The Dolomites

Devil's Claw and King of the Alps

A Greentours Trip Report

23rd June to 2nd July 2016

Led by Paul Cardy

Daily Reports and Systematic Lists by Paul Cardy

Day 1 Thursday 23rd June

Arrival and Journey to Claut

Having driven from the western Alps, I arrived at Marco Polo airport to discover delays were the order of the day, due to both bad weather in southern England and an air traffic strike in France. Conveniently, Stefano and I had arranged to meet for the first evening of the tour, and that worked well as he was able to set off towards the hotel once Rachel, Cecilia, Miriam and Talma had arrived, whilst I waited for Rob and Julia.

In due course they arrived, and as the heat of the day turned to a pleasantly cooler evening we set off north, initially across the predominantly agricultural plains, the line of the Alps ahead of us. Even in the lowlands the vegetation was still surprisingly verdant at this season. The scenery became ever more impressive, and once we'd left the main road the verges had many flowers.

It was then but a short drive to the lovely village of Claut where we settled into our pleasant rooms, the hotel conveniently situated in the centre of the village, noise not being a problem though (other than the church bells!) in this tranquil area.

We all enjoyed an excellent first dinner, I gave the introductory talk, and we anticipated the productive tour to come.

Day 2 Friday 24th June

Cimoliana

Most of us were in shock and mourning after hearing of the result of the EU vote in the UK. Here we were in Europe, where I live, and it felt very strange. Nevertheless we enjoyed a superb first day in the field and saw a wealth of fine things.

While everyone enjoyed breakfast in the hotel, I shopped for fresh picnic supplies and bread in the village, an enjoyable experience with friendly shopkeepers.

Under clear blue skies we drove the short distance to the neighbouring village, Cimolais, and from there headed up the Cimoliana valley. The first stop, amid Black Pines and *Salix waldsteiniana*, had *Orobanche gracilis* in good bloom, *Campanula scheuchzeri*, *Thesium rostratum*, *Prunella grandiflora*, and there were some fine Fragrant Orchids and Lesser Butterfly Orchids. The endemics *Euphorbia triflora kerneri* and *Rhinanthus pampaninii* were here too. Several butterflies were already on the wing and included Chalkhill Blue, Pearly Heath, and Woodland Brown. Honey Buzzard was in the air.

A short walk took us to cliffs that supported many fine Devil's Claws, in perfect flower, one of the plant highlights of the Dolomites. They really were in superb form this year, with several in easy reach. The same cliffs had much *Spiraea decumbens*, leaves of *Potentilla caulescens*, and *Chondrilla chondrilloides* flowered abundantly beside the track. The *Rhododendron hirsutum* was much admired. The scenery was sublime, and more and more butterflies were taking to the wing as the day warmed up. There were many Black-veined Whites, as well as Grizzled Skipper, and Hungarian Gliders were associated with their foodplant, the *Spiraea*. The rocks supported a good selection of ferns including Limestone Fern, Holly Fern, Green Spleenwort, Wall-rue, Maidenhair Spleenwort and Brittle-bladder Fern. A highlight was a number of fine yellow day lilies, *Hemerocallis lilio-asphodelus*, a rather surprising endemic here. There were several on the cliffs above, but also some right beside the track. *Seseli kochii* was identified.

For the first time I ventured across the rushing stream and found more superb Devil's Claws on the rocks on the other side. This was Cecilia's main target plant of the tour but in her speed to get close to them she ended up getting a bit wet in the stream!

Next was a knapweed, *Centaurea dichroantha*, usually in two colour forms, purple and yellow, but all were in bud this year. Large Chequered Skipper was as always a great find at a reliable site for the species, and today Chequered Skipper was here too. A little further along we found more of the very special endemic *Hemerocallis lilio-asphodelus*. Also on the cliffs here were *Silene pusilla* and Yellow Archangel.

Entering fine forest, Bird's-nest Orchid was found, and Lady's Slippers were in leaf. I set out our first extensive picnic at a well situated table, and here we saw the first of many Duke of Burgundys.

Our drive now took us across a wide stony river bed. River gravels had Alpine Gypsophila, *Cerastium subtriflorum*, and *Saxifraga squarrosa*.

Reaching the end of the drivable road we took a short walk and found the attractive *Dianthus sternbergii* in fine flower, and Willow Gentian was in leaf. Some fine Bladder Gentians were found nearby, and we were delighted to see many fine Lady's Slippers, more than we had ever seen here before, the best hidden among the bushes. A pleasing find was a lone Military Orchid, uncommon in the area and the first seen on the tour since 2008! Another bonus was several *Chamaecytisus purpureus* still in flower. The distinctive pink *Crepis froelichiana dinarica*, an endemic subspecies, was here, and *Anemone trifolia*, Interrupted Clubmoss and Fir Clubmoss were under the trees. A snowbell, probably *Soldanella minima*, was in fruit. There were more Duke of Burgundys here than I had ever seen anywhere.

Another short stop was prompted by Round-leaved Wintergreen in fine form. Lower down another *Hemerocallis* site also had the specialities *Arenaria huteri* and *Silene veselskyi*, where refreshing water trickled onto us from the springs above. Lower meadows had Pyramidal Orchids and an interesting selection of invertebrates.

Day 3 Saturday 25th June Claut and Transfer to Rocca Pietore

Another superb day weather wise, with a wealth of things seen at a great selection of sites. After breakfast we checked out of the hotel, and headed above the village in search of some of the dinosaur footprints that the area is famous for. The drive itself was quite an experience, first along a beautiful narrow valley, then climbing up a long series of hairpins through fine beech woodland. This really is a beutiful little visted valley.

At the end of the forested track we parked and set out on foot amid fine scenery. We had the area all to ourselves, the owner of the isolated refuge being the only other person we saw. The meadows were flowery, and *Aethionema saxatile*, a species we first saw last year, was again found by Rachel and Cecilia. Soon we reached the river bed where were three quite clear bipedal dinosaur prints on a large boulder, highlighted on a recently positioned notice board. Here were a number of Bird's Nest Orchids, there was Green Spleenwort on rocks at the forest edge, and on the open grassland was *Orobanche gracilis*. In such fine weather Painted Lady, Black-veined White, and Pearl-bordered Fritillary were on the wing. Crested Tits and Coal Tits were active in the conifers, Western Bonelli's Warblers called, and Black Woodpecker called and I was very pleased to see it, although briefly.

Back along the entrance road *Lomelosia graminifolia*, a rather special scabious, was nearly all still in bud this year, although we did find two flowers. *Genista radiata* and *Teucrium montanum* were seen too. After a short stop at Claut post office so I could post a letter we headed west.

At the next stop I was delighted to relocate two of the diminutive *Malaxis monophyllos* that I had first found here a few years before, being a new site for the species. The meadows were flowery and under the trees were Red Helleborine, the leaves of *Asarum europaeum*, and Bastard Balm with white flowers. Heath Fritillary was on the wing.

Next was Vajont where we walked a quiet lane, with a fine flora, and butterflies much in evidence. Apollos floated along dry slopes covered in their foodplants, stonecrops, and there were also Blue-spot Hairstreak, Mazarine Blue, Pearly Heaths, Marbled Whites, Woodland Brown, Common Blues, and Large Skippers. Burnets were numerous, among them *Zygaena transalpina* and *Zygaena lonicerae*. Bee Beetle was as always a good find. Spiked Bellflowers were impressive, with *Campanula persicifolia* too. Broad-leaved and Dark Red Helleborines were admired, the latter numerous, and there were a number of Fragrant Orchids, some very robust. There were also a few Lesser Butterfly Orchids and a great find was several Fly Orchids in fine flower. The *Teucrium montanum* was attractive, and *Centaurea jacea, Hieracium staticifolium* and *Bupthalmum salicifolium* were among the composites. *Peucedanum venetum* was rather common and *Verbascum chaixii austriacum* was in flower. Among the many other plants were Linum tenuifolium, Valeriana wallrothii, Swallow-wort, and Wood Pink. Occasionally looking up from the great variety of flowers and insects, the views were pretty good too! Here I set out the lunch in another quiet spot. *Centaurea montana* bloomed nearby.

Early afternoon saw us heading further west, down to Longarone, and into the Dolomiti Bellunesi, in which we would spend the remainder of the tour. *Campanula spicata* became rather common on the roadsides.

Near the village of Dont were Marsh Helleborines on the roadside, just coming into flower, *Tetragonolobus maritimus*, and *Dactylorhiza lapponica* in flower. A stop at Passo Duran had a floriferous marshy slope with many marsh orchids, and abundant Globe Flowers. There were many other plants here in this fine habitat, such as *Senecio alpestris*, *Ligusticum mutellinoides*, *Polygonum viviparum*, and *Veratrum viride*. *Carex paniculata* tussocks characterised the wet flushes at the bottom of the slope, and other sedges here were *Carex nigra*, *Carex panicea*, *Carex davalliana*, *Carex flacca*, *Carex pallescens*, *Carex lepidocarpa*, and *Carex rostrata*. The views were sublime.

I negotiated the next stretch of this narrow road, amazingly busy with motorbikes today, and we headed down to the valley. North of Agordo we took a short detour and found rosettes of *Saxifraga hostii*.

We continued to our hotel, and there settled in to the very pleasant rooms that would be our home for the remainder of the tour. Crag Martins continuously flew around the hotel, and Common Redstart was seen daily here (as well as Black Redstart of course).

Before dinner we met for a first run through the already very extensive plant lists. We enjoyed a superb dinner, with excellent service.

Day 4 Sunday 26th June Fontanafredda

A very mixed day weather wise began with light rain and heavily clouded skies, but we went ahead with our plans regardless, completing the intended itinerary, and in fact even enjoying much sunshine later in the day.

We first drove to Selva di Cadore where I did the picnic shopping in a well stocked small supermarket before we headed up to Staulanza, making our first stop just below the pass. Here were at least nine of the diminutive Lesser Twayblade, hidden under the trees, and the Coralroot Orchids were in good flower too. Remarkably the lone Lady's Slipper here was already over, at a higher altitude than those we had seen in fine flower at Cimoliana. There was much else of interest including One-flowered and Nodding Wintergreens, Shrubby Milkwort, and Dragonmouth. Spring Heath was still abundantly in flower this year at many sites.

A very short drive took us to the track we call Fontanafredda, where we spent all day slowly pottering along, at altitudes between 1700 and 1900m, admiring the wealth of plants. Progress was very slow as there was so much of interest, the verges and clearings being awash with flowers. The views of Pelmo and Civetta were periodically superb, depending on the clouds.

Luzula luzuloides rubella was a prominent feature along the track, and Chamaecytisus hirsutus and Phyteuma orbiculare were in flower. Senecio alpinus and Adenostyles alliariae were in leaf this year. Chaerophyllum hirsutum was especially lush, mostly pink flowered, and tall spikes of Alpine Sow-thistle were in bud. Some large open meadows boasted a great floral variety including Globeflowers, the very attractive orange Crepis aurea, Small White Orchids, Globe or Round-headed Orchids, Ranunculus platanifolius, and Silene rupestris. On one slope were many Elder-flowered Orchids, but both purple and yellow forms had mostly gone over this year. Under the trees was a different flora with species such as Saxifraga rotundifolia and Anemone trifolia.

Butterflies were fewer in evidence than is usual here, but included Green-veined White, Purple-edged Copper, Woodland Ringlet, Alpine Heath, and Olive Skipper. Among the moths were Speckled Yellow, Silver Ground Carpet, and Small Purple Barred. The constant clang of cow bells even drowned out the noise of the motorbikes back on the road.

Wet flushes were characterised by very many Alpine Marsh Orchids and the cottony heads of *Eriophorum angustifolium*. Here too were *Triglochin palustre* and *Pinguicula vulgaris*. Sedges were a feature today, among them *Carex paniculata*, *Carex panicea*, *Carex flava*, *Carex pallescens*, *Carex ornithopoda*, *Carex hirta*, *Carex davalliana* and *Carex ferruginea*.

Mindful of the previous year, when some very mischeivous cows had invaded our picnic site, I very carefully checked the wherabouts of the herd before setting out the lunch in the same place. Sure that we were safe this time, I couldn't believe it when just as lunch was almost ready the first cow appeared over the rise! And one by one they came. Many were very persistent, and we spent a memorable picnic fending off these pesky animals as they tried their hardest to pinch anything they could get!

Golden Eagle soared over the nearby refuge.

The afternoon saw us continuing further up the track, and setting out on foot, the weather now fine. Rock Speedwell was new, and *Clematis alpina* and *Moehringia muscosa* flowered under the trees. Frog Orchids were common and Bullfinches were much in evidence.

It was one flowery slope that supported all the best flowers here. There was *Gentianella germanica*, fine Alpine Asters, several fine Burnt-tip Orchids, more *Traunsteinera globosa*, Hair Sedge, and Rock Soapwort. We reached a grassy slope that afforded extensive views down to the Cadore valley, the slope yellow with *Ranunculus carinthiacus*.

Day 5 Monday 27th June

Passo di Giau

The hotel breakfast was again a fine selection. Despite the forecast and the initially complex skies it was dry all day and we enjoyed another superb day in the field. Today we headed up to the Passo di Giau, along a series of many hairpin bends, climbing through different altitudinal zones, the verges full of flowers.

Initially driving through forest and flower rich meadows, at about 2,000m we were above the tree line, with fine vistas all around. Common Spotted Orchids, *Oxytropis campestris*, *Gypsophila repens*, and *Orobanche gracilis* were among the many flowers on the roadsides. The road was already busy with cyclists and bikers. Ring Ouzel was seen shortly below the pass.

Having reached the pass we set out on foot and walked slowly towards the bulk of Nuvolau, enjoying stunning views down the valley to Cortina, and a sublime mountain backdrop in all directions. It took a long time to even get out of the car park, as the acid sward here held many fine flowers. The first plant to grab our attention was Alpine Pasque Flower still in flower, and also Spring Pasque Flower, and there was very much *Geum montanum* this year, and much *Androsace obtusifolia*. Spotted Gentians were just blooming and there were many Trumpet Gentians.

We moved very slowly along the narrow path admiring the fine floral show. The display of orchids was impressive, with Fragrant Orchids, Small White Orchids, and *Dactylorhiza majalis*. *Homogyne alpina* was here, the tiny *Thesium alpinum* was a good find, and the mats of Creeping Azalea were still in bloom this year. There were many *Soldanella pusilla*, of which we would see vast numbers today.

Eventually we reached limestone boulders that supported fine rock gardens. Among the beautiful species here were Pink Cinquefoil, *Saxifraga paniculata, Achillea clavennae*, Mossy Sandwort, Moss Campion, *Paederota bonarota, Phyteuma sieberi, Viola biflora, Draba dubia, Valeriana saxatilis, Daphne striata* and *Erigeron neglectus. Dryas octopetala* was commonly in flower and creeping here and there on the ground and rocks were Least Willow, Retuse-leaved Willow, and Thyme-leaved Willow.

Further along the geology changed and *Rhododendron ferrugineum* was replaced by *Rhododendron hirsutum*, a calcicole, and we found *Rhodothamnus chamaecistus* in abundant fine flower. *Ranunculus hybridus* with its distinctively shaped leaves was in flower this year, but a search failed to locate the *Pedicularis rosea* that we usually see here. *Pinus cembra* was a feature, Redpoll sang atop the larches, and wet flushes had much Bird's-eye Primrose.

The display flight song of Water Pipits was a constant accompaniment, we had distant views of Alpine Choughs, and Dewy Ringlet was on the wing. We made our way back to the refuge where we used the facilities.

