sp.* - **(a gum)**

\*(seen) Planted by roads,. [Large trees with flaking bark, grey leaves]

*Myrtus communis*- **Common Myrtle**

\*(10) Streamside thicket; by roads. [Opposite-leaved evergreen aromatic shrub].

## Nyctaginaceae

*Bougainvillea glabra*- **Bougainvillea.**

(12) [Familiar ornamental climber with bright purple bracts].

## Oleaceae

*Olea europaea* - **Olive**

(1-13) Abundantly cultivated,. [Evergreen tree with greyish narrow leaves].

*Phillyrea latifolia*- **(no common name)**

\* (5, 7) Rocky gorge scrub. [Resembles a scentless myrtle].

## Onagraceae

*Epilobium hirsutum* - **Great Hairy Willow-herb**

\* (4) Wet tracksides in lower groves. [Familiar tall hairy herb].

## Orobanchaceae

*Orobanche alba* - **Thyme Broomrape**

(10) On Ballota in Aradena gorge. [Short reddish-purple broomrape with fragrant flowers].

*Orobanche lavandulacea* - **Lavender Broomrape**

(5, 7) [purple broomrape - clove scented]

*Orobanche ramosa* - **Branched Broomrape**

(2-10) Olive groves (often on *Oxalis pes-caprae*):[Small prolific broomrape, with pale purple flowers contrasting with light brown stems].

## Oxalidaceae

*Oxalis pes-caprae* - **Bermuda Buttercup**

(1-10) Often abundant in olive groves and by roads everywhere, rarely phrygana [Trefoil leaves, and umbels of yellow flowers].

## Paeoniaceae

*Paeonia clusii* - **Clusius's Peony**

(11-13) Cypress woodland above Anopoli at 1400m and shaded rocky slopes in Imbros gorge. [White flowers 7-12cm across and narrowly-divided leaves. Subsp. *clusii* is endemic].

## Papaveraceae

*Corydalis uniflora* - **Cretan Corydalis**

(4, 11, 14) Sparse on bare clay among stones: 1600-1900m. [Short herb with greyish lobed leaves, whitish flowers tipped in maroon. Endemic].

*Fumaria capreolata* - **Ramping Fumitory**

(8) Clambering on coarse vegetation by streams etc.: [Large fumitory, greyish divided leaves, pale flowers tipped reddish-black]

*Fumaria officinalis* - **Common Fumitory**

(8) Fallow. [Typical non-climbing fumitory]

*Glaucium flavum* - **Yellow Horned-poppy**

(2, 6-8, 10, 11) Coastal rocks and sand [Big grey-leaved poppy with yellow flowers and long pods].

*Papaver argemone* Subsp. *nigrotinctum* - **Pale Poppy** -

(2, 6, 8) Gravelly track edge:. [Delicate orange poppy with long pod bearing appressed bristles. ].

*Papaver purpureomarginatum*- **(a long-headed poppy)**

(2, 3, 6, 10) Waste ground. [Typical long-fruited poppy whose pods have no bristles. Allied to *P. dubium*].

*Papaver rhoeas* - **Corn Poppy**

(2-5, 7-12) Rocky and disturbed ground:. [Typical red poppy, sometimes with black blotches, globular pods].

## Plantaginaceae

*Plantago afra* - **(a plantain)**

(2, 3, 6-9, 11) Pathsides: to 1500m; coastal rock and sand. [Typical plantain flowers, but branched leafy stem]

*Plantago bellardii* - **(a plantain)**

(5, 7, 9) Open ground:. [Annual plantain, with several short stems].

*Plantago lagopus* - **Hare's-foot Plantain**

(2, 3, 5-8) Rocky ground. [Like hairy more toothed Ribwort, soft silky heads].

*Plantago lanceolata* - **Ribwort Plantain**

(3, 5-9, 11, 13) Olive groves and grasslands:. [Familiar plantain]

*Plantago major*- **Rat's-tail Plantain**

\*(seen) Paths. [Cosmopolitan broad-leaved weed]

*Plantago weldenii*- (**a plantain**)

(2, 3, 6, 9) Pathside coastal rocks) and sands). [From other plantains by its pinnately-lobed leaves].

## Platanaceae

*Platanus orientalis*- **Plane Tree**

(1, 2, 4, 6-10, 12, 13-13) Lining streams/rivers, forming groves: [Tree with alternate palmate leaves, scaling bark].

## Plumbaginaceae

*Acantholimon ulicinum*- (**no common name**)

\*(11) "Vegetable hedgehog" zone on rock slopes 1600-1900m on Kakovoli. [Differs from other components of zone in its linear spiny leaves]

## Polygalaceae

*Polygala venulosa*- **Eastern Milkwort**

(1-3, 5, 6, 8-11, 13) Phrygana:. [Typical milkwort, with pale mauve veined flowers, rather pea-like].

## Polygonaceae

*Polygonum idaeum*

(4)

*Rumex bucephalophorus* subsp. *gallicus*. - **Bull's-head Dock**

(1-3, 5, 6, 8, 9, 11) Rocky. [Small annual, distinctive recurved fruit;]

## Primulaceae

*Anagallis arvensis* subspecies *arvensis* - **Scarlet Pimpernel**

(1-3, 5, 6, 8-10, 12) Phrygana and fallow land:. [Familiar weed].

*Anagallis arvensis* subspecies *coerulea*- **Blue Pimpernel**

(1-3, 5-7, 9, 10) Similar habitat [As latter but bright blue].

*Cyclamen creticum* - **Cretan Cyclamen**

(5, 6, 8, 9, 13) Shade, scree and crevices:. [White cyclamen. Some of the non-flowering plants in the Kotsifou resemble *C. graecum*].

*Primula vulgaris* – **Primrose**

(13)

## Punicaceae

*Punica granatum* - **Pomegranate**

(Seen) ?Naturalised (presumably originally planted). [Tree with shiny opposite untoothed leaves]

## Ranunculaceae

*Anemone coronaria* - **Crown Anemone**

(1, 3, 5, 9-13) [Distinguished from Turban Buttercup by absence of green sepals]

*Anemone hortensis* subsp. *heldreichii*. (**an anemone**)

(1, 5, 9-11) Frequent on phrygana and rocky places: Spili, Gious Kambos, below Viglotopi, Kotsifou gorge and Drimiskos pass. [Short anemone, white flushed pink;

*Clematis cirrhosa* - **Virgin's Bower**

(5, 6,) Rocky places: [Typical Clematis, but evergreen and in fruit].

*Delphinium staphisagria* - (**a delphinium**)

(10, 11, 13) Abundant in the ruins and groves at Aradena, rarer in the gorge. [Typical hairy delphinium].

