

Southern Chile

Volcanoes & Monkey Puzzles

A Greentours Tour Report

26th November – 19th December 2015

Led by Chris Gardner & Başak Gardner

Days 1 & 2 **26 -27 Nov** **To Chile**

We all met up at Santiago airport for our onward flight south to Punta Arenas and the gateway to Patagonia. There was a close view of a Southern Caracara as we left the airport and duly found the hotel. We then walked to a restaurant for a good fish supper, washed down with the first deceptively strong pisco sours.

Day 3 **28 Nov** **To Torres del Paine**

A civilised hour for breakfast and then necessary shopping for picnic supplies had us heading out onto the Patagonian steppe by 10am. The journey was full of incident with a Black-chested Buzzard-eagle as we left town, followed by a few Rock Cormorants (on a rock), and then some great views of Darwin's Rheas grazing with the ubiquitous sheep. A much better view of adult Black-chested Buzzard-eagle followed, along with three Southern Caracaras. Ponds with Red-gartered Coot and Yellow-billed Pintail were followed by a stop to check the flocks of Upland Geese. On the other side of the road were Long-tailed Meadowlark, Cream-winged Cinclodes, clumps of creamy *Anemone multifida* and plentiful *Olysinium biflora* and the latter proved to be abundant in many places during the journey, the white bells beautifully striped with purple. A few outrageously pink Chilean Flamingos were seen feeding in a saline pond, together with White-rumped Sandpipers and it was hard to travel far without stopping for something. Next up were fine clumps of *Oxalis enneaphylla* and the handsome white daisy *Leucheria hahnii*.

Moving on we managed to find a sheltered spot among some southern beech trees for lunch. The trees were draped in the mistletoe *Misodendron appendiculata*, a parasite that is often dominant in the woodland here, especially where it has been degraded or damaged. As we approached Puerto Natales the scenery grew grander with snowy mountains lining the fjord and many Black-necked Swans in the coastal waters along with Chiloe Wigeons and a handsome Magellanic Oystercatcher and a pier populated with Imperial Cormorants. Some swans had brood of fluffy cygnets too.

Heading further north we turned off onto a side road and made a series of stops for the fine views, the fiery scarlet of the increasingly abundant Chilean Firebushes *Embothrium coccineum* and several orchid species with first *Gavilea lutea*, followed by the lovely *Gavilea littoralis* and the dainty pure white *Codonorchis lessonii*. *Chlorea gaudichaudii* (?) was a more restrained offering on

the orchid front, and there were clearly many more orchids on the way soon. A male Magellanic Woodpecker flew across the road into a patch of mature woodland and in open areas were patches of purple and lilac *Lathyrus magellanicus* and fine clumps of *Calceolaria biflora*. The views of the Paine Massif grew more impressive with blue lake foregrounds framed with firebushes and then after some last twists and turns we arrived at our perfectly positioned hotel on an island in blue Lake Pehoe with the spectacular peaks behind.

Day 4 **29 Nov** **Torres del Paine – Lago Toro lookout & Salto Grande**

Fire-eyed Diucon was seen before we left for our first full day in the park, which was a rather windy one. We drove a short way seeing Spectacled Ducks as we went and then took a walk across the rocky grassland towards the hills. Orchids were numerous with many *Gavilea lutea* and a good number of *littoralis* scattered about. There were also some beautiful *Chloraea magellanica* the Porcelain Orchid, which got better as we progressed culminating in one with twelve spikes. A juvenile Andean Condor soared out and a Brown Hare belted across the ground. A stop in a quiet spot among the trees also produced some flowery *Escallonia rubra* and on the rocks as we continued were quite a few of the incomparable *Calceolaria uniflora*. Even more were found on the return journey along with deep pink *Leucheria purpurea*, sweet-scented *Arjona patagonica* and nice clumps of a yellow violet – let's say *Viola maculata*. Nearing the end of the walk the (horizontal) rain picked up and we were glad of the bus. But Patagonia is nothing if not changeable and during lunch in the shelter of the visitor centre the sun returned. There were Great Grebe, Grey-flanked Cinclodes and Red-gartered Coot.