I drove some way towards Cortina to get away from the crowds, mainly the cyclists and bikers. We found a suitable forest site where I set out the lunch. Among the plants here was *Anemone trifolia*.

Another stop just below the col usually has *Gentiana bavarica* and *Pedicularis recutita*, although neither was in flower this year. A rocky slope supported much Roseroot and there were swathes of *Soldanella pusilla*. There was also much *Primula minima* in flower.

Boulders on the other side of the pass had a few Edelweiss, a good find was *Primula auricula* still just in flower, and here too was the only *Nigritella rubra* seen this year.

At the last stop of the day were a few more of the special Single-leaved Bog Orchid, *Malaxis monophyllos*. Having walked to a picturesque small village, a great surprise came when we heard a Corncrake calling loudly from a tall grassy meadow, a species we had never recorded in the area before.

Day 6 Tuesday 28th June

Fedaia

Another superb day was spent exploring predominantly igneous rock outcrops near a refugio, to which we were driven in a four wheel drive by the refuge owners. The weather was superb all day, ideal for this excursion. We were driven up in two shifts. Whilst waiting for the second transfer, Rob, Julia, and I saw saw Crossbill, Chamois, Small Blue, and Dingy Skipper.

Once all together at the refuge we enjoyed the simply sublime views in all directions. There was much snow on Marmolada, and a whole complex series of peaks and valleys all around us. After a quick coffee etc. at the refuge we set out to explore. *Gentiana brachyphylla* was in amazing form here today, although the *Papaver aurantiacum* was only just coming into flower. There were *Draba aizoides, Arabis alpina, Linaria alpina, and Androsace obtusifolia.* Almost immediately the first King of the Alps was found in superb flower, and this always very special plant was extremely numerous up here today, more seen than ever before on the tour.

This was particularly appreciated by Rachel, it being her main target plant, never having seen it. The same acidic rocks had much *Saxifraga exarata*, *Minuartia recurva*, and *Silene exscapa*. There were several *Primula halleri* in flower.

Alpine Choughs were much in evidence around the refuge. Water Pipits sang, Black Redstart was a feature, and pleasingly both Snow Finches and Alpine Accentors were seen. Marmots were as always characterful.

Our walk was punctuated by many more flowers, especially on the rocky outcrops. *Minuartia sedoides* was in fine form, as were Trumpet Gentians and Net-leaved Willow, and *Artemisia genipi* was a pleasing find, although in leaf this year. King of the Alps continued superb. There were amazing numbers of Snowdon Lily this year, and much *Primula minima* in flower. Dewy Ringlets and Woodland Ringlets were on the wing.

At the furthest point we reached were superb *Geum reptans* and *Ranunculus glacialis*, and *Thlaspi rotundifolium* on one open slope. Saxifraga depressa and Saxifraga oppositifolia were both in flower. Also seen were Alpine Clubmoss, Chamois Cress, Draba siliquosa, and Ligusticum mutellinoides. Very fine cushions of Androsace alpina were a feature this year and there was also very much Androsace vitaliana. There were many more fine Soldanella pusilla and several Soldanella alpina. In the turf were Ranunculus kuepferi and Pulsatilla alpina.

We enjoyed a very good alpine lunch in the refuge and in the afternoon set out in the opposite direction from our morning walk. Among new species seen were Early Purple Orchids, *Saxifraga bryoides*, *Astragalus alpinus* and *Sempervivum montanum*. The boulders had much more King of the Alps. Interesting were several calcicoles on the acidic boulders and turf, such as *Sedum atratum carinthiacum*, *Potentilla nitida*, *Rhododendron hirsutum*, and *Daphne striata*. Marmots whistled and cavorted on the rocky slopes. The views of Marmolada continued sublime.

Back at the refuge there was the choice of taking the 4WD down, which most did, or to walk, which Cecilia and I opted for. On the way down we saw fine rosettes of *Sempervivum wulfenii*, and a number of Martagon Lilies in bud.

Day 7 Wednesday 29th June Gares, San Lucano, and Agordo

A rather different day today saw us visiting some sites to the south at lower altitudes, which produced a wealth of new plants and butterflies. The weather was again fine and sunny.

Initially we drove past the large reservoir at Alleghe, to Gares where a small circular path leads through boulder strewn forest. The woods were full of ferns with Oak and Beech Fern being particularly common, *Dryopteris expansa*, and *Cystopteris sudetica* in fine form. Boulders had Yellow Wood Violets, Alpine Clematis, much Interrupted Clubmoss, *Rosa pendulina*, and fruiting Alpine Butterwort. There were some beautiful *Moneses uniflora* in flower. Herb Paris and *Chrysosplenium alternifolium* were under the trees, and a lone *Streptopus amplexifolius*. Comma was seen.

On the nearby river gravels were *Papaver aurantiacum*, *Parnassia palustris*, *Oxytropis jacquinii*, *Gypsophila repens*, and *Saxifraga rotundifolia*. The poppy was at rather a low altitude, the seed having been washed down by the river. After much searching I had almost given up on re-locating the very local endemic crucifer *Rhizobotrya alpina* that I had first found here two years ago. But Rachel had found something unusual, and returning to check that, which was indeed the *Rhizobotrya*, yielded another two plants as well. Although not a particularly striking plant it is a significant record, and is the only member of its genus. Clouded Apollo was a bonus.

Roadsides had almost black flowered *Phyteuma ovatum*, and *Phyteuma betonicifolium*. The meadows had many Orange Lilies, and one village had extremely robust *Campanula latifolia*, although this was in bud this year. Sweet William was in flower. Orange-tip was still on the wing, and a great find was an Asian Fritillary, a fine individual that we stayed with for some time, it taking a particular liking to Julia, settling on her for some minutes!

Next we continued south to San Lucano where very impressive sheer cliffs rise up on each side of the narrow verdant valley. The small lake here has been much 'sanitised', with a paved path and fences installed. Here I set out the lunch, which we enjoyed in this peaceful location, and even a group who arrived for a barbecue were quiet enough and friendly. Whilst I was setting out the picnic the group admired and photgraphed two superb Purple Emperors that were landing on the track, and on us.

Here were several things of interest, including *Melampyrum nemorosum*, *Lonicera alpigena*, Dark Red Helleborines, and *Gymnadenia odoratissima*. It was pleasing to see Woodland Brown here in what is another reliable site for this often scarce species. Swallowtail, White Admiral and Silver-washed Fritillary were here too. In the lake were a few Brown Trout, and Emperor Dragonflies patrolled.

Driving away from here a great surprise and highligt came when a Hazel Dormouse, abroad in the mid day sun, ran across the road in front of us. Some of us at least saw it well but briefly. Our next stop was a little further up the valley near the river which we pottered slowly towards. The Ostrich Ferns here were very impressive being as tall as most of us, and Herb Paris grew in the woods. Idas Blue and Provencal Fritillary were among the butterflies.

A drive west of Agordo took us through more fine scenery and characterful villages, and Red-backed Shrike was seen.

A boulder near the hotel had various stonecrops including *Sedum telephium*, and Large Yellow Foxglove.

Day 8 Thursday 30th June Marmolada, Fedaia, and Serrai di Sottoguda

The weather was fine as we set out for Marmolada. In Sottoguda a brief shopping stop allowed a quick stroll around this interesting old village, with a collection of scarecrows a feature this year. A short drive took us over the Fedaia Pass and to the large reservoir at the base of Marmolada. As we walked towards the cage lift, on rocks were fine Alpine Butterwort in flower, many fine *Silene alpestris*, Net-leaved Willow, *Veronica aphylla*, *Achillea atrata*, and *Arabis bellidifolia*.

We all took the open cage lifts up to a refugio at 2626m. It's always a great experience standing in the open cages of this 'chair lift', either alone or in pairs, and admiring the superb vistas, and the changing vegetation below as one slowly ascends to the high alpine environment. There was of course still much snow on the mountain today, but much less than on recent visits and our exploration at the top was mainly on open limestone with only occasional snow patches, where recently the opposite has been the case. The sun shone and we were soon removing our extra layers, put on in anticipation of cold weather at this high altitude. Flowers seen on the way up included *Silene acaulis* and *Gentiana orbicularis*. Snow Finch met us at the top, later settling on the moving cables of the cage lift.

As always I insisted on an acclimatisation stop in the refuge, not a hardship as they serve very good tea, coffee, hot chocolate, and cakes! We admired the superb vistas all around, of the Sella group, Cuch, etc. Alpine Choughs were much in evidence.

After the refreshments and a general sense of delight at being in such a wonderful place, we set out for a short excursion across the snow and slopes to find some plants. Plants are always few and far between up here, but those we see are very special. Today they were somewhat backward, but there was very much of the very attractive *Thlaspi rotundifolium*, a lone *Arabis caerulea*, *Arabis bellidifolia*, and *Arabis alpina*. *Saxifraga oppositifolia* was in flower, but there was no *Saxifraga sedoides* or *Saxifraga androsacea* this year. *Salix serpyllifolia* formed mats, and Small Tortoiseshell was the only butterfly on the wing at this altitude.

Having enjoyed a marvellous visit to this different world, it was time to descend in the chair lift.

At a slightly lower altitude, we explored a meadow just below the Passo Fedaia. Marmots were much in evidence here, where is a strong colony. In the meadow were many showy plants including *Centaurea nervosa* in bud, very many Lesser Butterfly Orchids, *Nigritella rhellicani, Traunsteinera globosa*, Martagon Lilies, and Small White Orchids. There was a lone *Pedicularis tuberosa* in flower. Of note was a hybrid between *Nigritella rhellicani* and *Gymnadenia conopsea*. Osiris Blue was here and Yellowhammer sang continuously.

Nearby I set out the picnic, where on the slopes opposite were a number of St.Bruno's Lilies.

Another short drive took us to the Sottoguda gorge where we set out to walk the gorge. Things started fine but later came a thunder storm and we had to shelter in a cave from the remarkably heavy rain. Even the blue and white train could not rescue us! Rocks were festooned with *Saxifraga crustata*, together with fine *Paedarota bonarota*. *Phyteuma sieberi*, *Saxifraga caesia*, and Devil's Claw were all in bud. In the same community were *Kernera saxatilis*, *Potentilla caulescens* (in leaf), and *Rhamnus pumila*. *Chrysosplenium alternifolium*, and *Lonicera alpigena* were among the many other plants, and some six Lady's Slippers were still in good flower. Before the rain came we saw several False Heath Fritillaries and a male Amanda's Blue. Lewes Wave was here, a moth extinct in Britain. Dipper frequented the stream.

We finished the walk in Sottoguda village and whilst everyone enjoyed an ice cream I walked back up to collect the mini-bus. I will admit I intended to take the motorised train back up, and had bought a ticket, but as I waited alone for it to depart, the driver suddenly leapt up and rushed away. Apparently he was a fireman and had been called away to an incident. So it was on foot that I went back up the gorge!

Back in the village, in the ice cream cafe, I found a rather wet Rob and Julia, who had been ahead of us and had no cave to shelter in as the rest of us did!

Day 9 Friday 1st JulyFalzarego, Valparola, Andraz, Belvedere, Caprile

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A varied selection of sites on the last full day saw us first driving up to the Falzarego Pass, where we explored an area away from the very busy pass itself. Indeed the number of cyclists today had to be seen to be believed. There was a fine flora here, including much *Rhodothamnus chamaecistus, Pedicularis rosea*, and the only *Anemone baldensis* of the tour. I was very pleased to find the diminutive *Valeriana elongata*, with many on one rock face. Another great find was *Gentiana terglouensis* and here the *Gentiana clusii* was in bloom too. *Saxifraga androsacea* and *Achillea atrata* continued the variety. Mountain Green-veined White was on the wing. Rachel spotted two Nutcrackers working the grassy slopes, here above the tree line, and as we drove away she then spotted a soaring Golden Eagle too.

At another site we walked to a small lake where wet flushes had just one *Gentiana bavarica* in flower this year, and boulders had a few plants of Edelweiss. Only a few *Pedicularis rostratocapitata* were in flower but there were many *Pedicularis rosea*. The highlight here was superb *Chamorchis alpina*, at a site where we first found this always special species a few years ago.

I set out the lunch near Andraz Castle where wet flushes had *Juncus triglumis*, Woodland Ringlet was on the wing, and Nutcrackers were in more typical habitat. A walk to the castle itself yielded Large Blue and Sooty Copper.

The Belvedere viewpoint gave fine views down to Caprile, and several new plants such as *Linaria angustissima*, *Sorbus austriaca*, *Asplenium septentrionale*, *Peucedanum verticillare*, and *Juniperus sabina*. A lone Apollo was on the wing.

There followed a short stop to sort some practicalities in Caprile, and Crown Vetch was added to the list.

A last plant session before dinner completed the list of some 1,000 species! Dinner was as always excellent and we were all sad the trip had come to an end.

Day 10 Saturday 2nd July

Departure

An early start was necessary for the drive to Venice Airport, but as usual the excellent hotel had prepared an early breakfast for us. The journey went smoothly, and we arrived on schedule. We had enjoyed a superbly productive tour, and it had been a marvellous group, and we said our fond farewells before going our separate ways. Rob and Julia, and Miriam and Talma were flying today, whilst I drove Rachel and Cecilia to a very pleasant rural hotel for their extra day to explore Venice. I set off east to Slovenia where I was to spend a few days exploring a different part of that country to the one we usually visit.

Dolomites Systematic Lists 2016

Compiled by Paul Cardy

Itinerary

Day 1. Thursday 23rd June. Arrival. Venice to Claut.

Day 2. Friday 24th June. Cimoliana.

Day 3. Saturday 25th June. Claut, San Osvaldo, Vajont, Dont, Passo Duran, Rocca Pietore.

Day 4. Sunday 26th June. Staulanza. Fontanafredda.

Day 5. Monday 27th June. Passo di Giau. Posalz.

Day 6. Tuesday 28th June. Fedaia.

Day 7. Wednesday 29th June. Gares, San Lucano, West of Agordo.

Day 8. Thursday 30th June. Marmolada, Fedaia, Sottoguda.

Day 9. Friday 1st July. Falzarego, Valparola, Andraz, Belvedere, Caprile.

Day 10. Saturday 2nd July. Departure.

Systematic List Number 1Plants

Nomenclature and systematic order follow 'Flora Alpina', by Aeschimann et al. Species recorded in previous years but not 2016 are annotated with the year in which they were last seen. Species added this year are annotated 2016.