*Ranunculus asiaticus* - **Turban Buttercup**

(2-5, 7, 8, 12, 13) Drifts of white on phrygana and rocky road-sides. [The only big white or red buttercup here, red separated from Anemone by presence of green sepals].

*Ranunculus creticus*- **Cretan Buttercup**

(1-3, 6, 13) Cliffs (often shady) of gorges [Big buttercup with shallowly lobed leaves, mostly in fruit].

*Ranunculus ficaria* - **Lesser Celandine**

(4) By ditches [Familiar plant].

*Ranunculus ficaria* subsp. *chrysocephalus* - **Lesser Celandine**

(4, 6) By ditches [Familiar plant, but big-flowered].

*Ranunculus gracilis*- **(a buttercup)**

(13) Abundant in rocky phrygana[Neat buttercup, leaves 3-lobed (mostly basal), sepals recurved].

*Ranunculus muricatus* - **Bristly Buttercup**

(2, 5, 10) Wet ruts and ditch edges: ([Hairless annual, with shallow-lobed leaves and fruit with spines on both surfaces].

*Ranunculus parviflorus*

(8)

*Ranunculus subhomophyllus* - **(a buttercup)**

(Seen) Gully at 1800m on Kakovoli. [Differs from other mountain buttercups in its small flowers].

## Raflesiaceae

*Cytinus ruber*

(6) [Red parasite on roots of *Cistus parviflorus*]

## Resedaceae

*Reseda alba* -**White Mignonette**

(8, 10) Roadsides [Typical tall mignonette with white flowers].

*Reseda lutea*- **Wild Mignonette**

(4, 7, 8) Rocky ground:. [As latter, shorter and pale yellow flowers].

## Rhamnaceae

*Rhamnus alaternus* -**Mediterranean Buckthorn**

\*(5) Scrub [Evergreen shrub with glossy thick leaves and reddish berries].

*Rhamnus lycioides subsp. oleoides* - **(a buckthorn)**

(1, 3, 5, 7, 10, 13) Cliffs, rocky garigue: [Densely branched spiny shrub to 1m, yellow-green flowers;].

## Rosaceae

*Aphanes arvensis* - **Parsley Piert**

(7, 8)

*Crataegus monogyna subsp. azarella* - **Hawthorn**

(1-10, 13) By streams and in woodland: [Familiar shrub, but here the densely hairy].

*Eriobotrya japonica*- **Loquat**

(2, 4, 6, 10-12) Planted [Robust shrub, large (to 30cm) ribbed and brown-felted leaves],

*Prunus domestica* -**Wild Plum**

(5) ?Naturalised. [Familiar fruit tree]

*Prunus dulcis* - **Almond**

(5-7, 10) ?Naturalised by roads. [Spiny shrub with narrow leaves, pale flowers and oval velvety fruit]

*Prunus persica* - **Peach**

(2, 3, 5, 10) ?Naturalised. [Familiar fruit tree].

*Prunus prostrata* -**Prostrate Cherry**

(4, 11, 13) Frequent on rocky upper slopes of 1500-1900m [Prostrate shrub, with bright pink flowers]

*Pyrus communis* - **Pear**

(1, 2, 4, 7, 8, 10-13) Naturalised on roadside. [Familiar orchard tree].

*Pyrus spinosus* - **Almond-leafed Pear**

(12)

*Rubus sanctus* -**Bramble**

(, 4, 5, 7-9, 11-13) Scrub, stream-banks:[Typical bramble, but with small trefoil leaves].

*Sanguisorba cretica* -**(a burnet)**

(10) Limestone cliff in Aradena gorge. [Typical burnet but with leaflets 2.5-3cm. Endemic].

*Sanguisorba major*?

(11)

*Sanguisorba minor* -**Salad Burnet**

(11, 12) Grass slopes and olive groves:. [Familiar herb, represented by **subsp. muricata and verrucosa**]

*Sarcopoterium spinosum* -**Spiny Burnet**

(1-5, 7-13) Often dominant in phrygana: [Intricate spiny shrub (“barbed wire plant”), pinnate leaves, globose flower-heads].

## Rubiaceae

### *Galium aparine* - **Cleavers**

\* (5, 8-10, 13) [Familiar coarse clambering weed].

### *Rubia peregriana* - **Wild Madder**

\* (5, 9, 13) Climbing on bushes in scrub: Monastiraki, Mili, Arkadi and west of Aghios Ioannis. [Like a coarse evergreen cleavers with berries].

### *Sherardia arvensis* - **Field Madder**

(3, 5, 6, 8, 9) Disturbed ground:. [Like a compact bedstraw with pink flowers].

### *Valantia aprica* - (**no common name**)

(10) Tracksides rubble 1800-1900m on Kakovoli. [Like next but more slender, yellowish flowers].

### *Valantia hispida*- **Valantia**

(2, 3, ) Rocks:, gorges), coastal rocks at. [Like a tiny bristly crosswort].

## Salicaceae

### *Populus nigra* - **Black Poplar**

(1-5, 8-13) By stream planted?. [Tall tree with fluttering leaves shaped like ace of spades]

### *Populus tremula*- **Aspen**

\* (2, 4, 10) Planted. [Medium-sized tree with roundish leaves, slender stalks].

## Santalaceae

### *Osyris alba* - **Osyris**

(2, 3, 5, 8, 9) Often common in rocky sites:. [Broom-like shrub, with three-lobed yellowish flowers and narrow leaves - usually short but up to 2m tall in the last two sites].

## Saxifragaceae

### *Saxifraga chrysosplenifolia* - (**a saxifrage**)

(4, 5) Shaded gorge rocks [Round-leaved saxifrage, white flowers, spotted yellow or red].

### *Saxifraga hederacea* - (**a saxifrage**)

(1) Common in crevices. [Slender herb with single white flower and rather ivy-like leaves].

### *Saxifraga granulata*- **Meadow saxifrage**

\*(9) Bulbils in axils of lower leaves. No runners

## Scrophulariaceae

### *Bellardia trixago* - **Bellardia**

(2-4, 7, 9) Rough grass: coastal sand:. [Erect opposite-leaved annual; 4-sided spike of white flowers flushed pink/yellow]

### *Cymbalaria muralis* - **Ivy-leaved Toadflax**

(1-10,) Walls [Trailing plant with ivy-like leaves; spurred violet and yellow flowers].

### *Linaria pelisseriana* - **Jersey Toadflax**

(2, 5, 8-10) Stony ground and fallow: [Delicate erect toadflax, purple-violet flowers]

### *Misopates orontium* - **Weasel's-snout**

(2, 4, 7-9) Rough ground:. [Slim annual pink snapdragon].

### *Parentucellia latifolia* - (**a bartsia**)

(1, 8-10) Bare areas in phrygana: [Short erect herb, opposite leaves, red-purple flowers].

