

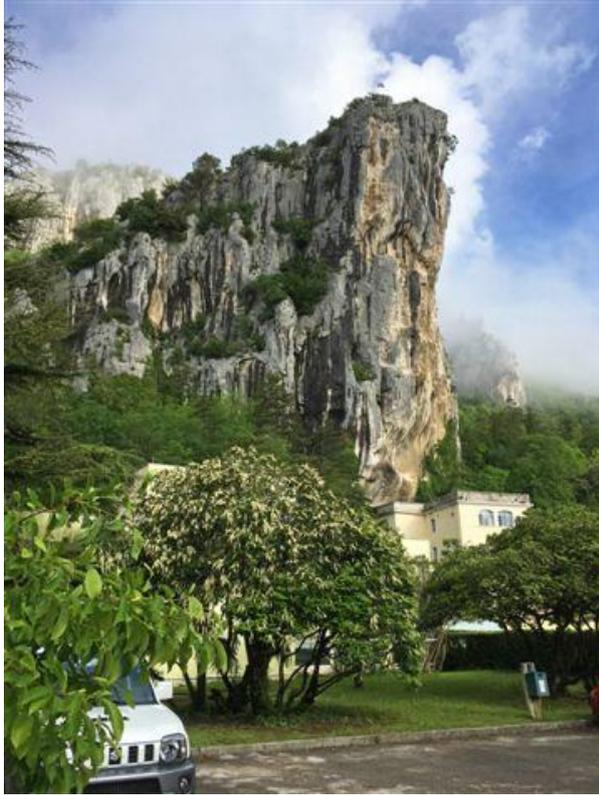
Honeyguide

WILDLIFE HOLIDAYS

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Istria
14 – 21 May 2018

Holiday participants

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Jean Dunn
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Leaders

Paul Tout,
Domen Stanic and Sara Cernich www.wild-slovenia.com

Report by Paul Tout. Photos by Domen Stanic and John Croft.

Cover, top: the crag above our base at Istarska Toplice (JC); purple mullein *Verbascum phoeniceum* (JC).
Bottom: pearly heath (DS), Isola della Cona nature reserve (JC).

Below: group members behind Paul Tout at Škocjanski zatok / Val Stagnon nature reserve, presenting reserve manager Borut Mozetič with the donation for the organisation's future conservation work.



This holiday, as for every Honeyguide holiday, also puts something into conservation in our host country by way of a contribution to the wildlife that we enjoyed. The conservation contribution this year of £40 per person was supplemented by an additional donation and gift aid through the Honeyguide Wildlife Charitable Trust, leading to a donation of £710.

The donation went to BirdLife Slovenia (DOPPS). Though the holiday was based in Croatia, the northern part of Istria is in Slovenia. The total for all conservation contributions through Honeyguide since 1991 was £124,860 to September 2017.

DAILY DIARY

Day 1, Monday 14 May – Stansted to Trieste, transfer to Istarske Toplice

The holiday participants took the early afternoon Ryanair flight FR168 to Trieste in NE Italy. Upon arrival just after 5pm and passing through passport control the luggage was collected and the group met up with Paul Tout and Domen Stanic, our local leaders. After loading the luggage into our minibuses we set off towards Istria, looking to pass through the very attractive historic centre of Trieste and on towards Koper-Capodistria, the main port in Slovenia. Most of the place-names in this report are in two languages, Croatian (or Slovene) and Italian as we are at the crossroads of Europe where the three main language groups (Romance, Slav and Germanic) meet and interact and the entire area is an ethnic and linguistic mix with large areas of bi- (and even tri-) lingualism.

Taking the *Costiera* towards the centre of Trieste we stopped at the *Galleria naturale* with views across the Gulf of Trieste, towards the northern coast of Istria, Slovenia and Croatia. Alpine swifts nesting in a colony on the cliffs beside the tunnel were flying above and below us and over the evergreen Mediterranean vegetation which reaches the northernmost point of its distribution in this part of the world.

The centre of Trieste looked very fine in the sunshine with its Viennese-style waterfront and main square, the only one in Italy opening onto the sea, thronged with visitors. We arrived at our hotel, Istarska Toplice, and later ate a very nice meal at our regular restaurant, *Dolina*, in the village of Gradinje, close to the hotel. As is usual for the area, scops owls and nightingales were calling and singing at the hotel on our return.

Day 2, Tuesday 15 May – Hrastovlje, Škocjanski zatok, Mirna Valley

Meeting up to go to breakfast at 8am, we were outside the hotel at 9am to start our first full day. Normally this would be one spent orientating ourselves around the hotel grounds which are extremely rich in wildlife but the local weather forecast was poor. Fortunately, Istria has a very varied climate and during southerly winds – the ‘*Scirocco*’ – although the hilly inland areas may experience powerful downpours, the coastal areas are often simultaneously dry, and thus we attempted to avoid the poor weather by heading north to a drier and sunnier part of Istria, the city of Koper-Capodistria and back into Slovenia.

Our first stop was at the Romanesque church at Hrastovlje (the village has only a Slovene name as it never had an Italian minority during its history and falls outside the bilingual area), one of the most famous cultural sites in Slovenia which draws thousands of visitors a year. Dating back to the late 15th century, the tiny



The badly deteriorated image (here ringed in red) of what appears to be a Bald Ibis (*Geronticus eremita*) on the wall of the church at Hrastovlje.

country church's most famous feature is the religious mural painted by the famous local artist John of Castua in 1492 and which completely covers the interior walls of the church. Many people come to see the *Danza Macabra* or “Dance of Death” showing the passage of life from the cradle to the grave and the inevitability of death for everyone, from the poorest to the richest, including kings and cardinals.

One interesting element in the paintings is a bird! A large dark purple bird with a reddish, down-curved beak that has been tentatively identified as a juvenile bald ibis! The species is now almost extinct with only the Moroccan colonies now viable (and increasing). However bald ibises were described by Gesner (1555) as nesting on the city walls of Salzburg and as occurring in “Illyria” and Istria by the Italian naturalist Aldrovandi (1605). Bald ibises seem to have died out not long afterwards as they are rarely mentioned later that century, when the European climate worsened severely during the ‘Maunder Solar Minimum’ between 1645-1715.

After the visit to the church the weather on the day was worsening too and we moved on to the bird reserve of Škocjanski zatok / Val Stagnon, close to Slovenia's main port city of Koper-Capodistria. The reserve is managed by DOPPS, the Slovenian Birdlife partner and recipient of the Honeyguide donation from this holiday. The reserve is semi-urban and divided between a freshwater wetland and a large brackish lagoon right beside the main port. A campaign organised by DOPPS and local naturalists saw the area saved from being drained and developed and it is now an important and well-managed reserve with thousands of visitors a year.

The wetlands were in excellent condition and the birds seen included little grebe, little bittern, squacco heron, cattle egret, little egret, grey heron, purple heron, marsh harrier, ruff, wood sandpiper, redshank, common snipe, Cetti's warbler, reed warbler and great reed warbler, with common tern, little tern, black-winged stilt and great white egret on the brackish lagoon. The little terns are a recent (re)colonist of the lagoon and are currently producing large numbers of young per pair and thus will probably continue increasing in the years to come.

There were lots of marsh frogs in the various ditches. One of the interesting observations was the dense shoals of the introduced mosquito fish *Gambusia holbrooki* in the shallow water bordering the ditches which were being hunted by several very large adult great diving beetles *Dytiscus marginalis* dashing in and out of the tightly-packed fish .

At the end of our trip around the reserve we presented the DOPPS reserve manager Borut Mozetič with the Honeyguide donation (see page 2), said our goodbyes and headed for lunch.

After lunch we made our way back into Croatia by a more westerly route and up along the Mirna-Quieto River from the sea towards our hotel. By now the weather was hot and humid and while we did add good views of a pair of short-toed eagles, fan-tailed warbler and corn bunting, there was little activity in bird terms as we made our way back towards the hotel.

Day 3, Wednesday 16 May – Kamenjak, Pula and Tar-Torre

The Kamenjak peninsula and its southernmost tip, Punta Premantura, are surrounded by the Adriatic on three sides. This position not only renders the area particularly dry, about 600mm of rainfall a year, but also makes the winter climate extremely mild, comparable with areas much further south along the Adriatic, and frosts are rare and slight. This makes it a haven for the flora and fauna of Mediterranean scrub and grassland and especially famous for its orchid species. The area was an important base for the Yugoslav National Army until the country's break up in 1991, a fact that saved the area from the development that has damaged much of the coastline.