After lunch we went to see *Chloraea leptopetala* but they were not quite out yet. In the pond nearby was a pair of handsome White-eared Grebes, two Speckled Teals and more coots. Walking around the short trail we found some good (and varied) clumps of *Saxifraga magellanica* and then had good views of a Plumbeous Rail. A wander around the campsite was worthwhile for the Rufous-tailed Plantcutter and a soaring adult condor. Returning to the hotel we walked a short distance to a small shrine where a water seep had some lovely *Ourisia ruellioides* with their striking red flowers. There was time to visit the nearby waterfall, Salto Grande, so we parked up and began our walk in brisk winds. Some superb patches of *Calceolaria uniflora* marked our progress and a Cinereous Harrier swept across too.

Day 5 **30 Nov** **Torres del Paine – Laguna Azul**

Squally rain was obscuring the mountains this morning and it all looked decidedly grim with a cold wind whipping off the glaciers. However, such is the way in Patagonia that all seasons are represented on most days and the day did improve immeasurably as it went on. Nonetheless the first couple of stops were a bit on the chilly side. They were for the vivid scarlet of *Anarthophyllum desideratum* with some fine domes smothered in flowers with moody mountain backdrops. Among them were abundant *Adesmia boronoides*, a smattering of slender mauve *Solenomelus segethii* and some hybrid calceolarias. A further stop near Lago Sarmiento with its massed white thrombolites along the shoreline produced not just more fine domes of *Anarthophyllum*, but also a few dainty *Alstroemeria patagonica* and *Oxalis laciniata*. A Correndera Pipit was perched singing

from a bush and as we drove on there was a superb Black-chested Buzzard-eagle stood on a rocky slope beside the road. One or two Guanacos had also been seen, one very close contentedly munching on dandelions, but we were to see many more. The landscape opened out into a broad river valley and we descended and crossed over a bridge, driving on until I realised I'd gone the wrong way. However, there were excellent close views of Rufous-tailed Plantcutter and then we stopped for a braided waterfall with plentiful *Ourisia ruellioides*. Back on the correct road we drove to an area with many Guanacos and spent time photographing these as they rolled in the dust or ran back and forth.

Then we reached Laguna Azul and found a sheltered picnic site in the sun. by the time we'd finished and begun our walk the clouds had parted and we could see the famed Paine Towers clearly, with the blue waters of the lake in the foreground. There were also good stands *Geum magellanicum*, a couple of fresh morels and lots of butterflies with Yramea Fritillary, Common White Tatochila and Chilean Satyr, as well as some shiny black beetles, all coming out to play in the sunshine. Driving out we stopped by the small lagoon where there were plenty of waterbirds including Red Shovelers, Chiloe Wigeons, Crested Ducks, Silvery Grebes, Yellow-billed Pintails and five Black-necked Ibises. More Guanacos followed with the Paine towers in the background. Our last main stop was for a waterfall running over layered strata and as we left the falls an American Kestrel was seen dive-bombing a Black-chested Buzzard-eagle. The landscape was largely free of cloud now and we drove on stopping for the odd view and big dome of *Anarthophyllum* arriving back to clear mountain views across the lake.

Day 6 1 Dec Torres del Paine – Lago Grey

Today was all about the landscape and things were off to a great start with crystal clear skies and perfect views of the Cuernos del Paine. We left a bit earlier to drive to Lago Grey for a boat trip to the Grey Glacier. Once on board we went up on deck to enjoy the sublime scenery as the glacier gradually loomed into view. The boat manoeuvred alongside the glacier where could see the blue-hued ice forms and adjacent freshly scoured rocks revealed the previous extent of the ice prior to its retreat. Pisco sours were served as we went (a touch early but still welcome). Returning there were more stunning mountain views and blue icebergs. The walk back across the shingle bar was unhurried this time and we found clumps of *Nassauvia magellanica*, *Erigeron patagonica*, and then near the trees flowering *Berberis empetrifolia* and *Lathyrus magellanicus*. An Austral Parakeet was seen as we walked up into the mature *Nothofagus pumilio* forest and in the understorey were many *Codonorchis lessonii* and *Viola maculata*.