### *Parentucellia viscosa*- **Yellow Bartsia**

(1-3, 9, 10,) Damp ground: fields [Sticky hairy erect herb, with opposite leaves and yellow flowers].

### *Scrophularia lucida* - (**a figwort**)

(2, 8, 9) Banks:. [Typical figwort flowers, but pinnately-lobed leaves].

### *Scrophularia peregrina* - **Nettle-leaved Figwort**

(10, 11) Pathsides:. [Typical figwort, shiny nettle-like leaves]

### *Verbascum arcturus* - (**a mullein**)

(1, 2,) Cliffs in gorges). [Lower leaves lobed (densely soft-hairy), short spikes of yellow flowers, violet filament hairs. Endemic].

### *Verbascum macrurum* - (**a mullein**)

(2, 7-10, 12, 13) Stony ground [Typical mullein, with ovate leaves and tall spikes].

### *Verbascum sinuatum* - **Wavy-leaved Mullein**

(1, 3, 9-12) Pathsides:. [Differs from other mulleins in pinnately lobed undulate leaves].

*Verbascum spinosum* -**Spiny Mullein**

(10-13) Gorges and phrygana [Small spiny domed shrub with narrow white-downy, toothed to lobed leaves. Endemic]. |

*Veronica anagallis-aquatica*- **Blue Water-Speedwell**

(6)Ditch side. [Tall speedwell, hairless with spikes of blue flowers].

*Veronica cymbalaria* -**White Speedwell**

(1, 4, 5, 10, 11, 13) Paths/walls [Decumbent annual, lobed leaves and white flowers].

*Veronica persica* -**Common Field-speedwell**

(1, 5) Groves. [Familiar annual weed]

## Solonaceae

*Mandragora autumnalis* -**Mandrake**

(2, 3, 6) Rocky turf:. [Violet flowers on stalks in centre of big crinkly rosettes].

*Nicotiana glauca* - **Shrub Tobacco**

(7) Naturalised by roads[Tall slender shrub, with scattered glaucous leaves and tubular yellow flowers].

## Styracaceae

*Styrax officinalis* -**Storax**

(4, 5, 12) Scrub:[Shrub with alternate oval leaves, and pendant fragrant white flowers].

## Tamaricaceae

*Tamarix parviflora* -(**a tamarisk**)

(5, 7, 12) Stony verges and stream banks: [Shrub with scale like leaves, and white spikes].

*Tamarix myrtenensis* - (**a tamarisk**)

(2, 3,) Probably always planted: on beach at Plakias (most pollarded 1999/2000), recently planted on Triopetra beach. [Flowers would be 5-lobed (not 4) and pink - none seen].

## Theligonaceae

*Theligonum cynocrambe* -**Theligonum**

(1-13) Damp crevices, walls and waste sites: [Hairless foetid annual, swollen nodes, opposite untoothed leaves, sheathing stipules].

## Thymelaeaceae

*Daphne sericea* - (**no common name**).

(1, 8, 9, 12) [Short dense evergreen shrub, crowded evergreen leaves; fragrant pink flowers].

*Thymelaea hirsuta* - (**no common name**)

(3, 8, Rocky hills: [1m shrub, white stems, scale-leaves (white-downy within)].

*Thymelaea tartonraira* - (**no common name**)

(2, 7) Limestone phrygana. [Small shrub with many silvery oblong leaves, and clusters of yellowish flowers; subsp. *argentea*]

## Ulmaceae

*Zelkova abelicea* - **Zelkova**

(13)

## Umbelliferae (Apiaceae)

### *Apium nodiflorum* -**Fool's Watercress**

(1, 9) Ditches by Gious Kambos spring [Singly pinnate leaves, rooting at nodes; umbels stalkless]

### *Crithmum maritimum* -**Cliff Samphire**

\*(2, 3, 6) Coastal slopes (rocks and walls): Plakias, Damnoni, Ligres and Triopetra. [Succulent 1-2 pinnate leaves; perennial]

### *Daucus carota* - **Wild Carrot**

(2-5, 7) Grass roadside [Familiar herb, divided bracts, bur fruit; subsp. maxima].

### *Eryngium campestre* -**Field Eryngo**

(1, 3, 5, 7-9) Phrygana:. [Wide branched greenish spiny perennial, heads 10-15mm]

### *Eryngium maritimum* -**Sea Holly**

(2, 10, ) Low dunes [Stiff leathery and spiny blue-green perennial]

*Ferula communis* -**Giant Fennel** (1-5, 7-10) Roadsides and abandoned land: [Striking big herb with feathery leaflets and many yellow umbels].

### *Lecokia cretica* (**no common name**)

(4, 5, 13) Woods, groves and moist waysides: [Robust perennial with 1-2 pinnate triangular leaves; large warty asymmetric fruit].

### *Oenanthe pimpinelloides* - **Callous-fruited Water-dropwort**

(1, 5, 8, 9) Ditch/stream edges, seasonally wet turf, fallow: [White perennial with parts of umbel distinct from one another].

### *Orlaya daucoides* (**no common name**)

(1, 10) Rocky verges:. [Erect annual with bur fruit and outer petals much bigger than the inner].

### *Pseudorlaya pumila* (**no common name**)

(10) More stable sands at Plakias. [Rather like *Daucus guttatus*, but much more densely hairy].

### *Scandix pecten-veneris* -**Shepherd's-needle**

(1, 3, 5, 7-10, 13) Disturbed or cultivated sites, Rough grass: [Stout widely branched with divided glossy leaves and rounded umbels of yellow green flowers].

### *Smyrniolum olusatrum* – **Alexanders**

(4, 7-9)

### *Smyrniolum perfoliatum* - **Perfoliate Alexanders**

(1, 3-5, 8) Grass: by stream [Differs in brighter yellow flowers; upper leaves simple, oval and clasping].

### *Tordylium apulum* (**a hartwort**)

(1-3, 5, 7, 9-11, 13) Disturbed ground:[Annual with singly pinnate leaves, outer petal much larger; fruit disk-like with beaded margin (“false-teeth plant”)].

## Urticaceae

### *Parietaria cretica* - **Cretan Pellitory**

(2, ) Often common on sheltered cliff ledges:: also with next on walls in Spili. [Spreading annual, alternate leaves <15mm]

### *Parietaria judaica* -**Pellitory-of-the-wall**

(1-10, 12) Walls and rocks. [Similar perennial, with leaves 1-7cm long].

### *Urtica pilulifera* -**Roman Nettle**

(10, 11) Caves, ledges, areas frequented by goats: [Annual with jagged toothed leaves, globular fruiting heads and stinging hairs].