A. PTERIDOPHYTA

Ferns and their allies

Lycopodiaceae		
Huperzia selago	Fir Clubmoss	Cimoliana.
Lycopodium annotinum	Interrupted Clubmoss	Cimoliana.
Lycopodium clavatum	Stag's-horn Clubmoss	Cimoliana 2015.
Diphasiastrum alpinum	Alpine Clubmoss	Fedaja.
Dipitasiasiran dipitani		
Selaginellaceae		
Selaginella selaginoides	Lesser Clubmoss	Moist limey turf and rocks, Passo di Giau,
		Cimoliana, and Serrai di Sottoguda.
Selaginella helvetica	Swiss Clubmoss	Moist mossy rocks/walls in Serrai di Sottoguda,
-		Cimoliana, and Gares.
Equisetaceae		G X 0010
Equisetum hyemale	Dutch Rush	San Lucano 2012.
Equisetum variegatum	Variegated Horsetail	Scattered records, e.g. San Lucano.
Equisetum fluviatile	Water Horsetail	Fontanafredda etc.
Equisetum palustre	Marsh Horsetail	Settimana etc.
Equisetum arvense	Common Horsetail	Scattered records, e.g. Cimoliana, Gares.
Equisetum telmateia	Giant Horsetail	Marsh Helleborine site.
Ophioglossaceae		
Botrychium lunaria	Moonwort	Giau, Fedaia, Fontanafredda, etc.
Don yennam namara	Moonwort	Giud, i edulu, i ontununeddu, etc.
Polypodiaceae		
Adiantum capillis-veneris	Maidenhair Fern	Sottoguda Gorge.
Polypodium vulgare	Common Polypody	Cimoliana, San Lucano, Sottoguda, Giau, etc.
Pteridium aquilinum	Bracken	Fontanafredda, Claut area, Gares, Duran, etc.
Oreopteris limbosperma	Lemon-scented Fern	San Osvaldo 2013.
Phegopteris connectilis	Beech Fern	Common at Claut, Gares, Fontanafredda,
		Cimoliana, etc.
Asplenium trichomanes	Maidenhair Spleenwort	Rocks at San Lucano, Gares, Giau, Friulani
		etc.
Asplenium viride	Green Spleenwort	Limestone ledges and boulders on Passo di
		Giau, Fontanafredda, Serrai di Sottoguda,
		Settimana, Cimoliana, and at Gares.
Asplenium adiantum-nigrum	Black Spleenwort	Dolomiti Friulani.
Asplenium onopteris	Western Black Spleenwort	Serrai di Sottaguda and Gares 2010.
Asplenium septentrionale	Forked Spleenwort	Belvedere.
Asplenium seelosii	a spleenwort	Cimoliana 2014.
Asplenium ruta-muraria	Wall-rue	Rocks at Fontanafredda, Cimoliana, Claut,
		Giau, Gares, and Sottoguda.
Athyrium filix-femina	Lady-fern	Forest at Settimana, Fontanafredda, Cimoliana,
		and Gares.
Cystopteris fragilis	Brittle Bladder-fern	Sheltered rocks at Fontanafredda, Cimoliana,
		Serrai di Sottoguda, Gares, foot of Marmolada
		chairlift, etc.
Cystopteris alpina	Alpine Bladder-fern	Recorded in the past.
Cystopteris sudetica	a bladder-fern	Some fine examples at Gares.
Woodsia pulchella	a woodsia	Calcareous rocks below Passo di Giau, 2015.
Gymnocarpium dryopteris	Oak Fern	Rocky forest at Cimoliana, Gares etc.

Gymnocarpium robertianum	Limestone Fern
Matteucia struthiopteris	Ostrich Fern
Polystichum lonchitis	Holly Fern
Polystichum aculeatum	Hard Shield Fern
Polystichum setiferum	Soft Shield Fern
Dryopteris filix-mas	Male Fern
Dryopteris affinis	Scaly Male Fern
Dryopteris villarii	Mountain Fern
Dryopteris dilatata	Broad Buckler-fern
Dryopteris expansa	Northern Buckler-fern

B. CONIFEROPSIDA

Juniperus sabina

Cimoliana etc., locally common San Lucano, Gares valley. Cimoliana and Sottoguda Gorge. Claut. Cimoliana. Cimoliana. Scattered records, e.g. Sottoguda. Cimoliana 2012. Scattered records. Gares.

Belvedere, Andraz, g and Rocca Pietore.

Conifer trees and their allies

Pinaceae Abies alba	Silver Fir	Cimoliana.
Picea abies	Norway Spruce	Widespread – main forest dominant at mid-altitudes.
Larix decidua	European Larch	Frequent in middle altitudes, locally dominant just below treeline.
Pinus nigra	Austrian Pine	Dolomiti Friulani.
Pinus sylvestris	Scots Pine	Forest at middle altitudes, e.g. Friulani.
Pinus mugo	Dwarf Mountain Pine	Often dominant 1800-2100m (higher on
Pinus cembra	Arolla Pine	Marmolada), and locally down to middle levels in the understorey. Scattered, mostly at high altitude, often with latter <i>e.g.</i> Passo di Giau, Valles.
Cupressaceae Cupressus sempervirens Juniperus communis communis Juniperus communis alpina	Italian Cypress Juniper	Roadsides lower down. Dolomiti Friulani etc. Passo di Giau etc.

C. ANGIOSPERMS - DICOTYLEDONES

Savin

Aristolochiaceae		
Asarum europaeum	Asarabacca	In leaf at Col San Osvaldo.
Ranunculaceae		
Helleborus viridis	Green Hellebore	Leaves at San Boldo 2010.
Trollius europaeus	Globeflower	Widespread, common in meadows at all levels e.g.Fontanafredda, Passo di Giau,
		Duran, Cimoliana, and Passo Staulanza.
Actaea spicata	Baneberry	Leaves Cimoliana.
Caltha palustris	Marsh Marigold	Common at Fontanafredda, Duran, and
		Passo di Giau.
Aconitum lycoctonum	Wolfsbane	Widespread, e.g. Claut. [ssp. neapolitanum]
Aconitum anthora		Leaves noted 2014.
Aconitum napellus	Monk's-hood	In leaf.
Delphinium dubium		Leaves noted.
Anemone trifolia	a wood-anemone	Locally common in flower, e.g. Duran,
		Fontanafredda, and Cimoliana.
Anemone baldensis	Monte Baldo Anemone	Valparola, several still in flower this
		year.
Hepatica nobilis	Hepatica	Forest at Fontanafredda, Posalz and in
-	-	Serrai di Sottoguda. All in leaf. Also
		Dolomiti Friulani and Gares.

Pulsatilla alpina Alpine Pasque Flower Widespread and common above 1500m e.g. Fontanafredda (in fruit), Fedaia, and Passo di Giau. Pulsatilla vernalis Spring Pasque Flower Passo di Giau and Fedaia. Traveller's-joy In flower on lower roadsides. Clematis vitalba Alpine Clematis Forest margins and boulder-scree at Clematis alpina Fontanafredda, Passo di Giau, foot of Marmolada chairlift, Cimoliana, and Gares. Cimoliana, Fontanafredda, Settimana Ranunculus tuberosus a buttercup **Creeping Buttercup** Sottoguda. Ranunculus repens Friulani woods. Ranunculus lanuginosus a buttercup Ranunculus acris Meadow Buttercup Scattered. Ranunculus carinthiacus a buttercup Fontanafredda grassy slope etc. Ranunculus montanus Widespread at higher altitudes. a buttercup Ranunculus venetus a buttercup Ranunculus brevninus a buttercup Ranunculus sardous Hairy Buttercup Cimoliana 2010. Ranunculus auricomus Goldilocks Fontanafredda 2009. Ranunculus hybridus Hybrid Buttercup In flower at Giau. Ranunculus platanifolius a buttercup Common in woods at mid levels e.g. Fontanafredda, Gares, San Lucano, and below Giau. Several in flower at Fedaia. Ranunculus glacialis Glacier Crowfoot Ranunculus kuepferi a buttercup Passo di Giau and Fedaia Aquilegia vulgaris **Common Columbine** San Lucano. Dark Columbine Aquilegia atrata Scattered records, e.g. Cimoliana. Aquilegia einseleana a columbine Val Cimoliana and Settimana, locally common. Thalictrum aquilegifolium Great Meadow-Rue Cimoliana, Gares, Sottoguda, and Fedaia. Thalictrum minus Lesser Meadow-rue Scrubby ground in Serrai di Sottoguda, and Cimoliana. Locally common Dolomiti Friulani. **Berberidaceae** Cimoliana, and Gares. Berberis vulgaris Barberry **Papaveraceae** Papaver rhoeas Corn Poppy Lower altitude roadsides, and Cimoliana upper car park. Papaver aurantiacum Alpine Poppy Valparola, Gares, and Fedaia. Chelidonium majus Greater Celandine Caprile and Claut 2015. Eschscholtzia californica California Poppy Naturalised locally on roadsides, 2014. Ulmaceae Wych Elm Dolomiti Friulani. Ulmus glabra Ulmus minor an elm Dolomiti Friulani. Nettle-tree Celtis australis Venice area. Moraceae Roadsides near Venice. Ficus carica Fig Urticaceae Urtica dioica Stinging Nettle Widespread. Urtica urens Annual Nettle Cimoliana upper rocks (eutrophied!). Parietaria officinalis Common Pellitory Juglandaceae Cimolais. Juglans regia Walnut

Fagaceae		
Fagus sylvatica	Beech	The typical forest dominant below
0		1500m.
Betulaceae		
Betula pendula	Silver Birch	Dolomiti Friulani.
Alnus viridis	Green Alder	Often forming low scrub on the treeline,
		but also on forest edges lower down e.g.
		Fontanafredda, Cimoliana, below Passo
Alnus incana	Grey Alder	di Giau, and Passo di Fedaia. San Lucano, Gares, Vajont, etc.
Carpinus betulus	Hornbeam	Local, e.g. Cimoliana.
Ostrya carpinifolia	Hop Hornbeam	Locally common in Dolomiti Friulani
osirya carpingona	hop Homeeum	and Longarone area.
Corylus avellana	Hazel	Widespread.
-		1
Chenopodiaceae		
Chenopodium bonus-henricus	Good King Henry	Cattle-frequented margins at Fontanafredda,
		Cimoliana, and by car-parks at Passo di Giau
		etc.
Chenopodium album	Fat Hen	Caprile.
Atriplex patula	Common Orache	Cimoliana 2012.
Caryophyllaceae		
Arenaria huteri	a sandwort	Cimoliana, endemic. In fine flower on lower
		cliffs and river gravels.
Arenaria biflora	a sandwort	Fedaia p.m., 2012.
Arenaria serpyllifolia	Thyme-leaved Sandwort	Caprile.
Moehringia trinervia	Three-veined Sandwort	Forest at Fontanafredda, 2010.
Moehringia muscosa	Mossy Sandwort	Mossy boulders etc., in forest at Gares,
		Fontanafredda and Cimoliana etc.
Moehringia ciliata	a sandwort	Gares gravels and Valparola.
Moehringia bavarica	a sandwort	Fedaia 2012.
Minuartia recurva	Sickle-leaved Sandwort	Locally common on acid rocks, e.g. Fedaia.
Minuartia austriaca	a sandwort	Valparola.
Minuartia verna verna	Spring Sandwort	Foot of Marmolada chairlift, Fedaia, and Giau rocks, etc.
Minuartia verna collina		Apparently this subspecies at Fedaia and
miniarita verna conina		Gares?
Minuartia sedoides	Mossy Cyphel	Passo di Giau and Fedaia.
Stellaria nemorum	Wood Stitchwort	Fontanafredda and Gares.
Stellaria media	Common Chickweed	Sottoguda.
Stellaria holostea	Greater Stitchwort	Duran 2014.
Stellaria graminea	Lesser Stitchwort	Dry meadows at Fontanafredda, Settimana,
		San Osvaldo, and Cimoliana.
Cerastium cerastoides	Starwort Mouse-ear	Giau, 2016.
Cerastium tomentosum	Snow-in-Summer	Naturalised at Andraz.
Cerastium arvense	Field Mouse-ear	Widespread.
Cerastium alpinum	Alpine Mouse-ear	Cimoliana.
Cerastium uniflorum	a mouse-ear	Fedaia, in leaf.
Cerastium latifolium	a mouse-ear	Marmolada, in leaf.
Cerastium carinthiacum ssp.austr Cerastium subtriflorum	a mouse-ear	Passo di Giau, in leaf this year. Cimoliana gravels.
Cerastium fontanum	Common Mouse-ear	Scattered in lower meadows, e.g. Cimoliana.
Cerastium glomeratum	Sticky Mouse-ear	Fontanafredda and Gares.
Myosoton aquaticum	Water Chickweed	Settimana 2012.
Sagina saginoides	Alpine Pearlwort	Fontanafredda.
Sagina procumbens	Procumbent Pearlwort	Sottoguda 2012.
Scleranthus annuus	Annual Knawel	Fontanafredda.
Silene coronaria		Caprile 2010. 2012 near Vajont.

Silene flos-cuculi Silene italica Silene nutans Silene vulgaris Silene saxifraga

Silene acaulis Silene exscapa Silene rupestris

Silene pusilla

Silene veselskyi Silene dioica Gypsophila repens

Saponaria ocymoides Saponaria officinalis Petrorhagia saxifraga Dianthus barbatus Dianthus sternbergii Dianthus sylvestris Dianthus superbus

Polygonaceae Polygonum aviculare Polygonum bistorta Polygonum viviparum

Fallopia convolvulus Oxyria digyna

Rumex acetosella Rumex scutatus

Rumex alpestris Rumex acetosa Rumex alpinus

Rumex crispus Rumex conglomeratus Rumex obtusifolius

Plumbaginaceae Armeria alpina

Hypericaceae Hypericum montanum Hypericum maculatum Hypericum perforatum

Tiliaceae Tilia platyphyllos Tilia cordata

Malvaceae Malva alcea Malva sylvestris Ragged Robin Italian Catchfly Nottingham Catchfly Bladder Campion a catchfly

Moss Campion a moss campion Rock Campion

Alpine Catchfly

a catchfly Red Campion Alpine Gypsophila

Rock Soapwort Soapwort Tunic Flower Sweet William a fringed pink Wood Pink Fringed Pink

Common Knotgrass Bistort Alpine Bistort

Black Bindweed Mountain Sorrel

Sheep's Sorrel French Sorrel

Mountain Dock Common Sorrel Monk's Rhubarb

Curled Dock Clustered Dock Broad-leaved Dock

Mountain Thrift

Pale St.John's-wort Imperforate St. John's-wort Common St John's-wort

Large-leaved Lime Small-leaved Lime

Hollyhock Mallow Common Mallow

Col San Osvaldo and Cimoliana meadows. Recorded. Scattered records. Widespread. Cimoliana upper cliffs 2015. Site not reached due to climbers there this year. Limestone boulders and ledges on Passo Giau. On acidic substrates, e.g. Fedaia. Rocks and ledges e.g. Fontanafredda, Passo di Giau, Feadaia, and Dolomiti Friulani. Foot of Marmolada chairlift and Dolomiti Friulani. Cimoliana. Widespread. Widespread and locally common, e.g. Gares, Claut, and Settimana. Fontanafredda. Roadsides. San Lucano, Sottoguda, Dolomiti Friulani. Gares Valley. Val Cimoliana. Andraz, Belvedere, and Vajont. Near Gares, and Valles roadsides, 2015.

Verges at Fontanafredda etc. Recorded. Grassland at Fontanafredda, Staulanza, Passo di Giau, Fedaia, and Dolomiti Friulani. Val Cimoliana 2010. Scree on Col de Cuch and Passo di Giau 2010. Fedaia 2014. Fedaia. Passo di Fedaia, and Dolomiti Friulani. Fontanafredda and Giau. Widespread. Frequent in eutrophied pasture, etc., e.g. Fontanafredda and Passo di Fedaia. Recorded. Cimoliana 2016. Recorded.

Falzarego and Marmolada.

Dolomiti Friulani, in leaf. In leaf. Dolomiti Friulani.

Vajont 2012. Roadsides lower down.

