

# Central Italian Alps

## *Stelvio National Park*

### A Greentours Tour Report

1<sup>st</sup> to 9<sup>th</sup> July 2017

Led by Paul Cardy

Trip Report and Systematic Lists written by Paul Cardy

**Days 1 to 3 Saturday 1<sup>st</sup> to Monday 3<sup>rd</sup> July**

**Bergamasche Orobienne Alps &  
Brescian Prealps**

Following an excellent Dolomites tour, John, Hilary and I left a crazily busy Venice Airport behind us, and headed for Verona where we met Helen, Celia, Elizabeth, and Roy, at the smaller but also busy airport. Before long we were traveling west across the northern Italian plains. I had feared the motorway would also be extremely busy this first Saturday of July, but it just wasn't!

We left the autostrada near Brescia and our route took us along the scenic shores of Lake Iseo. Minor roads took us into the Bergamasche Alps, where a gorge had the endemics *Telekia speciosissima* and *Corydalis lutea* on the roadside, but there was just nowhere to stop safely. We did make a stop a little later where a narrow flowery lane yielded much of interest. Several Arran Browns were on the wing, and Pearly Heath. Broad-leaved Helleborines were in flower. *Cyclamen purpurascens* and *Aquilegia atrata* were admired, there were *Teucrium chamaedrys*, *Helleborus niger*, and *Digitalis lutea*, and *Coronilla vaginalis* was in fruit. *Zygaena transalpina* nectared on knapweeds.

Soon we reached Borno and our hotel in this characterful town. Getting the vehicle into the narrow hotel car park was quite a challenge, but we were soon settling in to the very good rooms. We enjoyed a fine welcome dinner in the hotel restaurant.

Our first day here being Sunday, I had to choose which of our two full day trips from here would be the less affected by Sunday traffic. So it was we spent the day in the Orobienne Alps in Bergamo province, a fascinating area, where although the highest peaks are only at about 2,500m, the mountains are very steep, making access to the higher areas somewhat difficult. The roads were indeed crazily busy, especially on the return journey, but all worked well, and in both directions we were going the right way, i.e. against the traffic.

From Borno, rather a long drive took us west to the slopes of Pizzo Arera, where a toll road leads to a car park at 1650m, from where the track rises up towards the aforementioned refuge, at 2000m, where begins the 'path of flowers', along which are some very special things. I had arranged for the owners of the refuge to get us to these higher altitudes in their four wheel drive, which took us up to the most important habitat, avoiding a long uphill walk which would have been much too time consuming and strenuous. All of us did however choose to walk down later in the day.

Having reached the car park we set out on foot whilst we waited for the 4WD to meet us. Although we had made an early start it was already incredibly busy up here. We found one of the few remaining car park spaces! It was apparent that most of the crowds were from the city of Bergamo, and it was encouraging to see so many people here to enjoy these fine mountains, all making the long walk up to the refuge. Our transport soon appeared, punctually, much to my relief, and drove us up to the refuge. As we ascended the flowers were many and superb. Gathering ourselves after the bumpy ride, especially for those of us who rode in the back of the pick up, we set out on foot.

*Pedicularis gyroflexa* was common and one slope had much Edelweiss. Passers by, drawn to it by us, also admired the stella alpina. Soon we located some of the area's real specialities. *Linaria tonzigii* is a very rare endemic toadflax, and we were very pleased to find a few plants in fine flower. The endemic *Galium montis-arerae* takes its name from the mountain, and was floriferous. *Primula glaucescens* was all in fruit, but the beautiful endemic *Viola dubyana* was a highlight, with several in flower, and lower down very many. *Thlaspi rotundifolium* was in fruit. A plant I was particularly hoping to find was *Allium insubricum*. This beautiful species is close to *Allium narcissiflorum* which blooms further west, in my area of the Alps. We saw many superb examples of this most special allium today, a tour highlight, they really were in fine form this year. *Minuartia grignensis* was another endemic, with *Minuartia austriaca* and *Minuartia verna* seen too. Yellow Mountain Saxifrage grew here in surprisingly dry rocky substrate. *Saxifraga caesia* was in fine form and the butterwort here was *Pinguicula leptoceras*.

Silky Ringlet of the distinctive *triopes* form, with three forewing ocelli, was seen closely.

Plants continued with *Globularia nudicaulis* and *Globularia cordifolia* both in flower. Alpine Poppies were in fine bloom, and *Bupleurum petraeum* was numerous on the cliffs above us. Among the many other species seen in the area were *Erysimum rhaeticum*, *Silene pusilla*, *Valeriana saxatilis*, *Linum alpinum*, *Pedicularis ascendens*, *Athamanta cretensis*, *Achillea clavennae*, and *Primula auricula* in fruit.

A hearty lunch was enjoyed in the refuge, which we had timed to coincide with when many of the visitors were already finishing their lunch, it of course being very busy indeed. It was time for some exercise after all that polenta, so we set out on foot back down the mountain.

Butterflies on these higher slopes included several Shepherd's Fritillaries, numerous Lesser Mountain Ringlets, Almond-eyed Ringlet, and Dewy Ringlet. Sooty Copper and Mountain Argus were among the lycaenids. The muddy shores of a pond had several mud puddling butterflies, and a few dragonflies. Lower down was fine *Saxifraga hostii rhaetica* and the stately *Stemmacantha rhapontica* was abundant in lower pastures. Bladder Gentians were in fine flower. As mentioned the *Viola dubyana* was stunning. One fine patch of the unusual and very local endemic *Sanguisorba dodecandra* flowered beside the track. *Dianthus hyssopifolius* was very attractive.

Water Pipit, Black Redstart, Northern Wheatear, and Alpine Choughs were typical of these higher slopes.

The drive back was notable for the vast queues of cars, all coming down from the mountains on Sunday evening, but all going in the other direction so we had an easy journey ourselves.

This left Monday for our visit to the east, the Brescian Prealps. Sunday having gone today there were almost no bicycles, motorbikes, or indeed many other visitors at all in this fine area. *Campanula barbata* was very common here.

Climbing scenic narrow roads, through some very attractive villages, finally we reached the pass, very tranquil today. The remainder of the day was spent completing a circuit in the Brescian Prealps, with many stops along the way. This was a superbly rich area botanically. It was a marvellously wild, with many superb views even though we were only in the prealps, the highest peaks being at around 2200m. We touched on southern parts of the Adamello Natural Park, where the flowers were remarkably impressive.

We could I think have spent all morning at the first floriferous slope. It was a wonderful site, full of flowers, among them *Hypericum maculatum*, *Dianthus superbus*, *Polygonum bistorta*, *Senecio alpinus*, and many orchids (see below). On roadside rocks was *Arenaria multicaulis*. Insect wise there were several Map-winged Swifts and an impressive bush cricket.

On calcareous substrate *Rhododendron hirsutum* bloomed, and *Saxifraga hostii rhaetica*, one of our target species, cascaded superbly from a cliff face. The endemic *Centaurea rhaetica* had fine feathery bracts and was rather common here, and at several other sites. Globeflowers and Wolfsbane bloomed in damp meadows, there was beautiful *Bupleurum ranunculoides caricinum*, and *Stachys pradica*. *Semprevivum wulfenii* was in impressive flower, and *Tephrosia tenuifolia*, *Laserpitium gaudinii*, and *Senecio doronicum* continued the variety. *Pyrola minor* was found at the forest edge.

Orchids were quite a feature. *Gymnadenia odoratissima* was numerous, with the usually commoner *Gymnadenia conopsea* in smaller numbers. *Traunsteinera globosa* was in superb form, there was much *Leucorchis albida*, several Frog Orchids, and superb *Nigritella rhellicani*. A great find later in the day was three *Nigritella rubra*, and in woodland *Dactylorhiza fuchsii* was abundant.

A short stroll across a bog yielded a selection of sedges, including *Carex hostiana*. and added *Salix rosmarinifolia* to the list.

A wild little used road afforded superb views of the complex scenery, and several stops along it yielded many fine flowers. The stately *Molopospermum peloponessiacum* was in bloom, there was fine *Gentiana punctata*, much *Bupleurum stellatum*, *Phyteuma hedraianthifolium*, *Phyteuma betonicifolium*, *Senecio incanus carniolicus* and *Saxifraga stellaris*. Acidic slopes had *Rhododendron ferrugineum*. Among legumes *Astragalus penduliflorus*, *Hedysarum hedysaroides*, and *Onobrychis montana* were in impressive flower. *Pedicularis ascendens* was numerous. A surprise was *Anemone narcissiflora* still in flower, above us in a gully. Celia was determined to get close to them, and climbed to get photographs.

Wet flushes had *Saxifraga stellaris* and a fine selection of sedges and rushes. Cliffs had much *Saxifraga aspera* in fine form. A pleasing find was a good number of the pink flowered *Scorzonera rosea*, new for the tour.

An extensive picnic lunch was set out, with stunning views. Among the many plants on the acid rocks here were *Hieracium piliferum*, *Pedicularis kernerii*, and *Luzula glabrata*.

Primulas were to be a feature of the tour. On the recce I'd seen stunning *Primula daonensis* and *Primula glaucescens* here, in fine flower. Even though the recce had been several days later in July,

this year all plants today were in fruit. The former is a classic central alps endemic, very much centred on the area of the tour, and we would see it in flower later in the week. The latter has a wide altitudinal range but is limited to a few provinces in the central Italian Alps, but we did not see it in bloom this year.

Mountain Clouded Yellows flew across the grassy slopes, Common Brassy Ringlets basked, and Alpine Heath and Purple-edged Copper were among the other butterflies.

Among the many other plants in the area were *Pedicularis recutita*, Grass of Parnassus, Alpine Rose, and Mountain Avens. Although in fruit a few *Fritillaria tubaeformis*, found at the last stop, was a pleasing addition to the list.

Among the many other plants seen in the area, mostly more widespread species, were Holly Fern, Moonwort, Net-leaved Willow, Alpine Gypsophila, *Cerastium latifolium*, Kerneria, Chamois Cress, Golden Cinquefoil, Yellow Wood Violet, Great Masterwort, Lesser Masterwort, *Laserpitium peucedanoides*, *Gentiana clusii*, Alpine Wood Forget-me-not, Verticillate Lousewort, *Adenostyles alpina*, *Pulsatilla alpina*, *Dryas octopetala*, *Linaria alpina*, *Digitalis grandiflora*, *Veronica alpina*, *Phyteuma scheuchzeri*, *Campanula spicata*, *Achillea clavennae*, *Tofieldia calyculata*, and *Anthericum ramosum*. Martagon and Orange Lilies were in fine flower.

## **Day 4          Tuesday 4<sup>th</sup> July          Journey to Rhaetian Alps**

We said our farewells to Borno and set off north towards Stelvio National Park. A beautiful minor route took us along quiet forested roads to a low pass, the acidic pastures at the top floriferous.

The first stop was for *Phyteuma scheuchzeri columnae*, which we had seen on cliffs yesterday as we drove, but not close to. Laburnum was in flower, and *Bupleurum falcatum cernuum* was new for us. This was another site for *Veronica fruticulosa*. Lesser Mountain Ringlet and Large Ringlet settled on the road.

At the pass was *Plantago maritima serpentina*. *Phyteuma humile* was identified, and turned out to be common in the area, part of a complex of three very similar species, all beginning with h, the others *Phyteuma hemisphaeicum* and *Phyteuma hedraianthifolium*. The boggy flushes here supported many sedges.

In forest were Fir Clubmoss, Interrupted Clubmoss, Beech Fern, Scaly Male Fern, and *Aposeris foetida* in flower. Dark Green Fritillary and Marbled White were on the wing. One flowery roadside had many Arran Browns and very many Large Ringlets nectaring. Among the ferns were Forked Spleenwort and Parsley Fern, and John pointed out *Dryopteris abbreviata* and the notable moss *Paraleucobryum longifolium*. *Saxifraga cuneifolia* was in flower.

Plants continued with Limestone Woundwort, *Melampyrum sylvaticum*, and the grass *Polypogon viridis* very tall. Scarce Copper was admired, but a Thor's Fritillary was frustratingly elusive, settling high in a tree.

Lunch was set out at a convenient riverside site in the forest, with picnic tables. This was a beautiful tranquil place.

We motored speedily on towards our next stop, taking a long forested flowery road towards Gavia Pass. *Senecio germanicus* became numerous at woodland edge, where was also *Sisymbrium strictissimum*. There were many butterflies on the wing, including Pearl-bordered and Heath Fritillary, and among the many Erebias was Almond-eyed Ringlet. The road became ever more exciting, scenic, and narrow. There were fine views of waterfalls, scree slopes and snow covered peaks.

The burnet *Zygaena purpuralis* was seen, and the distinctive geometer typical of the alpine, *Psodos quadrifaria*. Alpine Blue mud puddled. Pyramidal Bugle and *Achillea erba-rotta moschata* were in flower. There followed more *Nigritella rhellicani*, and *Saxifraga bryoides* flowered locally on rocks, with *Minuartia recurva* and *Silene exscapa*. *Primula glutinosa* was already over. This is a rather widespread endemic in the central and eastern Alps, on acidic soils. Plants continued with *Leucanthemopsis alpina*, beautiful *Phyteuma globulariifolium*, and *Pedicularis kernerii*, and *Alchemilla pentaphyllea* was a rather distinctive species in this complex genus and was quite common up here. *Armeria alpina*, *Saxifraga seguieri*, *Pinguicula leptoceras*, and *Aster alpinus* continued the variety. Snowdon Lilies were in fine form and *Gentiana nivalis* was in bloom. At the pass itself, at 2650m, a marsh had fine *Gentiana bavarica*, although closed up in the late afternoon.

Having driven down the northern slopes of the pass we reached our hotel in the settlement of Santa Caterina Valfurva. Fabiana and I had found this hotel on the recce, after some searching and checking many possibilities in the area. Within the Stelvio National Park boundary, it was an ideal location for visiting Gavia Pass, the Forni valley, Stelvio Pass itself, other sites in Stelvio NP, Val Viola, and the Livigno area passes. A family run hotel with beautiful rooms, the food was also superb in a dining room with a great atmosphere and good service.

## Days 5 to 8 Wednesday 5<sup>th</sup> to Saturday 8<sup>th</sup> July Rhaetian Alps

The first morning saw us returning to the Gavia Pass, the weather superb. The morning was cloudless, and although a few clouds gathered later, the day remained superb. We spent the whole day exploring in more detail the fine acidic habitats either side of the pass, and the pass itself.

*Eriophorum scheuchzeri* was a feature of boggy flushes, where the beautiful *Gentiana bavarica* we'd seen yesterday was now open in the sunshine. *Cardamine alpina* bloomed around a small chapel. *Salix herbacea* was in attractive bloom, and *Cerastium cerastoides* and *Veronica bellidioides* were here. Several Transparent Burnets were already on the wing, Dewy Ringlets and Glandon Blue flew over the slopes, and Alpine Grayling was a highlight.