## Valerianaceae

### *Centranthus calcitrapae* (**no common name**)

(2, ) Rocky ground, especially below cliffs. [Annual, opposite pinnately-divided leaves; pink-purple flowers, pouched at base].

### *Valeriana asarifolia* -**Cretan Valerian**

(1, 6, 8, 9, 13) Limestone cliffs/crevices:. [White valerian, basal leaves kidney-shaped; flower-head dense. Endemic]

### *Valerianella coronata*

(2, 3, 5, 8, 10) Divided leaves heads of pink flowers.

### *Valerianella echinata* (**a corn-salad**)

(2, 7, 13) Rocky ground: Fourfouras and track to Kakovoli 1200-1400m. [As latter, calyx with 3 lobed – one long and two short].



## Verbenaceae

*Vitex agnus-castus* - **Chaste-tree**

(3, 10) Damp gullies; also on seepage clay [Aromatic scrub and opposite digitate leaves, and fruiting spikes like peppercorns].

## Violaceae

*Viola cretica* - **Cretan Violet**

(4, 5) Shade by stream and wall. [Typical small violet. Endemic].

*Viola rauliniana*

(4) [ Little white]

## Vitaceae

*Vitis vinifera* -**Common Vine**

(5, 7, 8, 10, 12). Naturalised in groves and hedges. [Familiar climber]

## MONOCOTYLEDONES

### Agavaceae

*Agave americana* - **Century Plant**

(2-5, 7, 10) Naturalised on roadsides and along north coast. [Huge rosettes of grey spear-shaped leaves and last year's tall stems bearing saucer-sized heads]

### Amaryllidaceae

*Narcissus tazetta*- **Polyanthus Narcissus**

(1, 10,)Frequent by streams/ditches, also field-banks [Typical daffodil leaves and several-fruited stems]

*Pancratium maritimum* -**Sea Daffodil**

\* (2, 3, 5,) Coastal sands [Grey daffodil leaves].

### Araceae

*Arisarum vulgare* -**Friar's Cowl**

(1, 2, 5, 9, 10, 13) Rock ledges: [Patch-forming with heart-shaped leaves and spadix under a hooded spathe].

*Arum concinatum* -**Large Cuckoo Pint**

(5, 9, 13) Olive groves and gorge woodland:. [Like big Cuckoo Pint].

*Arum creticum* -**Cretan Arum**

(1,) Rock, scree, stone-heaps. [As latter but with yellow spadix and spathe -this folded backward].

*Arum ideaum* -**Cretan Mountain Arum**

(4, 11, 13) Frequent in Lefka Ori: woods above Anopoli at 1400m, shaded Imbros gorge and rocks at and near Omalos cave. [Like Cuckoo Pint Endemic].

*Dracunculus vulgaris* -**Dragon Arum**

(2, 3, 7, 9, 10) Olive groves and disturbed rocky ground:. [Purple-striped stems, digitally divided leaves, long purple spathe].

*Zantedeschia aethiopica* -**Arum-lily**

Naturalised [Familiar garden plant].

### Cyperaceae

*Carex distachya* (a sedge)

(Seen) Under trees. [Densely tufted sedge, single spike]

*Carex divulsa* **Grey Sedge**

(1,) Ditch edges. [Male/female spikes similar, but scattered down stem; plant quite densely tufted].

*Carex flacca* - **Glaucous Sedge**

(seen) Damp ground:. [Glaucous leaves; distinct male and female spikes; subsp. serrulata].

*Cyperus longus* - **Galingale**

(1) With Pendulous Sedge, but where sunnier and in water, [Tall with triangular stems and "umbels" of clustered flat spikelets].

*Schoenus nigricans* -**Black Bog-rush**

(seen) Marks seepage, often on clay slopes:[Densely tufted, blackish heads with long bract].

## Dioscoreaceae

*Tamus communis* -**Black Bryony**

(5, 6) Shaded gorge-beds/gullies. [Unarmed climber with cordate leaves].

## Gramineae (Poaceae)

*Ammophila arenaria* -**Marram-grass**

(2) Low dunes. [Familiar dune-binder; subsp. arundinacea]

*Arundo donax* -**Giant Reed**

(1-7) Naturalised by roads and ditches:. [Bamboo-like to 6m]

*Avena sterilis* -**Winter Wild-oat**

(2, 3, 7) Fallow/waste ground:. [As last, but 1 long awn only].

*Briza maxima* -**Large Quaking-grass**

(2, 3, 7) Disturbed areas: [Short annual with a few 14-25mm pendulous spikelets].

*Bromus hordeaceus* -**Soft Brome**

(12) Fallow, verges. [Softly hairy annual with soft oval spikelets; subsp. divaricatus].

*Cynosurus echinatus* -**Rough Dog's-tail**

(seen) Disturbed ground. [Annual with oval spike, prickly and one-sided]

*Hyparrhenia hirta*

(Seen) Flower spikes in narrow finger-like pairs].

*Lagurus ovatus* -**Hare's-tail**

(2, 3, 7) Widespread, especially coastal rocks and sand [Distinctive hairy annual with dense soft, woolly oval flower-head with long awns].

*Phragmites australis* -**Reed**

Ditches. [Familiar tall broad-leaved grass with persistent canes].

*Poa annua* Annual -**Meadow-grass**

(1-4) Damper paths in shade:. [Weedy annual with branched flower-head and crinkled leaves; plants in the last site approached *P. infirma*].

*Poa bulbosa* -**Bulbous Meadow-grass**

(1,2, 9) Rocky places:. [Tufted perennial with narrow leaves and branched heads, spikelets sprouting (Viviparous)].

## Iridaceae

*Crocus sieberi* (**a crocus**)

(11) Stony ground 1500-1900m on Kakovoli (only in flower at 1900m), and by path above Xiloskalon. [Typical white crocus, purple streaked outside; narrow leaves with white midrib. Endemic].

*Gladiolus italicus* -**Field Gladiolus**

(1-10, 12) Olive groves and fallow. [Typical large pink-purple gladiolus. Plants in rocky phrygana at last site have stamen features etc of *G. byzantinus* – unknown on Crete].

*Iris albicans* -**White Iris**

(2, 5, 8, 9, 11, 12) Around cultivation and cemeteries in villages:. [Typical large iris, always with white flowers].

*Iris (Hermodactylus) tuberosus* -**Widow Iris**

(1, 8, 9) Fallow and scrubby banks,. [Iris-like flowers, yellow-green with blackish blotch on falls; leaves quadrangular. All in fruit].

*Iris unguicularis* - **Cretan Iris**

(1, 8, 9,) Rocky phrygana [Compact purple iris with yellow blotches; **subsp. cretensis** is Endemic].

