## **The Dolomites**

### Devil's Claw and King of the Alps

### **A Greentours Trip Report**

 $17^{th}$  to  $26^{th}$  June 2018

### Led by Paul Cardy

Daily Reports and Systematic Lists by Paul Cardy

### Day 1 Sunday 17<sup>th</sup> June Arrival and Journey to Claut

I met the group at a bustling Venice Airport. The mini-bus soon loaded, we headed for the tranquility of the mountains. Initially our journey took us across the predominantly agricultural plains, the line of the Alps stretching ahead of us. Even in the lowlands the vegetation was still surprisingly verdant at this season. Lunch was eaten at a service station, all our other lunch sites would be much less prosaic! But even here were things of interest, such as *Centaurium pulchellum*, and Italian Sparrows. The scenery became ever more impressive, and once we'd left the main road there were floriferous verges.

There was time for a lengthy stop at 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 Pearly Heaths, Marbled Whites, Large Wall Brown, and Woodland Brown. *Zygaena lonicerae* nectared on scabious. 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, but the Fly Orchids were all but over this year. Red Helleborine was a bonus, at a new site for the species. 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 *Valeriana wallrothii*, Swallow-wort, and Wood Pink. Butterflies continued with Adonis Blue and Cirl Bunting was here. Occasionally looking up from the great variety of flowers and insects, the views were pretty good too!

I drove a little further along and we stopped for more fine views. Serendipity came, when Betty called me to look at an orchid she'd found. That was Broad-leaved Helleborine. But walking back to the vehicle I spotted something much more exciting. Two rather robust spikes with green flowers. Fen Orchids! New for the tour, after all these years of coming here, some eighteen! This was the local endemic subspecies *nemoralis*, robust, growing in woodland, known from only some six stations in North-west Italy. A superb start to the tour.

The orchid luck did not continue at one of my *Malaxis monophyllos* sites where we next stopped. The meadow had been stripped bare and there was logging activity. Oh well, we would see it later in the week.

It was now only a short drive in the late afternoon sunshine to our hotel. Betty treated us all to welcome cold drinks on arrival.

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

### Day 2 Monday 18<sup>th</sup> June Cimoliana

We enjoyed a superb first day in the field and saw a wealth of fine things. Whilst everyone enjoyed breakfast in the hotel, I shopped for fresh picnic supplies and bread in the village.

Under clear blue skies we drove the short distance to the village of Cimolais, and from there headed up the Cimoliana valley.

An unplanned stop was made for Orange Lilies that we just could not ignore. Here were the first of many beautiful Rose Chafers. Interestingly two Woodland Browns were taking sap from a tree trunk.

The next stop, amid Black Pines and *Salix waldsteiniana*, had *Orobanche gracilis* in good bloom, *Campanula scheuchzeri*, *Thesium rostratum*, *Prunella grandiflora*, and fine Fragrant Orchids. The endemics *Euphorbia triflora kerneri* and *Rhinanthus pampaninii* were here too. Several butterflies were already on the wing and included Black-veined White, Pearly Heath, and Woodland Brown. The most notable was a Lesser Spotted Fritillary, not common in the area.

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. Marlene and I ventured across the narrow rushing river to cliffs in the sun where the Devil's Claws were just perfect, with much *Aquilegia einseleana*. There was a fine camouflaged grey orb spider here. Crossing back, I was amazed that Bob had been able to photograph these Devil's Claws. and even the spider, from some distance without having to negotiate the rushing river.

The scenery was sublime, and more and more butterflies were taking to the wing as the day warmed up. Hungarian Glider was associated with its 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. Another *Hemerocallis* site also

had the specialities *Arenaria huteri* and *Silene veselskyi*, where refreshing water trickled onto us from the springs above.

Nearby Southern White Admiral settled on the road. The knapweed, *Centaurea dichroantha*, usually in two colour forms, purple and yellow, but only the latter was in flower today. Impressive tall *Peucedanum verticillare* was in flower. Bird's-nest Orchid flowered on the forest floor and Red Helleborines were in fine flower. I set out our first extensive picnic at a well situated table. A persistant Large Skipper insisted on sharing our lunch. Very light rain came but must have been SO light because I was the only one who noticed it.

Our drive now took us across a wide stony river bed. River gravels had Alpine Gypsophila, *Cerastium subtriflorum*, and *Saxifraga squarrosa*. The endemic *Galium margaritaceum* was in bloom. This was a productive day for spiders and here was one of my favouries, the beautiful red, white, and black jumping spider *Philaeus chrysops*.

Reaching the end of the drivable road we took a short walk and found the attractive *Dianthus sternbergii* in fine flower, and Willow Gentian in leaf. Some fine Bladder Gentians were nearby. The cliffs supported *Silene saxifraga* and below them was the diminutive *Hymenolobus pauciflorus*.

At this usually reliable site for them all the Lady's Slippers were more or less over this year, wheras we usually see good numbers in flower. There were a couple of plants still showing colour. The distinctive pink *Crepis froelichiana dinarica*, an endemic subspecies, was here, and *Anemone trifolia* and Interrupted Clubmoss were under the trees. Several Duke of Burgundys were on the wing. A family group of Willow Tits moved through the conifers.

Round-leaved Wintergreen was in fine form. Worth noting was the great variety of sedges seen today. Here were *Carex flacca*, *Carex flava*, *Carex lepidocarpa*, *Carex pallescens*, *Carex halleriana*, *Carex ornithopoda*, *Carex montana*, *Carex alba*, *Carex sempervirens*, *Carex firma*, and *Carex ferruginea*!

A last stop was made to admire the flowery meadows lower down. Also of note today was a Military Orchid, another scarce species in the area.

### Day 3 Tuesday 19<sup>th</sup> June Claut, Val Settimana, & Transfer to Rocca Pietore

A fine morning saw us saying our fond farewells to the hotel in Claut. The road above the village was quiet and took us through lovely forest. A series of exciting hairpins led to a small deserted car park. From there we walked to streamside rocks on which are a few famous dinosaur footprints. Not all are convinced by these, but they are fairly clear. The scenery was fine, and the meadows flowery. *Asperula cynanchica* was new for us and *Polygonatum verticillatum* was in flower.

We stopped along the entrance road for superb flowering *Lomelosia graminifolia*. This was the only place we would see this local species. *Genista radiata* was here too. The children we had passed just above the village had walked up the hairpins and had reached here surprisingly quickly.

Next we visited the Settimana valley. Mud puddling Black-veined Whites were a feature. They were numerous in the area, but unfortunately not all vehicles driving up here did as we did and avoided driving over them. The always special Large Chequered Skipper also mud puddled, and we saw a few. Superb blue water rushed in the limestone river bed. A wet flush had cotton grasses and *Blysmus compressus*. Broad-bodied Chaser patrolled a small pond in which was Alpine Newt and a Grass Snake swam across the pond. Sedges continued with *Carex paniculata, Carex panicea*, and *Carex nigra*.

Rocky slopes had attractive *Senecio abrotanifolius*. Bee Beetles were as always a pleasing find. Dark Green Fritillaries mud puddled. At the top of the road was fine scenery and we had the area to ourselves. On river gravels were impressive Alpine Poppies and Water Chickweed was in flower. Back in the woods I set out the lunch at a convenient picnic table. A surprise here was three Americans asking directions! *Carex sylvatica* and white flowered Bastard Balm were here and I saw another Grass Snake. A superb long horn beetle was seen, not the first today.

Back on the paved road we headed west. Serendipity again as the Vajont tunnel traffic lights stopped us just beside flowering Marsh Helleborine. We continued 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.

Our intended route via Passo Duran was closed due to roadworks so today we travelled via Staulanza. A stop there proved superb, the subalpine meadows very floriferous. Many plants here were new to us, the flora very different to that we had seen further east. Marsh Valerian, Rock Speedwell, *Myosotis alpestris, Primula farinosa,* Yellow Wood Violet, Globeflowers, Marsh Marigolds and *Dactylorhiza majalis* were among the many species here.

We continued to our hotel, and there settled in to the lovely rooms that would be our home for the remainder of the tour. Of the many great hotels we stay in Europe this is one of the very best, an excellent family run place. Crag Martins flew around the hotel.

Before dinner we met for a first run through the already very extensive plant lists. We enjoyed a superb dinner, with excellent service. We celebrated Bob's birthday with a cake made by the 'pastry hotel'.

### Day 4 Wednesday 20<sup>th</sup> June Passo di Giau

The hotel breakfast was a fine selection. The weather was fine, 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. We had good views of Red Squirrel.

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. Initially the acid sward held many fine flowers. There were many Alpine Pasque Flowers, much *Geum montanum*, and several *Androsace obtusifolia*. Amid many Trumpet Gentians were a few Spotted Gentians in bud, and we would later find it in flower. *Potentilla aurea* was common. There was much *Ranunculus montanus* and several *Ranunculus kuepferi*.

I was very pleased to find Creeping Azalea still in fine bloom, and we would see much today. A highlight was an Asp Viper, which coiled through my laid down umbrella and then across the azalea, beautiful. Marlene kept her distance (not keen on snakes!).

We moved very slowly along the narrow path admiring the fine floral show. We found the first of several Frog Orchids, and there were many Small White Orchids were coming into flower. *Homogyne alpina* was here and the tiny *Thesium alpinum* was a good find. Flowers continued with *Daphne striata, Ajuga pyramidalis,* and *Veronica alpina*.

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,* and *Helianthemum alpestre. Dryas octopetala* was very commonly in flower, and creeping on the ground and rocks were Least Willow and Thyme-leaved Willow.

Further along the geology changed and *Rhododendron ferrugineum* was replaced by *Rhododendron hirsutum*, a calcicole, and here we found *Rhodothamnus chamaecistus* in superb flower. *Ranunculus hybridus* with its distinctively shaped leaves was numerous in flower this year, but a search failed to locate the *Pedicularis rosea* that we usually see here. *Pinus cembra* was a feature, 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, Ring Ouzel was here, Northern Wheatear, and Redpoll. 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, and found a suitable forest site where I set out the lunch. Among the plants here were *Anemone trifolia* and *Dactylorhiza lapponica*.

Another stop just below the col, on acidic soil, yielded very many *Soldanella pusilla* in fine flower, as well as beautiful *Primula minima*, the combination of the two very attractive. A rocky slope supported much Roseroot. *Cerastium cerastioides* flowered in wet flushes. There was again much *Pulsatilla alpina* and by recent snow melt a few perfect *Pulsatilla vernalis*. Common Frog was seen.

Boulders on the other side of the pass had very many *Paedarota bonarota* but the *Primula auricula* was over. A fine Early Purple Orchid was admired. The diminutive *Woodsia pulchella* was here, at the only place we have seen it on the tour. Marmots whistled but were much less in evidence than is usual here. A nesting Ring Ouzel was encountered.

At the last stop of the day was the special Single-leaved Bog Orchid, *Malaxis monophyllos*, growing at the forest edge. Meadows at eye level had a fine flora, Dark Columbine in fine form, with very many Common Twayblades.

### Day 5 Thursday 21<sup>st</sup> June Marmolada, Fedaia, and Serrai di Sottoguda

The weather was again 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. 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, *Silene alpestris,* Net-leaved Willow, *Veronica aphylla, Achillea atrata, Arabis bellidifolia,* and *Pyrola rotundifolia.* I was very pleased to find a few Coralroot Orchids in perfect flower. This was the first time we had seen *Valeriana elongata* here. Small Blue frequented Kidney Vetch.

We all took the open cage lifts up to a refugio at 2626m. It's always a great experience going up in the 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, Gentiana clusii,* and *Gentiana orbicularis*.

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.

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. There was very much of the very attractive *Thlaspi rotundifolium*, several *Arabis caerulea*, *Arabis bellidifolia*, and *Arabis alpina*. One cushion of *Saxifraga oppositifolia* was in flower, but unusually there was only one *Saxifraga sedoides* in flower this year. *Petasites paradoxus* in perfect flower was a bonus. Small Tortoiseshell was on the wing, and we saw Alpine Grizzled Skipper. Alpine Choughs finally put in an appearance.

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. The large marmot colony here was evidenced by the many burrows, and occasional calls, but where were they today? In this beautiful meadow were very many showy plants including *Centaurea nervosa* in bud, very many Lesser Butterfly Orchids, *Nigritella rhellicani, Traunsteinera globosa*, Martagon Lilies, and Small White Orchids. A lone *Primula halleri* was a bonus. The many Moonworts here were remarkably large. Woodland Ringlet, Alpine Heath, and Marsh Fritillary flew over the slopes.

Nearby I set out the picnic, where were many St.Bruno's Lilies.

Another short drive took us to the Sottoguda gorge where we set out to walk the length of the gorge. Sooty Copper was here, and a small flowered eyebright was *Euphrasia salisburgensis*. A blue and white 'train' drove people up and down the gorge, and this year most were cheerful enough to wave to us. Rocks were festooned with *Saxifraga crustata*, together with fine *Paedarota bonarota, Saxifraga caesia* (in bud), and Devil's Claw in bud. In the same community were *Kernera saxatilis, Potentilla caulescens* (in leaf), and *Rhamnus pumila*. Two species of *Aconitum, Aconitum variegatum* and *Aconitum napellus*, were in leaf this year.

*Chrysosplenium alternifolium* and *Lonicera alpigena* were among the many other plants. A highlight was the bladder fern *Cystopteris montana*, a few fine fronds, a species which had been new for the tour last year. The highlight was some five Lady's Slippers in fine flower. Fine waterfalls cascaded down the steep walls of the gorge. An impressive harvestman was seen and an interesting if sad find was a dead Water Shrew.

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, but the timings just did not work and I would have had to wait for some time for it.

Heavy rain came before I got back to the vehicle, but I did have an umbrella. The group almost made it to the gelateria before the downpour!

### Day 6 Friday 22<sup>nd</sup> June Gares, San Lucano, Passo Duran

A rather different day today saw us visiting some sites to the south at lower altitudes, which produced a wealth of new plants and a few butterflies.

Initially we drove past the large reservoir at Alleghe, to Gares where a small circular path leads through boulder strewn forest.

Driving up the valley we just had to stop for meadows that were full of Orange Lilies. Quite a sight. At our destination the woods were full of ferns with Oak and Beech Fern being particularly common, *Dryopteris dilatata*, 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 *Streptopus amplexifolius*. There was a fine selection of mosses and some beautiful diminutive fungi.