The bird fauna on Kamenjak is not particularly abundant, but tawny pipit, wheatear, and red-backed shrike were all seen well as we arrived, together with a few pallid swifts which were seen racing around close to their colony in a sea cave, though they were not seen visiting the site. Winter storms seem to have swept away the old nests from the exposed cavities in the cliff-face, dumping large cobbles, some weighing the best part of a kilogramme, onto ledges five metres above the sea. Barn swallows were evidently nesting in the old military bunkers close to our van while circl bunting, nightingale and subalpine and Sardinian warbler were seen and heard in the Phillyrea and prickly juniper scrub that covers much of the peninsula. Several Mediterranean shags and a few yellow-legged gulls were almost the only birds seen on the sea. Butterflies on the wing included common swallowtail, wall brown, painted lady, marbled white and eastern baton blue.



Pink butterfly orchid *Anacamptis papilionacea*; Montpellier cistus (DS).

Kamenjak is most important for its plants, and the heavy winter rains (especially compared to the dry late winter and spring of 2017) meant that the Mediterranean scrub of Phillyrea, prickly juniper, spiny ivy, hairy rockrose, Montpellier cistus, myrtle, mastic and holm oak looked in superb condition. We put together a good list of orchids that included bumblebee, dark spider and Bertoloni's bee orchids, fragrant, bug, pink butterfly and tongue orchids. In addition to the orchids there was much more to see in the scrub and grassland including the strange prostrate evax as well as both yellow-wort and lesser centaury of the gentian family, The pungent curry-plant or *Helichrysum* is a very common plant at Kamejak but its populations are being decimated elsewhere in Croatia where it is being collected in huge quantities for the cosmetic industry.



Subalpine warbler (DS).



The Roman arena at Pula (JC).

Wild sage, white horehound and the very attractive canary clover were also seen as well as lots and lots of large quaking and hare's-tail grasses, both favourites in dried flower arrangements, although here they were looking nice and fresh and green. Beside the sea there were stands of rock samphire. Invertebrates of interest included several carpenter bees *Xylocopa* sp. and the common Egyptian grasshopper *Anacridum aegyptium* in the scrubland. The scrub close to the sea held several tame Dalmatian wall lizards, probably well-habituated to the many people who frequent the site, especially during the summer months.



Dalmatian wall lizard, "probably well-habituated to the many people who frequent the site" (JC).

On our way back to the hotel we stopped off to see the spectacular Roman arena at Pula, the sixth largest in the world still standing and which once held 20,000 spectators. Why was it so large when ancient Pula does not seem to have been a very large city? The reason would appear to be Istria's vicinity to Aquileia, just north of Venice. Aquileia was once one of the largest cities of the Roman Empire. Istria became very rich trading in wine, olive oil and other foodstuffs with its 100,000 population until the city was sacked and utterly destroyed by Attila the Hun in 452 A.D. The population of Aquileia fled to the lagoon and marshes and went on to found the much more durable and defensible Venice! While Pula itself was not particularly large, the surrounding countryside was densely populated by the hordes of agricultural labourers required to work the rich farmland.

We also stopped at some remarkable meadows near Tar-Torre. Until recently these were owned by Ivica Todorić, once the richest man in Croatia whose huge holding company, Agrokor, collapsed in bankruptcy and scandal in 2017. Here, the meadows' thin reddish clay soils overly solid limestone bedrock. In recent years they have been lightly grazed by horses and mules, resulting in a rich spread of bright purple-headed cow-wheat *Melampyrum carstiense*, crimson clover, meadow clary, dropwort, dyer's greenweed together with thousands of pink butterfly orchids *Anacamptis papilionacea*. These had begun to go over compared with a fortnight earlier but were nevertheless in much better condition and much larger than those seen at Kamenjak earlier in the day.

Among them were a couple of very attractive hybrids with the green-winged orchids on the site. Recent systematic changes have seen both species moved to the genus *Anacamptis*. *A. morio* usually completes its flowering period a month earlier than *A. papilionacea* but the specimens of *A. morio* in deep shade at the base of the scattered prickly juniper had only just finished flowering, therefore overlapping with the first blooms of *A. papilionacea*.



Rose chafer (JC), a tame Glanville fritillary (DS) and Adonis blue (DS).

Butterflies seen on the site included a few early marsh and Glanville fritillaries, Adonis and little blues, together with large numbers of rose chafers. Birds were well-represented with short-toed eagle, subalpine warbler, golden oriole (heard), common buzzard and green woodpecker.

Day 4, Thursday 17 May – Around the hotel, Srbani, Tar-Torre, Mirna Valley

After dodging the severe inland downpours of the previous days, today the weather had improved sufficiently to allow us to begin exploring the area around the hotel itself. Set between soaring Karst limestone cliffs and the riverine oak forests that once furnished large quantities of timber for the world-famous shipyards of the *Arsenale* in Venice, they now produce large quantities of truffles for visiting tourists. These shipyards were once the first 'production line', turning out a new galley every 14 days, although it wasn't the ships that moved but the teams of carpenters, who moved to a new ship under construction every couple of days, repeating identical jobs in rotation with each team following on from their predecessors with all the stages of production, from the felling of trees to the creation of a ship's components, always following a strict routine.

The pair of ravens on the large rock above the hotel had two very large chicks in the nest, close to fledging, together with 'wild' rock doves on the rock-face and serins in the cliff-face scrub. Blackcap, nightingale, melodious warbler, red-backed shrike and ciril bunting were all seen or heard in the rough grassland and scrub on the ground east of the hotel itself. Adriatic lizard orchids were coming into full flower on the hotel's crazy golf-course. Moving round past the pumping station on the River Mirna it was pleasing to note the large numbers of house martins back at their nests. These returned rather late to the colony this spring. Moving on past the woodland beside the river we hit a lucky streak with both lesser spotted and middle spotted woodpeckers seen in quick succession. The latter are fairly recent colonists of the Mirna Valley having spread from further east in recent years. Hawfinches and golden oriole were also seen, but poorly.



Tommasini's sandwort *Moehringia tommasinii* (DS).

Before lunch we moved up onto the rock above the hotel, adding plenty of species to the plant list including Italian catchfly, burnt candytuft, wall rue, rustyback and maidenhair ferns in the old walls and in the rock-faces, together with biting stonecrop, larval foodplant of the chequered blue butterfly, several of which were seen along the path. One of the most interesting and the rarest plant seen was Tommasini's sandwort *Moehringia tommasinii*. This is an endemic 'chasmophyte' – a small white member of the pink family which grows exclusively in cracks in rock-faces at only three sites, at one of which (in Italy) it may be extinct. It was discovered by and named after Muzio Tommasini, a 19th century botanist and mayor of the city of Trieste.

Other plants recorded included Cretan crown-vetch, meadow clary, blue bugle, Nicean milkwort, ground-pine, perennial lettuce, lady's lace, *Pseudofumaria alba* (pale corydalis), red pea, upright woundwort, Christ's thorn, turpentine tree, crimson clover, scorpion senna, rampion bellflower and the umbellifer *Seseli gouanii* together with the aliens paper mulberry and ivy-leaved toadflax.

The butterflies we saw were small heath, green hairstreak, wood white, marsh fritillary and wall brown, and 'Herptiles' included marsh frog, Dalmatian algyroides and a single Aesculapian snake.

After lunch on the 'stone tables' (actually concrete table tennis tables!) in the shade close to the crazy golf course we headed off to nearby Nova Vas which has a splendid piece of low-intensity land with a large range of arable weeds, a set of species that are seriously threatened in Europe, including field bindweed, corncockle, corn buttercup, cornflower, large Venus's looking glass and field pansy. The area is excellent for farmland birds, and turtle dove and corn bunting were seen. The farmland also supports good numbers of butterflies and we saw marsh fritillary, black-veined white and brown argus, while the spindle trees were covered with the webs of the spindle ermine moth *Yponomeuta cagnagella*. After this we had another brief stop at the meadows at Tar-Torre where we managed views of woodchat shrike. For the second year in succession a pair of these birds is the only one that Paul T. knows of in Istria and the area is worthy of investigation to see if other birds are present.

