

# The Gargano

## *Italy's Secret Garden*

### A Greentours Tour Report

18<sup>th</sup> to 27<sup>th</sup> April 2016

Led by Paul Cardy and Stefano Doglio

Daily Reports and Systematic Lists by Paul Cardy (Days 1 and 2 of daily report by Stefano Doglio)

**Days 1 & 2 to be supplied...**

#### **Day 3 Wednesday 20<sup>th</sup> April To Gargano. Passo Ingarano & Bosco di Spina Pulci**

Today we left the excellent masseria in the south and headed north, first back to Bari and thence continuing on the autostrada towards the Gargano peninsula. The journey was uneventful, taking us across the extensive agricultural Tavoliere plain, through mainly olive plantations, the roadsides yellow with *Chrysanthemum coronarium* and pink with *Convolvulus elegantissimus*. We had a short rest stop along the way where Italian Sparrows nested in the car park, and we admired the fruits of *Medicago disciformis*.

We enjoyed superb weather all day. Having left the motorway we headed up onto the promontory, and just after midday we reached the Passo Ingarano. Amazingly even after 15 or so years of coming to this site I had never approached from the west and had not realised there was a small railway station, Ingarano, just near where we have always parked! This used to be one of the most productive orchid sites on the whole peninsula but grazing pressure and encroaching thorny scrub over the last few years have made it less so, but it is still an important site to visit. Today in fact was very productive for all sorts of things, but not orchids. We parked in an impressive 'forest' of Giant Fennel.

Before lunch we explored the hillsides here and found much of interest. A ploughed field had Dropwort flowering on its margins, the first we had ever seen here. *Orchis italica* and *Orchis papilionacea* were in numbers, and higher up two of the southern Italian endemic *Ophrys parvimaclata* had already gone over, the only place we saw it.

The yellowish mounds of *Euphorbia spinosa* were a feature, and *Vicia benghalensis* was in good bloom. *Paliurus spina-christi* provided a rather prickly scrub covered hillside, spreading ever further across the lower slopes. Also in flower this year was attractive *Rhamnus oleoides*. Among the other plants here were *Lathyrus cicera*, *Helianthemum salicifolium*, *Parentucellia latifolia*, *Petrorhagia saxifraga* and *Scorzonera hirsuta*. Subalpine Warblers performed display flights, and Corn Buntings called from prominent perches. Butterflies included Brimstone and Wall Brown. Below were fine views down to the coast, Lake Lesina, and the Tremiti islands.

Land snails are a feature of these limestone slopes. *Pomatias elegans* was attractive, *Rumina decolata* had a characteristic truncated shell, members of the Clausilidae represented a very large family, and a large Vitrinid shell, a glass snail, was characteristically light.

I started turning over stones, and soon some of the group followed suit. Di soon located the small scorpion *Buthus occitanus*, after I'd found a minute individual. Howard did well to find a superb *Scolopendra* centipede. There was also a very small wild cockroach. Indeed invertebrates were many and varied here today. A fine green buprestid was a good find, shining Rose Chafers nectared on flowers, there was an impressive psychid case, and the ctenuchid moth *Amata* was flying.

Meanwhile back at the vehicles Stefano had set out the picnic, and nearby were some impressive *Orobanche crenata*.

Next we headed up a minor road to the beautiful oak-hop hornbeam woodland of the Bosco di Spina Pulci where the trees had just burst into leaf and were a startlingly fresh green. The forest floor was covered with *Anemone apennina*, *Cyclamen repandum*, and *Allium pendulinum*. We strolled through the lovely woodland and found many other plants including *Viola graeca*, Wood Spurge, *Cardamine graeca*, and *Doronicum orientale*. There were *Ophrys biscutella*, several *Ophrys garganica*, but only two *Dactylorhiza romana* this year. The diminutive *Asterolinon linum-stellatum* was common and *Aphanes inexpectata* was numerous for those who appreciate the tiniest of plants. *Vicia grandiflora*, *Saxifraga bulbifera*, *Bellis sylvestris*, and *Muscari commutatum* continued the variety. The foodplant of Southern Festoon, *Aristolochia longa*, was rather common. Nuthatch, Green Woodpecker, and Great-spotted Woodpecker called.

Last stop of the day was at our traditional *Paeonia peregrina* site, where this striking plant was in perfect flower this year. Pink Butterfly Orchids were much in evidence, with many *Orchis italica* and fine *Serapias vomeracea*. The attractive umbellifer *Tordylium apulum* was a feature, in flower and fruit, as was Large Mediterranean Spurge, and there were many *Ornithogalum divergens* in flower.

Italian Wall Lizards basked on rocks. Hairy Hawker was on the wing, seen here also in previous years when apparently a new record for the peninsula, surely only due to a paucity of dragonfly recorders here. Sardinian Warblers were active in the scrub.

Back in the vehicles we continued east to Rodi Garganico, and to our hotel on the north coast, amid olive groves. Having settled in, we enjoyed our first dinner and looked forward to the tour ahead.

#### **Day 4 Thursday 21<sup>st</sup> April                      Peschici and Vieste areas**

Fine weather again today as we headed east to a beach site near Peschici where the partly forested slopes behind the dunes support a wealth of plants. The beautiful shrub *Anthyllis barba-jovis*, together with tamarisk, formed a belt behind the beach, whilst on the shore was a typical littoral community of *Cakile maritima*, *Medicago marina*, *Medicago littoralis*, and *Calystegia soldanella*. Painted Ladys and Red Admirals nectared on *Myoporum laetum*.

This year a feature was the incredible number of legumes in flower, fruit, or both. *Lotus edulis*, *Lotus ornithopodioides*, *Medicago polymorpha*, and *Securigera securidaca* were abundant. *Coronilla cretica* had attractive pink flowers, there were the shrubby *Coronilla valentina* and *Coronilla emerus*, and annual *Coronilla scorpioides*. We admired the fine fruits of *Medicago orbicularis* and *Medicago disciformis*, *Anthyllis tetraphylla* and a red subspecies of *Anthyllis vulneraria* were in flower, and *Tetragonolobus purpureus* was a beautiful crimson. *Dorycnium hirsutum* and *Trifolium stellatum* were here too.

The white *Cistus monspeliensis* and pink *Cistus creticus* bloomed profusely on the slopes behind the beach. Most of the *Orchis papilionacea* here were starting to go over, but several of the striking *Ophrys apulica* remained in fine condition. Tongue Orchids were represented by *Serapias vomeracea*, *Serapias lingua*, and *Serapias parviflora*. There were Bumblebee Orchids and various representatives of the yellow bee orchid complex. Soon I found the hoped for *Ophrys cornuta*, some ten plants today, at one of the few sites in the Gargano for this species, and we did not see it again.

A feature this year was several species in bloom that we usually do not see at this season, among them *Hypericum perforatum*, *Centaureum erythraea*, and *Centaurea alba*.

Among the many other plants here were *Buglossoides purpureocaerulea*, *Prasium majus*, the lovely *Crepis rubra* commonly in flower, *Fumaria capreolata*, *Urospermum dalechampii*, *Allium subhirsutum*, and *Arum italicum* adding to the great floral variety of the site. I was pleased to find the wiry grass *Parapholis incurva*.

Yellow-legged Gulls were numerous along the coast, and Sardinian Warblers called from the mastic scrub, and we occasionally glimpsed them. Among butterflies on the wing were Eastern Dappled White, Green Hairstreak, Holly Blue, Swallowtail (common today), and Wall Brown. The weeds attracted us with among the many species here mostly blue, but also some red, Scarlet Pimpernel, Mallow-leaved Stork's-bill, and Buck's-horn Plantain. Several Italian Wall Lizards were active in the sunshine and Mallow Skipper was on the wing.

A nearby Napoleonic tower had much of the endemic *Campanula garganica*, covered in flowers this year. There was also much *Antirrhinum siculum* in flower, White Henbane, and *Matthiola incana*. Blue Rock Thrush sang from the tower.

A short search in a pine wood produced none of the hoped for Violet Limodores, but *Solanum sodomium* was added to the list. A picnic site was found further to the east in a pleasantly quiet wooded glade.

A somewhat longer drive east took us to near Vieste, where we saw many Pyramidal Orchids in fine flower, although we would see this species at several other sites this year. *Ophrys incubacea* was also here, Tassel Hyacinths were numerous, and there was a lot of Rosy Garlic. There were also several *Orobanche pubescens*, *Onobrychis aequidentata*, and *Scorzonera hirsuta*.

At the last stop of the day was a good selection of *Ophrys*, which were much examined and photographed, the highlight was *Ophrys apulica* in fine flower. Some ten *Orchis fragrans* were the first of several we would see this year, at what has usually been the only site for this species on the tour. A few *Polygala monspeliaca* were found. Something of a detour took us back to the coast, finally, on an adventurous minor road, along which we saw four Turtle Doves.

We arrived back at the hotel with time for a rest, or paperwork, before enjoying dinner in the restaurant.

## **Day 5 Friday 22<sup>nd</sup> April Lake Varano, Lake Lesina, Cagnano, and Carpino**

Today we headed west along the northern shores of the peninsula. Having negotiated the strange deserted resort town of Lido del Sole, our first stop was to walk a sandy track that leads down over a bridged channel and to the coast. Along the sides of the path patches of beautiful deep blue were

provided by *Alkanna tinctoria*. The typical sand dune species *Silene colorata*, *Silene conica*, and *Lotus cytisoides* were common, whilst Myrtle, *Phillyrea angustifolia* and Mediterranean Buckthorn were among the shrubs. *Cladium mariscus* was added to the plant list, White Mignonette was here, and Sweet Alison was common. The *Acacia cyanophylla* was in impressive flower and the grass *Lagurus ovatus* was very attractive. On the dunes was a fine flora including Sea Holly, Sea Medick, Cottonweed, *Anthemis maritima* (much in flower), *Ononis variegata*, Sea Spurge and Sea Bindweed, and the spiky leaves of *Echinophora spinosa* were found. *Pseudorlaya pumila* was new for the tour. Pelicans-foot, *Aporrhais pespelicani*, was among the shells on the beach. There were many pine cones showing Red Squirrel feeding activity.

Green Frogs (Italian Hybrid Frogs) rasped continuously whilst Cetti's Warbler periodically gave its explosive song. Across the road Green Toad called too. Bee-eaters were in the air and I was pleased to find a European Pond Terrapin. There was much debris on the beach including a very large light bulb found by Stefano.

A little further along a wider sandy track again took us down to the shore. *Verbascum phlomoides* and *Cistus salvifolius* were in flower, and *Lonicera implexa* and *Dorycnium hirsutum* were growing in the dunes. We reached the beach, again with a typical dune flora.

Next we drove west to Lake Lesina, reaching the northern shores, and walked down to the fringing reed beds, where there followed some good birding. There were several Little Egrets, and on the lake were many Coots, and Pochard. Squacco Herons were seen well and there were two Purple Herons. Waders were represented by Ruff, Wood Sandpiper, and Common Sandpiper. Penduline Tits were seen superbly, gathering nesting material from the reeds. The photographers spent much time as the birds returned regularly to construct their nest in the tamarisks. Great Reed Warbler called from atop reeds, Zitting Cisticolas performed display flights, and Marsh Harrier hunted over the reeds. *Samolus valerandi* flowered in the water at the lake edge, a new species for the tour.

Lunch was eaten a little further west, where was a typical salt marsh flora.

In the afternoon we headed inland, initially above Cagnano. Our route took us along the periphery of the Bosco Quarto where the flowers were stunning, a taster of what we would see in a few days time. *Orchis tridentata* was a highlight of the first stop, another species not always in flower at this time, and here too was Violet Limodore. A stop was prompted by some fine yellow-flowered *Cachrys* in early flower on one short stretch of roadside, and a Cream-spot Tiger was admired.

The next stop was to look for Dense-flowered Orchid at one of the few sites where it it may already be in flower at this time, where if do we find it at all it's usually only one plant. Searching today yielded several fine examples. *Viola graeca* was here in both purple and yellow forms, there was *Cruciata laevipes*, and a small Lady Orchid.

The last stop of the day had *Iris bicapitata* all in leaf this year, Burnt-tip Orchid, and Black-eared Wheatear.

## **Day 6 Saturday 23<sup>rd</sup> April                      Transfer to Monte St. Angelo via Foresta Umbra**

Practicalities sorted we said our farewells to all at the hotel and headed south, driving inland across the peninsula of the Gargano, to our next hotel in Monte St. Angelo. Our first scheduled stop was to admire what for several years has been a fine show of Lady Orchids under an olive grove. Here was

a large colony of simply superb spikes of this most impressive orchid, and we spent some time with them. Also here were several *Gladiolus italicus*.

Once through the town of Vico we reached the northern edge of the Foresta Umbra. This beautiful extensive forest comprises a rich variety of woodland communities, and at this stop we were in fine beech woodland, where several woodland orchids grew on the forest floor. Stefano headed down the slope with the group whilst I guarded the vehicle, full today with all our luggage. The rare (here) *Orchis provincialis* was in flower, there were young spikes of *Epipactis helleborine*, *Epipactis microphylla* was in bud, and *Cephalanthera damasonium* in flower. There was a good population of *Erica arborea* at the bottom of the slope, with which *Orchis provincialis* often grows. Sanicle was in bloom on the forest floor. The forest was alive with birdsong including Wood Warbler and Nuthatch, and Tawny Owl was calling even mid morning.

The next stop took us to the small Foresta Umbra visitor centre, where a little museum displays a large number of stuffed local animals (mammals, birds, butterflies, moths, a few amphibians and reptiles), and the small shop has a small selection of publications and postcards. Just next door was an enclosure of Fallow Deer. On the wall here were Wall Speedwell, Shining Cranesbill, Maidenhair Spleenwort, Hart's-tongue Fern, and Rusty-back Fern. Unfortunately it started to rain, and the afternoon became much cooler.

A drive east along the road to Vieste took us through more superb woodland, much more like an eastern European forest rather than one in southern Italy. Here were many typical woodland plants including *Cardamine graeca*, *Cardamine chelidonia*, Ramsons, Northern Bedstraw, Woodruff, Male Fern, Soft Shield Fern, and Black Spleenwort. A robust white flowered rubiaceous herb was *Asperula taurina*, and *Scrophularia vernalis* was in flower this year. We found a fine picnic site under Wych Elms and Hop Hornbeams, but the heavier rain meant most ate in the vehicle.

Once out of the forest a stop among open fields yielded many *Orchis morio* including a white example, and Lizard Orchids in bud. White Rockrose and *Euphorbia barrelieri* were here, and Howard found *Iris lutescens* in flower. The first of very many Yellow Asphodels was here too.

Nearing Monte St. Angelo we made a stop at an orchid rich site where we saw *Ophrys bertoloniiiformis* and *Ophrys bertolonii*. *Linum austriacum* was in fine flower and there were more advanced Lizard Orchids. The *Bellis sylvestris* here was rather tall, and Tree Heath was a feature of the roadsides in the area.

A very minor road took us to a limestone pavement where the orchids had to be seen to be believed, most notably several *Ophrys funerea* at the only site we would see it.

We arrived at the hotel in Monte St. Angelo late afternoon and settled into our very comfortable rooms. As we drove through town we saw the purple *Aubrieta columnae*, white *Arabis alpina*, the pink *Lamium garganicum*, and the yellow *Doronicum columnae* in flower on the rocks.

Dinner was enjoyed in the good hotel restaurant.

## **Day 7 Sunday 24<sup>th</sup> April Pulsano Road and Gorge**

A local day today, spent exploring the very productive Pulsano Road that leads from Monte St. Angelo to the sanctuary of the same name which overlooks the gorge where the road ends.

Orchids are a feature of the area, and very many were seen today. *Ophrys bertolonii*, *Ophrys bertoloniformis*, *Ophrys promontorii*, *Ophrys tenthredinifera*, *Ophrys garganica*, and *Ophrys sicula* were all in fine form, although the *Orchis lactea*, new to us, was already over this year. Common species such as Man Orchid, *Orchis italica* and *Orchis morio* were numerous. At one site was particularly fine *Orchis quadripunctata*, and there were several Lady Orchids.

We saw a good number of butterflies today. At the first site were Chapman's Blues, whilst Little Blues, Baton Blue, Green-underside Blue, and Adonis Blue were seen during the day. *Arabis verna* was in attractive flower in one shady spot and among new plants were *Astragalus monspessulanus*, *Scandix australis*, *Valantia muralis* and *Valeriana collina*. The woolly leaves of *Salvia argentea* were very attractive. Lifting stones yielded another impressive *Scolopendra* centipede, and communal masses of larvae of the lackey moth *Malacosoma franconicum* were numerous in the area. Subalpine Warblers displayed.

*Helianthemum canum* was a feature at another site. At the end of the road was the Pulsano sanctuary, from where the views of the gorge were impressive, all the way down to the coast. The old walls here supported several interesting plants including *Seseli montanum*, *Hyoscyamus albus*, *Fumaria parviflora*, *Capparis spinosa* and *Cymbalaria muralis*, although many of the plants had been destroyed by an extensive 'clean up' of the site.