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Cistaceae Helianthemum nummularium

Helianthemum alpestre Helianthemum canum canum

Violaceae Viola riviniana Viola canina Viola palustris Viola biflora

Viola tricolor Viola arvensis Viola kitaibeliana

Tamaricaceae Myricaria germanica

Salicaceae Salix pentandra Salix alba Salix reticulata

Salix herbacea

Salix retusa Salix serpyllifolia Salix breviserrata

Salix alpina

Salix glaucosericea

Salix myrsinifolia

Salix mielichhoferi Salix glabra Salix appendiculata

Salix cinerea Salix caprea

Salix foetida Salix waldsteiniana Salix hastata Salix elaeagnos

Salix purpurea

Populus alba Populus tremula

Brassicaceae

Descurainia sophia Erysimum rhaeticum Barbarea vulgaris Armoracia rusticana Common Rockrose

Alpine Rockrose Hoary Rockrose

Common Dog Violet Heath Dog Violet Bog Violet Yellow Wood Violet

Heartsease Field Pansy Dwarf Pansy

German Tamarisk

Bay Willow White Willow Net-leaved Willow

Least Willow

Retuse-leaved Willow Thyme-leaved Willow Finely-toothed Willow

a willow

Silky Willow

Dark-leaved Willow

a willow Alpine Willow an alpine willow

Grey Willow Goat Willow

Fishy Willow a willow Large-stipuled Willow a willow

Purple Osier

White Poplar Aspen

Flixweed a Treacle Mustard Common Winter-cress Horse-radish Dolomiti Friulani, Fontanafredda etc. Passo di Giau. Limestone rocks at Fontanafredda.

Fontanafredda. Fontanafredda 2010. In flower at Fontanafredda. Widespread in shade and among rocks e.g. at Fontanafredda, Passo di Giau, Fedaia, Gares, Cimoliana. Rocca Pietore. Belvedere. Cimolais 2011.

River gravels at Caprile, 2012.

Gares. San Luc

San Lucano and roadsides lower down. Frequent on limestone rocks and screes on Passo di Giau, Fedaia, Valparola, and foot of Marmolada chairlift. Drier exposed acidic ridges Fedaia, Passo di Giau, and Valparola. Limestone, Passo di Giau, and Fedaia. Passo di Giau. Fedaia. Limestone boulder waste and scree on Passo di Giau. Scree and rocks high on Fedaia, Giau, and Marmolada. Grassy slopes below Refugio Fredarola, 2010. Scattered records at mid-altitudes, e.g. Cimoliana. Marmolada, Giau.

Scattered records, e.g. Cimoliana and Vajont. San Lucano. Forest edge at Fontanafredda, San Lucano, Dolomiti Friulani.

Dolomiti Friulani, locally common. Col de Cuch 2010. River gravels of San Lucano, and Dolomiti Friulani. Scattered, e.g. San Lucano, Vajont, and Dolomiti Friulani. Towards Venice. Forest edges San Lucano, Dolomiti Friulani, etc.

Gares 2014. Andraz, Fedaia, Sottoguda. Fontanafredda. Caprile 2010.

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Cardamine pentaphyllos Cardamine enneaphyllos Cardamine amara

Cardamine resedifolia Cardamine impatiens Cardaminopsis halleri Arabis hirsuta Arabis turrita Arabis caerulea Arabis bellidifolia Arabis subcoriacea Arabis alpina Arabis sp. Draba aizoides Draba hoppeana

Draba dolomitica Draba siliquosa Draba dubia Draba fladnizensis Kernera saxatilis Rhizobotrya alpina

Capsella bursa-pastoris Pritzelago alpina

Hymenolobus pauciflorus Thlaspi arvense Thlaspi rotundifolium

Aethionema saxatile Biscutella laevigata

Diplotaxis muralis

Resedaceae Reseda lutea

Ericaceae Erica carnea

Calluna vulgaris Rhododendron ferrugineum

Rhododendron hirsutum

Rhodothamnus chamaecistus Loiseleuria procumbens Arctostaphylos uva-ursi

Vaccinium vitis-idaea

Vaccinium uliginosum

Five-leaflet Bittercress Drooping Bittercress Large Bittercress

Mignonette-leaved Bittercress Fine-leaved Bittercress

Hairy Rock-cress Tower Cress Blue Arabis a rockcress a rockcress Alpine Rockcress a rockcress Yellow Whitlow Grass a whitlow grass

a whitlow grass Carinthian Whitlow Grass Austrian Whitlow Grass Arctic Draba Kernera

Shepherd's-purse Chamois Cress

Field Pennycress Round-leaved Pennycress

Burnt Candytuft Buckler Mustard

Annual Wall-rocket

Yellow Mignonette

Spring Heath

Heather or Ling Alpenrose

Hairy Alpenrose

Dwarf Alpenrose Creeping Azalea Bearberry

Cowberry

Bog Whortleberry

Leaves in Sottoguda. In fruit at Cimoliana. Spring marsh at Fontanafredda, Gares, and gully at Passo di Giau, etc. Giau and Fedaia. Sottoguda. Fontanafredda 2009. Recorded. Recorded. Marmolada, only 1 in flower this year. Marmolada, Sottoguda, Falzarego, Giau. Below Giau 2015. Fedaia, Marmolada, Gares. Another species at San Osvaldo. Fedaia. This was the species in flower on Marmolada, 2015. Sella Cable Car 2008. 1 plant at Fedaia. Passo di Giau, and Fedaia. 1 at Fedaia, 2014. Andraz and Giau. 3 plant on Gares gravels, where first found two years ago. Central Alps endemic. Scattered, e.g. Rocca Pietore. Cimoliana, Fedaia, Passo di Giau, and Gares river gravel. Cimoliana. Recorded 2012. Many in flower Marmolada, also Fedaia and Gares gravels. Claut dinosaur footprint site. Rocky meadows e.g. Fontanafredda, Passo di Giau, Fedaia, and Friulani. Caprile gravels 2012.

Cimoliana.

Widespread in open forest at Fontanafredda, in boulder waste on Passo di Giau, and Dolomiti Friulani. Many in flower this year. Fontanafredda. Patches on more leached grassland at Passo di Giau, where numerous, Fedaia, and Fontanafredda. Local on limestone e.g. Passo di Giau, Marmolada, Serrai di Sottoguda, and common in Dolomiti Friulani. Boulder waste on Passo di Giau, many in flower this year, and Falzarego. In flower this year on Passo di Giau. In leaf Cimoliana. Scattered in forest at Fontanafredda Cimoliana, Giau, and Gares etc. Scattered on leached grassland on Passo di Giau, Valparola, and Fontanafredda.

Vaccinium myrtillus

Pyrolaceae

Pyrola minor Pyrola media Pyrola rotundifolia Orthilia secunda Moneses uniflora Monotropa hypopitys

Primulaceae

Primula elatior Primula veris Primula farinosa

Primula halleri Primula glutinosa

Primula minima

Primula auricula

Androsace vitaliana Androsace obtusifolia Androsace villosa

Androsace alpina Soldanella pusilla

Soldanella minima Soldanella alpina Cyclamen purpurascens Lysimachia nummularia Anagallis arvensis

Crassulaceae Sempervivum wulfenii Sempervivum arachnoideum Sempervivum montanum Sempervivum dolomiticum

Sedum telephium Sedum montanum Sedum rupestre Sedum acre Sedum alpestre Sedum sexangulare Sedum album Sedum dasyphyllum Sedum atratum

Rhodiola rosea

Saxifragaceae Saxifraga rotundifolia

Saxifraga caesia

Bilberry

Lesser Wintergreen Intermediate Wintergreen Round-leaved Wintergreen Nodding Wintergreen One-flowered Wintergreen Yellow Bird's-nest

Oxlip Cowslip Bird's-eye Primrose

Long-flowered Primrose a primrose

Least Primrose

Bear's-ear

Vitaliana Blunt-leaved Rock-jasmine a rock-jasmine

Alpine Rock-jasmine Dwarf Snowbell

Least Snowbell Alpine Snowbell Sowbread Creeping Jenny Scarlet Pimpernel

Cobweb Houseleek Mountain Houseleek Dolomitic Houseleek

Orpine a stonecrop Rock Stonecrop Biting Stonecrop a stonecrop White Stonecrop Thick-leaved Stonecrop Dark Stonecrop

Roseroot

Round-leaved Saxifrage Blue Saxifrage Forest at Fontanafredda and among boulders on Passo di Giau. Also Dolomiti Friulani.

Valparola, Gares in flower. Noted in fruit 2014. Below Staulanza. Fine at Cimoliana. Below Staulanza. Below Staulanza and Gares. San Osvaldo 2011.

1 in flower at Giau. Gone over this year. Cimoliana, Passo di Giau, Fontanafredda, etc. Several on Fedaia. Many in fine flower at S.Pellegrino in 2014. Many in flower Passo di Giau and Fedaia. 1 still in flower below Passo di Giau, others in fruit Many in flower at Fedaia. Common on Fedaia, also Giau. This species at Fedaia, but apparently on acidic substrate? 2014. Several at Fedaia, in fine flower. Abundantly in flower Passo di Giau. Common at Fedaia. Several at Falzarego. Falzarego, Passo di Giau, and Fedaia. Dolomiti Friulani. At the service station on the last day. Venice airport etc.

Several in leaf at Fedaia. Scattered on rocks 2014. Fedaia. Ledges on Passo di Giau in the past. In flower at Fedaia 2012. Belvedere and Rocca Pietore, in leaf. Rocca Pietore. In leaf. Scattered, e.g. Cimoliana. Giau. In leaf at Cimoliana and Vajont. Rocca Pietore. Rocca Pietore. Both nominate (Fontanafredda) and ssp. carinthiacum (Fedaia). Locally common, e.g. Passo di Giau, Fedaia.

Rocky forest at Fontanafredda, Gares, and Cimoliana. Sottoguda gorge, Marmolada, and Valparola. Saxifraga squarrosa Saxifraga oppositifolia Saxifraga crustata Saxifraga hostii

Saxifraga paniculata Saxifraga bryoides Saxifraga aizoides

Saxifraga exarata

Saxifraga androsacea Saxifraga depressa Saxifraga facchini

Saxifraga sedoides Chrysosplenium alternifolium Parnassia palustris Ribes petraeum

Rosaceae

Spiraea decumbens Aruncus dioicus Filipendula vulgaris Filipendula ulmaria Rubus fruticosus agg. Rubus saxatilis Rubus idaeus Rubus phoenicolasius Rubus caesius Rosa glauca Rosa pendulina Rosa montana Rosa canina Rosa tomentosa Agrimonia eupatoria Aremonia agrimonoides Sanguisorba minor Dryas octopetala

Geum reptans Geum montanum

Geum rivale Geum urbanum Potentilla anserina Potentilla recta Potentilla crantzii

Potentilla aurea

Potentilla neumanniana Potentilla erecta Potentilla reptans Potentilla caulescens a saxifrage Purple Saxifrage Encrusted Saxifrage a saxifrage

Livelong Saxifrage Mossy Saxifrage Yellow Mountain Saxifrage

Musky Saxifrage

Scree Saxifrage a saxifrage a saxifrage

a saxifrageMarmolada, several irAlternate-leaved Golden-saxifrageGares and Sottoguda.Grass-of-ParnassusGares gravels and FedRock RedcurrantSerrai di Sottoguda, A

a spiraea Goatsbeard Spiraea Dropwort Meadowsweet Bramble Rock Bramble Raspberry a bramble Dewberrv Blue-leaved Rose Alpine Rose Mountain Rose Dog Rose Harsh Downy-rose Agrimony **Bastard Agrimony** Salad Burnet Mountain Avens

Creeping Avens Mountain Avens

Water Avens Herb Bennet Silverweed Sulphur Cinquefoil Alpine Cinquefoil

Golden Cinquefoil

a cinquefoil Tormentil Creeping Cinquefoil Lax Potentilla

Cimoliana river gravels. In flower at Fedaia and Marmolada. Sottoguda gorge and Gares. 2010, many fine examples on Monte Grappa. 2016 rosettes near Avoscan. Widespread and locally common. A few at Fedaia, in bud. By stream below Passo di Giau, and scattered elsewhere, e.g. Settimana, Falzarego, and Gares. Common on ledges on Passo di Giau, and Fedaia. [sspp. *exarata* and *moschata*] 1 at Falzarego. Several in flower on Fedaia. Crevices and scree high on Marmolada 2012. Marmolada, several in flower 2015. Gares gravels and Fedaia. Serrai di Sottoguda, Andraz, Gares, and below Fedaia. Not noted 2015 or 2016!

sspp.decumbens and hacquetii at Cimoliana. Widespread. Cimoliana. Venice roadsides. Scattered records. Cimoliana and San Lucano. Dolomiti Friulani and Fontanafredda. San Lucano 2010. Cimoliana. Cimoliana, Rocca Pietore, Belvedere. Gares Scattered, e.g. Posalz, Cimoliana, and Gares. Settimana etc. Sottoguda. Drier verges at lower altitudes. Settimana 2013. Vaiont. Widespread on limestone. Passo di Giau, Staulanza, Fedaia, Falzarego, Valles, Marmolada, and Dolomiti Friulani. Fedaia in fine flower. Numerous on Passo di Giau and Fedaia. Also Fontanafredda. Scattered records, e.g. Cimoliana. Rocca Pietore. Caprile 2013. San Lucano 2010. Limestone grassland at Fontanafredda, Giau. etc. Widespread and common in more acid grassland and margins of forest. E.g. Fontanafredda.

Widespread, e.g. Cimoliana. Cimoliana. Rocks in Serrai di Sottoguda and Cimoliana, in leaf.

Potentilla nitida

Sibbaldia procumbens Fragaria vesca Fragaria moschata Fragaria viridis

Alchemilla alpina Alchemilla splendens Alchemilla hybrida Alchemilla xanthochlora Alchemilla glabra Sorbus aucuparia Sorbus chamaemespilus Sorbus aria Sorbus austriaca Amelanchier ovalis Cotoneaster horizontalis Cotoneaster integerrimus Crataegus monogyna Prunus spinosa Prunus avium

Fabaceae

Laburnum anagyroides Cytisus nigricans Chamaecytisus purpureus Chamaecytisus hirsutus Genista tinctoria Genista radiata Robinia pseudoacacia Galega officinalis Astragalus cicer Astragalus hypoglottis gremlii Astragalus penduliflorus Astragalus alpinus Astragalus australis Astragalus glycyphyllos Oxytropis jacquinii

Oxytropis neglecta Oxytropis campestris

Vicia cracca Vicia sylvatica Vicia sepium Lathyrus vernus Lathyrus ochraceus Lathyrus pratensis

Lathyrus sylvestris Lathyrus latifolius Lathyrus heterophyllus Ononis spinosa

Ononis repens Melilotus altissimus Melilotus officinalis Melilotus albus

Pink Cinquefoil

Sibbaldia Wild Strawberry a strawberry a strawberry

Alpine Lady's-mantle a lady's-mantle a lady's-mantle a lady's-mantle a lady's-mantle Mountain Ash Dwarf Medlar Whitebeam a whitebeam Snowy Mespilus Wall Cotoneaster Wild Cotoneaster Hawthorn Blackthorn Wild Cherry

Laburnum Black Broom Purple Broom Hairy Broom Dyer's Greenweed Southern Greenweed False Acacia Goat's-rue Wild Lentil

Mountain Lentil Alpine Milk-Vetch Southern Milk-Vetch Wild Liquorice Mountain Milk-Vetch

a milk-vetch Yellow Milk-Vetch

Tufted Vetch Wood Vetch Bush Vetch Spring Vetchling

Meadow Vetchling

Narrow-leaved Everlasting-pea Broad-leaved Everlasting-pea

Spiny Restharrow

Common Restharrow Tall Melilot Ribbed Melilot White Melilot

Quite common on limestone boulders on and below Passo di Giau, in fine flower. In leaf Valparola. A few S.Pellegrino 2014. Shade at mid-levels. Recorded. Dry grassland and forest edge at Cimoliana etc. Passo di Giau. Cimoliana. Passo di Giau. Scattered, e.g. Passo di Giau. Scattered records, e.g. Staulanza. Widespread. Cimoliana. Recorded. Cimoliana and Belvedere. In fruit at Cimoliana. Naturalised at Vajont, 2016. Giau 2014. Cimoliana and San Lucano.