Returning towards the hotel we walked up by the Mirna River from the coast inland. Birds seen on the lagoon near the mouth of the river included yellow-legged gull and Mediterranean shag of the *desmaresti* subspecies, the juveniles of which have white bellies, and the birds may eventually be elevated to full species status.



Large Venus's looking glass; black-headed bunting (DS).

Moving inland onto freshwater, the area is riddled with escaped coypus which were seen well, together with great white and little egrets, grey heron, bee-eater, ashy-headed yellow wagtail of the *cinereocapilla* subspecies, and corn bunting, but the best birds were at least two male black-headed buntings. These were in the rich roadside vegetation which included European birthwort, marsh mallow, common reed, Mediterranean cane (= giant reed), yellow flag, dwarf elder and hop set amidst fields of lucerne, grass crops and barley. The black-headed buntings belong to the most north-westerly population of the species in the world. They used to number close to one hundred singing males but have declined enormously in recent years as the area's agriculture has intensified and a high-speed bypass was driven right through the site.

At this point we made our way back to the hotel to prepare for dinner.

Day 5, Thursday 18 May – Laganisi, Sterna and Savudrija

After exploration around the hotel we had a local day on the plateau directly above the Mirna Valley. Our first stop was to examine an interesting roadside verge bank at Stelchin, with wood spurge and a large hybrid swarm of *Dactylorhiza* orchids. While clearly containing plenty of common spotted orchid *D. fuchsii*, this swarm is expanding rapidly and contains a dizzying variety of morphologies in its colours from almost white through to deep fuschia. The swarm blooms extremely early, with the first spikes appearing in mid-April this year, two months earlier than the usual period for this species.

A short distance down the road, just beyond Oprtalj-Portole, Sveti Lucija was the starting point for our morning walk through the Istrian countryside towards Laganisi and Jadroni. We set off through woodland of black pine and oriental hornbeam. The black pines were planted from the 1850s onwards following experiments by Josef Ressel who worked as a forester in nearby Motovun-Montona across the valley.

A polymath – among his many patents, Ressel invented pneumatic post and ball and cylinder bearings – he also developed the world's first functioning marine propeller in 1821 (even if the first test in Trieste was a disaster, the boiler of the boat exploding! Further tests were banned and the British 'stole' the patent, putting the first commercial application of the concept on Brunel's ship, the SS Great Britain in 1840!)

The rocky verges along the track were rich in wild flowers including yellow vetchling, spiny asparagus, dittany, silky greenweed, basket-of-gold alyssum (going over) and the occasional slender broomrape. We also saw the the cow-wheat *Melampyrum carstiense* and Adriatic lizard orchid. The latter is spreading and is becoming ever-commoner in recent years.



Adriatic lizard orchids and long-lipped tongue orchid (DS).

As earlier in the month, we noted that the leaves on the oaks seemed undamaged, there being a complete dearth of defoliating *Tortrix* sp. caterpillars in the area this spring. Perhaps the late frosts had killed the earlier instars with birds being few-and-far-between. We did see turtle dove, subalpine warbler, cirl bunting and spotted flycatcher. There were also some butterflies in the warm sunshine including wood white, brown argus, large wall brown, dingy skipper, Adonis blue, scarce swallowtail and grizzled skipper. Moths included many speckled yellows.

The village of Lagansi largely consists of abandoned houses (with nearby Jadroni being completely empty) with some having already been restored as holiday homes. There is only one remaining local farmer, now in his seventies, who has told Paul T. that one of them, with a large olive millstone outside its front door and a collapsed stone roof, was abandoned following the severe winter of 1929, the harshest of the 20th century in this part of the world and which killed almost all the olive trees in Istria. Thousands of families, including this one, emigrated to the United States and South America. After they had left, most of the 'dead' olives re-sprouted and began producing olives a decade or so later. As a result, many of the olive trees in Istria are multistemmed, 'coppiced' by the severe winters of 1929, 1963 and 1985.

For lunch we moved to the church of Sveti Marija, one of many medieval country chapels in Istria, each of which serves several local villages. This one is surrounded by beautiful meadows and set on a cap of limestone in an area of flysch mudstone and thus with an interesting flora. Unfortunately the weather was threatening once again. With little time to admire the grassland we had to dash off, away from the rain.

As we made our way north-west towards Savudrija-Salvore on the coast through open karst hay meadows and scattered woodland, dropping down towards the sea, hail and torrential rain battered the vans but we were well protected, and had done our morning's walk without incident.

Arriving at Savudrija-Salvore, the north-westerly tip of Istria, we were 'playing our joker' and exploiting a local phenomenon that sees the village out on a promontory in the Adriatic and usually managing to dodge the summer thunderstorms typical of Istria in southerly winds. As we neared our destination the rain ceased, the sky above us cleared and we emerged into sunshine and bright blue skies, even as black clouds loomed and thunder rumbled behind us.

Walking up the lane, the first surprise was to hear a bobwhite quail. Although frequent elsewhere in Istria, Paul had no records for Savudrija-Salvore. This species, introduced for hunting from North America, was once widespread in Europe in the 1950s and 1960s, but the Istrian population is now the last one surviving one 'on this side of the pond'.

Birds were again scarce but some of them were interesting, notably at least two singing males of eastern olivaceous warbler, which unfortunately were very uncooperative and only heard. This species is Balkan in its distribution and like the black-headed bunting it reaches the north-westerly limit of its distribution in Istria here at Savudrija-Salvore. Italy is visible across the Gulf of Trieste but the species is considered a vagrant everywhere in peninsular Italy. It is the only bird species that willingly uses Mediterranean cane *Arundo donax* as breeding habitat, making its absence on the Italian coast opposite (where the cane is abundant) all the more surprising.

Other birds were seen and heard as we walked through the scrubland beside the sea including red-rumped swallow, bee-eater, corn bunting, tawny pipit and Sardinian warbler. Perhaps the most spectacular and exciting sighting, however, was of bottle-nosed dolphins, at least two passing close offshore. This species is increasing in number around the Northern Adriatic and is being closely monitored by photography, with subsequent identification of individuals and family groups, although unfortunately our photos were not sufficiently detailed to allow us to identify the individual dolphins involved.



Two views of bottle-nosed dolphins offshore (DS).

Day 6, Friday 19 May – Poklon Pass, Mala Učka, Prusijani, Brgudac

Today the weather allowed us to visit the uplands of the Istrian interior, making our way towards Buzet and on towards the Poklon Pass where, at almost 1000 metres above sea level, the Croatian and Istrian government have set up the Učka Nature Park. Woodland and grassland here are subalpine. While Paul paid for the tickets we were able to look out across the Kvarner Gulf and towards the islands of Cres-Cherso and Krk-Veglia with the city of Rijeka-Fiume on the coast and the 2,000 metre high Velebit chain, some of the wildest, most roadless and least inhabited land east of the Urals, stretching all the way down the coast to the city of Split and beyond.

We stopped first beside the Josip II spring, a roadside fountain placed at the the top of the pass for travellers and their animals. The fountain was commissioned by the Hapsburg Holy Roman Emperor Joseph II (1741-1790 and the father of Maria Theresa) when Inner Istria was part of Austria-Hungary. At his wife's suggestion, Sir Richard Burton crossed over the pass in November 1888 to stay in the resort of Opatija-Abbazia on the gulf below and escape the terrible weather in Trieste (where he lived) for a few days. He finally made it home in early March of 1889! One of the last pieces he ever wrote, his account is online and drips with the venom and irony that Burton became famous for in his later years:

<http://burtoniana.org/books/1888-Three-Months-At-Abbazia/burton-1888-abbazia-trans.pdf>

We next moved on to look at the fine meadows nearby. So many have been lost to scrub and woodland and it is good to be able to obtain a snapshot of how much of the area must have been before depopulation began to bite in the post-war period. Butterflies seen here included common swallowtail, Duke of Burgundy, clouded yellow and orange tip, with the moths speckled yellow and latticed heath. Interesting plants in the meadows included long birthwort (the larval foodplant of the southern festoon), whorled lousewort, spring and cross-leaved gentians, green-winged and military orchids and the beautiful Scopoli's ragwort closely resembling Arnica, with martagon lily, *Helleborus multifidus*, wild peony, fly honeysuckle and herb paris in a splendid hedgerow running down along a lane beside the meadows.