After lunch we set out on the gentle track that leads along the side of the gorge. Rocks supported three endemic plants, *Campanula garganica* with many fine flowers, *Scabiosa dallaportae* in leaf, and *Inula verbascifolia* which blooms much later. *Chamaecytisus spinescens* and *Onosma echioides* were both very attractive. There were some impressive broomrape spikes, *Orobanche caryophyllacea* on *Galium*, *Orobanche gracilis* on legumes, and fine *Orobanche lavandulacea* on Pitch Trefoil. Several *Ophrys apulica* were located, and Early Spider Orchid, *Ophrys sphegodes*, was in flower. *Serapias orientalis* was new to us, and *Silene subconica* was seen. Three *Linum tenuifolium* were a highlight, a scarce plant in the area.

This has always been one of my favourite sites of the tour, although in the last year or so it has been somewhat 'improved', the whole path lined with a fence, and interpretation boards about the plants installed. A commendable thing but sadly most of the plants described are not close to where the boards have been positioned, and for those who don't know the plants there is little chance of locating them.

In the continued fine weather three of the hoped for Italian Marbled White were on the wing, a beautiful butterfly. Several Moorish Geckos scuttled into shelter on the rocks as we walked, and another Cream spot Tiger was found.

## **Day 8 Monday 25<sup>th</sup> April                      Monte Nero and Manfredonia**

Unusually we awoke to rain, and the day was cold. Initially we headed a little further west to start a leisurely walk up Monte Nero, a beautiful site but this turned out to be a somewhat shorter visit than usual today because we were so cold!

The paved track that leads up Monte Nero is always a floral delight, having much in common with the nearby Chiancate. Here were many *Orchis pauciflora*, as well as many Elder-flowered Orchids, and *Dactylorhiza maculata* in bud. There were also some fine *Ophrys biscutella*. Some twenty

impressive Dense-flowered Orchids was a bonus as they are not usually in flower at this site at this time. Among the many other plants here were *Aristolochia longa*, *Anemone pavonina*, *Ranunculus millefoliatus*, *Saxifraga bulbifera*, *Viola heterophylla*, and *Anchusa cretica*. *Symphytum bulbosum* and White Asphodel were new species for the tour. I located *Plantago subulata* and there was *Laserpitium garganicum* even in bud this year. There were a few *Globularia punctata* in flower, and *Senecio tenorei*. This was the first place we saw *Iris lutescens* still in good numbers.

Back in the shelter of the mini-bus we drove to our reliable site for the local endemic *Ophrys sipontensis*. A viewpoint allowed fine views down to Manfredonia and the suburb of Siponto after which the orchid is named. *Centaurea subtilis* was in flower and we saw *Tyrimnus leucographus*. A short detour to the impressive ruins of Villa Rosa produced the hoped for Woodchat Shrikes.

Next was a site in the lowlands near Manfredonia, where the *Serapias apulica* was more advanced than usual but we did find some reasonable flowers. There was also a selection of other interesting Mediterranean plants, among them *Nigella damascena*, *Gladiolus communis*, *Trifolium arvense*, *Erodium ciconium*, and *Phalaris canariensis*. Swallowtail was nectaring. Here I set out the lunch, it being just about the warmest site we'd be able to find today!

Back on the road we drove south to the extensive series of working salt pans at Margherita where we soon saw the first of very many Flamingos, and had some fine close sightings. Among the waders today were Black-winged Stilts, Kentish Plover, Marsh Sandpiper, Wood Sandpiper, and Little Stint. Pygmy Cormorant was here, and Grey-headed Wagtails.

The area usually holds some surprises and today some twenty Black-necked Grebes were new for the tour. A feature of the site is the Slender-billed Gulls, in fully developed pink-flushed breeding plumage, and many were here today. Mediterranean Gulls were in breeding plumage too, but only seen in flight this year. Little Tern was here too. Shelduck were a feature, and there were good numbers of Avocets. The flora included typical saltmarsh species such as *Arthrocnemum macrostachya*, *Suaeda vera*, and *Camphorosma monspeliaca*. In the area we also saw White Stork on its nest.

We headed back to Monte St. Angelo via an exciting series of hairpin bends.

## **Day 9 Tuesday 26<sup>th</sup> April                      Bosco Quarto and Chiancate**

Today, once we had left the 'main' road, we saw almost nobody at all during our time in the beautiful Bosco Quarto, and very few vehicles on Chiancate either. As we left Monte St. Angelo we admired the cliffs covered in *Aubrietia columnae*, *Arabis alpina*, *Doronicum columnae*, and *Lamium garganicum*, but the rosettes of *Campanula garganica* were not yet in flower.

Fine irises and quite a selection of orchids featured at the first stop. At a site for *Paeonia mascula* a few were in reasonable bloom. Another site we had not stopped at for many years yielded a lone Violet Limodore. A roadside rock garden held many *Narcissus poeticus*, abundant *Anemone apennina*, *Ophrys sphegodes*, and *Saxifraga carpetana*.

Now in forest there were many fine *Dactylorhiza romana*. Among the many other woodland plants were Spurge Laurel, *Stellaria holostea*, *Dorycnium orientale* and *Cardamine graeca*. Much searching yielded the hoped for Bird's-nest Orchids. *Platanthera chlorantha* was in bud. Woodland bird song, especially that of Blackcap, was a constant soundtrack.

At another stop the woodland floor was covered in privet, among which grew *Polygonatum multiflorum*, *Pulmonaria vallisarsae*, *Allium pendulinum*, *Anemone apennina*, *Viola suavis*, and *Viola riviniana*. A surprise was Common Columbine already in flower this year. The *Gagea chrysantha* was in fruit this year.

It was time for lunch which we prepared at one of the many deserted picnic areas in the forest, where Middle Spotted Woodpecker flew from tree to tree.

An arable field had many *Corydalis cava*, all in fruit this year, although the *Paeonia mascula* here was in fine condition. There was also fine *Iris lutescens*, and *Euphorbia myrsinites*, surely one of the most striking plants of the tour.

Once on the fine limestone upland of Chiancate we were treated to one of the floral highlights of the week. The *Orchis pauciflora* was in fine form, with many in flower. This is the only known site for the diminutive *Ophrys virescens* on the peninsula, and we were pleased to find good numbers today. Several more fine Elder-flowered Orchids were located. *Conopodium capillifolium* was in flower, there was much more *Euphorbia myrsinites*, *Alyssum minus*, and a fine selection of species already familiar to us. The *Narcissus tazetta* was all in fruit already this year. The limestone hills made an impressive backdrop. Ponds had many Common Toad tadpoles.

Butterflies today included Southern Festoon, Eastern Bath White, Orange-tip, Little Blue, Glanville Fritillary, Wall Brown, and Rosy Grizzled Skipper.

In Monte St. Angelo we enjoyed our last dinner and reflected on what an enjoyable and productive tour it had been.

## **Day 10 Wednesday 27<sup>th</sup> April To Bari and Departure**

We said our farewells to Monte St. Angelo and descended to the plains, via the Ruggiano road, to Foggia, then taking the autostrada south to Bari. We reached the airport exactly at the intended time, and there said our fond farewells.



## Systematic List Number 1      Plants

Species recorded on previous tours but not seen this year are annotated with the year in which they were last seen. Even after 15 years or so of tours here we continue to add new species to the list. Species seen for the first time this year are annotated 2016. A number of works are used for taxonomy and nomenclature, although in general the system of Flora Europaea is followed. 'An Annotated Checklist of the Italian Vascular Flora' by Conti et al, 2005, is invaluable. 'Bestimmungsschlüssel zur Flora des Gargano' by Wolfgang Licht, 2008, is a good flora for those who speak German!

### *Pteridophyta*

<i>Adiantum capillus-veneris</i>	Maidenhair Fern	Peschici area 2007!
<i>Anogramma leptophylla</i>	Jersey Fern	Pezzo de Greca area
<i>Asplenium adiantum-nigrum</i>	Black Spleenwort	Foresta Umbra and Pezzo de Greca area
<i>Asplenium trichomanes</i>	Maidenhair Spleenwort	Sheltered walls etc., locally common, e.g. Foresta Umbra
<i>Blechnum spicant</i>	Hard Fern	Foresta Umbra
<i>Ceterach officinarum</i>	Rustyback Fern	Widespread and locally common
<i>Cystopteris fragilis</i>	Brittle Bladder Fern	A few records, e.g. Monte Nero and Bosco Quarto
<i>Dryopteris filix-mas</i>	Male Fern	Noted in the Foresta Umbra and Bosco Quarto
<i>Phyllitis scolopendrium</i>	Harts-tongue Fern	Noted in the Foresta Umbra, where locally common, and Bosco Quarto
<i>Polypodium cambricum</i>	Southern Polypody	Foresta Umbra etc.
<i>Polypodium vulgare</i>	Common Polypody	Foresta Umbra and Bosco Quarto
<i>Polystichum aculeatum</i>	Hard Shield Fern	Foresta Umbra 2015
<i>Polystichum setiferum</i>	Soft Shield Fern	Foresta Umbra
<i>Pteridium aquilinum</i>	Bracken	Widespread
<i>Selaginella denticulata</i>	Mediterranean Selaginella	Locally common on shaded rocks and banks, e.g. Pezzo de Greca area

### *Gymnospermae*

#### *Pinaceae*

<i>Larix decidua</i>	Larch	Foresta Umbra and Bosco di Spina Pulci
<i>Pinus halepensis</i>	Aleppo Pine	Widespread, forming woods in the north
<i>Pinus nigra</i>	Black Pine	Locally planted, e.g. Foresta Umbra
<i>Pinus pinea</i>	Stone Pine	Noted on journeys to and from Bari Airport
<i>Pinus sylvestris</i>	Scots Pine	Foresta Umbra

#### *Cupressaceae*

<i>Cupressus macrocarpa</i>	Monterey Cypress	Above Carpino etc.
<i>Cupressus sempervirens</i>	Italian Cypress	Scattered
<i>Juniperus oxycedrus</i>	Prickly Juniper	North coast, and Pulsano Gorge and road
<i>Juniperus phoenicea</i>	Phoenician Juniper	Pezzo de Greca area 2016

#### *Taxacaceae*

<i>Taxus baccata</i>	Yew	Foresta Umbra
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## Angiospermae Dicotyledones

### Corylaceae

<i>Carpinus betulus</i>	Hornbeam	Widespread in the hills – sometimes co-dominant. Smooth grey bark.
<i>Carpinus orientalis</i>	Oriental Hornbeam	Widespread – tended to be commoner on lower slopes of the hills. Similar to the previous species but smaller leaves.
<i>Ostrya carpinifolia</i>	Hop Hornbeam	Locally numerous. Trunk brown and fissured. e.g. Spina Pulci
<i>Corylus avellana</i>	Hazel	Pulsano road

### Fagaceae

<i>Castanea sativa</i>	Sweet Chestnut	Local, e.g. Chiancate
<i>Fagus sylvatica</i>	Common Beech	Locally dominant, as in parts of Foresta Umbra
<i>Quercus cerris</i>	Turkey Oak	Widespread in the forests, e.g. dominant Spina Pulci
<i>Quercus ilex</i>	Holm Oak	Pezzo de Greca area
<i>Quercus pubescens</i>	Downy Oak	Scattered throughout, forest on Monte Nero
<i>Quercus robur</i>	Pedunculate Oak	Noted at Dolina Pozzolino in previous years
<i>Quercus trojana</i>	an oak	A feature of the southern sites visited on the first two days, 2016

### Rafflesiaceae

<i>Cytinus ruber</i>		Pezzo de Greca area 2016
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### Salicaceae

<i>Salix babylonica</i>	Weeping Willow	Pulsano Road, Monte St Angelo.
<i>Populus nigra</i>	Black Poplar	North coast
<i>Populus tremula</i>	Aspen	A few in Foresta Umbra

### Juglandaceae

<i>Juglans regia</i>	Walnut	Near Bosco Quarto and in the north
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### Betulaceae

<i>Betula pendula</i>	Silver Birch	Foresta Umbra
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### Ulmaceae

<i>Ulmus glabra</i>	Wych Elm	Foresta Umbra
<i>Ulmus minor</i>	Small-leaved Elm	Scattered records, e.g. Passo Ingarano

### Moraceae

<i>Ficus carica</i>	Fig	In the south
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### Loranthaceae

<i>Loranthus europaeus</i>	a mistletoe	Parasitic on one oak near Ruggiano junction
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## *Santalaceae*

<i>Osyris alba</i>	Osyris	Locally common Pezzo de Greca area
<i>Thesium humile</i>	a bastard toadflax	Pulsano gorge and Pezzo de Greca area
<i>Thesium</i> sp.	a bastard toadflax	Another species not identified

## *Urticaceae*

<i>Parietaria judaica</i>	Pellitory of the Wall	Scattered
<i>Parietaria lusitanica</i>	a pellitory	Seen in the south, 2016
<i>Parietaria officinalis</i>	Common Pellitory	Pulsano Sanctuary and in the south
<i>Urtica dioica</i>	Stinging Nettle	Common
<i>Urtica membranacea</i>	Membraneous Nettle	Pezzo de Greca area
<i>Urtica pilulifera</i>	Roman Nettle	Northern roadsides, and south of Vico
<i>Urtica urens</i>	Annual Nettle	Ruggiano viewpoint 2014

## *Aristolochiaceae*

<i>Aristolochia clusii</i>	a birthwort	Scattered records, ground cover in woods. Synonym <i>A. longa</i> . Some affected by a rust.
<i>Aristolochia rotunda</i>	a birthwort	Noted in the Bosco Quarto and Bosco di Spina Pulci etc. Very short petioles.

## *Polygonaceae*

<i>Polygonum aviculare</i>	Knotgrass	South coast 2015
<i>Polygonum maritimum</i>	Sea Knotgrass	North coast dunes, 2014
<i>Rumex acetosa</i>	Common Sorrel	Pezzo de Greca area
<i>Rumex acetosella</i>	Sheep's Sorrel	Near Dolina Pozzatina 2013
<i>Rumex conglomeratus</i>	Clustered Dock	Margherita Saltpans 2015
<i>Rumex crispus</i>	Curled Dock	Scattered records
<i>Rumex obtusifolius</i>	Broad-leaved Dock	Scattered records
<i>Rumex palustris</i>	Marsh Dock	Manfredonia Wetlands in the past
<i>Rumex pulcher</i>	Fiddle Dock	Masseria Ferri

## *Chenopodiaceae*

<i>Arthrocnemum macrostachya</i>	Glasswort	Margherita Saltpans and Lake Lesina
<i>Atriplex halimus</i>	Shrubby Orache	Lake Lesina in previous years
<i>Atriplex prostrata</i>	Spear-leaved Orache	Lake Lesina and near Peschici
<i>Beta vulgaris</i>	Sea Beet	Near Peschici
<i>Camphorosma monspeliaca</i>		Margherita Saltpans
<i>Chenopodium album</i>	Fat Hen	Near Peschici 2012
<i>Chenopodium murale</i>	Nettle-leaved Goosefoot	Santa Maria di Pulsano Sanctuary
<i>Chenopodium vulvaria</i>	Stinking Goosefoot	Near Peschici 2011
<i>Halimione portulacoides</i>	Sea Purslane	Salt marshes at Margherita and Lesina
<i>Salicornia europaea</i>	Glasswort	Margherita Saltpans
<i>Salsola kali</i>	Prickly Saltwort	Varano Island 2012
<i>Suaeda vera</i>	Shrubby Seablite	Noted at Margherita Saltpans
<i>Suaeda splendens</i>	a seablite	Margherita Saltpans

## *Aizoaceae*

<i>Carpobrotus edulis</i>	Hottentot Fig	Saltmarshes at Margherita Saltpans, and north coast
<i>Mesembryanthemum nodiflorum</i>		In leaf 2014

## *Caryophyllaceae*

<i>Arenaria leptoclados</i>	Lesser Thyme-leaved Sandwort	Scattered records
<i>Arenaria serpyllifolia</i>	Thyme-leaved Sandwort	Pulsano Road, Peschici area etc.
<i>Cerastium fontanum</i>	Mouse-ear Chickweed	Scattered records, e.g. Passo Ingarano