*Moraea (Gynandiris) sisyrinchium* -**Barbary-nut**

(1-5, 7-10) Common (compact clay among rock);. [Blue Iris-like flowers, opening in sun; leaves narrow and sheathing stem]

*Romulea bulbocodium* -**Romulea**

(1, 4, 9, 11, 13) Compacted clay (paths etc): and moist pans and paths, Viglotopi. [Small, crocus-like; white flowers have a yellow throat; leaves narrow-linear].

## Juncaceae

*Juncus articulatus*

(seen)

*Juncus bufonius* -**Toad Rush**

(Seen) Ruts and mud: [Short annual, leafy, with scattered flowers to base].

*Juncus inflexus* - **Hard Rush**

(1 - seen) Ditches and moist areas [Dense tufts of quill-like stems; lateral flower-tassels].

## Liliaceae

### *Allium nigrum* (a garlic)

(5, 7) Fallow on Omalos plain. [Similar to last, but leaves all basal and narrower, and pale heads].

### *Allium roseum* -Rosy Garlic

(6) Moist sites, often in shade. [Low garlic with grass-like leaves and loose heads of rosy-pink flowers].

### *Allium subhirsutum* (a garlic)

(3, 5, 7, 11) [white heads, leaves with hairy margins]

a: [Scrambling branched woody perennial, thorny "leaves" (actually branches); **subsp. orientalis**].

### *Asparagus aphyllus*

(1, 2, 3, 6, 13)

### *Asphodeline lutea* -Yellow Asphodel

(1-5, 7-13) Phrygana: [Similar to last, but with stiffer leaves and stout yellow spikes].

### *Asphodelus aestivus* -Common Asphodel

(1-5, 7-13) Phrygana and fallow: [Stout branched candelabra head of pinkish-white flowers].

### *Colchicum macrophyllum* (an autumn crocus)

\* (Seen) Fallow terraces. [Rosettes of large corrugated leaves, with a fruit capsule hidden at their base].

### *Drimia maritima* -Sea Squill

(1-5, 7, 9-13) Rocky phrygana. [Rosettes of large leathery leaves emerging from a big exerted bulb – "dog onion"].

### *Fritillaria messanensis* (a fritillary)

(8) In other years - Local below cliffs Plakias headland, Drimiskos pass (and to south), upper Kotsifou gorge, Mourné outcrop, at 1500m above Anopoli and near Omalos cave. Very common on rocky phrygana on parts of Gious Kambos. [Typical slender fritillary with linear leaves and nodding brownish flowers, usually mottled/chequered].

### *Gagea bohemica* -Early Star-of-Bethlehem

(4, 11, 13) Flat stony clay. [Like tiny yellow-green crocus, with thread-like leaves]. (a yellow Star of-Bethlehem)-

### *Gagea graeca* -Greek Star-of-Bethlehem

(1-3) Common in rock crevices, phrygana and bare soil: [Slender erect perennial, several linear leaves; 3-5 white flowers, often nodding].

### *Gagea amblyopetala*

(13)

### *Muscari comosum* - Tassel Hyacinth

(2, 3, 5, 7-11) Widespread in rocky phrygana and roadsides: [Spike of pale brown tubular flowers with cream teeth, and prominent bright violet terminal tassel].

### *Muscari neglectum* -Common Grape-hyacinth

(11) Woods and rocks from 1300-1800m, [Typical grape-hyacinth, but rather dwarfed].

### *Muscari spreitzenhoferi* (a tassel hyacinth)

(2, 3, 5, 10) Rock-crevices and Plaxias beach near the [Similar to latter, but shorter, teeth of fertile flowers yellow, and tiny terminal tassel].

### *Ornithogalum divergens* (a star-of-Bethlehem)

(1-4, 9,) Fallow and open land: [Typical white star-of-Bethlehem with widely-branched corymb of 1cm flowers].

### *Ornithogalum exscapum* (a star of Bethlehem)

(1)

### *Ornithogalum narbonense* (a star-of-Bethlehem)

(7) Dry stony slopes: [Elongate white spikes of white star-like flowers]

### *Ruscus aculeatus* -Butcher's Broom

(5, 6) Shaded or sheltered gorge) and other rock crevices. [Low evergreen shrub with lanceolate spine-tipped "leaves" (branches)].

### *Scilla nana* -Cretan Squill

(4, 11) Frequent on recent snow-lie 1700-1900m on Kakovoli (flowering at 1800m+) and at 1600m above Xiloskalon [Low delicate squill with pale-blue star-like flowers, fading whitish. Endemic][Psillorits for =subsp albescens; Kavakoli form = subsp nana

### *Smilax aspera* -Common Smilax

(4, 5, 12) Clambering on scrub. [Cordate leaves with some prickles on leaves, stalks and/or stems].

### *Tulipa bakeri* -Baker's Tulip

(12, 13) Abundant Omalos fallow. [Similar to *T. saxatilis* (from which possibly not distinct) but smaller darker flowers. Endemic].

### *Tulipa cretica* -Cretan Tulip

(2, 8, 11?) Drimiskos pass (notably "slag-heap" knoll); also on rocks by foot-tunnel mouth, Plakias. (Possibly on Kakovoli). [Small white tulip, yellowish base to petals and wavy leaves. Endemic].

*Tulipa doerfleri* -**Orange Tulip**

(1, 5, 9) Often common in cultivated and fallow fields on Gious Kambos,. [Orange-red tulip; linear-lanceolate leaves. Endemic].

*Tulipa saxatilis* -**Rock Tulip**

(1,) Knoll on Gious Kambos,. [Pink tulip with white-edged yellow base to petals and rather oblong leaves].

## Orchidaceae

*Aceras anthropophorum* -**Man Orchid**

(8, 9) Frequent on phrygana [Greenish yellow flower-spikes, edged in red – no spur, lip “anthropoid”]

*Anacamptis pyramidalis* -**Pyramidal Orchid**

(2, 5-10) Widespread in phrygana, locally scrub:. [Dense pink spikes with long thin spur, deeply 3-lobed lip; narrow leaves].

*Barlia robertiana* -**Giant Orchid**

(1, 3, 5-11) Light shade, and lush phrygana [Stout and fragrant, with many greenish-purple flowers].

*Dactylorhiza romana* - **Roman Orchid**

(6, 13) On edge of coniferous woodland and maquis west of Aghios Ioannis. [Typical “marsh-orchid” with rose-pink flowers].

*Limodorum abortivum* -**Violet Bird's-nest Orchid.**

(3, 6) [Purplish saprophyte with scale-like leaves].