On the nearby river gravels were *Papaver aurantiacum*, *Parnassia palustris*, *Gypsophila repens*, and *Saxifraga rotundifolia*. These gravels always turn up some interesting plants whose seed has been washed down from higher altitudes. I was very pleased to find again the very local endemic crucifer *Rhizobotrya alpina* that I had first found here four years ago. Two fine examples were found. Although not a particularly striking plant it is a significant record, and is the only member of its genus. *Polygala vulgaris oxyptera*, *Pritzelago alpina*, and *Thlaspi rotundifolium* were

here too, and *Campanula cochlearifolia* was in flower. *Astragalus alpinus* was here this year. Nearby was *Tephroseris tenuifolia*. Surrounding meadows had more Orange Lilies, and False Heath Fritillary settled on the road.

Lower roadsides had almost black flowered *Phyteuma ovatum*, and just before the village was extremely robust *Campanula latifolia*.

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. I set out the lunch, which we enjoyed in this peaceful location. Arran Browns and Woodland Brown were on the wing. Around the lake were *Melampyrum velebiticum*, *Lonicera alpigena*, Dark Red Helleborines, and *Chaerophyllum aureum*. In the lake were a few Brown Trout, and Emperor Dragonfly patrolled.

Next we approached the Duran Pass from the southern side. The roadsides here were very floriferous, with a highlight the striking pink *Linum viscosum*. At the Col Grass of Parnassus flowered in a wet flush full of Bottle Sedge. Other sedges included *Carex echinata* and *Carex davalliana*. Also here were *Galium palustre*, *Lathyrus ochraceus*, *Ligusticum mutellina* and *Senecio alpinus*. A highlight was a fine Thor's Fritillary that nectared, allowing photographs. *Scirpus sylvaticus* formed dense stands on one slope. A lovely click beetle was found. With a green thorax, bronze elytra, and serrate antenna I had thought this would be straightforward to identify, but......

Heading back towards the hotel, a quick side road stop yielded a rosette of *Saxifraga hostii*, *Hieracium humile*, and *Rosa tomentella* was identified.

Back in our village one boulder had quite a number of new plants for the tour. Here were *Lathyrus sylvestris, Lathyrus latifolius, Sedum montanum, Sedum album, Sedum dasyphyllum, Trifolium rubens,* and *Digitalis grandiflora,* and *Juniperus sabina* crept over the rocks.

### Day 7 Saturday 23<sup>rd</sup> 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. There was hardly a cloud in the sky, but there was a rather chilly light wind.

With all travelling comfortably inside the vehicle, I had quite an exciting journey in the back of the pick up! Once all at the refuge we enjoyed the simply sublime views in all directions. Across the valley there was much snow on Marmolada, and a whole complex series of peaks and valleys all around us. After a quick tea etc. at the refuge we set out to explore. *Gentiana brachyphylla* was in beautiful flower. There were *Leucanthemopsis alpina*, *Draba siliquosa*, *Draba aizoides*, *Arabis alpina*, *Linaria alpina*, *Androsace obtusifolia*, and Alpine Toadflax. 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. A highlight for all. The same acidic rocks had

much Saxifraga exarata, Minuartia recurva, Silene exscapa, and Juncus jacquinii. A few Papaver aurantiacum were in bloom, and Polygala alpina.

Alpine Choughs were less in evidence than usual around the refuge. Water Pipits sang, and Black Redstart and Alpine Accentors were here. A Red-necked Footman was a very high altitude record for the species (c.800m higher than usual upper limit).

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. King of the Alps continued superb. Snowdon Lily was in fine form, and there was much *Primula minima* in flower. Dewy Ringlets, Mountain Green-veined White, and Woodland Ringlets were on the wing. Many *Soldanella pusilla* flowered by snow melt.

Many Spotted Gentians were in bloom, there were superb *Geum reptans* and *Ranunculus glacialis*, *Saxifraga depressa* was a highlight, and *Saxifraga oppositifolia* was in fine flower. Also seen were Fir Clubmoss, Chamois Cress, and *Ligusticum mutellinoides*. Very fine cushions of *Androsace alpina* were a feature this year and there was also very much *Androsace vitaliana*. The attractive grass *Oreochloa disticha* was a feature of the habitat. There were very many more Snowdon Lilies. The variety continued with *Astragalus alpinus*, Alpine Clubmoss, and many more *Primula minima*.

We enjoyed a superb lunch in the refuge, before taking a walk in the opposite direction.

Many Early Purple Orchids were a feature, and there were *Sempervivum montanum* rosettes. The boulders had much more King of the Alps. Interesting were several calcicoles on the acidic boulders and turf, such as *Sedum atratum carinthiacum*, *Rhododendron hirsutum*, and *Draba dubia*. Whilst Bob waited for us to return from the furthest point of our walk he saw three Chamois. Moonworts were in the turf and Alpine Pasque Flowers were numerous.

Back at the refuge there was the choice of taking the 4WD down, or to walk. On the way down those of us walking found very many fine rosettes of *Sempervivum wulfenii*, and *Primula halleri*.

Before reaching the hotel we stopped at the snow globe shop to allow for important kitsch souvenir shopping!

Betty and Marlene caused chaos at the hotel this evening, earning thenselves black marks! They managed to break the table football by losing their table tennis ball somewhere inside it!

### Day 8 Sunday 24<sup>th</sup> June Fontanafredda

After a short picnic shopping stop, we headed up to Staulanza, making our first stop just below the pass. Here was just one of the diminutive Lesser Twayblade this year, hidden under the trees, which took some finding, and Coralroot Orchids were in fruit. This is a reliable site for Lady's Slipper and this was still in fine flower, approachable and a real highlight. There was much else of interest including One-flowered Wintergreen, Verticillate Lousewort, Dragonmouth, and *Anemone trifolia* still in flower.

A very short drive took us to the track we call Fontanafredda where we spent the rest of the day, at altitudes between 1700 and 1900m, admiring the wealth of plants. The views of Pelmo and Civetta were periodically superb.

*Luzula luzuloides rubella* was a prominent feature along the track, and *Phyteuma orbiculare* were in flower. *Chaerophyllum hirsutum* was especially lush, mostly pink flowered, and there was fine Alpine Sow-thistle. Some large open meadows boasted a great floral variety including Globeflowers, the very attractive orange *Crepis aurea*, Small White Orchids, and *Arnica montana*. Butterflies included Woodland Ringlet, Bright-eyed Ringlet, a beautiful Large Blue nectaring on thyme, and Pearl-bordered Fritillary. Nutcrackers called and were seen flying between the spruces.

Wet flushes were characterised by very many Alpine Marsh Orchids and the cottony heads of *Eriophorum angustifolium*. Here too was fine *Pinguicula vulgaris*. Sedges were again a feature today, among them *Carex paniculata*, *Carex panicea*, *Carex flava*, *Carex pallescens*, *Carex ornithopoda*, *Carex hirta*, *Carex davalliana* and *Carex leporina*. *Pedicularis palustris* and *Cirsium helenioides* were here.

For lunch we drove some way down the valley to a site near Dont where Marsh Helleborines were in fine flower, and we found Limestone Woundwort.

The afternoon saw us returning to Fontanafredda, driving further up the track, and setting out on foot. Rock Speedwell was on boulders, and *Clematis alpina* and *Moehringia muscosa* flowered under the trees. Frog Orchids and Black Vanilla Orchids were rather common in short turf where *Pedicularis elongata* was in flower.

It was one flowery slope that supported all the best flowers here. There was much *Gentianella germanica*, fine Alpine Asters, a good number of Burnt-tip Orchids, fine *Campanula barbata*, beautiful *Traunsteinera globosa*, Chives, and Rock Soapwort. Nearby was the only *Scorzonera aristata* of the tour.

We reached a grassy slope that afforded extensive views down to the Cadore valley, the slope yellow with *Ranunculus carinthiacus*. *Veronica fruticulosa* flowered on the rocks here. A male Ghost Swift was a good find.

### Day 9 Monday 25<sup>th</sup> June Falzarego, Valparola, Andraz, Belvedere

Our last full day saw us visiting a variety of sites, and we found many new things. First we drove up to the Falzarego Pass, where we explored an area away from the very busy pass itself. Indeed there were as usual many cyclists, motorbikes, and cars today. There was also an Aston Martin photo shoot. There was a fine flora at the pass. *Rhodothamnus chamaecistus* was in flower, *Minuartia austriaca* was new for us, and there were a few *Pedicularis rosea* in bloom. I was very pleased to find the diminutive *Valeriana elongata*, with several on one rock face. At the furthest point of our walk *Gentiana terglouensis* was the highlight, with *Saxifraga androsacea* a close second. Also notable were *Anemone baldensis*, *Ranunculus hybridus*, *Armeria alpina*, and *Thlaspi alpestre*.

At another site we walked to a small lake where wet flushes had beautiful *Gentiana bavarica* in flower. Chives was a feature. Boulders had some fine Edelweiss. There were many fine *Pedicularis rostratocapitata*, and some interesting hybrids between this and *Pedicularis elongata*, with pinkish yellow flowers. A few *Saussurea discolor*, and fruiting *Callianthemum coriandrifolium* were two very interesting species that we had first found here last year. *Hedysarum hedysaroides* was in fine form. The highlight here was superb *Chamorchis alpina*, at a site where we first found this always special species a few years ago. There were several perfect plants. There were also many fine *Papaver aurantiacum*.

At a lower altitude I set out the lunch near Andraz Castle where wet flushes had *Juncus triglumis*, *Triglochin palustris*, and *Carex limosa*. A walk to the castle itself yielded Large Blue, *Astragalus hypoglottis gremlii*, and *Erysimum rhaeticum*. Marmots were in the meadows around the castle.

The Belvedere viewpoint gave fine views down to Caprile, and several new plants included *Linaria angustissima, Sorbus austriaca,* and *Asplenium septentrionale*. Tall *Peucedanum verticillare* was impressive, and *Juniperus sabina* covered the rocks. Most notable for me was several *Orobanche purpurea* parasitising the *Achillea*. Also here were *Ajuga genevensis* and a selection of stonecrops, namely *Sedum telephium, Sedum montanum, Sedum album,* and *Sedum dasyphyllum. Aurinia saxatilis* was naturalised and *Epilobium roseum* was identified.

We arrived back at the hotel a little earlier than usual to allow packing time before a final run through the checklists. It had been a superbly productive and enjoyable tour and we reflected on that during our last excellent dinner.

### Day 10 Tuesday 26<sup>th</sup> June 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. But oh my, Venice Marco Polo was very busy today. There we said our sad farewells. I then went picnic shopping in a nearby supermarket before meeting my next group, some in Venice, some at Treviso Airport, for the Central Italian Alps tour. All assembled we headed west. There followed another fine tour in the Central Alps.

### **Dolomites Systematic Lists 2018**

### **Compiled by Paul Cardy**

### Itinerary

- **Day 1.** Sunday 17<sup>th</sup> June. Arrival. Venice to Claut via Vajont.
- Day 2. Monday 18<sup>th</sup> June. Cimoliana.
- Day 3. Tuesday 19<sup>th</sup> June. Claut, Settimana, Passo Staulanza, Rocca Pietore.
- Day 4. Wednesday 20th June. Passo di Giau. Posalz.
- **Day 5.** Thursday 21<sup>st</sup> June. Marmolada, Fedaia, Sottoguda.
- **Day 6.** Friday 22<sup>nd</sup> June. Gares, San Lucano, Duran, Rocca Pietore.
- **Day 7.** Saturday 23<sup>rd</sup> June. Fedaia.
- **Day 8.** Sunday 24<sup>th</sup> June. Staulanza. Fontanafredda. Dont.
- Day 9. Monday 25<sup>th</sup> June. Falzarego, Valparola, Andraz, Belvedere.
- **Day 10.** Tuesday 26<sup>th</sup> June. Departure.

### Systematic List Number 1Plants

Nomenclature and systematic order follow 'Flora Alpina', by Aeschimann et al., 2004. Species recorded in previous years but not 2018 are annotated with the year in which they were last seen. Species added this year are annotated 2018. All species with no year annotation were of course seen this year.

### **A. PTERIDOPHYTA** Ferns and their allies

Lycopodiaceae		
Huperzia selago	Fir Clubmoss	Day 8.
Lycopodium annotinum	Interrupted Clubmoss	Cimoliana and Gares.
Lycopodium clavatum	Stag's-horn Clubmoss	Cimoliana 2015.
Diphasiastrum alpinum	Alpine Clubmoss	Fedaia.
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		
Equisetum hyemale	Dutch Rush	San Lucano 2012.
Equisetum variegatum	Variegated Horsetail	Scattered records, e.g. San Lucano.
Equisetum fluviatile	Water Horsetail	Fontanafredda.
Equisetum palustre	Marsh Horsetail	Settimana and San Lucano.
Equisetum arvense	Common Horsetail	Scattered records, e.g.
Equisetum telmateia	Giant Horsetail	Fontanafredda. Marsh Helleborine site.
Ophioglossaceae		
Botrychium lunaria	Moonwort	Fedaia.
Polypodiaceae		
Adiantum capillis-veneris	Maidenhair Fern	Sottoguda Gorge.
Polypodium vulgare	Common Polypody	Cimoliana, San Lucano,
		Sottoguda, Giau, etc.
Pteridium aquilinum	Bracken	Fontanafredda, Gares, Duran
Oreopteris limbosperma	Lemon-scented Fern	San Osvaldo 2013.
Phegopteris connectilis	Beech Fern	Common at 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 Sottogud Settimana, Cimoliana, and at Gares.
Asplenium adiantum-nigrum	Black Spleenwort	Dolomiti Friulani 2017.
Asplenium onopteris	Western Black Spleenwort	Serrai di Sottoguda and Gares, 2010.
Asplenium septentrionale	Forked Spleenwort	Belvedere.
Asplenium seelosii	a spleenwort	Cimoliana.
Asplenium ruta-muraria	Wall-rue	Rock at Fontanafredda, Cimoliana, Giau, Gares, and Sottoguda.
		6

Asplenium scolopendrium Athyrium filix-femina

Cystopteris fragilis Cystopteris alpina Cystopteris montana Cystopteris sudetica Woodsia pulchella

Gymnocarpium dryopteris Gymnocarpium robertianum Matteucia struthiopteris Polystichum lonchitis

Polystichum aculeatum Polystichum setiferum Dryopteris filix-mas Dryopteris affinis Dryopteris villarii Dryopteris dilatata Dryopteris expansa

Amistologhigoogo

Hart's-tongue Fern Lady-fern

Brittle Bladder-fern Alpine Bladder-fern Mountain Bladder-fern a bladder-fern a woodsia

Oak Fern Limestone Fern Ostrich Fern Holly Fern

Hard Shield Fern Soft Shield Fern Male Fern Scaly Male Fern Mountain Fern Broad Buckler-fern Northern Buckler-fern Barcis 2017. Forest at Settimana Fontanafredda, Cimoliana,and Gares. Widespread. Recorded in the past. Sottoguda Gorge. Some fine examples at Gares. Calcareous rocks below Passo di Giau. Rocky forest at Gares. Cimoliana etc., locally common. San Lucano, Gares valley. Cimoliana and Sottoguda Gorge.