<i>Cerastium glomeratum</i>	Sticky Mouse-ear	Scattered records
<i>Cerastium semidecandrum</i>	Little Mouse-ear	North coast 2015
<i>Dianthus sylvestris</i>	Wood Pink	A few in leaf, Carbonara valley
<i>Herniaria glabra</i>	Smooth Rupturewort	Bosco di Spina Pulci 2015
<i>Herniaria hirsuta</i>	Hairy Rupturewort	Pulsano road
<i>Minuartia hybrida</i>	Fine-leaved Sandwort	Scattered records, e.g. Spina Pulci
<i>Minuartia verna</i>	Spring Sandwort	Widespread in the hills, e.g. Spina Pulci
<i>Moehringia trinervia</i>	Three-veined Sandwort	Foresta Umbra
<i>Petrorhagia saxifraga</i>	Tunic Flower	Passo Ingarano 2016
<i>Petrohagia velutina</i>	Kohlrauschia	Scattered records, e.g. Ruggiano road
<i>Polycarpon diphylllum</i>	Two-leaved Allseed	Pulsano Sanctuary
<i>Polycarpon tetraphyllum</i>	Four-leaved Allseed	North coast etc.
<i>Sagina apetala</i>	Annual Pearlwort	Pulsano Road 2015
<i>Sagina procumbens</i>	Procumbent Pearlwort	Scattered records
<i>Scleranthus annuus</i>	Annual Knawel	Monte Nero 2008
<i>Scleranthus perennis</i>	Perennial Knawel	Recorded 2011
<i>Silene alba</i>	White Campion	Pezzo de Greca area
<i>Silene colorata</i>	a catchfly	Very common on coastal dunes
<i>Silene conica</i>	Sand Catchfly	North Coast dunes
<i>Silene dioica</i>	Red Campion	
<i>Silene gallica</i>	Small-flowered Catchfly	Passo Ingarano
<i>Silene italica</i>	Italian Catchfly	Scattered, e.g. Pulsano Gorge
<i>Silene subconica</i>	a catchfly	Pulsano road and gorge, and Ruggiano road
<i>Silene vulgaris</i>	Bladder Campion	Scattered, e.g. Varano Island
<i>Spergularia marina</i>	Lesser Sea Spurrey	Manfredonia wetlands 2008
<i>Spergularia rubra</i>	Sand-spurrey	Peschici etc.
<i>Stellaria holostea</i>	Greater Stitchwort	Scattered in wooded areas, e.g. Bosco Quarto
<i>Stellaria media</i>	Common Chickweed	Widespread. Stamens 3 to 8.
<i>Stellaria neglecta</i>	Greater Chickweed	Chiancate. Stamens 10.
<i>Velezia rigida</i>	Velezia	In leaf at the lunch site near Peschici, 2014

## Ranunculaceae

<i>Adonis annua</i>	Pheasant's-eye	Carbonara Valley 2006 and 2013
<i>Anemone apennina</i>	Blue Anemone	Locally co-dominant under trees in the hills, including much of the white form var. <i>albiflora</i>
<i>Anemone hortensis</i>	an anemone	Scattered records. Tepals 12 to 19.
<i>Anemone pavonina</i>	Peacock Anemone	Widespread and common. Tepals 7 to 12.
<i>Aquilegia vulgaris</i>	Common Columbine	3+ in flower this year in the Bosco Quarto
<i>Clematis flammula</i>	Fragrant Clematis	Scattered in the north, in leaf
<i>Clematis vitalba</i>	Traveller's Joy	Scattered – mostly in the north. In leaf.
<i>Eranthis hyemalis</i>	Winter Aconite	In leaf in Carbonara Valley
<i>Nigella damascena</i>	Love-in-a-mist	Pezzo de Greca area
<i>Ranunculus acris</i>	Meadow Buttercup	Pilgrim's Road, Monte St Angelo and near Vieste
<i>Ranunculus arvensis</i>	Corn Buttercup	Carbonara valley
<i>Ranunculus bulbosus</i>	Bulbous Buttercup	Widespread
<i>Ranunculus ficaria</i>	Lesser Celandine	Bosco di Spina Pulci, Monte Nero etc.
<i>Ranunculus garganicus</i>	a buttercup	Sepals pubescent. Not seen?
<i>Ranunculus lanuginosus</i>	Woolly Buttercup	Foresta Umbra
<i>Ranunculus millefoliatus</i>	a buttercup	Widespread and common. Sepals glabrous.
<i>Ranunculus muricatus</i>	a buttercup	Foresta Umbra and Pezzo de Greca area
<i>Ranunculus paludosus</i>	Jersey Buttercup	In leaf
<i>Ranunculus parviflorus</i>	Small-flowered Buttercup	Foresta Umbra
<i>Ranunculus sardous</i>	Hairy Buttercup	Widespread
<i>Ranunculus scleratus</i>	Celery-leaved Buttercup	Rodi Garganico 2015
<i>Ranunculus trichophyllus</i>	Thread-leaved Water Dropwort	Manfredonia wetlands 2008

## *Paeoniaceae*

<i>Paeonia mascula</i>	a Peony	In flower this year in Carbonara valley, and Chiancate.
<i>Paeonia peregrina</i>	a Peony	c.6 in flower this year in the north.

## *Capparaceae*

<i>Capparis spinosa</i>	a Caper	Pulsano sanctuary and gorge
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## *Papaveraceae*

<i>Chelidonium majus</i>	Greater Celandine	Foresta Umbra
<i>Papaver apulum</i>	a poppy	Scattered records in north, mainly roadsides
<i>Papaver dubium</i>	Long-headed Poppy	Recorded in the north 2015
<i>Papaver hybridum</i>	Rough Poppy	Recorded
<i>Papaver rhoeas</i>	Common Poppy	Widespread and locally numerous
<i>Papaver somniferum</i>	Opium Poppy	North coast 2015

## *Fumariaceae*

<i>Corydalis cava</i>	Bulbous Corydalis	All in fruit this year
<i>Fumaria agraria</i>	a fumitory	Dolina Pozzatina 2007
<i>Fumaria bastardii</i>	Tall Ramping-Fumitory	Scattered records
<i>Fumaria capreolata</i>	White Ramping-Fumitory	Widespread and common
<i>Fumaria densiflora</i>	a fumitory	Scattered records, e.g. Ruggiano road
<i>Fumaria officinalis</i>	Common Fumitory	Widespread and locally common
<i>Fumaria parviflora</i>	Small Fumitory	Pulsano Sanctuary, Passo Ingarano
<i>Fumaria vaillantii</i>	a fumitory	Near Peschici and Bosco Quarto, 2015

## *Cruciferae*

<i>Aethionema saxatile</i>	Burnt Candytuft	Hillside above Carpino, Carbonara Valley etc.
<i>Alliaria petiolata</i>	Garlic Mustard	Scattered in woodlands, e.g. Foresta Umbra
<i>Alyssoides sinuata</i>	Alyssoides	Scattered, e.g. above Carpino
<i>Alyssum minus</i>		Locally very common
<i>Arabidopsis thaliana</i>	Thale Cress	Scattered records
<i>Arabis alpina</i>	Alpine Rockcress	Monte St.Angelo, ssp. <i>caucasica</i>
<i>Arabis collina</i>	a rockcress	Scattered records in the south, pinkish flowers. Syn. <i>Arabis rosea</i> .
<i>Arabis glabra</i>	Tower Mustard	Pulsano road
<i>Arabis hirsuta</i>	Hairy Rockcress	Widespread
<i>Arabis sagittata</i>	a rockcress	<i>Cachrys</i> site
<i>Arabis turrita</i>	Towercress	Foresta Umbra
<i>Arabis verna</i>	Spring Rockcress	Bosco Quarto, Pulsano road, Passo Ingarano, Spina Pulci
<i>Aubrieta columnae</i>		Walls and rocks in Monte St.Angelo, ssp. <i>italica</i>
<i>Aurinia saxatile</i>	Golden Alyssum	Widespread and common, e.g. Chiancate
<i>Barbarea bracteosa</i>	a Wintercress	Scattered records 2013
<i>Barbarea vulgaris</i>	Common Wintercress	Cagnano to Carpino
<i>Biscutella didyma</i>	Biscutella	Widespread
<i>Biscutellas lyrata</i>	a biscutella	This species along Pulsano road
<i>Brassica nigra</i>	Black Mustard	Scattered
<i>Brassica rapa</i>	Wild Turnip	Recorded
<i>Bunias erucago</i>	Bunias	Rather widespread and locally common, e.g. near Peschici
<i>Cakile maritima</i>	Sea Rocket	Noted on the shore in the north, and at Margherita

<i>Calepina irregularis</i>	White Ball Mustard	Peschici, Monte St. Angelo, etc.
<i>Capsella bursa-pastoris</i>	Shepherd's-purse	Widespread and common
<i>Capsella rubella</i>	a shepherd's-purse	Recorded, e.g. Pulsano Gorge
<i>Cardamine chelidonia</i>	a bittercress	A few in flower in Foresta Umbra
<i>Cardamine graeca</i>	a bittercress	Widespread in forests. White flowers. In fruit Orimini.
<i>Cardamine hirsuta</i>	Hairy Bittercress	Bosco Quarto, Foresta Umbra etc.
<i>Cardaria draba</i>	Hoary Cress	Scattered records
<i>Clypeola jonthlaspi</i>	Clypeola	Recorded in fruit 2013
<i>Coronopus squamatus</i>	Swinecress	Recorded
<i>Dentaria (Cardamine) bulbifera</i>	Coralroot Bittercress	Scattered in woods, e.g Foresta Umbra
<i>Diplotaxis eruroides</i>	White Wall Rocket	Near Peschici 2007
<i>Diplotaxis tenuifolia</i>	Perennial Wall Rocket	<i>Serapias apulica</i> site
<i>Draba muralis</i>	Wall Whitlow Grass	Foresta Umbra
<i>Erophila verna</i>	Whitlow Grass	Scattered records, a few still in flower
<i>Eruca sativa</i>	Eruca	Widespread and locally abundant
<i>Erysimum</i> sp.	Treacle Mustard	Yellow flowers and fine grey leaves, Pulsano road and transfer day, 2013.
		<i>Erysimum crassistylum?</i>
<i>Hirschfeldia incana</i>	Hoary Mustard	Scattered records
<i>Hornungia petraea</i>	Hutchinsia	Very local, Monte Nero
<i>Isatis tinctoria</i>	Woad	Widespread and often common on roadsides
<i>Lepidium latifolium</i>	Dittander	Very locally in flower on roadsides above Cagnano
<i>Lobularia maritima</i>	Sweet Alison	Scattered in the north
<i>Malcolmia ramosissima</i>		Northern dunes
<i>Matthiola incana</i>	Hoary Stock	Tower near Peschici
<i>Neslia paniculata</i>	Ball Mustard	Cagnano to Carpino
<i>Raphanus raphinistrum</i>	Wild Radish	Scattered
<i>Rapistrum rugosum</i>	Bastard Cabbage	In the north
<i>Sinapis alba</i>	White Mustard	Widespread
<i>Sinapis arvensis</i>	Charlock	Widespread
<i>Sisymbrium irio</i>	London Rocket	Scattered records in the south
<i>Sisymbrium loeselii</i>	False London Rocket	Pulsano Sanctuary 2015
<i>Sisymbrium officinale</i>	Hedge Mustard	Scattered, e.g. Rodi
<i>Sisymbrium orientale</i>	Eastern Rocket	Recorded
<i>Thlaspi arvense</i>	Field Pennycress	Carbonara Valley, arable weed, 2012
<i>Thlaspi perfoliatum</i>	Perfoliate Pennycress	Arable weed near Bosco Quarto, 2012
<i>Thlaspi praecox</i>	a pennycress	Near Carpino, Bosco Quarto etc.

## Resedaceae

<i>Reseda alba</i>	White Mignonette	Locally common
<i>Reseda lutea</i>	Wild Mignonette	Passo Ingarano
<i>Reseda phyteuma</i>	Corn Mignonette	Pulsano road

## Crassulaceae

<i>Sedum acre</i>	Biting Stonecrop	Pulsano road
<i>Sedum album</i>	White Stonecrop	Monte Nero in leaf
<i>Sedum caespitosum</i>	a stonecrop	Widespread and locally common, in flower
<i>Sedum cepaea</i>	a stonecrop	In leaf Foresta Umbra 2014
<i>Sedum hispanicum</i>	a stonecrop	Pulsano Sanctuary 2014
<i>Sedum ochroleucon</i>	a stonecrop	Pulsano Road etc., in leaf
<i>Sedum rupestre</i>	a stonecrop	In leaf
<i>Sedum sediforme</i>	a stonecrop	Noted in leaf, Pulsano Gorge
<i>Sedum stellatum</i>	Starry Stonecrop	Scattered records, in leaf
<i>Umbilicus rupestris</i>	Navelwort	Pulsano road and gorge

## *Saxifragaceae*

<i>Saxifraga bulbifera</i>	a saxifrage	Scattered, e.g. Spina Pulci, has bulbils in leaf axils
<i>Saxifraga graeca (carpetana)</i>	a saxifrage	Bosco Quarto and Monte Nero
<i>Saxifraga tridactylites</i>	Rue-leaved Saxifrage	Noted in a variety of localities, e.g. Pulsano Gorge, Foresta Umbra

## *Platanaceae*

<i>Platanus X hybrida</i>	London Plane	Noted en route from Bari to Rodi
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## *Hydrangeaceae*

<i>Philadelphus coronarius</i>		Naturalised at the Dolina Pozzatina, 2015
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## *Pittosporaceae*

<i>Pittosporum tobira</i>		Beach near Peschici
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## *Rosaceae*

<i>Agrimonia eupatoria</i>	Agrimony	Noted in leaf 2015
<i>Aphanes inexpectata</i>	a Parsley Piert	Noted at several sites in short woodland turf, locally numerous as in Spina Pulci
<i>Aremonia agriminoides</i>	Bastard Agrimony	Widespread but local in woods
<i>Cotoneaster nebrodensis</i>	a cotoneaster	Possibly this species near Peschici 2008
<i>Crataegus monogyna</i>	Hawthorn	Widespread
<i>Cydonia oblonga</i>	Quince	A few in flower, not seen 2016?
<i>Eriobotrya japonica</i>	Loquat	
<i>Filipendula vulgaris</i>	Dropwort	In flower Passo Ingarano
<i>Fragaria moschata</i>	Hautbois Strawberry	Scattered in the hills
<i>Fragaria vesca</i>	Wild Strawberry	Local in leaf
<i>Fragaria viridis</i>	a strawberry	Bosco Quarto 2016
<i>Geum urbanum</i>	Herb Bennet	Spina Pulci
<i>Malus sylvestris</i>	Crab Apple	Pulsano Road, Monte St Angelo, near Vico, and above Carpino
<i>Potentilla hirta</i>	a cinquefoil	In flower Pezzo de Greca area, and Carbonara valley
<i>Potentilla micrantha</i>	Pink Barren Strawberry	In leaf this year
<i>Prunus avium</i>	Wild Cherry	Scattered, e.g. Spina Pulci road
<i>Prunus dulcis</i>	Almond	Commonly cultivated
<i>Prunus mahaleb</i>	St.Lucies' Cherry	Pulsano Gorge
<i>Prunus persica</i>	Peach	Cultivated
<i>Prunus spinosa</i>	Blackthorn	Scattered
<i>Prunus webbii</i>		Recorded 2011
<i>Pyrus amygdaliformis</i>	Almond-leaved Pear	Widespread
<i>Pyrus communis</i>	Cultivated Pear	Scattered records
<i>Rosa canina</i>	Dog Rose	Pezzo de Greca area
<i>Rosa spp.</i>	rose spp.	Other species not identified, several in flower this year
<i>Rubus canescens</i>	a bramble	Widespread. Small trefoil leaves.
<i>Rubus ulmifolius</i>	a bramble	Widespread. Variable leaves.
<i>Rubus spp.</i>	bramble spp.	Other species not identified
<i>Sanguisorba minor</i>	Salad Burnet	Scattered records
<i>Sorbus aucuparia</i>	Rowan	Scattered records
<i>Sorbus torminalis</i>	Wild Service Tree	Chiancate

## Fabaceae

<i>Acacia cyanophylla</i>	Blue-leaved Wattle	Planted in northern lowlands
<i>Amorpha fruticosa</i>		Manfredonia wetlands 2008
<i>Anagyris foetida</i>	Bean Trefoil	Passo Ingarano, in fruit
<i>Anthyllis barba-jovis</i>	Jupiter's Beard	Bordering the beach near Peschici
<i>Anthyllis tetraphylla</i>	Bladder Vetch	Scattered in northern lowlands, e.g. near Peschici
<i>Anthyllis vulneraria</i>	Kidney Vetch	Subspecies <i>maura</i> and <i>praepropera</i> , both pink flowered, widespread and common
<i>Astragalus glycyphyllos</i>	Wild Liquorice	In leaf in Pulsano Gorge
<i>Astragalus hamosus</i>	a milk-vetch	Local, mostly in seed, e.g. Pulsano road and Pezzo de Greca area
<i>Astragalus monspessulanus</i>	False Vetch	In flower along Pulsano road, and west of Vieste
<i>Astragalus montanus</i>	a milk-vetch	Pulsano road, this species? Synonymy? 2015.
<i>Astragalus sesameus</i>	a milk-vetch	A few records
<i>Calicotome infesta</i>	Thorny Broom	Pezzo de Greca area 2016
<i>Ceratonia siliqua</i>	Carob Tree	Olive grove near Peschici 2015
<i>Cercis siliquastrum</i>	Judas Tree	Scattered in flower
<i>Chamaecytisus spinescens</i>	a hairy broom	A few in Pulsano gorge in fine flower
<i>Colutea arborescens</i>	Bladder Senna	Near Vieste
<i>Coronilla cretica</i>	a scorpion vetch	Peschici
<i>Coronilla emerus</i>	Scorpion Senna	Widespread
<i>Coronilla scorpioides</i>	Annual Scorpion Vetch	Widespread
<i>Coronilla valentina</i>	a scorpion vetch	Peschici
<i>Cytisus decumbens</i>	a broom	Locally very common around Monte St Angelo. Entire leaves.
<i>Cytisus scoparius</i>	Broom	Pezzo de Greca area
<i>Cytisus villosus</i>	a broom	Near Dolina Pozzantina 2015
<i>Dorycnium hirsutum</i>	Dorycnium	Common in dunes and sandy areas in north, e.g. Peschici
<i>Genista sylvestris</i>	a greenweed	Pulsano gorge and road
<i>Genista tinctoria</i>	Dyer's Greenweed	Monte St Angelo and Bosco Quarto and above Carpino
<i>Hedysarum coronarium</i>	Italian Sainfoin	Scattered records, but not seen in recent years!
<i>Hippocrepis ciliata</i>	a horseshoe vetch	Northern dunes
<i>Hippocrepis glauca</i>	a horseshoe vetch	Widespread and common
<i>Hippocrepis multisiliquosa</i>	a horseshoe vetch	Recorded 2013
<i>Hippocrepis unisiliquosa</i>	a horseshoe vetch	Widespread and common
<i>Hymenocarpus circinnatus</i>	Disk Trefoil	Locally common in Pezzo de Greca area
<i>Lathyrus aphaca</i>	Yellow Vetchling	Peschici, and Pezzo de Greca area
<i>Lathyrus cicera</i>	a vetchling	Widespread and locally common
<i>Lathyrus clymenum</i>	a vetchling	Recorded
<i>Lathyrus niger</i>	Black Pea	In bud 2014
<i>Lathyrus ochrus</i>	a vetchling	Local, e.g. Carbonara valley
<i>Lathyrus setifolius</i>	a vetchling	Scattered records
<i>Lathyrus sphaericus</i>	a vetchling	Scattered records
<i>Lathyrus venetus</i>	a vetchling	Foresta Umbra in bud, in flower Bosco Quarto
<i>Lotus corniculatus</i>	Birdsfoot Trefoil	Common and widespread
<i>Lotus cytisoides</i>	a bird's-foot trefoil	North coast dunes
<i>Lotus edulis</i>	Edible Lotus	Widespread – especially along coasts, locally very common
<i>Lotus halophilus</i>	a bird's-foot trefoil	Locally in the north
<i>Lotus ornithopodioides</i>		Widespread and common
<i>Lupinus albus</i>	White Lupin	Fodder crop and seeded therefrom
<i>Lupinus varius</i>	a lupin	Near Sannicandro
<i>Medicago arabica</i>	Spotted Medick	Widespread
<i>Medicago disciformis</i>	a medick	Scattered records, e.g. services stop on Day 3
<i>Medicago littoralis</i>	a medick	Noted by the coast near Peschici, etc.