A walk along a remarkable old military road, dating from the First World War, led us up to fine habitat. All around was stunning scenery, and much remaining snow. *Saxifraga seguieri* was in fine flower and cushions of *Minuartia sedoides* were covered in green flowers. *Soldanella pusilla* was in good numbers. *Ranunculus glacialis* surprised us by growing in profusion in a wet flush. *Trifolium alpinum* was ridiculously common. *Sibbaldia procumbens* was numerous, in fine form. *Arenaria biflora* was a good addition to the list, and *Primula glutinosa* and *Primula daonensis* were both in fine flower. The diminutive *Gnaphalium supinum* grew on trampled ground. Hilary found pink flowered *Androsace alpina*, those we had seen in the Dolomites being white. *Saxifraga seguieri* was locally common. Glandon Blue was typical of the habitat. On our previous visit here we had had close views of Ibex here, but none were seen this year.

Birds typical of the habitat were Snow Finches, Alpine Choughs, and Northern Wheatear.

Lunch was eaten to the south of the pass where Hilary spotted much of the tiny *Gentiana tenella* growing in the short turf.

Damp hollows had several Shepherd's Fritillaries, all sitting in the the dull weather, and Large Grizzled Skipper was seen. *Sempervivum montanum* and *Gentiana brachyphylla* were in impressive flower.

Back towards Santa Caterina was one of the finds of the tour as I stopped at what looked like a promising cliff face beside the river. This proved to be a superb site. There were many saxifrages here, such as *Saxifraga caesia*, with *Saxifraga muscoides*, new for the tour, most notable. *Daphne cneorum* was in bloom. There were many interesting bryophytes, including *Orthothecium rufescens*, *Tortella tortuosa*, and *Rhytidium rugosum* (JB). The streamside had a lush showy flora.

We spent the next full day exploring the heart of the national park, driving the exciting road up to Stelvio Pass, at 2758m. It was an amazing area. We enjoyed superb fine weather, although higher up there was still much snow, and indeed there is all year skiing here.

No fewer than forty five bends took us up through a transect of altitudinal vegetation zones with many fine views all the way up, the pass itself close to the Swiss border, and on the border with Bolzano Province. Here we were at an altitude that I can also reach by road in the valley I live in, but that is something unusual in the Alps where such heights are usually reached on foot, or by chair lifts and cable cars.

A short first stop had the only *Ranunculus kuepferi* of the tour, and stunning *Gentiana orbicularis*. Peak White flew over the slopes. From the pass with its hulks of ski hotels, frankfurter stalls, and kitsch souvenirs on offer, we took a cable car, sharing it with well dressed Italian skiers. At the top the sun shone. We soon got away from everyone else and found some exposed rocks just below 3,000m where the flora was limited but everything was of interest. It was rather like the flora we see high on Marmolada in the Dolomites, but it is rather more floriferous here. There was fine *Saxifraga oppositifolia*, much *Saxifraga exarata*, many fine Alpine Poppies, the pale blue *Arabis caerulea*, *Arabis alpina*, and much *Pritzelago alpina*. *Draba tomentosa* was new for the tour. Alpine Choughs were much in evidence.

Back down in the crowded cable car, near the vehicle were many more superb poppies. I was delighted to finally locate *Saxifraga aphylla*, a species I'd been scouring the upper slopes for as I'd seen it there in the past. This one was in fine flower and was a fine end to the morning.

A little below the pass I set out the lunch. This was a fine flowery spot, with many butterflies. Here *Pulsatilla alpina apiifolia* was still in flower. Mountain Clouded Yellows, Marsh Fritillary, and Mountain Fritillary were typical of the upper grassy slopes. Common Brassy Ringlet and Dewy Ringlet were here, and a little higher up Roy had found Cynthia's Fritillary and Grisons Fritillary. *Epilobium anagallidifolium* and *Epilobium alsinifolium* were both in flower. Small Apollo drifted over slopes where its foodplant *Saxifraga aizoides* bloomed.

Next was a productive but quite demanding walk on calcareous substrate, along one of the many trails inside the park. On the recce a highlight here had been a Lammergeier that flew remarkably close over my head, later both it and me causing the Marmots to whistle alarms calls.

Today, Silky and Sooty Ringlets flew over screes. *Ranunculus glacialis* was again abundant, and we were very pleased to find the very special *Ranunculus parnassifolius heterocarpus*, although in fruit this year. *Papaver aurantiacum* was again in fine bloom. *Astragalus alpinus* and *Crepis pygmaea* were seen, and *Crepis kernerii* was in bud. *Hieracium glaucum* was identified. There was much *Saxifraga caesia*, and the endemic *Moehringia concarenae* bloomed on one cliff. *Pedicularis rostratocapitata* was a new lousewort, and *Artemisia umbelliformis* was a pleasing find.

Back in the vehicle, and reunited with Elizabeth and Celia, we spotted Jacob's Ladder as we drove, the only place we saw this species.

Lower down was *Rhododendron hirsutum* and much wolfsbane. In forest we saw *Epipactis atrorubens*, *Epipactis helleborine*, *Thalictrum foetidum*, *Saponaria ocyroides*, and *Potentilla caulescens*, and Wood Pink was in flower. Here some goats inside a small car were thankfully not left alone in the heat for long, as their guardian appeared through the trees carrying another goat. But we did wonder at how that car must have smelt inside, a hot car full of goats! Knapweed Fritillary nectared, and Red-underwing Skipper settled on the track.

After a fine day in the field an ice cream stop on the return drive was very welcome.

The next day we explored the Val Viola, to the west of Bormio. This was a beautiful place where again the sun shone and we saw many butterflies. Previously accessed via a toll road, when we were allocated a parking space at the end of the road, this system had been abandoned, and surprisingly there were many fewer vehicles today. We parked and walked some way up a gently climbing path, the higher reaches of which lead to the Viola refuge, and eventually the pass, the border with Switzerland.

An early highlight was fine *Sempervivum wulfenii*, together with much *Sempervivum montanum*, and probable hybrids between the two. The distinctive pale *Hieracium intybaceum* was new to us, *Gentiana bavarica* flowered in wet flushes, *Saxifraga stellaris* was common, *Potentilla grandiflora* was attractive, and *Polygala chamaebuxus* flowered in the shade.

Purple-edged Copper and Sooty Copper were both admired. Among the blues Cranberry Blue was the highlight, with several today. Also here were Large, Idas, Mazarine, and Chalkhill Blues. Arran Browns and Large Ringlets were again very numerous, Alpine Heath was common, and Asian Fritillary was a highlight, although the only one seen was spooked by a car before Roy could see one of his target species. Swiss Brassy Ringlet was here too. *Senecio abrotanifolius* was new for us, but with only one or two plants here. Fine wet flushes had *Pinguicula leptoceras* and *Cirsium helenoides* was in bud. Moorland Clouded Yellow was a highlight, and Swallowtail flew over the slopes.

At the lunch site were a number of Alpine Newts in a large pond.

Heading back through Bormio, I drove through ever smaller villages to Oja Bog, hidden in the forest, where was an interesting acidic bog flora. Among plants seen here were *Parnassia palustris*, *Sanguisorba officinalis*, and *Drosera rotundifolia* in bud. Sedges were a feature, among them *Carex*

*paniculata*, dominant *Carex rostrata*, *Carex brunnescens*, *Carex echinata*, and *Trichophorum alpinum* as well as *Trichophorum caespitosum*. *Dactylorhiza cruenta* was in bloom and *Vaccinium gaultherioides* was distinctive. John was delighted to find *Sphagnum fuscum* among the common red-tinged *Sphagnum capillifolium*, *Sphagnum fuscum* being a northern species with only a few known sites this far south. This was indeed a new site for it, and in a new area. Bog Rosemary and *Vaccinium microcarpum* were in leaf. *Aeschna juncea* patrolled over the bog, and Four-spotted Chaser was perched. Chequered Skipper was a great find.

A grassy slope had many Field Gentians. Herb Paris and *Viola palustris* grew at the forest edge. Crested Tits and Coal Tits were peripatetic in the spruces, and Nutcrackers were much in evidence as at many sites during the tour, here making a variety of calls. At the cafe, ice creams were on John, to celebrate the *Sphagnum* find.

The last full day saw us visiting four passes, the furthest in Switzerland. Locally was much *Loiseluria procumbens* in flower. Three species of primula were added to the list, all calcifuges, *Primula latifolia*, *Primula integrifolia*, and *Primula hirsuta* were all in flower, and we saw several hybrids, probably all three that occur between these species. *Juncus jacquinii* is one of my favourite plants of the Alps, and was in fine form here. Alpine Clubmoss and *Lycopodium clavatum* were both at the first pass, and *Pyrola minor* was in flower. This was another site for Small Apollo.

*Saxifraga bryoides* and *Saxifraga seguieri* were in flower, and Mountain Crowberry was a characteristic plant of acidic slopes. The *glaceigenita* form of Marsh Fritillary, beautiful Cynthia's Fritillary, and the burnet *Zygaena exulans* were on the wing. *Soldanella pusilla* was still in abundant flower by snowmelt. Meadows around Livigno were full of abundant bistort.

We made a lengthy excursion into Switzerland in search of the very local endemic Little Fritillary, and some special plants. Our destination was a pass above the Inn Valley, where fine alpine pasture was towered over by scree slopes and snow capped peaks.

No sooner than we were out of the vehicle the foodplant of our target butterfly, *Plantago alpina*, was immediately common. I set up the lunch in this rather windy spot. The fritillary took more finding than on my last visit, as any butterfly flying soon got carried away by the wind. In the end we saw some four of this very special species, certainly the butterfly highlight of a very productive tour. Also here were Mountain Fritillaries, Alpine Blue, Eros Blue, and Dewy Ringlets.

*Ranunculus alpestris* was very common, *Viola calcarata* was in flower, and there was much *Androsace chamaejasme*. There was also *Primula integrifolia*. It was great to find *Chamorchis alpina*, a species for which we have a growing list of localities in the Alps. Also here were *Dactylorhiza majalis*, *Pinguicula alpina*, *Empetrum nigrum*, *Oxytropis campestris tyroliensis*, *Oxytropis jacquinii*, and *Primula farinosa*.

Of note today was a vintage and classic car rally, of quality cars, smaller than that met last year on the same day, but still with a selection of Jaguars, Rolls Royces, Bentleys, Austin-Healeys, and Aston Martins.

On the drive here I'd spotted a lone spike of *Campanula thyrsoides*, and on the way back we stopped to admire this fine example, a great last new plant for the tour.



We enjoyed a good farewell dinner, but it was dampened somewhat by Elizabeth's empty chair. She had opted for an easy day around the hotel and village, instead of coming with us on our long drive over four passes. Ironically she had ended up in hospital with a broken ankle.

After dinner John gave a fine appreciation speech.

## **Day 9            Sunday 9<sup>th</sup> July            Departure**

We departed after an early breakfast for the long drive to Malpensa. This being Sunday there was much traffic heading into the mountains in the opposite direction, but we had a clear journey all the way. It was amazing just how many tunnels there were, we seemed to spend at least half the journey before our rest stop inside tunnels.

At the rest stop, with views of Lake Como, *Diplotaxis tenuifolia* was added to the list.

We said our fond farewells at Malpensa and I continued west to the Valle di Lanzo.

# **Central Italian Alps Systematic Lists 2017**

## **Compiled by Paul Cardy**

### **Itinerary Summary**

**Day 1.** Saturday 1<sup>st</sup> July. Venice, Verona, to Brescia. Lake Iseo. Borno.

**Day 2.** Sunday 2<sup>nd</sup> July. Pizzo Arera.

**Day 3.** Monday 3<sup>rd</sup> July. Brescian Prealps.

**Day 4.** Tuesday 4<sup>th</sup> July. Passo Vivione. Passo Gavia. Sta.Caterina.

**Day 5.** Wednesday 5<sup>th</sup> July. Passo Gavia.

**Day 6.** Thursday 6<sup>th</sup> July. Stelvio National Park.

**Day 7.** Friday 7<sup>th</sup> July. Val Viola. Oga Bog.

**Day 8.** Saturday 8<sup>th</sup> July. Forcagna. Livigno. Switzerland.

**Day 9.** Sunday 9<sup>th</sup> July. To Malpensa.

## Systematic List Number 1      Plants

Nomenclature and systematic order follow 'Flora Alpina', by Aeschimann et al., 2004. Species added this year (several!) are annotated 2017. All species with no year annotation were of course seen this year too!

### A.    PTERIDOPHYTA      Ferns and their allies

#### *Lycopodiaceae*

<i>Huperzia selago</i>	Fir Clubmoss	Woods, Rhaetian Alps.
<i>Lycopodiella inundata</i>	Marsh Clubmoss	Day 3 on recce.
<i>Lycopodium annotinum</i>	Interrupted Clubmoss	Vivione.
<i>Lycopodium clavatum</i> ssp. <i>clavatum</i>	Stag's-horn Clubmoss	Day 8, 2017.
<i>Diphasiastrum alpinum</i>	Alpine Clubmoss	Forcagna.

#### *Selaginellaceae*

<i>Selaginella selaginoides</i>	Lesser Clubmoss	
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#### *Equisetaceae*

<i>Equisetum variegatum</i>	Variegated Horsetail	Brescian Prealps.
<i>Equisetum fluviatile</i>	Water Horsetail	Wetlands.
<i>Equisetum palustre</i>	Marsh Horsetail	Brescian Prealps and Oga Bog.
<i>Equisetum sylvaticum</i>	Wood Horsetail	
<i>Equisetum arvense</i>	Common Horsetail	Scattered records.
<i>Equisetum telmateia</i>	Giant Horsetail	Scattered records.

#### *Ophioglossaceae*

<i>Botrychium lunaria</i>	Moonwort	Widespread, with great variation in size, e.g. Stelvio.
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#### *Polypodiaceae*

<i>Cryptogramma crista</i>	Parsley Fern	Vivione and Val Viola, 2017.
<i>Polypodium vulgare</i>	Common Polypody	Widespread.
<i>Pteridium aquilinum</i>	Bracken	Scattered records.
<i>Phegopteris connectilis</i>	Beech Fern	Day 4, 2015.
<i>Asplenium trichomanes</i>	Maidenhair Spleenwort	On rocks at various sites.
<i>Asplenium viride</i>	Green Spleenwort	Limestone ledges and boulders, e.g. Arera.
<i>Asplenium adiantum-nigrum</i>	Black Spleenwort	Brescian Prealps 2017.
<i>Asplenium septentrionale</i>	Forked Spleenwort	Vivione.
<i>Asplenium ruta-muraria</i>	Wall-rue	Scattered records, locally common.
<i>Athyrium filix-femina</i>	Lady-fern	Forests.
<i>Athyrium distentifolium</i>	Alpine Lady-fern	Brescian Prealps 2017.
<i>Cystopteris fragilis</i>	Brittle Bladder-fern	Widespread.
<i>Cystopteris alpina</i>	Alpine Bladder-fern	Pizza Arera.
<i>Gymnocarpium dryopteris</i>	Oak Fern	Scattered records.
<i>Gymnocarpium robertianum</i>	Limestone Fern	Scattered records.
<i>Matteucia struthiopteris</i>	Ostrich Fern	Day 4.
<i>Polystichum lonchitis</i>	Holly Fern	Orobienne Alps.
<i>Dryopteris filix-mas</i>	Male Fern	Scattered records.
<i>Dryopteris affinis</i>	Scaly Male Fern	Scattered records.