Barcis 2017. Cimoliana 2017. Cimoliana etc. Scattered records, e.g. Sottoguda. Cimoliana.

### **B.** CONIFEROPSIDA

Pinaceae		
Abies alba	Silver Fir	Cimoliana.
Picea abies	Norway Spruce	Widespread-mainforest 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 Marmolada), and locally down to middle levels in the understorey.
Pinus cembra	Arolla Pine	Scattered, mostly at high altitude, often with latter e.g. Passo di Giau.
Cupressaceae		
Cupressus sempervirens	Italian Cypress	Roadsides lower down.
Juniperus communis communis Juniperus communis alpina	Juniper	Dolomiti Friulani. Passo di Giau etc.
Juniperus sabina	Savin	Belvedere, Andraz, and Rocca Pietore.

Conifer trees and their allies

### C. ANGIOSPERMS - DICOTYLEDONES

Ansioiocniaceae Asarum europaeum	Asarabacca	In leaf Dolomiti Friulani.
<b>Ranunculaceae</b> Helleborus viridis Callianthemum coriandrifolium	Green Hellebore	Leaves at San Boldo 2010. In fruit on rocks at Valparola.

#### Trollius europaeus

Actaea spicata Caltha palustris

Aconitum lycoctonum ssp. neapolitanum Aconitum anthora Aconitum variegatum Aconitum napellus

Anemone trifolia

Anemone baldensis Hepatica nobilis Pulsatilla alpina

Pulsatilla vernalis Clematis vitalba Clematis recta Clematis alpina

Clematis viticella Ranunculus tuberosus Ranunculus repens Ranunculus lanuginosus Ranunculus acris Ranunculus carinthiacus

Ranunculus montanus Ranunculus venetus Ranunculus breyninus Ranunculus sardous Ranunculus auricomus Ranunculus hybridus Ranunculus platanifolius

Ranunculus glacialis Ranunculus kuepferi Aquilegia vulgaris Aquilegia atrata Aquilegia einseleana Thalictrum aquilegifolium Thalictrum foetidum Thalictrum minus

**Berberidaceae** Berberis vulgaris

Derberns vargari

**Papaveraceae** Papaver rhoeas

#### Globeflower

Baneberry Marsh Marigold

Wolfsbane

A monk's-hood A monk's-hood Monk's-hood

a wood-anemone

Monte Baldo Anemone Hepatica Alpine Pasque Flower

Spring Pasque Flower Traveller's-joy Ground Clematis Alpine Clematis

a clematis a buttercup Creeping Buttercup a buttercup Meadow Buttercup a buttercup

a buttercup a buttercup Hairy Buttercup Goldilocks Hybrid Buttercup a buttercup

Glacier Crowfoot a buttercup Common Columbine Dark Columbine a columbine Great Meadow-rue Foetid Meadow-rue Lesser Meadow-rue Widespread, common in meadows at all levels e.g. Fontanafredda, Passo di Giau, Duran, Cimoliana, Fedaia, and Passo Staulanza. Leaves Cimoliana 2016. Common at Fontanafredda, Duran, and Passo di Giau. Widespread, e.g. Claut, Cimoliana, Duran. Leaves noted 2014. Sottoguda, in leaf this year. Sottoguda, in leaf this year. ssp.tauricum? Scattered records, e.g. Duran, Fontanafredda, and Cimoliana. A few at Valparola. In leaf. Widespread and common above 1500m e.g. Fontanafredda (in fruit), Fedaia, and Passo di Giau. Passo di Giau and Fedaia. In leaf. Barcis 2017. Forest margins and boulder-scree at Fontanafredda, Passo di Giau, foot of Marmolada chairlift, Cimoliana, Fedaia, and Gares. Venice (PC). Cimoliana, Fontanafredda, etc.

Friulani woods. Widespread. Fontanafredda grassy slope, Duran, etc. Widespread at higher altitudes.

Cimoliana 2010. Fontanafredda 2009. In flower at Giau and Valparola. Common in woods at mid levels e.g. Fontanafredda, Gares, San Lucano, below Fedaia, and below Giau. Several in flower at Fedaia. Passo di Giau and Fedaia San Lucano 2017. Scattered records, e.g. Cimoliana. Val Cimoliana and Settimana. Gares, Sottoguda, and Fedaia. Sottoguda 2018. Locally common Dolomiti Friulani, and Day 6.

Cimoliana, Claut, Gares, etc.

Corn Poppy

Barberry

Scattered records.

Papaver aurantiacum Alpine Poppy Settimana, Valparola, and Fedaia. Chelidonium majus Greater Celandine Claut. Eschscholtzia californica California Poppy Naturalised locally on roadsides, 2014. Ulmaceae Ulmus glabra Wych Elm Dolomiti Friulani. an elm Ulmus minor Dolomiti Friulani. Ulmus laevis Large-leaved Elm Near Venice. Celtis australis Nettle-tree Venice area. Moraceae Fig Roadsides near Venice. Ficus carica **Urticaceae** Urtica dioica Stinging Nettle Widespread. Annual Nettle Cimoliana upper rocks Urtica urens (eutrophied!). Parietaria officinalis Common Pellitory Juglandaceae Juglans regia Walnut Cimolais. Fagaceae Fagus sylvatica Beech The typical forest dominant below 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 di Giau, and Passo di Fedaia. Alnus incana Grey Alder San Lucano, Gares, Vajont, etc. Hornbeam Local, e.g. Cimoliana. *Carpinus betulus* Hop Hornbeam Locally common in Dolomiti Ostrya carpinifolia Friulani and Longarone area. Corylus avellana Hazel Widespread. 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 Cimoliana etc. Common Orache Cimoliana 2012. Atriplex patula 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 Sottoguda Gorge. Forest at Fontanafredda, 2010. Moehringia trinervia Three-veined Sandwort Moehringia muscosa Mossy Sandwort Mossy boulders etc., in forest at Gares, Fontanafredda, Sottoguda, and Cimoliana etc. Valparola, and Gares gravels. Moehringia ciliata a sandwort Moehringia bavarica Fedaia 2012. a sandwort

Minuartia recurva
Minuartia austriaca Minuartia verna verna
Minuartia verna collina
Minuartia sedoides
Stellaria nemorum Stellaria media Stellaria holostea Stellaria graminea
Cerastium cerastoides Cerastium tomentosum Cerastium arvense Cerastium alpinum Cerastium uniflorum Cerastium latifolium Cerastium carinthiacum ssp.aus Cerastium subtriflorum Cerastium sylvaticum Cerastium fontanum Cerastium fontanum Cerastium glomeratum Myosoton aquaticum Sagina saginoides Sagina procumbens Scleranthus annuus Silene coronaria 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
<b>Polygonaceae</b> Polygonum aviculare Polygonum bistorta Polygonum viviparum
Fallopia convolvulus

Sickle-leaved Sandwort

a sandwort Spring Sandwort

#### Mossy Cyphel

Wood Stitchwort Common Chickweed Greater Stitchwort Lesser Stitchwort

Starwort Mouse-ear Snow-in-Summer Field Mouse-ear Alpine Mouse-ear a mouse-ear a mouse-ear a mouse-ear a mouse-ear Common Mouse-ear Sticky Mouse-ear Water Chickweed Alpine Pearlwort Procumbent Pearlwort Annual Knawel

> 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

Locally common on acid rocks, e.g. Giau and Fedaia. Valparola. Foot of Marmolada chairlift, Fedaia, and Giau rocks, etc. Apparently this subspecies at Fedaia. Passo di Giau, Falzarego, and Fedaia. Fontanafredda and Gares. Sottoguda. Duran 2014. Drv meadows at Fontanafredda. Settimana, and Cimoliana. Giau. Naturalised at Andraz. Widespread. Cimoliana 2016. Fedaia, in leaf. Marmolada, in flower, 2017. Passo di Giau, in leaf this year. Cimoliana gravels and Settimana. Andraz 2017. Scattered records.

Settimana. Fedaia and Giau. Recorded. Fontanafredda 2017. Caprile 2010. 2012 near Vajont. Duran. Giau. Scattered records. Widespread. Cimoliana. Limestone boulders and ledges on Passo Giau etc. On acidic substrates at Fedaia. Fontanafredda and Fedaia. Foot of Marmolada chairlift and Dolomiti Friulani. Cimoliana. Widespread. Widespread and locally common, e.g. Gares, Claut, and Posalz. Fontanafredda. Roadsides. Dolomiti Friulani. San Lucano 2017. Val Cimoliana. Andraz, Belvedere, and Vajont. Fedaia meadows 2017.

#### Marco Polo airport.

Grassland at Fontanafredda, Staulanza, Passo di Giau, Fedaia, Duran, and Dolomiti Friulani. Val Cimoliana 2010.

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

**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

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

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

Fedaia. Scatttered records. Widespread, e.g. Passo di Fedaia, and Dolomiti Friulani. Fedaia and Giau. Scattered records. Frequent in eutrophied pasture, etc., e.g. Fontanafredda and Passo di Fedaia. Recorded.

Recorded.

Falzarego.

In bud. In leaf 2017. Scattered records.

Vajont 2012. Roadsides lower down.

Dolomiti Friulani, Fontanafredda Passo di Giau and Fedaia. Limestone rocks at Fontanafredda, 2016.

Fontanafredda. Fontanafredda 2010. Giau. Widespread in shade and among rocks e.g. at Fontanafredda, Passo di Giau, Fedaia, Gares, Cimoliana. Rocca Pietore 2017. Recorded. Day 6.

River gravels at Caprile, 2012.

Gares. San Lucano and roadsides lower down. Frequent on limestone rocks and screes on Passo di Giau, Fedaia, Valparola, and foot of Marmolada chairlift.

#### 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

Populus nigra

#### **Brassicaceae**

Descurainia sophia Erysimum rhaeticum Barbarea vulgaris Barbarea verna Armoracia rusticana Cardamine pentaphyllos Cardamine enneaphyllos Cardamine amara

Cardamine resedifolia Cardamine impatiens Cardaminopsis halleri Arabis sagittata Arabis hirsuta Arabis turrita

Arabis caerulea Arabis bellidifolia Arabis subcoriacea Arabis alpina Turritis glabra Aurinia saxatilis Draba aizoides

#### 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

Black Poplar

Flixweed a Treacle Mustard Common Winter-cress American Winter-cress Horse-radish Five-leaflet Bittercress Drooping Bittercress Large Bittercress

Mignonette-leaved Bittercress Fine-leaved Bittercress

a rockcress Hairy Rock-cress Tower Cress

Blue Arabis a rockcress a rockcress Alpine Rockcress Tower Mustard Golden Alison Yellow Whitlow Grass Drier exposed acidic ridges Fedaia, Passo di Giau, and Valparola. Limestone, Falzarego. Passo di Giau, Falzarego. Limestone boulder waste and scree on Passo di Giau. Scree and rocks high on Fedaia, Giau, Falzarego, and Marmolada. Grassy slopes below Refugio Fredarola, 2010. Scattered records at midaltitudes, e.g. Cimoliana. Marmolada, Giau.

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

Dolomiti Friulani, locally common.

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 and Sottoguda. A few records. Claut 2018. Caprile 2010. In fruit, Sottoguda. In fruit, Dolomiti Friulani. Spring marshes at Gares and Passo di Giau. Giau and Fedaia. Sottoguda. Fontanafredda 2009. Seen on the first day, 2018. Cimoliana etc. 2017. Above Longarone, and Barcis, in fruit, 2017. Marmolada, in flower. Marmolada and Falzarego. Below Giau 2015. Fedaia, Marmolada, Gares. Day 6, 2018. Naturalised at Belvedere, 2018. Fedaia.

Draba hoppeana Draba siliquosa Draba dubia Draba fladnizensis Kernera saxatilis Rhizobotrya alpina	a whitlow grass Carinthian Whitlow Grass Austrian Whitlow Grass Arctic Draba Kernera	In flower on Marmolada, 2015 Several at Fedaia. Passo di Giau. 1 at Fedaia, 2014. Settimana, Andraz, Sottoguda, and Giau. 2 fine plants on Gares gravels, where first found four years ago. Central Alps endemic.
Capsella bursa-pastoris Pritzelago alpina Hymenolobus pauciflorus	Shepherd's-purse Chamois Cress	Scattered records. Marmolada, Fedaia, and Gares river gravels. Cimoliana, at two sites at base of cliffs.
Thlaspi arvense Thlaspi alpestre Thlaspi rotundifolium Aethionema saxatile	Field Pennycress Alpine Pennycress Round-leaved Pennycress Burnt Candytuft	Recorded 2012. Falzarego 2018. Many in flower Marmolada, also Gares gravels. Claut dinosaur footprint site
Biscutella laevigata Diplotaxis muralis	Buckler Mustard Annual Wall-rocket	2016. Widespread. Caprile gravels 2012.
<b>Resedaceae</b> Reseda lutea	Yellow Mignonette	Cimoliana.
<b>Ericaceae</b> Erica carnea	Spring Heath	Widespread in open forest at Fontanafredda, in boulder waste on Passo di Giau, and Dolomiti Friulani. Locally dominant, many in flower.
Calluna vulgaris Rhododendron ferrugineum	Heather or Ling Alpenrose	Fontanafredda 2017. Patches on more leached grassland at Passo di Giau, where numerous, Fedaia, and Fontanafredda.
Rhododendron hirsutum	Hairy Alpenrose	Local on limestone e.g. Passo di Giau, Marmolada, Serrai di Sottoguda, and common in Dolomiti Friulani.
Rhodothamnus chamaecistus	Dwarf Alpenrose	Boulder waste on Passo di Giau, and Falzarego.
Loiseleuria procumbens	Creeping Azalea	Passo di Giau, in fine flower this year.
Arctostaphylos uva-ursi	Bearberry	In leaf Cimoliana and Giau, in flower Andraz.
Arctostaphylos alpina Vaccinium vitis-idaea	Alpine Bearberry Cowberry	Giau, in leaf. Scattered in forest at Fontanafredda Cimoliana, Giau, Fedaia, and Gares etc.
Vaccinium uliginosum	Bog Whortleberry	Scattered on leached grassland on Passo di Giau, Valparola, and Fontanafredda.
Vaccinium myrtillus	Bilberry	Fortananeuda. Forest at Fontanafredda and among boulders on Passo di Giau. Also Dolomiti Friulani.