Lunch was in a pleasant spot among the trees with Austral Blackbirds for company and then we drove back towards the hotel, stopping a few times to look for Huemul on the *Embothrium* covered slopes. A couple of condors were circling near park HQ and then two more soared across Paine River as we stopped to admire the view. These settled on the far cliffs and we managed to scope them, seeing them with their wings spread in the sunshine. We had a short break before our next venture, the drive up to the Condor lookout above Lake Pehoe. The views at the top of the blue lakes and mountains were magnificent as condors and Black-chested Buzzard-eagles swept across and a few hill-topping Four-eyed Ladies whirred about. There was also the odd *Hypochaeris incana*, some superb bushy plants of *Lathyrus nervosus* and fine male Long-tailed Meadowlark perched obligingly in a tree to round things off.

Last light on the mountains was best appreciated with a glass of Chile's fine wine.

Day 7 2 Dec Torres del Paine

Our last full day in the park was another good one with calm conditions for the most part and the mountains were reflected in the lake as we left. We drove to an area of rocky steppe where there were many superb clumps of *Calceolaria uniflora* and these were joined by a scattering of *Calceolaria polyrhiza* and hybrids between the two species. Elsewhere among the rocks were nice spreading mats of *Nardophyllum bryoides*. Our next stop was for a lake with many waterbirds including Black-necked and Coscoroba Swans, Chiloe Wigeon, Crested Duck and Magellanic Oystercatchers. Another smaller well-vegetated pool had two Andean Ducks. The rest of the morning was spent exploring a larger area of steppe and ponds. We'd hardly started when the first of many *Alstroemeria patagonica* were seen in between mats of *Nassauvia fuegiana*. Further along and many pink *Olsynium philipii* were sprouting between and through the spiny hummocks of *Mulinium spinosum*. Walking up a little gully we had great views of Scale-throated Earthcreeper, as well as Long-tailed Meadowlark and Short-billed Miner, before a Cinereous Harrier flashed across and tried for one of the Earthcreepers. Guanacos were wandering about and whistling to one another too. Calceolarias were universally abundant throughout the walk, with populations varying from pure *polyrhiza* or *uniflora* (with hybrids) or drifts of *biflora*. In places it was a veritable garden of calceolaria. In one pond were White-tufted Grebes just before we went up to a ridge for another superb landscape view.

After lunch we drove to an area of marsh and nothofagus where big spreading mats of *Azorella trifucata* seemed to be engulfing anything in their path. The white daisy *Symphyotrichum (Aster) vahlii* was also common nearby as was *Olsynium philipii*. The remainder of the day was back up at the waterfall where we finished what we had to abandon in the high winds the other day. Moving beyond the waterfall we found many wonderful *Chloraea magellanica*, plentiful *Hypochaeris incana*, flowery prostate forms of *Escallonia rubra* and close views of the towering Cuernos del Paine.

Day 8 3 Dec To Punta Arenas and Santiago

The weather had changed yet again and it was cooler with spitting rain as we drove out of the park stopping not far outside the boundaries for a close up look at thrombolites (ancient cyanobacteria colonies) that grow around Lago Sarmiento. The spiny shrub *Adamsia campestris* was also down near the shore. Not much further on and we had stellar views of two Darwin's Rheas right beside the road, just three metres away, contentedly feeding and making for frame-filling photos. I took a wrong turn at one point and we ended up with an extra scenic drive before finding the right road which was then delayed by a cultural interlude – gauchos herding sheep along the road with dogs. Having negotiated the big very woolly sheep we carried on to some large ponds where there were many ducks including Red Shoveler, Crested Duck, Yellow-billed Pintail, Chiloe Wigeon as well as Black-necked Swans and Chilean Flamingos. The route passed through areas of southern beech forest with mountain views and beside our final view of the Paine Massif we found a *Gavilea araucana* just in flower.

