



36 Thunder Lane, Thorpe St Andrew, Norwich NR7 0PX Telephone: 01603 300552 www.honeyguide.co.uk E-mail: chris@honeyguide.co.uk



Crete 22 – 29 April 2014

Participants

Andrew and Ruth Lapworth Anne Adams Mary Tweddle Len Tebbutt Mavis Pilbeam John Cole

Leader

Tim Strudwick Report by Tim Strudwick

All the photos in this report were taken during the holiday week, those bordered in green by Andrew Lapworth and in blue by Tim Strudwick. Cover compilation clockwise: (1) clouded yellow on *Crupina crupinastrum* (2) griffon vulture (3) restharrow *Ononis reclinata* (4) Sardinian warbler (5) fountain at Spili (6) *Convolvulus elegantissimus* (7) Cretan cyclamen (8) Cretan tulip *Tulipa doerfleri* (9 centre) hoverfly on crown daisy. 1, 3, 5, 6 & 9 by Tim, 2, 4, 7 & 8 by Andrew. Below: Coastal scene at Frangocastello with poppies and oleander. We staved at the family-run Hotel Sofia in Plakias, www.sofiahotelplakias.com/index.php.



As with all Honeyguide holidays, £40 of the price of the holiday was put towards a conservation project, in this case for the lammergeier project of the Hellenic Ornithological Society (HOS), which is based in Athens but whose work covers the whole of Greece and its islands. There are 6-7 pairs of lammergeiers on Crete.

The conservation contribution this year of £40 per person was supplemented by gift aid through the Honeyguide Wildlife Charitable Trust. We gave £350 / €415 to HOS president Apostolis Kaltis – see the final day's diary – and there is also a note on page X about his botanical work that brought him to Crete.

This donation brings Honeyguide's total contributions to HOS since the first Honeyguide holiday in Crete in 1995 to £9,285. The total for all conservation contributions through Honeyguide since 1991 was £94,787 to May 2014.

More information about the work to protect bearded vultures – as they prefer to call them in Greece – is on the website of the Hellenic Ornithological Society <u>www.ornithologiki.gr/page_cn.php?alD=907</u>

Daily Diary

22 April – day one – arrival

The group assembled at the departure gate, leaving a cool and rain-swept Gatwick at 7am, and arriving just after midday at Heraklion to sunshine and an unexpected 31°C of heat. After peeling off a few layers and quickly loading the minibus, we were soon heading west along the coast road and taking in the Cretan landscape. The snow-capped peak of Mount Ida was barely visible through the heat haze, but the roadside colours of Spanish broom, oleander and the ubiquitous crown daisies provided an appetiser for the island's floral riches that lay ahead of us. It was hot in the van and it was a relief when we reached our lunch stop at Taverna Synolakis at Bali, high above the rocky north coast. Thin cloud had now taken the heat out of the sun so we opted to sit outside and make the most of the coastal breeze. Soon we were sipping freshly squeezed orange juice and feeling much more comfortable. We tucked into a delicious spread of mixed starters and salad, followed by coffee and complimentary deserts.

Before rejoining the bus, the group stretched legs around the taverna. In the afternoon heat bird activity was limited to sparrows (seemingly Italian and house), the scratchy call of Sardinian warblers from the hillside scrub, a couple of red-rumped swallows and the distant call of bee-eaters from somewhere above. Suddenly the bee-eaters came into view, a flock of 30 milling around for a few minutes before quickly moving on.

Continuing our journey we headed west, then turned south at Rethymnon, and noted a badger (sadly the only likely way to encounter this endemic subspecies) among the numerous beech marten road-kill. Passing through Kourtaliótiko Gorge, we stopped briefly to take in the view. Andrew glimpsed a chukar but there was little else moving in the warm, still afternoon. Arriving at the hotel in Plakias we were greeted warmly by Jeannie and Vagelis at Hotel Sofia and quickly unloaded luggage and settled into our rooms. An hour later we strolled around the corner to Taverna Gorgona. Here our genial hosts made us very welcome and we enjoyed chilled white wine and beer and our second taverna meal of the day!

23 April – day two – Plakias and Kotsiphou

After breakfast we set off in warm sunshine, taking one of the lanes out of the village into the surrounding olive groves. Leaving the village, the group began to take in the array of colour and its components: shrubby thyme, pitch trefoil, large blue alkanet, yellow bartsia, bellardia, yellow spiny star, Lythrum junceum (a purple loosestrife) by the bubbling stream and everywhere the tiny blue and red forms of scarlet pimpernel. Under the olive trees, many striking black flowers of dragon arum towered above troops of tassel hyacinth. Broomrapes were frequent but of probably three species only the blue branched broomrape could be named. A southern comma and southern speckled wood briefly posed for photos, but Cleopatra, clouded yellow and many other butterflies frustratingly would not settle. On a rocky bank alongside the track grew the unique Cretan wall lettuce, a fern Cheilanthes persica, the tiny endemic blue and white flowers of Solenopsis minuta (in great abundance) and clusters of Cretan door snails. With each step revealing a new flower to puzzle over, the morning passed by quickly. Throughout the morning the song of three warblers - the explosive Cetti's warbler, the familiar musical notes of blackcap and chattering Sardinian warblers - were regularly heard, though only the last of these showed itself. With lunchtime looming, we wandered back to the village and jumped into the bus for our pre-arranged lunch stop at the Taverna Panorama in the nearby village of Myrthios. True to its name, the taverna had panoramic views over the coast around Plakias. These we took in, sipping fresh orange juice and dining on a lunch of mixed dishes as the local pair of buzzards displayed below us.

After lunch and a short stroll around the village, we boarded the bus and headed up through the Kotsiphou gorge and the village of Kanevos to a shady woodland of downy oak and cypress. Stepping out of the bus into the cool shade of the trees, with the song of wren, blackcap and blue tit, it felt almost like home.



Roadside botanising.



The tiny iris Gynandriris monophylla.