<i>Dryopteris villarii</i>	Rigid Buckler Fern	e.g. Arera.
<i>Dryopteris abbreviata</i>		Vivione 2017.

## B. CONIFEROPSIDA Conifer trees and their allies

### *Pinaceae*

<i>Abies alba</i>	Silver Fir	Scattered records
<i>Picea abies</i>	Norway Spruce	Widespread - main forest dominant at mid-altitudes.
<i>Larix decidua</i>	European Larch	Frequent in middle altitudes, locally dominant just below treeline.
<i>Pinus sylvestris</i>	Scots Pine	Forest at middle altitudes.
<i>Pinus mugo mugo</i>	Dwarf Mountain Pine	Often dominant 1800-2100m, and also at lower altitudes.
<i>Pinus mugo uncinata</i>	Mountain Pine	Scattered records.
<i>Pinus cembra</i>	Arolla Pine	Locally dominant, mostly at high altitude.

### *Cupressaceae*

<i>Juniperus communis</i> ssp. <i>communis</i>	Juniper	Above Bormio etc.
<i>Juniperus communis</i> ssp. <i>alpina</i>		Higher altitudes.

## C. ANGIOSPERMS - DICOTYLEDONES

### *Ranunculaceae*

<i>Helleborus niger</i>	Christmas Rose	In leaf.
<i>Trollius europaeus</i>	Globeflower	Arera and Brescian Prealps.
<i>Aconitum lycoctonum</i>	Wolfsbane	Stelvio NP.
<i>Aconitum napellus</i>	Monk's-hood	Scattered records, several in flower.
<i>Anemone narcissiflora</i>	Narcissus Anemone	Still in fine flower in Brescian Prealps.
<i>Hepatica nobilis</i>	Hepatica	Scattered in leaf, not seen 2017?
<i>Pulsatilla alpina</i>	Alpine Pasque Flower	Widespread, locally very common. (ssp. <i>austroalpina</i> and <i>apiifolia</i> )
<i>Pulsatilla vernalis</i>	Spring Pasque Flower	Scattered in fruit.
<i>Clematis vitalba</i>	Traveller's-joy	Widespread in flower.
<i>Clematis alpina</i>	Alpine Clematis	In fruit.
<i>Ranunculus tuberosus</i>	a buttercup	Scattered records.
<i>Ranunculus repens</i>	Creeping Buttercup	Brescian Prealps 2015.
<i>Ranunculus acris</i>	Meadow Buttercup	Scattered.

The following species of the montanus complex were probably all present. Generally common and widespread.

<i>Ranunculus carinthiacus</i>	a buttercup	
<i>Ranunculus montanus</i>	a buttercup	
<i>Ranunculus venetus</i>	a buttercup	
<i>Ranunculus villarsii</i>	a buttercup	
<i>Ranunculus breyninus</i>	a buttercup	
<i>Ranunculus alpestris</i>	Alpine Crowfoot	Locally common in flower in Stelvio NP (2015), and Switzerland.
<i>Ranunculus platanifolius</i>	a buttercup	Brescian Prealps.
<i>Ranunculus glacialis</i>	Glacier Crowfoot	Locally abundant in fine flower.
<i>Ranunculus kuepferi</i>	a buttercup	A few at one site in Stelvio NP.

<i>Ranunculus parnassifolius</i> ssp. <i>heterocarpus</i> <i>Ranunculus</i> sp.	Parnassus-leaved Buttercup	In fruit in Stelvio National Park. In flower there on recce. A small flowered aquatic species in pond at Viola lunch site 2015.
<i>Aquilegia atrata</i> <i>Aquilegia einseleana</i> <i>Thalictrum aquilegifolium</i> <i>Thalictrum foetidum</i> <i>Thalictrum minus</i>	Dark Columbine a columbine Great Meadow-Rue Foetid Meadow-Rue Lesser Meadow-rue	Near Borno. Bergamasche Orobieenne Alps, in leaf, 2015. Brescian Prealps etc. Above Bormio. Scattered records.
<b><i>Berberidaceae</i></b>		
<i>Berberis vulgaris</i>	Barberry	Rhaetian Alps.
<b><i>Papaveraceae</i></b>		
<i>Papaver rhoeas</i> <i>Papaver croceum</i> <i>Papaver aurantiacum</i>	Corn Poppy Iceland Poppy Alpine Poppy	Lower altitude roadsides. Naturalised in Switzerland. Stelvio National Park, in fine flower. Locally very common.
<i>Chelidonium majus</i>	Greater Celandine	Borno.
<b><i>Fumariaceae</i></b>		
<i>Corydalis lutea</i>	Yellow Corydalis	Borno and Colere areas. Subendemic.
<b><i>Moraceae</i></b>		
<i>Ficus carica</i>	Fig	Lower roadsides.
<b><i>Urticaceae</i></b>		
<i>Urtica dioica</i> <i>Urtica urens</i> <i>Parietaria judaica</i>	Stinging Nettle Small Nettle Pellitory-of-the-wall	Scattered records. Recorded 2017. Borno walls, etc.
<b><i>Juglandaceae</i></b>		
<i>Juglans regia</i>	Walnut	Recorded.
<b><i>Fagaceae</i></b>		
<i>Fagus sylvatica</i> <i>Castanea sativa</i> <i>Quercus robur</i>	Beech Sweet Chestnut Common Oak	Forming forests. Scattered records. Orobieenne Alps.
<b><i>Betulaceae</i></b>		
<i>Betula pendula</i> <i>Alnus viridis</i>	Silver Birch Green Alder	Scattered records. Often forming low scrub on the treeline, but also on forest edges lower down. Locally dominant.
<i>Alnus glutinosa</i> <i>Alnus incana</i> <i>Ostrya carpinifolia</i> <i>Corylus avellana</i>	Alder Grey Alder Hop Hornbeam Hazel	Scattered records. Rhaetian Alps. Scattered records.

## ***Phytolaccaceae***

*Phytolacca americana* Pokeberry Lower roadsides.

## ***Chenopodiaceae***

*Chenopodium bonus-henricus* Good King Henry Eutrophied areas.  
*Chenopodium album* Fat Hen Scattered records.

## ***Portulacaceae***

*Portulaca oleracea* Common Purslane Valtellina roadsides.

## ***Caryophyllaceae***

*Arenaria biflora* a sandwort Gavia.  
*Arenaria multicaulis* a sandwort Brescian Prealps, Croce Domini.  
*Arenaria serpyllifolia* Thyme-leaved Sandwort Scattered records.  
*Arenaria marschlinsii* a sandwort Stelvio NP 2015.  
*Moehringia markgrafii* a sandwort One small plant west of Borno, just inside Bergamo province. Endemic to Brescia! 2015.  
  
*Moehringia ciliata* a sandwort Orobiegne Alps on recce.  
*Moehringia concarenae* a sandwort Apparently this in Stelvio National Park, but not known from Sondrio Province? Local endemic.  
  
*Minuartia recurva* Sickle-leaved Sandwort Locally common on acid rocks.  
*Minuartia grignensis* a sandwort Monte Arera. Endemic.  
*Minuartia austriaca* a sandwort Monte Arera.  
*Minuartia verna* Spring Sandwort Scattered records, e.g. Arera.  
*Minuartia sedoides* Mossy Cyphel Rhaetian Alps, e.g. Gavia.  
*Stellaria nemorum* Wood Stitchwort Brescian Prealps.  
*Stellaria media* Common Chickweed Borno.  
*Stellaria graminea* Lesser Stitchwort Brescian Prealps.  
*Cerastium cerastoides* Starwort Mouse-ear Gavia.  
*Cerastium arvense* Field Mouse-ear Widespread in various subspecies.  
*Cerastium alpinum* Alpine Mouse-ear  
*Cerastium uniflorum* a mouse-ear Rhaetian Alps.  
*Cerastium latifolium* a mouse-ear Monte Arera and Stelvio NP.  
*Cerastium pedunculatum* a mouse-ear Higher altitudes on acidic rocks.  
Alpine endemic.  
  
*Sagina procumbens* Procumbent Pearlwort Pavement weed.  
*Silene nutans* Nottingham Catchfly Scattered records.  
*Silene vulgaris* Bladder Campion Widespread.  
*Silene acaulis* Moss Campion Arera and Stelvio NP.  
*Silene exscapa* a moss campion On acidic substrates.  
*Silene rupestris* Rock Campion Rocks and ledges, widespread.  
*Silene pusilla* a catchfly Arera 2015.  
*Silene latifolia ssp.alba* White Campion  
*Silene dioica* Red Campion Widespread.  
*Gypsophila repens* Alpine Gypsophila Scattered records, locally common.  
*Saponaria ocymoides* Rock Soapwort Above Bormio.  
*Saponaria officinalis* Soapwort Scattered records.  
*Petrorhagia saxifraga* Tunic Flower Scattered records on recce.

<i>Dianthus carthusianorum</i>	Carthusian Pink	Rhaetian Alps.
<i>Dianthus seguieri</i>	Seguier's Pink	Brescian Prealps on recce.
<i>Dianthus hyssopifolius</i>	a pink	Arera.
<i>Dianthus sylvestris</i>	Wood Pink	Stelvio NP.
<i>Dianthus superbus</i>	Fringed Pink	Brescian Prealps.

### ***Polygonaceae***

<i>Polygonum aviculare</i>	Common Knotgrass	
<i>Polygonum bistorta</i>	Bistort	Locally very common.
<i>Polygonum viviparum</i>	Alpine Bistort	Widespread and locally common.
<i>Oxyria digyna</i>	Mountain Sorrel	A few records.
<i>Rumex scutatus</i>	French Sorrel	Scattered records, e.g. Arera.
<i>Rumex alpestris</i>	Mountain Dock	Scattered records.
<i>Rumex acetosa</i>	Common Sorrel	Widespread.
<i>Rumex alpinus</i>	Monk's Rhubarb	Eutrophied areas around buildings etc.
<i>Rumex crispus</i>	Curled Dock	
<i>Rumex obtusifolius</i>	Broad-leaved Dock	

### ***Plumbaginaceae***

<i>Armeria alpina</i>	Mountain Thrift	Gavia.
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### ***Hypericaceae***

<i>Hypericum montanum</i>	Pale St.John's-wort	Near Borno.
<i>Hypericum tetrapterum</i>	Square-stalked St.John's-wort	Brescian Prealps on recce.
<i>Hypericum maculatum</i>	Imperforate St. John's-wort	Brescian Prealps.
<i>Hypericum perforatum</i>	Common St John's-wort	Scattered records.

### ***Malvaceae***

<i>Malva alcea</i>	Hollyhock Mallow	Roadsides.
<i>Malva sylvestris</i>	Common Mallow	
<i>Malva neglecta</i>	Dwarf Mallow	Day 4

### ***Droseraceae***

<i>Drosera rotundifolia</i>	Round-leaved Sundew	Oja Bog.
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### ***Cistaceae***

<i>Helianthemum nummularium</i>	Common Rockrose	Scattered records, locally common, as at Arera.
<i>Helianthemum alpestre</i>	Alpine Rockrose	Arera etc.

### ***Violaceae***

<i>Viola canina</i>	Heath Dog-violet	In leaf at Oga 2015.
<i>Viola palustris</i>	Marsh Violet	In leaf at Oga.
<i>Viola biflora</i>	Yellow Wood Violet	Widespread and locally very common.
<i>Viola calcarata</i>	Spurred Violet	Several at Lake Mot 2015. In Switzerland 2017. Nominate subspecies.
<i>Viola dubyana</i>	a pansy	Monte Arera, in fine flower. Endemic.
<i>Viola tricolor</i>	Heartsease	Day 8.
<i>Viola arvensis</i>	Field Pansy	Day 4.

## ***Salicaceae***

<i>Salix alba</i>	White Willow	Lower altitudes.
<i>Salix reticulata</i>	Net-leaved Willow	Limestone rocks at higher altitudes.
<i>Salix herbacea</i>	Least Willow	Rather widespread, e.g. Gavia.
<i>Salix retusa</i>	Retuse-leaved Willow	Scattered records.
<i>Salix serpyllifolia</i>	Thyme-leaved Willow	Scattered records.
<i>Salix breviserrata</i>	a willow	Scattered records 2015.
<i>Salix glaucosericea</i>	Silky Willow	
<i>Salix apennina</i>	Apennine Willow	Probably present too.
<i>Salix mielichhoferi</i>	a willow	Arera, 2017.
<i>Salix appendiculata</i>	Large-leaved Willow	Arera etc.
<i>Salix cinerea</i>	Grey Willow	Scattered records.
<i>Salix caprea</i>	Goat Willow	Forest edge.
<i>Salix rosmarinifolia</i>	Rosemary-leaved Willow	Brescian Prealps 2017.
<i>Salix foetida</i>	Fishy Willow	
<i>Salix waldsteiniana</i>	a willow	Orobienne Alps and Brescian Prealps.
<i>Salix helvetica</i>	Swiss Willow	Rhaetian Alps.
<i>Salix elaeagnos</i>	a willow	Scattered records.
<i>Salix purpurea</i>	Purple Willow	Scattered records.
<i>Salix</i> spp.	willows	Others unidentified.
<i>Populus tremula</i>	Aspen	Scattered records.
<i>Populus nigra</i>	Black Poplar	Lower altitudes.