Moving on to Mala Učka, a large area of sub-alpine grassland and scrub, we added still-flowering cowslips *Primula veris* of the subspecies *columnae* which had finished lower down. This subspecies is large and resembles a deep yellow oxlip which is an Alpine species in this part of Europe like the *veris* subspecies of cowslip, neither of which are present in Istria. *Columnae* cowslips have been extensively used in wild flower seed mixes in the UK in recent years and may well become established in the wild in some areas. As elsewhere in Istria this year, birds were thin on the ground but we saw or heard red-backed shrike, woodlark, cuckoo and common chiffchaff. Two very good species did show themselves: ortolan bunting and rock partridge! The Učka Nature Park is home to the last major ortolan population in the northern Balkans but even here it is in decline and becoming ever more difficult to see. Even more difficult to spot is the rock partridge. This species was abundant in Istria half a century ago and what is presumed to have been a male was heard calling and seen briefly twice.

Moving on after lunch we stopped in some lovely dry subalpine meadows north of the village of Prusijani, the huge numbers of field crickets making themselves heard. Butterflies included little, Adonis and common blues together with the ubiquitous clouded yellow and marsh fritillary. A wide range of plants, including three-toothed and military orchid, mountain kidney-vetch, silky greenweed and slender broomrape, were also seen.

We turned down a minor road towards the village of Brgudac. The settlement was the scene of a terrible World War Two massacre by Axis forces, leaving it almost completely depopulated. A vast area of farmland and grazing was left abandoned and has largely reverted to woodland. The few birds included cuckoo, chiffchaff (both heard) and whitethroat. The warm scrub was made up of flowering ash, Cornelian cherry and common juniper together with patches of dittany, grass-leaved iris, wild peony, poet's narcissus, pale iris and villous viper's-grass. Marsh fritillary again proved ubiquitous.

By now time was getting on, and after a brief stop at a water mill near Kotli we headed back to the hotel.

Day 7, Saturday 20 May – Movraž, Kuk and the Mlaka stream near the hotel

Our last full day in Istria and although the changes to the programme during the week as a result of the weather had played havoc with our programme, Saturday started sufficiently fine in the morning for us to visit the subalpine Karst grassland above Buzet. Initially we headed back into Slovenia to visit the interesting area close to the village of Movraž, in particular the flat and overgrown area of farmland between Movraž and the village of Dvori on the border with Croatia. This is a *polje*, a very flat area of hot and fertile soil covering about 100 hectares left behind by the erosion of the overlying limestone. Like much of Istria, Movraž has suffered depopulation but is rather closer to Koper-Capodistria and has managed to maintain a semblance of an agricultural community, its hay cut and wheat fields cultivated. This said, parts of the *polje* are now covered with blackthorn *Prunus spinosa* and poplar *Populus* sp. scrub. The bird community thus includes scrubland species such as red-backed shrike, melodious warbler, cuckoo and nightingale (heard) and agricultural land with species such as corn and cirl buntings, white wagtail and turtle dove.



Black hairstreak, lesser purple emperor and southern white admiral (DS).

Walking down a farm track we were treated to large numbers of black-veined whites that had probably emerged from larvae in the blackthorn scrub. It quickly became clear that there were also large numbers of a species of hairstreak along the track and there was much discussion as to its identity. There are several similar species of the genus *Satyrium* in the area including *S. spini*, *S. ilicis*, *S. pruni* and *S. acaciae* and they are easy to confuse. In the end we settled on black hairstreak (*S. pruni*), a very rare butterfly both here in Central Europe and in the UK. This was a lifer for almost everyone including both the leaders. On some bushes there were dozens of butterflies of this species.

Close to the path there were several small ponds which contained marsh frogs together with both great crested and smooth newts. There were several large dragonflies flying up and down the track including a darter *Sympetrum* sp. and Norfolk hawkler.

From Movraž we moved uphill onto the open Karst. Our first stop was at the Croatian-Slovene border crossing at Rakitovec. Astride the border the most striking feature is the new 2.5 metre fence topped with razor-wire that now snakes across the landscape. First erected (in the form of rolls of barbed wire) in response to the migrant crisis in the summer of 2015, the fence has attracted considerable controversy as it has trapped large mammals including red deer and continues to prevent the movement of other species such as grey wolf and brown bear. One of the beautiful elements of this area is the 'sea' of the steppe grass *Stipa eriocalis*, the long silky glumes of which giving it the local name of fairies' flax in Italian, Slovene and Croatian.

From here we moved to the very open area of the dry grassland, the *landa carsica* of Kuk. Mid-May is an excellent time of year to see the flora of this habitat before it dries up, and we saw the goldendrop *Onosma stellutata* (formerly *O. javorkae*), more silky greenweed, Jurinea, horseshoe vetch, dittany and common rock-rose, swallow-wort, smokebush, rue, rock buckthorn, Dorycnium, white wormwood, cypress spurge, three-toothed orchid, mountain kidney-vetch, and the tiny but abundant umbellifer honewort.



Sub-Mediterranean dry grassland near Movraž (DS); smoke bush (JC).

Birds were rather again rather scarce but included skylark, woodlark and whinchat as well as northern wheatear and mistle thrush. The most interesting element was searched for high and low until we finally came across one – a rare grasshopper, the spectacular but threatened eastern stone grasshopper *Prionotopis hystrix*. This species is widespread on the steppe in Asia but survives only as a relict in various dry grassland habitats in central and southern Europe including the Karst. The butterflies and moths seen included Berger's clouded yellow (much commoner here than pale clouded yellow as the former's larval food plant of horseshoe vetch is abundant), scarce swallowtail, small heath and Adonis blue.



Eastern stone grasshopper *Prionotopis hystrix* (DS).

With our imminent departure we headed back towards the hotel so that those who wanted to could pack. For the 'coalition of the willing', a quick walk was arranged along the Mlaka stream close to the hotel. We saw several yellow-bellied toads and marsh frogs together with plenty of butterflies including red admiral, southern white admiral and a splendid lesser purple emperor. Plants included marsh birdsfoot trefoil, bloody cranesbill and meadow vetchling together with large quantities of alder buckthorn, an important foodplant for the brimstone butterfly.

Day 8, Sunday 20 May – Škuljari, Carsiana botanical gardens and Isola della Cona

Our final morning saw us leave the hotel just after 09:00 and we made our way to a site of some damp meadows that had escaped us with the bad weather we had been dodging during the week, close to the village of Škuljari along the River Bračana. Here we added pyramidal and lax-flowered orchids and some remarkable dark hybrids between the two, with the structure of *Anacamptis pyramidalis* and the colour of *A. laxiflora* as well as the long-lipped tongue orchid and many Adriatic lizard orchids just coming into flower.

From here we crossed back into Slovenia from Croatia without incident and on into Italy from where we made our way to the botanical gardens of Carsiana near Sgonico-Zgonik close to Trieste. These gardens were founded in 1964 by a pharmacist and several botanists from the University of Trieste to collect and display the flora of the Karst. It would have been nice to start the week here but this 6,000 m² themed garden with ca. 500 species from the local flora rounded off the week off in plant terms and was an excellent way to revise what we had seen.

From here it was just 30 minutes to the nature reserve at Isola della Cona, a freshwater wetland set in a larger 2200ha reserve made up of brackish marshes, mudflats, river gravels and shallow sea at the mouth of River Isonzo. While originally set up as a bird reserve (it has one of the longest bird lists in Europe – 327 species – due to its position at a migration hotspot at the head of the Adriatic) it is also close to the limestone Karst and just 50km from the first 2000m peaks in the Alps and supports a lot of other animals and plants of interest.

After a picnic lunch we added quite a few species to the week's checklist including shoveler, garganey and white-winged black tern together with wetland species we had seen elsewhere. The main attractions were the splendid bee-eaters back from Africa, performing amazingly well in front of the hide where a colony of about 30 pairs breeds annually. Both the introduced red-eared terrapin *Trachemys scripta elegans* and further coypus were seen as well as edible frog *Rana kl. esculenta* and a few plant species not seen elsewhere during the week including the alien false indigo, greater meadow-rue, ragged robin and bee orchid.

By now it was time to make our way to the airport just a quarter of an hour away to catch the late afternoon flight back to London from Trieste. 'Working' the weather had not made things easy during the week, with hail and heavy downpours inland but we had managed to avoid getting caught out in any of them, taking advantage of the decent dry weather that is usually to be had on the coast.