<i>Medicago lupulina</i>	Black Medick	Widespread
<i>Medicago marina</i>	Sea Medick	Along the shoreline near Peschici, and Varano island
<i>Medicago minima</i>	Small Medick	Pulsano road and gorge and in the north
<i>Medicago murex</i>	a medick	Recorded in the past
<i>Medicago orbicularis</i>	Large Disk Medick	Pezzo de Greca area
<i>Medicago polymorpha</i>	Toothed Medick	Widespread
<i>Medicago rugosa</i>	a medick	Pezzo de Greca area
<i>Medicago sativa</i>	Lucerne	Between Monte St. Angelo and Bari Airport
<i>Medicago truncatula</i>	a medick	Near Peschici 2011
<i>Melilotus indicus</i>	Small Melilot	Scattered records
<i>Melilotus infestus</i>	a melilot	Near Peschici
<i>Melilotus messanensis</i>	a melilot	A few at Lake Lesina
<i>Melilotus segetalis</i>	a melilot	Margherita salt pans
<i>Melilotus sulcata</i>	a melilot	Near Peschici
<i>Onobrychis aequidentata</i>	a sainfoin	Scattered records, e.g. near Vieste, Peschici
<i>Onobrychis alba</i>	a sainfoin	Common around Monte St Angelo
<i>Onobrychis caput-galli</i>	Cockscomb Sainfoin	Pezzo de Greca area
<i>Onobrychis viciifolia</i>	Sainfoin	Margherita Salt pans
<i>Ononis diffusa</i>	a restharrow	North dunes
<i>Ononis minutissima</i>	a restharrow	Pezzo de Greca area 2016
<i>Ononis reclinata</i>	Small Restharrow	Pezzo de Greca area
<i>Ononis variegata</i>	a restharrow	Locally common on the north coast
<i>Ononis viscosa</i>	a restharrow	Recorded in the north
<i>Ornithopus compressus</i>	Compressed Birdsfoot	Recorded
<i>Pisum sativum</i>	Wild Pea	Widespread and locally common
<i>Psoralea bituminosa</i>	Pitch Trefoil	Widespread, several in flower this year
<i>Robinia pseudacacia</i>	False Acacia	Locally planted
<i>Scorpiurus muricatus</i>	Scorpiurus	Widespread
<i>Scorpiurus vermiculatus</i>	a scorpiurus	Scattered records 2013
<i>Securigera securidaca</i>	a scorpion vetch	Widespread and common, e.g. Peschici
<i>Spartium junceum</i>	Spanish Broom	Widespread and locally common
<i>Tetragonolobus purpureus</i>	Asparagus Pea	Pezzo de Greca area
<i>Trifolium arvense</i>	Hare's-foot Clover	<i>Serapias apulica</i> site
<i>Trifolium campestre</i>	Hop Trefoil	Near Peschici etc.
<i>Trifolium cherleri</i>	a clover	Scattered records
<i>Trifolium fragiferum</i>	Strawberry Clover	In flower near Peschici 2011
<i>Trifolium glomeratum</i>	Clustered Clover	Scattered records
<i>Trifolium incarnatum</i>	Crimson Clover	Cagnano to Carpino 2016
<i>Trifolium medium</i>	Zigzag Clover	Pulsano road 2013
<i>Trifolium nigrescens</i>		Recorded 2016
<i>Trifolium pratense</i>	Red Clover	Scattered
<i>Trifolium repens</i>	White Clover	Widespread
<i>Trifolium resupinatum</i>	Reversed Clover	Recorded 2016
<i>Trifolium scabrum</i>	Rough Clover	Scattered records
<i>Trifolium stellatum</i>	Star Clover	Widespread and common
<i>Trifolium subterraneum</i>	Subterranean Clover	Spina Pulci, near Carpino, Monte Nero, etc. Not seen 2016!
<i>Trifolium tomentosum</i>	Woolly Clover	Pezzo de Greca area.
<i>Trigonella corniculata</i>	Sickle-fruited Fenugreek	Locally very common in the area visited on the first two days, 2016
<i>Trigonella monspeliaca</i>	Star-fruited Fenugreek	Near Vieste 2008
<i>Trigonella sp.</i>	fenugreek sp.	Cliffs south of Ruggiano. Yellow flowers. 2008. Spina Pulci 2012.
<i>Vicia atropupurea (benghalensis)</i>	a vetch	Passo Ingarano
<i>Vicia barbazitae</i>	a vetch	Noted in the Foresta Umbra, yellow standard, blue wings, 2011
<i>Vicia bithynica</i>	Bithynian Vetch	Widespread, e.g. Passo Ingarano, Ruggiano Road, Peschici
<i>Vicia cracca</i>	Tufted Vetch	Local on roadsides

<i>Vicia faba</i>	Broad Bean	Occasionally naturalised
<i>Vicia grandiflora</i>	a vetch	Scattered woodland records, e.g. Spina Pulci
<i>Vicia hirsuta</i>	Hairy Vetchling	Peschici, Spina Pulci, etc.
<i>Vicia hybrida</i>	Hairy Yellow Vetchling	Widespread and reasonably common
<i>Vicia lathyroides</i>	Spring Vetch	A few records
<i>Vicia lutea</i>	Yellow Vetch	Seen in the north, and Pezzo de Greca area
<i>Vicia melanops</i>	a vetch	Very local in the Carbonara Valley, not seen 2016
<i>Vicia monantha</i>		Recorded 2016
<i>Vicia onobrychioides</i>	False Sainfoin	Monte Nero, and Pulsano road
<i>Vicia parviflora</i>	a vetch	Pezzo de Greca area
<i>Vicia peregrina</i>	a vetch	Pulsano Road etc.
<i>Vicia pubescens</i>	a vetch	Spina Pulci
<i>Vicia sativa</i>	Common Vetch	Widespread and common
<i>Vicia sepium</i>	Bush Vetch	Scattered records
<i>Vicia villosa</i>	Fodder Vetch	Scattered records

## Oxalidaceae

<i>Oxalis articulata</i>	Pink Oxalis	Pulsano sanctuary 2014
<i>Oxalis corniculata</i>	Procumbent Yellow Sorrel	Pezzo de Greca area
<i>Oxalis pes-caprae</i>	Bermuda Buttercup	Widespread and common

## Geraniaceae

<i>Erodium acaule</i>	a stork's-bill	Spina Pulci
<i>Erodium chium</i>		Recorded 2016
<i>Erodium ciconium</i>	a stork's-bill	<i>Serapias apulica</i> site
<i>Erodium cicutarium</i>	Common Stork's-bill	Widespread and common
<i>Erodium laciniatum</i>	a stork's-bill	Varano Island dunes
<i>Erodium malacoides</i>	Mallow-leaved Stork's-bill	Widespread
<i>Erodium maritimum</i>	a stork's bill	In leaf west of Vieste etc.
<i>Geranium columbinum</i>	Long-stalked Cranesbill	Near Peschici, and Pezzo de Greca area
<i>Geranium dissectum</i>	Cut-leaved Cranesbill	Near Peschici
<i>Geranium lucidum</i>	Shining Cranesbill	Bosco di Spina Pulci, Bosco Quarto etc.
<i>Geranium molle</i>	Dovesfoot Cranesbill	Widespread
<i>Geranium purpureum</i>	Little Robin	Scattered records
<i>Geranium pusillum</i>	Small-flowered Cranesbill	Scattered records
<i>Geranium robertianum</i>	Herb Robert	Widespread
<i>Geranium rotundifolium</i>	Round-leaved Cranesbill	Scattered records
<i>Geranium sanguineum</i>	Bloody Cranesbill	Pezzo de Greca area

## Linaceae

<i>Linum austriacum</i>	a flax	Carbonara valley and Pulsano road. <i>ssp.collinum</i> . Large blue flowers.
<i>Linum bienne</i>	Pale Flax	Scattered records, e.g. Pulsano road
<i>Linum tenuifolium</i>	a flax	3+ in flower in Pulsano Gorge
<i>Linum trigynum</i>	a flax	<i>Serapias apulica</i> site

## Euphorbiaceae

<i>Euphorbia amygdaloides</i>	Wood Spurge	Locally common in woods, e.g. Spina Pulci
<i>Euphorbia barrelieri</i>	a spurge	Scattered in the south, locally common
<i>Euphorbia ceratocarpa</i>	a spurge	Locally common, e.g. Chiancate
<i>Euphorbia characias</i>	Large Mediterranean Spurge	Widespread and very common
<i>Euphorbia exigua</i>	Dwarf Spurge	Scattered records
<i>Euphorbia falcata</i>	a spurge	Near Peschici etc., 2015
<i>Euphorbia helioscopia</i>	Sun Spurge	Widespread and common
<i>Euphorbia myrsinites</i>	Broad-leaved Glaucous Spurge	Chiancate and Monte Nero
<i>Euphorbia paralias</i>	Sea Spurge	Varano Island

<i>Euphorbia peplus</i>	Petty Spurge	Scattered records
<i>Euphorbia pinea</i>	a spurge	Varano Island
<i>Euphorbia rigida</i>	a spurge	Alta Murgia 2012
<i>Euphorbia segetalis</i>	a spurge	Widespread and locally common in the north
<i>Euphorbia spinosa</i>	a spurge	Widespread on dry rocky turf
<i>Mercurialis annua</i>	Annual Mercury	Scattered records
<i>Mercurialis perennis</i>	Dog's Mercury	Foresta Umbra, in leaf
<i>Ricinus communis</i>	Castor Oil Plant	Varano Island 2015

## Rutaceae

<i>Citrus aurantium</i>	Seville Orange	Cultivated
<i>Citrus limon</i>	Lemon	Cultivated
<i>Ruta chalepensis</i>	Fringed Rue	
<i>Ruta graveolens</i>	a rue	Near Vieste etc.

## Meliaceae

<i>Melia azederach</i>	Persian Lilac	Noted in the north of the peninsula
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## Polygalaceae

<i>Polygala flavescens</i>	a milkwort	This species along Pulsano road?
<i>Polygala monspeliaca</i>	a milkwort	West of Vieste
<i>Polygala nicaeensis</i>	Nice Milkwort	Noted in the south 2012
<i>Polygala vulgaris</i>	Common Milkwort	Monte Nero and Spina Pulci

## Hippocastanaceae

<i>Aesculus hippocastanum</i>	Horse Chestnut	A few seen, e.g. S.Marco in Lamis
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## Anacardiaceae

<i>Pistacia lentiscus</i>	Mastic Tree	Widespread and common
<i>Pistacia terebrinthus</i>	Terebrinth	Scattered throughout, locally common

## Aceraceae

<i>Acer campestre</i>	Field Maple	Widespread
<i>Acer opalus</i>	Italian Maple	Chiancate?
<i>Acer obtusatum</i>	a maple	Chiancate?
<i>Acer pseudoplatanus</i>	Sycamore	Scattered records

## Rhamnaceae

<i>Paliurus spina-christi</i>	Christ's Thorn	Forming dense thorny scrub on Passo Ingarano and elsewhere
<i>Rhamnus alaternus</i>	Mediterranean Buckthorn	Pulsano Gorge and Pezzo de Greca area
<i>Rhamnus oleoides</i>		In flower Passo Ingarano 2016. = <i>Rhamnus lycoides</i> ssp. <i>oleoides</i> .
<i>Rhamnus saxatilis</i>	a buckthorn	Pulsano Gorge

## Vitaceae

<i>Vitis vinifera</i>	Grape	Widely cultivated, occasionally naturalised plants seen as at Pulsano
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## Aquifoliaceae

<i>Ilex aquifolium</i>	Holly	In the Foresta Umbra and Bosco Quarto
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## *Elaeagnaceae*

*Elaeagnus angustifolia* Oleaster Lake Lesina, in flower

## *Tiliaceae*

*Tilia platyphyllos* Large-leaved Lime Foresta Umbra

## *Malvaceae*

*Althaea hirsuta* Rough Marsh-Mallow Pezzo de Greca area  
*Lavatera cretica* Smaller Tree-Mallow Margherita Salt pans etc.  
*Lavatera arborea* Tree Mallow Locally common along the north coast  
*Lavatera olbia* Tree Lavatera Roadsides in the past  
*Malva cretica* a mallow Pezzo de Greca area  
*Malva neglecta* Dwarf Mallow Pezzo de Greca area  
*Malva parviflora* Least Mallow Manfredonia, Peschici, etc.  
*Malva sylvestris* Common Mallow Widespread and common

## *Thymelaeaceae*

*Daphne gnidium* a daphne Noted in leaf  
*Daphne laureola* Spurge Laurel Scattered in fruit in the Foresta Umbra, Bosco Quarto, and Spina Pulci

## *Violaceae*

*Viola arvensis* Field Pansy Local. Not seen in recent years.  
*Viola graeca* a violet = *V.heterophylla*. Widespread at higher levels. Both yellow and purple forms.  
*Viola reichenbachiana* Early Dog Violet Local in woods, e.g. Bosco Quarto  
*Viola riviniana* Common Dog Violet Scattered in woods, e.g. Spina Pulci  
*Viola suavis* a violet Foresta Umbra and Bosco Quarto

## *Guttiferae*

*Hypericum montanum* Mountain St John's-Wort In leaf Pulsano road 2012  
*Hypericum perforatum* a St.John's-wort Northern coastal lowlands, e.g. near Peschici, in bud  
*Hypericum perforatum* Perforate St John's-Wort Scattered in leaf and bud

## *Cistaceae*

*Cistus creticus* a cistus Locally very common along the north coast and lower north-facing hills, with many already in flower, also in the south  
*Cistus monspeliensis* Narrow-leaved Cistus Locally common in flower in the north of the peninsula, and Pezzo de Greca area  
*Cistus salvifolius* Sage-leaved Cistus Locally common, as at Pulsano Gorge, and northern coastal dunes. Also Pezzo de Greca. Much in flower.  
*Fumana ericoides* a fumana Pulsano gorge and road  
*Fumana thymifolia* Thyme-leaved Fumana Northern coastal dunes  
*Helianthemum aegyptiacum* a rockrose Scattered records, e.g. Ruggiano road, 2015  
*Helianthemum apenninum* White Rockrose Widespread and locally common in the south  
*Helianthemum canum* Hoary Rockrose Pulsano road lunch site etc.  
*Helianthemum lavandulaefolium* Lavender-leaved Rockrose Lower Ruggiano road  
*Helianthemum nummularium* Common Rockrose Peschici, and *Cachrys* site  
*Helianthemum salicifolium* Willow-leaved Rockrose Locally common, as at Passo Ingarano  
*Tuberaria guttata* Spotted Rockrose Pezzo de Greca 2016

## *Tamaricaceae*

*Tamarix gallica*  
*Tamarix africana*

Tamarisk  
a tamarisk

By the beach near Peschici  
Lake Lesina

## *Cucurbitaceae*

*Bryonia dioica*  
*Ecballium elaterium*

White Bryony  
Squirting Cucumber

Near Peschici 2015  
Near Peschici, Margherita salt pans, Pulsano  
Sanctuary

## *Cactaceae*

*Opuntia ficus-barbarus*

Prickly Pear

Widespread

## *Myrtaceae*

*Eucalyptus camaldulensis*  
*Myrtus communis*

River Red Gum  
Common Myrtle

Planted on 'Varano island' and elsewhere  
Scattered in the north

## *Punicaceae*

*Punica granatum*

Pomegranate

Tower near Peschici 2015

## *Onagraceae*

*Circaea lutetiana*

Enchanter's Nightshade

In leaf in woodlands

## *Theligoniaceae*

*Theligonium cynocrambe*

Widespread, e.g. Passo Ingarano and near  
Vieste

## *Celastraceae*

*Euonymus europaeus*

Spindle

Scattered in woodlands

## *Cornaceae*

*Cornus sanguinea*

Dogwood

Near Vico

## *Araliaceae*

*Hedera helix*

Ivy

Local in woods. Some very robust  
specimens in Bosco Quarto.