This brief illusion was soon dispelled by the carpet of the endemic Cretan cyclamen on the woodland floor. Andrew spotted a cirl bunting in the trees that stayed just long enough for most of the group to see it.

Driving back, we parked the bus and walked slowly down into the gorge. The rocky slopes grew thickly with spiny broom, Greek spiny spurge and spiny burnet. On the road verge, distinctive fruits identified Mediterranean hartwort and *Biscutella*, and caterpillars of the mullein moth helped identify a non-flowering *Verbascum sinuatum*. We found our first orchid – pyramidal – and, best of all, the tiny iris *Gynandriris monophylla* flowering in profusion among the road gravel. A succession of griffon vultures cruised low overhead and into the gorge. As we walked on, a Cretan festoon settled on a scabious flower, though not quite long enough for the photographers. Further down we found tree flax growing out of a vertical rock face, Spanish hedge nettle and the near-endemic buttercup *Ranunculus creticus*. To save tired legs, Tim walked back up and retrieved the bus, while the group enjoyed crag martins, ravens and more griffons overhead.

Back in Plakias there was time to explore or relax, and it was warm enough for at least one to swim, before we met up to log the first two days' many sightings. We dined at Taverna Tasomanolis where many of the group opted for fresh fish – dorada, sea bass and sardines. Much of the fish, explained the young lady serving us, was caught by her 78-year old father-in-law, and as if we needed convincing the old man arrived with a fresh catch of still very alive fish just as we left.

24 April – day three – Festos and Ayia Triada

Three of the group joined Tim on a pre-breakfast excursion along the coast to the to next village of Damnoni. Here a very brief view of a Balkan terrapin in the stream behind the beach was the dubious highlight, with migrant birds conspicuous by their absence. Mavis explored the beach plants, which included sea medick and the familiar sea spurge, prickly saltwort and sea stock.



Julodis sp.

After breakfast we drove 50 km east, where the mountainous landscape gave way to a plain of irrigated fields, greenhouses and orchards, solving the mystery of where on this dry rocky island the lovely salad we had been eating was grown. A few kilometres beyond the bustling agricultural town of Timbaki, the road climbed abruptly up an escarpment to the Minoan settlement of Festos. It was hot and sunny and while some took the option of exploring the archeological site, others mooched around the café area, enjoying the cool shade of pine trees and watching the buzzards, kestrel and woodlarks hanging on the updraft. After taking refreshments at the café, the group set off west along a back road that wound through scrub and olive groves, cooled by a welcome breeze. Along the roadside, the group explored the rich flora, identifying narrow-leaved bugloss, Cretan houndstongue, shining figwort, dragon arum, bug orchids, and eastern and Bergon's tongue orchids. It was definitely insect weather and butterflies included swallowtail, scarce swallowtail, long-tailed blue and pygmy skipper. Other insects of note included nosed and Egyptian grasshoppers, and an enormous green insect that initially had Tim stumped, but revealed itself to be a bee-mimic jewel beetle (Julodis sp.). After a while Tim

walked back to pick up the minibus, and then shuttled the stragglers on to our lunch stop at Ayia Triada while others walked the full 3 km, enjoying the splendour of massed pink flowers of Cretan ebony decorating the roadside banks. Regrouping over our packed lunches, reports were shared of a dark-phase booted eagle, a shrike (which remained unidentified) and pine trees draped in the webs of pine processionary moth.

After lunch we continued downhill, finding more bug, pyramidal and tongue orchids, French lavender, thymelea and the familiar wild mignonette, plus numerous Balkan green lizards. After half an hour, Tim doubled back to pick up the van and met everyone at the bottom of the hill by the now dry Geropotamus river. We drove back west, then turned south near Timbaki to explore some coastal pools. This was new territory for Honeyguide and a couple of wrong turns were taken before finding our destination. We walked through an area of undulating sandy ground full of the usual crested larks and Sardinian warblers and a new bird for the trip – a "zit-zit-ing" fan-tailed warbler. Among insect life, a small copper and long-horned general (a soldierfly) were noted.



Cretan ebony.

As we approached some promising-looking reedy pools, a couple of moorhens scuttled into cover and Anne briefly saw what was most likely a squacco heron, but otherwise waterbirds were strangely absent. On some higher ground, two small birds flew up calling: red-throated pipits but, alas, they did not linger. Down in a distant pool a small group of waders was spotted, and after much scrutiny (and regret at leaving the telescope in the van), greenshank, ruff, wood sandpiper and dunlin were identified. A large number of yellow-legged gulls, loafing on the nearby hillside, suddenly got up into the air as something much larger appeared above the skyline – alas not a raptor but a paraglider. Time was pressing so we boarded the van and drove back to Plakias, reaching the hotel with just enough time to freshen up and review the day's sightings before dinner at Taverna Muses.

25 April – day four – Kourtaliótiko Gorge and Spili

After breakfast we drove the short distance inland to Kourtaliótiko gorge, where some well-maintained steps led down to a chapel and stream, providing a safe way to explore this otherwise inaccessible habitat. Passing down a rocky slope with low shrubs Jerusalem sage, tree spurge, Greek spiny spurge, shrubby thyme - the group examined the smaller plants growing around the rock steps. These included the endemics Ricotia cretica and Centaurea raphinina (a spiny knapweed). Past the little chapel, the path reached the stream and levelled out under the shade of storax and oriental plane trees. In the damp shade, Campanula tuberosa and Muscari spreitzenhoferi, two more Cretan endemics, were in flower. Maidenhair fern carpeted the rock where the stream cascaded down a series of waterfalls, and the song of



Kourtaliótiko gorge.

wren, Cetti's warbler and grey wagtail could just be heard through the noise of water. Out of the solid limestone rock grew rustyback fern, and the delicate *Asperula incana*, on which was a large caterpillar, later identified as hummingbird hawkmoth. Resting at the bottom, a little time was spent scanning the skyline for raptors. Looking almost vertically up, this was hard work, but paid off as among the usual griffons a Bonelli's eagle came into view, soon joined by a second bird, soaring along the clifftops a few hundred feet above us. It was now pretty warm, and the ascent back to the bus was taken slowly.