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 vulgaris Lysimachia nummularia

Anagallis arvensis Samolus valerandi

#### 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

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 Yellow Loosestrife Creeping Jenny

Scarlet Pimpernel Brookweed

Cobweb Houseleek Mountain Houseleek Dolomitic Houseleek

Orpine

a stonecrop

Rock Stonecrop Biting Stonecrop

a stonecrop a stonecrop White Stonecrop Thick-leaved Stonecrop Dark Stonecrop

Roseroot

Falzarego, in flower. Noted in fruit 2014. Cimoliana, Settimana, lower Marmolada and Fedaia. Below Staulanza, 2017. Below Staulanza. San Osvaldo 2011.

1 in flower at Fedaia. Scattered records in fruit. Cimoliana. Passo di Giau. Fontanafredda, Duran, etc. A few at Fedaia. Many in fine flower at S.Pellegrino in 2014. In flower on Passo di Giau and Fedaia. In fruit below Passo di Giau. 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. Many in flower Passo di Giau and Fedaia. Marmolada. In flower at Fedaia. Dolomiti Friulani. Venice At the service station on the last day, 2016. Venice. Sottoguda Gorge 2017.

Rosettes at Fedaia. Fedaia 2017. Rosettes at Fedaia. Ledges on Passo di Giau in the past. Belvedere and Rocca Pietore, in leaf. Rocca Pietore and Belvedere.

Scattered, e.g. Cimoliana and Vajont. Giau 2016. In flower at Vajont 2017. Rocca Pietore and Belvedere. Rocca Pietore and Belvedere. Both nominate (Fontanafredda) and ssp. *carinthiacum* (Fedaia). Locally common, e.g. Passo di Giau, Fedaia.

<b>S</b>		
Saxifragaceae	David Issued Carifus as	De altre formati et Formton often dela
Saxifraga rotundifolia	Round-leaved Saxifrage	Rocky forest at Fontanafredda, Gares, and Cimoliana.
Saxifraga caesia	Blue Saxifrage	Sottoguda gorge, Marmolada,
Suxijrugu cuesiu	Dide Saxinage	and Valparola, in bud this year.
Saxifraga squarrosa	a saxifrage	Cimoliana river gravels, in fine
Saxijraga squarrosa	a saxinage	flower.
Saxifraga oppositifolia	Purple Saxifrage	In flower Marmolada and Fedaia.
Saxifraga crustata	Encrusted Saxifrage	Sottoguda gorge, Gares, etc.
Saxifraga hostii	a saxifrage	One rosette near Avoscan.
Saxifraga paniculata	Livelong Saxifrage	Widespread and locally very
Sandy aga pontentata		common.
Saxifraga bryoides	Mossy Saxifrage	A few at Fedaia, in bud this year.
Saxifraga aizoides	Yellow Mountain Saxifrage	A few records.
Saxifraga exarata	Musky Saxifrage	Common on Fedaia.
Saxifraga androsacea	Scree Saxifrage	Valparola.
Saxifraga depressa	a saxifrage	A few in flower at Fedaia.
Saxifraga facchini	a saxifrage	Crevices and scree high on
		Marmolada 2012.
Saxifraga sedoides	a saxifrage	Marmolada, only one in flower
		this year.
Chrysosplenium alternifolium	Alternate-leaved Golden-saxifrage	•
Parnassia palustris	Grass-of-Parnassus	Gares gravels, Duran,
<b>D</b> .1		Fontanafredda.
Ribes petraeum	Rock Redcurrant	Andraz and Gares.
Rosaceae		
Spiraea decumbens	a spiraea	sspp. <i>decumbens</i> and <i>hacquetii</i> at
spiraea accumpens	u sphuou	Cimoliana, and Settimana.
Aruncus dioicus	Goatsbeard Spiraea	Widespread.
Filipendula vulgaris	Dropwort	Scattered records, e.g. Cimoliana.
Filipendula ulmaria	Meadowsweet	Venice roadsides.
Rubus fruticosus agg.	Bramble	Scattered records.
Rubus saxatilis	Rock Bramble	Fontanafredda.
Rubus idaeus	Raspberry	Dolomiti Friulani and
		Fontanafredda.
Rubus phoenicolasius	a bramble	San Lucano 2010.
Rubus caesius	Dewberry	Cimoliana 2017.
Rosa glauca	Blue-leaved Rose	Cimoliana, Rocca Pietore,
		Belvedere.
Rosa pendulina	Alpine Rose	Gares.
Rosa montana	Mountain Rose	Scattered, e.g. Posalz, Cimoliana,
		and Gares.
Rosa canina	Dog Rose	Dolomiti Friulani and Belvedere.
Rosa tomentella	Round-leaved Dog Rose	Near Avoscan 2018.
Rosa tomentosa	Harsh Downy-rose	Sottoguda.
Agrimonia eupatoria	Agrimony	Drier verges at lower altitudes.
Aremonia agrimonoides	Bastard Agrimony Salad Burnet	Settimana 2013.
Sanguisorba minor Dryas octopetala	Mountain Avens	Vajont. Widespread on limestone. Passo
Dryus ociopeiuiu	Wouldani Avens	di Giau, Staulanza, Fedaia,
		Falzarego, Marmolada, and
		Dolomiti Friulani
Geum reptans	Creeping Avens	Fedaia in fine flower.
Geum montanum	Mountain Avens	Numerous on Passo di Giau and
		Fedaia. Abundant this year.
Geum rivale	Water Avens	Scattered records.
Geum urbanum	Herb Bennet	Rocca Pietore 2017.
Potentilla anserina	Silverweed	Gares valley 2017.
Potentilla recta	Sulphur Cinquefoil	Rocca Pietore.
	-	

Potentilla crantzii

Potentilla aurea

Potentilla neumanniana Potentilla erecta Potentilla reptans Potentilla caulescens

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 Cotoneaster tomentosus 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 Alpine Cinquefoil

Golden Cinquefoil

a cinquefoil Tormentil Creeping Cinquefoil Lax Potentilla

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 Brickberry 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 Limestone grassland, scattered records. Widespread and common in more acid grassland and margins of forest, e.g. Fontanafredda, Giau, Fedaia. Cimoliana etc. Widespread, e.g. Cimoliana. Day 1. Rocks in Serrai di Sottoguda, and Cimoliana, all in leaf. Ouite common on limestone boulders on and below Passo di Giau, in fine flower. Also Valparola. Fedaia 2017. Shade at mid-levels. Recorded.

Passo di Giau.

Widespread. Cimoliana, Giau. Cimoliana etc. Belvedere. Cimoliana etc. Naturalised at Vajont, 2016. Giau 2014. Giau.

Venice area.

Widespread. Dolomiti Friulani. All over this year in Val Cimoliana. Fontanafredda, locally common. Dolomiti Friulani. Claut. Numerous on roadsides. West of Longarone 2017. In bud 2017. Andraz. Locally very common at Fedaia 2017. not seen 2017. Fedaia. Gares gravels. San Lucano and Andraz. In leaf at Giau. Passo di Giau 2012. Scattered, e.g. below Passo di Giau, Fedaia, and Andraz. Widespread on roadsides. Scattered records, e.g. Passo Duran.

Vicia sepium

Lathyrus vernus Lathyrus ochraceus Lathyrus pratensis

Lathyrus sylvestris Lathyrus latifolius Lathyrus heterophyllus Ononis spinosa Ononis repens Melilotus altissimus Melilotus officinalis Melilotus albus 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 Onobrychis arenaria Onobrychis viciifolia

Elaeagnaceae Hippophaë rhamnoides

*Lythraceae Lythrum salicaria* 

#### Thymelaeaceae

Daphne laureola Daphne mezereum Daphne cneorum Daphne striata

#### Bush Vetch

Spring Vetchling

Meadow Vetchling

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

Spiny Restharrow Common Restharrow Tall Melilot Ribbed Melilot White Melilot Black Medick Lucerne Sickle Medick Alpine Clover Mountain Clover

White Clover

Thale Cress Alsike Clover Brown Clover

Large Trefoil Red Clover Zigzag Clover

Common Bird's-foot-trefoil Alpine Bird's-foot-trefoil

Dragon's-teeth

Kidney-vetch

Crown-vetch False Senna Horseshoe-vetch Alpine Sainfoin Mountain Sainfoin Hungarian Sainfoin Common Sainfoin

Sea-buckthorn

Purple Loosestrife

Spurge-laurel Mezereon Garland Flower a garland flower Scattered records, e.g. Cimoliana and Andraz. In leaf Day 5. Duran and Staulanza. Scattered in meadows e.g. Dolomiti Friulani, and San Lucano. Belvedere and Rocca Pietore. Rocca Pietore. San Lucano last stop 2017. A few records. San Lucano 2012.

Roadsides. Scattered records. A few records. Vajont and Day 8. Passo di Fedaia. Meadows at Fontanafredda and Dolomiti Friulani, Giau, and below Fedaia. Scattered records. Giau. Giau. Giau. Fontanafredda, Passo di Giau, Duran, etc. San Lucano 2017. Common. Andraz.

Rocca Pietore and Dont. Widespread in grassland. Widespread above 2000m e.g. Passo di Giau. At the Epipactis palustris site. (Tetragonolobus maritimus). Widespread, various subspecies present. In leaf 2017. Day 9. San Lucano, not in flower. Widespread and locally common. Valparola. Giau and Day 9. Recorded 2015. Dolomiti Friulani etc.

Roadsides near Venice.

In fruit Dolomiti Friulani. Giau, Fedaia, 2016. Passo di Giau, Fedaia, Valparola.

#### **Onagraceae**

Circaea alpina Oenothera glazioviana Epilobium angustifolium Epilobium dodonaei Epilobium hirsutum Epilobium montanum Epilobium alpestre

Epilobium obscurum Epilobium roseum Epilobium anagallidifolium Epilobium alsinifolium

**Cornaceae** Cornus sanguinea

#### Santalaceae

Thesium pyrenaicum Thesium alpinum Thesium rostratum

*Celastraceae Euonymus europaeus* 

#### *Euphorbiaceae*

Mercurialis perennis Euphorbia dulcis Euphorbia helioscopia Euphorbia peplus Euphorbia triflora ssp.kerneri Euphorbia esula Euphorbia cyparissias

#### Rhamnaceae

Rhamnus saxatilis Rhamnus cathartica Rhamnus alpina ssp.fallax Rhamnus pumila

#### Frangula alnus

Vitaceae Parthenocissus quinquefolia

#### Linaceae

Linum viscosum Linum tenuifolium Linum catharticum

**Polygalaceae** Polygala chamaebuxus Polygala nicaeensis

Polygala vulgaris

Alpine Enchanter's NightshadeGares 2017.Large-flowered Evening PrimroseLower roadsides.Rosebay WillowherbWidespread.a willowherbDolomiti FriulaniGreater WillowherbRoadsides lowerBroad-leaved WillowherbFriulani, etc. 2017Whorled-leaved WillowherbForest margins at

Short-fruited Willowherb Pale Willowherb Pimpernel-leaved Willowherb Chickweed Willowherb

#### Dogwood

Pyrenean Bastard Toadflax Alpine Bastard Toadflax a bastard toadflax

Spindle

Dog's Mercury Sweet Spurge Sun Spurge Petty Spurge a spurge Leafy Spurge Cypress Spurge

Rock Buckthorn Buckthorn Alpine Buckthorn Dwarf Buckthorn

Alder Buckthorn

Virginia Creeper

Sticky Flax a flax Purging Flax

Shrubby Milkwort Nice Milkwort

Common Milkwort

Gares 2017. Lower roadsides. Widespread. Dolomiti Friulani, in leaf, 2016. Roadsides lower down. Friulani, etc. 2017. Forest margins at Fontanafredda, Serrai di Sottaguda, and Duran. Not seen2018. River gravel at Gares, 2016. Belvedere. Giau lunch site marsh, 2012. Fontanafredda 2011.

Recorded 2013. Scattered records. Cimoliana.

Scattered records in leaf 2017. San Lucano 2014. Sottoguda 2017. Cimolais 2012. Cimoliana and Vajont. Venice area. Cimoliana and Vajont.

Vajont 2017. Cimoliana 2017. Dolomiti Friulani 2017. Giau, Rocca Pietore, and Sottoguda. Sottoguda.

This species Longarone cliffs? And San Lucano.

Between Duran and Agordo. A few at Vajont 2017. Scattered records.

Fontanafredda and Giau. Dolomiti Friulani, ssp.*forojulensis*. Scattered records. ssp.*oxyptera* on Gares gravels.

Polygala alpestris Polygala amarella

Polygala alpina

Aceraceae Acer platanoides Acer campestre Acer pseudoplatanus

**Oxalidaceae** Oxalis corniculata Oxalis stricta Oxalis acetosella

Geraniaceae Geranium macrorrhizum Geranium sanguineum Geranium sylvaticum

Geranium nodosum Geranium phaeum

Geranium pyrenaicum Geranium rotundifolium Geranium dissectum Geranium robertianum

#### Balsaminaceae

Impatiens parviflora Impatiens glandulifera

Apiaceae Sanicula europaea Chaerophyllum hirsutum

Chaerophyllum villarsii Chaerophyllum aureum Anthriscus sylvestris Anthriscus nitida Scandix pecten-veneris Myrrhis odorata Pimpinella major

Pimpinella saxifraga Aegopodium podagraria

Seseli libanotis Seseli kochii Athamanta cretensis Bupleurum ranunculoides Mountain Milkwort Dingy Milkwort

Alpine Milkwort

Norway Maple Field Maple Sycamore

Procumbent Yellow-sorrel a sorrel Wood Sorrel

Rock Cranesbill Bloody Cranesbill Wood Cranesbill

Knotted Cranesbill Dusky Cranesbill

Pyrenean Cranesbill Round-leaved Cranesbill Cut-leaved Cranesbill Herb Robert

Small Balsam Himalayan Balsam

Sanicle Hairy Chervil

a chervil a chervil Cow Parsley a cow parsley Shepherd's Needle Sweet Cicely Great Burnet-saxifrage

Burnet-saxifrage Ground-elder

Moon Carrot a moon carrot Athamanta Thorow-wax Scattered records. Rocky grassland at Fontanafredda and Passo di Giau, etc. 2017. Apparently this Fedaia, but out of range?

Vajont. Widespread.

Claut. 'Closed road' cliffs 2015. Scattered in leaf, in flower Claut.

Barcis 2017. Vajont 2017. Dolomiti Friulani, Staulanza, Duran, Fontanafredda, Giau, etc. Locally very common. Recorded 2017. Common in meadows and margins e.g. Dolomiti Friulani, Fontanafredda, Posalz and in Serrai di Sottoguda. Plants were all of var. lividum, much paler than further west in Europe. On the arrival day. Andraz 2017. Vajont 2017. Scattered records.