*Neotinea maculata* -**Dense-flowered Orchid**

(8, 9) Locally frequent in phrygana [Small, dense spike of tiny greenish white flowers; stem and leaves spotted/streaked]

*Ophrys bilunulata* -(a dull Ophrys)

(8, 9) Widespread. [O. fusca group – very pale “omega” mark on a labellum 10-15mm long]

*Ophrys bombyliflora* -**Bumble-bee Orchid**

(1, 5, 7-9) Often gregarious in phrygana:. [Round right green sepals and brown very furry lip].

*Ophrys cornuta*

(2)

*Ophrys cretica (doerfleri)* **Cretan Bee Orchid**

(1, 2, 5, 7-9) Common in phrygana, old terraces and groves:. [Sepals green (or rose-tinted below); lip marked (or speculum outlined) in white].

*Ophrys funerea* **Lesser Dull Ophrys**

(3, 5, 8,) Occasional in phrygana. [Tiny member of O. fusca group, lip 7-12mm, often with strong narrow yellow margin].

*Ophrys fusca* -**Sombre Bee Orchid**

(1, 3, 5, 8, 9) (though *O. bilunulata* much commoner). [Green sepals, 15-23mm brown lip, without any pale “omega” mark].

*Ophrys heldreichii* -**Cretan Woodcock Orchid**

(1-3, 5-10) Phrygana:. Also in shade. [Distinguished from all other pale pink-sepalled Ophrys by its deeply three-lobed labellum, the central lobe long-ovate].

*Ophrys herae*

(7)

*Ophrys holoserica* subsp. *maxima* - Also known as *O. episcopalis*

(2, 8) Very rare:[Differs from last in larger flowers with spreading hairs, 3-5mm long “horns” and white/yellow band around speculum. ].

*Ophrys iricolor* - **Rainbow Orchid**

(2, 3, 8) Phrygana [Like large *O. fusca* whose labellum is 14-26mm and strongly red or purple underneath].

*Ophrys karpathensis*

(5, 8)

*Ophrys l. lutea* **Yellow Bee Orchid**

(3) True *O. lutea* seen in phrygana [Green sepals, labellum oblong, 14-18mm long, broad yellow margin].

*Ophrys mammosa* (a spider orchid)

(1, 3, 5, 7) [Striking, with bicoloured lateral sepals and large velvety labellum].

*Ophrys minoa* -(**Minoan Orchid**)

(3)

*Ophrys omegaifera basilica* - (a dull Ophrys)

(3) Plants intermediate with *O. bilunulata* [Clear \* mark on pale brown labellum].

*Ophrys sicula* **Lesser Yellow Bee Orchid**

(1-3, 5-10, 13) [Differs from *O. lutea* in subhorizontal labellum 8-14mm long, often with inverted purple V in yellow margin; also *O. lutea* subsp. *minor*].

*Ophrys sphegodes subsp. cretensis* -**Early Spider Orchid**

(1, 3, 5, 7-9) Phrygana:

*Ophrys sphegodes subsp. gortynia*

(3?)

[Green sepals, square labellum 6-9mm. Endemic].

*Ophrys spruneri* - **Grecian Spider Orchid**

(1, 10, 11) Rare in phrygana:. [Exquisite! Rose pink sepals, bright blue speculum on brown-black labellum].

*Ophrys tenthredinifera* - **Sawfly Orchid** .

(1, 6, 8, 9) [Round pale pink sepals, and large square labellum with a wide straw-yellow margin. Plants with little or no pink colour (“*chlorantha*”) occasional].

X *Orchisaceras* -‘**Gious Gambos**’ (ED – sorry its already got a name – X *Orchisaceras bivonae*!)

(9)

*Orchis a. anatolica* -**Anatolian Orchid**

(8) Rare in phrygana:. [Long purple spikes, flowers with long narrow spur and labellum with two rows of dark spots].

*Orchis anatolica* subsp. *sitiaca*

(8) open phrygana,. [Differs in pale pink flowers, with a green blotch on lateral sepals. Endemic]

*Orchis boryi* - **Bory's Orchid**

(1, 8, 9) Grassy phrygana,. [Resembles large Green-winged Orchid, upper flowers opening first]

*Orchis collina* -**Fan-lipped Orchid**

(2-3, 5, 7-9) Grassy phrygana: [Few flowered spikes, olive-brown flowers, pink centre to labellum].

*Orchis (coriophora) fragrans* -**Fragrant Bug Orchid**

(7) Grass: groves, quarry (by road and steppe). [Narrow fragrant spikes, “helmet” brownish, lip narrow 3-lobed].

*Orchis italica* -**Italian Man Orchid**

(1-9, 12) Frequent and often gregarious in phrygana, grassy areas and old terraces:. [Large bright pink spikes, labellum of each flower with long thin lobes].

*Orchis lactea* - **Milky Orchid**

(1, 5, 8, 9) Phrygana. [Dense milky white spikes, with many pink spots; sepals with some green, notably at base]

*Orchis laxiflora* -**Lax-flowered Orchid**

(1, 5, 7-10) Mostly in damp seepage areas:. [Long purple spikes, leafy stems. Odd plants at Viglotopi had leafier bracts, and approached *O. palustris*].

*Orchis papilionacea* -**Pink Butterfly Orchid**

(1, 3, 5, 8, 9, ) Often frequent in phrygana etc:. [Distinctive few-flowered spike, large pink flowers with darker pink lines]

*Orchis pauciflora* **Few-flowered Orchid**

(1, 5, 8, 9) Frequent in open phrygana. [Spikes of 3-7 yellow flowers, labellum brighter yellow].

*Orchis provincialis* -**Provence Orchid**

(8) Spikes by track from Mourné to the sea. [Differs from last in its spike of 5-20 uniform pale yellow flowers, and spotted leaves.

*Orchis quadripunctata* -**Four-spotted Orchid**

(1, 3, 8, 9) Carpeting open phrygana and soil-pockets in rocks, [Often tiny, flowers small, usually pink with 2-6 small spots in centre of labellum. White plants on Psiloritis and elsewhere].

*Orchis simia* **Monkey Orchid**

(5, 7, 8) Mostly in scrub and grassier sites [Dense spikes, flowers with grey-pink “helmet”, labellum like dark purple dancing monkey].

*Orchis tridentata* - **Toothed Orchid**

(1, 8, 9)

*Orchis tridentata commutata*

(5, 13)

*Serapias bergonii* (a **long-lipped Serapias**)

(2, 3, 5, 6, 8-10) Grassy sites: [Reddish-brown spikes with tongue-like lip with two dark blobs at base, and long bracts].

*Serapias lingua* -**Tongue Orchid**

(2, 5, 7-10) Generally in damper phrygana:. [Differs in long lip with 1 basal swelling, often much paler or pinker than the rest of flower]

*Serapias orientalis* (a **long-lipped Serapias**)

(5, 7, 9) With other *Serapias*, local and mainly in drier areas: Aghia Triada and Faestos. [From other tongue orchids by its lip being 11-23mm wide near base and markedly hairy].