## *Apiaceae*

*Anthriscus sylvestris*  
*Bifora testiculata*  
*Cachrys ferulacea*

Cow Parsley  
Bifora

Chiancate  
Near Peschici 2005!  
Four species of *Cachrys* occur in the  
Gargano. This was probably the species in  
fine flower on a short stretch of roadside  
near Bosco Quarto.  
Another species at the end of Pulsano gorge.

*Cachrys* sp.  
*Caucalis platycarpus*  
*Chaerophyllum hirsutum*  
*Cnidium silaifolium*  
*Conium maculatum*  
*Conopodium capillifolium*  
*Crithmum maritimum*  
*Daucus carota*  
*Daucus* spp.

Small Bur Parsley  
Hairy Chervil  
Hemlock  
Rock Samphire  
Wild Carrot  
carrot spp.

Foresta Umbra  
This species seen in leaf ?  
Manfredonia wetlands 2008  
In flower on Chiancate  
In leaf  
Lowlands south of Manfredonia etc.  
Other species possibly present

<i>Echinophora spinosa</i>		Leaves noted in northern dunes
<i>Echinophora tenuifolia</i>		Leaves near Vieste etc.
<i>Elaeoselinum asclepium</i>		Scattered in leaf, e.g. Passo Ingarano
<i>Eryngium campestre</i>	Field Eryngo	Scattered in leaf
<i>Eryngium maritimum</i>	Sea Holly	Dunes and sandy shores along north coast, in leaf
<i>Ferula communis</i>	Giant Fennel	Widespread and locally abundant, some very robust examples
<i>Foeniculum vulgare</i>	Fennel	In leaf
<i>Laserpitium garganicum</i>		Monte Nero, common in bud, glabrous with elliptical lobes
<i>Opopanax chironium</i>		In leaf near Monte Nero
<i>Opopanax hispidus</i>		In leaf in the Carbonara Valley etc., locally Common
<i>Orlaya grandiflora</i>	Orlaya	Pezzo de Greca area
<i>Pimpinella</i> sp.	a burnet saxifrage	Small examples in the wall at 100 Pozzi, 2015
<i>Pseudorlaya pumila</i>		Northern dunes 2016
<i>Sanicula europaea</i>	Sanicle	In flower, Foresta Umbra, Bosco Quarto, Spina Pulci
<i>Scandix australis</i>	a shepherd's-needle	Locally common in the limestone turf in the southern hills. Has an aniseed aroma.
<i>Scandix pecten-veneris</i>	Shepherd's-needle	Widespread and common
<i>Seseli montanum</i>		Pulsano Sanctuary, on the walls, and Monte St. Angelo. ssp. <i>polyphyllum</i> , in fine flower.
<i>Smyrniium olusatrum</i>	Alexanders	Roadsides
<i>Smyrniium rotundifolium</i>	Round-leaved Alexanders	Passo Ingarano
<i>Thapsia garganica</i>	Thapsia	Widespread in leaf, with some in flower
<i>Tordylium apulum</i>	Tordylium	Widespread and very common
<i>Tordylium officinale</i>		Scattered records, e.g. west of Vieste
<i>Torilis arvensis</i>	Spreading Hedge Parsley	Recorded
<i>Torilis nodosa</i>	Knotted Hedge Parsley	Recorded

## *Ericaceae*

<i>Arbutus unedo</i>	Strawberry Tree	Pezzo de Greca area 2016
<i>Erica arborea</i>	Tree Heath	Very local, near Vico, and on roadsides on the northern slopes of Carbonara Valley

## *Primulaceae*

<i>Anagallis arvensis</i>	Scarlet Pimpernel	Widespread, mostly the blue flowered form, but red form seen too. A few on Passo Ingarano 2015
<i>Anagallis foemina</i>		Widespread and locally common. Very small!
<i>Asterolinon linum-stellatum</i>		Leaves at various sites
<i>Cyclamen hederifolium</i>	Ivy-leaved Sowbread	Widespread in woods in the north and centre of the peninsula, locally numerous in flower this year
<i>Cyclamen repandum</i>	Spring Sowbread	Lake Lesina 2016
<i>Samolus valerandi</i>	Brookweed	

## *Plumbaginaceae*

<i>Armeria canescens</i>	a thrift	Above Cagnano
<i>Limonium vulgare</i>	Common Sea-Lavender	Margherita, in leaf

## *Oleaceae*

<i>Fraxinus excelsior</i>	Ash	
<i>Fraxinus ornus</i>	Manna Ash	Widespread in fine blossom
<i>Ligustrum vulgare</i>	Privet	Forming ground layer in Bosco Quarto, and Pulsano gorge

<i>Olea europea</i> <i>Phillyrea angustifolia</i> <i>Phillyrea latifolia</i>	Olive	Widely cultivated, and wild form seen too Northern lowlands Peschici area
<b>Apocynaceae</b>		
<i>Nerium oleander</i> <i>Vinca major</i>	Oleander Greater Periwinkle	Roadsides Pezzo de Greca area etc.
<b>Asclepiadaceae</b>		
<i>Vincetoxicum hirundinaria</i>	Swallow-wort	Pezzo de Greca area
<b>Gentianaceae</b>		
<i>Blackstonia acuminata</i> <i>Centaureum erythraea</i>	Yellow-wort Common Centaury	This species in Pezzo de Greca area? Common in flower this year near Peschici. In leaf Pulsano gorge.
<i>Centaureum pulchellum</i>	Lesser Centaury	Manfredonia and <i>Serapias apulica</i> site, 2015
<b>Rubiaceae</b>		
<i>Asperula arvensis</i> <i>Asperula taurina</i>	Blue Woodruff Pink Woodruff	Arable weed Chiancate This was the robust woodruff in flower in Foresta Umbra. Flowers white not pink! Scattered records Monte Nero 2011
<i>Cruciata laevipes</i> <i>Cruciata pedemontana</i> <i>Cruciata glabra</i>	Cross-wort a cross-wort a cross-wort	Scattered throughout Scattered records, e.g. west of Vieste Pulsano road etc.
<i>Galium aparine</i> <i>Galium mollugo</i> <i>Galium murale</i> <i>Galium odoratum</i> <i>Galium rotundifolium</i> <i>Galium tricorutum</i> <i>Galium verum</i> <i>Galium verrucosum</i> <i>Rubia peregrina</i> <i>Sherardia arvensis</i> <i>Valantia hispida</i> <i>Valantia muralis</i>	Cleavers Hedge Bedstraw a bedstraw Woodruff a bedstraw Corn Cleavers Lady's Bedstraw a bedstraw Wild Madder Sherardia	Scattered throughout Scattered records, e.g. west of Vieste Pulsano road etc. Foresta Umbra, in flower In leaf Foresta Umbra Arable fields Locally in leaf Scattered records Peschici etc., in good flower Widespread and very common
		Widespread
<b>Convolvulaceae</b>		
<i>Calystegia soldanella</i>	Sea Bindweed	North coast dunes, a few in flower this year
<i>Calystegia sylvatica</i> <i>Convolvulus arvensis</i> <i>Convolvulus cantabrica</i> <i>Convolvulus elegantissimus</i>	Great Bindweed Field Bindweed Pink Convolvulus Mallow-leaved Bindweed	In leaf near Peschici Near Rignano 2012 Also known a <i>Convolvulus althaeoides</i> subspecies <i>elegantissimus</i> . Widespread and locally very common.
<i>Convolvulus lineatus</i> <i>Convolvulus pentapetaloides</i> <i>Cuscuta epithimum</i>	a bindweed a bindweed Common Dodder	In flower near Peschici West of Vieste 2015 Scattered records of presumably this species. Locally very common Pulsano road Northern dunes 2015
<i>Cuscuta</i> sp.	a dodder	
<b>Boraginaceae</b>		
<i>Alkanna tinctoria</i> <i>Anchusa cretica</i>	Dyer's Alkanet an alkanet	Widespread and locally common. 1 white flowered example north coast. Locally common, e.g. Bosco Quarto, above

<i>Anchusa italica</i>	Large Blue Alkanet	Carpino, Spina Pulci, and Chiancate North coast roadsides
<i>Anchusa officinalis</i>	Alkanet	Margherita
<i>Borago officinalis</i>	Borage	Locally common
<i>Buglossoides arvensis</i>	Corn Gromwell	Carbonara valley 2015
<i>Buglossoides purpureoaeerulea</i>	Purple Gromwell	Near Peschici, Passo Ingarano, above Carpino, southern woods, etc.
<i>Cerinth major</i>	Honeywort	Near Vieste etc.
<i>Cynoglossum cheirifolium</i>	a hound's-tongue	Passo Ingarano 2015
<i>Cynoglossum creticum</i>	Blue Hound's-Tongue	Pezzo de Greca area
<i>Echium italicum/asperrinum</i>	Pyramidal Bugloss	Last years flower spikes scattered throughout – one or both species present
<i>Echium parviflorum</i>	Small-flowered Viper's-Bugloss	West of Peschici
<i>Echium plantagineum</i>	Purple Viper's-Bugloss	Widespread and locally common
<i>Myosotis arvensis</i>	Field Forget-me-not	Scattered
<i>Myosotis ramosissima</i>	Early Forget-me-not	Scattered
<i>Myosotis sylvatica</i>	Wood Forget-me-not	Local in woods, e.g. Bosco Quarto and Spina Pulci
<i>Onosma echioides</i>	a golden-drop	Pulsano road and gorge, and lower Ruggiano road
<i>Pulmonaria vallarsae</i>	a lungwort	Scattered in woodlands, e.g. Foresta Umbra
<i>Pulmonaria spp.</i>	lungworts	Others possibly seen. <i>P.hirta</i> , <i>P.mollis</i> , and <i>P.officinalis</i> also occur.
<i>Symphytum bulbosum</i>	a comfrey	Monte Nero
<i>Symphytum tuberosum</i>	Tuberous Comfrey	Bosco di Spina Pulci

## Lamiaceae

<i>Acinos alpinus</i>	Alpine Basil-Thyme	Pulsano Gorge, Peschici, Cagnano to Carpino etc.
<i>Acinos arvensis</i>	Basil-Thyme	Pulsano Gorge and Spina Pulci
<i>Acinos suaveolens</i>	a basil-thyme	Monte Nero 2011
<i>Ajuga chamaepitys</i>	Ground Pine	Widespread and locally common
<i>Ajuga genevensis</i>	Blue Bugle	Above Cagnano and above Carpino
<i>Ballota nigra</i>	Black Horehound	Recorded
<i>Corydthymus capitatus</i>	a thyme	Pulsano road etc., widespread in leaf
<i>Lamium album</i>	White Deadnettle	Recorded 2013
<i>Lamium amplexicaule</i>	Henbit Deadnettle	Lake Lesina 2015
<i>Lamium bifidum</i>	a deadnettle	Scattered, e.g. Spina Pulci
<i>Lamium garganicum</i>	Large Red Deadnettle	Scattered, e.g on walls and cliffs around Monte St.Angelo.
<i>Lamium hybridum</i>	Cut-leaved Deadnettle	A few records 2015
<i>Lamium maculatum</i>	Spotted Deadnettle	Foresta Umbra 2015
<i>Lamium purpureum</i>	Red Deadnettle	Scattered records
<i>Marrubium incanum</i>	a horehound	Widespread in leaf
<i>Marrubium vulgare</i>	White Horehound	Leaves noted
<i>Mentha aquatica</i>	Water Mint	In leaf
<i>Mentha arvensis</i>	Corn Mint	In leaf
<i>Mentha longifolia</i>	Horse Mint	In leaf
<i>Micromeria graeca</i>		Pezzo de Greca area
<i>Micromeria nervosa</i>		Pezzo de Greca area
<i>Origanum heracleoticum</i>	a marjoram	In leaf at Pulsano sanctuary
<i>Origanum vulgare</i>	Marjoram	Leaves noted
<i>Phlomis herba-venti</i>	a phlomis	Leaves noted in the north, 2015
<i>Prasium majus</i>	Prasium	Local, e.g. Passo Ingarano, near Peschici, and Pulsano Gorge
<i>Prunella laciniata</i>	Cut-leaved Self-heal	One along Ruggiano road 2011
<i>Prunella vulgaris</i>	Self Heal	In leaf 2015
<i>Rosmarius officinalis</i>	Rosemary	On 2 days in the north, and on cliffs south of Monte St.Angelo
<i>Salvia argentea</i>	Silver Sage	Widespread in leaf in the south



<i>Salvia officinalis</i>	Sage	In leaf 2013
<i>Salvia sclarea</i>	Clary	Recorded 2016
<i>Salvia verbenaca</i>	Wild Clary	Widespread and common
<i>Salvia verticillata</i>	Whorled Clary	Carbonara valley etc.
<i>Satureja cuneifolia</i>	a savory	Scattered records 2013
<i>Satureja montana</i>	Winter Savory	Peschici 2015
<i>Sideritis romana</i>		Pulsano Gorge and in the north
<i>Sideritis syriaca</i>		= <i>S.italica</i> . In bud this year.
<i>Stachys cretica</i>	Mediterranean Woundwort	Widespread, mostly in bud
<i>Stachys officinalis</i>	Betony	In leaf, Monte Nero etc.
<i>Teucrium chamaedrys</i>	Wall Germander	In leaf
<i>Teucrium flavum</i>	a germander	In leaf
<i>Teucrium polium</i>	Felty Germander	In leaf
<i>Teucrium scorodonia</i>	Wood Sage	In leaf, 2016
<i>Thymus pulegioides</i>	Large Thyme	Scattered records in flower
<i>Thymus serpyllum</i>	Breckland Thyme	Scattered records in flower
<i>Thymus vulgaris</i>	Thyme	Pulsano Gorge in leaf

## *Solanaceae*

<i>Hyoscyamus albus</i>	Henbane	In flower on the walls of Pulsano Sanctuary, and tower near Peschici
<i>Solanum nigrum</i>	Black Nightshade	Near Peschici 2008
<i>Solanum sodomium</i>	Apple of Sodom	One plant near Peschici

## *Buddlejaceae*

<i>Buddleja davidii</i>	Buddleja	Scattered – naturalised or planted
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## *Scrophulariaceae*

<i>Antirrhinum siculum</i>	Sicilian Snapdragon	Common along roads in the north, slowly spreading east! Now on tower near Peschici.
<i>Bellardia trixago</i>	Bellardia	Scattered records, locally common, e.g. <i>Serapias apulica</i> site.
<i>Cymbalaria muralis</i>	Ivy-leaved Toadflax	On walls at Pulsano Sanctuary, and Monte St. Angelo
<i>Digitalis ferruginea</i>	Rusty Foxglove	Scattered in leaf, e.g. Passo Ingarano
<i>Euphrasia pectinata</i>	an eyebright	Pulsano gorge and road
<i>Linaria pelisseriana</i>	Jersey Toadflax	Pezzo de Greca area, etc.
<i>Linaria purpurea</i>	Purple Toadflax	Pezzo de Greca area, and Ruggiano road
<i>Linaria reflexa</i>		Pezzo de Greca area 2016
<i>Linaria simplex</i>	a toadflax	1 plant in Carbonara valley (peony site) 2008. 2012, 1, Ruggiano road. 2014
		Ruggiano road and gorge.
<i>Linaria vulgaris</i>	Common Toadflax	Near Peschici 2007
<i>Misopates orontium</i>	Weasel's Snout	Pulsano Gorge 2014
<i>Parentucellia latifolia</i>	Southern Red Bartsia	Locally common in the hills
<i>Parentucellia viscosa</i>	Yellow Bartsia	Scattered in leaf
<i>Scrophularia canina</i>	French Figwort	Pulsano gorge etc.
<i>Scrophularia peregrina</i>	Nettle-leaved Figwort	Pezzo de Greca area
<i>Scrophularia vernalis</i>	a figwort	A few in flower in Foresta Umbra
<i>Verbascum blattaria</i>	Moth Mullein	In flower, 2016
<i>Verbascum densiflorum</i>	a mullein	Roadsides
<i>Verbascum phlomoides</i>	Orange Mullein	North coast dunes
<i>Verbascum phoeniceum</i>	Purple Verbascum	<i>Paeonia peregrina</i> site, Passo Ingarano, etc.
<i>Verbascum pulverulentum</i>	Hoary Mullein	Roadsides
<i>Verbascum sinuatum</i>	a mullein	Widespread in leaf
<i>Verbascum thapsus</i>	Aaron's Rod	North Coast
<i>Veronica acinifolia</i>	French Speedwell	Passo Ingarano meadows 2015
<i>Veronica arvensis</i>	Wall Speedwell	Walls in Foresta Umbra etc.