## ***Brassicaceae***

<i>Sisymbrium strictissimum</i>	Perennial Rocket	Locally common in Rhaetian Alps.
<i>Descurainia sophia</i>	Flixweed	Above Bormio.
<i>Alliaria petiolata</i>	Garlic Mustard	Colere area on recce.
<i>Erysimum rhaeticum</i>	a treacle mustard	Arera, 2017.
<i>Barbarea vulgaris</i>	Common Winter-cress	
<i>Cardamine heptaphylla</i>	Seven-leaflet Bittercress	In fruit, Brescian Prealps, on recce.
<i>Cardamine pentaphyllos</i>	Five-leaflet Bittercress	In fruit, Vivione, 2017.
<i>Cardamine asarifolia</i>	Asarum-leaved Bittercress	Brescian Prealps, common at one site.
<i>Cardamine amara</i>	Large Bittercress	Stelvio NP, 2015.
<i>Cardamine resedifolia</i>	Mignonette-leaved Bittercress	Scattered records.
<i>Cardamine alpina</i>	a bittercress	Gavia.
<i>Cardamine impatiens</i>	Fine-leaved Bittercress	Noted in fruit on recce.
<i>Arabis caerulea</i>	Blue Arabis	Gavia, and high in Stelvio NP, in flower.
<i>Arabis bellidifolia</i>	a rockcress	Stelvio NP 2015.
<i>Arabis subcoriacea</i>	a rockcress	Gavia and Stelvio NP.
<i>Arabis alpina</i>	Alpine Rockcress	Widespread, e.g. Stelvio.
<i>Turritis glabra</i>	Tower Mustard	Brescian Prealps, 2017.
<i>Draba aizoides</i>	Yellow Whitlow Grass	Monte Ferrante on recce.
<i>Draba hoppeana</i>	a whitlow grass	Stelvio NP, 2015.
<i>Draba dubia</i>	a whitlow grass	Stelvio 3000, 2015.
<i>Draba tomentosa</i>	Woolly Draba	Stelvio 2017.
<i>Petrocallis pyrenaica</i>		Monte Ferrante on recce.
<i>Kernera saxatilis</i>	Kernera	Widespread.
<i>Capsella bursa-pastoris</i>	Shepherd's-purse	Widespread.
<i>Pritzelago alpina</i>	Chamois Cress	Widespread, locally common as on Arera.
<i>Thlaspi rotundifolium</i>	Round-leaved Pennycress	In fruit on Arera.
<i>Biscutella laevigata</i>	Buckler Mustard	Widespread and common.

*Diplotaxis tenuifolia* Perennial Wall Rocket At the rest stop en route to Malpensa, 2017.

### ***Resedaceae***

*Reseda lutea* Yellow Mignonette A few records.

### ***Empetraceae***

*Empetrum nigrum* Mountain Crowberry Oga Bog.  
ssp. *hermaphroditum*

### ***Ericaceae***

*Erica carnea* Winter-flowering Heath Locally very common in leaf.  
*Calluna vulgaris* Heather or Ling Scattered records.  
*Rhododendron ferrugineum* Alpenrose Widespread on acidic soils.  
*Rhododendron hirsutum* Hairy Alpenrose Widespread on calcareous substrates.  
*Rhodothamnus chamaecistus* Dwarf Alpenrose Gone over at Monte Ferrante on recce.  
*Loiseleuria procumbens* Creeping Azalea Locally numerous, in flower Livigno.  
*Arctostaphylos uva-ursi* Bearberry Scattered records.  
*Andromeda polifolia* Bog Rosemary In fruit in Oga Bog.  
*Vaccinium microcarpum* Small Cranberry Oja Bog. Not given for Sondrio province in Flora Alpina.  
*Vaccinium vitis-idaea* Cowberry Scattered in forest.  
*Vaccinium uliginosum* Bog Whortleberry Scattered on leached grassland.  
*Vaccinium gaultherioides* a whortleberry Oga Bog.  
*Vaccinium myrtillus* Bilberry Forest.

### ***Pyrolaceae***

*Pyrola minor* Common Wintergreen Brescian Prealps, Forcagna, and Switzerland.  
*Pyrola rotundifolia* Round-leaved Wintergreen In fine flower in Stelvio woods on recce.  
*Orthilia secunda* Nodding Wintergreen A few records, 2015.

### ***Primulaceae***

*Primula elatior* Oxlip Brescian Prealps on recce.  
*Primula veris* Cowslip Noted in fruit.  
*Primula farinosa* Bird's-eye Primrose Gavia, in flower. Also Switzerland.  
*Primula glutinosa* a primrose Locally in good flower in Rhaetian Alps. Alpine endemic.  
*Primula glaucescens* a primrose Locally in fruit this year in Brescian Prealps and Bergamasche Orobieenne Alps.  
*Primula minima* Least Primrose In fruit in the Rhaetian Alps on recce.  
*Primula integrifolia* Entire-leaved Primrose In flower in Livigno area and in Switzerland.  
*Primula latifolia* Viscid Primrose Locally common in flower in Livigno area.  
*Primula auricula* Bear's-ear In fruit on Monte Arera.  
*Primula hirsuta* a primula Livigno area.  
*Primula daonensis* a primrose Over this year in Brescian Prealps, but in good flower in Rhaetian Alps. Central Alps endemic.

The following hybrids were seen.



<i>Primula x heerii</i>	= <i>Primula hirsuta</i> x <i>Primula integrifolia</i>	
<i>Primula x berninae</i>	= <i>Primula hirsuta</i> x <i>Primula latifolia</i>	
<i>Primula x murettiana</i>	= <i>Primula integrifolia</i> x <i>Primula latifolia</i>	
<i>Androsace obtusifolia</i>	a rock-jasmine	Switzerland.
<i>Androsace hausmannii</i>	a rock-jasmine	c.5 plants in Bergamasche Orobiegne Alps, on the recce.
<i>Androsace alpina</i>	a rock-jasmine	Gavia Pass, pink flowers, 2017.
<i>Soldanella pusilla</i>	Dwarf Snowbell	Widespread and locally common.
<i>Soldanella alpina</i>	Alpine Snowbell	Widespread in fruit.
<i>Cyclamen purpurascens</i>	Sowbread	Near Borno.
<i>Lysimachia vulgaris</i>	Yellow Loosestrife	Orobiegne Alps, etc.

### ***Crassulaceae***

<i>Sempervivum wulfenii</i>	Wulfen's Houseleek	In striking flower in Rhaetian Alps. Central and Eastern Alps endemic.
<i>Sempervivum arachnoideum</i>	Cobweb Houseleek	
<i>Sempervivum montanum</i>	Mountain Houseleek	In fine flower at several sites.
<i>Sempervivum tectorum</i>	Common Houseleek	Brescian Prealps.
<i>Sempervivum wulfenii</i> x <i>montanum</i>		Apparently this hybrid growing with the parents in Val Viola.
<i>Sedum telephium</i>	Orpine	
<i>Sedum montanum</i>	a stonecrop	Scattered, e.g. Brescian Prealps.
<i>Sedum acre</i>	Biting Stonecrop	Scattered, e.g. Mt.Arera.
<i>Sedum alpestre</i>	a stonecrop	
<i>Sedum sexangulare</i>	Tasteless Stonecrop	Arera.
<i>Sedum album</i>	White Stonecrop	Widespread.
<i>Sedum dasyphyllum</i>	Thick-leaved Stonecrop	Scattered.
<i>Sedum atratum</i>	Dark Stonecrop	Scattered records.
<i>Sedum annuum</i>	a stonecrop	Rhaetian Alps on recce.
<i>Rhodiola rosea</i>	Roseroot	Brescian Prealps.

### ***Saxifragaceae***

<i>Saxifraga stellaris</i>	Starry Saxifrage	Scattered records, locally common.
<i>Saxifraga rotundifolia</i>	Round-leaved Saxifrage	Brescian Prealps.
<i>Saxifraga cuneifolia</i>	Spoon-leaved Saxifrage	Vivione.
<i>Saxifraga caesia</i>	Blue Saxifrage	Arera and Stelvio, etc., in good flower.
<i>Saxifraga vandellii</i>	Vandelli's Saxifrage	Stelvio NP, in fruit, 2015. Central Alps endemic.
<i>Saxifraga oppositifolia</i>	Purple Saxifrage	A few high altitude records, a few in flower.
<i>Saxifraga hostii</i> ssp. <i>rhaetica</i>	a saxifrage	Fine in Brescian Prealps, and Bergamasche Orobiegne Alps. Endemic.
<i>Saxifraga paniculata</i>	Livelong Saxifrage	Widespread and locally common.
<i>Saxifraga aspera</i>	Rough Saxifrage	Brescian Prealps.
<i>Saxifraga bryoides</i>	Mossy Saxifrage	Locally in fine flower.
<i>Saxifraga aizoides</i>	Yellow Mountain Saxifrage	Widespread along streams, but also on dry slopes.
<i>Saxifraga exarata</i>	Musky Saxifrage	Gavia, Stelvio 3000, etc. [sspp. <i>exarata</i> and <i>moschata</i> ]
<i>Saxifraga androsacea</i>	Scree Saxifrage	Day 8.
<i>Saxifraga seguieri</i>	a saxifrage	Locally in fine flower in Rhaetian Alps.
<i>Saxifraga muscoides</i>	a saxifrage	Below Gavia, 2017. Alpine endemic.

<i>Saxifraga aphylla</i>	a saxifrage	Stelvio NP in fine flower.
<i>Saxifraga adscendens</i>	a saxifrage	Lake Mot rocks, 2015.
<i>Parnassia palustris</i>	Grass of Parnassus	Rather widespread in wet flushes, but also on dry slopes.
<b><i>Rosaceae</i></b>		
<i>Aruncus dioicus</i>	Goatsbeard Spiraea	Widespread.
<i>Filipendula ulmaria</i>	Meadowsweet	Rhaetian Alps.
<i>Rubus fruticosus</i> agg.	Bramble	Scattered records.
<i>Rubus idaeus</i>	Raspberry	Forests.
<i>Rosa glauca</i>	Glaucous Dog Rose	Lower Arera, 2017.
<i>Rosa pendulina</i>	Alpine Rose	Widespread.
<i>Rosa montana</i>	Mountain Rose	Brescian Prealps, 2017.
<i>Rosa canina</i> s.s.	Dog Rose	Scattered records.
<i>Agrimonia eupatoria</i>	Agrimony	Scattered records.
<i>Sanguisorba officinalis</i>	Great Burnet	Locally very common, e.g. Oga.
<i>Sanguisorba dodecandra</i>	a burnet	Monte Arera, one impressive patch. A very local endemic.
<i>Sanguisorba minor</i>	Salad Burnet	Near Borno.
<i>Dryas octopetala</i>	Mountain Avens	Widespread, and locally abundant.
<i>Geum reptans</i>	Creeping Avens	Rhaetian Alps on recce.
<i>Geum montanum</i>	Mountain Avens	Widespread at higher altitudes
<i>Geum rivale</i>	Water Avens	Brescian Prealps, etc.
<i>Geum urbanum</i>	Herb Bennet	Recorded on recce.
<i>Potentilla argentea</i>	Hoary Cinquefoil	Recorded 2015.
<i>Potentilla grandiflora</i>	a cinquefoil	Rhaetian Alps.
<i>Potentilla crantzii</i>	Alpine Cinquefoil	Scattered records.
<i>Potentilla aurea</i>	Golden Cinquefoil	Widespread.
<i>Potentilla erecta</i>	Tormentil	Widespread and common.
<i>Potentilla caulescens</i>	Lax Potentilla	In bud in Stelvio NP.
<i>Potentilla nitida</i>	Pink Cinquefoil	Monte Ferrante on recce.
<i>Sibbaldia procumbens</i>	Sibbaldia	Locally rather common, e.g. Gavia and Stelvio.
<i>Fragaria vesca</i>	Wild Strawberry	Scattered records.
<i>Alchemilla pentaphyllea</i>	a lady's-mantle	Locally very common in Rhaetian Alps.
<i>Alchemilla alpina</i>	Alpine Lady's-mantle	Brescian Prealps etc.
<i>Alchemilla conjuncta</i>	Silver Lady's-mantle	Arera etc.
<i>Alchemilla splendens</i>	a lady's-mantle	
<i>Alchemilla hybrida</i>	a lady's-mantle	
<i>Alchemilla xanthochlora</i>	a lady's-mantle	
<i>Alchemilla glabra</i>	a lady's-mantle	
<i>Alchemilla coriacea</i>	a lady's-mantle	
<i>Sorbus aucuparia</i>	Mountain Ash	Woods, widespread.
<i>Sorbus chamaemespilus</i>	Dwarf Medlar	Brescian Prealps.
<i>Amelanchier ovalis</i>	Snowy Mespilus	Scattered records.
<i>Cotoneaster integerrimus</i>	Wild Cotoneaster	Stelvio NP 2015.
<i>Cotoneaster tomentosus</i>	Brickberry Cotoneaster	Recorded 2017.
<i>Crataegus monogyna</i>	Hawthorn	
<i>Prunus spinosa</i>	Blackthorn	
<i>Prunus avium</i>	Wild Cherry	

## ***Fabaceae***

<i>Laburnum anagyroides</i>	Laburnum	Orobienne Alps.
<i>Laburnum alpinum</i>	Alpine Laburnum	
<i>Cytisus nigricans</i>	Black Broom	Orobienne Alps and Brescian Prealps.
<i>Cytisus scoparius</i>	Broom	Low on Arera.
<i>Genista tinctoria</i>	Dyer's Greenweed	Orobienne Alps and Brescian Prealps.
<i>Robinia pseudoacacia</i>	False Acacia	Lower roadsides.
<i>Astragalus penduliflorus</i>	Mountain Lentil	Brescian Prealps.
<i>Astragalus alpinus</i>	Alpine Milk-Vetch	Stelvio NP and Day 8.
<i>Astragalus glycyphyllos</i>	Wild Liquorice	Orobienne Alps and Brescian Prealps.
<i>Oxytropis lapponica</i>	a milk-vetch	Stelvio NP, 2015.
<i>Oxytropis jacquinii</i>	Mountain Milk-Vetch	Mt.Arera and Switzerland.
<i>Oxytropis campestris</i>	Yellow Milk-Vetch	Stelvio NP and Switzerland.
<i>ssp.campestris</i> and <i>ssp.tyroliensis</i>		
<i>Oxytropis fetida</i>	a milk-vetch	This species Stelvio NP, 2015? Not recorded for Sondrio province in Flora Alpina.
<i>Vicia cracca</i>	Tufted Vetch	Widespread.
<i>Vicia sepium</i>	Bush Vetch	
<i>Lathyrus pratensis</i>	Meadow Vetchling	Near Borno.
<i>Lathyrus sylvestris</i>	Narrow-leaved Everlasting-pea	Scattered records.
<i>Ononis natrix</i>	Large Yellow Restharrow	Brescian Prealps on recce.
<i>Ononis spinosa</i>	Spiny Restharrow	Above Bormio.
<i>Melilotus altissimus</i>	Tall Melilot	Scattered records.
<i>Melilotus albus</i>	White Melilot	Widespread.
<i>Medicago lupulina</i>	Black Medick	Widespread.
<i>Medicago sativa</i>	Lucerne	Brescian Prealps etc.
<i>Medicago falcata</i>	Sickle Medick	Above Bormio.
<i>Trifolium alpinum</i>	Alpine Clover	Widespread and common.
<i>Trifolium montanum</i>	Mountain Clover	Stelvio etc.
<i>Trifolium repens</i>	White Clover	Common.
<i>Trifolium pallescens</i>	a clover	Scattered records.
<i>Trifolium thalii</i>	Thale Cress	Scattered records, e.g. Brescian Prealps.
<i>Trifolium hybridum</i>	Alsike Clover	Scattered records.
<i>Trifolium badium</i>	Brown Clover	Widespread.
<i>Trifolium spadiceum</i>	Large Brown Clover	A few records.
<i>Trifolium pratense</i>	Red Clover	Common.
<i>Lotus corniculatus</i>	Common Bird's-foot-trefoil	Widespread in grassland.
<i>Lotus alpinus</i>	Alpine Bird's-foot-trefoil	Widespread above 2000m.
<i>Anthyllis vulneraria</i>	Kidney-vetch	Widespread, various subspecies seen.
<i>Coronilla vaginalis</i>	a scorpion-vetch	In fruit near Borno.
<i>Securigera varia</i>	Crown-vetch	Brescian Prealps etc.
<i>Hippocrepis comosa</i>	Horseshoe Vetch	Stelvio NP, 2017.
<i>Hedysarum hedysaroides</i>	Alpine Sainfoin	
<i>ssp.hedysaroides</i>		Switzerland.
<i>ssp.exaltatum</i>		Brescian Prealps.
<i>Onobrychis montana</i>	Mountain Sainfoin	Brescian Prealps.
<i>Onobrychis viciifolia</i>	Common Sainfoin	Scattered records.