*Serapias parviflora* -**Small-flowered Tongue-orchid**

(3, 5, 7-9) Phrygana: (shade); near sea at Plakias and Damnoni. [Similar to *S. bergonii*, but shorter bracts and lip more closely recurved under flower. Planted in flower-tubs at the Heracles rooms].

**Potamogetonaceae**

*Posidonia oceanica* -**Posidon's Balls**

(2, 3)

**Cupressaceae**

*Cupressus sempervirens*

(1-13)

*Juniperus oxycedrus*

(11, 13)

**Pinaceae**

*Picea abies*

(seen)

*Pinus brutia*

(common - seen)

*Pinus nigra*

(seen)

**Adiantaceae**

*Adiantum capillus-veneris*

(4, 5)

**Aspleniaceae**

*Asplenium ruta-muraria*

(seen)

*Asplenium trichomanes*

(4)

*Ceterach officinarum*

(3-5, 6, 11-13)

**Gymnogrammaceae**

*Anogramma leptophylla* - **Jersey Fern**

(3, 5, 13)

**Hypolepidaceae**

*Pteridium aquilinum*

(1, 3, 4, 8, 9, 12, 13)

**Equisetaceae**

*Equisetum telmateia*

(3, 4, 6, 8)

**Isoetaceae**

*Isoetes dureia* - **Mediterranean quillwort**

(9)

**Selaginellaceae**

*Selaginella denticulata*

(1, 5-9, 11-13)

## Sinopteridaceae

*Cheilanthes maderensis?*

(5)

## Potamogetonaceae

*Posidonia oceanica*- **Posidonia**

(3, 5, 10) Cast-up balls of leaves on beaches:. [Submerged “sea-grass” with long ribbon-like leaves].

## Systematic List Number 2      Birds

Many thanks to Sue Jones, Peter and Gill Dishart and Kent and Marcia Minichiello for their contributions.

### Itinerary

- 0 - Tuesday 4th April - around Heraklion and Knossos (Kate only)
- 1 - Wednesday 5th April – Spili and Gious Kambos
- 2 - Thursday 6th April – Kourtaliotiko Gorge, Mirthios and Plakias
- 3 - Friday 7th April – Triopetra, Spili and Gious Kambos
- 4 - Saturday 8th April – Psiloritis
- 5 - Sunday 9th April – Antonios Gorge, Amari Valley and Fourfouras
- 6 - Monday 10th April – Kakomouri headland near Damioni, Kotsifou Gorge, woodland at Agios Ioannis
- 7 - Tuesday 11th April – Festos, Kalamaki, and Agia Triada
- 8 - Wednesday 12th April – Mourne and the slagheaps, and below Xiron and Drimiskos Pass
- 9 - Thursday 13th April – Minoan Cemetery at Armeni, Viglotopi, Megapotomos Valley and Moni Preveni
- 10 - Friday 14th April – Spili to Anapoli via Frangokastello and Aradena Gorge
- 11 - Saturday 15th April – Kakovoli, Aradena and Agios Ioannis
- 12 - Sunday 16th April – Anapoli to Omalos via Hora Sfakion, Imbros, Georgioupoli, Agia Reservoir and Lakki
- 13 - Monday 17th April – Omalos plain and upper Samaria Gorge, Agia Irimi Gorge
- 14 - Tuesday 18th April – Omalos to Hania and home!

Common Name	Species Name	Days seen (see above)
Little Grebe	<i>Tachybaptus ruficollis</i>	12
Cormorant	<i>Phalacrocorax</i>	3 (flock of about 80 birds)
Night Heron	<i>Nycticorax nycticorax</i>	3
Squacco Heron	<i>Ardeola ralloides</i>	12
Little Egret	<i>Egretta garzetta</i>	12
Grey Heron	<i>Ardea cinerea</i>	2,12
Purple Heron	<i>Ardea purpurea</i>	3,9,12 (flock of about 20 birds)
Glossy Ibis	<i>Plegadis falcinellus</i>	3 (flock of about 10 birds)
Mallard	<i>Anas platyrhynchos</i>	12
Shoveler	<i>Anas clypeata</i>	12
Lammergeier	<i>Gypaetus barbatus</i>	2, 9, 13
Egyptian Vulture	<i>Neophron percnopterus</i>	9,10,11
Osprey	<i>Pandion halieetus</i>	6
Griffon Vulture	<i>Gyps fulvus</i>	2,3,4,5,6,9,10 (up to 8 at one time)
Marsh Harrier	<i>Circus aeruginosus</i>	3,9,12
Montagu's Harrier	<i>Circus pygarrus</i>	6,11
Goshawk	<i>Accipiter gentilis</i>	6
Sparrowhawk	<i>Accipiter nisus</i>	2,5,11
Common Buzzard	<i>Buteo buteo</i>	Days 2-13
Long Legged Buzzard	<i>Buteo rufinus</i>	6,8,9
Golden Eagle	<i>Aquila chrysaetos</i>	2
Bonelli's Eagle	<i>Hieraetus fasciatus</i>	0,3,4?
Lesser Kestrel	<i>Falco naumanni</i>	2
Common Kestrel	<i>Falco tinnunculus</i>	Days 3-13
Eleonora's Falcon	<i>Falco eleonora</i>	3
Chukar	<i>Alectoris chukar</i>	5,7,11
Moorhen	<i>Gallinula chloropus</i>	10,12
Coot	<i>Fulica atra</i>	12
Little Crane	<i>Porzana parva</i>	12
Black-winged Stilt	<i>Himantopus himantopus</i>	3,10,11,12
Little Ringed Plover	<i>Charadrius dubius</i>	12
Temminck's stint	<i>Calidris temminckii</i>	12