<i>Veronica chamaedrys</i>	Germander Speedwell	Foresta Umbra 2008
<i>Veronica cymbalaria</i>	White Speedwell	Scattered records, e.g. Pezzo de Greca area
<i>Veronica hederifolia</i>	Ivy-leaved Speedwell	
<i>Veronica montana</i>	Wood Speedwell	Bosco Quarto
<i>Veronica persica</i>	Persian Speedwell	Scattered records, e.g. Foresta Umbra
<i>Veronica polita</i>	Grey Field Speedwell	Near Bosco Quarto 2012
<i>Veronica serpyllifolia</i>	Thyme-leaved Speedwell	Foresta Umbra

## Orobanchaceae

<i>Orobanche alba</i>	Thyme Broomrape	Recorded in the north 2014
<i>Orobanche amethystea</i>	a broomrape	On <i>Eryngium campestre</i> in Pezzo de Greca area
<i>Orobanche canescens</i>	a broomrape	Pezzo de Greca area 2016
<i>Orobanche caryophyllacea</i>	Clove-scented Broomrape	Pulsano Gorge, although no <i>Galium</i> seen nearby
<i>Orobanche crenata</i>	a broomrape	Pezzo de Greca area and Passo Ingarano 2016, some very tall examples
<i>Orobanche gracilis</i>	Slender Broomrape	Pulsano gorge and road, on legumes, and a few other records.
<i>Orobanche lavandulacea</i>	a broomrape	On <i>Psoralea bituminosa</i> , 4 plants
<i>Orobanche loricata</i>	Oxtongue Broomrape	Pulsano gorge
<i>Orobanche minor</i>	Common Broomrape	Pezzo de Greca area
<i>Orobanche pubescens</i>	a broomrape	Scattered records
<i>Orobanche ramosa</i>	Branched Broomrape	Pezzo de Greca area
<i>Orobanche variegata</i>	a broomrape	Locally very common
		Recorded 2016

## Myoporaceae

<i>Myoporum laetum</i>	Ngaio	Lake Lesina, native to New Zealand
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## Globulariaceae

<i>Globularia punctata</i>	Globularia	Monte Nero and Chiancate, several in flower this year
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## Plantaginaceae

<i>Plantago afra</i>	a plantain	Pezzo de Greca area
<i>Plantago albicans</i>	Silvery Plantain	Pulsano road 2012
<i>Plantago bellardii</i>	a plantain	North coast etc.
<i>Plantago coronopus</i>	Buck's-horn Plantain	North coast
<i>Plantago holosteum</i>	a plantain	Recorded?
<i>Plantago lagopus</i>	a plantain	Widespread
<i>Plantago lanceolata</i>	Ribwort Plantain	Scattered throughout
<i>Plantago major</i>	Greater Plantain	A few records
<i>Plantago serraria</i>	a plantain	Locally frequent particularly in the north
<i>Plantago subulata</i>	a plantain	Monte Nero and Chiancate

## Caprifoliaceae

<i>Lonicera caprifolium</i>	Perfoliate Honeysuckle	Bosco Quarto, in leaf
<i>Lonicera etrusca</i>	Etruscan Honeysuckle	In leaf in the north
<i>Lonicera implexa</i>	a honeysuckle	In flower Pezza de Greca area
<i>Lonicera xylosteum</i>	Fly Honeysuckle	Bosco Quarto, in leaf
<i>Sambucus ebulus</i>	Dwarf Elder	Noted in the north of the peninsula, in leaf 2012
<i>Sambucus nigra</i>	Elder	Recorded

## Valerianaceae

<i>Centranthus ruber</i>	Red Valerian	Locally common on roadsides in south, and Pulsano
<i>Valeriana collina</i>	a valerian	Locally common in limestone turf in the south
<i>Valerianella dentata</i>	Narrow-fruited Corn Salad	Scattered in the north
<i>Valerianella locusta</i>	Common Corn Salad	Widespread. Other species possibly present.

## Dipsacaceae

<i>Cephalaria transylvanica</i>		In leaf Pezzo de Greca area and Passo Ingarano
<i>Dipsacus fullonum</i>	Wild Teasel	Last years' dead seed heads in Carbonara Valley, etc.
<i>Scabiosa atropurpurea</i>	Mournful Widow	Roadsides near Manfredonia, west of Vieste etc
<i>Scabiosa columbaria</i>	Small Scabious	Scattered in leaf
<i>Scabiosa dallaportae</i>	a scabious	Many cushions along Pulsano Gorge

## Campanulaceae

<i>Asyneuma limonifolium</i>		Several at Salamina 2016
<i>Campanula erinus</i>	a bellflower	Pezzo de Greca area
<i>Campanula garganica</i>	a bellflower	Endemic. In fine flower this year in Pulsano Gorge and near Peschici.
<i>Legousia hybrida</i>	Venus's Looking Glass	Several Passo Ingarano, including white flowered form. 2015.
<i>Legousia speculum-veneris</i>	Large Venus's Looking Glass	Pezzo de Greca area

## Asteraceae

<i>Achillea millefolium</i>	Yarrow	In leaf
<i>Aetheorrhiza bulbosa</i>		
<i>Anacyclus tomentosus</i>	Anacyclus	Near Peschici etc.
<i>Anthemis altissima</i>	a chamomile	Possibly this species at Margherita
<i>Anthemis arvensis</i>	Corn Chamomile	Scattered records
<i>Anthemis cotula</i>	Stinking Chamomile	Scattered records
<i>Anthemis maritimus</i>	a chamomile	Along the north coast, with many in flower
<i>Anthemis praecox</i>	a chamomile	Possibly this species in Pulsano Gorge
<i>Anthemis tinctoria</i>	Yellow Chamomile	A few records 2014
<i>Arctium nemorosum</i>	a burdock	Last year's fruiting heads in Foresta Umbra
<i>Artemisia arborescens</i>	a wormwood	Roadsides, Peschici
<i>Artemisia campestris</i>	Field Wormwood	Recorded in the south 2008
<i>Aster tripolium</i>	Sea Aster	Lake Lesina
<i>Bellis perennis</i>	Daisy	Widespread
<i>Bellis sylvestris</i>	Southern Daisy	Widespread, e.g. Bosco di Spina Pulci
<i>Calendula arvensis</i>	Field Marigold	Scattered records
<i>Carduus acicularis</i>	a thistle	Widespread
<i>Carduus macrocephalus</i>	a thistle	Scattered in flower this year, e.g. Passo Ingarano and near Pezzo de Greca area
<i>Carduus pycnocephalus</i>	a thistle	Pezzo de Greca area
<i>Carlina corymbosa</i>	Flat-topped Carlina Thistle	Scattered old flowering heads
<i>Carlina vulgaris</i>	Carlina Thistle	Old flowering heads widespread
<i>Centaurea alba</i>	a knapweed	In good flower on roadsides, lower Ruggiano road. Synonym <i>Centaurea deusta</i> .
<i>Centaurea calcitrapa</i>	Red Star Thistle	Scattered records in leaf, e.g. Pezzo de Greca area
<i>Centaurea melitensis</i>	Maltese Star Thistle	In bud near Peschici
<i>Centaurea nicaeensis</i>	a star thistle	In bud at Manfredonia 2015
<i>Centaurea subtilis</i>	a knapweed	Endemic. This was the species with grey foliage in Pulsano gorge. Ruggiano viewpoint in bud.
<i>Centaurea triumfetti</i>	a knapweed	In flower on Chiancate, and in bud Mont Nero

<i>Chrysanthemum coronarium</i>	Crown Daisy	Abundant on motorway verges
<i>Chrysanthemum segetum</i>	Corn Marigold	Pezzo de Greca area
<i>Cichorium intybus</i>	Chicory	Manfredonia
<i>Cirsium arvense</i>	Creeping Thistle	Scattered records
<i>Cirsium morisianum</i>	a thistle	Pulsano Gorge etc.
<i>Conyza canadensis</i>	Canadian Fleabane	Pulsano Sanctuary 2015
<i>Crepis rubra</i>	Pink Hawksbeard	Widespread throughout, locally numerous
<i>Crepis sancta</i>	a hawksbeard	Scattered records
<i>Crepis vesicaria</i>	Beaked Hawksbeard	Scattered records
<i>Crepis</i> spp.	hawksbeard spp.	Several other species not identified
<i>Crupina crupinastrum</i>	Crupina	In flower above Carpino
<i>Cynara cardunculus</i>	Cardoon	In leaf near Vico
<i>Dittrichia graveolens</i>	Stink Aster	Scattered in salt marshes and coastal areas
<i>Dittrichia viscosa</i>	a stink aster	Scattered in leaf
<i>Doronicum columnae</i>	a leopard's bane	Rock faces in the southern hills, e.g. Monte St. Angelo
<i>Doronicum orientale</i>	a leopard's bane	Widespread in woods
<i>Evax pygmaea</i>	Evax	Pulsano Gorge and Ingarano, etc.
<i>Filago pyramidata</i>	Broad-leaved Cudweed	Pulsano Gorge
<i>Galactites tomentosa</i>	Galactites	Widespread
<i>Hedypnois rhagadioloides</i>	Hedypnois	Passo Ingarano, near Peschici etc.
<i>Helichrysum italicum</i>		In leaf above Carpino, 2015
<i>Helichrysum stoechas</i>	Helichrysum	Near Peschici
<i>Hieracium</i> spp.	hawkweed spp.	Various species not identified
<i>Hyoseris radiata</i>		Widespread
<i>Hypochoeris achyrophorus</i>	Mediterranean Cat's-ear	Locally very common, e.g. Peschici
<i>Hypochoeris glabra</i>	Smooth Cat's-ear	Widespread
<i>Hypochoeris radicata</i>	Cat's-ear	Scattered records
<i>Inula conyzae</i>	Ploughman's Spikenard	In bud near Dolina Pozzatina 2014
<i>Inula crithmoides</i>	Golden Samphire	Lake Lesina
<i>Inula verbascifolia</i>		Common in leaf very locally in Pulsano gorge, Monte St. Angelo, and Ruggiano road cliffs
<i>Jurinea mollis</i>	Jurinea	In bud in Pulsano Gorge 2011
<i>Lapsana communis</i>	Nipplewort	Recorded 2012
<i>Leontodon</i> sp.	a hawkbit	Pulsano road, <i>Limodorum abortivum</i> site, etc.
<i>Matricaria chamomilla</i>	Scented Mayweed	Scattered
<i>Onopordum</i> sp.	a scotch thistle	2016
<i>Otanthus maritimus</i>	Cottonweed	North coast, in leaf
<i>Pallenis spinosa</i>		Pezzo de Greca
<i>Phagnalon rupestre</i>		Pulsano gorge, in bud, and lower Ruggiano road
<i>Picris echioides</i>	Bristly Ox-Tongue	Scattered records, e.g. Pezzo de Greca area
<i>Reichardia picroides</i>		Widespread
<i>Rhagadiolus edulis</i>	a star hawk-bit	Pulsano gorge
<i>Rhagadiolus stellatus</i>	Star Hawk-bit	Widespread in the north
<i>Scorzonera hirsuta</i>	a viper's grass	Passo Ingarano and Pezzo de Greca area
<i>Scorzonera laciniata</i>	Cut-leaved Viper's Grass	Recorded in the south 2008
<i>Senecio squalidus</i>	Oxford Ragwort	Scattered records
<i>Senecio tenorei</i>	a ragwort	Chiancate in bud, and in flower Monte Nero
<i>Senecio vulgaris</i>	Groundsel	Scattered records
<i>Silybum marianum</i>	Milk Thistle	Scattered throughout, locally common
<i>Sonchus arvensis</i>	Field Sow-Thistle	Near Peschici 2011
<i>Sonchus asper</i>	Prickly Sow-thistle	Widespread
<i>Sonchus bulbosus</i>		
<i>Sonchus oleraceus</i>	Smooth Sow-Thistle	Scattered records
<i>Sonchus tenerrimus</i>	a sow-thistle	Scattered records, e.g. <i>Serapias apulica</i> site
<i>Taraxacum officinale</i>	Dandelion	Scattered
<i>Taraxacum laevigatum</i>	a dandelion	Probably this species Monte Nero and Chiancate

<i>Tragopogon crocifolius</i>	a goat's-beard	Purple flowers much exceeded by the bracts
<i>Tragopogon porrifolius</i>	a goat's-beard	Pezzo de Greca area 2016
<i>Tragopogon pratensis</i>	Goat's-beard	Scattered 2013
<i>Tyrimnus leucographus</i>	Tyrimnus	Ruggiano viewpoint and <i>Serapias apulica</i> site
<i>Urospermum dalechampii</i>	Urospermum	Widespread
<i>Urospermum picroides</i>		Locally common
<i>Xanthium strumarium</i>	Rough Cocklebur	Old fruiting plants on northern shores
<i>Xeranthemum inapterum</i>		Pulsano road

## Monocotyledones

### Lemnaceae

<i>Lemna minor</i>	Common Duckweed	Pools at 100 Dolinas 2015
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### Ruppiaceae

<i>Ruppia maritima</i>	Tassel Pondweed	Channel at Margherita Salt pans in the past
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### Liliaceae

<i>Allium ampeloprasum</i>	Wild Leek	In bud, 2016
<i>Allium neapolitanum</i>	Naples Garlic	Local along the north coast 2013
<i>Allium nigrum</i>	a garlic	Noted in the north of the peninsula, <i>Paeonia peregrina</i> site, 2014
<i>Allium pendulinum</i>	a garlic	Locally common in hill woods
<i>Allium roseum</i>	Rosy Garlic	Locally common, e.g. Pezzo de Greca area
<i>Allium subhirsutum</i>	a garlic	Scattered, locally very common
<i>Allium trifoliatum</i>	a garlic	Pulsano gorge
<i>Allium ursinum</i>	Ramsons	Foresta Umbra
<i>Allium vineale</i>	Crow Garlic	Pezzo de Greca 2016
<i>Asparagus acutifolius</i>	an asparagus	Widespread
<i>Asphodeline lutea</i>	Yellow Asphodel	Widespread in the south and locally abundant as near San Giovanni Rotundo
<i>Asphodeline liburnica</i>	a yellow asphodel	Noted in leaf at various sites, e.g. Spina Pulci
<i>Asphodelus albus</i>	White Asphodel	In flower on Monte Nero
<i>Asphodelus fistulosus</i>	Hollow-stemmed Asphodel	Locally very common, roadsides
<i>Asphodelus microcarpus</i>	Common Asphodel	Widespread and very common
<i>Asphodelus tenuifolius</i>	an asphodel	A few records
<i>Bellevalia romana</i>		1 near Peschici 2005. 2013 1 near Chiancate.
<i>Gagea chrysantha</i>		1 in the Bosco Quarto in flower 2011, and in 2012 circa 20 there. 2013 and 2014 all in fruit. 2015, 2 in flower. 2016, c.5 in fruit Bosco Quarto.
<i>Lilium bulbiferum</i>	Orange Lily	Leaves Bosco Quarto
<i>Muscari commutatum</i>	a grape hyacinth	Possibly seen too
<i>Muscari comosum</i>	Tassel Hyacinth	Widespread and locally very common
<i>Muscari neglectum</i>	Common Grape Hyacinth	Widespread and locally common
<i>Ornithogalum collinum</i>	a star of Bethlehem	Scattered records
<i>Ornithogalum divergens</i>	a star of Bethlehem	Widespread in the north
<i>Ornithogalum montanum</i>	a star of Bethlehem	Bosco Quarto etc.
<i>Ornithogalum narbonense</i>	a star of Bethlehem	Many around the Masseria in the south
<i>Ornithogalum umbellatum</i>	Star of Bethlehem	Carbonara Valley
<i>Polygonatum multiflorum</i>	Common Solomon's Seal	Bosco Quarto etc.
<i>Polygonatum odoratum</i>	Angular Solomon's Seal	Bosco Quarto
<i>Ruscus aculeatus</i>	Butcher's Broom	Pezzo de Greca area

<i>Scilla bifolia</i>	Alpine Squill	Gone over along Pulsano road (last stop) 2014
<i>Smilax aspera</i> <i>Tulipa sylvestris</i>	Common Smilax Wild Tulip	Locally very common Usually flowering in arable fields in Carbonara valley, none seen 2016.
<i>Urginea maritima</i>	Sea Squill	Widespread in leaf, and old spikes

## Agavaceae

<i>Agave americana</i>	Century Plant	A few noted
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## Amaryllidaceae

<i>Galanthus nivalis</i> <i>Narcissus poeticus</i> <i>Narcissus tazetta</i>	Snowdrop Pheasant's-eye Daffodil Polyanthus Narcissus	Leaves in Foresta Umbra Only a few still in flower this year Chiancate, one still in flower 2015. Also in fruit Ruggiano road, and several other sites, 2015.
<i>Pancratium maritimum</i>	Sea Daffodil	Leaves in north coast dunes

## Dioscoraceae

<i>Tamus communis</i>	Black Bryony	Scattered records
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## Iridaceae