Wood sandpiper and ruff, seen at the Škocjanski zatok/Val Stagnon reserve on 15 May (JC).

WILDLIFE LISTS

BIRDS

Common name	Scientific name	14	15	16	17	18	19	20	21
Little Grebe	<i>Tachybaptus ruficollis</i>		✓						
European Shag	<i>Phalacrocorax aristotelis</i>		✓	✓	✓				
Little Bittern	<i>Ixobrychus minutus</i>		✓						
Squacco Heron	<i>Ardeola ralloides</i>		✓						
Cattle Egret	<i>Bubulcus ibis</i>		✓						✓
Great White Egret	<i>Ardea alba</i>		✓		✓		✓		✓
Little Egret	<i>Egretta garzetta</i>		✓	✓	✓				✓
Grey Heron	<i>Ardea cinerea</i>		✓		✓				
Purple Heron	<i>Ardea purpurea</i>		✓						
Mute Swan	<i>Cygnus olor</i>		✓		✓				✓
Mallard	<i>Anas platyrhynchos</i>		✓	✓	✓	✓	✓		✓
Northern Shoveler	<i>Anas clypeata</i>								✓
Garganey	<i>Anas querquedula</i>								✓
European Honey Buzzard	<i>Pernis apivorus</i>				✓				
Griffon Vulture	<i>Gyps fulvus</i>						✓		
Short-toed Snake Eagle	<i>Circaetus gallicus</i>		✓	✓	✓	✓			
Western Marsh Harrier	<i>Circus aeruginosus</i>		✓						
Common Buzzard	<i>Buteo buteo</i>		✓	✓	✓	✓	✓	✓	✓
Kestrel	<i>Falco tinnunculus</i>				✓				
Hobby	<i>Falco subbuteo</i>				✓				
Peregrine	<i>Falco peregrinus</i>				✓				
Rock Partridge	<i>Alectoris graeca</i>						✓		
Bobwhite Quail	<i>Coturnix coturnix</i>					H	✓	H	
Pheasant	<i>Phasianus colchicus</i>				✓	H	✓	H	
Eurasian Coot	<i>Fulica atra</i>		✓						
Black-winged Stilt	<i>Himantopus himantopus</i>		✓						
Ruff	<i>Philomachus pugnax</i>		✓						
Wood Sandpiper	<i>Tringa glareola</i>		✓						
Redshank	<i>Tringa totanus</i>		✓						
Common Snipe	<i>Gallinago gallinago</i>		✓						
Yellow-legged Gull	<i>Larus michahellis</i>		✓	✓	✓	✓		✓	✓
Common Tern	<i>Sterna hirundo</i>		✓	✓					✓
Little Tern	<i>Sternula albifrons</i>		✓						
White-winged Black Tern	<i>Chlidonias leucopterus</i>								✓
Rock Dove (wild & feral)	<i>Columba livia</i>		✓	✓	✓	✓	✓	✓	✓
Wood Pigeon	<i>Columba palumbus</i>					✓			
Turtle Dove	<i>Streptopelia turtur</i>		✓	✓	✓	✓		✓	
Collared Dove	<i>Streptopelia decaocto</i>			✓	✓	✓	✓		
Cuckoo	<i>Cuculus canorus</i>		H		H	H	H	H	
Scops Owl	<i>Otus scops</i>	H	H			H			
Tawny Owl	<i>Strix aluco</i>		H						
Pallid Swift	<i>Apus pallidus</i>			✓					
Common Swift	<i>Apus apus</i>		✓	✓	✓	✓	✓	✓	✓
Alpine Swift	<i>Tachymarptis melba</i>	✓		✓	✓	✓		✓	
Bee-Eater	<i>Merops apiaster</i>		✓	✓	✓	✓		H	✓
Hoopoe	<i>Upupa epops</i>				H			H	
Wryneck	<i>Jynx torquilla</i>		H		H			H	
Lesser Spotted Woodpecker	<i>Dryobates minor</i>				✓				
Middle Spotted Woodpecker	<i>Dendrocopos medius</i>				✓				
Great Spotted Woodpecker	<i>Dendrocopos major</i>			✓	✓			✓	
Black Woodpecker	<i>Dryocopus martius</i>					✓			
Green Woodpecker	<i>Picus viridis</i>		H		H			H	
Grey-headed Woodpecker	<i>Picus canus</i>				H			✓	
Woodlark	<i>Lullula arborea</i>				✓		✓	✓	

Skylark	<i>Alauda arvensis</i>				H		✓	✓	
Barn Swallow	<i>Hirundo rustica</i>		✓	✓	✓	✓	✓	✓	✓
Red-rumped Swallow	<i>Cecropis daurica</i>			✓		✓			
Common House Martin	<i>Delichon urbicum</i>		✓	✓	✓	✓	✓	✓	✓
Tawny Pipit	<i>Anthus campestris</i>			✓		H		H	
Ashy-headed Yellow Wagtail	<i>Motacilla flava cinereocapilla</i>		✓		✓				
Grey Wagtail	<i>Motacilla cinerea</i>						✓		
White Wagtail	<i>Motacilla alba</i>		✓	✓	✓	✓	✓	✓	✓
Robin	<i>Erithacus rubecula</i>				✓				
Nightingale	<i>Luscinia megarhynchos</i>	H	✓	H	✓	H	✓	H	H
Black Redstart	<i>Phoenicurus ochrurus</i>				✓		✓		
Whinchat	<i>Saxicola rubetra</i>		✓						
Stonechat	<i>Saxicola rubicola</i>		✓		✓				
Northern Wheatear	<i>Oenanthe oenanthe</i>			✓				✓	
Blue Rock Thrush	<i>Monticola solitarius</i>				✓			H	
Blackbird	<i>Turdus merula</i>		✓	✓	✓	✓	✓	✓	✓
Song Thrush	<i>Turdus philomelos</i>		H	H	✓	✓	✓	✓	✓
Mistle Thrush	<i>Turdus viscivorus</i>						✓	✓	
Cetti's Warbler	<i>Cettia cetti</i>		✓		H				
Fan-tailed Warbler	<i>Cisticola juncidis</i>		✓		✓	✓			
Reed Warbler	<i>Acrocephalus scirpaceus</i>		✓						
Great Reed Warbler	<i>Acrocephalus arundinaceus</i>		✓						✓
Melodious Warbler	<i>Hippolais polyglotta</i>		✓	✓	✓	✓		✓	
Icterine Warbler	<i>Hippolais icterina</i>					H			
Eastern Olivaceous Warbler	<i>Iduna pallida</i>					H			
Subalpine Warbler	<i>Sylvia cantillans</i>			✓		✓			
Sardinian Warbler	<i>Sylvia melanocephala</i>			✓		H			
Common Whitethroat	<i>Sylvia communis</i>				✓	✓	✓		
Blackcap	<i>Sylvia atricapilla</i>		✓	✓	✓	✓	H	H	
Chiffchaff	<i>Phylloscopus collybita</i>					✓	H	H	
Spotted Flycatcher	<i>Muscicapa striata</i>				✓	✓			
Long-tailed Tit	<i>Aegithalos caudatus</i>				H				
Eurasian Blue Tit	<i>Cyanistes caeruleus</i>				✓	H			
Great Tit	<i>Parus major</i>		✓		✓	✓		H	
Nuthatch	<i>Sitta europaea</i>				✓				
Short-toed Treecreeper	<i>Certhia brachydactyla</i>						H		
Golden Oriole	<i>Oriolus oriolus</i>		H	H	✓	✓	H	✓	
Red-backed Shrike	<i>Lanius collurio</i>		✓	✓	✓	✓	✓	✓	
Woodchat Shrike	<i>Lanius senator</i>				✓				
Eurasian Jay	<i>Garrulus glandarius</i>		✓	✓	✓	✓	✓	✓	✓
Eurasian Magpie	<i>Pica pica</i>		✓	✓		✓	✓	✓	✓
Jackdaw	<i>Coloeus monedula</i>		✓	✓	✓				✓
Hooded Crow	<i>Corvus cornix</i>		✓	✓	✓	✓	✓	✓	✓
Raven	<i>Corvus corax</i>		✓	✓	✓	✓	✓	✓	✓
House Sparrow	<i>Passer domesticus</i>		✓	✓	✓	✓	✓	✓	✓
Spanish Sparrow	<i>Passer hispaniolensis</i>				✓				
Common Chaffinch	<i>Fringilla coelebs</i>		✓		H	✓	✓	✓	✓
Hawfinch	<i>Coccothraustes coccothraustes</i>				✓			✓	
Greenfinch	<i>Chloris chloris</i>				H	✓	H		
Linnet	<i>Linaria cannabina</i>			✓					
Goldfinch	<i>Carduelis carduelis</i>			✓	✓	✓	✓	✓	✓
Serin	<i>Serinus serinus</i>			H	H	✓	✓		
Rock Bunting	<i>Emberiza cia</i>				✓		✓		
Ortolan Bunting	<i>Emberiza hortulana</i>						✓		
Cirl Bunting	<i>Emberiza cirlus</i>			✓	H	✓	✓	✓	
Black-headed Bunting	<i>Emberiza melanocephala</i>				✓		H		
Corn Bunting	<i>Emberiza calandra</i>		✓	✓	✓	✓	✓	✓	✓