From here we drive on to Puerto Natales for some lunch supplies and then found a sheltered site to have our picnic. There was the odd stop afterwards for the unusual bus stops and lava hills (Morro Chico), but we had to make up the distance to Punta Arenas. My usual heath stop had little in it this (earlier) year and we were at the airport in good time to check in and grab a quick tasty sandwich before the flight to Santiago. The flight went as planned and we arrived at our comfortable airport hotel for the night.

Chile part two begins tomorrow.

Day 9 4 Dec To Siete Tazas

We had a leisurely breakfast and then met up with Başak who had arrived late-morning. Once the cars were arranged we set off driving south in a very different landscape, and on a much warmer day, with the tall Andes to our left. Delays at the airport meant everything ran a bit behind today and we took lunch at a service station en route rather than a picnic 'en campo'. We then made up the necessary ground and arrived at our first botanical stop where there were many fine forms of *Alstroemeria ligtu* and well as bushy plants of *Calceolaria thyrsiflora*. Chimango Caracaras and Eared Doves were common as we drove on stopping next for a population of predominantly orange *Alstroemeria ligtu* along with a few deep blue *Pasithea caerulea*. A similar species to the latter caused us to stop next, the very elegant *Conanthera bifolia*. These were growing in abundance in an area of natural scrub along with many deep pink *Clarkia gayana*, and yellow *Sisyrinchium jubatum*. Among these we also found three species of orchid with *Chloraea lechleri*, *chrysantha* and *galeata*. Morag found a huge specimen of *galeata*, at least four feet tall. Driving on we stopped next for yet another orchid, this time the lovely golden *Chloraea lamellata* that grew alongside *Calceolaria dentata* and trailing stems of pink *Bomarea salsilla*. Among the short turf was the orange daisy *Happlopappus macrocephalus* and a stand of stunning purple-veined white *Salpiglossis sinuata* justifiably delayed our departure.

Now we had to drive on and reach our hotel, which was in a delightful setting amidst wooded grounds with the rolling call of Thorn-tailed Rayaditos and a flock of Austral Parakeets on arrival.

Day 10 5 Dec Siete Tazas NP

A Striped Woodpecker was tapping on Rosemary's windowsill in the morning and Black-chinned Siskins were in the garden. We drove back the way we had come yesterday and then past stands of pink *Alstroemeria ligtu* and flushing Chilean Pigeons from the road and on towards Siete Tazas where we stopped first for the Bridal Veil Waterfall. For the famed Siete Tazas (seven cups) waterfalls we had to walk a short distance, seeing a broad flowery shrub of *Solanum crispum* at the start and then on reaching the top of the falls two species of orchids distracted us for a time with first a fine specimen of *Chloraea lechleri* and then a very tall *Gavilea glandulifera*. A dazzling male Thin Tree Lizard was seen along with a less colourful female and a large tarantula was found ambling along the boardwalk. After we'd viewed the falls we wandered back and then drove on to the park entrance and a restaurant for a tasty lunch.