Cimoliana.

Scattered records. Dolomiti Friulani. Several still in flower in Val Cimoliana. Fontanafredda, locally common. San Osvaldo and Dolomiti Friulani. Claut. Andraz area. Roadsides 2014. Day 9 in 2008. Andraz 2014. Aquileia 2012. Fedaia. Gares gravels. Cimoliana in flower. In leaf at Giau, in flower Gares gravels, 2015. Passo di Giau 2012. Scattered, e.g. below Passo di Giau, Fedaia, and Andraz. Widespread on roadsides. Saxifraga hostii site. Scattered records e.g.Andraz. In fruit Fontanafredda. Duran. Scattered in meadows e.g. Dolomiti Friulani, and San Lucano. San Lucano. Recorded. Pecol 2012. Dolomiti Friulani, San Lucano etc. 2012. Duran 2014. San Lucano 2012. Scattered records. Recorded. Caprile.

Medicago lupulina Medicago sativa Medicago falcata Trifolium alpinum Trifolium montanum

Trifolium repens Trifolium pallescens Trifolium thallii Trifolium hybridum Trifolium badium Trifolium aureum Trifolium pratense Trifolium medium Trifolium alpestre Trifolium rubens Lotus corniculatus Lotus alpinus

Lotus maritimus

Anthyllis vulneraria Coronilla vaginalis Securigera varia Hippocrepis emerus Hippocrepis comosa Hedysarum hedysaroides Onobrychis montana Onobryychis arenaria Onobrychis viciifolia

Elaeagnaceae Hippophaë rhamnoides

Lythraceae Lythrum salicaria

Thymelaeaceae

Daphne laureola Daphne mezereum

Daphne cneorum Daphne striata

Onagraceae

Circaea alpina Oenothera glazioviana *Oenothera* sp. Epilobium angustifolium Epilobium dodonaei Epilobium hirsutum Epilobium montanum Epilobium alpestre

Epilobium obscurum Epilobium anagallidifolium Epilobium alsinifolium

Black Medick Dolomiti Friulani etc. Lucerne Belvedere. Sickle Medick Vajont. Alpine Clover Mountain Clover Fedaia. White Clover Common. Giau. Thale Cress Giau. Alsike Clover Giau. Brown Clover Large Trefoil Falzarego 2011. Red Clover Common. Zigzag Clover San Lucano. Recorded. Roadsides, Dont. Common Bird's-foot-trefoil Alpine Bird's-foot-trefoil Giau. Dragon's-teeth maritimus). Kidney-vetch In leaf 2014. Crown-vetch False Senna Horseshoe-vetch Valparola. Alpine Sainfoin Andraz. Mountain Sainfoin Recorded 2015. Hungarian Sainfoin Dolomiti Friulani etc. **Common Sainfoin** Sea-buckthorn Purple Loosestrife Roadsides near Venice. Spurge-laurel Mezereon Friulani. Garland Flower Giau. Fedaia. a garland flower Alpine Enchanter's Nightshade Woods. Large-flowered Evening Primrose Lower roadsides. an evening primrose Rosebay Willowherb Widespread. a willowherb Greater Willowherb Broad-leaved Willowherb Whorled-leaved Willowherb

Short-fruited Willowherb Pimpernel-leaved Willowherb Chickweed Willowherb

Fontanafredda and Passo di Fedaia. Meadows at Fontanafredda and Dolomiti Friulani, Giau, and below Fontanafredda and Passo di Giau. Widespread in grassland. Widespread above 2000m e.g. Passo di At the *Epipactis palustris* site, and rest stop en route to Venice. (Tetragonolobus Widespread, various subspecies present. Claut, Rocca Pietore, Caprile gravels. Cimoliana and Settimana. Widespread and locally common.

In fruit at San Lucano and Dolomiti Passo di Giau in fine flower.

East of Longarone 2015. Dolomiti Friulani, in leaf. Roadsides lower down. Cimoliana, Belvedere, etc. Forest margins at Fontanafredda, Serrai di Sottaguda, and Duran. River gravel at Gares. Giau lunch site marsh, 2012. Fontanafredda 2011.

Cornaceae		
Cornus sanguinea	Dogwood	
Santalaceae		
Thesium pyrenaicum	Pyrenean Bastard Toadflax	Recorded 2013.
Thesium alpinum	Alpine Bastard Toadflax	Dry grassland at Fontanafredda,
		Settimana, Posalz, Gares, Giau, etc.
Thesium rostratum	a bastard toadflax	Cimoliana, Vajont, and Settimana.
Celastraceae	0.1.11	
Euonymus europaeus	Spindle	
Euphorbiaceae		
Mercurialis perennis	Dog's Mercury	Scattered records in leaf.
Euphorbia dulcis	Sweet Spurge	San Lucano 2014.
Euphorbia helioscopia	Sun Spurge	San Lucano.
Euphorbia nerioscopia Euphorbia peplus	Petty Spurge	Cimolais 2012.
Euphorbia triflora ssp.kerneri	a spurge	Cimoliana and Vajont.
Euphorbia cyparissias	Cypress Spurge	Cimoliana.
Euphorbia amygdaloides	Wood Spurge	Monte Grappa lunch site 2010.
Lupitorola amygaalolaes	ii ood spuige	filonie Orappu lunen site 2010.
Rhamnaceae		
Rhamnus saxatilis	Rock Buckthorn	Passo Pordoi 2010.
Rhamnus cathartica	Buckthorn	Cimoliana.
Rhamnus alpina ssp.fallax	Alpine Buckthorn	Dolomiti Friulani.
Rhamnus pumila	Dwarf Buckthorn	Cimoliana, Giau, Rocca Pietore,
-		and Sottoguda.
Frangula alnus	Alder Buckthorn	San Lucano.
Vitaceae		
Parthenocissus quinquefolia	Virginia Creeper	This species Longarone cliffs?
Linaceae		
Linum viscosum	Sticky Flax	Recorded.
Linum tenuifolium	a flax	Vajont.
Linum catharticum	Purging Flax	Scattered records, locally common.
		Seatered records, rocarly common.
Polygalaceae		
Polygala chamaebuxus	Shrubby Milkwort	Fontanafredda, Cimoliana, and Staulanza.
Polygala nicaeensis	Nice Milkwort	Cimoliana, ssp.forojulensis.
Polygala vulgaris	Common Milkwort	Scattered records. ssp.oxyptera on Gares
		gravels.
Polygala alpestris	Mountain Milkwort	Fontanafredda.
Polygala amarella	Dingy Milkwort	Rocky grassland at Fontanafredda and
		Passo di Giau, etc.
Polygala alpina	Alpine Milkwort	Apparently this Fedaia, but out of range,
		2016?
1.0000000		
Aceraceae Acer platanoides	Norway Maple	
Acer campestre	Norway Maple Field Maple	Recorded.
Acer campestre Acer pseudoplatanus	Sycamore	Cimoliana.
Acer opalus	Italian Maple	Apparently this species at Gares,
πει οραιος	nunan mapic	but out of range?
		out out of funge.

'Closed road' cliffs 2015. Scattered in leaf.

a sorrel

Wood Sorrel

Oxalidaceae

Oxalis stricta

Oxalis acetosella

Geraniaceae Geranium sanguineum

Geranium sylvaticum

Geranium nodosum Geranium phaeum

Geranium pyrenaicum Geranium rotundifolium Geranium robertianum

Balsaminaceae Impatiens parviflora Impatiens glandulifera

Apiaceae

Sanicula europaea Chaerophyllum hirsutum Chaerophyllum villarsii Chaerophyllum aureum Anthriscus sylvestris Anthriscus nitida Myrrhis odorata Pimpinella major

Pimpinella saxifraga Aegopodium podagraria

Seseli libanotis Seseli kochii Athamanta cretensis Grafia golaka Bupleurum ranunculoides ssp.caricinum Trinia glauca Carum carvi Ligusticum mutellinoides

Ligusticum mutellina

Angelica sylvestris Peucedanum venetum Peucedanum cervaria Peucedanum ostruthium

Peucedanum verticillare Pastinaca sativa Heracleum sphondylium Laserpitium siler Laserpitium latifolium

Laserpitium peucedanoides Daucus carota Bloody Cranesbill Wood Cranesbill

Knotted Cranesbill Dusky Cranesbill

Pyrenean Cranesbill Round-leaved Cranesbill Herb Robert

Small Balsam Himalayan Balsam

Sanicle Hairy Chervil a chervil a chervil Cow Parsley a cow parsley Sweet Cicely Great Burnet-saxifrage

Burnet-saxifrage Ground-elder

Moon Carrot a moon carrot Athamanta Grafia Thorow-wax

Honewort Caraway Unbranched Lovage

Alpine Lovage

Wild Angelica a masterwort Broad-leaved Spignel Masterwort

a masterwort Wild Parsnip Hogweed a sermountain Broad-leaved Sermountain

a sermountain Wild Carrot Vajont. Dolomiti Friulani, Staulanza, Duran, Fontanafredda, Giau, etc. Locally very common. Recorded 2014. Common in meadows and margins e.g. Dolomiti Friulani, Fontanafredda, Pecol, Posalz and in Serrai di Sottoguda. Plants were all of var. *lividum*, much paler than further west in Europe. A few records, e.g. Posalz and Caprile. Caprile 2011. Scattered records.

San Lucano and *Saxifraga hostii* site. Below Agordo, 2015.

Settimana 2015. Cimoliana, Giau, etc. Scattered, e.g. Posalz. Cimoliana. Scattered records, e.g. Duran. Fontanafredda. San Lucano 2014. Meadows and forest edge at Pecol, Fontanafredda, Posalz, and below Giau. Dolomiti Friulani, in leaf. Rough meadow and forest edges at low-middle altitudes. Rocca Pietore boulders. Locally common, e.g. Cimoliana. Sottoguda Gorge. Grassland on Passo di Fedaia 2006. Vajont 2015.

Cimoliana. Cimoliana, Settimana, etc. Stony exposed grassland on Passo Fedaia and Duran. Quite common above 1800m, e.g. Passo di Giau, Staulanza, Duran, and Fontanafredda. Cimoliana, Gares, etc., in leaf. Cimoliana and Vajont. In leaf 2015. Scattered in leaf, e.g. base of Marmolada and Fedaia. Cimoliana and Vajont. San Lucano and Vajont 2011. Widespread. Cimoliana. Frequent in open forests and rough stony ground e.g. San Lucano, Dont, Passo di Giau, and Passo di Fedaia. Cimoliana and Andraz. Venice roadsides and Belvedere.

Gentianaceae		
Centaurium erythraea	Common Centaury	Very small examples, services stop last day.
Gentiana lutea	Yellow Gentian	In leaf below Passo di Giau, 2009.
Gentiana punctata	Spotted Gentian	Passo di Giau and Fedaia.
Gentiana asclepiadea	Willow Gentian	Val Cimoliana and San Lucano, in leaf.
Gentiana cruciata	Cross Gentian	In leaf at Cimoliana.
Gentiana prostrata	a gentian	One at Fontanafredda 2010 was a new
		record for this tour, but not seen there
		since.
Gentiana clusii	Clusius's Gentian	Cimoliana (over), Marmolada,
		Valparola.
Gentiana acaulis	Trumpet Gentian	Locally common, Fedaia, Passo di Giau,
		and Fontanafredda.
Gentiana verna	Spring Gentian	Widespread and locally common, e.g.
		Giau, Fontanafredda.
Gentiana brachyphylla	a gentian	Fedaia, many in good flower.
Gentiana orbicularis	a gentian	Marmolada, seen from the chair-lift.
Gentiana bavarica	Bavarian Gentian	Valparola, only 1 in flower this year.
Gentiana terglouensis	Triglav Gentian	A few at Valparola.
Gentiana nivalis	Snow Gentian	Over at Fontanafredda.
Gentiana utriculosa	Bladder Gentian	Moister turf at Cimoliana.
Gentiana nana		4 petals. Recorded 2012.
Gentiana pilosa	a gentian	Below Giau 2015.
Gentiana germanica	German (or Chiltern!) Gentian	Fontanafredda.
Apocynaceae		
Vinca minor	Lesser Periwinkle	In leaf at San Boldo 2010.
Aslepiadaceae		
Vincetoxicum hirundinaria	Swallow-wort	Dolomiti Friulani etc., locally common.
C . 1		
Solanaceae		
Atropa belladonna	Deadly Nightshade	Monte Grappa 2010.
Scopolia carniolica		San Osvaldo, in fruit, 2008. 2010 in fruit
Solanum dulcamara		at <i>Epipactis palustris</i> site below Passo Duran.
~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	Bittersweet	San Lucano.
Solanum tuberosum	Potato	San Lucano gravels 2014!
Convolvulaceae		
Cuscuta europaea	Greater Dodder	San Lucano, parasitising Urtica dioica,
× ×		2014.
Cuscuta epithymum	Dodder	Cimolais 2014.
Calystegia sepium	Hedge Bindweed	Roadsides lower down.
Convolvulus arvensis	Field Bindweed	Services stop last day.
D.1		
Polemoniaceae	Jacob's Loddon	Gares 2009.
Polemonium caeruleum	Jacob's Ladder	Gares 2009.
Boraginaceae		
Echium vulgare	Viper's Bugloss	Widespread.
Pulmonaria officinalis	Lungwort	Fontanafredda.
Pulmonaria australis	a Lungwort	In fruit Giau and Fedaia.
Symphytum officinale	Common Comfrey	Cortina area roadsides 2013.
Myosotis arvensis	Field Forget-me-not	Cimoliana.
Myosotis discolor	Changing Forget-me-not	Fontanfredda 2009.
Myosotis sylvatica	Wood Forget-me-not	Scattered, e.g. Fontanafredda.
Myosotis alpestris	Alpine Wood Forget-me-not	Scattered records at higher altitudes,
	-	e.g. Giau, Fedaia, Fontanafredda,
		locally very common.

Myosotis scorpioides Eritrichium nanum

Lappula deflexa

Lamiaceae Ajuga genevensis Ajuga pyramidalis

Teucrium montanum Melittis melissophyllum

Galeopsis ladanum Galeopsis speciosa

Galeopsis tetrahit Salvia pratensis Lamium orvala Lamium album Lamium galeobdolon Stachys alopecuros Stachys officinalis Stachys alpina Stachys sylvatica Stachys recta

Prunella grandiflora Prunella vulgaris Acinos alpinus Clinopodium vulgare Origanum vulgare Thymus praecox Thymus pulegioides Lycopus europaeus Mentha longifolia

Horminum pyrenaicum

Salvia glutinosa Salvia saccardiana

Plantaginaceae

Plantago major Plantago maritima serpentina

Plantago media Plantago lanceolata

Buddlejaceae Buddleja davidii Oleaceae Fraxinus ornus Fraxinus excelsior Ligustrum vulgare

Scrophulariaceae Verbascum thapsus Verbascum pulverulentum Water Forget-me-not King of the Alps

Blue Bugle Pyramidal Bugle

Mountain Germander Bastard Balm

Broad-leaved Hemp-nettle Large-flowered Hemp-nettle

Common Hemp-nettle Meadow Clary a dead-nettle White Dead-nettle Yellow Archangel Yellow Betony Betony Limestone Woundwort Hedge Woundwort Yellow Woundwort

Large Self-heal Self-heal Alpine Calamint Wild Basil Marjoram Hairy Thyme Large-flowered Thyme Gipsywort Horse Mint

Dragonmouth

Sticky Sage a sage

Great Plantain a plantain

Hoary Plantain Ribwort Plantain

Buddleia

Manna Ash Ash Privet

Aaron's-rod Hoary Mullein Fontanafredda 2014. Very many fine examples at Fedaia. Abundantly in flower! Gares 2015.