Saxifraga hostii site. Below Agordo, 2015.

Settimana 2015. Widespread. Cimoliana, Giau, etc. Scattered, e.g. Friulani. San Lucano. Scattered records. Fontanafredda. Andraz 2017. San Lucano 2017. Meadows and forest edge at Fedaia, Fontanafredda, Posalz, and below Giau. Dolomiti Friulani. Rough meadow and forest edges at low-middle altitudes. Rocca Pietore boulders. Cimoliana. Cimoliana, Sottoguda Gorge. Vajont 2015.

ssp.caricinum Trinia glauca Carum carvi Ligusticum mutellinoides Ligusticum mutellina

Angelica sylvestris Ferulago campestris Peucedanum venetum Peucedanum cervaria Peucedanum ostruthium

Peucedanum verticillare Pastinaca sativa Heracleum sphondylium Laserpitium siler Laserpitium latifolium Laserpitium peucedanoides Torilis japonica Daucus carota

#### Gentianaceae

Centaurium erythraea Centaurium pulchellum

Gentiana lutea Gentiana punctata Gentiana asclepiadea

Gentiana cruciata Gentiana prostrata

Gentiana clusii Gentiana acaulis Gentiana verna Gentiana brachyphylla Gentiana orbicularis

Gentiana bavarica Gentiana terglouensis Gentiana nivalis Gentiana utriculosa Gentiana nana Gentiana pilosa Gentiana germanica

**Aslepiadaceae** Vincetoxicum hirundinaria

Solanaceae Scopolia carniolica

Solanum nigrum Solanum dulcamara Solanum tuberosum 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 Upright Hedge-parsley Wild Carrot

Common Centaury Lesser Centaury

Yellow Gentian Spotted Gentian Willow Gentian

Cross Gentian a gentian

Clusius's Gentian Trumpet Gentian Spring Gentian a gentian a gentian

Bavarian Gentian Triglav Gentian Snow Gentian Bladder Gentian

a gentian German (or Chiltern!) Gentian

Swallow-wort

Black Nightshade Bittersweet Potato Fedaia. Cimoliana, Giau, etc. Fedaia. Scattered, e.g. Passo di Giau, Staulanza. Duran, and Fontanafredda. Scattered in leaf. Lower roadsides, 2018. Cimoliana and Vajont. In leaf. Scattered records, e.g. base of Marmolada and Fedaia. Cimoliana and Belvedere. San Lucano and Vajont 2011. Widespread. Cimoliana and Claut. Scattered records. Cimoliana and Claut. Near Venice. Venice roadsides and Belvedere.

Cimoliana 2017. At the service station lunch stop on the arrival day 2018. In leaf Day 3. Passo di Giau and Fedaia. Val Cimoliana and Settimana, in leaf. In leaf at Cimoliana. One at Fontanafredda 2010 was a new record for this tour. but not seen there since! Cimoliana (over), Marmolada. Fedaia and Passo di Giau. Scattered records. Fedaia and Passo di Giau. Marmolada, a few seen from the chair-lift. Wet flushes at Valparola. 2 plants at Valparola. In fruit. Cimoliana and Giau. 4 petals. Recorded 2012. Below Giau 2017. Fontanafredda.

Dolomiti Friulani etc., locally common.

San Osvaldo, in fruit, 2008. 2010 in fruit at *Epipactis palustris* site below Passo Duran. Venice 2018. Claut. San Lucano gravels 2014! Convolvulaceae Cuscuta europaea Cuscuta epithymum Calystegia sepium Convolvulus arvensis Boraginaceae Echium vulgare Pulmonaria officinalis Pulmonaria vallarsae Pulmonaria australis Symphytum officinale Myosotis arvensis Mvosotis discolor Myosotis sylvatica *Myosotis alpestris* Myosotis scorpioides Eritrichium nanum Lappula deflexa Verbenaceae Verbena officinalis Lamiaceae Ajuga genevensis Ajuga pyramidalis Ajuga reptans Teucrium montanum Melittis melissophyllum Galeopsis ladanum Galeopsis speciosa Salvia pratensis Lamium album Lamium galeobdolon Stachys alopecuros Stachys officinalis Stachys alpina Stachys sylvatica Stachys recta Prunella grandiflora Prunella vulgaris Acinos alpinus Acinos arvensis *Clinopodium vulgare* Origanum vulgare Thymus praecox Thymus pulegioides Lycopus europaeus

Mentha longifolia

Greater Dodder

Dodder Hedge Bindweed Field Bindweed

Viper's Bugloss Lungwort a lungwort

a lungwort Common Comfrey Field Forget-me-not Changing Forget-me-not Wood Forget-me-not Alpine Wood Forget-me-not

Water Forget-me-not King of the Alps

Vervain

Blue Bugle Pyramidal Bugle

Bugle Mountain Germander Bastard Balm

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

Meadow Clary White Dead-nettle Yellow Archangel Yellow Betony Betony Limestone Woundwort Hedge Woundwort Yellow Woundwort Large Self-heal Self-heal Alpine Calamint Basil Thyme Wild Basil Marjoram Hairy Thyme Large-flowered Thyme Gipsywort Horse Mint

San Lucano, parasitising *Urtica dioica*, 2014. Cimolais 2014. Roadsides lower down. Lower roadsides.

Widespread. Gares valley, in leaf. In late flower at Fontanafredda 2018! Fedaia and Giau. Cortina area roadsides 2013. Fontanafredda. Fontanafredda 2017. Scattered, e.g. Fontanafredda. Scattered records at higher altitudes, e.g. Giau, Fedaia, Fontanafredda, locally very common. A few records. Very many fine examples at Fedaia. Abundantly in flower! In flower and fruit in Sottoguda gorge, 2017.

Recorded 2017.

Belvedere and Posalz. Passo di Giau and Passo di Fedaia. Cimoliana 2018. Vajont. A white flowered form in Settimana Valley. In leaf. Fontanafredda, very common after logging disturbance. Not seen 2018. Widespread and common. Scattered records. Cimoliana etc. [ssp. *flavidum*] Widespread. Vajont 2014. Epipactis palustris site. Scattered records. Day 6. Dolomiti Friulani. Scattered records. Widespread. Sottoguda 2017. San Lucano. Gares valley.

Widespread. In leaf at Vajont 2011. Scattered in leaf.

Horminum pyrenaicum	Dragonmouth	Widespread in limey grassland at Cimoliana, Fontanafredda, Passo di Giau, Staulanza, and
Salvia glutinosa	Sticky Sage	Passo di Fedaia, etc. In leaf in Dolomiti Friulani, San Lucano, etc.
Salvia saccardiana	a sage	Vajont.
Plantaginaceae		
Plantago major	Great Plantain	Recorded, sspp.major and
Plantago maritima serpentina	a plantain	<i>intermedia.</i> Cimoliana. Not recorded for Pordenone province in Flora
	Henry Disate's	Alpina.
Plantago media Plantago lanceolata	Hoary Plantain Ribwort Plantain	Widespread.
T iuniugo iunceolulu	Ribwort Flantani	
Buddlejaceae		
Buddleja davidii	Buddleia	Occasionally naturalised on lower roadsides.
Oleaceae		
Fraxinus ornus	Manna Ash	
Fraxinus excelsior	Ash	Widespread.
Ligustrum vulgare	Privet	Dolomiti Friulani.
Scrophulariaceae		
Verbascum thapsus	Aaron's-rod	Scattered records.
Verbascum pulverulentum	Hoary Mullein	Belvedere etc.
Verbascum chaixii	a mullein	ssp. <i>austraicum</i> in Dolomiti
Verbascum nigrum	Dark Mullein	Friulani. Scattered records, e.g. San
verbascum nigrum	Dark Mulleni	Lucano.
Scrophularia nodosa	Common Figwort	Cimoliana etc.
Scrophularia canina	Alpine Figwort	Claut. Either this or the following species in fruit on San Lucano gravels.
Scrophularia juratensis	a figwort	8
Chaenorrhinum minus	Small Toadflax	Day 6.
Linaria angustissima	a Toadflax	Belvedere and Day 6.
Linaria alpina	Alpine Toadflax	Fedaia and Settimana.
Digitalis grandiflora Veronica bellidioides	Large Yellow Foxglove Violet Speedwell	Scattered, e.g. Rocca Pietore. Fedaia.
Veronica serpyllifolia	Thyme-leaved Speedwell	Scattered records, e.g. Giau and
		Fedaia. [ssp. <i>humifusa</i> and ssp. <i>serpyllifolia</i> ]
Veronica alpina	Alpine Speedwell	Giau marsh.
Veronica fruticans	Rock Speedwell	Locally common at Fontanafredda.
Veronica fruticulosa	a speedwell	Fontanafredda, Andraz, and Belvedere.
Veronica urticifolia	Nettle-leaved Speedwell	Dolomiti Friulani, Gares, etc.
Veronica teucrium	a speedwell	Dolomiti Friulani 2011.
Veronica aphylla	Leafless-stemmed Speedwell	Ledges at foot of Marmolada chairlift.
Veronica officinalis	Heath Speedwell	Fontanafredda and Duran.
Veronica chamaedrys	Bird's-eye Speedwell	Meadow margins at
		Fontanafredda, Duran,
Veronica montana	Wood Speedwell	Cimoliana, etc. Gares 2015.

Veronica beccabunga Veronica persica Paederota bonarota

Melampyrum velebiticum Melampyrum sylvaticum Melampyrum pratense

Euphrasia rostkoviana *Euphrasia picta* ssp.*arguta* Euphrasia salisburgensis

Bartsia alpina

Pedicularis recutita Pedicularis rosea Pedicularis verticillata Brooklime Common Field Speedwell **Bluish Paederota** 

a cow-wheat Wood Cow-wheat Common Cow-wheat

an eyebright an eyebright Irish Eyebright

Alpine Bartsia

a lousewort a lousewort Verticillate Lousewort

Pedicularis palustris Marsh Lousewort Pedicularis tuberosa Long-beaked Yellow Lousewort Pedicularis elongata a lousewort Pedicularis rostratocapitata Beaked Lousewort Pedicularis elongata x rostratocapitata Rhinanthus minor Yellow Rattle Aristate Yellow-rattle Rhinanthus glacialis Rhinanthus pampaninii a yellow-rattle

Rhinanthus frevnii a vellow-rattle Rhinanthus alectorolophus Greater Yellow-rattle

Globulariaceae Globularia bisnagarica

Globularia cordifolia

Orobanchaceae

Orobanche purpurea

Orobanche alba Orobanche teucrii

Orobanche flava Orobanche gracilis

Lentibulariaceae Pinguicula alpina

Yarrow Broomrape

Matted Globularia

a globularia

Thyme Broomrape Germander Broomrape

Butterbur Broomrape Slender Broomrape

Alpine Butterwort

a butterwort

Common Butterwort

Pinguicula leptoceras Pinguicula vulgaris

2017.

Scattered records. Dolomiti Friulani and Fontanafredda, 2017. Cimoliana 2017. Dolomiti Friulani. Sottoguda gorge 2017, very small flowers. Boggy flushes at Passo di Giau, Duran, Fedaia, Fontanafredda, and Valparola. Passo di Giau 2015. A few at Valparola. Widespread and common e.g. Cimoliana, Fedaia, Fontanafredda, and Passo di Giau. Fontanafredda. Passo di Giau and Fedaia. Widespread. Rather common at Valparola. This hybrid at Valparola Fontanafredda etc.

Settimana.

San Lucano.

Rocca Pietore 2017.

Serrai di Sottoguda, Cimoliana, and Andraz.

Limestone cliffs and boulders e.g.. Passo di Giau (and below),

A subendemic. Val Cimoliana and Claut. Cimoliana and Fontanafredda. Widespread.

Vajont and Dolomiti Friulani, gone over. Dolomiti Friulani and Sottoguda, gone over.

On Achillea at Belvedere. c.15 plants. Fontanafredda 2017. Claut 2015, an interesting record. Parasitising Teucrium montanum. 2 at Claut 2015. Widespread.

Locally in fine flower, at Passo di Giau. Marmolada at foot of chairlift. Gares, and Falzarego. One fine patch in Giau marsh, Fontanafredda and Andraz.

### Campanulaceae

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 aristata Asperula cynanchica Galium odoratum Galium palustre

Galium verum Galium mollugo Galium album Galium lucidum Galium laevigatum Galium rubrum Galium pumilum Galium pumilum Galium margaritaceum Galium margaritaceum Galium aparine Cruciata laevipes Cruciata glabra

#### Caprifoliaceae

Sambucus ebulus Sambucus nigra Sambucus racemosa Viburnum opulus 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

a squinancywort Squinancywort Woodruff Common Marsh Bedstraw

Lady's Bedstraw Hedge Bedstraw Upright Bedstraw Shining Bedstraw a bedstraw a bedstraw Slender Bedstraw a bedstraw a bedstraw Cleavers Crosswort a Crosswort

Dwarf Elder Common Elder Red-berried Elder Guelder Rose Vajont, Dolomiti Friulani, and Day 6. Fontanafredda. Widespread, e.g. Cimoliana and Posalz. Cimoliana 2016. Roadsides west of Longarone, Vaiont. Belvedere, etc. Gares valley, with very large flowers. Dont Scattered records San Lucano and Gares. Gares gravels. Marmolada, on dam, seen from vehicle, 2017! Meadows and rocks e.g. Cimoliana. Cimoliana, Rocca Pietore, etc. Duran. Gares valley etc. Fontanafredda 2017. Gares valley and Fedaia 2017. Locally common in meadows etc. Rocks: Passo di Giau, lower Marmolada, and Falzarego. Fedaia, Passo di Giau etc., not in flower this year. Fedaia, in leaf this year. Cimoliana in especially fine flower. Claut in leaf. Serrai di Sottoguda in bud this year.

Cimoliana 2017. Claut. Forest floors in the past. Passo Duran.

Dolomiti Friulani. Scattered records. Belvedere.

Dolomiti Friulani. San Martino 2013. Widespread.

Cimoliana gravels. A few records. Scattered records. Claut.

Belvedere. Scattered records.