## ***Elaeagnaceae***

<i>Hippophaë rhamnoides</i>	Sea-buckthorn	
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### ***Lythraceae***

*Lythrum salicaria* Purple Loosestrife Lower roadsides.

### ***Thymelaeaceae***

*Daphne mezereum* Mezereon A few records in fruit.  
*Daphne cneorum* Garland Flower Below Gavia, 2017.

### ***Onagraceae***

*Circaea lutetiana* Enchanter's Nightshade  
*Oenothera biennis* Common Evening Primrose Lower roadsides.  
*Oenothera glazioviana* Large-flowered Evening Primrose Lower roadsides.  
*Epilobium angustifolium* Rosebay Willowherb Widespread.  
*Epilobium dodonaei* a willowherb  
*Epilobium fleischeri* a willowherb  
*Epilobium hirsutum* Greater Willowherb Lower roadsides.  
*Epilobium montanum* Broad-leaved Willowherb Scattered records.  
*Epilobium collinum* a willowherb  
*Epilobium alpestre* Whorled-leaved Willowherb Brescian Prealps, Arera, etc.  
*Epilobium palustre* Marsh Willowherb Oga Bog 2017.  
*Epilobium nutans* a willowherb  
*Epilobium anagallidifolium* Pimpernel-leaved Willowherb Rhaetian Alps.  
*Epilobium alsinifolium* Chickweed Willowherb Brescian Prealps and Rhaetian Alps.

### ***Santalaceae***

*Thesium alpinum* Alpine Bastard Toadflax Rhaetian Alps.

### ***Euphorbiaceae***

*Euphorbia prostrata* Trailing Red Spurge On the arrival day 2017.  
*Euphorbia dulcis* Sweet Spurge Near Borno 2017.  
*Euphorbia helioscopia* Sun Spurge  
*Euphorbia peplus* Petty Spurge  
*Euphorbia nicaeensis* a spurge  
*Euphorbia cyparissias* Cypress Spurge Gavia and Stelvio.

### ***Rhamnaceae***

*Rhamnus pumila* Dwarf Buckthorn  
*Frangula alnus* Alder Buckthorn

### ***Linaceae***

*Linum alpinum* Mountain Flax Orobienne Alps.  
*Linum catharticum* Fairy Flax Recorded.

### ***Polygalaceae***

*Polygala chamaebuxus* Shrubby Milkwort Val Viola.  
*Polygala vulgaris* Common Milkwort Below Gavia, 2017.  
*Polygala alpestris* Mountain Milkwort Scattered records.

### ***Aceraceae***

*Acer campestre* Field Maple  
*Acer pseudoplatanus* Sycamore

## ***Simaroubaceae***

*Ailanthus altissima* Tree of Heaven

## ***Oxalidaceae***

*Oxalis acetosella* Wood Sorrel Scattered in leaf.

## ***Geraniaceae***

*Geranium sanguineum* Bloody Cranesbill Recorded.  
*Geranium sylvaticum* Wood Cranesbill Widespread, locally very common.  
*Geranium nodosum* Knotted Cranesbill Monte Arera on recce.  
*Geranium phaeum* Dusky Cranesbill Scattered records, e.g. Arera.  
*Geranium pyrenaicum* Pyrenean Cranesbill Scattered records, e.g. Arera.  
*Geranium robertianum* Herb Robert Scattered records.

## ***Balsaminaceae***

*Impatiens noli-tangere* Touch-me-not Orobiegne Alps.  
*Impatiens parviflora* Small Balsam Scattered records.  
*Impatiens glandulifera* Himalayan Balsam Brescian Prealps on recce.  
*Impatiens balfourii* a balsam Brescian Prealps.

## ***Araliaceae***

*Hedera helix* Ivy

## ***Apiaceae***

*Astrantia major* Great Masterwort Brescian Prealps and near Borno.  
*Astrantia minor* Lesser Masterwort Widespread and locally common.  
*Chaerophyllum hirsutum* Hairy Chervil Vivione etc.  
*Chaerophyllum villarsii* a chervil Rather widespread.  
*Chaerophyllum temulum* Rough Chervil Rhaetian Alps 2015.  
*Molopospermum peloponnesiacum* Locally still in flower. Brescian Prealps and Arera.  
*Pimpinella major* Great Burnet-saxifrage Scattered records.  
*Pimpinella saxifraga* Burnet-saxifrage Above Bormio.  
*Aegopodium podagraria* Ground-elder Recorded.  
*Seseli libanotis* Moon Carrot Day 7, 2017.  
*Seseli annuum* Scattered records, e.g. Brescian Prealps, Arera, etc.  
*Athamanta cretensis* Candy Carrot Arera, Stelvio etc.  
*Bupleurum stellatum* a thorow-wax Breascian Prealps etc.  
*Bupleurum petraeum* a thorow-wax High on Arera.  
*Bupleurum ranunculoides* a thorow-wax Brescian Prealps.  
*ssp.caricinum*  
*Bupleurum falcatum ssp.cernuum* Sickle-leaved Hare's-ear Vivione 2017.  
*Ligusticum mutellinoides* Unbranched Lovage Widespread.  
*Ligusticum mutellina* Alpine Lovage Scattered higher altitude records.  
*Angelica sylvestris* Wild Angelica Scattered records.  
*Peucedanum venetum* a masterwort Stelvio NP.  
*Peucedanum austriacum* Recorded 2015.  
*ssp.rablense*  
*Peucedanum ostruthium* Masterwort Scattered in flower.

<i>Peucedanum verticillare</i>	a masterwort	Brescian Prealps.
<i>Pastinaca sativa</i>	Wild Parsnip	Scattered roadside records.
<i>Heracleum sphondylium</i>	Hogweed	Widespread.
<i>Laserpitium siler</i>	a sermountain	Scattered records.
<i>Laserpitium latifolium</i>	Broad-leaved Sermountain	Scattered records.
<i>Laserpitium gaudinii</i>	a sermountain	Brescian Prealps.
<i>Laserpitium peucedanooides</i>		Arera.
<i>Laserpitium nitidum</i>	a sermountain	
<i>Laserpitium halleri</i>	a sermountain	Day 7.
<i>Torilis japonica</i>	Upright Hedge-parsley	Near Borno, 2017.
<i>Daucus carota</i>	Wild Carrot	Scattered records.

### ***Gentianaceae***

<i>Gentiana lutea</i>	Yellow Gentian	Over in Stelvio NP.
<i>Gentiana punctata</i>	Spotted Gentian	Widespread and locally very common, e.g. Brescian Prealps.
<i>Gentiana asclepiadea</i>	Willow Gentian	In leaf, Brescian Prealps, 2017.
<i>Gentiana cruciata</i>	Cross Gentian	In leaf on Arera 2015.
<i>Gentiana clusii</i>	Clusius's Gentian	Scattered records.
<i>Gentiana acaulis</i>	Trumpet Gentian	Scattered records, in flower at Gavia.
<i>Gentiana verna</i>	Spring Gentian	Gavia and Switzerland.
<i>Gentiana brachyphylla</i>	a gentian	Gavia.
<i>Gentiana orbicularis</i>	a gentian	Stelvio National Park, in fine flower.
<i>Gentiana bavarica</i>	Bavarian Gentian	Rhaetian Alps, locally very common.
<i>Gentiana nivalis</i>	Snow Gentian	Rhaetian Alps.
<i>Gentiana utriculosa</i>	Bladder Gentian	In flower on Arera, and Val Viola.
<i>Gentiana tenella</i>	a gentian	Below Gavia 2017.
<i>Gentiana campestris</i>	Field Gentian	Oga turf.

### ***Aslepiadaceae***

<i>Vincetoxicum hirundinaria</i>	Swallow-wort	Scattered records.
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### ***Solanaceae***

<i>Solanum dulcamara</i>	Bittersweet	Near Borno.
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### ***Convolvulaceae***

<i>Cuscuta europaea</i>	Greater Dodder	Day 3 on recce.
<i>Calystegia sepium</i>	Hedge Bindweed	Scattered records.
<i>Convolvulus arvensis</i>	Field Bindweed	Roadsides lower down.

### ***Menyanthaceae***

<i>Menyanthes trifoliata</i>	Bog-bean	In marshes on recce.
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### ***Polemoniaceae***

<i>Polemonium caeruleum</i>	Jacob's-ladder	Stelvio National Park, 2017.
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### ***Boraginaceae***

<i>Echium vulgare</i>	Viper's Bugloss	Orobienne Alps.
<i>Myosotis arvensis</i>	Field Forget-me-not	
<i>Myosotis discolor</i>	Changing Forget-me-not	Day 4, 2017.

<i>Myosotis sylvatica</i>	Wood Forget-me-not	
<i>Myosotis alpestris</i>	Alpine Wood Forget-me-not	Widespread and locally numerous at higher altitudes.
<i>Myosotis scorpioides</i>	Water Forget-me-not	Brescian Prealps on recce.

### ***Lamiaceae***

<i>Ajuga pyramidalis</i>	Pyramidal Bugle	A few records.
<i>Teucrium chamaedrys</i>	Wall Germander	Near Borno.
<i>Teucrium montanum</i>	Mountain Germander	Scattered records.
<i>Galeopsis ladanum</i>	Broad-leaved Hemp-nettle	Arera 2015.
<i>Galeopsis pubescens</i>	Downy Hemp-nettle	Day 2.
<i>Lamium maculatum</i>	Spotted Dead-nettled	Arera 2015.
<i>Lamium album</i>	White Dead-nettle	Day 7.
<i>Lamium galeobdolon</i>	Yellow Archangel	Scattered records.
<i>Stachys alopecuroides</i>	Yellow Betony	Brescian Prealps, etc., common.
<i>Stachys pradica</i>	a betony	Brescian Prealps.
<i>Stachys officinalis</i>	Betony	Vivione.
<i>Stachys alpina</i>	Limestone Woundwort	Orobienne Alps.
<i>Stachys sylvatica</i>	Hedge Woundwort	Widespread.
<i>Stachys recta</i>	Yellow Woundwort	
<i>Prunella grandiflora</i>	Large Self-heal	Scattered records.
<i>Prunella vulgaris</i>	Self-heal	Scattered records.
<i>Acinos alpinus</i>	Alpine Calamint	Scattered records, locally common.
<i>Calamintha grandiflora</i>	Greater Calamint	Brescian Prealps on recce.
<i>Clinopodium vulgare</i>	Wild Basil	Scattered records on recce.
<i>Origanum vulgare</i>	Marjoram	Scattered records.
<i>Thymus praecox</i>	Hairy Thyme	Widespread.
<i>Thymus pulegioides</i>	Large-flowered Thyme	Scattered records.
<i>Mentha longifolia</i>	Horse Mint	
<i>Horminum pyrenaicum</i>	Dragonmouth	Widespread and locally abundant, as in Brescian Prealps.
<i>Salvia glutinosa</i>	Sticky Sage	In leaf.
<i>Salvia pratensis</i>	Meadow Clary	Scattered records.

### ***Plantaginaceae***

<i>Plantago major</i>	Great Plantain	Widespread.
<i>Plantago maritima</i> ssp. <i>serpentina</i>	a plantain	Scattered records, e.g. Vivione.
<i>Plantago alpina</i>	Alpine Plantain	Locally common in Switzerland.
<i>Plantago media</i>	Hoary Plantain	Scattered records.
<i>Plantago atrata</i>	Mountain Plantain	Switzerland.
<i>Plantago lanceolata</i>	Ribwort Plantain	Scattered records.