Ruff	<i>Philomachus pugnax</i>	12,13
Common Redshank	<i>Tringa totanus</i>	12,13
Greenshank	<i>Tringa nebularia</i>	12
Woodcock	<i>Scolopax rusticola</i>	12
Wood sandpiper	<i>Tringa glareola</i>	11,12,13
Common Sandpiper	<i>Actitis hypoleucos</i>	12,13
Yellow-legged Herring Gull	<i>Larus (argentatus) cachinnans</i>	0,2,3,6,7,8,9,10,12,13
Rock Dove	<i>Columba livia</i>	Every day
Woodpigeon	<i>Columba palumbus</i>	4,6,7,11,12,13
Collared Dove	<i>Streptopelia decaocto</i>	0,4,5,6,7,8,10,11,12,13
Turtle Dove	<i>Streptopelia turtur</i>	6
Cuckoo	<i>Cuculus canorus</i>	0,2,4,6,7,11,12,13
Scops Owl	<i>Otus scops</i>	12,13
Little Owl	<i>Athene noctua</i>	12?
Common Swift	<i>Apus apus</i>	2,3,4,5,6,7,10,11,12
Alpine Swift	<i>Apus melba</i>	3,6,9,10,11,13
Hoopoe	<i>Upupa epops</i>	2,3,8,9,10,11,13
Kingfisher	<i>Alcedo atthis</i>	12
Great Spotted Woodpecker	<i>Dendrocops major</i>	10
Short-toed Lark	<i>Calendrella brachydactyla</i>	9,10
Crested Lark	<i>Galerida cristata</i>	3,4,5,7,8,10,11,13
Woodlark	<i>Lullula arborea</i>	1,4,5
Skylark	<i>Alauda arvensis</i>	2,3,9?,10,13
Sand Martin	<i>Riparia riparia</i>	6
Crag Martin	<i>Ptyonoprogne rupestris</i>	0,2,3,4,5,6,9,10,11,12,13
Swallow	<i>Hirundo rustica</i>	Every day
Red-rumped Swallow	<i>Hirundo daurica</i>	9,11
House Martin	<i>Delichon urbica</i>	2,4,7,8,9,10,11
Tawny Pipit	<i>Anthus campestris</i>	9,10
Tree Pipit	<i>Anthus trivialis</i>	9
Meadow Pipit	<i>Anthus pratensis</i>	8,11
Red-throated Pipit	<i>Anthus cervinus</i>	13
Blue-headed Wagtail	<i>Motacilla flava</i>	10,12,13
Grey-headed Wagtail	<i>Motacilla flava thunbergii</i>	10
Black-headed Wagtail	<i>Motacilla (flava) feldegg</i>	10,12
White Wagtail	<i>Motacilla alba</i>	2,3,6,9,10
Wren	<i>Troglodytes troglodytes</i>	Days 4-13
Robin	<i>Erithacus rubecula</i>	11
Nightingale	<i>Luscinia megarhynchos</i>	4,5,6,11,12,13
Common Redstart	<i>Phoenicurus phoenicurus</i>	6,7,8,11
Stonechat	<i>Saxicola rubicola</i>	Every day except 2
Northern Wheatear	<i>Oenanthe oenanthe</i>	2,3,4,5,8,9,10,11,13
Isabelline Wheatear	<i>Oenanthe isabellina</i>	8
Black-eared Wheatear	<i>Oenanthe hispanica</i>	4,5,6,8,10,11,12
Pied Wheatear	<i>Oenanthe pleschanka</i>	6,8
Blue Rock Thrush	<i>Monticola solitarius</i>	2, 7, 10, 11, 12, 13
Blackbird	<i>Turdus merula</i>	Every day
Cetti's Warbler	<i>Cettia cetti</i>	Sawn and/or heard every day
Sardinian Warbler	<i>Sylvia melanocephala</i>	Every day
Ruppell's Warbler	<i>Sylvia rueppelli</i>	2
Common Whitethroat	<i>Sylvia communis</i>	4,6,10
Blackcap	<i>Sylvia atricapilla</i>	6
Wood Warbler	<i>Phylloscopus sibilatrix</i>	4
Willow Warbler	<i>Phylloscopus trochilus</i>	1,4?
Spotted Flycatcher	<i>Muscicapa striata</i>	10,11
Collared Flycatcher	<i>Ficedula albicollis</i>	3,9,11,12
Pied Flycatcher	<i>Ficedula hypoleuca</i>	2,3,5,10,11,12,13
Short-toed Treecreeper	<i>Certhia brachydactyla</i>	13
Great Tit	<i>Parus major</i>	Every day
Blue Tit	<i>Cyanistes caeruleus</i>	Every day

Golden Oriole	<i>Oriolus oriolus</i>	10
Lesser Grey Shrike	<i>Lanius minor</i>	4
Woodchat Shrike	<i>Lanius senator</i>	3,8,9,10,11,12,13
Jay	<i>Garrulus glandarius</i>	13
Red-billed Chough	<i>Pyrrhonorax pyrrhonorax</i>	2,4,5,6,8,9
Alpine Chough	<i>Pyrrhonorax graculus</i>	10,13?
Jackdaw	<i>Corvus monedula</i>	0,1,2,3,5,6
Rook	<i>Corvus frugilegus</i>	11,12,13
Hooded Crow	<i>Corvus cornix</i>	Every day
Raven	<i>Corvus corax</i>	Every day except 1,7,12
House Sparrow	<i>Passer domesticus</i>	Every day
Italian Sparrow	<i>Passer hispaniolensis italiae</i>	2-13
Chaffinch	<i>Fringilla coelebs</i>	Every day
Serín	<i>Serinus serinus</i>	6
Greenfinch	<i>Carduelis chloris</i>	Every day
Goldfinch	<i>Carduelis carduelis</i>	Every day
Linnet	<i>Carduelis cannabina</i>	1,2,3,4,8,13
Cirl Bunting	<i>Emberiza cirlus</i>	12,13
Corn Bunting	<i>Emberiza calandra</i>	1,2,3,5,8,9,12,13

**Systematic List Number 3****Butterflies**

<b>COMMON NAME</b>	<b>LATIN NAME</b>	<b>DAY SEEN</b>
<b>Swallowtail</b>	<i>Papilio machaon</i>	5,8,10,13
<b>Cretan Festoon</b>	<i>Zerynthia cerisyi cretica</i>	2,7,8,10,11
<b>Large White</b>	<i>Pieris brassicae</i>	1,2,5,6,7,8,9,11,12,13
<b>Small White</b>	<i>Pieris rapae</i>	6,7,9,11
<b>Orange Tip</b>	<i>Athocharis cardamines</i>	9
<b>Clowded Yellow</b>	<i>Colias crocea</i>	5,8,9,13
<b>Brimstone</b>	<i>Gonepteryx rhamni</i>	11,12,13
<b>Large Tortoiseshell</b>	<i>Nymphalis polychloros</i>	6
<b>Small Tortoiseshell</b>	<i>Aglais urticae</i>	6
<b>Comma</b>	<i>Polygonia c-album</i>	11
<b>Painted Lady</b>	<i>Vanessa cardui</i>	6,10
<b>Red Admiral</b>	<i>Vanessa atalanta</i>	2,7,12,13
<b>Queen of Spain Fritillary</b>	<i>Istoria lathonia</i>	6,8,9
<b>Wall Brown</b>	<i>Lasiommata megera</i>	6,11,13
<b>Speckled Wood</b>	<i>Pararge aegeria</i>	2,4,12,13
<b>Small Copper</b>	<i>Lycaena phlaeas</i>	9,10,13
<b>Holly Blue</b>	<i>Celastrina argiolus</i>	6