Viburnum lantana Lonicera caerulea Lonicera alpigena Lonicera nigra Lonicera xylosteum	Wayfaring Tree Blue-berried Honeysuckle Alpine Honeysuckle Black-berried Honeysuckle Fly Honeysuckle	Cellina gorge 2017. Day 6. In fruit at San Lucano and Sottoguda. San Lucano and Gares in fruit. Gares.
-		
<b>Adoxaceae</b> Adoxa moschatellina	Moschatel	In flower at Gares, 2014.
Valerianaceae		
Valeriana officinalis	Common Valerian	A few records.
Valeriana wallrothii	a valerian	Scattered records, e.g. Dolomiti
		Friulani.
Valeriana dioica	Marsh Valerian	Boggy flushes, Fontanafredda and Duran.
Valeriana tripteris	Three-leaved Valerian	Scattered records, e.g.
		Fontanafredda.
Valeriana montana	a valerian	Widespread and reasonably
		common, e.g.
		Cimoliana, Fedaia, and Giau.
Valeriana saxatilis	Rock Valerian	Dolomiti Friulani, Passo di Giau,
		Andraz.
Valeriana elongata	a valerian	Many on one cliff at Falzarego.
		Three plants
		on lower Marmolada.

#### Dipsacaceae

Having the Knautia and Scabiosa keys from Flora Europaea with me this year did nothing to clarify the identification of the species present!

identification of the species pres	sent!	
Dipsacus fullonum	Teasel	Near Venice.
Dipsacus laciniatus	Cut-leaved Teasel	Apparently this species, very
		robust, on
		Venice roadsides.
Knautia drymeia		Dolomiti Friulani.
Knautia dipsacifolia	Wood Scabious	Scattered woodland edge records.
Knautia ressmannii		Dolomiti Friulani.
Knautia longifolia		
Knautia arvensis	Field Scabious	Gares meadow, Posalz, etc.
Scabiosa triandra	a scabious	Cimoliana and San Lucano.
Scabiosa columbaria	Small Scabious	
Lomelosia graminifolia	a scabious	Near Claut, a few in fine flower.
Asteraceae		
Eupatorium cannabinum	Hemp-agrimony	Scattered records.
Solidago virgaurea	Goldrenrod	Local, e.g. Fedaia
Aster alpinus	Alpine Aster	Giau and Fontanafredda.
Aster bellidiastrum	False Aster	Dolomiti Friulani, Fontanafredda,
		Andraz.
Erigeron annuus	Annual Fleabane	Widespread and often numerous.
Erigeron acer	Blue Fleabane	Scattered records, e.g. Belvedere.
Erigeron atticus	Greek Fleabane	Passo di Giau.
Erigeron alpinus	Alpine Fleabane	Rocks on Passo di Giau, and
	-	Fedaia.
Erigeron neglectus	Neglected Fleabane	Fedaia and Falzarego.
Erigeron glabratus	Variable Fleabane	Giau 2017.
Antennaria dioica	Mountain Everlasting	Local in drier unshaded places at
	2	Cimoliana, Fontanafredda etc.
Antennaria carpatica	Carpathian Catsfoot	Fedaia and Giau.
Leontopodium alpinum	Edelweiss	Several at Valparola.
· ·		*

Buphthalmum salicifolium	Yellow Ox-eye	Verges and meadows, widespread, e.g. Dolomiti
		Friulani.
Galinsoga ciliata	a gallant soldier	Pavement weed.
Achillea oxyloba	Alpine Sneezewort	Near the Marmolada dam, and
		Valparola.
Achillea erba-rotta ssp.moschata	a milfoil	In leaf this year.
Achillea atrata	Dark-stemmed Sneezewort	Low on Marmolada, and at
		Valparola
		and Falzarego.
Achillea clavennae	Silvery Milfoil	Rocks on Passo di Giau and
		Fedaia.
Achillea macrophylla	Large-leaved Sneezewort	Dolomiti Friulani roadsides.
Achillea millefolium	Yarrow	Widespread.
Achillea roseaoalba	a yarrow	Dolomiti Friulani.
Tripleurospermum inodorum	Scentless Mayweed	In leaf.
Matricaria chamomilla	Scented Mayweed	Recorded 2018.
Matricaria discoidea	Pineapple-weed	Pavement weed.
Leucanthemopsis alpina	Alpine Moon Daisy	Fedaia.
Leucanthemum vulgare	Ox-eye Daisy	Dolomiti Friulani.
Leucanthemum heterophyllum	an ox-eye daisy	Widespread, e.g. Cimoliana.
Artemisia vulgaris	Mugwort	Scattered records.
Artemisia absinthium	Wormwood	Belvedere.
Artemisia genipi	a wormwood	Fedaia.
Tussilago farfara	Coltsfoot	Still in flower on Marmolada,
		and Fedaia.
Petasites albus	White Butterbur	Still in flower in Sottoguda
		Gorge 2014!
		Over this year.
Petasites hybridus	Butterbur	Similar habitats to latter but at
		lower altitudes, in leaf and fruit.
Petasites paradoxus	Alpine Butterbur	In leaf and fruit, Marmolada.
Homogyne alpina	Alpine Coltsfoot	Common in shade and among
		rocks e.g. Passo di Giau,
		Cimoliana, Fedaia, and
		Fontanafredda. Locally very
<b>TT</b> 1· 1		common.
Homogyne discolor	an alpine coltsfoot	Valparola, in leaf this year.
Adenostyles alliariae	Adenostyles	Forests, margins and meadows,
		e.g. Giau.
Adenostyles glabra		Scattered, e.g. Dolomiti Friulani
A	Amina	and Andraz.
Arnica montana	Arnica	Scattered in meadows at
		Fontanafredda,
Doronicum columnae	Heart looved Leonard's here	Fedaia, and Duran.
	Heart-leaved Leopard's-bane	In good flower at Falzarego. Fedaja 2015.
Doronicum glaciale Senecio incanus	a leopard's-bane Grey Alpine Groundsel	Leached grassland, Passo di
Senecio incunus	Orey Alpine Oroundser	-
		Giau, Fedaia. In leaf this year. [ssp. <i>carniolicus</i> ]
Senecio inaequidens	Narrow-leaved Ragwort	Longarone roadsides, native to
Senecio indequidens	Nariow-Raved Ragwort	South Africa.
Senecio germanicus ssp.glabratus	Wood Pagwort	Fontanafredda.
Senecio cacaliaster	a ragwort	Fedaia roadsides 2017.
Senecio alpinus	Alpine Ragwort	Meadows and moist flushes at
Sencero arpinas	Applie Rug wort	Fontanafredda, and at Passo
		Duran.
Senecio rupestris	Rock (Oxford) Ragwort	Roadsides.
Senecio abrotanifolius	a ragwort	A few in Settimana valley.
Senecio vulgaris	Common Groundsel	Claut.
0		

Tephroseris tenuifolia Carlina acaulis Arctium lappa Arctium minus Saussurea discolor

Carduus nutans Carduus personata

Carduus defloratus

Cirsium eriophorum Cirsium vulgare Cirsium montanum Cirsium erisithales Cirsium carniolicum Cirsium oleraceum Cirsium spinosissimum

Cirsium helenoides Cirsium palustre

Cirsium arvense Centaurea dichroantha

Centaurea scabiosa Centaurea jacea Centaurea nigrescens Centaurea pseudophrygia Centaurea nervosa Centaurea montana Centaurea triumfetti

Centaurea sp. 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

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 a thistle 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

a knapweed 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 Gares. Old fruiting heads. Day 6.

Valparola boulders 2017 and 2018. Claut. Widespread in moist forest edges, e.g. Gares. Locally common. Widespread. More than one subspecies present. Cimoliana 2014. Venice Airport 2017.

Widespread. San Lucano. Dont. Grassland on Passo di Giau, Fedaia, and Falzarego. Fontanafredda. San Lucano, Settimana, and Dont. Scattered records. Yellow and purple forms in Cimoliana and Settimana. Vajont. Vajont, ssp.angustifolia? Scattered records, e.g. Cimoliana. In bud Giau, 2018. Passo di Giau and Fedaia. Vajont 2016. Probably this species at Cimoliana, 2012. Near Venice 2017. Verges lower down. Common under spruce e.g. Fontanafredda, Staulanza, and Cimoliana. Fedaia and Fontanafredda. Posalz and Fedaia.

Fedaia. Cimoliana, Settimana etc. Dolomiti Friulani.

Venice area, Posalz. Scattered records. Upper Fontanafredda. Scattered records. Belvedere etc.

Roadsides lower down. Fontanafredda. San Lucano and Gares, in bud. Scattered records.

Taraxacum palustre	Marsh Dandelion	Giau marsh, in leaf 2017. Not seen 2018.
Taraxacum officinale	Dandelion	Widespread.
Taraxacum spp.	Dandelions	Verges at Passo di Giau and screes/crevices
Chondrilla chondrilloides	a lettuce	high on Marmolada. Dolomiti Friulani, locally very common.
Lapsana communis	Nipplewort	
Crepis paludosa	Marsh Hawksbeard	Scattered, e.g. Fontanafredda.
Crepis aurea	Golden Hawksbeard	Locally common, e.g. Passo di Giau, Duran, and Fontanafredda.
Crepis bocconei	a hawksbeard	Valparola 2015.
Crepis alpestris	a hawksbeard	Cimoliana 2015.
Crepis froelichiana dinarica	a hawksbeard	Pink flowers. Several in
		Cimoliana and
		Settimana.
Crepis capillaris	Smooth Hawk's-beard	Lower altitues.
Hieracium staticifolium	a hawkweed	Cimoliana.
Hieracium hoppeanum	a hawkweed	Fontanafredda.
Hieracium pilosella	Mouse-ear Hawkweed	Fontanafredda and Giau.
Hieracium lactucella	a hawkweed	Day 6.
Hieracium piloselloides	a hawkweed	
Hieracium cymosum	a hawkweed	Passo Fedaia 2017.
Hieracium aurantiacum	Fox-and-Cubs	Passo Fedaia and Fontanafredda.
Hieracium bifidum	a hawkweed	Widespread.
Hieracium villosum	a hawkweed	Passo di Giau.
Hieracium pilosum	a hawkweed	Passo di Giau.
Hieracium piliferum	a hawkweed	
Hieracium humile	a hawkweed	3+ at the Saxifraga hostii site.

### D. ANGIOSPERMS – MONOCOTYLEDONES

Butomaceae		
Butomus umbellatus	Flowering-rush	Roadside ditches near Marco Polo airport. Not seen since 2014.
Juncaginaceae		
Triglochin palustris	Marsh Arrow-grass	Andraz.
Araceae		
Arum italicum	Italian Lords and Ladies	Near Venice 2017.
Juncaceae		
Juncus jacquinii	a rush	Giau and Fedaia, on acidic substrate.
Juncus filiformis	Thread Rush	Andraz.
Juncus trifidus	Three-leaved Rush	Acid grassland on Passo di Giau and Passo Fedaia.
Juncus monanthus	a rush	On calcareous substrates, Giau and low on Marmolada.
Juncus compressus	Round-fruited Rush	Claut.
Juncus tenuis	Slender Rush	Dolomiti Friulani.
Juncus bufonius	Toad Rush	Day 6, 2018.
Juncus subnodulosus	Blunt-flowered Rush	Recorded 2012.

Juncus alpinoarticulatus Juncus articulatus Juncus triglumis Luzula campestris Luzula multiflora Luzula pallidula

Luzula sudetica

Luzula alpina Luzula spicata mutabilis Luzula sylvatica Luzula sieberi

Luzula nivea Luzula luzuloides

Luzula alpinopilosa

Luzula glabrata Luzula pilosa

#### Cyperaceae

Scirpus sylvaticus Trichophorum alpinum Trichophorum caespitosum Blysmus compressus Eriophorum angustifolium

Eriophorum latifolium Eriophorum vaginatum Eleocharis quinqueflora Eleocharis palustris Schoenus nigricans Elyna myosuroides Carex paniculata

Carex appropinquata Carex spicata Carex pairae Carex divulsa Carex stenophylla

Carex leporina Carex echinata Carex dioica Carex davalliana Carex lachenalii Carex curvula Carex hirta Carex lasiocarpa Carex pseudocyperus Carex rostrata Carex pendula Carex sylvatica Carex capillaris Carex flacca Alpine Rush Jointed Rush Three-flowered Rush Field Woodrush Many-flowered Woodrush Fen Wood-rush

a woodrush

Alpine Woodrush a woodrush Great Woodrush a woodrush

a woodrush White Woodrush

a woodrush

a woodrush Hairy Woodrush

Wood Club-rush Cotton Deer-grass Deer-grass Flat-headed Sedge Common Cotton-grass

Broad-leaved Cotton-grass Hare's-tail Cotton-grass Few-flowered Spike-rush Common Spike-rush Black Bog-rush

Tussock Sedge

Fibrous Tussock Sedge Spiked Sedge a sedge Grey Sedge a sedge

Oval Sedge Star Sedge Dioecious Sedge Davall's Sedge Hare's-foot Sedge Curved Sedge Hairy Sedge Slender Sedge Bottle Sedge Pendulous Sedge Wood Sedge Hair Sedge Glaucous Sedge Recorded 2018. Wet flushes, Dolomiti Friulani. Several in wet flushes at Andraz. Fontanafredda and Giau etc. Scattered records. Fen at Gares 2015 and 2017. New for Belluno province? More acid grassland at Passo di Giau, Fontanafredda, etc. Fontanafredda. Acid sward at Giau 2016. Giau 2014. At the 'north of Cortina' lunch site, 2016. Dolomiti Friulani etc. Forests at Fontanafredda etc. ssp.*rubella* at Fontanafredda. Locally common on acidic substrates. Deep acid soils at Giau. Settimana.

Duran 2018. Fontanafredda. Valparola and Giau bogs. Settimana and Duran. Wet flushes at Fontanafredda and Passo di Giau. Settimana and Dont. Bog near Passo do Giau, in leaf. Valparola. Fontanafredda 2012. Passo di Giau 2012. Fedaia 2015. Settimana, Fontanafredda, and Duran. Duran 2018. Cimoliana. Vajont 2014. Venice area. Apparently this rather obscure species at Andraz, 2017. This would be a new record for Belluno province. Fontanafredda. Duran. Giau. Duran and Fontanafredda. Giau bog 2015. On acidic substrate at Giau. Andraz. Santa Croce lake shore 2014. San Lucano 2012. San Lucano lake and Duran. Venice area. Settimana. Fontanafredda and Giau. Widespread and very common. Often very tall.

Carex panicea

Carex distans Carex flava

Carex lepidocarpa Carex demissa Carex viridula Carex pallescens

Carex halleriana Carex digitata Carex ornithopoda Carex ornithopodioides Carex humilis Carex caryophyllea 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 Poa bulbosa

#### Carnation 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 Spring 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 Bulbous Meadow-grass Marshes: Fontanafredda, Passo di Giau, Duran, and Dolomiti Friulani. Recorded 2011? Dolomiti Friulani, Fontanafredda, etc. Dolomiti Friulani and Day 6. Fedaia 2017.