### ***Buddlejaceae***

<i>Buddleja davidii</i>	Buddleia	Widely naturalised.
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### ***Oleaceae***

<i>Fraxinus excelsior</i>	Ash	
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### ***Scrophulariaceae***

<i>Verbascum thapsus</i>	Aaron's-rod	Widespread.
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<i>Verbascum pulverulentum</i>	Hoary Mullein	Scattered records.
<i>Verbascum nigrum</i>	Dark Mullein	
<i>Verbascum chaixii</i>	a mullein	
<i>Scrophularia nodosa</i>	Common Figwort	Lower Arera etc., 2015.
<i>Scrophularia canina</i>	French Figwort	Arera.
<i>Scrophularia juratensis</i>	a figwort	
<i>Linaria tonzigii</i>	Tonzig's Toadflax	A trip highlight was several plants of this rare very local endemic in flower in the Bergamasche Orobienne Alps.
<i>Linaria vulgaris</i>	Common Toadflax	A few records, 2015.
<i>Linaria alpina</i>	Alpine Toadflax	Rhaetian Alps.
<i>Cymbalaria muralis</i>	Ivy-leaved Toadflax	
<i>Digitalis grandiflora</i>	Large Yellow Foxglove	Brescian Prealps.
<i>Digitalis lutea</i>	Small Yellow Foxglove	Orobienne Alps, locally very common.
<i>Veronica bellidioides</i>	Violet Speedwell	A few records.
<i>Veronica serpyllifolia</i>	Thyme-leaved Speedwell	Scattered records. <i>ssp.serpyllifolia</i> and <i>humifusa</i> .
<i>Veronica alpina</i>	Alpine Speedwell	Widespread at higher altitudes.
<i>Veronica fruticans</i>	Rock Speedwell	Locally common in Rhaetian Alps.
<i>Veronica fruticulosa</i>	a speedwell	Below Gavia.
<i>Veronica urticifolia</i>	Nettle-leaved Speedwell	Woods.
<i>Veronica aphylla</i>	Leafless-stemmed Speedwell	Brescian Alps.
<i>Veronica officinalis</i>	Heath Speedwell	Scattered records.
<i>Veronica chamaedrys</i>	Bird's-eye Speedwell	Widespread.
<i>Veronica beccabunga</i>	Brooklime	Brescian Prealps, 2015.
<i>Veronica persica</i>	Common Field Speedwell	
<i>Pseudolysimachion spicatum</i>	Spiked Speedwell	Orobienne Alps on recce.
<i>Melampyrum velebiticum</i>	a cow-wheat	
<i>Melampyrum sylvaticum</i>	Wood Cow-wheat	Forests.
<i>Melampyrum pratense</i>	Common Cow-wheat	Rhaetian Alps on recce.
<i>Euphrasia rostkoviana</i>	an eyebright	Day 7, 2017.
<i>ssp.montana</i>		
<i>Euphrasia picta ssp.arguta</i>	an eyebright	Brescian Prealps 2017.
<i>Euphrasia alpina</i>	Alpine Eyebright	Brescian Prealps 2015.
<i>Euphrasia minima</i>	an eyebright	Gavia, including yellow flowered form. 2015.
<i>Euphrasia spp.</i>	eyebrights	Others unidentified.
<i>Bartsia alpina</i>	Alpine Bartsia	Widespread in boggy flushes.
<i>Pedicularis recutita</i>	a lousewort	A few in Brescian Prealps.
<i>Pedicularis verticillata</i>	Verticillate Lousewort	Widespread and common.
<i>Pedicularis tuberosa</i>	a lousewort	Rhaetian Alps.
<i>Pedicularis elongata</i>	a lousewort	Brescian Prealps 2015.
<i>Pedicularis ascendens</i>	a lousewort	Widespread, especially abundant in the Brescian Prealps. Also Arera.
<i>Pedicularis rostratospicata</i>	a lousewort	Stelvio National Park on recce.
<i>ssp.helvetica</i>		
<i>Pedicularis rostratocapitata</i>	lousewort	Stelvio National Park, 2017.
<i>Pedicularis kernerii</i>	a lousewort	Brescian Prealps, Gavia, Stelvio, and Day 8.
<i>Pedicularis gyroflexa</i>	a lousewort	Bergamasche Orobienne Alps.
<i>Pedicularis ascendens x gyroflexa</i>		1 of this probable hybrid on Mt.Arera, 2017.
<i>Rhinanthus minor</i>	Yellow Rattle	



<i>Rhinanthus antiquus</i>	a yellow rattle
<i>Rhinanthus glacialis</i>	Aristate Yellow-rattle
<i>Rhinanthus songeonii</i>	a yellow rattle
<i>Rhinanthus alectorolophus</i>	Greater Yellow-rattle

### ***Globulariaceae***

<i>Globularia cordifolia</i>	Matted Globularia	Scattered records, e.g. Brescian Prealps.
<i>Globularia nudicaulis</i>	Leafless-stemmed Globularia	Mt.Arera.

### ***Orobanchaceae***

<i>Orobanche alba</i>	Thyme Broomrape	Pizzo Arera, 2017.
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### ***Lentibulariaceae***

<i>Pinguicula alpina</i>	Alpine Butterwort	In flower in Switzerland.
<i>Pinguicula leptoceras</i>	a butterwort	Scattered records.
<i>Pinguicula vulgaris</i>	Common Butterwort	Day 4.

### ***Campanulaceae***

<i>Campanula raineri</i>	Rainer's Bellflower	One plant in fine flower in the Bergamasche Orobienne Alps on recce.
<i>Campanula patula</i> ssp. <i>costae</i>	Spreading Bellflower	Presumably this subspecies seen, Vivione, 2015.
<i>Campanula barbata</i>	Bearded Bellflower	Remarkably common in the area.
<i>Campanula spicata</i>	Spiked Bellflower	Brescian Prealps.
<i>Campanula thyrsoides</i> ssp. <i>thyrsoides</i>	a bellflower	1 fine spike in Switzerland, 2017.
<i>Campanula trachelium</i>	Nettle-leaved Bellflower	Widespread.
<i>Campanula rapunculoides</i>	Creeping Bellflower	Vivione.
<i>Campanula cochlearifolia</i>	Fairy's Thimble	Scattered records.
<i>Campanula scheuchzeri</i>	a bellflower	Widespread.
<i>Campanula rotundifolia</i>	Harebell	Scattered records.
<i>Phyteuma spicatum</i>	Spiked Rampion	Vivione 2015.
<i>Phyteuma ovatum</i>	Dark Rampion	Vivione 2015.
<i>Phyteuma betonicifolium</i>	Betony-leaved Rampion	Brescian Prealps etc.
<i>Phyteuma orbiculare</i>	Round-headed Rampion	Locally very common.
<i>Phyteuma sieberi</i>	a rampion	Stelvio NP 2015.
<i>Phyteuma scheuchzeri</i> ssp. <i>scheuchzeri</i>	Oxford Rampion	Brescian Prealps. Scattered records.
<i>Phyteuma hemisphaericum</i>	Globe-headed Rampion	Brescian Prealps 2015.
<i>Phyteuma hedraianthifolium</i>	a rampion	Scattered records. A Central Alps endemic.
<i>Phyteuma humile</i>	a rampion	This was the commonest small phyteuma.
<i>Phyteuma globulariifolium</i>	Rosette-leaved Rampion	Rhaetian Alps, some fine examples.

### ***Rubiaceae***

<i>Asperula aristata</i>	a squinancywort	This species seen?
<i>Asperula cynanchica</i>	Squinancywort	Scattered records, locally common.
<i>Galium verum</i>	Lady's Bedstraw	Scattered records.
<i>Galium mollugo</i>	Hedge Bedstraw	Scattered records.
<i>Galium album</i>	Upright Bedstraw	

<i>Galium montis-arerae</i>	Monte Arera Bedstraw	Fine in Bergamasche Orobiegne Alps, where endemic.
<i>Galium laevigatum</i>	a bedstraw	This species recorded?
<i>Galium rubrum</i>	a bedstraw	Near Borno 2017.
<i>Galium pumilum</i>	Slender Bedstraw	Brescian Prealps etc.
<i>Galium anisophyllum</i>	a bedstraw	Recorded.
<i>Galium baldense</i>	Monte Baldo Bedstraw	Monte Ferrante on recce. Central Alps endemic.
<i>Cruciata laevipes</i>	Crosswort	Scattered records.
<b><i>Caprifoliaceae</i></b>		
<i>Lonicera caerulea</i>	Blue-berried Honeysuckle	Vivione, in fruit.
<i>Lonicera xylosteum</i>	Fly Honeysuckle	Brescian Prealps.
<i>Sambucus ebulus</i>	Dwarf Elder	Roadsides lower down.
<i>Sambucus nigra</i>	Common Elder	Scrubby verges and margins.
<i>Sambucus racemosa</i>	Red-berried Elder	
<b><i>Valerianaceae</i></b>		
<i>Valeriana officinalis</i>	Common Valerian	Forest margins and verges.
<i>Valeriana tripteris</i>	Three-leaved Valerian	Near Borno.
<i>Valeriana montana</i>	a valerian	Widespread and reasonably common.
<i>Valeriana saxatilis</i>	Rock Valerian	Orobiegne Alps.
<i>Centranthus ruber</i>	Red Valerian	Lower roadsides.
<b><i>Dipsacaceae</i></b>		
<i>Dipsacus fullonum</i>	Teasel	
<i>Knautia drymeia</i>	a scabious	
<i>Knautia longifolia</i>	a scabious	
<i>Knautia</i> spp.	scabious spp.	Others probably present.
<i>Scabiosa triandra</i>	a scabious	Scattered records.
<b><i>Asteraceae</i></b>		
<i>Eupatorium cannabinum</i>	Hemp-agrimony	Near Borno.
<i>Solidago virgaurea</i>	Goldrenrod	Widespread.
<i>Solidago canadensis</i>	Canadian Goldenrod	Lower roadsides.
<i>Bellis perennis</i>	Daisy	
<i>Aster squamatus</i>	an aster	Lower roadsides.
<i>Aster alpinus</i>	Alpine Aster	Scattered higher altitude records.
<i>Aster bellidiastrum</i>	False Aster	Scattered records.
<i>Erigeron annuus</i>	Annual Fleabane	Widespread and common.
<i>Erigeron acer</i>	Blue Fleabane	
<i>Erigeron atticus</i>	a fleabane	Val Viola 2015.
<i>Erigeron alpinus</i>	Alpine Fleabane	Arera etc.
<i>Erigeron glabratus</i>	Variable Fleabane	
<i>Gnaphalium norvegicum</i>	Highland Cudweed	Brescian Prealps lunch site and Viola, 2015.
<i>Gnaphalium supinum</i>	Dwarf Cudweed	Gavia.
<i>Antennaria dioica</i>	Mountain Everlasting	Brescian Prealps and Rhaetian Alps.
<i>Antennaria carpatica</i>	Carpathian Catsfoot	Orobiegne Alps and Brescian Prealps.
<i>Leontopodium alpinum</i>	Edelweiss	Rhaetian Alps and Arera, locally common.
<i>Bupthalmum salicifolium</i>	Yellow Ox-eye	Scattered records, locally common.

<i>Telekia speciosissima</i>	a yellow oxeye	Roadsides near Colere. Endemic.
<i>Galinsoga ciliata</i>	Shaggy Soldier	Pavement weed in villages.
<i>Achillea erba-rotta</i> ssp. <i>moschata</i>	a milfoil	Gavia etc., alpine endemic.
<i>Achillea atrata</i>	Dark-stemmed Sneezewort	Scattered records, e.g. Stelvio NP.
<i>Achillea clavennae</i>	Silvery Milfoil	Arera.
<i>Achillea distans</i>		
<i>Achillea stricta</i>		
<i>Achillea millefolium</i>	Yarrow	Widespread.
<i>Achillea roseoalba</i>		Sta.Caterina Valfurva.
<i>Achillea collina</i>		
<i>Matricaria discoidea</i>	Pineapple-weed	Scattered records.
<i>Tanacetum corymbosum</i>	a tansy	Brescian Prealps and Bergamasche Orobienne Alps.
<i>Leucanthemopsis alpina</i>	Alpine Moon Daisy	Widespread and locally very common.
<i>Leucanthemum vulgare</i>	Ox-eye Daisy	Widespread.
<i>Artemisia vulgaris</i>	Mugwort	Scattered records.
<i>Artemisia absinthium</i>	Wormwood	Stelvio NP etc.
<i>Artemisia umbelliformis</i>		Stelvio NP 2017.
<i>Tussilago farfara</i>	Coltsfoot	Locally numerous, widespread. Still in flower in Stelvio NP.
<i>Petasites albus</i>	White Butterbur	In leaf.
<i>Petasites hybridus</i>	Butterbur	In leaf.
<i>Petasites paradoxus</i>	Alpine Butterbur	In leaf.
<i>Homogyne alpina</i>	Alpine Coltsfoot	Common and widespread.
<i>Adenostyles alliariae</i>	Adenostyles	Brescian Prealps and Rhaetian Alps.
<i>Adenostyles glabra</i>		Bergamasche Orobienne Alps and Brescian Prealps. = <i>A.alpina</i>
<i>Arnica montana</i>	Arnica	Widespread.
<i>Doronicum columnae</i>	Heart-leaved Leopard's-bane	Arera.
<i>Doronicum clusii</i>	a leopard's-bane	Gavia.
<i>Senecio incanus</i> ssp. <i>carniolicus</i>	Grey Alpine Groundsel	Rather widespread.
<i>Senecio inaequidens</i>		Naturalised in Brescian Prealps, etc. A native of South Africa.
<i>Senecio germanicus</i> ssp. <i>glabratus</i>	a ragwort	Locally very numerous, e.g. below Gavia.
<i>Senecio hercynicus</i>		Probably present too.
<i>Senecio ovatus</i>	Wood Ragwort	
<i>Senecio cacalister</i>	a ragwort	Brescian Prealps.
<i>Senecio doronicum</i>	Chamois Ragwort	Brescian Prealps, Rhaetian Alps.
<i>Senecio alpinus</i>	Alpine Ragwort	Locally common, as in Brescian Prealps. = <i>Senecio cordatus</i>
<i>Senecio rupestris</i>	Rock (Oxford) Ragwort	Scattered records. = <i>Senecio squalidus</i>
<i>Senecio abrotanifolius</i>	a ragwort	A few in Val Viola.
<i>Tephrosieris tenuifolia</i>		Brescian Prealps.
<i>Carlina acaulis</i>	Stemless Thistle	Brescian Prealps, 2017. Not confirmed for Brescia in Flora Alpina.
<i>Echinops sphaerocephalus</i>	a globe thistle	Day 3 on recce.
<i>Arctium lappa</i>	Greater Burdock	
<i>Arctium minus</i>	Lesser Burdock	
<i>Carduus defloratus</i>	Alpine Thistle	Widespread. More than one subspecies present.