We drove on to the charming small town of Spili where we stopped by the famous fountains, where a Cretan festoon flew by, for a picnic lunch followed by coffee and/or shopping. Near the town car park, nightingale and blackcap could be heard. After lunch, a short drive up into the hills above the town led us to the renowned



Italian man orchids at 'Spili Bumps'.

botanical site of 'Spili Bumps'. As we climbed out of the bus, looseflowered orchids were immediately evident at the roadside. We followed a track down from the road and more orchids appeared either side: Italian man, man, Anatolian and then the first bee orchids - but which were they? As we look at books and puzzled, a man appeared and asked if we needed some help. He introduced himself - Antonis Alibertis, author of 'The Orchids of Crete and Karpathos'. Antonis pointed out Ophrys ariadne and O. cretica, and a rare hybrid between sawfly orchid (Ophrys tenthredinifera) and bishop's ophrys (O. episcopalis) which we had missed, just a few feet from the bus. He also asked if anyone would like to buy his book – he was selling old stock for a bargain 5 euros – and many of the group took advantage. Meanwhile, exploring the bank below the road and in his enthusiasm to see one of these orchids, Len lost his footing and took a tumble which left him hobbling around for the rest of the day. The group moved along the road and up a farm track into an area of cultivated fields. Some fields were full of the shrivelled flower heads of Tulipa doerfleri with, sadly, just a few red flowers remaining. Along the waysides and across the fallow fields, corn marigold, white asphodel, Barbary nut, fodder vetch, yellow vetchling and perfoliate alexanders provided a riot of colour, leaving the group reflecting on how the British countryside may once have looked. Reaching an uncultivated rocky 'bump', more orchids were found - four-spotted, Borys, yellow bee, marengo, few-flowered and bishop's ophrys.

The song of woodlarks and corn buntings filled our ears, though with eyes mostly looking down, little attention was given to birds. Heading back towards the bus the familiar outline of griffons vultures appeared overhead, together with ravens and an eagle – an adult golden eagle drifting off to the east.

Len's foot was now causing concern so on arriving back at the hotel a doctor was called and remarkably arrived within 15 minutes. The doctor recommended a visit to hospital in the morning to get the foot x-rayed. For dinner the group returned to Taverna Gorgona.

Ophrys phaidra

This orchid was identified by Tim after careful examination of photographs from 'Spili Bumps'. It is not only a new one for Honeyguide, but is so recently separated as a new species - in 2007 - that it does not appear in any of the Crete floras or standard orchid text books, such as Delforge. It has, however, been published in specialist journals and websites. The Ophrys orchids the bee orchid genus – are always complex and there is some evidence that new species are evolving guickly, but it's mostly that there are orchid specialists who are picking up on subtle differences. This orchid is in the large Ophrys fusca sombre bee orchid group, and is close to Ophrys cressa and Ophrys creberrima, which are more widely known and in the books. Compared with these, Ophrys phaidra is tall, late-flowering and looks like an Ophrys creberrima with a flatter lip. More information,



including on the distinguishing features, on http://www.greekorchids.gr/ophrys_phaidra_new.htm

26 April – day five – Plakias and Moni Préveli

With a minor reshuffle of the itinerary, most of the group enjoyed a relaxed morning around Plakias while Len and Tim took an early morning trip to Rethymnon Hosiptal, where an x-ray showed a broken bone in Len's foot. Arriving back in Plakias late morning, poor Len was grounded for the rest of the day. After lunch, the rest of the group drove a little way east to Préveli, and parked up by the 'Turkish bridge' over the Préveli river. Before leaving the bus, Andrew had spotted a wood sandpiper a few feet away at the river's edge, which surprisingly stayed put as we got out. Cretan marsh frogs called all around but somehow could not be seen. Some of the group got into conversation with a Danish entomologist who was collecting small beetles – most probably endemic species, he explained – from the river gravel. We ambled alongside the river where, in the heat of the afternoon, the shade of trees was welcome. Ruth spotted a freshwater crab basking at the river's edge and a little farther on several Cretan Marsh frogs posed in full view in the shallow water. Looking up, Andrew spotted some raptors around a cloud-capped mountain to the east. There were several griffons, but one bird drifting across the slopes looked a different shape – a lammergeier! It was soon lost against the slopes but a second individual, or possibly the same bird again, appeared against the sky. Back at the bridge, a powder blue southern skimmer dragonfly showed well as we re-boarded the bus.



Woodlark.

We drove on to Moni Préveli where a comfort stop at the café was called for. After ice creams and coffee and a poke around the monastery, the group reassembled in the car park, where we bumped into another entomologist (French) who was collecting the flower chafer we recognised as Oxythyrea funesta, but is apparently four species! We strolled down a track though the fields below the monastery to a clump of trees, usually a productive spot for migrants, but this yielded just one each of spotted flycatcher and wood warbler. Woodlarks and a few blackeared wheatears sang on the open hillsides and showed themselves briefly. The familiar gate decorated with goat skulls had a recent addition - a very fresh one with putrid flesh. Driving back along the coast, we stopped at the poignant memorial to the monks who lost their lives for helping allied servicemen escape the island in WW2.

Before dinner, Len visited the local doctor who reassured him that his foot required no treatment other than painkillers and rest, though sadly this meant missing out on the last two days' excursions, but not dinner which was at Taverna Korali.

27 April – day six – Agia Lake and Omalos Plateau

After breakfast, with Len confined to Plakias on doctor's orders, the rest of the group set out on the long drive to the north-east. A change to the so far glorious weather had been forecast, and as we arrived at Agia Lake the sky darkened and rain started to fall. The group huddled under the shelter of a conveniently placed building and scanned through the abundant birdlife. A whiskered tern hawked over the water. On the water were coots, moorhens, little grebes and a mute swan, and several squacco herons, wood sandpipers, ruff and dunlin. A little stint tip-toed across the floating mat of water weed. Balkan terrapins pushed through the weed and a cloud of swallows and martins (house, sand, crag) fed low over the water. As a thunderstorm passed close by, the rain fell harder and the light was dismal and some of the group sought the comfort of the nearby café. As the rain eased off and the light improved, Tim noticed a little bittern in a clump of reedmace and then Andrew picked up on a male little crake nearby. When the rain stopped, more extensive exploration of the causeway overlooking the lake revealed four or five little crakes, black-headed and grey wagtail, sedge and great reed warblers and a very co-operative black-winged stilt. A strange deep booming call was traced back to a party of American bullfrogs in the shallows.