Scattered records. Fontanafredda, Passo di Giau and Passo di Fedaia. Vajont, Cimoliana, Claut. A white flowered form at Claut and San Osvaldo. Fontanafredda in leaf. Fontanafredda, very common after logging disturbance. 2015. San Lucano 2009. Widespread and common. Monte Grappa 2010. Scattered, e.g. Posalz. Forests at Cimoliana. [ssp. flavidum] Dolomiti Friulani etc. Vajont 2014. Gares Valley. Cimoliana. Scattered, e.g. Cimoliana and Rocca Pietore. Dolomiti Friulani. Widespread. Cimoliana etc. Cimoliana. Rocca Pietore. Widespread. Cimoliana. In leaf at Vajont 2011. Spring marsh at Fontanafredda, Settimana, and San Lucano, in leaf. Widespread in limey grassland at Cimoliana, Fontanafredda, Passo di Giau, Staulanza, and Passo di Fedaia, etc. In leaf in Dolomiti Friulani. Vajont.

Widespread. Cimoliana 2016. Not recorded for Pordenone province in Flora Alpina. Widespread. Recorded.

Occasionally naturalised on lower roadsides.

Dolomiti Friulani. Widespread. Dolomiti Friulani.

Scattered records, e.g. Claut. Belvedere.

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Verbascum chaixii Verbascum nigrum Scrophularia nodosa Scrophularia canina Scrophularia juratensis Chaenorrhinum minus Linaria angustissima Linaria alpina Digitalis grandiflora Veronica bellidioides Veronica serpyllifolia

Veronica alpina Veronica fruticans

Veronica fruticulosa Veronica urticifolia Veronica teucrium Veronica aphylla Veronica officinalis Veronica chamaedrys

Veronica montana Veronica beccabunga Veronica persica Paederota bonarota

Melampyrum velebiticum Melampyrum sylvaticum Euphrasia rostkoviana Euphrasia picta Euphrasia spp. Bartsia alpina

Pedicularis recutita Pedicularis rosea Pedicularis verticillata

Pedicularis palustris Pedicularis tuberosa

Pedicularis elongata Pedicularis rostratospicata Pedicularis rostratocapitata Pedicularis elongata x rostratocapitata Rhinanthus minor Rhinanthus glacialis Rhinanthus pampaninii Rhinanthus freynii Rhinanthus alectorolophus

Globulariaceae Globularia bisnagarica Globularia cordifolia

Orobanchaceae Orobanche alba Orobanche caryophyllacea a mullein Dark Mullein Common Figwort Alpine Figwort a figwort Small Toadflax a Toadflax Alpine Toadflax Large Yellow Foxglove Violet Speedwell Thyme-leaved Speedwell

Alpine Speedwell Rock Speedwell

a speedwell Nettle-leaved Speedwell a speedwell Leafless-stemmed Speedwell Heath Speedwell Bird's-eye Speedwell

Wood Speedwell Brooklime Common Field Speedwell Bluish Paederota

a cow-wheat Wood Cow-wheat an eyebright an eyebright Eyebright Alpine Bartsia

a lousewort a lousewort Verticillate Lousewort

Marsh Lousewort Long-beaked Yellow Lousewort

a lousewort a lousewort Beaked Lousewort

Yellow Rattle Aristate Yellow-rattle a yellow-rattle Greater Yellow-rattle

a globularia Matted Globularia

Thyme Broomrape Clove-scented Broomrape

ssp.austraicum in Dolomiti Friulani. Scattered records, e.g. San Lucano. Cimoliana. Dolomiti Friulani. Cimoliana. Caprile 2012. Belvedere. Fedaia. Scattered, e.g. Rocca Pietore. Fedaia. Scattered records, e.g. Giau. [ssp. humifusa and ssp. *serpyllifolia*] Giau 2015. Locally common at Fontanafredda, also Fedaia and lower Marmolada. Belvedere. Dolomiti Friulani etc. Dolomiti Friulani 2011. Ledges at foot of Marmolada chairlift. In leaf at Fontanafredda. Meadow margins at Fontanafredda, Duran, Cimolaiana, etc. Gares 2015. Fontanafredda spring marsh etc. Rocca Pietore. Frequent on limestone cliffs and boulders e.g.. Passo di Giau (and below), Serrai di Sottoguda, Cimoliana, and Andraz. San Lucano. Cimoliana and Gares. Cimoliana. Fontanafredda. Various species not identified. Boggy flushes at Passo di Giau, Duran, Fedaia, Fontanafredda, and Valparola. Passo di Giau 2015. Common at Valparola. Widespread and common e.g. Fedaia, Fontanafredda. and Passo di Giau. Fontanafredda 2015. Passo di Giau and Fedaia. Leaves only this year. Fontanafredda. Passo di Giau 2010. A few in flower at Valparola. Apparently this hybrid at Valparola, 2015.

Fontanafredda etc. Meadows at Fontanafredda etc. A subendemic, Val Cimoliana. Vajont 2014. Cimoliana.

Vajont and Dolomiti Friulani. Dolomiti Friulani and Sottoguda.

Monte Grappa 2010. Passo Pordoi 2009. Orobanche teucrii

Orobanche flava Orobanche gracilis

Lentibulariaceae Pinguicula alpina

Pinguicula vulgaris

Campanulaceae

Campanula rapunculus Campanula persicifolia Campanula barbata Campanula glomerata Campanula cervicaria Campanula spicata Campanula latifolia

Campanula trachelium

Campanula rapunculoides Campanula carnica Campanula cochlearifolia Campanula cespitosa

Campanula scheuchzeri Campanula rotundifolia Phyteuma spicatum Phyteuma ovatum Phyteuma zahlbruckneri Phyteuma betonicifolium Phyteuma orbiculare Phyteuma sieberi

Phyteuma hemisphaericum Phyteuma globulariifolium Physoplexis comosa

Rubiaceae

Asperula cynanchica Galium odoratum Galium palustre Galium verum Galium mollugo Galium album Galium lucidum Galium aristatum Galium laevigatum Galium rubrum Galium pumilum Galium anisophyllon Galium margaritaceum Galium aparine Cruciata laevipes Cruciata glabra

Caprifoliaceae

Germander Broomrape

Butterbur Broomrape Slender Broomrape

Alpine Butterwort

Common Butterwort

Rampion Bellflower Peach-leaved Bellflower Bearded Bellflower Clustered Bellflower a clustered bellflower Spiked Bellflower Giant Bellflower

Nettle-leaved Bellflower

Creeping Bellflower a bellflower Fairy's Thimble Tufted Harebell

a bellflower Harebell Spiked Rampion Dark Rampion a rampion Betony-leaved Rampion Round-headed Rampion a rampion

Globe-headed Rampion Rosette-leaved Rampion Devil's Claw

Squinancywort Woodruff Common Marsh Bedstraw Lady's Bedstraw Hedge Bedstraw Upright Bedstraw Shining Bedstraw a bedstraw a bedstraw a bedstraw Slender Bedstraw a bedstraw a bedstraw Cleavers Crosswort a Crosswort

Claut 2015, an interesting record. Parasitising *Teucrium montanum*. 2 at Claut 2015. Dolomiti Friulani and below Giau.

In flower at Passo di Giau and Marmolada at foot of chairlift, and in fruit at Gares. Streamsides, e.g. Cimoliana and Dont.

Below Passo Duran 2010. Vajont and Dolomiti Friulani. Fedaia. Widespread, e.g. Cimoliana and Posalz. Cimoliana. Roadsides west of Longarone, Vajont, etc. Gares valley, with very large flowers, although in bud this year. Scattered records, e.g. Rocca Pietore (white flowers). Cimoliana 2015. San Lucano and Gares 2015. Gares gravels, in bud this year. Gares, and in bud low on Marmolada. 2014. Meadows and rocks e.g. Cimoliana. Cimoliana, Rocca Pietore, etc. San Osvaldo. Gares valley. In flower at Fontanafredda, 2015. Gares valley. Locally common in meadows. Rocks: Passo di Giau and lower Marmolada. Fedaia, Passo di Giau etc. 2015. Fedaia lower boulders 2014. Cimoliana and Claut in fine flower. Serrai di Sottoguda in bud this year.

Cimoliana and Claut. Forest floors in the past. Vajont 2011. Dolomiti Friulani. Scattered records. Scattered records. Scattered records. Settimana 2012. In leaf at San Osvaldo. San Martino 2013. Cimoliana etc. Recorded. Cimoliana gravels. Cimoliana. Gares. Gares.

Sambucus ebulus Sambucus nigra Sambucus racemosa Viburnum opulus Viburnum lantana Lonicera caerulea Lonicera alpigena Lonicera nigra

Lonicera xylosteum

Adoxaceae Adoxa moschatellina

Valerianaceae Valeriana officinalis Valeriana wallrothii Valeriana dioica Valeriana tripteris Valeriana montana

Valeriana saxatilis

Valeriana elongata

Dipsacaceae Dipsacus fullonum Dipsacus laciniatus

Knautia drymeia Knautia dipsacifolia Knautia ressmannii Knautia longifolia Knautia arvensis Scabiosa triandra Scabiosa columbaria Lomelosia graminifolia

Asteraceae Eupatorium cannabinum Solidago virgaurea Bellis perennis Aster alpinus Aster bellidiastrum Erigeron annuus Erigeron acer Erigeron atticus Erigeron alpinus Erigeron neglectus Erigeron glabratus Antennaria dioica

Antennaria carpatica Leontopodium alpinum

Buphthalmum salicifolium

Galinsoga ciliata Achillea oxyloba Dwarf Elder Common Elder Red-berried Elder Guelder Rose Wayfaring Tree Blue-berried Honeysuckle Alpine Honeysuckle Black-berried Honeysuckle

Fly Honeysuckle

Moschatel

Common Valerian a valerian Marsh Valerian Three-leaved Valerian a valerian

Rock Valerian

a valerian

Teasel Cut-leaved Teasel

Wood Scabious

Field Scabious a scabious Small Scabious a scabious

Hemp-agrimony Goldrenrod Daisy Alpine Aster False Aster Annual Fleabane Blue Fleabane Greek Fleabane Alpine Fleabane Neglected Fleabane Variable Fleabane Mountain Everlasting

Carpathian Catsfoot Edelweiss

Yellow Ox-eye

a gallant soldier Alpine Sneezewort Belvedere. Cimoliana. Rocca Pietore and San Lucano. Cimoliana. San Lucano. Giau 2015. In fruit at San Lucano. San Lucano in fruit, and Gares, many in flower. San Lucano.

In flower at Gares, 2014.

Dolomiti Friulani and Andraz. Scattered records, e.g. Dolomiti Friulani. Boggy flushes, Fontanafredda and Duran. Scattered records, e.g. Cimoliana. Widespread and reasonably common, e.g. Cimoliana and Giau. Dolomiti Friulani, Passo di Giau, Andraz, etc. Several on one cliff at Falzarego.

Near Venice. Apparently this species, very robust, on Venice roadsides. Dolomiti Friulani. Scattered woodland edge records. Dolomiti Friulani. Scattered records. Scattered. Cimoliana and San Lucano.

Near Claut, mostly in bud this year, but 2 flowers seen.

Scattered, e.g. Cimoliana. Local, e.g. Rocca Pietore.

Fontanafredda and Belvedere. Cimoliana Widespread and often numerous. Gares gravels. Fedaia? Rocks on Passo di Giau. Giau. Giau. Local in drier unshaded places at Cimoliana, Fontanafredda etc. Fedaia. Limestone boulders below Passo di Giau, a few plants. Also Valparola. Verges and meadows, widespread, e.g. Dolomiti Friulani. Pavement weed. Near the Marmolada dam, and Valparola. Achillea erba-rotta ssp.moschata a milfoil Achillea atrata Achillea clavennae Achillea macrophylla Achillea millefolium Achillea roseaoalba Tripleurospermum inodorum Matricaria discoidea Leucanthemopsis alpina *Leucanthemum vulgare* Leucanthemum heterophyllum Artemisia vulgaris Artemisia absinthium Artemisia genipi Tussilago farfara Petasites albus Petasites hybridus Petasites paradoxus Homogyne alpina Homogyne discolor Adenostyles alliariae Adenostyles glabra Arnica montana Arnica Doronicum columnae Doronicum glaciale Senecio incanus Senecio inaequidens Senecio germanicus ssp.glabratus Wood Ragwort Senecio cacaliaster Senecio doronicum Senecio alpinus Senecio erraticus Senecio rupestris Senecio abrotanifolius Senecio vulgaris Tephroseris tenuifolia Carlina acaulis Arctium lappa Arctium minus Carduus nutans *Carduus personata* Carduus defloratus Cirsium eriophorum *Cirsium vulgare* Cirsium montanum Cirsium erisithales Cirsium carniolicum a thistle

Dark-stemmed Sneezewort Silvery Milfoil Large-leaved Sneezewort Yarrow a yarrow Scentless Mayweed Pineapple-weed Alpine Moon Daisy Ox-eye Daisy an ox-eye daisy Mugwort Wormwood a wormwood Coltsfoot White Butterbur Butterbur Alpine Butterbur Alpine Coltsfoot an alpine coltsfoot Adenostyles Heart-leaved Leopard's-bane a leopard's-bane Grey Alpine Groundsel Narrow-leaved Ragwort a ragwort Chamois Ragwort Alpine Ragwort a ragwort Rock (Oxford) Ragwort a ragwort Common Groundsel a ragwort Stemless Carline Thistle Greater Burdock Lesser Burdock Musk Thistle Great Marsh Thistle Alpine Thistle Woolly-headed Thistle Spear Thistle a thistle Yellow Melancholy Thistle

Fedaia lower rocks 2015. Low on Marmolada, Valparola, and Falzarego. Rocks on Passo di Giau and Fedaia. Dolomiti Friulani roadsides. Widespread. Dolomiti Friulani. San Lucano 2011. Gares valley. Fedaia 2015. Dolomiti Friulani. Cimoliana. Cimoliana and Claut. Belvedere. A few at Fedaia. in leaf. In leaf. Still in flower in Sottoguda Gorge 2014! Over this year. Similar habitats to latter but at lower altitudes, in leaf and fruit. In leaf and fruit. Common in shade and among rocks e.g. Passo di Giau, Cimoliana, and Fontanafredda. Locally very common. Valparola. Forests, margins and meadows. Scattered, e.g. Dolomiti Friulani and Andraz. Scattered in meadows at Fontanafredda, and below Passo di Giau. Grassy parts of boulder waste at Passo di Giau, and Falzarego. Fedaia 2015. Leached grassland, Passo di Giau, Fedaia. [ssp.carniolicus] Longarone roadsides 2014, native to South Africa. Fontanafredda. In bud at Posalz, 2015. Rocky grassland on Passo Pordoi 2009. Meadows and moist flushes at Fontanafredda, and below Passo Duran. By the stream at Pecol, 2007. Roadsides. A few in Settimana 2015. Recorded. Grassland on Passo di Fedaia, and Gares. Old fruiting heads. Scattered. Scattered. Cimoliana 2014. Widespread in moist forest edges, e.g. Gares. Widespread. More than one subspecies present. Cimoliana 2014. Venice Airport. Below Giau 2015. Cimoliana etc. San Lucano?