<i>Cirsium eriophorum</i>	Woolly-headed Thistle	
<i>Cirsium tuberosum</i>	Tuberous Thistle	
<i>Cirsium montanum</i>	a thistle	Widespread and locally common.
<i>Cirsium erisithales</i>	Yellow Melancholy Thistle	Widespread and numerous.
<i>Cirsium spinosissimum</i>	Spiniest Thistle	Widespread and locally very common.
<i>Cirsium acaule</i>	Dwarf Thistle	Rhaetian Alps 2015.
<i>Cirsium helenoides</i>	Melancholy Thistle	Rhaetian Alps, in bud.
<i>Cirsium pannonicum</i>	a thistle	
<i>Cirsium canum</i>	a thistle	
<i>Cirsium palustre</i>	Marsh Thistle	Brescian Alps and Vivione.
<i>Cirsium arvense</i>	Creeping Thistle	Scattered records.
<i>Stemmacantha rhapontica</i>		In fine flower in Brescian Prealps. Abundant on Arera.
<i>Centaurea scabiosa</i>	Greater Knapweed	Locally common.
<i>Centaurea nigrescens</i>	a knapweed	Widespread.
<i>Centaurea nervosa</i>	Plume Knapweed	Brescian Prealps and Day 7.
<i>Centaurea rhaetica</i>	Rhaetian Knapweed	Brescian Prealps and Bergamasche Orobienne Alps.
<i>Centaurea montana</i>	Perennial Cornflower	Brescian Prealps.
<i>Cichorium intybus</i>	Chicory	Verges lower down.
<i>Aposeris foetida</i>	Aposeris	Vivione woods.
<i>Hypochoeris uniflora</i>	Giant Cat's-ear	Widespread.
<i>Hypochoeris radicata</i>	Cat's-ear	Recorded.
<i>Leontodon helveticus</i>	a hawkbit	Widespread and locally numerous.
<i>Leontodon hispidus</i>	Rough Hawkbit	Scattered records, locally common.
<i>Leontodon crispus</i>	a hawkbit	Stelvio NP 2017.
<i>Leontodon incanus ssp.tenuiflorus</i>	a hawkbit	Day 4.
<i>Picris hieracioides</i>	Hawkweed Oxtongue	Scattered records.
<i>Scorzonera rosea</i>	a viper's grass	A fine addition to the list, Brescian Prealps 2017. Day 7.
<i>Tragopogon pratensis</i>	Goatsbeard	
<i>Sonchus asper</i>	Prickly Sow-thistle	
<i>Sonchus oleraceus</i>	Smooth Sow-thistle	
<i>Lactuca serriola</i>	Prickly Lettuce	Stelvio NP.
<i>Cicerbita alpina</i>	Alpine Sow-thistle	Orobienne Alps.
<i>Prenanthes purpurea</i>	Purple Lettuce	Vivione.
<i>Taraxacum palustre</i>	Marsh Dandelion	Rhaetian Alps.
<i>Taraxacum alpinum</i>		
<i>Taraxacum officinale</i>	Dandelion	
<i>Taraxacum spp.</i>	dandelions	
<i>Lapsana communis</i>	Nipplewort	Scattered records.
<i>Crepis paludosa</i>	Marsh Hawksbeard	Widespread and locally common.
<i>Crepis pygmaea</i>	a hawksbeard	Stelvio NP.
<i>Crepis kernerii</i>		Stelvio NP, in bud.
<i>Crepis aurea</i>	Golden Hawksbeard	Widespread.
<i>Hieracium staticifolium</i>	a hawkweed	Brescian Prealps.
<i>Hieracium hoppeanum</i>	a hawkweed	
<i>Hieracium pilosella</i>	Mouse-ear Hawkweed	Scattered records.
<i>Hieracium lactucella</i>	a hawkweed	Brescian Prealps etc. 2017.
<i>Hieracium bifidum</i>	a hawkweed	Scattered records.
<i>Hieracium villosum</i>	a hawkweed	Brescian Prealps and Arera.

<i>Hieracium piliferum</i>	a hawkweed	Brescian Prealps 2017.
<i>Hieracium intybaceum</i>	a hawkweed	Rhaetian Alps.
<i>Hieracium glaucum</i>	a hawkweed	Stelvio NP 2017.

## D. ANGIOSPERMS - MONOCOTYLEDONES

### *Juncaginaceae*

<i>Triglochin palustris</i>	Marsh Arrow-grass	Oga Bog.
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### *Juncaceae*

<i>Juncus jacquinii</i>	a rush	Acidic soils at higher altitudes, locally common.
<i>Juncus filiformis</i>	Thread Rush	Brescian Prealps.
<i>Juncus conglomeratus</i>	Compact Rush	Brescian Prealps.
<i>Juncus trifidus</i>	Three-leaved Rush	Acidic soils, Brescian Prealps and Rhaetian Alps.
<i>Juncus monanthus</i>	a rush	On calcareous substrates. Brescian Prealps, Arera, and Rhaetian Alps.
<i>Juncus compressus</i>	Round-fruited Rush	Scattered records.
<i>Juncus tenuis</i>	Slender Rush	Day 4, 2017.
<i>Juncus acutiflorus</i>	Sharp-flowered Rush	Brescian Prealps.
<i>Juncus articulatus</i>	Jointed Rush	
<i>Juncus triglumis</i>	Three-flowered Rush	Wet flushes in Rhaetian Alps, 2015.
<i>Luzula campestris</i>	Field Woodrush	
<i>Luzula multiflora</i>	Many-flowered Woodrush	
<i>Luzula sudetica</i>	a woodrush	
<i>Luzula alpina</i>	Alpine Woodrush	Brescian Prealps and Rhaetian Alps.
<i>Luzula spicata</i>	Spiked Woodrush	Gavia.
<i>Luzula lutea</i>	a woodrush	Gavia.
<i>Luzula nivea</i>	a woodrush	Scattered records.
<i>Luzula luzuloides ssp. rubella</i>	White Woodrush	Forests in Rhaetian Alps and Brescian Prealps.
<i>Luzula alpinopilosa</i>	a woodrush	Scattered records, locally common.
<i>Luzula glabrata</i>	a woodrush	Brescian Prealps etc., locally common.

### *Cyperaceae*

<i>Trichophorum alpinum</i>	Cotton Deer-grass	Oga Bog.
<i>Trichophorum caespitosum</i>	Deer-grass	Acidic wet flushes.
<i>Blysmus compressus</i>	Flat-headed Sedge	
<i>Eriophorum angustifolium</i>	Common Cotton-grass	Acidic wet flushes.
<i>Eriophorum latifolium</i>	Broad-leaved Cotton-grass	Basic flushes.
<i>Eriophorum vaginatum</i>	Hare's-tail Cotton-grass	Acidic bogs.
<i>Eriophorum scheuchzeri</i>	a cotton-grass	Acidic bogs, Rhaetian Alps.
<i>Carex paniculata</i>	Tussock Sedge	Oga Bog.
<i>Carex spicata</i>	Spiked Sedge	Near Borno.
<i>Carex pairae</i>	a sedge	Rhaetian Alps on recce.
<i>Carex leporina</i>	Oval Sedge	Scattered records.
<i>Carex echinata</i>	Star Sedge	Scattered records, e.g. Oga Bog.
<i>Carex dioica</i>	Dioecious Sedge	
<i>Carex davalliana</i>	Davall's Sedge	

<i>Carex lachenalii</i>	Hare's-foot Sedge	Rhaetian Alps.
<i>Carex curvula</i>	Curved Sedge	More acid grassland, e.g. Gavia.
<i>Carex rostrata</i>	Bottle Sedge	Dominant at Oga Bog.
<i>Carex sylvatica</i>	Wood Sedge	Vivione.
<i>Carex capillaris</i>	Hair Sedge	Scattered records.
<i>Carex flacca</i>	Glaucous Sedge	Widespread.
<i>Carex panicea</i>	Carnation Sedge	Brescian Prealps.
<i>Carex hostiana</i>	Tawny Sedge	Brescian Prealps.
<i>Carex flava</i>	Great Yellow-sedge	Brescian Prealps.
<i>Carex lepidocarpa</i>	Long-stalked Yellow Sedge	Brescian Prealps.
<i>Carex viridula</i>	a yellow sedge	Day 7.
<i>Carex pallescens</i>	Pale Sedge	Moister grassland and wood edges, e.g. Arera and Brescian Prealps.
<i>Carex halleriana</i>	a sedge	
<i>Carex ornithopodioides</i>	a bird's-foot sedge	Brescian Prealps.
<i>Carex caryophylla</i>	Spring Sedge	Scattered records.
<i>Carex montana</i>	Soft-leaved Sedge	
<i>Carex sempervirens</i>	Evergreen Sedge	Widespread and common.
<i>Carex firma</i>	a sedge	On calcareous substrates, e.g. Day 8.
<i>Carex ferruginea</i>	a sedge	Widespread.
<i>Carex fimbriata</i>	a sedge	Western Rhaetian Alps.
<i>Carex frigida</i>	a sedge	Calcareous flushes, e.g. Switzerland, 2015.
<i>Carex limosa</i>	Bog Sedge	Day 4.
<i>Carex atrata</i>	Jet Sedge	Scattered records. Nominate and <i>ssp. aterrima</i> .
<i>Carex parviflora</i>	a sedge	Rhaetian Alps.
<i>Carex norvegica ssp. norvegica</i>	Close-headed Alpine Sedge	Gavia 2017.
<i>Carex bicolor</i>	a sedge	Rhaetian Alps 2015.
<i>Carex elata</i>	Tufted Sedge	Margins of Viola lunch pond.
<i>Carex nigra</i>	Common Sedge	Widespread and locally common.
<i>Carex microglochin</i>	Bristle Sedge	Brescian Prealps on recce.
<i>Carex pauciflora</i>	Few-flowered Sedge	Vivione.
<i>Carex rupestris</i>	Rock Sedge	Stelvio NP etc.
<i>Carex pulicaris</i>	Flea Sedge	Brescian Prealps on recce.
<b>Poaceae</b>		
<i>Festuca melanopsis</i>	a fescue	
<i>Festuca rubra</i>	Red Fescue	
<i>Festuca valesiaca</i>	a fescue	
<i>Festuca spp.</i>	Fescues	Many other species present.
<i>Lolium perenne</i>	Perennial Rye-grass	
<i>Lolium multiflorum</i>	Italian Rye-grass	
<i>Poa annua</i>	Annual Meadow-grass	
<i>Poa trivialis</i>	Rough Meadow-grass	
<i>Poa pratensis</i>	Smooth Meadow-grass	
<i>Poa nemoralis</i>	Wood Meadow-grass	
<i>Poa bulbosa</i>	Bulbous Meadow-grass	
<i>Poa alpina</i>	Alpine Meadow-grass	
<i>Dactylis glomerata</i>	Cock's-foot	
<i>Briza media</i>	Quaking Grass	

<i>Sesleria ovata</i>	
<i>Sesleria sphaerocephala</i>	
<i>Sesleria caerulea</i>	
<i>Oreochloa disticha</i>	
<i>Melica ciliata</i>	Ciliated Melick
<i>Bromus inermis</i>	Hungarian Brome
<i>Brachypodium sylvaticum</i>	Wood False-brome
<i>Brachypodium pinnatum</i>	Tor Grass
<i>Brachypodium rupestre</i>	
<i>Elymus caninus</i>	Bearded Couch
<i>Elymus repens</i>	Common Couch
<i>Helictotrichon pubescens</i>	Hairy Oat
<i>Helictotrichon pratense</i>	Meadow Oat
<i>Arrhenatherum elatius</i>	False Oat-grass
<i>Koeleria pyramidata</i>	Pyramidal hair-grass
<i>Trisetum flavescens</i>	Yellow Oat-grass
<i>Deschampsia cespitosa</i>	Tufted Hair-grass
<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass
<i>Anthoxanthum alpinum</i>	Alpine Vernal-grass
<i>Agrostis rupestris</i>	a bent-grass
<i>Agrostis stolonifera</i>	Creeping Bent-grass
<i>Polypogon viridis</i>	Water-bent
<i>Calamagrostis varia</i>	a small-reed
<i>Phleum pratense</i>	Timothy
<i>Phleum alpinum</i>	Alpine Cat's-tail
<i>Phleum rhaeticum</i>	a cat's-tail
<i>Phleum phleoides</i>	Purple-stem Cat's-tail
<i>Phleum hirsutum</i>	a cat's-tail
<i>Alopecurus pratensis</i>	Meadow Foxtail
<i>Phalaris arundinacea</i>	Reed Canary-grass
<i>Achnatherum calamagrostis</i>	
<i>Phragmites australis</i>	Common Reed
<i>Danthonia decumbens</i>	Heath-grass
<i>Molinia caerulea</i>	Purple Moor-grass
<i>Nardus stricta</i>	Mat-grass
<i>Sorghum halepense</i>	

### ***Sparganiaceae***

<i>Sparganium angustifolium</i>	Floating Bur-reed	In a pond at Vivione.
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### ***Liliaceae***

<i>Tofieldia calyculata</i>	Tofield's Asphodel	Flushes, widespread. Dry slopes too!
<i>Veratrum album</i>	White False-helleborine	Widespread.
<i>Anthericum liliago</i>	St. Bernard's Lily	Scattered records on recce.
<i>Anthericum ramosum</i>	Branched St. Bernard's Lily	Near Borno, and Stelvio NP.
<i>Paradisea liliastrum</i>	St. Bruno's Lily	South of Gavia.
<i>Lloydia serotina</i>	Snowdon Lily	Rhaetian Alps.
<i>Colchicum autumnale</i>	Meadow Saffron	In leaf 2017.
<i>Gagea fragifera</i>		Still in flower in Switzerland 2015.
<i>Fritillaria tubaeformis</i>		c.3+ in fruit, 2017.
<i>Lilium martagon</i>	Martagon Lily	Forest edges and meadows, widespread.

<i>Lilium bulbiferum</i>	Orange Lily	Brescian Prealps. [some without bulbils: var. <i>croceum</i> ].
<i>Ornithogalum gussonei</i>	a star-of-bethlehem	Brescian Prealps on recce.
<i>Allium insubricum</i>		In fine flower on Monte Arera. Endemic.
<i>Allium schoenoprasum</i>	Chives	Rhaetian Alps on recce.
<i>Allium carinatum</i>	Keeled Garlic	Scattered records 2015.
<i>Maianthemum bifolium</i>	May-lily	Scattered records.
<i>Polygonatum multiflorum</i>	Solomon's Seal	
<i>Polygonatum odoratum</i>	Scented Solomon's-seal	Stelvio NP.
<i>Paris quadrifolia</i>	Herb Paris	Oga woods.

### ***Iridaceae***

<i>Crocus albiflorus</i>	White Crocus	In leaf.
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### ***Orchidaceae***

<i>Epipactis helleborine</i>	Broad-leaved Helleborine	Stelvio NP and Borno.
<i>Epipactis atrorubens</i>	Dark Red Helleborine	Stelvio NP.
<i>Neottia nidus-avis</i>	Bird's-nest Orchid	2 above Bormio, 2015.
<i>Listera ovata</i>	Twayblade	Brescian Prealps, 2015.
<i>Goodyera repens</i>	Creeping Lady's Tresses	Several above Bormio on recce.
<i>Platanthera bifolia</i>	Lesser Butterfly Orchid	Day 4.
<i>Platanthera chlorantha</i>	Greater Butterfly Orchid	Stelvio NP 2015.
<i>Chamorchis alpina</i>		Several spikes in Switzerland.
<i>Gymnadenia conopsea</i>	Fragrant Orchid	Widespread and often common.
<i>Gymnadenia odoratissima</i>	Short-spurred Fragrant Orchid	Scattered records, abundant in Brescian Prealps.
<i>Pseudorchis albida</i>	Small White Orchid	Scattered records.
<i>Nigritella rhellicani</i>	Black Vanilla Orchid	Widespread and locally common.
<i>Nigritella rubra</i>	a vanilla orchid	Brescian Prealps and Stelvio NP.
<i>Coeloglossum viride</i>	Frog Orchid	Widespread in short turf.
<i>Dactylorhiza sambucina</i>	Elder-flowered Orchid	Gone over on recce.
<i>Dactylorhiza cruenta</i>	Flecked Marsh Orchid	Oga Bog.
<i>Dactylorhiza majalis</i>	Alpine Marsh Orchid	Brescian Prealps etc.
<i>Dactylorhiza lapponica</i>	a marsh orchid	Oga Bog 2015.
<i>Dactylorhiza fuchsii</i>	Common Spotted Orchid	Common in woods and meadows, especially abundant in Brescian Prealps.
<i>Traunsteinera globosa</i>	Round-headed Orchid	Fine in Brescian Prealps, also Monte Arera.
<i>Orchis ustulata</i>	Burnt Orchid	2, Brescian Prealps, on recce.