Squacco heron, little bittern and black-winged stilt at Agia Lake.

But it was soon time to move on to Lefka Ori, the white mountains, so we rejoined the road and after a long, spectacular winding climb through oak and cypress forest we pulled off the road just before reaching Omalos Plateau. As we ate our lunch a black-eared wheatear sang from a treetop above our heads and linnets twittered all around. Among the cypress trees and Kermes oak, sculpted by sheep and goats into remarkable shapes, the botanists found Cretan cyclamen and *Daphne sericea* in flower and, in the deep shade, some impressive hailstones remaining from the earlier storm. A woodlark sang overhead and landed on some wires, providing the best views of the trip. As we drove down to and across the plateau there was, surprisingly, a little snow on the roadsides. Looking across the landscape of cultivated field and orchards, northern wheatears seemed to be everywhere, and a few local people could be seen collecting *horta* or 'mountain greens'. We soon came to the head of Samaria Gorge and parked up by a patch of the endemic *Berberis cretica*. We slowly walked up the slope to the café, noting *Ophrys phryganae*, aubretia, one-flowered clover and two very local endemics: Cretan mouse-ear, flowering in abundance, and what must have been the rare *Helichrysum heldreichii*, though not in flower, close to the café. Overhead, red-billed choughs called and a few griffons drifted, but only Andrew glimpsed the prize of a lammergeier at eye level in the gorge shortly before we left.

Following a slip earlier in the day, Mary's ankle had become very painful, so on the way back to Plakias we stopped off at Rethymnon hospital to get it checked out. Mavis volunteered to stay with Mary while she waited to see a doctor and the rest of the group headed back to Plakias for dinner at Taverna Scirocco. After dinner we found Mavis and Mary back (by taxi) with good news and bad news – no broken bones, but a sprained ankle meaning Mary would join Len confined to Plakias for the final day.

28 April – day seven – Souda and Frangocastello

A pre-breakfast excursion to the east of the village produced one fly-over yellow wagtail, but otherwise was unremarkable. After breakfast, minus Mary and Len, the group drove west a few kilometres along the coast road to Souda. Here we spent a few minutes exploring alongside a roadside grove of the near endemic Cretan date palm. A butterfly landed on a parked lorry and was photographed and later identifed as the endemic Cretan grayling. A bird on a distant bush proved to be a woodchat shrike, though attempts to get closer were unsuccessful.

Back on the bus, we took the winding road up to the village of Sellia, then drove on west. After half an hour the road descended to a wide and largely cultivated plain, where we parked in the shade of the walls of the 13th century castle. After a quick comfort break, we walked east along the clifftop track, scanning across the coastal fields and scrub. It was soon apparent that, despite the previous day's cloud and rain, the hoped for influx of migrants had not occurred, and the only birds to be seen were a few resident Italian sparrows, stonechats, chaffinch and Sardinian warblers. The earlier cloud had gone and it was warm and sunny again, and clouded yellows, common blues and more Cretan graylings fought the breeze along the clifftop.



Clifftop house at Frangocastello.

Two mulleins were almost (Verbascum sinuatum) or completely (V. macrurum) in flower, and an enormous stand of Ballota pseudodictamus and a delicate pink restharrow, Ononis reclinata, which John found by a walled cemetery, were additions to the trip plant list. Back at the castle it was time for a picnic lunch, with options to explore inside the castle and buy ice creams and drinks at the nearby taverna. After lunch the group walked down to the beach Tim was disappointed to find some where unwelcome developments: the small stream that had on previous trips flowed across the beach was not just dry but infilled, with the adjacent 'wetland' looking very parched and the vegetated dunes evidently levelled by a bulldozer. Nevertheless, tiger beetles still frequented the sandy path, some 'in tandem', and posed for photographs.

On the way back to Plakias we stopped to take in the view and for a bit of birding. The song of corn buntings, woodlarks and stonechats drifted across the green hillside. Andrew picked up something else on a distant bush, and through the 'scope it proved to be a female ortolan bunting – a new bird for some in the group. A male soon appeared nearby, then frustratingly dropped out of sight, but reappeared and flew closer, singing on top of a large boulder for several minutes. It was now late afternoon so we drove back at Plakias with a little time to spare for some last minute shopping and a head start on packing.

After our final round-up of the last two days' sightings we returned for our third meal at the popular Taverna Gorgona. After dinner, over the traditional complimentary deserts and raki, in the great Honeyguide tradition we each shared individual highlights of the trip:

- John The natural rock garden of Kourtaliótiko Gorge.
- Andrew The walk from Festos to Ayia Triada, the flowerscape, views, with smell of herbs.
- Ruth The walk from Festos to Ayia Triada, Spili Bumps.
- Anne Her first ortolan, the landscape, watching insects with binoculars and the warmth of Greek people.
- Mary Scenery, warmth, flowers, gorge, close views of swallowtail.
- Len Going down into Kourtaliótiko (getting to the bottom and back) and the people in the group.
- Mavis Small irises, Barbary nuts; 8 griffon vultures low overhead at Kotsiphou, flowers en masse.
- Tim The abundance and variety of butterflies, the spectacular flora in general and the orchids at Spili in particular all the more enjoyable for our meeting with orchid expert Antonis Alibertis.