<i>Gladiolus communis</i> <i>Gladiolus italicus</i> <i>Crocus longiflorus</i> <i>Hermodactylus tuberosus</i> <i>Iris bicapitata</i>	a gladiolus Field Gladiolus a crocus Widow Iris an iris	<i>Serapias apulica</i> site, several in flower Scattered records In leaf at Chiancate and in Bosco Quarto Widespread but all in fruit this year A few of this endemic species south of Carpino, all in leaf this year
<i>Iris foetidissima</i> <i>Iris germanica</i> <i>Iris lutescens</i>	Gladdon Tall Bearded Iris an iris	In fruit and leaf in Foresta Umbra Scattered by roadsides etc., naturalised Usually widespread and locally abundant, only a few this year. Usually purple, yellow flowered forms also occur.
<i>Iris pseudacorus</i> <i>Iris pseudopumila</i> <i>Gynandiris sisyrinchium</i> <i>Romulea bulbocodium</i>	Yellow Flag an iris Barbary Nut	Vasca del Lago Salso, in fine flower, 2008 None in flower this year Villa Rosa 2015 In fruit Pezzo de Greca area

## Palmae

<i>Phoenix dactylifera</i>	Date Palm	Noted in the north
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## Araceae

<i>Arisarum vulgare</i> <i>Arum italicum</i> <i>Arum maculatum</i>	Friar's Cowl Italian Lords-and-Ladies Lords-and-Ladies	Leaves only Widespread and locally common
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## Typhaceae

<i>Typha angustifolia</i> <i>Typha latifolia</i>	Lesser Reedmace Great Reedmace	Lake Lesina Southern wetlands
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## Juncaceae

<i>Luzula campestris</i> <i>Luzula pilosa</i> <i>Luzula forsteri</i>	Field Woodrush Hairy Woodrush Narrow-leaved Woodrush	Carpino area etc. Foresta Umbra Foresta Umbra, Spina Pulci, etc.
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*Juncus acutus*  
*Juncus littoralis*  
*Juncus maritimus*

Sharp Rush  
a rush  
Sea Rush

Margherita area  
Lake Lesina  
Margherita saltmarshes

## Poaceae

*Aegilops geniculata*  
*Aira caryophylla*  
*Alopecurus myosuroides*  
*Ammophila arenaria*  
*Ampelodesmos mauretanicus*

Silver Hair-grass  
Black Grass  
Marram-grass

Passo Ingarano, near Peschici, etc.  
Pezzo de Greca area  
Arable weed Carbonara Valley 2015  
North coast dunes  
Northern roadsides

*Anisantha diandra*  
*Anisantha madritensis*  
*Anthoxanthum odoratum*  
*Arundo donax*

Great Brome  
Compact Brome  
Sweet Vernal-grass  
Giant Reed

Scattered records  
Pezzo de Greca area etc.  
Widespread and very common  
Locally common

*Avena barbata*  
*Avena fatua*  
*Brachypodium sylvaticum*

Bearded Wild-oat  
Common Wild-oat  
Wood False-brome

Local  
Widespread  
Scattered records

*Briza maxima*  
*Briza media*

Large Quaking-grass  
Common Quaking-grass

Locally very common  
Scattered records

*Bromus erectus*  
*Bromus hordeaceus*  
*Bromus rigidus*  
*Catapodium marinum*

Upright Brome  
Soft Brome  
Stiff Brome  
Darnel-fescue

Scattered records  
Scattered  
Recorded  
North coast dunes

*Catapodium rigidum*  
*Dactylis glomerata*

Fern-grass  
Cock's-foot

Scattered in the north  
Widespread and frequent

*Elytigia farcta*  
*Festuca gigantea*  
*Festuca rubra*

Sand Couch  
Giant Fescue  
Red Fescue

North coast dunes  
Scattered, e.g. near Vieste  
Near Carpino

*Gastridium ventricosum*  
*Hordeum murinum*

Nit Grass  
Wall Barley

Scattered records  
Locally abundant

*Hyparrhenia hirta*  
*Lagurus ovatus*

Hare's-tail

Locally common in flower  
Locally common, north coast dunes etc.

*Lolium perenne*  
*Melica uniflora*

Perennial Rye-grass  
Mountain Melick

Scattered  
Near Peschici

*Parapholis incurva*  
*Phalaris paradoxa*

Curved Hard-grass  
a canary-grass

Near Peschici  
Near Peschici 2015

*Phleum pratense*  
*Phragmites australis*

Timothy  
Reed

Scattered  
Forming extensive beds on lake shores

*Poa annua*  
*Poa bulbosa*

Annual Meadow-grass  
Bulbous Meadow-grass

Widespread and common  
Viviparous. Common.

*Poa compressa*  
*Poa pratensis*

Flattened Meadow-grass  
Smooth Meadow-grass

Local  
Scattered

*Rotraria cristata*  
*Setaria pumila*

Crested Hair-grass  
Yellow Bristle-grass

North coast 2015  
Locally common in the north, and Pulsano

*Stipa capensis*  
*Stipa pennata*

Mediterranean Needle-grass  
Needle-grass

Widespread and locally dominant  
This species, or perhaps *Stipa austroitalica*,  
in the Manfredonia area and west of Vieste

## Cyperaceae

*Carex caryophylla*  
*Carex flacca*  
*Carex olbiensis*  
*Carex remota*  
*Carex sylvatica*  
*Cladium mariscus*  
*Cyperus capitatus*  
*Eleocharis palustris*  
*Schoenus nigricans*

Spring Sedge  
Glaucous Sedge  
a sedge  
Remote Sedge  
Wood Sedge  
Great Fen-sedge  
Sand Sedge  
Common Spike-rush  
Black Bog-rush

Widespread in grassland  
Locally common in grassland  
Scattered records  
Recorded 2015  
Scattered records, e.g. Bosco Quarto  
Camping Viola  
Northern dunes in fine flower 2015  
Recorded 2008  
Lake Lesina 2008

## Orchidaceae

<i>Aceras anthropophorum</i>	Man Orchid	Widespread and locally very common. Seen most days.
<i>Anacamptis pyramidalis</i>	Pyramidal Orchid	Widespread and locally common in fine flower, especially in the south.
<i>Barlia robertiana</i>	Giant Orchid	Widespread. 2006:- many had finished flowering, but 1 still in flower at Dolina Pozzatina, and some 20 in San Giovanni Rotundo. 2007:- only a few dead spikes seen. 2008:- reasonable condition on Passo Ingarano, and c.4 in San Giovanni. 2011:- several over, a few flowers still in San Giovanni Rotundo. 2012:-, over at several sites but still with some colour at various sites, most remarkably at sea level at Margherita Saltpans. 2013 and 2014:- mostly gone over. 2015 and 2016 gone over.
<i>Cephalanthera damasonium</i>	White Helleborine	A few in fine flower 2008, near Vico del Gargano. In early bud 2011. 2012 leaves only just appearing. 2013 two in flower. 2014 a few in flower. 2015 in leaf. 2016 in flower near Vico, and Bosco Quarto.
<i>Cephalanthera longifolia</i>	Sword-leaved Helleborine	2007:- 1 in fine flower in Foresta Umbra 2013:- in fine flower in Foresta Umbra. 2016:- 1 in leaf Foresta Umbra.
<i>Dactylorhiza maculata</i>	Heath Spotted Orchid	2006:- 2 in fine flower near Chiancate 2007:- only in leaf and bud 2008:- 2 in fine flower near Chiancate, 3 at Monte Nero 2011:- only in leaf and bud. 2012 and 2013:- only in leaf and bud. 2014:- a robust example near Chiancate, and a few others in flower. 2015 in leaf. 2016:- In bud Monte Nero.
<i>Dactylorhiza romana</i>	Roman Orchid	2007:- Noted in the Bosco di Spina Pulci, several above Carpino and as quite common in the Foresta Umbra and Bosco Quarto. All of the yellow form. 2008:- only above Carpino and Bosco Quarto 2011:- Locally common Spina Pulci, Carpino, Foresta Umbra, and Bosco Quarto. All of yellow form. 2012, 2013, 2014, and 2015:- as in 2011. 2016:- fewer than usual
<i>Dactylorhiza sambucina</i>	Elder-flowered Orchid	Locally common in the Bosco Quarto and Monte Nero areas.
<i>Epipactis helleborine</i>	Broad-leaved Helleborine	In bud near Vico del Gargano
<i>Epipactis microphylla</i>	Small-leaved Helleborine	In bud near Vico del Gargano
[ <i>Gymnadenia conopsea</i> ]	Fragrant Orchid	In early bud near Vieste, 2012. 2014 :- several almost in flower at one site along the Pulsano road.]
<i>Himantoglossum hircinum</i>	Lizard Orchid	In bud along Ruggiano road and Alta Murgia 2012. 2013 and 2014 in leaf and bud at a few sites. 2014 almost in flower in Carbonara Valley. 2015 in bud. 2016:- several in bud.
<i>Limodorum abortivum</i>	Violet Birdsnest	Several seen near Vico 2008. 2013 two



		spikes seen. 2014 :- 1 above Cagnano. 2016:- 1 above Cagnano, 1 Carbonara valley.
<i>Listera ovata</i>	Common Twayblade	Leaves and early shoots in Bosco Quarto and Monte Nero
<i>Neotinea intacta</i>	Dense-flowered Orchid	2014 several in flower near Carpino, 1 in Spina Pulci, and Monte Nero. 2015 1 in bud near Carpino. 2016:- c.5 Cagnano to Carpino, c.20 fine examples Monte Nero.
<i>Neottia nidus-avis</i>	Bird's-nest Orchid	Old seed heads noted in hill forests 2008. Only one old seed head, Bosco Quarto, 2012. 2013 only old seed heads. 2014 :- a few in good flower. 2015 just coming out, Bosco Quarto. 2016:- a few in good flower Bosco Quarto.
<i>Ophrys apulica</i>	Apulian Ophrys	Endemic. This fine large and bright flowered species seen near Peschici and near Vieste. Also found in the hills in the south. Many fine examples this year.
[ <i>Ophrys archipelagi</i>		This odd bee orchid was formerly included in the ' <i>arachnitiformis</i> ' species complex. Still little understood. Several on Passo Ingarano, in fine condition 2012, gone over 2013 and 2014. 2015 a few on Passo Ingarano.]
<i>Ophrys bertolonii</i>	Bertoloni's Ophrys	A very beautiful species. Quite common around Monte St Angelo where often grew with the following species. Also Pezzo de Greca area.
<i>Ophrys bertoloniiformis</i>		Endemic. A few around Monte St. Angelo and elsewhere in the southern hills.
<i>Ophrys biscutella</i>	Spectacle Ophrys	Endemic to southern Italy. Noted in small numbers at several localities in the hills in the north of the peninsula – and rather commoner in places in the south – always very local though. Varies greatly in basic colouration but pattern always distinctive. 2007:- only Spina Pulci (3), and several in Carbonara valley. 2011:- Spina Pulci, en route to Monte St. Angelo, and Monte Nero. 2012:- fine examples on 5 days. 2013:- seen on 7 days. 2014:- Spina Pulci, Monte Nero, Peschici etc. 2015 and 2016:- several sites.
<i>Ophrys bombyliflora</i>	Bumble-Bee Orchid	Widespread. Scattered records. 1 at Masseria Ferri 2016
<i>Ophrys ciliensis</i> [ <i>Ophrys fuciflora</i>	Late Spider Orchid	A few on Passo Ingarano, 2008 2012:- 2 just coming into flower Pulsano Gorge 2013:- <i>Paeonia peregrina</i> site 2014:- <i>Paeonia peregrina</i> site and Passo Ingarano]
<i>Ophrys funerea</i>	Dull Ophrys	Very scarce, a few near Carbonara Valley, 2011. Also Passo Ingarano 2008. 2012:- many at the Carbonara Valley site. 1 Pulsano road. 2013:- many at the Carbonara valley site.

<i>Ophrys garganica</i>	Gargano Ophrys	2014:- a few at the Carbonara valley site. 2015:- many at the Carbonara valley site. 2016:- several at the Carbonara valley site. Endemic to Southern Italy. Widespread and often common. Seen most days.
<i>Ophrys incubacea</i> [ <i>Ophrys lupercalis</i> ]	Dark Ophrys	Widespread in small numbers 2007:- Just one seen, near the Carbonara Valley. 2011:- 3 along Pulsano road. 2012:- 1 along Pulsano road. 2014 and 2015:- A few at one site along Pulsano road.]
<i>Ophrys lutea</i>	Yellow Bee Orchid	Very similar to <i>O.sicula</i> and <i>O.phryganae</i> – but a lot larger in flower. The three are perhaps questionably separate. Pulsano road, near Vieste, etc.
[ <i>Ophrys melena</i>		Perhaps one of this controversial taxon seen near Manfredonia 2012]
<i>Ophrys oestrifera</i>		Nominate subspecies. Noted from near Peschici only – 20+ plants 2008. 2011:- only 2, but fine specimens. 2012:- c.15 fine specimens. ( <i>O.cornuta</i> ) 2013 and 2014:- many fine examples. 2015:- only 2 seen. 2016:- c.10 near Peschici.
<i>Ophrys parvimaclata</i>	Small-patterned Ophrys	Endemic. A distinctive rather pastel-shaded species. Over this year on Passo Ingarano.
<i>Ophrys phryganae</i> <i>Ophrys promontorii</i>		Widespread and reasonably common Endemic. Quite common in the hills around Monte St Angelo, and above Carpino.
<i>Ophrys sphegodes</i>	Early Spider Orchid	Scattered records, e.g. Pulsano Gorge and Pezzo de Greca area.
<i>Ophrys sicula</i> <i>Ophrys sipontensis</i>	Siponto Ophrys	Scattered records. A very rare local endemic. A few this year, along the Ruggiano road.
<i>Ophrys tenthredinifera</i> <i>Ophrys virescens</i>	Sawfly Orchid	Widespread and locally common Very local on Chiancate. c.20 plants seen 2011. 2012 and 2013, c.30 in fine condition. 2014:- c.20 on Chiancate. 2015:- 45 on Chiancate. 2016:- good numbers at Chiancate.
<i>Ophrys hybrids</i>		
The following probable hybrids were seen:-		
<i>Ophrys bertolonii</i> x <i>promontorii</i>		
<i>Ophrys garganica</i> x <i>promontorii</i>		
<i>Ophrys incubacea</i> x <i>garganica</i>		
<i>Ophrys tenthredinifera</i> x <i>promontorii</i>		
The following hybrids have been recorded in the past:-		
[ <i>Ophrys archepelagi</i> x <i>parvimaclata</i>		
[ <i>Ophrys bertolonii</i> x <i>tenthredinifera</i>		
[ <i>Ophrys bertoloniiiformis</i> x <i>biscutella</i>		
[ <i>Ophrys bertoloniiiformis</i> x <i>promontorii</i>		
[ <i>Ophrys oestrifera</i> x <i>apulica</i>		
[ <i>Ophrys parvimaclata</i> x <i>exaltata</i>		
[ <i>Ophrys parvimaclata</i> x <i>tenthredinifera</i>		
		Apparently this hybrid Passo Ingarano 2013] Probably this hybrid along Pulsano road, several fine plants 2011] 2012, possibly this hybrid] Apparently this hybrid 2013] 2008 :- possibly 1 near Peschici] 2008 :- Passo Ingarano] 2008 :- Passo Ingarano]

<i>[Ophrys promontorii x sipontensis</i>		2007:- Probably this hybrid along the Ruggiano road. Also 2012.]
<i>[Ophrys sipontensis x bertolonii</i>		2012, Ruggiano road]
<i>[Orchis collina</i>	Fan-lipped Orchid	Gone over near Borgo Celano 2008]
<i>Orchis fragrans</i>	Fragrant Bug Orchid	2007:- Some 15 in fine flower near Vieste, Not seen there since 2003. Also one in Pulsano Gorge. 2011 not possible to visit Vieste site due to road closure. 2012 not found. 2013 not found. 2014:- c.20 in fine flower near Vieste, and also found Pulsano road and gorge, and 1 near Manfredonia. 2016:- Several in fine flower near Vieste, and Pulsano road and gorge.
<i>Orchis italica</i>	Naked Man Orchid	Widespread and very common. Seen daily.
<i>Orchis lactea</i>	Milky Orchid	Only along the Pulsano road near Monte St. Angelo where all already over this year.
<i>Orchis morio</i>	Green-winged Orchid	Widespread - very common in the hills. Seen daily.
<i>Orchis picta</i>		The Mediterranean vicariant of Green-winged Orchid and perhaps doubtfully distinct.
<i>Orchis papilionacea</i>	Pink Butterfly Orchid	Widespread and often very abundant. Swarms of thousands seen in some localities in the northern hills. Seen daily.
<i>Orchis pauciflora</i>	Sparse-flowered Orchid	Locally common on Chiancate where some unusually robust specimens were perhaps some of the most beautiful orchids of the holiday. Also Monte Nero.
<i>Orchis provincialis</i>	Provence Orchid	Very scarce. Seen only in the northern part of Foresta Umbra, 4 plants.
<i>Orchis purpurea</i>	Lady Orchid	Widespread. Superb near Vico in particular.
<i>Orchis quadripunctata</i>	Four-spotted Orchid	Locally frequent on dry southern slopes. Many fine specimens especially along the Pilgrim's Road near Monte St Angelo.
<i>Orchis tridentata</i>	Toothed Orchid	Seen at a good number of sites this year
<i>Orchis ustulata</i>	Burnt-tip Orchid	Widespread though usually in small numbers - though quite common in places along the Pulsano road etc.
<i>Orchis morio x papilionacea</i>		Not uncommon where the two parents grew together. <i>Orchis x debeauxii</i>
<i>[Orchis pauciflora x quadripunctata</i>		3 on Chiancate? 2015]
<i>[Orchis italica x Aceras anthropophorum</i>		This striking hybrid was seen along Pulsano road 2013 and 4+ in 2014. 1 in 2015.]
<i>Platanthera chlorantha</i>	Greater Butterfly Orchid	A number of plants seen in bud or leaf in the Bosco Quarto and in the Foresta Umbra. Not seen in 2004, 2005, 2006 or 2007. 2008:- 1 in late bud on Passo Ingarano 2012:- in bud Monte Nero 2013 and 2014:- in leaf and bud Bosco Quarto and Monte Nero. 2015 in leaf. 2016:- in bud Bosco Quarto.
<i>Serapias apulica</i>	Apulian Serapias	Endemic to Southern Italy. Seen beside the motorway near Manfredonia, going over this year.
<i>Serapias cordigera</i>	a serapias	Pezzo de Greca area 2016
<i>Serapias lingua</i>	Tongue Orchid	Widespread and reasonably common
<i>Serapias parviflora</i>	Small-flowered Serapias	Near Peschici, <i>Serapias apulica</i> site, etc.
<i>Serapias orientalis</i>		Pulsano Gorge
<i>Serapias vomeracea</i>	Plough-share Serapias	Widespread - the commonest tongue orchid. Some fine tall specimens seen.