The afternoon was spent on a walk into the forest, finding the shrub *Fabiana imbricata* on the way in to the forest where Thorn-tailed Rayaditos were calling loudly. During the course of the walk there was a succession of things from pretty pink *Cissarobryon elegans* and ribbed beetles, to more Thin Tree Lizards, then some fine big barrels of the cactus *Eriosyce curvispina* alongside delicate pink *Calceolaria cana*, ivory white *Vicia truncatula* and spiny mats of *Azorella monteroi*. Continuing through the mixed forest there were some huge *Austrocedrus chilensis* and then the first of two new orchids, the remarkable *Bipinnula apinnula*. Equally beguiling was *Chloraea viridiflora*, which followed soon after growing near some just finished *Chloraea alpina*. Reaching the river and its plunge pools we made our way around to a rocky flat where Morag spotted the first perfect flowering rosette of *Viola congesta*. There were many more among the stones along with *Pozoa volcanica* and *Schizanthus hookeri*. Walking back there was a feisty wingless grasshopper (with a flat body and looking rather like a phasmid) and then near the end were flocks of Black-chinned Siskins, Fire-eyed Diucons and California Quails scuttling about. We drove back stopping only for a patch of pure white *Nierembergia repens* and Barrie threw himself into the photography.

Day 11 6 Dec To Antucalhue

We left the pleasant environs of the hosteria with its spacious cabins and tree-filled gardens with Thorn-tailed Rayaditos rattling around at 10am. Today was very much a repositioning day to the rich areas further south. Reaching Talca we drove to a superb orchid site with many impressive pure-white *Chloraea virescens*, some nearly a metre tall. The Laja waterfalls were rammed to the gills with weekenders so we abandoned this idea (for another day) and drove on towards Antuco stopping in an area of pine plantation with four more orchid species. There were the showy golden spikes of *Chloraea barbata*, alongside more *virescens* and the smaller flowers of *bidentata* with their characteristic reflexed sepals. A solitary *Chloraea gaudichaudii* made up the foursome. However, it was readily apparent that there was some meddling going on and a hybrid swarm existed between *barbata* x *bidentata*, with various intermediates. *Conanthera bifolia* provided some blue hints among the yellows. A wedding parade was making its way through Antuco so we had to detour around and then on towards the imposing bulk of Volcan Antuco, which rose in perfect conical form over the landscape as a flock of Austral Parakeets swooped across the road. Our cabins were beautifully located amidst large gardens with forested ridges and mountains all about.

Day 12 7 Dec Laguna de Laja NP

The volcanic slopes of Volcan Antuco provided the backdrop for today and we stopped first in an area of old basalt cliffs where the towering columns were illuminated with big bushy plants of *Calceolaria cavanillesii* as well as the odd splash of pink, which belonged to a gorgeous little alpine plant, *Ourisia microphylla*. We could see through our binoculars that the best clump of all was low down at the base of the cliffs so we scampered up and got some great photos of this lovely flower. Further along the cliff base was a stunning brick red *Salpiglossis sinuata*. Down below the cliffs a small stream cut through a marshy area with *Mimulus glabratus* and a pretty unknown *rubiaceae*. The dry banks closer to the volcano had plenty of *Tetraglochin alatum* the winged seedpods glowing pinkish in the sun. Reaching one of our main locations for the day a pair of Mountain Caracaras swept overhead and then glided above us close to the cliffs. Rufous-naped Ground-

tyrants were easily seen on the slope, which was peppered with big clumps of golden-yellow *Senna arnottiana*. Below on the cinder flats were superb big bushy plants of *Lathyrus multiceps* buried beneath big bicoloured flowers. We followed a track across the slope finding deep pink *Oxalis squamata*, *Calceolaria pennellii*, the remarkable rosettes of brocolli-like *Nastanthus scapigerus* and further along through the small tunnels was *Saxifraga magellanica*. Volcano Lizards zipped about on the warm sunny morning, making it impossible to photograph them.