Grassland and wood edges at Fontanafredda, Duran, and Dolomiti Friulani. Cimoliana. Gares 2017. Cimoliana and Fontanafredda. Scattered records, e.g. Giau. Passo di Giau rocks 2012. Giau 2018 Scattered records. Settimana. Dolomiti Friulani and Day 6. Locally very common. Widespread and common. Cimoliana etc. Locally common. Cellina gorge 2017. Widespread, e.g. Dolomiti Friulani. ssp.ferruginea and austroalpina. Giau. Gares 2014. Andraz. Fedaia and Valparola. [ssp. aterrima] Marshy ground at Fontanafredda. Passo di Giau. Duran. etc. Passo di Giau. Fontanafredda 2017.

Cimoliana. Sottoguda 2016.

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. Sottoguda. Scattered records, e.g. Fontanafredda. Dactylis glomerata Briza media

Sesleria sphaerocephala Sesleria caerulea

#### Oreochloa disticha

Melica nutans Melica ciliata Glyceria notata Bromus tectorum Bromus inermis Bromus benekenii Bromus erectus Brachypodium sylvaticum Brachypodium pinnatum Brachypodium rupestre Elymus caninus Elymus repens Avena sp. 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 Cynodon dactylon Echinochloa crus-galli Setaria verticillata Sorghum halepense

#### Typhaceae

Typha latifolia

*Liliaceae Tofieldia calyculata*  Alpine Meadow-grass

Cock's-foot Quaking Grass

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

Bearded Couch Common Couch an oat 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 Bermuda Grass Cockspur Rough Bristle-grass

Bulrush

Tofield's Asphodel

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. Limestone: Passo di Giau, Cimoliana, etc. In attractive flower on acidic rocks, Fedaia. Cimoliana and Fontanafredda. Belvedere. In the lake at San Lucano.

San Lucano 2017. Recorded 2018.

Dolomiti Friulani etc.

Near Venice.

Dolomiti Friulani.

Moist flushed ground at Fontanafredda, and Sottoguda. Cimoliana etc. Giau. Fedaia. Passo di Giau 2012.

River gravels lower down. Saxifraga hostii site 2016. Meadows. Fedaia. Fontanafredda etc. Dolomiti Friulani 2016.

Meadows. Vajont.

Giau, Fedaia. Near Venice. Venice 2018.

Roadsides lower down.

Roadsides lower down.

Dolomiti Friulani, Fontanafredda, Andraz.

Veratrum album	White False-helleborine	Widespread.
Paradisea liliastrum	St. Bruno's Lily	Below Fedaia, and Giau.
Hemerocallis lilio-asphodelus	a day lily	An intriguing probable endemic,
		Val Cimoliana and Settimana, in
		fine flower.
Hemerocallis fulva	a day lily	Naturalised.
Colchicum autumnale	Meadow Saffron	In fruit, e.g. Cimoliana meadows.
Lloydia serotina	Snowdon Lily	Numerous at Fedaia.
Gagea fragifera	-	2 in Passo di Giau marsh, 2014.
Lilium martagon	Martagon Lily	Forest edges and meadows,
C C	0	widespread.
Lilium bulbiferum	Orange Lily	Locally very common. [some
		without bulbils: var. <i>croceum</i> ].
Allium schoenoprasum	Chives	Valparola marsh.
Allium victorialis	Alpine Leek	In bud at Fedaia 2014.
Allium carinatum	Keeled Garlic	In bud at Epipactis palustris site,
		2017.
Allium vineale	Crow Garlic	Rocca Pietore.
Convallaria majalis	Lily-of-the-valley	Cimoliana, in leaf.
Maianthemum bifolium	May-lily	In flower at Fontanafredda and
in an	iving my	Gares.
Streptopus amplexifolius		Gares.
Polygonatum verticillatum	Whorled Solomon's-seal	Settimana and Sottoguda.
Polygonatum odoratum	Scented Solomon's-seal	In leaf at San Lucano.
Paris quadrifolia	Herb Paris	Gares.
T ans quaanjona		Garcs.
Iridaceae		
	White Crocus	A four in flower by recent
Crocus albiflorus	white Crocus	A few in flower by recent
		snowmelt at Giau, Marmolada, and Fedaia.
		and Fedala.
Orchidaceae		
<b>Orchidaceae</b> Cypripedium calceolus	Lady's Slipper Orchid	2016: Many in fine flower at
	Lady's Slipper Orchid	Cimoliana, c.6
	Lady's Slipper Orchid	Cimoliana, c.6 at Sottoguda, and the one below
	Lady's Slipper Orchid	Cimoliana, c.6 at Sottoguda, and the one below Staulanza
	Lady's Slipper Orchid	Cimoliana, c.6 at Sottoguda, and the one below Staulanza over this year.
	Lady's Slipper Orchid	Cimoliana, c.6 at Sottoguda, and the one below Staulanza over this year. 2017: Already over at all sites!
	Lady's Slipper Orchid	Cimoliana, c.6 at Sottoguda, and the one below Staulanza over this year. 2017: Already over at all sites! 2018: Over at Cimoliana. Fine
	Lady's Slipper Orchid	Cimoliana, c.6 at Sottoguda, and the one below Staulanza over this year. 2017: Already over at all sites! 2018: Over at Cimoliana. Fine below
	Lady's Slipper Orchid	Cimoliana, c.6 at Sottoguda, and the one below Staulanza over this year. 2017: Already over at all sites! 2018: Over at Cimoliana. Fine below Staulanza and in Sottoguda
Cypripedium calceolus		Cimoliana, c.6 at Sottoguda, and the one below Staulanza over this year. 2017: Already over at all sites! 2018: Over at Cimoliana. Fine below Staulanza and in Sottoguda Gorge.
Cypripedium calceolus Epipactis palustris	Marsh Helleborine	Cimoliana, c.6 at Sottoguda, and the one below Staulanza over this year. 2017: Already over at all sites! 2018: Over at Cimoliana. Fine below Staulanza and in Sottoguda Gorge. Dont and Vajont.
Cypripedium calceolus Epipactis palustris Epipactis helleborine	Marsh Helleborine Broad-leaved Helleborine	Cimoliana, c.6 at Sottoguda, and the one below Staulanza over this year. 2017: Already over at all sites! 2018: Over at Cimoliana. Fine below Staulanza and in Sottoguda Gorge. Dont and Vajont. Dolomiti Friulani.
Cypripedium calceolus Epipactis palustris	Marsh Helleborine	Cimoliana, c.6 at Sottoguda, and the one below Staulanza over this year. 2017: Already over at all sites! 2018: Over at Cimoliana. Fine below Staulanza and in Sottoguda Gorge. Dont and Vajont.
Cypripedium calceolus Epipactis palustris Epipactis helleborine	Marsh Helleborine Broad-leaved Helleborine	Cimoliana, c.6 at Sottoguda, and the one below Staulanza over this year. 2017: Already over at all sites! 2018: Over at Cimoliana. Fine below Staulanza and in Sottoguda Gorge. Dont and Vajont. Dolomiti Friulani.
Cypripedium calceolus Epipactis palustris Epipactis helleborine	Marsh Helleborine Broad-leaved Helleborine	Cimoliana, c.6 at Sottoguda, and the one below Staulanza over this year. 2017: Already over at all sites! 2018: Over at Cimoliana. Fine below Staulanza and in Sottoguda Gorge. Dont and Vajont. Dolomiti Friulani. Vajont, Settimana, and San
Cypripedium calceolus Epipactis palustris Epipactis helleborine Epipactis atrorubens	Marsh Helleborine Broad-leaved Helleborine Dark Red Helleborine	Cimoliana, c.6 at Sottoguda, and the one below Staulanza over this year. 2017: Already over at all sites! 2018: Over at Cimoliana. Fine below Staulanza and in Sottoguda Gorge. Dont and Vajont. Dolomiti Friulani. Vajont, Settimana, and San Lucano.
Cypripedium calceolus Epipactis palustris Epipactis helleborine Epipactis atrorubens Epipactis microphylla	Marsh Helleborine Broad-leaved Helleborine Dark Red Helleborine a helleborine	Cimoliana, c.6 at Sottoguda, and the one below Staulanza over this year. 2017: Already over at all sites! 2018: Over at Cimoliana. Fine below Staulanza and in Sottoguda Gorge. Dont and Vajont. Dolomiti Friulani. Vajont, Settimana, and San Lucano. 2, Cimoliana, 2017.
Cypripedium calceolus Epipactis palustris Epipactis helleborine Epipactis atrorubens Epipactis microphylla Cephalanthera longifolia	Marsh Helleborine Broad-leaved Helleborine Dark Red Helleborine a helleborine Sword-leaved Helleborine	Cimoliana, c.6 at Sottoguda, and the one below Staulanza over this year. 2017: Already over at all sites! 2018: Over at Cimoliana. Fine below Staulanza and in Sottoguda Gorge. Dont and Vajont. Dolomiti Friulani. Vajont, Settimana, and San Lucano. 2, Cimoliana, 2017. 1 at Cimoliana 2016.
Cypripedium calceolus Epipactis palustris Epipactis helleborine Epipactis atrorubens Epipactis microphylla Cephalanthera longifolia Cephalanthera rubra	Marsh Helleborine Broad-leaved Helleborine Dark Red Helleborine a helleborine Sword-leaved Helleborine Red Helleborine	Cimoliana, c.6 at Sottoguda, and the one below Staulanza over this year. 2017: Already over at all sites! 2018: Over at Cimoliana. Fine below Staulanza and in Sottoguda Gorge. Dont and Vajont. Dolomiti Friulani. Vajont, Settimana, and San Lucano. 2, Cimoliana, 2017. 1 at Cimoliana 2016. Vajont and Cimoliana.
Cypripedium calceolus Epipactis palustris Epipactis helleborine Epipactis atrorubens Epipactis microphylla Cephalanthera longifolia Cephalanthera rubra	Marsh Helleborine Broad-leaved Helleborine Dark Red Helleborine a helleborine Sword-leaved Helleborine Red Helleborine	Cimoliana, c.6 at Sottoguda, and the one below Staulanza over this year. 2017: Already over at all sites! 2018: Over at Cimoliana. Fine below Staulanza and in Sottoguda Gorge. Dont and Vajont. Dolomiti Friulani. Vajont, Settimana, and San Lucano. 2, Cimoliana, 2017. 1 at Cimoliana 2016. Vajont and Cimoliana. Cimoliana, Settimana, and over
Cypripedium calceolus Epipactis palustris Epipactis helleborine Epipactis atrorubens Epipactis microphylla Cephalanthera longifolia Cephalanthera rubra Neottia nidus-avis	Marsh Helleborine Broad-leaved Helleborine Dark Red Helleborine a helleborine Sword-leaved Helleborine Red Helleborine Bird's-nest Orchid	<ul> <li>Cimoliana, c.6</li> <li>at Sottoguda, and the one below</li> <li>Staulanza</li> <li>over this year.</li> <li>2017: Already over at all sites!</li> <li>2018: Over at Cimoliana. Fine</li> <li>below</li> <li>Staulanza and in Sottoguda</li> <li>Gorge.</li> <li>Dont and Vajont.</li> <li>Dolomiti Friulani.</li> <li>Vajont, Settimana, and San</li> <li>Lucano.</li> <li>2, Cimoliana, 2017.</li> <li>1 at Cimoliana 2016.</li> <li>Vajont and Cimoliana.</li> <li>Cimoliana, Settimana, and over at Gares.</li> </ul>
Cypripedium calceolus Epipactis palustris Epipactis helleborine Epipactis atrorubens Epipactis microphylla Cephalanthera longifolia Cephalanthera rubra Neottia nidus-avis Listera ovata	Marsh Helleborine Broad-leaved Helleborine Dark Red Helleborine a helleborine Sword-leaved Helleborine Red Helleborine Bird's-nest Orchid Twayblade	Cimoliana, c.6 at Sottoguda, and the one below Staulanza over this year. 2017: Already over at all sites! 2018: Over at Cimoliana. Fine below Staulanza and in Sottoguda Gorge. Dont and Vajont. Dolomiti Friulani. Vajont, Settimana, and San Lucano. 2, Cimoliana, 2017. 1 at Cimoliana, 2016. Vajont and Cimoliana. Cimoliana, Settimana, and over at Gares. Widespread, locally numerous. 1 near Staulanza.
Cypripedium calceolus Epipactis palustris Epipactis helleborine Epipactis atrorubens Epipactis microphylla Cephalanthera longifolia Cephalanthera rubra Neottia nidus-avis Listera ovata Listera cordata	Marsh Helleborine Broad-leaved Helleborine Dark Red Helleborine a helleborine Sword-leaved Helleborine Red Helleborine Bird's-nest Orchid Twayblade Lesser Twayblade	Cimoliana, c.6 at Sottoguda, and the one below Staulanza over this year. 2017: Already over at all sites! 2018: Over at Cimoliana. Fine below Staulanza and in Sottoguda Gorge. Dont and Vajont. Dolomiti Friulani. Vajont, Settimana, and San Lucano. 2, Cimoliana, 2017. 1 at Cimoliana 2016. Vajont and Cimoliana. Cimoliana, Settimana, and over at Gares. Widespread, locally numerous.
Cypripedium calceolus Epipactis palustris Epipactis helleborine Epipactis atrorubens Epipactis microphylla Cephalanthera longifolia Cephalanthera rubra Neottia nidus-avis Listera ovata Listera cordata Goodyera repens	Marsh Helleborine Broad-leaved Helleborine Dark Red Helleborine a helleborine Sword-leaved Helleborine Red Helleborine Bird's-nest Orchid Twayblade Lesser Twayblade Creeping Lady's Tresses	Cimoliana, c.6 at Sottoguda, and the one below Staulanza over this year. 2017: Already over at all sites! 2018: Over at Cimoliana. Fine below Staulanza and in Sottoguda Gorge. Dont and Vajont. Dolomiti Friulani. Vajont, Settimana, and San Lucano. 2, Cimoliana, 2017. 1 at Cimoliana, 2017. 1 at Cimoliana, 2016. Vajont and Cimoliana. Cimoliana, Settimana, and over at Gares. Widespread, locally numerous. 1 near Staulanza. Last stop on Day 4, 2013.
Cypripedium calceolus Epipactis palustris Epipactis helleborine Epipactis atrorubens Epipactis microphylla Cephalanthera longifolia Cephalanthera rubra Neottia nidus-avis Listera ovata Listera cordata Goodyera repens	Marsh Helleborine Broad-leaved Helleborine Dark Red Helleborine a helleborine Sword-leaved Helleborine Red Helleborine Bird's-nest Orchid Twayblade Lesser Twayblade Creeping Lady's Tresses	Cimoliana, c.6 at Sottoguda, and the one below Staulanza over this year. 2017: Already over at all sites! 2018: Over at Cimoliana. Fine below Staulanza and in Sottoguda Gorge. Dont and Vajont. Dolomiti Friulani. Vajont, Settimana, and San Lucano. 2, Cimoliana, 2017. 1 at Cimoliana, 2017. 1 at Cimoliana, 2016. Vajont and Cimoliana. Cimoliana, Settimana, and over at Gares. Widespread, locally numerous. 1 near Staulanza. Last stop on Day 4, 2013. Widespread, locally common,
Cypripedium calceolus Epipactis palustris Epipactis helleborine Epipactis atrorubens Epipactis microphylla Cephalanthera longifolia Cephalanthera rubra Neottia nidus-avis Listera ovata Listera cordata Goodyera repens Platanthera bifolia	Marsh Helleborine Broad-leaved Helleborine Dark Red Helleborine a helleborine Sword-leaved Helleborine Red Helleborine Bird's-nest Orchid Twayblade Lesser Twayblade Creeping Lady's Tresses	Cimoliana, c.6 at Sottoguda, and the one below Staulanza over this year. 2017: Already over at all sites! 2018: Over at Cimoliana. Fine below Staulanza and in Sottoguda Gorge. Dont and Vajont. Dolomiti Friulani. Vajont, Settimana, and San Lucano. 2, Cimoliana, 2017. 1 at Cimoliana, 2016. Vajont and Cimoliana. Cimoliana, Settimana, and over at Gares. Widespread, locally numerous. 1 near Staulanza. Last stop on Day 4, 2013. Widespread, locally common, Dolomiti Friulani, and at Fedaia.
Cypripedium calceolus Epipactis palustris Epipactis helleborine Epipactis atrorubens Epipactis microphylla Cephalanthera longifolia Cephalanthera rubra Neottia nidus-avis Listera ovata Listera cordata Goodyera repens	Marsh Helleborine Broad-leaved Helleborine Dark Red Helleborine a helleborine Sword-leaved Helleborine Red Helleborine Bird's-nest Orchid Twayblade Lesser Twayblade Creeping Lady's Tresses Lesser Butterfly Orchid	Cimoliana, c.6 at Sottoguda, and the one below Staulanza over this year. 2017: Already over at all sites! 2018: Over at Cimoliana. Fine below Staulanza and in Sottoguda Gorge. Dont and Vajont. Dolomiti Friulani. Vajont, Settimana, and San Lucano. 2, Cimoliana, 2017. 1 at Cimoliana, 2016. Vajont and Cimoliana. Cimoliana, Settimana, and over at Gares. Widespread, locally numerous. 1 near Staulanza. Last stop on Day 4, 2013. Widespread, locally common, Dolomiti Friulani, and at Fedaia. Several fine spikes at Valparola
Cypripedium calceolus Epipactis palustris Epipactis helleborine Epipactis atrorubens Epipactis microphylla Cephalanthera longifolia Cephalanthera rubra Neottia nidus-avis Listera ovata Listera cordata Goodyera repens Platanthera bifolia	Marsh Helleborine Broad-leaved Helleborine Dark Red Helleborine a helleborine Sword-leaved Helleborine Red Helleborine Bird's-nest Orchid Twayblade Lesser Twayblade Creeping Lady's Tresses Lesser Butterfly Orchid	Cimoliana, c.6 at Sottoguda, and the one below Staulanza over this year. 2017: Already over at all sites! 2018: Over at Cimoliana. Fine below Staulanza and in Sottoguda Gorge. Dont and Vajont. Dolomiti Friulani. Vajont, Settimana, and San Lucano. 2, Cimoliana, 2017. 1 at Cimoliana, 2016. Vajont and Cimoliana. Cimoliana, Settimana, and over at Gares. Widespread, locally numerous. 1 near Staulanza. Last stop on Day 4, 2013. Widespread, locally common, Dolomiti Friulani, and at Fedaia.