2012 many fewer than usual, with most  
seen only in bud.  
2013, 2014, and 2015 seen at many sites.  
2016:- scattered records

## Systematic List Number 2      Butterflies

The taxonomy and systematic order follows that found in 'Butterflies of Britain and Europe', a Harper Collins guide, by Tolman. Species recorded on previous tours but not this year are put in square brackets.

### Papilionidae

Swallowtail	<i>Papilio machaon</i>	Scattered records, locally common
Scarce Swallowtail	<i>Iphiclides podalirius</i>	Seen on 2 days
Southern Festoon	<i>Zerynthia polyxena</i>	Chiancate

### Pieridae

Large White	<i>Pieris brassicae</i>	Scattered records
Small White	<i>Artogeia rapae</i>	Scattered records
[Green-veined White	<i>Artogeia napi</i>	Scattered records 2015]
[Southern Small White	<i>Artogeia manii</i>	4 near Pulsano Sanctuary 2005]
[Mountain Small White	<i>Artogeia ergane</i>	1 near Carbonara Valley, on <i>Aethionema saxatile</i> , a new Gargano record? 2005]
Eastern Bath White	<i>Pontia edusa</i>	Seen on Day 9
Eastern Dappled White	<i>Euchloe ausonia</i>	Seen on 3 days
Orange-Tip	<i>Anthocharis cardamines</i>	Widespread in small numbers
Clouded Yellow	<i>Colias crocea</i>	Widespread in small numbers
[Berger's Clouded Yellow	<i>Colias alfacariensis</i>	Pulsano 2015]
Cleopatra	<i>Gonepteryx cleopatra</i>	Scattered records
Brimstone	<i>Gonepteryx rhamni</i>	Scattered records
Wood White	<i>Leptidea sinapis</i>	Pulsano

### Lycaenidae

Green Hairstreak	<i>Callophrys rubi</i>	Widespread in small numbers
Small Copper	<i>Lycaena phlaeas</i>	Seen on 4 days
Purple-shot Copper	<i>Lycaena alciphron</i>	A female on Day 5
[Lesser Fiery Copper	<i>Lycaena thersamon</i>	A male near Peschici 2012 was a good record]
Little Blue	<i>Cupido minimus</i>	Widespread in small numbers
Holly Blue	<i>Celastrina argiolus</i>	Widespread
Green-underside Blue	<i>Glaucopsyche alexis</i>	Scattered records
Baton Blue	<i>Pseudophilotes baton</i>	Pulsano gorge
Brown Argus	<i>Aricia agestis</i>	Seen on 2 days
Chapman's Blue	<i>Agrodiaetus thersites</i>	Pulsano road and gorge, Ruggiano road, etc.
Adonis Blue	<i>Lysandra bellargus</i>	Pulsano road
Common Blue	<i>Polyommatus icarus</i>	Scattered records

### Nymphalidae

[Large Tortoiseshell	<i>Nymphalis polychloros</i>	1 on the transfer day 2015]
Painted Lady	<i>Cynthia cardui</i>	Widespread and common
Red Admiral	<i>Vanessa atalanta</i>	Day 9
[Comma	<i>Polygonia c-album</i>	1 in Pulsano Gorge 2015]
[Southern Comma	<i>Polygonia egea</i>	2 larvae on <i>Parietaria</i> near Peschici 2013]
[Queen-of-Spain Fritillary	<i>Issoria lathonia</i>	Pulsano Road 2015]
Glanville Fritillary	<i>Melitaea cinxia</i>	Day 9
[Knapweed Fritillary	<i>Melitaea phoebe</i>	Some rather atypically coloured examples at Cento Pozzi 2013]
[Spotted Fritillary	<i>Melitaea didyma</i>	Larvae at various sites, on <i>Plantago</i> etc. 2015]
Heath Fritillary	<i>Mellicta athalia</i>	Larvae seen.
[Marsh Fritillary	<i>Euphydryas aurinia</i>	1 on Chiancate was the first we had ever seen in the Gargano and may be a new record for the Promontory, 2007.]

### **Satyridae**

Italian Marbled White	<i>Melanargia arge</i>	Pezzo de Greca area, and Pulsano gorge
Small Heath	<i>Coenonympha pamphilus</i>	Widespread and reasonably common
[Meadow Brown	<i>Maniola jurtina</i>	Day 3 2015]
Wall Brown	<i>Lasiommata megera</i>	Widespread and reasonably common
[Large Wall Brown	<i>Lasiommata maera</i>	A few records 2014]
Speckled Wood	<i>Pararge aegeria</i>	Widespread

### **Hesperiidae**

[Grizzled Skipper	<i>Pyrgus malvae</i>	Seen on 2 days, 2015]
Rosy Grizzled Skipper	<i>Pyrgus onopordae</i>	2 on Day 9
[Red Underwing Skipper	<i>Spialia sertorius</i>	1 near Vieste, 2007]
Mallow Skipper	<i>Carcharodus alceae</i>	Peschici
[Marbled Skipper	<i>Carcharodus lavatherae</i>	Recorded 2014]
[Dingy Skipper	<i>Erynnis tages</i>	1 on Chiancate 2011]

## Systematic List Number 3      **Birds**

Little Grebe	<i>Tachybaptus ruficollis</i>	A few on Lake Lesina
Great Crested Grebe	<i>Podiceps cristatus</i>	Margherita
Black-necked Grebe	<i>Podiceps nigricollis</i>	A group of c.20 at Margherita
Cormorant	<i>Phalacrocorax carbo</i>	Southern wetlands
Pygmy Cormorant	<i>Phalacrocorax pygmeus</i>	A few at Margherita
Greater Flamingo	<i>Phoenicopterus phoenicopterus</i>	Very many at the Margherita Saltpans
Squacco Heron	<i>Ardeola ralloides</i>	Lake Lesina
Little Egret	<i>Egretta garzetta</i>	Manfredonia wetlands
Great Egret	<i>Egretta alba</i>	Lake Lesina
Grey Heron	<i>Ardea cinerea</i>	Lake Lesina
Purple Heron	<i>Ardea purpurea</i>	2 at lake Lesina, 1 at Margherita
White Stork	<i>Ciconia ciconia</i>	On a nest at Manfredonia
Shelduck	<i>Tadorna tadorna</i>	Several at Margherita Saltpans
Mallard	<i>Anas platyrhynchos</i>	Only on Day 8
Pochard	<i>Aythya ferina</i>	Lake Lesina
Buzzard	<i>Buteo buteo</i>	Scattered records
Marsh Harrier	<i>Circus aeruginosus</i>	Widespread in small numbers, e.g. Lake Lesina, seen on 4 days
Kestrel	<i>Falco tinnunculus</i>	Widespread
Red-footed Falcon	<i>Falco tinnunculus</i>	Southern lowlands
Quail	<i>Coturnix coturnix</i>	1 at Passo Ingarano
Coot	<i>Fulica atra</i>	Numerous on Lake Lesina, and at Margherita
Black-winged Stilt	<i>Himantopus himantopus</i>	Several at the Margherita Saltpans
Avocet	<i>Recurvirostra avosetta</i>	Several at Margherita Saltpans
Stone Curlew	<i>Burhinus oediconemus</i>	Heard from the hotel
Kentish Plover	<i>Charadrius alexandrinus</i>	Margherita Saltpans
Little Stint	<i>Calidris minuta</i>	Margherita Saltpans
Ruff	<i>Philomachus pugnax</i>	Lake Lesina
Marsh Sandpiper	<i>Tringa stagnatilis</i>	1 at Margherita Saltpans
Wood Sandpiper	<i>Tringa glareola</i>	Lake Lesina and Margherita Saltpans
Common Sandpiper	<i>Actitis hypoleuca</i>	Lake Lesina and Margherita Saltpans
Mediterranean Gull	<i>Larus melanocephalus</i>	Margherita Saltpans, breeding plumage
Yellow-legged Herring Gull	<i>Larus cachinnans</i>	Widespread and locally numerous
Slender-billed Gull	<i>Larus genei</i>	Common at Margherita Saltpans
Common Tern	<i>Sterna hirundo</i>	
Little Tern	<i>Sterna albifrons</i>	Margherita Saltpans
Rock Dove	<i>Columba livia</i>	Widespread near habitation
Wood Pigeon	<i>Columba palumbus</i>	Widespread in small numbers
Collared Dove	<i>Streptopelia decaocto</i>	Scattered records near habitation
Turtle Dove	<i>Streptopelia turtur</i>	4 on Day 4
Cuckoo	<i>Cuculus canorus</i>	Heard occasionally
Scops Owl	<i>Otus scops</i>	Heard at the hotel in the north
Tawny Owl	<i>Strix aluco</i>	Heard in Foresta Umbra
Common Swift	<i>Apus apus</i>	Scattered records
European Bee-eater	<i>Merops apiaster</i>	Widespread this year, seen on 4 days, heard on another
Hoopoe	<i>Upupa epops</i>	Widespread but only heard this year
Green Woodpecker	<i>Picus viridis</i>	Heard at various sites
Great Spotted Woodpecker	<i>Dendrocopos major</i>	Scattered records
Middle Spotted Woodpecker	<i>Dendrocopos medius</i>	1 at the Bosco Quarto lunch site
Crested Lark	<i>Galerida cristata</i>	Scattered records
Woodlark	<i>Lullula arborea</i>	Heard Pulsano road
Swallow	<i>Hirundo rustica</i>	Widespread and common
House Martin	<i>Delichon urbica</i>	Scattered records
Grey-headed Wagtail	<i>Motacilla flava cinereocapilla</i>	A few at Margherita. Other subspecies possibly present too.
White Wagtail	<i>Motacilla alba</i>	A few records

Wren	<i>Troglodytes troglodytes</i>	Heard often
Blue Rock Thrush	<i>Monticola solitarius</i>	Near Peschici and Pulsano Gorge
Black-eared Wheatear	<i>Oenanthe hispanica</i>	Above Carpino
Robin	<i>Erithacus rubecula</i>	Scattered records
Nightingale	<i>Luscinia megarhynchos</i>	Heard often
Blackbird	<i>Turdus merula</i>	Widespread
Cetti's Warbler	<i>Cettia cetti</i>	Often heard in the north
Fan-tailed Warbler	<i>Cisticola juncidis</i>	Scattered records
Great Reed Warbler	<i>Acrocephalus arundinaceus</i>	Lake Lesina
Sardinian Warbler	<i>Sylvia melanocephala</i>	Widespread
Subalpine Warbler	<i>Sylvia cantillans</i>	Widespread
Lesser Whitethroat	<i>Sylvia curruca</i>	Heard occasionally
Garden Warbler	<i>Sylvia borin</i>	Heard at various sites
Blackcap	<i>Sylvia atricapilla</i>	Widespread and reasonably common
Wood Warbler	<i>Phylloscopus sibilatrix</i>	Heard in Foresta Umbra
Chiffchaff	<i>Phylloscopus collybita</i>	A few records
Goldcrest	<i>Regulus regulus</i>	Heard occasionally
Firecrest	<i>Regulus ignicapillus</i>	Heard occasionally
Blue Tit	<i>Parus caeruleus</i>	Scattered records
Great Tit	<i>Parus major</i>	Widespread
Nuthatch	<i>Sitta europaea</i>	Widespread in woodlands
Penduline Tit	<i>Remiz pendulinus</i>	Seen very well at Lake Lesina, where nesting.
Golden Oriole	<i>Oriolus oriolus</i>	Heard often
Woodchat Shrike	<i>Lanius senator</i>	2 at Villa Rosa
Magpie	<i>Pica pica</i>	Very common. Seen daily.
Jay	<i>Garrulus glandarius</i>	Widespread
Jackdaw	<i>Corvus monedula</i>	Widespread
Hooded Crow	<i>Corvus corone cornix</i>	Widespread. Seen daily.
Raven	<i>Corvus corax</i>	A few records
Starling	<i>Sturnus vulgaris</i>	Widespread
Italian Sparrow	<i>Passer domesticus italiae</i>	Widespread. Seen daily.
Chaffinch	<i>Fringilla coelebs</i>	Widespread and reasonably common
Serin	<i>Serinus serinus</i>	Widespread in small numbers
Greenfinch	<i>Carduelis chloris</i>	Scattered records
Goldfinch	<i>Carduelis carduelis</i>	Widespread and common
Linnet	<i>Carduelis cannabina</i>	A few records
Cirl Bunting	<i>Emberiza cirrus</i>	Scattered records
Corn Bunting	<i>Miliaria calandra</i>	Widespread



## Systematic List Number 4

Italian Crested Newt	<i>Triturus carnifex</i>
Common Toad	<i>Bufo bufo</i>
Green Toad	<i>Bufo viridis</i>
Southern Italian Marsh Frog	<i>Pelophylax hispanicus</i>
European Pond Terrapin	<i>Emys orbicularis</i>
Moorish Gecko	<i>Tarentola mauritanica</i>

Green Lizard	<i>Lacerta bilineata</i>
Italian Wall Lizard	<i>Podarcis sicula</i>
Common Wall Lizard	<i>Podarcis muralis</i>
Italian Three-toed Skink	<i>Chalcides chalcides</i>
Western Whip Snake	<i>Coluber viridiflavus</i>

Four-lined Snake	<i>Elaphe quatuorlineata</i>
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Dice Snake	<i>Natrix tessellata</i>
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Smooth Snake	<i>Coronella austriaca</i>
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## Systematic List Number 5

Western Hedgehog	<i>Erinaceus europaeus</i>
Roman Mole	<i>Talpa romana</i>
Serotine	<i>Eptesicus serotinus</i>
Common Pipistrelle	<i>Pipistrellus pipistrellus</i>
Savi's Pipistrelle	<i>Hypsugo savii</i>
Fox	<i>Vulpes vulpes</i>
Weasel	<i>Mustela nivalis</i>
Red Squirrel	<i>Sciurus vulgaris</i>
Bank Vole	<i>Clethrionomys glareolus</i>
Savi's Pine Vole	<i>Pitymys savii</i>
Hare	<i>Lepus europaeus</i>
Wild Boar	<i>Sus scrofa</i>

## Amphibians and Reptiles

A few in a pond at Cento Pozzi, 2015  
 Many tadpoles in ponds on Chiancate  
 Heard, Varano Island  
 Heard in the north  
 1, Varano Island  
 Rather common in Pulsano Gorge, also  
 Margherita  
 Chiancate etc.  
 Widespread and common  
 Foresta Umbra and probably elsewhere  
 Pulsano road  
 Four seen in 2013.  
 Dark phase animals near Carbonara  
 Valley, near Cento Pozzi, and Pulsano  
 Gorge. A dark green animal in Carbonara  
 Valley.  
 2015 one dead individual.  
 A fine large individual at Lake Lesina  
 2013. 2014 a large individual at Villa Rosa  
 (PGC). 2 (+1?) seen very well Pulsano  
 Gorge 2015.  
 1 in a pond at 100 Dolinas 2013. 2015 a  
 dead individual.  
 A dead individual, 2015.

## Mammals

Road casualties  
 Hills seen  
 Pulsano Sanctuary. Echolocation frequency  
 23-27 kHz. 2014.  
 North coast. Echolocation frequency 44-47  
 kHz. 2014.  
 Pulsano Sanctuary. Echolocation frequency  
 32-37(?) kHz. 2014.  
 North of Vico  
 1 in Bosco Quarto seen well (PGC) 2011  
 Sign, knawed pinecones, north coast  
 4 + in the Foresta Umbra, seen well, 2014  
 Burrows noted  
 One on Monte Nero 2014  
 Rooting activity seen