Moving on an area close to the blue lake had some fine *Acaena splendens*(?) and was a convenient sheltered spot for lunch. The cinder slopes stretched up towards the snows and we set off after lunch in search of some more floral gems soon finding a few small *Viola cotyledon* and modest mats of *Mahuenia poepigii*. A little higher were many *Viola volcanica* and some *Rhodophiala araucana*, and the views down across the lakeland landscape were superb. Walking higher still we found some prize big clumps of *Viola cotyledon*. Descending to the cars again we then found the best *Viola volcanica* right next to the road! That's just the way it goes sometimes. We then drove on a bit for other views of the lake and some huge mats of *Mahuenia poepigii* with many flowers. There were two more floral stops on the way down first for a lovely area of waterfalls and seeps with the outsize leaves of *Gunnera tinctoria* mingling with *Cortaderia chilensis*, *Fuchsia magellanica*, *Blechnum chilense* and yellow *Mimulus luteus*. Then in a flat dry area were many *Montiopsis umbellata* colouring the ground. Arriving back at the hotel the hot tubs had been heated ready for our return.

Day 13 8 Dec To Villarica

The morning was essentially about getting to our next location to the south, so we bade a fond farewell to the delightful surrounds of our cabins and drove on, seeing plenty of Chimango Caracaras as we went and then whizzed down the Ruta 5 and onto Villarica whisking past stands of golden *Alstroemeria aurea* and then driving alongside the huge Lago Villarica before turning off and driving up towards Volcan Villarica, which at this point was still hidden in the clouds. A Southern Caracara watched us from a tree as we ate lunch in a sunny spot.

After lunch we continued to the ski centre and explored the heath and cinder slopes, finding a drift of *Valeriana fonckii*, *Quinchimalium chilense* and copious rosettes of *Viola cotyledon*. However, the latter were not in flower and it seemed this year there had been lots of snow so things were a bit behind. Variable Hawk soared overhead as we searched the cinder finding good plants of *Nassauvia lagascae*, but alas these two were not in flower this year. Fortunately two plants of pretty *Calandrina colchaguensis* were flowering and as all of this was being found the weather was clearing and revealing the magnificent form of snow-clad Volcan Villarica. Lower down we stopped for a wooded area with lots of flowery shrubs of *Berberis montana* and *Berberis trigona*, along with *Ovidia andina* and berry-laden *Gaultheria poepigii*. *Viola reichei* gave an added splash of colour both here and among the huge *Nothofagus pumilio* trees we stopped for. The penultimate stop was along a stretch of road dominated by many bushes of scarlet *Embothrium coccineum* and if this wasn't enough there were superb clear views back to the volcano, so that perfect firebush-and-snowy-volcano photos could be taken. Both Black-throated Huet-huet and Chucao Tapaculo added their peculiar calls as we enjoyed the scenery. Last up was a fine stand of *Buddleja globosa* and then we carried on down and on to our very pleasant hotel with views out across the lake and green hills beyond.

Day 14

9 Dec

Villarica NP

Volcan Villarica was clear in the morning and looming over the town of Pucon as we drove through on our way to a meeting with an even larger volcano. Just outside town we stopped for a superb roadside colony of the typical form of *Chloraea virescens* with almost all spikes having a resident crab spider of some sort with at least three different species of these occupying the different flowers. The road went through green farms and wooded areas between hills swathed in southern beech forest. Growing on a roadside seep was pretty little *Calceolaria tenella* whilst on the surrounding bank was *Chloraea valdiviensis*. We drove stopping beside some tall architectural *Araucaria araucana* for the main stop of the day a walk into the mixed forest on the lower slopes of magnificent Volcan Lanin, whose glacier-capped bulk rose above the landscape to nearly 3800 metres. Before entering the forest there was a fine show of orchids with both some feisty *Chloraea magellanica* and some showy tall spikes of *Gavilea odoratissima* including one with nineteen perfect flowers. A little further on were many *Codonorchis lessonii* and as we progressed through the woods of Monkey Puzzle and *Nothofagus pumilio* there were scrambling plants of pink *Vicia nigricans*, plenty of *Viola reichei* and beside the stream some *Ourisia ruellioides*. The path led up onto a plateau with some impressive stands of *Araucaria* with the immense volcano as a backdrop. Beneath some of the trees were the glowing pink goblets of *Myostemma (Rhodophiala) andicola* and orangey-yellow *Quinchimalium chilense* was common everywhere. Birdwise there were White-crested Elaenia, Variable Hawk and rattling rayaditos.