Gymnadenia odoratissima	Short-spurred Fragrant Orchid	Dolomiti Friulani.
Pseudorchis albida	Small White Orchid	Fontanafredda, Passo di Giau, and Passo di Fedaia.
Nigritella rhellicani	Black Vanilla Orchid	Fontanafredda and Fedaia.
Nigritella rubra	Red Vanilla Orchid	Below the Passo di Giau, and at
		Fedaia. Not
		seen 2018.
Coeloglossum viride	Frog Orchid	Short turf, Fontanafredda, Fedaia, Giau, etc.
Dactylorhiza sambucina	Elder-flowered Orchid	Fontanafredda, a few of both
		purple form
		and yellow form, still just in
		flower 2016.
		2017: no sign of these plants.
		2018: gone
Dactylorhiza majalis	Alpine Marsh Orchid	over. Very common in wet areas over
Daciyiomiza majatis	Alphie Marsh Olehid	1800m,
		Passo di Giau, Duran, Staulanza,
		Fontanafredda, etc.
Dactylorhiza lapponica	a marsh orchid	Giau.
Dactylorhiza fuchsii	Common Spotted Orchid	Locally very common in woods
		and meadows.
Traunsteinera globosa	Round-headed Orchid	Fedaia, Duran, and
		Fontanafredda, in fine flower.
Orchis ustulata	Burnt Orchid	Several in grassland at
	Million Orabid	Fontanafredda.
Orchis militaris Orchis mascula	Military Orchid	One at Cimoliana. Common at Fedaia. 1 at Giau. =
Orenis mascula	Early Purple Orchid	Orchis ovalis,
		Orchis mascula ssp.ovalis, or
		Orchis mascula
		ssp. <i>signifera</i> .
Anacamptis pyramidalis	Pyramidal Orchid	Cimoliana meadows 2016.
Ophrys insectifera	Fly Orchid	At Vajont still just in flower.
Corallorhiza trifida	Coralroot Orchid	c.5 in fine flower lower
		Marmolada.
Liparis loeselii ssp.nemoralis	Fen Orchid	A superb find in 2018 was two
		robust plants
		at Vajont. An endemic subspecies which grows
		in woodland, known from only 6
		sites.
Malaxis monophyllos	Single-leaved Bog Orchid	2016: 2 at San Osvaldo, 5 at
	<i>c c</i>	Posalz. 2017: c.8 at Posalz.
		2018: 2 at Posalz.

### 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).

#### Papilionidae

Swallowtail Scarce Swallowtail Apollo

#### Pieridae

Large White Black-veined White

Small White Green-veined White Mountain Green-veined White Clouded Yellow Brimstone Wood White

#### Lycaenidae

Sooty Copper Little Blue Holly Blue Large Blue Silver-studded Blue Idas Blue Brown Argus Mazarine Blue Adonis Blue Common Blue

#### Riodinidae

Duke of Burgundy Fritillary

#### Nymphalidae

Southern White Admiral Hungarian Glider Peacock Red Admiral Painted Lady

Small Tortoiseshell Dark Green Fritillary Pearl-bordered Fritillary Thor's Fritillary Spotted Fritillary Lesser Spotted Fritillary False Heath Fritillary Heath Fritillary Marsh Fritillary Papilio machaon Iphiclides podalirius Parnassias apollo

Pieris brassicae Aporia crataegi

Artogeia rapae Artogeia napi Artogeia bryoniae Colias crocea Gonepteryx rhamni Leptidea sinapis

Lycaena tityrus Cupido minimus Celastrina argiolas Maculinea arion Plebejus argus Plebejus idas Aricia agestis Cyaniris semiargus Lysandra bellargus Polyommatus icarus

Hamaeris lucina

Limenitis reducta Neptis rivularis Inachis io Vanessa atalanta Vanessa cardui

Aglais urticae Argynnis aglaja Clossiana euphrosyne Clossiana thore Melitaea didyma Melitaea trivia Melitaea diamina Mellicta athalia Euphydryas aurinia Dolomiti Friulani. Venice. Vajont.

Scattered records. Numerous in Dolomiti Friulani, a few elsewhere. Widespread. Andraz. Marmolada and Fedaia. Widespread in small numbers. Scattered records. Scattered records.

Sottoguda and Fontanafredda. Lower Marmolada and Andraz. Cimoliana. Fontanafredda and Andraz.

Settimana. Settimana. Scattered records. Dolomiti Friulani. Dolomiti Friulani.

Several in Cimoliana.

Cimoliana. Val Cimoliana. Vajont. Andraz. 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. 2018 seen on 6 days Scattered at higher altitudes. Cimoliana and Claut. Fontanafredda. 1 at Duran. Claut area. 1 in Cimoliana. Gares, and Andraz.

Fedaia.

#### Satyridae

Marbled White Arran Brown

Woodland Ringlet Bright-eyed Ringlet Dewy Ringlet Small Heath Pearly Heath

Alpine Heath Speckled Wood Large Wall Brown Woodland Brown

#### Hesperidae

Grizzled Skipper Large Grizzled Skipper Alpine Grizzled Skipper Dingy Skipper Large Chequered Skipper Chequered Skipper Essex Skipper Small Skipper Large Skipper Melanargia galathea Erebia ligea

Erebia medusa Erebia oeme Erebia pandrose Coenonympha pamphilus Coenonympha arcania

Coenonympha gardetta Pararge aegeria Lasiommata maera Lopinga achine

Pyrgus malvae Pyrgus alveus Pyrgus andromedae Erynnis tages Heteropterus morpheus Carterocephalus palaemon Thymelicus lineola Thymelicus sylvestris Ochlodes venatus Vajont, Cimoliana, and Duran. Widespread and locally common, especially in Dolomiti Friulani Widespread. Fontanafredda. Fedaia. Dolomiti Friulani. Locally numerous, as in Dolomiti Friulani. Fedaia and Duran. Sottoguda and Gares. Scattered records. Dolomiti Friulani and San Lucano, locally common.

Scattered records. Fontanafredda. Marmolada. Scattered records. A few in Dolomiti Friulani. Cimoliana.

Scattered records. Scattered records.

### Systematic List Number 3

**Birds** 

Cormorant Great Egret Little Egret Cattle Egret Mute Swan Mallard Black Kite Common Buzzard Common Kestrel Black-headed Gull Yellow-legged Gull Rock Dove Woodpigeon Collared Dove Cuckoo Common Swift Black Woodpecker Skylark Crag Martin Swallow House Martin Tree Pipit Water Pipit Grey Wagtail White Wagtail Wren Dunnock Alpine Accentor Robin Black Redstart Common Redstart Whinchat Northern Wheatear Ring Ouzel Blackbird Fieldfare Song Thrush Mistle Thrush Lesser Whitethroat Garden Warbler Blackcap Bonelli's Warbler Chiffchaff Goldcrest Willow Tit Crested Tit Coal Tit Blue Tit Great Tit Nuthatch Jay Magpie Nutcracker Alpine Chough

Carrion Crow Hooded Crow

Phalacrocorax carbo Egretta alba Egretta garzetta Bubulcus ibis Cygnus olor Anas platyrhynchos Milvus migrans Buteo buteo Falco tinnunculus Larus ridibundus Larus cachinnans Columba livia Columba palumbus Streptopelia decaocto Cuculus canorus Apus apus Drvocopus martius Alauda arvensis Ptyonoprogne rupestris Hirundo rustica Delichon urbica Anthus trivialis Anthus spinoletta Motacilla cinerea Motacilla a. alba Troglodytes troglodytes Prunella modularis Prunella collaris Erithacus rubecula Phoenicurus ochruros Phoenicurus phoenicurus Saxicola rubetra Oenanthe oenanthe Turdus torquatus Turdus merula Turdus pilaris Turdus philomelos Turdus viscivorus Svlvia curruca Sylvia borin Sylvia atricapilla Phylloscopus bonelli Phylloscopus collybita Regulus regulus Parus montanus Parus cristatus Parus ater Parus caeruleus Parus major Sitta europaea Garrulus glandarius Pica pica Nucifraga caryocatactes Pyrrhocorax graculus

Corvus corone corone Corvus corone cornix

Venice area. Venice area. Venice area. Venice area. Alleghe. Alleghe. En route to Venice. Scattered records. Venice area. Venice area. Towns, especially in the lowlands. Scattered records. Seen on the first day. Heard at various sites. Scattered records. Heard. Passo di Giau. Widespread. Widespread. Widespread. Scattered records. Above 2200m on four days. Widespread near streams. Widespread in small numbers. Scattered records, often heard. Scattered records. Fedaia. Scattered records. Common around the hotels and seen also at various other sites. Around the Hotel Pineta. 1 at Fedaia. Scattered high altitude records. 2 females, one on a nest, at Giau. Widespread. A few records. Scattered records, mostly heard. Scattered records.

Heard often. Widespread, mostly heard. Often heard, especially in Dolomiti Friulani. Widespread. Heard often. Scattered records. Cimoliana. Claut area. Widespread.

#### Scattered records.

Widespread. Venice area. Fontanafredda. Quite common above 2000m, and often very tame. Widespread. Lower altitudes. Raven House Sparrow

Chaffinch Serin Greenfinch Goldfinch Linnet Redpoll Cirl Bunting Corvus corax Passer domesticus

Fringilla coelebs Serinus serinus Carduelis chloris Carduelis carduelis Carduelis cannabina Carduelis flammea Emberiza cirlus Scattered records. Widespread. Italian Sparrow Passer domesticus italiae in Cimolais and probably elsewhere. Widespread and common.

Scattered records. Widespread in small numbers. Scattered records. Giau. A few records.

# Systematic List Number 4 Mammals, Reptiles, and Amphibians

Water Shrew	Neomys fodiens	A dead individual at Sottoguda.
Common Mole	Talpa europaea	Hills noted.
Alpine Marmot	Marmota marmota	Seen or heard on several days, such as on
		Passo de Fedaia and Passo di Giau.
Red Squirrel	Sciurus vulgaris	Many signs of feeding. One seen en route to
		Passo Giau.
Hazel Dormouse	Muscardinus avellanarius	One seen well, if briefly, in the middle of
		the day (!), at San Lucano, 2016
Alpine Chamois	Rupicapra rupicapra	1 at Fedaia, 2017.
Alpine Ibex	Capra ibex	A male at Fedaia 2013.
Wild Boar	Sus scrofa	Signs only.
Mountain Hare	Lepus timidus	Droppings at higher altitudes.
A		1
Asp Viper	Vipera aspis	1 seen very well at Passo di Giau.
Grass Snake	Natrix natrix	2 in the Settimana Valley.
Viviparous Lizard	Zootoca vivipara	Scattered records.
Common Wall Lizard	Podarcis muralis	Scattered records.
Common Frog	Rana temporaria	Scattered records.
Common Toad	Bufo bufo	
Fire Salamander	Salamandra salamandra	Larvae Settimana, 2015.
Alpine Newt	Triturus alpestris	Settimana Valley.