29 April – day eight – Heraklion airport and home

We awoke to another fine, warm day, and after breakfast bags were loaded into the van and we bade farewell to the Hotel Sofia team. After an uneventful journey north then east to Heraklion we reached the airport, dropped off baggage and collected a couple of wheelchairs for the injured parties. After a bite of lunch and coffee we met with Apostolis Kaltis, President of HOS and a professional botanist at the University of Athens. Receiving the donation from Honeyguide, he thanked the group and explained how wildlife tourism helps generate local support for conservation on Crete by demonstrating the economic value of wildlife.

Soon we were on the flight back to Gatwick and homewards, with memories to cherish, photographs to sort and, for some, wounds to heal. Every holiday in Crete is different and this one was remarkable for the warm, calm weather which was much enjoyed by the Honeyguiders but did not encourage migrant birds to take a break on their journey north. In the absence of numbers of migrants, some very special birds, the volume and diversity of flowers, abundance of insect life and unfailingly impressive Cretan landscape ensured an unforgettable experience for all.

Monitoring Crete's rare flowers

Apostolis Kaltis, who met the group at the airport, is both President of HOS and a professional botanist at the University of Athens. After the holiday he sent information about his work on Crete.

Crete has many endemic plants, and for a few of these the Greek government has to monitor them in accordance with European law. Apostolis was in Crete doing the fieldwork for the University's Department of Botany. The species under scrutiny were the annual daisy *Anthemis glaberrima*, the small annual composite *Crepis pusilla*, the pink *Silene holzmannii* and dittany, *Origanum dictamnus*, known in Greek as diktamos. There is more information about this on the news pages of www.honeyquide.co.uk

SYSTEMATIC LISTS

	BIRDS
Little grebe	Several on Ayia Reservoir
Shag	1 on rocks at Plakias on 4 dates
Little bittern	A male and female at Ayia Reservoir
Squacco heron	3-4 at Ayia Reservoir
Little egret	1 at Ayia Reservoir
Grey heron	1 at Ayia Reservoir
White stork	Three flying west near Ayia Triada
Mute swan	One at Agia Lake
Honey buzzard	1-2 at Agia Lake
Lammergeier Griffon vulture	1 or 2 at Préveli; 1 at Samaria Gorge
Buzzard	Small numbers seen regularly over hills Common and widespread
Golden eagle	1 adult over Spili Bumps
Booted eagle	1 dark-phase bird at Ayia Triada
Bonelli's eagle	Two at Kourtaliótiko Gorge
Kestrel	Common and widespread
Chukar	Heard calling at Kourtaliótiko Gorge and Spili
Water rail	One at Agia Lake
Little crake	4 or 5 males at Ayia Reservoir
Moorhen	several at Ayia Reservoir
Coot	many at Ayia Reservoir
Black-winged stilt Little ringed plover	1 at Ayia Reservoir 1 at Plakias on two dates
Little stint	1 or 2 at Ayia reservoir
Dunlin	2 at Kalamaki Pools
Ruff	Singles at Kalamaki Pools and Agia Lake
Snipe	2 or 3 at Agia Lake
	Up to 7 daily at Plakias; 8 at Omalos; also at Damnoni, Souda and
Wood sandpiper	Ayia Reservoir
Common sandpiper	2-3 birds seen regularly around Plakias, especially at the river
	mouth; singles at Ayia Triada and Ayia Reservoir
Greenshank Whiskered tern	1 at Kalamaki Pools
Yellow-legged gull	1 at Agia Lake Common and widespread; c.300 near Kalamaki Pools
Rock dove	Apparently wild birds in the gorges; feral pigeons everywhere
Collared dove	Common in towns and villages
Turtle dove	Singles on three dates
Cuckoo	A hepatic female at Omalos
Swift	Small numbers at Rethymnon and Agia Lake
Alpine swift	A few seen most days
Bee-eater	A flock of 30 at Bali and heard at Ayia Lake and Plakias.
Crested lark	Common and widespread
Woodlark	Spili, Moní Préveli and Omalos
Sand martin	Small numbers along the south coast and at Ayia Reservoir
Crag martin Swallow	In the gorges, coastal cliffs and at Ayia Reservoir Small numbers passing through daily
Red-rumped swallow	1-2 at Plakias, d 4 birds at Moní Préveli; one heard over Plakias
House martin	A few in villages and at Agia Lake
Tree pipit	One at Agia Lake
Red-throated pipit	2 at Kalamaki Pools
Grey wagtail	At Kourtaliótiko Gorge and Agia Lake
Yellow wagtail	1 black-headed at Ayia Reservoir; occasional unspecified flyovers at Plakias and elsewhere
Wren	Small numbers in the gorges and mountains
Nightingale	Singing at Spili and near Plakias
Stonechat	small numbers in most places
Northern wheatear	Around 50 on Omalos Plateau
Black-eared wheatear	Kourtaliótiko Gorge, Préveli and Omalos
Blue rock thrush	In Kourtaliótiko Gorge
Blackbird	Common and widespread

Cetti's warbler	Heard widely near water or dry watercourses	
Fan-tailed warbler	2 or 3 singing at Kalamaki Pools	
Sedge warbler	2 or 3 at Agia Lake	
Reed warbler	1 singing at Agia Lake	
Great reed warbler	4 or 5 at Agia Lake	
Sardinian warbler	Common and widespread	
Blackcap	Small numbers seen and heard in several places	
Wood warbler	One at Moní Préveli	
Spotted flycatcher	Singles at Moni Préveli and Agia Lake	
Blue tit	Common and widespread	
Great tit	Common and widespread	
Woodchat shrike	One at Souda	
Red-billed chough	4 at Samaria Gorge	
Jackdaw	A few in the gorges and at Omalos	
Hooded crow	Very common and widespread	
Raven	Widespread in small numbers throughout	
Jay	Singles at Kanevos and Omalos	
Italian sparrow	Common and widespread, though males variable in appearance and some possibly intergrades with house sparrow	
House sparrow	A male at the Synolakis Taverna looked very like this species	
Chaffinch	Common and widespread	
Greenfinch	Common and widespread	
Goldfinch	Common and widespread	
Serin	1 singing at the roadside south of Rethymnon	
Linnet	A few birds on several days, especially at high altitude	
Cirl bunting	Spili Bumps, Moní Préveli and Omalos	
Ortolan bunting	A male in song and female by the road W of Sellia	
Corn bunting	Common on coastal slopes and on higher ground	

MAMMALS

Eastern hedgehog Weasel Badger Beech marten At least 2 road casualties 1 road casualty 2 road casualties Numerous road casualties

REPTILES

Balkan (Stripe-necked) terrapin Balkan green lizard Erhard's wall lizard One at Damnoni and several at Ayia Reservoir Plakias, Festos, Spili and various roadside spots One at Frangocastello Castle



Balkan green lizard.