## Systematic List Number 2      Birds

The emphasis was on plants and butterflies, but the following birds were seen.

Cattle Egret	<i>Bubulcus ibis</i>	Veneto plains.
Little Egret	<i>Egretta garzetta</i>	Veneto plains.
Grey Heron	<i>Ardea cinerea</i>	A few records.
Tufted Duck	<i>Aythya fuligula</i>	Switzerland 2015.
Lammergeier	<i>Gypaetus barbatus</i>	1 superbly close in Stelvio on the recce.
Honey Buzzard	<i>Pernis apivorus</i>	Arera 2015.
Black Kite	<i>Milvus migrans</i>	Lowlands.
Buzzard	<i>Buteo buteo</i>	Scattered records.
Common Kestrel	<i>Falco tinnunculus</i>	Scattered records.
Hobby	<i>Falco subbuteo</i>	Day 7 on recce.
Coot	<i>Fulica atra</i>	A few records, 2015.
Yellow-legged Gull	<i>Larus cachinnans</i>	Lower altitudes.
Rock Dove	<i>Columba livia</i>	Towns, especially in the lowlands.
Woodpigeon	<i>Columba palumbus</i>	Scattered records.
Collared Dove	<i>Streptopelia decaocto</i>	Towns.
Common Swift	<i>Apus apus</i>	Widespread.
Alpine Swift	<i>Apus melba</i>	A few records.
Green Woodpecker	<i>Picus viridus</i>	A few records.
Black Woodpecker	<i>Dryocopus martius</i>	Near Borno, 2015.
Crag Martin	<i>Ptyonoprogne rupestris</i>	Widespread and common.
Swallow	<i>Hirundo rustica</i>	Scattered records.
House Martin	<i>Delichon urbica</i>	Widespread and common.
Tree Pipit	<i>Anthus trivialis</i>	Scattered records.
Water Pipit	<i>Anthus spinoletta</i>	Higher altitudes, widespread.
Grey Wagtail	<i>Motacilla cinerea</i>	Scattered records.
White Wagtail	<i>Motacilla alba</i>	Widespread in small numbers.
Wren	<i>Troglodytes troglodytes</i>	Scattered records.
Black Redstart	<i>Phoenicurus ochruros</i>	Common around the hotels and seen also at various other sites.
Common Redstart	<i>Phoenicurus phoenicurus</i>	A few records.
Northern Wheatear	<i>Oenanthe oenanthe</i>	Scattered high altitude records.
Rock Thrush	<i>Monticola saxatilis</i>	Brescian Prealps and Gavia, 2015.
Blackbird	<i>Turdus merula</i>	Widespread.
Song Thrush	<i>Turdus philomelos</i>	Scattered records.
Mistle Thrush	<i>Turdus viscivorus</i>	Scattered records.
Garden Warbler	<i>Sylvia borin</i>	Heard often.
Blackcap	<i>Sylvia atricapilla</i>	Widespread.
Chiffchaff	<i>Phylloscopus collybita</i>	Widespread.
Goldcrest	<i>Regulus regulus</i>	Scattered records.
Long-tailed Tit	<i>Aegithalos caudatus</i>	Oga woods, 2015.
Crested Tit	<i>Parus cristatus</i>	Oga woods.
Coal Tit	<i>Parus ater</i>	Scattered records.
Blue Tit	<i>Parus caeruleus</i>	Scattered records.
Great Tit	<i>Parus major</i>	Scattered records.
Nuthatch	<i>Sitta europaea</i>	Scattered records.
Red-backed Shrike	<i>Lanius collurio</i>	A few records, e.g. near Bormio, 2015.
Jay	<i>Garrulus glandarius</i>	Widespread.

Magpie	<i>Pica pica</i>	Lower altitudes.
Nutcracker	<i>Nucifraga caryocatactes</i>	Widespread in coniferous forest, locally common.
Alpine Chough	<i>Pyrrhocorax graculus</i>	Quite common above 2000m, and often very tame.
Carrion Crow	<i>Corvus corone corone</i>	Widespread.
Hooded Crow	<i>Corvus corone cornix</i>	Lower altitudes.
Raven	<i>Corvus corax</i>	Widespread.
Starling	<i>Sturnus vulgaris</i>	Scattered records.
House Sparrow	<i>Passer domesticus</i>	Widespread.
Snow Finch	<i>Montifringilla nivalis</i>	A few high altitude records, e.g. Gavia.
Chaffinch	<i>Fringilla coelebs</i>	Widespread and common.
Serlin	<i>Serinus serinus</i>	Widespread.
Greenfinch	<i>Carduelis chloris</i>	Scattered records.
Goldfinch	<i>Carduelis carduelis</i>	Scattered records.
Linnet	<i>Carduelis cannabina</i>	Pizzo Arera 2015.
Bullfinch	<i>Pyrrhula pyrrhula</i>	A few records.

### Systematic List Number 3

### Mammals, Reptiles and Amphibians

Alpine Shrew	<i>Sorex alpinus</i>	A dead individual, Valfurva, 2015.
Common Mole	<i>Talpa europaea</i>	Hills noted.
Alpine Marmot	<i>Marmota marmota</i>	Locally common, seen or heard on several days
Red Squirrel	<i>Sciurus vulgaris</i>	A few signs of feeding.
Wild Boar	<i>Sus scrofa</i>	Signs only.
Alpine Ibex	<i>Capra ibex</i>	A male and 3 females at Gavia, 2015.
Mountain Hare	<i>Lepus timidus</i>	Droppings at higher altitudes.
Crested Newt	<i>Triturus cristatus</i>	Mt.Arera 2015.
Alpine Newt	<i>Triturus alpestris</i>	Viola pond.
Common Frog	<i>Rana temporaria</i>	Scattered records.
Common Toad	<i>Bufo bufo</i>	Scattered records.
Common Lizard	<i>Lacerta vivipara</i>	Scattered records.
Common Wall Lizard	<i>Podarcis muralis</i>	Scattered records.
Grass Snake	<i>Natrix natrix</i>	2 on Mt.Arera 2015.

## Systematic List Number 4      Butterflies

The nomenclature and the systematic order follow Tolman and Lewington's *Butterflies of Britain and Europe* published by HarperCollins (1997). Species not seen this year are annotated with the year in which they were last seen. Species new this year are annotated 2017. Of course all species with no year listed were seen this year.

### *Papilionidae*

Swallowtail	<i>Papilio machaon</i>	Val Viola.
Scarce Swallowtail	<i>Iphiclides podalirius</i>	Day 4, 2015.
Apollo	<i>Parnassias apollo</i>	Larva seen.
Small Apollo	<i>Parnassius phoebus</i>	Stelvio NP and Forcagna Pass.

### *Pieridae*

Large White	<i>Pieris brassicae</i>	Scattered records.
Black-veined White	<i>Aporia crataegi</i>	Seen on 2 days, 2015.
Small White	<i>Artogeia rapae</i>	Scattered records.
Green-veined White	<i>Artogeia napi</i>	Scattered records.
Mountain Green-veined White	<i>Artogeia bryoniae</i>	A few at higher altitudes.
Peak White	<i>Pontia callidice</i>	2 in Stelvio NP.
Mountain Clouded Yellow	<i>Colias phicomone</i>	Several in Brescian Prealps, Stelvio, and in Switzerland.
Moorland Clouded Yellow	<i>Colias palaeno</i>	3+, Val Viola, 2017.
Clouded Yellow	<i>Colias crocea</i>	Scattered records.
Berger's Clouded Yellow	<i>Colias alfacariensis</i>	A few records, 2015.
Brimstone	<i>Gonepteryx rhamni</i>	Vivione.
Wood White	<i>Leptidea sinapis</i>	Lower Stelvio and Val Viola.

### *Lycaenidae*

Blue-spot Hairstreak	<i>Satyrium spini</i>	Seen near Borno in 2015.
Scarce Copper	<i>Lycaena virgaureae</i>	Day 4.
Sooty Copper	<i>Lycaena tityrus</i>	Scattered records, e.g. Val Viola.
Purple-edged Copper	<i>Lycaena hippothoe</i>	Brescian Prealps and Val Viola.
Little Blue	<i>Cupido minimus</i>	Widespread in small numbers.
Holly Blue	<i>Celastrina argiolus</i>	Scattered records 2015.
Mountain Alcon Blue	<i>Maculinea rebeli</i>	Stelvio NP 2015.
Large Blue	<i>Maculinea arion</i>	Val Viola.
Silver-studded Blue	<i>Plebejus argus</i>	Stelvio NP.
Idas Blue	<i>Plebejus idas</i>	Val Viola.
Cranberry Blue	<i>Vacciniina optilete</i>	Several in Val Viola.
Brown Argus	<i>Aricia agestis</i>	Arera 2015.
Mountain Argus	<i>Aricia artaxerxes</i>	Arera and Val Viola.
Alpine Blue	<i>Albulina orbitulus</i>	On three days at higher altitudes.
Glandon Blue	<i>Agriades glandon</i>	Gavia, Stelvio NP, and Switzerland.
Mazarine Blue	<i>Cyaniris semiargus</i>	Widespread and locally common.
Chalk-hill Blue	<i>Lysandra coridon</i>	Val Viola.
Eros Blue	<i>Polyommatus eros</i>	1 in Switzerland 2017.

### *Riodinidae*

Duke of Burgundy Fritillary	<i>Hamearis lucina</i>	2 on Pizza Arera 2015.
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## *Nymphalidae*

Purple Emperor	<i>Apatura iris</i>	Near Borno.
White Admiral	<i>Limenitis camilla</i>	Mt.Arera 2015.
Red Admiral	<i>Vanessa atalanta</i>	Scattered records.
Painted Lady	<i>Vanessa cardui</i>	Widespread in small numbers, 2015.
Small Tortoiseshell	<i>Aglais urticae</i>	Widespread in small numbers.
Comma	<i>Polygonia c-album</i>	Seen on 2 days, 2015.
Silver-washed Fritillary	<i>Argynnis paphia</i>	Brescian Prealps and Vivione, 2015.
Dark Green Fritillary	<i>Argynnis aglaja</i>	Brescian Prealps, Vivione, and lower Stelvio.
High Brown Fritillary	<i>Argynnis adippe</i>	Below Vivione 2015.
Queen of Spain Fritillary	<i>Issoria lathonia</i>	Scattered records 2015.
Shepherd's Fritillary	<i>Boloria pales</i>	Several higher altitude records, common at Gavia.
Mountain Fritillary	<i>Boloria napaea</i>	Switzerland and Gavia.
Small Pearl-bordered Fritillary	<i>Clossiana selene</i>	Switzerland on the recce.
Pearl-bordered Fritillary	<i>Clossiana euphrosyne</i>	Below Gavia, and Val Viola.
Thor's Fritillary	<i>Clossiana thore</i>	Below Vivione 2017.
Knapweed Fritillary	<i>Melitaea phoebe</i>	Lower Stelvio 2017.
Heath Fritillary	<i>Mellicta athalia</i>	Below Gavia, Stelvio, Val Viola, Oga Bog.
Grisons Fritillary	<i>Mellicta varia</i>	Stelvio NP.
Little Fritillary	<i>Mellicta asteria</i>	c.4 at one site in Switzerland was THE butterfly highlight of the tour.
Asian Fritillary	<i>Hypodryas intermedia</i>	1, Val Viola.
Cynthia's Fritillary	<i>Hypodryas cynthia</i>	Stelvio NP and Livigno Pass.
Marsh Fritillary	<i>Euphydryas aurinia</i>	<i>glaceigenita</i> , Gavia and Livigno.

## *Satyridae*

Marbled White	<i>Melanargia galathea</i>	Widespread in small numbers.
Alpine Grayling	<i>Oeneis glacialis</i>	Gavia and Stelvio NP.
Arran Brown	<i>Erebia ligea</i>	Widespread and common.
Large Ringlet	<i>Erebia euryale</i>	Locally very numerous.
Mountain Ringlet	<i>Erebia epiphron</i>	Stelvio NP 2015.
Lesser Mountain Ringlet	<i>Erebia melampus</i>	Locally very common at higher altitudes.
Woodland Ringlet	<i>Erebia medusa</i>	Brescian Prealps 2015.
Almond-eyed Ringlet	<i>Erebia alberganus</i>	Scattered records, e.g. below Gavia.
Sooty Ringlet	<i>Erebia pluto</i>	Stelvio NP.
Silky Ringlet	<i>Erebia gorge</i>	Rather common at higher altitudes.
Mnestrá's Ringlet	<i>Erebia mnestra</i>	Seen on 6 days. Form <i>triopes</i> .
Common Brassy Ringlet	<i>Erebia cassioides</i>	Arera 2015.
Swiss Brassy Ringlet	<i>Erebia tyndarus</i>	Brescian Prealps.
Marbled Ringlet	<i>Erebia montana</i>	Locally common at higher altitudes in Rhaetian Alps.
Dewy Ringlet	<i>Erebia pandrose</i>	Below Vivione 2015.
Meadow Brown	<i>Maniola jurtina</i>	Scattered higher altitude records.
Small Heath	<i>Coenonympha pamphilus</i>	Stelvio woods.
Pearly Heath	<i>Coenonympha arcania</i>	Arera.
Alpine Heath	<i>Coenonympha gardetta</i>	Widespread in small numbers.
Large Wall Brown	<i>Lasiommata maera</i>	Rather common at higher altitudes.
Northern Wall Brown	<i>Lasiommata petropolitana</i>	Brescian Prealps.
Woodland Brown	<i>Lopinga achine</i>	Below Vivione 2015.

## *Hesperidae*

Large Grizzled Skipper	<i>Pyrgus alveus</i>	Gavia.
Oberthur's Grizzled Skipper	<i>Pyrgus armoricanus</i>	Brescian Prealps 2015.
Olive Skipper	<i>Pyrgus serratulae</i>	Arera 2015.
Dusky Grizzled Skipper	<i>Pyrgus cacaliae</i>	
Red Underwing Skipper	<i>Spialia sertorius</i>	Stelvio woods 2017.
Tufted Marbled Skipper	<i>Carcharodus flocciferus</i>	Lower Arera 2015.
Dingy Skipper	<i>Erynnis tages</i>	Scattered records 2015.
Chequered Skipper	<i>Carterocephalus palaemon</i>	Oga Bog 2017.
Essex Skipper	<i>Thymelicus lineola</i>	Scattered records.
Small Skipper	<i>Thymelicus sylvestris</i>	Scattered records.
Large Skipper	<i>Ochlodes venatus</i>	Scattered records.
Silver-spotted Skipper	<i>Hesperia comma</i>	Stelvio lunch site 2015.