MAMMALS			
Mole (hills)	<i>Talpa europaea</i>	Red Fox (tracks)	<i>Vulpes vulpes</i>
Eurasian Red Squirrel	<i>Sciurus vulgaris</i>	Stone (Beech) Marten	<i>Martes foina</i>
Brown Hare	<i>Lepus europaeus</i>	Badger (tracks)	<i>Meles meles</i>
Southern White-breasted Hedgehog (dead)	<i>Erinaceus concolor</i>	Wild Boar (tracks)	<i>Sus scrofa</i>
Coypu	<i>Myocastor coypus</i>	Roe Deer	<i>Capreolus capreolus</i>

REPTILES & AMPHIBIANS:			
Italian Great Crested Newt	<i>Triturus carnifex</i>	Green Lizard	<i>Lacerta viridis</i>
Common Toad	<i>Bufo bufo</i>	Italian Wall Lizard	<i>Podarcis sicula</i>
Yellow-bellied Toad	<i>Bombina variegata</i>	Dalmatian Wall Lizard	<i>Podarcis melisellensis</i>
Edible Frog	<i>Pelophylax kl. Esculentus</i>	Slow Worm	<i>Anguis fragilis</i>
Marsh Frog	<i>Pelophylax ridibundus</i>	Western Whip Snake	<i>Hierophis viridiflavus</i>
Agile Frog	<i>Rana dalmatina</i>	Red-eared Slider	<i>Trachemys scripta elegans</i>
Dalmatian Algyroides	<i>Algyroides nigropunctatus</i>	European Pond Terrapin	<i>Emys orbicularis</i>

BUTTERFLIES			
Hesperiidae		Lycaenidae	
Large Chequered Skipper	<i>Carcharodus palaemon</i>	Baton Blue	<i>Pseudophilotes baton</i>
Grizzled Skipper	<i>Pyrgus malvae</i>	Silver-studded Blue	<i>Plebejus argus</i>
Small Skipper	<i>Thymelicus sylvestris</i>	Amanda's Blue	<i>Polyommatus amanda</i>
Papilionidae		Common Blue	<i>Polyommatus icarus</i>
Scarce Swallowtail	<i>Iphiclides podalirius</i>	Adonis Blue	<i>Lysandra bellargus</i>
Swallowtail	<i>Papilio machaon</i>	Mazarine Blue	<i>Cyaniris semiargus</i>
Pieridae		Nymphalidae	
Wood White	<i>Leptidea sinapis</i>	Southern White Admiral	<i>Limnitis reducta</i>
Small White	<i>Pieris rapae</i>	Lesser Purple Emperor	<i>Apatura ilia</i>
Orange Tip	<i>Anthocharis cardamines</i>	Queen of Spain Fritillary	<i>Issoria lathonia</i>
Clouded Yellow	<i>Colias crocea</i>	Lesser Spotted Fritillary	<i>Melitaea athalia</i>
Black-veined White	<i>Aporia crataegi</i>	Knapweed Fritillary	<i>Melitaea phoebe</i>
Riodinidae		Marsh Fritillary	<i>Euphydryas aurinia</i>
Duke of Burgundy Fritillary	<i>Hamearis lucina</i>	Satyridae	
Lycaenidae		Marbled White	<i>Melanargia galathea</i>
Black Hairstreak	<i>Satyrium pruni</i>	Speckled Wood	<i>Pararge aegeria</i>
Green Hairstreak	<i>Callophrys rubi</i>	Woodland Brown	<i>Lopinga achine</i>
Little Blue	<i>Cupido minimus</i>	Meadow Brown	<i>Maniola jurtina</i>
Brown Argus	<i>Aricia agrestis</i>	Large Wall Brown	<i>Lasiommata maera</i>
Holly Blue	<i>Celastrina argiolus</i>	Pearly Heath	<i>Coenonympha arcania</i>
Chequered Blue	<i>Scolitantides orion</i>	Small Heath	<i>Coenonympha pamphilus</i>

MOTHS	
Spindle Ermine (webs)	<i>Yponomeuta cagnagella</i>
Transparent Burnet	<i>Zygaena purpuralis</i>
Nine-spotted Moth	<i>Syntomis phegea</i>
Cream-spot Tiger	<i>Arctia villica</i>
Hummingbird Hawkmoth	<i>Macroglossum stellatarum</i>

OTHER INVERTEBRATES	
a small carpenter bee	<i>Xylocopa iris</i>
Norfolk Hawker	<i>Aeshna isosceles</i>
Beautiful demoiselle	<i>Calopteryx virgo</i>
Azure Damselfly	<i>Coenagrion puella</i>
Common Blue Damselfly	<i>Enallagma cyathigerum</i>
Four-spotted Chaser	<i>Libellula quadrimaculata</i>
Two-spotted Field Cricket	<i>Gryllus bimaculatus</i>
Bull Bush-cricket	<i>Polysarcus denticauda</i>
Eastern Stone Grasshopper	<i>Prionotropis hystrix</i>
Egyptian Locust	<i>Anacridium aegyptium</i>
Banded Snail	<i>Cepaea nemoralis</i>
Roman Snail	<i>Helix pomatia</i>



Black-veined white *Aporia crataegi* (JC).

PLANTS

MOSSES	
<i>Polytrichum commune</i>	
FERNS & ALLIES	
<i>Asplenium adnigrum-nigrum</i>	black spleenwort
<i>Asplenium ruta-muraria</i>	wall-rue
<i>Ceterach officinarum</i>	rusty-back fern
<i>Polypodium vulgare</i>	polypody
<i>Equisetum arvense</i>	field horsetail
CONIFERS	
<i>Juniperus communis</i>	juniper
<i>Juniperus oxycedrus</i>	prickly juniper
<i>Pinus maritima</i>	maritime pine
<i>P. nigra</i>	black pine
<i>Taxus baccata</i>	yew
DICOTYLEDONS	
Aceraceae	
<i>Acer campestre</i>	field maple
<i>A. monspessulanum</i>	Montpelier maple
<i>A. monspessulanum</i>	<i>B. x.campestre</i>
<i>Acer obtusatum</i>	Italian maple
<i>A. pseudoplatanus</i>	sycamore
Anacardiaceae	
<i>Cotinus coggygria</i>	smoke bush
<i>Pistacia lentiscus</i>	mastic tree
<i>P. terebinthus</i>	turpentine tree
Apiaceae	
<i>Aegopodium podagraria</i>	ground elder
<i>Anthriscus sylvestris</i>	cow parsley
<i>Crithmum maritimum</i>	rock samphire
<i>Heracleum sphondylium</i>	hogweed
<i>Laserpitium siler</i>	sermountain
<i>Orlaya grandiflora</i>	lady's-lace
Apocynaceae	
<i>Vinca major</i>	greater periwinkle
Araliaceae	
<i>Hedera helix</i>	ivy
Aristolochiaceae	
<i>Aristolochia clematitis</i>	birthwort
<i>A. rotunda</i>	
Asclepiadaceae	
<i>Vincetoxicum hirundinaria</i>	swallow-wort
Asteraceae	
<i>Achillea millefolium</i>	yarrow
<i>Artemisia alba</i>	white wormwood
<i>A. verlotiorum</i>	Chinese mugwort
<i>Bellis perennis</i>	daisy
<i>Bupththalmum salicifolium</i>	yellow ox-eye
<i>Carduus nutans</i>	musk thistle
<i>Centaurea cyanus</i>	cornflower
<i>C. triumfetti</i>	perennial cornflower
<i>Cichorium intybus</i>	chicory
<i>Cirsium pannonicum</i>	Pannonian thistle
<i>Erigeron annuus</i>	annual fleabane
<i>Eupatorium cannabinum</i>	hemp-agrimony
<i>Filago vulgaris</i>	common cudweed
<i>Jurinea mollis</i>	jurinea
<i>Lactuca saligna</i>	least lettuce
<i>L. perennis</i>	blue lettuce
<i>Leucanthemum vulgare</i>	ox-eye daisy
<i>Mycelis muralis</i>	wall lettuce
<i>Senecio fuchsii</i>	Fuchs's ragwort
<i>S. paludosus</i>	fen ragwort
<i>Senecio paludosus</i>	fen ragwort
<i>S. scopolii</i>	Scopoli's ragwort
<i>Serratula tinctoria</i>	saw-wort
<i>Tragopogon pratensis</i>	goatsbeard
<i>T. pterodes</i>	a purple goatsbeard