Erhard's wall lizard.

AMPHIBIANS

Several seen calling and mating at Préveli River; also heard at Kourtaliótiko Gorge and Damnoni. Several in song at Agia Lake

Cretan marsh frog American bullfrog

BUTTERFLIES

Swallowtail Scarce swallowtail Cretan festoon Cleopatra Large white Small white Eastern dappled white Clouded yellow Southern comma (top right) Painted lady Red admiral Meadow brown Oriental meadow brown Cretan grayling Southern speckled wood Wall brown Small copper Long-tailed blue Common Blue Holly blue Small skipper Pigmy skipper (bottom right) Seen daily in small numbers Seen at Spili, Agia Triada Seen daily in small numbers At Plakias Seen daily At Plakias At Frangocastello Seen daily At Plakias and Spili Seen daily At Spili At Plakias 1 photographed at Frangocastello At Souda and Frangocastello Seen daily At Spili and Bali. At Kalamaki Pools At Agia Triada At Frangocastello Seen daily Seen daily At Ayia Triada





MOTHS (all caterpillars)

Hummingbird hawk-moth Mullein moth Pine processionary moth Kourtalitiko Gorge Kotsiphou Gorge Agia Triada



Hummingbird hawk-moth larva on the endemic Asperula incana.



Bombus terrestris on galactites.

BEES



Nomada femoralis on crown daisy.

Apis mellifera Bombus terrestris Bombus ruderatus Chalicodoma (Megachile) sicula Andrena fuscosa Amegilla quadrifasciatus Osmia signata Osmia latreilli Dioxys cinctus Nomada femoralis Xylocopa iris Xylocopa violacea Honeybee Buff-tailed bumblebee (but white-tailed in Crete!) Large garden bumblebee a mason bee a mining bee a flower bee a mason bee a mason bee a cuckoo bee a cuckoo bee a carpenter bee Violet carpenter bee

WASPS		
Vespula germanica	German wasp	
Polistes gallicum	a paper wasp	
Megascolia flavifrons (maculata)	a mammoth wasp	
Podalonia hirsuta	a sand-wasp	
Sapyga quinquepunctata	a sapygid wasp	
Sphex funerarius	a sand wasp	
Spriex runeranus	ANTS	
Messor barbarus	harvester ant	
	FLIES	
Lomatia sp.	a bee fly	
Machimus sp.	a robber fly	
Episyrphus balteatus	marmalade hoverfly	
Stratiomys longicornis	Long-horned general (a soldierfly)	
Strationity's iongiconnis	BUGS	
Graphosoma italicum	"millwall bug"	
Spilostethus (Lygaeus) pandurus	a black and red ground bug	
Aquarius najas	large pondskater	
	BEETLES	
Trichodes apiarius	a chequered beetle	
Tropinota hirta	a chafer	
Oxythyrea funesta	a black-and-white flower chafer	
Julodis onoporda		
Cicindela littoralis	a large Buprestid beetle	
	a tiger beetle	
Coccinella 7-punctata	Seven-spotted ladybird ODONATA	
Orthetrum brunneum	Brown Skimmer	
Crocothemis erythraea	Scarlet Darter	
Ischnura elegans	Blue-tailed Damselfly ORTHOPTERA	
Cicada sp.	a cicada	
	a bush-cricket	
Ephippiger sp.		
Decticus sp.	a wart-biter bush-cricket	
Anacridium aegyptium	Egyptian grasshopper	
Acrida ungarica/A.turrita	Nosed grasshopper	
	THER INVERTEBRATES	
Potamon potamios	Freshwater crab	
Albinaria (corrugata) inflata	Cretan door snail SPIDERS	
Dhilogua chrugona		
Philaeus chrysops	red jumping-spider	
Micromata virescens	a large green spider	
Thomisus onustus	a crab spider	
	Bush cricket Cicada	
	Tiger beetles Ground bug	

PLANTS Key and nomenclature

Latin names of plants follows those used in *Flora of the Cretan Area* (Turland et al 1993), with additions from Mediterranean Wild Flowers (Blamey & Grey-Wilson 1993). Also used as references: *The Orchids of Crete and Karpathos* by Albertis Antonis (a photoguide); *Wild Flowers of Crete* by George Sfikas; *Flowers of Crete* by J Fielding & N Turland; and *Wild Flowers of Crete* by Vangelis Papiomitoglou. * Endemic to Crete P Planted NiF not in flower # Introduced and not native to Crete and cultivated or planted species