Cirsium oleraceum Cirsium spinosissimum Cirsium helenoides Cirsium palustre Cirsium arvense Centaurea dichroantha

Centaurea scabiosa Centaurea jacea Centaurea nigrescens

Centaurea nervosa Centaurea montana Centaurea triumfetti Cichorium intybus Aposeris foetida

Hypochoeris uniflora Hypochoeris facchiniana Hypochoeris radicata Leontodon helveticus Leontodon hispidus Leontodon incanus incanus Leontodon incanus tenuiflorus Picris echioides Picris hieracioides Scorzonera aristata Tragopogon pratensis Sonchus asper Sonchus oleraceus Lactuca serriola *Cicerbita alpina* Prenanthes purpurea Mycelis muralis *Taraxacum palustre* Taraxacum officinale Taraxacum spp.

Chondrilla chondrilloides Lapsana communis Crepis paludosa Crepis aurea

Crepis bocconei Crepis alpestris Crepis froelichiana dinarica Hieracium staticifolium Hieracium hoppeanum Hieracium pilosella Hieracium piloselloides Hieracium cymosum Hieracium aurantiacum Hieracium bifidum Hieracium villosum Hieracium piliferum Cabbage Thistle Spiniest Thistle Melancholy Thistle Marsh Thistle Creeping Thistle a knapweed

Greater Knapweed Brown Knapweed a knapweed

Plume Knapweed Perennial Cornflower a mountain cornflower Chicory Aposeris

Giant Cat's-ear a cat's-ear Cat's-ear a hawkbit Rough Hawkbit

a hawkbit Bristly Oxtongue Hawkweed Oxtongue Bearded Viper's-grass Goatsbeard Prickly Sow-thistle Smooth Sow-thistle Prickly Lettuce Alpine Sow-thistle Purple Lettuce Wall Lettuce Marsh Dandelion Dandelion Dandelions

a lettuce Nipplewort Marsh Hawksbeard Golden Hawksbeard

a hawksbeard a hawksbeard a hawksbeard a hawkweed a hawkweed a hawkweed a hawkweed Fox-and-Cubs a hawkweed a hawkweed a hawkweed a hawkweed a hawkweed

Dont and San Lucano. Grassland on Passo di Giau. Fontanafredda, in bud this year. Fontanafredda. Scattered records. Yellow and purple forms in Cimoliana, all in bud this year. Vajont. Vajont, ssp.angustifolia? Scattered records, e.g. San Osvaldo and Cimoliana. Passo di Giau and Fedaia, in bud. Vaiont. Probably this species at Cimoliana, 2012. Verges lower down. Common under spruce e.g. Fontanafredda, Staulanza, and Cimoliana. Fedaia and Valparola. Posalz. Recorded. Fontanafredda. Cimoliana. Cimoliana.

Venice Airport 2012. Scattered records, e.g. Posalz. Fontanafredda. Cimoliana.

Roadsides lower down. Fontanafredda, in bud. San Lucano and Gares, in leaf. Scattered records. Giau marsh 2015. Widespread. Verges at Passo di Giau and screes/crevices high on Marmolada. Vajont and Cimoliana, locally very common. Cimoliana. Widespread, e.g. Cimoliana. Locally common, e.g. Passo di Giau and Fontanafredda. Valparola 2015. Cimoliana 2015. Pink flowers. Several in Cimoliana. Cimoliana. Fontanafredda. Vajont. Recorded. Passo Fedaia 2009. Recorded. Recorded 2016. Passo di Giau 2015. Passo di Giau and Fedaia.

D. ANGIOSPERMS – MONOCOTYLEDONES

Butomaceae		
Butomus umbellatus	Flowering-rush	Roadside ditches near Marco Polo
	riowening rush	airport. Not seen 2015 or 2016.
Juncaginaceae		
Triglochin palustris	Marsh Arrow-grass	Flushes at Fontanafredda.
Ingioenin patasiris	Marsh Anow-grass	Trusnes at Fontananeoua.
Juncaceae		
Juncus jacquinii	a rush	In bud at Fedaia.
Juncus filiformis	Thread Rush	Andraz 2016.
Juncus trifidus	Three-leaved Rush	Acid grassland on Passo di Giau and Passo Fedaia.
Juncus monanthus	a rush	On calcareous substrates, Fedaia and low on Marmolada.
Juncus compressus	Round-fruited Rush	Settimana etc.
Juncus tenuis	Slender Rush	Dolomiti Friulani.
Juncus subnodulosus	Blunt-flowered Rush	Recorded 2012.
Juncus articulatus	Jointed Rush	Wet flushes, Dolomiti Friulani.
Juncus triglumis	Three-flowered Rush	Several in wet flushes at Andraz.
Luzula campestris	Field Woodrush	Fontanafredda and Giau etc.
Luzula multiflora	Many-flowered Woodrush	Cimoliana etc.
Luzula pallidula	Fen Wood-rush	Fen at Gares 2015. New for Belluno province?
Luzula sudetica	a woodrush	More acid grassland at Passo di Giau, Fontanafredda, etc.
Luzula alpina	Alpine Woodrush	Recorded.
Luzula spicata mutabilis	a woodrush	Acid sward at Giau.
Luzula sylvatica	Great Woodrush	Giau 2014.
Luzula sieberi	a woodrush	North of Cortina lunch site.
Luzula nivea	a woodrush	Dolomiti Friulani.
Luzula luzuloides	White Woodrush	Forests at Fontanafredda etc. ssp. <i>rubella</i> at Fontanafredda.
Luzula alpinopilosa	a woodrush	Locally common on acidic substrates.
Luzula glabrata	a woodrush	Deep acid soils near Col de Cuch, 2010.
Luzula pilosa	Hairy Woodrush	Cimoliana.
Cyperaceae		
Trichophorum alpinum	Cotton Deer-grass	Fontanafredda.
Trichophorum caespitosum	Deer-grass	Valparola and Giau bogs.
Blysmus compressus	Flat-headed Sedge	Cimoliana.
Eriophorum angustifolium	Common Cotton-grass	Wet flushes at Fontanafredda and Passo di Giau.
Eriophorum latifolium	Broad-leaved Cotton-grass	Settimana and Dont.
Eriophorum vaginatum	Hare's-tail Cotton-grass	Bog near Passo do Giau.
Eleocharis quinqueflora	Few-flowered Spike-rush	Valparola 2015.
Eleocharis palustris	Common Spike-rush	Fontanafredda 2012.
Schoenus nigricans	Black Bog-rush	Passo di Giau 2012.
Schoenus ferrugineus	Brown Bog-rush	Passo Pordoi 2010.
Elyna myosuroides		Fedaia 2015.
Carex paniculata	Tussock Sedge	Fontanafredda and Duran.
Carex spicata	Spiked Sedge	Cimoliana.
Carex pairae	a sedge	Vajont 2014.
Carex leporina	Oval Sedge	Gares.
Carex echinata	Star Sedge	Fontanafredda and Dolomiti Friulani 2012.
Canar diaina	Diagoious Sadaa	Duran and Ciou

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Duran and Giau.

Dioecious Sedge

Carex dioica

Carex davalliana Carex lachenalii Carex curvula Carex hirta Carex lasiocarpa Carex pseudocyperus Carex rostrata Carex sylvatica Carex capillaris Carex flacca Carex panicea

Carex pilosa Carex distans Carex flava Carex lepidocarpa Carex demissa Carex viridula Carex pallescens

Carex halleriana Carex digitata Carex ornithopoda Carex ornithopodioides Carex humilis Carex montana Carex pilulifera Carex alba

Carex sempervirens Carex firma Carex mucronata Carex ferruginea

Carex brachystachys Carex frigida Carex limosa Carex atrata Carex nigra

Carex rupestris Carex pulicaris

Poaceae

Festuca paniculata Festuca spectabilis Festuca gigantea Festuca pratensis Festuca alpestris Festuca valesiaca

Lolium perenne Lolium multiflorum Catapodium rigidum

Poa annua Poa trivialis Poa pratensis Poa minor/Poa cenisia Poa nemoralis Davall's Sedge Hare's-foot Sedge Curved Sedge Hairy Sedge Slender Sedge Cyperus Sedge Bottle Sedge Wood Sedge Hair Sedge Glaucous Sedge Carnation Sedge

a sedge Distant Sedge Great Yellow-sedge Long-stalked Yellow Sedge a yellow sedge a yellow sedge Pale Sedge

a sedge Fingered Sedge Bird's-foot Sedge a bird's-foot sedge Dwarf Sedge Soft-leaved Sedge Pill Sedge White-flowered Sedge

Evergreen Sedge a sedge a sedge a sedge

a sedge a sedge Bog Sedge Jet Sedge Common Sedge

Rock Sedge Flea Sedge

a fescue a fescue Giant Fescue Meadow Fescue a fescue a fescue

Perennial Rye-grass Italian Rye-grass Fern Grass

Annual Meadow-grass Rough Meadow-grass Smooth Meadow-grass an alpine meadow-grass Wood Meadow-grass

Duran and Fontanafredda. Giau bog 2015. More acid grassland at Fontanafredda. Fontanafredda. Santa Croce lake shore 2014. San Lucano 2012. San Lucano lake and Duran. Cimoliana. Fontanafredda. Widespread and very common. Marshes: Fontanafredda, Passo di Giau, Duran, and Dolomiti Friulani. Fontanafredda 2008. Recorded 2011? Dolomiti Friulani. Dolomiti Friulani. Recorded 2014. Dolomiti Friulani. Grassland and wood edges at Fontanafredda and Duran. Cimoliana. Dolomiti Friulani. Dolomiti Friulani. Fontanafredda. Passo di Giau rocks 2012. Widespread. Cimoliana 2012. Cimoliana, San Lucano and San Osvaldo. Locally very common. Widespread and common. Cimoliana upper cliffs. Cimoliana. Widespread, e.g. Dolomiti Friulani. ssp.ferruginea and austroalpina. Giau 2015. Gares 2014. Fontanafredda 2008. Valparola. [ssp. *aterrima*] Marshy ground at Fontanafredda, Passo di Giau, Duran, etc. Passo di Giau. Andraz 2011.

Vajont. Cimoliana. Sottoguda. Scattered records. This in Dolomiti Friulani? Common in grassland on Passo di Fedaia. Scattered records. Pecol 2012. 1 at Fontanafredda was a surprise, 2009. Widespread.

One or both species present on Marmolada. San Lucano etc.

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Poa bulbosa Poa alpina

Dactylis glomerata Briza media

Sesleria sphaerocephala Sesleria caerulea

Melica nutans Melica ciliata Glyceria notata Bromus tectorum Bromus inermis Brachypodium sylvaticum Brachypodium pinnatum Brachypodium rupestre Elymus caninus Elymus repens Helictotrichon pubescens Helictotrichon pratense

Arrhenatherum elatius Koeleria pyramidata Trisetum flavescens Deschampsia cespitosa Anthoxanthum odoratum Anthoxanthum alpinum Agrostis alpina Agrostis rupestris Agrostis stolonifera Calamagrostis pseudophragmites Calamagrostis varia Phleum pratense Phleum alpinum Phleum rhaeticum Phleum phleoides Phleum hirsutum Alopecurus pratensis Phragmites australis Molinia caerulea Nardus stricta Setaria verticillata Sorghum halepense

Typhaceae Typha latifolia

Liliaceae

Tofieldia calyculata

Veratrum album Asphodelus albus Anthericum ramosum Paradisea liliastrum Hemerocallis lilio-asphodelus

Hemerocallis fulva Colchicum autumnale Bulbous Meadow-grass Alpine Meadow-grass

Cock's-foot Quaking Grass

Mountain Melick Ciliate Melick Plicate Sweet-grass Drooping Brome Hungarian Brome Wood False-brome Tor Grass

Bearded Couch Common Couch Hairy Oat Meadow Oat

False Oat-grass Pyramidal hair-grass Yellow Oat-grass Tufted Hair-grass Sweet Vernal-grass Alpine Vernal-grass a bent-grass a bent-grass Creeping Bent-grass a small-reed a small-reed Timothy Alpine Cat's-tail a cat's-tail Purple-stem Cat's-tail a cat's-tail Meadow Foxtail Common Reed Purple Moor-grass Mat-grass Rough Bristle-grass

Bulrush

Tofield's Asphodel

White False-helleborine White Asphodel Branched St.Bernard's Lily St. Bruno's Lily a day lily

a day lily Meadow Saffron

Scattered records, e.g. Passo di Giau. Grassy knolls and rocks at Fontanafredda, Passo di Giau, Fedaia, generally viviparous. Widespread. Locally common, e.g. Fontanafredda and Dolomiti Friulani. Rocks on Passo di Giau. Limestone: Passo di Giau, Cimoliana, etc. Cimoliana and Giau. Cimoliana. In the lake at San Lucano. Rocca Pietore. Drv verges. Scattered records. Dolomiti Friulani. Dolomiti Friulani. Scattered records. Dolomiti Friulani. Track margins in forest at Posalz. Low cliff at Fontanafredda. [Some probably referable to *H. praeustum*] Cimoliana. Dolomiti Friulani. Cimoliana. Moist flushed ground at Fontanafredda. Cimoliana etc. Fedaia. Fedaia 2015. Passo di Giau 2012. Posalz. River gravels lower down. Saxifraga hostii site. Meadows. Fedaia. Fontanafredda. Dolomiti Friulani. Fontanafredda. Meadows. Vajont. Moist grass at Fontanafredda. Dry turf at Fontanafredda etc. This species recorded? Roadsides lower down.

Roadsides lower down.

Flushes at Dolomiti Friulani and Fontanafredda. Widespread in flower. In fruit San Boldo 2010. A few at San Lucano, and Cimoliana. 2009. Below Fedaia. An intriguing probable endemic, Val Cimoliana. Several in fine flower. Naturalised. In fruit, e.g. Cimoliana meadows. Lloydia serotina Gagea fragifera Lilium martagon

Lilium bulbiferum

Allium schoenoprasum

Allium victorialis Allium carinatum Allium vineale Convallaria majalis Maianthemum bifolium Streptopus amplexifolius Polygonatum verticillatum Polygonatum multiflorum Polygonatum odoratum Paris quadrifolia

Iridaceae Crocus albiflorus

Orchidaceae Cypripedium calceolus

Epipactis palustris

Epipactis helleborine Epipactis atrorubens Cephalanthera damasonium Cephalanthera longifolia Cephalanthera rubra Neottia nidus-avis

Listera ovata Listera cordata Goodyera repens Platanthera bifolia

Platanthera chlorantha

Chamorchis alpina

Gymnadenia conopsea

Gymnadenia odoratissima

Pseudorchis albida

Nigritella rhellicani Nigritella rubra

Coeloglossum viride Dactylorhiza sambucina

Dactylorhiza cruenta

Dactylorhiza majalis

Snowdon Lily Martagon Lily

Orange Lily

Chives

Alpine Leek Keeled Garlic Crow Garlic Lily-of-the-valley May-lily

Whorled Solomon's-seal Solomon's Seal Scented Solomon's-seal Herb Paris

White Crocus

Lady's Slipper Orchid

Marsh Helleborine

Broad-leaved Helleborine Dark Red Helleborine White Helleborine Sword-leaved Helleborine Red Helleborine Bird's-nest Orchid

Twayblade Lesser Twayblade Creeping Lady's Tresses Lesser Butterfly Orchid

Greater Butterfly Orchid

False Orchid

Fragrant Orchid

Short-spurred Fragrant Orchid

Small White Orchid

Black Vanilla Orchid Red Vanilla Orchid

Frog Orchid Elder-flowered Orchid Flecked Marsh Orchid

Alpine Marsh Orchid

Many at Fedaia. 2 in Passo di Giau marsh, 2014. Forest edges and meadows: Dolomiti Friulani, San Lucano, Giau, and Fedaia. Locally very common. [some without bulbils: var. croceum]. In bud in Valparola marsh and Fontanafredda. In bud at Fedaia 2014. San Boldo 2010. Fontanafredda 2013. Scattered in leaf. 1 in flower Cimoliana. Cimoliana. Gares. San Lucano and Cimoliana. San Boldo 2010. In fruit at San Lucano 2015. Cimoliana and Gares.