Boraginaceae	
<i>Echium vulgare</i>	viper's-bugloss
<i>Onosma javorkae</i>	a goldendrop
<i>Pulmonaria angustifolium</i>	narrow-leaved lungwort
<i>P. officinalis</i>	lungwort
<i>Symphytum officinale</i>	comfrey
<i>S. tuberosum</i>	tuberous comfrey
Brassicaceae	
<i>Arabis turrata</i>	tower-cross
<i>Biscutella laevigata</i>	
<i>Cardamine bulbifera</i>	coralroot bittercross
<i>C. enneaphyllos</i>	
<i>C. pentaphylla</i>	
Campanulaceae	
<i>Campanula glomerata</i>	clustered bellflower
<i>C. patula</i>	spreading bellflower
<i>C. persicifolia</i>	peach-leaved bellflower
<i>C. pyramidalis</i>	pyramidal bellflower
<i>Legousia speculum-veneris</i>	large Venus's-looking-glass
<i>Phyteuma betonicifolia</i>	
Cannabaceae	
<i>Humulus lupulus</i>	hop
Caprifoliaceae	
<i>Lonicera etrusca</i>	Tuscan honeysuckle
<i>L. xylosteum</i>	fly honeysuckle
<i>Sambucus ebulus</i>	dwarf elder
<i>S. nigra</i>	elder
<i>Viburnum opulus</i>	guelder rose
Caryophyllaceae	
<i>Dianthus carthusianorum</i>	Carthusian pink
<i>D. sylvestris</i> ssp. <i>tergestinus</i>	wood pink
<i>Lychnis flos-cuculi</i>	ragged-Robin
<i>Moehringia muscosa</i>	mossy sandwort
<i>M. tommasinii</i>	Tommasini's sandwort
<i>Petrorhagia saxifraga</i>	tunic flower
<i>Silene alba</i>	white campion
<i>S. dioica</i>	red campion
<i>S. italica</i>	Italian catchfly
<i>S. nutans</i>	Nottingham catchfly
<i>S. vulgaris</i>	bladder campion
Celastraceae	
<i>Euonymus europaeus</i>	spindle
Cistaceae	
<i>Cistus incanus</i>	hairy rockrose
<i>C. monspeliensis</i>	Montpelier cistus
<i>Helianthemum nummularium</i>	rock-rose
<i>H. ovatum grandiflorum</i>	large-flowered rock-rose
Convolvulaceae	
<i>Convolvulus cantabricus</i>	pink convolvulus
Cornaceae	
<i>Cornus mas</i>	cornelian cherry
<i>C. sanguinea</i>	dogwood
Corylaceae	
<i>Carpinus betulus</i>	hornbeam
<i>C. orientalis</i>	eastern hornbeam
<i>Corylus avellana</i>	hazel
<i>Ostrya carpinifolia</i>	hop-hornbeam
Crassulaceae	
<i>Sedum acre</i>	wall-pepper
<i>S. sexangulare</i>	tasteless stonecrop
Cucurbitaceae	
<i>Bryonia dioica</i>	white bryony
Dipsacaceae	
<i>Dipsacus fullonum</i>	teasel
<i>Knautia arvensis</i>	field scabious
<i>K. drymeia</i>	
<i>K. illyrica</i>	
<i>Scabiosa gramuntia</i>	

Ericaceae	
<i>Erica arborea</i>	tree heath
Euphorbiaceae	
<i>Euphorbia amygdaloides</i>	wood spurge
<i>E. cyparissias</i>	cypress spurge
<i>E. helioscopia</i>	sun spurge
<i>E. wulfenii</i>	Large Mediterranean spurge
<i>E. myrsites</i>	
<i>M. perennis</i>	dog's mercury
Fabaceae	
<i>Amorpha fruticosa</i>	false indigo
<i>Anthyllis montana</i> ssp. <i>jacquinii</i>	mountain kidney-vetch
<i>A. vulneraria</i>	kidney-vetch
<i>Astragalus danicus</i>	purple milk-vetch
<i>Cercis siliquastrum</i>	Judas tree
<i>Chamaecytisus hirsutus</i>	hairy broom
<i>Chamaespartium sagittale</i>	winged greenweed
<i>Coronilla emerus</i>	shrubby scorpion-vetch
<i>C. varia</i>	crown vetch
<i>C. securicada</i>	yellow crown vetch
<i>Dorycnium germanicum</i>	
<i>D. hirsutum</i>	
<i>Genista sericea</i>	
<i>G. tinctoria</i>	dyer's greenweed
<i>Hippocrepis comosa</i>	horseshoe vetch
<i>Laburnum anagyroides</i>	laburnum
<i>Lathyrus aphaca</i>	yellow pea
<i>L. nissolia</i>	grass vetchling
<i>L. pratensis</i>	meadow vetchling
<i>L. sylvestris</i>	narrow-leaved everlasting pea
<i>L. venetus</i>	
<i>Lotus corniculatus</i>	bird's-foot-trefoil
<i>L. uliginosus</i>	marsh bird's-foot-trefoil
<i>Medicago sativa</i> ssp. <i>falcata</i>	sickle medick
<i>M. sativa</i> ssp. <i>sativa</i>	lucerne
<i>Melilotus altissima</i>	tall melilot
<i>Ononis spinosa</i>	spiny rest-harrow
<i>Spartium junceum</i>	Spanish broom
<i>Tetragonolobus maritimus</i>	dragon's-teeth
<i>Trifolium incarnatum</i> ssp. <i>molinieri</i>	
<i>T. montanum</i>	mountain clover
<i>T. rubens</i>	red clover
<i>Vicia cracca</i>	tufted vetch
Fagaceae	
<i>Fagus sylvatica</i>	beech
<i>Quercus cerris</i>	turkey oak
<i>Q. ilex</i>	holm oak
<i>Q. petraea</i>	sessile oak
<i>Q. pubescens</i>	white oak
<i>Q. robur</i>	pedunculate oak
Fumariaceae	
<i>Fumaria officinalis</i>	fumitory
<i>Pseudofumaria ochroleuca</i>	
Gentianaceae	
<i>Centaurium erythraea</i>	common centauri
<i>C. pulchellum</i>	lesser centauri
<i>Gentiana cruciata</i>	cross-leaved gentian
<i>G. verna</i>	spring gentian
Geraniaceae	
<i>Geranium dissectum</i>	cut-leaved cranesbill
<i>G. purpureum</i>	little-Robin
<i>G. robertianum</i>	herb-Robert
<i>G. sanguineum</i>	bloody cranesbill
Globulariaceae	
<i>Globularia cordifolia</i>	
Grossulariaceae	
<i>Hypericum perforatum</i>	perforate St. John's-wort