	S AND ALLIES
Adiantum capillus–veneris	Maidenhair Fern
Ceterach officinarum	Rustyback Fern
Cheilanthes persica	Rustyback i elli
Equisetum ramosissimum	a horsetail
Pteridium aquilinum	Bracken
Selaginella denticulata	Mediterranean Club–moss
	ONIFERS
Cupressus sempervirens	Cypress
C.sempervirens var. pyramidalis	Funeral Cypress
Pinaceae – Pine Family	
# Araucaria araucana	Norfolk Island pine
Pinus brutia	Calabrian pine
# Pinus pinea	Stone pine
	LANTS – Dicotyledons
Aceraceae – Maple Family	
Acer sempervirens	
Aizoaceae – Aizoon Family	
# Carpobrotus edulis	Hottentot Fig
Anacardiaceae – Pistacio Family	
Pistacia lentiscus	Mastic tree or lentisc
Apiaceae (=Umbelliferae)– Carrot Family	
Apium nodiflorum	Fool's watercress
Anthriscus caucalis	Bur chervil
Daucus carota	Wild Carrot
Eryngium campestre	Field Eryngo
Ferula communis ssp.communis	Giant Fennel
Foeniculum vulgare	Fennel
Oenanthe pimpinelloides	Corky–fruited water dropwort
Scandix pecten-veneris	Shepherd's needle
Smyrnium olusatrum	Alexanders
Smyrnium perfoliatum ssp. rotundifolium	Perfoliate Alexanders
Tordylium apulum Asteraceae (=Compositae) – Daisy Family	Mediterranean Hartwort (equally 2–lobed petals)
Anthemis chia	
Bellis annua	Annual Daisy
Calendula arvensis	Field Marigold
*Centaurea raphanina	
Chrysanthemum coronarium var. coronarium	
(now Glebionis coronaria)	
Chrysanthemum coronarium var. discolor	Crown Daisy
Chrysanthemum segetum	Corn Marigold
Cichorium intybus	Chicory
Crupina crupinastrum	Crupina
Dittrichia viscosa	Aromatic inula
Filago (Evax) pygmaea	Evax
Filago pyramidata	Broad–leaved Cudweed
Galactites tomentosa	Mediterranean Thistle
Helichrysum (stoechas ssp.) barrelieri	Curry–plant
Helichrysum conglobatum	a curry–plant without scent
*Helichrysum heldreichii	
*Onopordum bracteatum ssp. creticum	
Onopordum tauricum	
Pallenis (Asteriscus) spinosus	Spiny golden star
Phagnalon graecum	Shrubby Cudweed

Ptilostemon chamaepeuce Scorzonera cretica Silybum marianum Tragopogon sinuatus (porrifolius) Apocynaceae – Oleander Family Nerium oleander ssp.oleander **Berberidaceae – Barberry Family** Berberis cretica **Boraginaceae – Borage Family** Anchusa italica (azurea) Cerinthemaior Cynoglossum creticum Echium angustifolium Echium italicum Echium plantagineum **Cactaceae – Cactus Family** # Opuntiaficus-barbarica (O.ficus-indica) Campanulaceae – Bellflower Family Campanula erinus * Campanula tubulosa * Petromarula pinnata *Solenopsis minuta ssp. annua Caprifoliaceae – Honeysuckle Family Lonicera etrusca Caryophyllaceae – Pink Family * Cerastium scaposum Silene bellidifolia Silene colorata Silene gallica Silene bellidifolia Chenopodiaceae Chenopodium murale Salsola kali **Cistaceae – Rockrose Family** Cistus (incanus ssp.) creticus Cistus parviflorus Cistus salvifolius Fumana thymifolia **Convolvulaceae – Bindweed Family** Convolvulus althaeoides Convolvulus elegantissimus Cuscuta epithymum Crassulaceae – Stonecrop Family Umbilicus horizontalis Cruciferaceae (=Brassicaceae) - Cabbage Family Aubrieta deltoidea Biscutella didvma Cakile maritima Capsella bursa-pastoris Matthiola tricuspidata Nasturtium officinale Raphanus raphanistrum * Ricotia cretica Sinapis alba **Cucurbitaceae – Cucumber Family** Ecballium elaterium Bryonia cretica ssp cretica **Dipsacaceae – Scabious Family** Scabiosa maritima **Dioscoraceae – Yam Family** Tamus communis **Ericaceae – Heather Family** Erica arborea Euphorbiaceae – Spurge Family Euphorbia acanthothamnos Greek Spiny Spurge

Oleander Large Blue Alkanet Honeywort Blue Hound's-tongue Narrow-leaved Bugloss Pale Bugloss Purple Viper's-bugloss Prickly Pear Cretan Wall Lettuce Honeysuckle Cretan mouse-ear Mediterranean catchfly Small-flowered Catchfly Bladder campion Nettle-leaved goosefoot Prickly saltwort Cretan Cistus Small–Leaved Cistus Sage-Leaved Cistus Thyme-leaved Fumana Mallow-leaved Bindweed Dodder Navelwort / wall pennywort Aubrieta **Buckler Mustard** Sea-rocket Shepherd's-purse Three-horned Stock Water-cress Wild radish Ricotia White mustard Squirting cucumber Cretan white bryony Mournful widow Black Bryony Tree-heath

Cretan Viper's-grass

Milk Thistle

Salsify

Euphorbia characias Euphorbia dendroides Euphorbia helioscopia Euphorbia paralias # Ricinus communis Mercurialis annua Fabaceae (=Leguminosa) – Pea Family # Acacia cvanophvlla Anagvris foetida Anthyllus vulneraria ssp.praepropera (=rubriflora) Bituminaria (Psoralea) bituminosa Calicotome villosa #Cercis siliquastrum Ceratonia siliqua * Ebenus cretica Lathyrusaphaca Lupinus micranthus Medicago arabica Medicago orbicularis Onobrychis caput-galli Ononis reclinata Robinia pseudoacacia Spartium junceum Tetragonolobus purpureus Tetragonolobus campestre Tetragonolobus nigrescens Tetragonolobus resupinatum Tetragonolobus stellatum Tetragonolobus tomentosum Tetragonolobus uniflorum Tripodion (Anthyllis) tetraphyllum Vicia bithynica Vicia hirsuta Vicia sativa Vicia villosa Fagaceae – Oak Family Quercus coccifera Quercus ilex Quercus pubescens Quercus ithaburensis ssp. macrolepis Fumariaceae – Fumitory Family Fumaria macrocarpa Gentianaceae - Gentian Family Blackstonia perfoliata Geraniaceae – Geranium Family Erodium circutarium Erodium malacoides Geranium dissectum Geranium purpureum Geranium rotundifolium Lamiaceae (=Labiatae) - Mint Family Ballota pseudodictamnus Coridothymus (Thymus) capitatus Lavandula stoechasP Phlomis fruticosa Prasium majus Salviafruticosa (formerly S. triloba) Salvia verbenacea Linaceae – Flax Family Linum arboreum Linum bienne Lythracea – Loosestrife Family Lythrum junceum Malvaceae - Mallow Family