In flower by recent snowmelt at Fedaia.

Many in fine flower at Cimoliana, c.6 at Sottoguda, and the one below Staulanza over this year. Just coming into flower at Dont. Also Vaiont. In leaf at Cimoliana. Vajont. Several in Monte Grappa woods 2010. 1 at Cimoliana. 1, San Osvaldo. Rather widespread this year, e.g. Val Cimoliana and Claut. Scattered records. 9 near Staulanza. Last stop on Day 4, 2013. Widespread, common in Dolomiti Friulani. Several at Fedaia. Gares 2007. 2010 1 at the Monte Grappa lunch site. Several fine spikes at Valparola at a reliable site for the species. Widespread and often common. Seen daily. Several at Andraz, Dolomiti Friulani etc., in previous years. Not seen 2016. Grassy places e.g. Fontanafredda, Passo di Giau, and Passo di Fedaia. Fontanafredda and Fedaia. Only 1 this year, below the Passo di Giau. Short turf, Fontanafredda, Fedaia, etc. Fontanafredda, a few of both purple form and yellow form, still just in flower. Possibly this species at Fontanafredda 2013. Very common in wet areas over 1800m, Passo di Giau, Duran, Staulanza, and Fontanafredda etc.

Dactylorhiza lapponica	a marsh orchid	This species at Dont.
Dactylorhiza fuchsii	Common Spotted Orchid	Locally very common in woods and
		meadows e.g. Dolomiti Friulani and Gares.
Traunsteinera globosa	Round-headed Orchid	Several at Fontanafredda.
Orchis ustulata	Burnt Orchid	Several in grassland at Fontanafredda.
Orchis militaris	Military Orchid	One at Cimoliana, the first seen on the tour since 2008!
Orchis mascula	Early Purple Orchid	Several at Fedaia. = Orchis ovalis, Orchis mascula ssp.ovalis, or Orchis mascula ssp.signifera.
Anacamptis pyramidalis	Pyramidal Orchid	Cimoliana meadows.
Ophrys insectifera	Fly Orchid	A few at Vajont.
Corallorhiza trifida	Coralroot Orchid	Several in flower below Staulanza.
Malaxis monophyllos	Single-leaved Bog Orchid	2 at San Osvaldo, 5 at Posalz.
Nigritella rubra x Gymnadenia c	onopsea	Apparently this hybrid with both
0 7 1		parents on Passo Fedaia, 2008.
		And 1 below Passo Giau in 2011 and
		2012.
Nigritella rhellicani x Gymnadenia conopsea		1 at Fedaia.
Dactylorhiza majalis x Gymnadenia conopsea		Apparently this hybrid at Falzarego 2011.

Systematic List Number 2 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 added this year are annotated 2016.

Papilionidae

Swallowtail Scarce Swallowtail Apollo Clouded Apollo

Pieridae

Large White Black-veined White Small White Green-veined White Mountain Green-veined White Orange-tip Clouded Yellow Berger's Clouded Yellow Brimstone Wood White

Lycaenidae

Blue-spot Hairstreak Green Hairstreak Sooty Copper Purple-edged Copper Little Blue Osiris Blue Holly Blue Mountain Alcon Blue Large Blue Silver-studded Blue Idas Blue Brown Argus Mountain Argus Mazarine Blue Escher's Blue Amanda's Blue Chalk-hill Blue Adonis Blue Common Blue

Riodinidae

Duke of Burgundy Fritillary

Nymphalidae

Purple Emperor White Admiral Hungarian Glider Red Admiral Painted Lady Papilio machaon Iphiclides podalirius Parnassias apollo Parnassius mnemosyne

Pieris brassicae Aporia crataegi Artogeia rapae Artogeia napi Artogeia bryoniae Anthocharis cardamines Colias crocea Colias alfacariensis Gonepteryx rhamni Leptidea sinapis

Satyrium spini Callophrys rubi Lycaena tityrus Lycaena hippothoe Cupido minimus Cupido osiris Celastrina argiolas Maculinea rebeli Maculinea arion Plebejus argus Plebejus idas Aricia agestis Aricia artaxerxes Cyaniris semiargus Agrodiaetus escheri Agrodiaetus amanda Lysandra coridon Lysandra bellargus Polyommatus icarus

Hamaeris lucina

Apatura iris Limenitis camilla Neptis rivularis Vanessa atalanta Vanessa cardui Dolomiti Friulani and San Lucano. Seen on arrival day, 2015. Vajont and Belvedere. 1 at Gares.

Cimoliana. Numerous Dolomiti Friulani, a few elsewhere. A few records. Scattered records. Gares, Falzarego, and Andraz. Gares, 2016. A few records 2016. Vajont and Day 9 2014. Widespread in small numbers. Widespread.

1 at Vajont. Cimoliana. Sottoguda and Day 9. Fontanafredda 2016. Widespread. A male at Fedaia 2016. 1 at Claut 2016. Vajont 2014. Andraz and Day 8, 2016. Day 3, 2015. Cimoliana and San Lucano. Day 9. A few records 2014. Widespread in small numbers. Sottoguda 2014. A male at Sottoguda. Cimoliana. Dolomiti Friulani 2016. Dolomiti Friulani.

Numerous in Cimoliana.

2 at San Lucano 2016. San Lucano. Several in Val Cimoliana. Scattered records. Numerous in 2009, none in 2008, on only 2 days in 2010. A very worn individual at Fontanafredda 2011. Not seen 2012. 2013 on 4 days. 2014 only on one day. 2015 on 4 days. 2016, seen on 6 days. Small Tortoiseshell Comma Silver-washed Fritillary Dark Green Fritillary High Brown Fritillary Titania's Fritillary Pearl-bordered Fritillary Thor's Fritillary Spotted Fritillary False Heath Fritillary Heath Fritillary Provencal Fritillary Asian Fritillary Marsh Fritillary

Satyridae

Marbled White Alpine Grayling Arran Brown

Large Ringlet Mountain Ringlet Woodland Ringlet Almond-eyed Ringlet Common Brassy Ringlet Bright-eyed Ringlet Dewy Ringlet Meadow Brown Small Heath Pearly Heath Alpine Heath Speckled Wood Large Wall Brown Woodland Brown

Hesperidae

Grizzled Skipper Large Grizzled Skipper Oberthur's Grizzled Skipper Olive Skipper Alpine Grizzled Skipper Dingy Skipper Large Chequered Skipper Essex Skipper Small Skipper Large Skipper Silver-spotted Skipper Aglais urticae Polygonia c-album Argynnis paphia Argynnis aglaja Argynnis adippe Clossiana titania Clossiana titania Clossiana thore Melitaea didyma Melitaea diamina Mellicta athalia Mellicta deione Hypodryas intermedia Euphydryas aurinia

Melanargia galathea Oeneis glacialis Erebia ligea

Erebia euryale Erebia epiphron Erebia medusa Erebia alberganus Erebia cassioides Erebia oeme Erebia pandrose Maniola jurtina Coenonympha pamphilus Coenonympha arcania Coenonympha gardetta Pararge aegeria Lasiommata maera Lopinga achine

Pyrgus malvae Pyrgus alveus Pyrgus armoricanus Pyrgus serratulae Pyrgus andromedae Erynnis tages Heteropterus morpheus Carterocephalus palaemon Thymelicus lineola Thymelicus sylvestris Ochlodes venatus Hesperia comma Widespread in small numbers.
1 at Gares.
1 at San Lucano.
Claut 2015.
Vajont 2014.
Sottoguda 2014.
A few records.
Fontanafredda, Gares, and Sottoguda, 2015.
Settimana 2014.
A few records.
San Osvaldo.
1 at San Lucano 2016.
1 in Gares valley 2016.
A few at higher altitudes, *glaceigenita*, 2015.

Vajont. Fedaia 2015. Widespread and locally common in previous years. Not seen 2016. Scattered records 2015. 1 at Fedaia, 2016. Widespread in small numbers. Giau and Fontanafredda, 2015. 4 on Day 9 2014. Day 8, 2016. Scattered high altitude records. 1, Cimoliana, 2014. Dolomiti Friulani. Locally common, as in Dolomiti Friulani. Fontanafredda and Day 9. Cimoliana and Gares. Fontanafredda. Dolomiti Friulani, San Lucano, and Andraz, locally common.

Cimoliana. Day 9 2014. A few records, 2015. Fontanafredda. Fedaia 2015. Scattered records. Dolomiti Friulani. c.5 Cimoliana. Scattered records. Scattered records. Scattered records. Day 3, 2016.

Systematic List Number 3 Birds

Cormorant Great Egret Little Egret Grev Heron Mute Swan Mallard Honey Buzzard Black Kite Common Buzzard Common Kestrel Corncrake Black-headed Gull Yellow-legged Gull Rock Dove Woodpigeon Collared Dove Common Swift Black Woodpecker

Phalacrocorax carbo Egretta alba Egretta garzetta Ardea cinerea Cygnus olor Anas platyrhynchos Pernis apivorus Milvus migrans Buteo buteo Falco tinnunculus Crex crex Larus ridibundus Larus cachinnans Columba livia Columba palumbus Streptopelia decaocto Apus apus Dryocopus martius

Great Spotted Woodpecker Dendrocopos major

Crag Martin Swallow House Martin Tree Pipit Water Pipit Grey Wagtail White Wagtail Dipper Wren Dunnock Robin Black Redstart

Common Redstart Northern Wheatear **Ring Ouzel** Blackbird Fieldfare Song Thrush Mistle Thrush Lesser Whitethroat Garden Warbler Blackcap Bonelli's Warbler Chiffchaff Goldcrest Marsh Tit Crested Tit Coal Tit

Ptyonoprogne rupestris Hirundo rustica Delichon urbica Anthus trivialis Anthus spinoletta Motacilla cinerea Motacilla a. alba Cinclus cinclus Troglodytes troglodytes Prunella modularis Erithacus rubecula Phoenicurus ochruros

Phoenicurus phoenicurus Oenanthe oenanthe Turdus torquatus Turdus merula Turdus pilaris Turdus philomelos Turdus viscivorus Sylvia curruca Sylvia borin Sylvia atricapilla Phylloscopus bonelli Phylloscopus collybita Regulus regulus Parus valustris Parus cristatus Parus ater

Venice area. North of Venice. North of Venice. Scattered records. Alleghe. Alleghe. 1 at Cimoliana, 1 at Rocca Pietore. En route to Venice. Scattered records. Scattered records. Notable was one calling in a meadow at Posalz. Venice area. Venice area. Towns, especially in the lowlands. Scattered records. Seen on the first day. Scattered records. Heard and seen briefly at the Claut dinosaur footprint site. Scattered records. Widespread and reasonably common. Scattered records. Widespread. Scattered records. Above 2200m on three days. Widespread near streams. Widespread in small numbers. Gares and Sottoguda. Scattered records. Scattered records. Scattered records. Common around the hotels and seen also at various other sites. Daily at the Pineta. Scattered high altitude records. Giau. Widespread. A few records. Scattered records. Scattered records. A few records. Heard often. Widespread, mostly heard. Often heard, especially in Dolomiti Friulani. Widespread. Heard often. Often heard. Scattered records. A few records, e.g. Claut. Scattered records.

Blue Tit Great Tit Red-backed Shrike Jay Magpie Nutcracker Alpine Chough Carrion Crow Hooded Crow Raven Starling House Sparrow Italian Sparrow Snow Finch Chaffinch Serin Greenfinch Goldfinch Linnet Redpoll Common Crossbill Bullfinch Yellowhammer

Parus caeruleus Parus major Lanius collurio Garrulus glandarius Pica pica Nucifraga caryocatactes Pyrrhocorax graculus Corvus corone corone *Corvus corone cornix* Corvus corax Sturnus vulgaris Passer domesticus Passer domesticus Montifringilla nivalis Fringilla coelebs Serinus serinus Carduelis chloris *Carduelis carduelis* Carduelis cannabina Carduelis flammea Loxia curvirostra Pyrrhula pyrrhula Emberiza citrinella

Scattered records. Scattered records. Only near Agordo. Widespread. Venice area etc. Above the tree line at Falzarego, and at Andraz. Quite common above 2000m, and often very tame. Widespread. Lower altitudes. Widespread. Venice area. Widespread. italiae in Cimolais and probably elsewhere. Fedaia and Marmolada. Widespread and common. Widespread. Scattered records. Widespread in small numbers. Scattered records. Passo di Giau. 1 at Fedaia. Scattered records. Fedaia.

Systematic List Number 4

Common Mole Alpine Marmot

Snow Vole Red Squirrel Hazel Dormouse

Alpine Chamois Alpine Ibex Wild Boar Badger Hare Mountain Hare

Adder Asp Viper Grass Snake Dice Snake Smooth Snake

Slow Worm Common Lizard Common Wall Lizard Common Frog Common Toad Fire Salamander Alpine Newt Alpine Salamander Sciurus vulgaris Muscardinus avellanarius Rupicapra rupicapra Capra ibex Sus scrofa Meles meles Lepus europaeus

Talpa europaea

Marmota marmota

Chionomys nivalis

Vipera berus Vipera aspis Natrix natrix Natrix tesselata Coronella austriaca

Lepus timidus

Anguis fragilis Lacerta vivipara Podarcis muralis Rana temporaria Bufo bufo Salamandra salamandra Triturus alpestris Salamandra atra

Mammals, Reptiles & Amphibians

Hills noted.
Seen or heard on several days, such as on Passo de Fedaia and Passo di Giau.
1 seen by PGC from the Marmolada chairlift, 2007.
A few signs of feeding.
One seen well, if briefly, in the middle of the day (!), at San Lucano, 2016.
1 at Fedaia.
A male at Fedaia 2013.
Signs only.
A lower jaw found in Sottoguda gorge, 2009.
Feltre area 2010.
Droppings at higher altitudes.

at Posalz, and a few dead individuals. 2005.
 seen very well at Fedaia 2013 and 2015.
 in Settimana Valley, 2012. San Lucano lake 2016.
 at Gares. 2005. Fontanafredda 2010.
 Dead individuals at Cimoliana and Claut, 2016.

2 dead near Posalz. 2005. Selva di Cadore 2011. Scattered records. Scattered records. Scattered records. Scattered records. Larvae Settimana, 2015. A few in Settimana Valley 2013. 1 in the Sottoguda Gorge, 2006, a superb find.