Lamiaceae	
<i>Ajuga genevensis</i>	blue bugle
<i>A. reptans</i>	bugle
<i>Glechoma hederacea</i>	ground-ivy
<i>Lamium galaeobdolon</i>	yellow archangel
<i>Lamium orvala</i>	balm-leaved red deadnettle
<i>Melittis melissophyllum</i>	bastard-balm
<i>Mentha aquatica</i>	water mint
<i>Prunella vulgaris</i>	self-heal
<i>Salvia glutinosa</i>	Jupiter's distaff
<i>S. nemorosa</i>	wild sage
<i>S. pratensis</i>	meadow clary
<i>Satureja variegata</i>	winter savory
<i>Stachys officinalis</i>	betony
<i>S. recta</i>	yellow woundwort
<i>Teucrium chamaedrys</i>	wall germander
<i>T. flavum</i>	yellow germander
<i>Thymus longicaulis</i>	wild thyme
Linaceae	
<i>Linum bienne</i>	pale flax
<i>L. narbonense</i>	blue flax
Malvaceae	
<i>Althaea officinalis</i>	marsh mallow
<i>M. sylvestris</i>	common mallow
Moraceae	
<i>Ficus carica</i>	fig
Nymphaeaceae	
<i>Nymphaea alba</i>	white water-lily
Oleaceae	
<i>Fraxinus excelsior</i>	ash
<i>F. ornus</i>	manna ash
<i>Ligustrum vulgare</i>	wild privet
<i>Phillyrea latifolia</i>	phillyrea
Orobanchaceae	
<i>O. gracilis</i>	lesser broomrape
Papaveraceae	
<i>Chelidonium majus</i>	greater celandine
<i>Papaver rhoeas</i>	common poppy
Plantaginaceae	
<i>Plantago holostea</i>	
<i>P. lanceolata</i>	ribwort plantain
<i>P. media</i>	hoary plantain
Polygalaceae	
<i>Polygala comosa</i>	tufted milkwort
<i>P. nicaeensis</i>	Nicean milkwort
Polygonaceae	
<i>Persicaria aquatica</i>	amphibious bistort
Primulaceae	
<i>Anagallis arvensis</i>	scarlet pimpernel
<i>Primula veris</i>	cowslip
Ranunculaceae	
<i>Actaea spicata</i>	baneberry
<i>Helleborus multifidus</i>	
<i>Thalictrum aquilegifolium</i>	greater meadow-rue
<i>Thalictrum minus</i>	lesser meadow-rue
Rhamnaceae	
<i>Frangula alnus</i>	alder buckthorn
<i>Paliurus spina-christi</i>	Christ's-thorn
<i>Rhamnus saxatilis</i>	rock buckthorn
Rosaceae	
<i>Crataegus monogyna</i>	hawthorn
<i>F. vulgaris</i>	dropwort
<i>F. vesca</i>	wild strawberry
<i>G. urbanum</i>	wood avens
<i>Potentilla recta</i>	sulphur cinquefoil
<i>Prunus mahaleb</i>	St. Lucie's cherry
<i>Rosa arvensis</i>	field rose
<i>R. canina</i>	dog rose
<i>R. pimpinellifolia</i>	burnet rose

Rosaceae (cont'd)	
<i>Rubus fruticosus</i>	bramble
<i>S. minor</i>	salad burnet
<i>Sorbus aria</i>	whitebeam
Rubiaceae	
<i>Galium cruciata</i>	crosswort
<i>G. verum</i>	lady's bedstraw
<i>Rubia peregrina</i>	wild madder
Rutaceae	
<i>Dictamnus albus</i>	burning-bush
<i>Ruta graveolens</i>	rue
Santalaceae	
<i>Osyris alba</i>	
<i>Thesium humifusum</i>	bastard-toadflax
Salicaceae	
<i>Populus alba</i>	white poplar
<i>P. nigra</i>	black poplar
<i>Salix alba</i>	white willow
<i>S. elaeagnos</i> ssp. <i>angustifolia</i>	rosemary-leaved willow
<i>S. fragilis</i>	crack willow
Scrophulariaceae	
<i>Melampyrum carstiense</i>	a cow-wheat
<i>Rhinanthus angustifolius</i>	greater yellow-rattle
<i>R. minor</i>	yellow-rattle
<i>Scrophularia nodosa</i>	common figwort
<i>Verbascum nigrum</i>	dark mullein
<i>V. phoeniceum</i>	purple mullein
<i>Veronica chamaedrys</i>	germander speedwell
Simaroubaceae	
<i>Ailanthus altissima</i>	tree-of-heaven
Solanaceae	
<i>Solanum dulcamara</i>	woody nightshade
Tamaricaceae	
<i>Tamarix gallica</i>	tamarisk
Tiliaceae	
<i>Tilia cordata</i>	small-leaved lime
Ulmaceae	
<i>Celtis australis</i>	nettle-tree
<i>Ulmus glabra</i>	wych elm
Urticaceae	
<i>Parietaria officinalis</i>	pellitory-of-the-wall
Valerianaceae	
<i>Valeriana dioica</i>	marsh valerian
Violaceae	
<i>Viola arvensis</i>	field pansy
MONOCOTYLEDONS	
Alismataceae	
<i>Alisma plantago-aquatica</i>	water-plantain
Amaryllidaceae	
<i>Narcissus poeticus</i> var. <i>radiiflorus</i>	poet's narcissus
Dioscoreaceae	
<i>Tamus communis</i>	black bryony
Iridaceae	
<i>Gladiolus illyricus</i>	Illyrian gladiolus
<i>Iris graminea</i>	grass-leaved iris
<i>I. pallida</i> ssp. <i>illyrica</i>	Illyrian iris
<i>I. pseudacorus</i>	yellow flag
<i>I. sibirica</i>	Siberian iris

MONOCOTYLEDONS (cont'd)	
Juncaceae	
<i>L. sylvatica</i>	great woodrush
Liliaceae	
<i>Asparagus acutifolius</i>	spiky asparagus
<i>Colchicum autumnale</i>	meadow saffron (lvs)
<i>Lilium carnolicum</i>	Carniolan lily
<i>L. martagon</i>	martagon lily
<i>Muscari comosum</i>	tassel hyacinth
<i>Ornithogalum comosum</i>	star-of-Bethlehem
<i>O. pyrenaicum</i>	Bath asparagus (spiked star-of-Bethlehem)
<i>Paris quadrifolia</i>	herb-Paris
<i>Polygonatum odoratum</i>	scented Solomon's-seal
<i>P. multiflorum</i>	common Solomon's-seal
<i>Ruscus aculeatus</i>	butcher's-broom
Orchidaceae	
<i>Anacamptis coriophora</i> ssp. <i>fragrans</i>	fragrant bug orchid
<i>Anacamptis pyramidalis</i>	pyramidal orchid
<i>Cephalanthera longifolia</i>	sword-leaved helleborine
<i>Cephalanthera damasonium</i>	white helleborine
<i>Coeloglossum viride</i>	frog orchid
<i>Dactylorhiza fuchsia</i>	common spotted orchid
<i>D. incarnata</i>	early marsh-orchid
<i>Gymnadenia conopsea</i>	fragrant orchid
<i>Himantoglossum adriaticum</i>	Adriatic lizard orchid
<i>Limodorum abortivum</i>	violet birdsnest orchid
<i>Listera ovata</i>	common twayblade
<i>Neottia nidus-avis</i>	bird's-nest orchid
<i>Ophrys apifera</i>	bee orchid
<i>O. bertolinii</i>	Bertolini's bee orchid
<i>O. bombyliflora</i>	bumblebee orchid
<i>O. incubacea</i>	dark spider orchid
<i>Orchis laxiflora</i>	loose-flowered orchid
<i>O. militaris</i>	military orchid
<i>O. morio</i>	green-winged orchid
<i>O. papilionaceae</i>	pink butterfly orchid
<i>O. purpurea</i>	lady orchid
<i>O. simia</i>	monkey orchid
<i>O. tridentata</i>	3-toothed orchid
<i>O. ustulata</i>	burnt-tip orchid
<i>Platanthera bifolia</i>	lesser butterfly-orchid
<i>Serapias cordigera</i>	heart-flowered tongue orchid
<i>S. lingua</i>	tongue orchid
<i>S. vomeracea</i>	long-lipped serapias
Poaceae	
<i>Briza media</i>	quaking grass
<i>Briza maxima</i>	large quaking grass
<i>Chrysopogon gryllus</i>	
<i>Dactylis glomerata</i>	cock's-foot
<i>Stipa eriocalis</i> ssp. <i>austriaca</i>	a feather grass
Smilacaceae	
<i>Smilax aspera</i>	
Typhaceae	
<i>Typha angustifolia</i>	lesser reedmace
<i>T. latifolia</i>	greater reedmace
FUNGI	
<i>Armillaria mellea</i>	honey fungus