Mediterranean Spurge Tree Spurge Sun Spurge Sea Spurge Castor Oil Plant Annual Mercury Mimosa / blue-leaved wattle Bean trefoil Red (Mediterranean) Kidney Vetch Pitch Trefoil Hairy Thorny Broom Judas Tree Carob Tree Shrubby Sainfoin (Cretan Ebony) Yellow vetchling Hairy Lupin Spotted Medick Large Disk Medick Cock's-comb Sainfoin Small Rest-harrow False acacia Spanish Broom Asparagus Pea Hop Trefoil a common annual white clover **Reversed Clover** Starry Clover Woolly Trefoil One-Flowered Clover Bladder Vetch Bithynian Vetch (two-tone purple & white) Hairy tare Common vetch Fodder Vetch

Kermes Oak Holm or evergreen oak The following are deciduous oaks on Crete, both doubtfully native: Downy oak is ssp. macrolepis Valonia oak; acorn cups with long, spreading scales

Yellow-wort

Common Storksbill Mallow–leaved Storksbill Cut–leaved Cranesbill Little Robin Round–leaved Cranesbill

Shrubby Thyme French Lavender Jerusalem Sage Spanish hedge–nettle Shrubby or 3–leaved Sage Wild clary

Tree Flax Pale Flax Lavateracretica Malva parviflora Malva sylvestris Moraceae – Fig Family Ficus carica # Morus alba Myrtaceae – Myrtle Family Mvrtus communis ssp. communis **Oleaceae – Olive Family** Olea europaea **Orobanchaceae – Broomrape Family** Orobanche ramosa Orobanche crenata **Oxalidaceae – Sorrel Family** Oxalis corniculata # Oxalis pes-caprae Papaveraceae – Poppy Family Glaucium flavum Glaucium corninculatum Papaver argemone ssp nigrotinctum Papaver rhoeas Plantaginaceae – Plantain Family Plantago coronopus Plantago lanceolata Plantago lagopus Platanaceae – Plane Tree Family Platanus orientalis Polygalaceae – Milkwort Family Polvaala venulosa Polygonaceae – Dock Family Chenopodium murale Primulaceae – Primrose Family Anagallis arvensis *Cyclamen creticum Ranunculaceae – Buttercup Family Anemone coronaria Ranunculus asiaticus Ranunculus creticus Ranunculus peltatus ssp. fucoides Resedaceae – Mignonette Family Reseda alba Reseda lutea Rosaceae – Rose Family Crataegus monogyna ssp. azarella #Eriobotrya japonica Pyrus spinosa Rubus sanctus Sarcopterium spinosum Rubiaceae – Bedstraw Family * Asperula pubescens (A. incana) Galium aparine Rubia peregrina Sherardia arvensis **Rutaceae – Rue Family** # Citrus limon # Citrus sinensis Ruta chalepensis Scrophulariaceae – Figwort Family Bellardia trixago Cymbalaria muralis Parentucellia latifolia Parentucellia viscosa Scrophularia lucida Verbascum macrurum Verbascum sinuatum

Lesser Tree Mallow Small-flowered Mallow Common Mallow Fia White Mulberry Common Myrtle Olive Branched broomrape Bean broomrape Yellow oxalis Bermuda buttercup Yellow Horned-poppy Red-horned poppy Common Poppy Buckshorn plantain Ribwort Plantain **Oriental Plane** Eastern milkwort Nettle-leaved goosfoot Scarlet pimpernel (Scarlet and blue forms) Cretan cyclamen Crown Anemone Turban buttercup Pond water-crowfoot White mignonette Wild mignonette Hawthorn Loguat Almond-leaved or Wild Pear Bramble **Thorny Burnet** showy, pale pink, on calcareous cliffs Cleavers Wild Madder Field Madder Lemon Orange Rue Bellardia Ivy-leaved toadflax Southern red bartsia Yellow Bartsia Shining Figwort

Vater speedwell Symbalaria–leaved speedwell ree tobacco /hite henbane ellow henbane
Cymbalaria–leaved speedwell Tree tobacco /hite henbane
ree tobacco /hite henbane
hite henbane
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ellitory of the wall
Roman nettle
Cretan Valerian
, .
'ervain
Grape Vine
yledons
Century Plant
too Doffodil (loovos only)
ea Daffodil (leaves only)
riar's Cowl
Cretan Arum
Dragon Arum
Canary Date Palm
•
Cretan Palm
Galingale
llack Bog–rush
5
ield Gladiolus
and any Miss
arbary Nut
ellow Flag
ellow Asphodel
common Asphodel
Sea Squill
assel Hyacinth
anikad Star of Dathlaham
spiked Star–of–Bethlehem
utcher's broom
pink, Omalos)
red, Spili)
1an orchid
yramidal orchid
J. S
rotan haa arahid
Cretan bee orchid
larengo orchid
ishop's ophrys
icilian yellow bee orchid
awfly orchid

Orchis anatolica Orchis boryi Orchis coriophorassp. fragrans Orchis italica Orchis laxiflora Orchis (provincialis)pauciflora Orchis quadripunctata Serapias bergonii (S. vomeracea ssp.laxiflora) Serapias orientalis

Poaceae – Grass Family

Arundo donax Briza maxima Hordeum murinum Lagurus ovatus Phragmites australis **Posidoniaceae Sea–grass family** Posidonia aceanica **Smilacaceae – Smilax family** Smilax aspera **Typhaceae – Reedmace family** Typha domingensis Anatolian orchid Bory's orchid Bug orchid Italian man orchid Loose–flowered orchid Few–flowered orchid Four–spotted orchid Bergon's tongue–orchid Tongue orchid Eastern tongue orchid

Giant Reed Greater Quaking–grass Wall barley Hare's–tail Common Reed

Neptune-weed

Common Smilax or Sarsaparilla



Man orchid



Ophrys ariadne



Marengo orchid



Bishop's ophrys



Loose-flowered orchid



Eastern tongue orchid