We descended and drove on to an idyllic picnic site beneath some Monkey Puzzles with some venerable and massive specimens among them. A dust plume had now obscured the volcano so we were glad of our earlier views. A stop by the large lake found a pair of Lake Ducks, Speckled Teal and Chiloe Wigeon. Back in Pucon there was time to visit the good bookshop there and stock up on various flora books and maps.

Day 15

10 Dec

Heuquehue NP & to Puerto Varas

Nestled in the lush, forested slopes northeast of Villarica is an area of lakeland, which includes Heuquehue. The ridges were topped by dense stands of *Araucaria araucana* and the lower forests had an altogether damper feel compared to further north, with more ferns, smooth barked *Luma apiculata* and charming epiphytes such as *Luzuriaga radicans* with its little white stars. Walking through a section of forest alongside the lake we had brief views of Chucao Tapaculo and then came across a delightful rock wall with several big-pouched *Calceolaria crenatiflora*. Exiting the trail there were White-crested Elaenias flitting among the flowers of *Weinmannia trichosperma*, with some fine floriferous trees bristling with white flower spikes. Lower down were pure white *Libertia chilensis* and abundant *Fuchsia magellanica* dripping with deep pink flowers. Chilean Flicker was briefly seen and then as we entered an area of *Saxe-gathaea conspicua* Başak saw a Black-throated Huet-huet digging beneath a tree only three metres away. We had stellar views of the bird for a few minutes as it dug away, regularly adding to the tally of grubs held in its beak, before running away at high speed no doubt back to a waiting brood of chicks. The fallen flowers of *Campsidium valdivianum* were scattered around but we couldn't locate the source. However, with a bit of persistence we did track down the lovely intense red *Ourisia coccinea* hidden among the trees. That was the final piece of the puzzle and we wandered back to the cars for lunch.

Afterwards we drove back to Villarica, enjoying clear views of the volcano once again and then sped south past stands of golden *Alstroemeria aurea* to Puerto Varas, the gateway to the Valdivian rainforest. There were even distant views of Volcan Osorno's perfect cone as we arrived.

Day 16 **11 Dec** **Alerce Andino NP**

All change weather wise with a misty morning and no sign of Volcan Osorno. We drove south to Puerto Montt and stopped for some coastal birdwatching, seeing many Kelp and Brown Hooded Gulls along with Turkey Vultures (waiting for the fishermen's scraps), Whimbrel, Magellanic Oystercatcher and a couple of Black-crowned Night-herons. The road turned inland and the vegetation grew increasingly lush with banks brimming with *Blechnum chilense* and *Gunnera tinctoria*. We stopped for a flowering *Crinodendron hookerianum*, though we needn't have since the ones in the park were superb this year. There were also many bright orange tubes of *Mitraria coccinea*, abundant *Fuchsia magellanica* and a rich assortment of different foliage. A short forest trail was a delight with a constant parade of new flora from tumbling mosses and filmy ferns to arching bamboo and the scarlet flowers of *Sarmienta scandens* hanging from high boughs and tree trunks. More accessible were the stunning red *Asteranthera ovata* whose stems smothered another trunk. And as we photographed these there were brief views of two Chucao Tapaculos. Lovely mosses and ferns continued to shine and there were many epiphytic *Luzuriaga polyphylla* festooned with pretty white flowers. The comical hoots of Black-throated Huet-huet echoed about the forest to give it all a surreal air. The odd rain shower came and went as we wandered along the main track, lined with the coppery shoots of *Nothofagus nitida*, *Crinodendron hookerianum* and that ever present Chilean shrub *Embothrium coccineum*. A few gorgeous waxy pink bells of *Philesia magellanica* and some very modest Alerce *Fitzroya cupressoides* were found before we walked back for lunch.

Immediately afterwards we looked at a particularly fine cluster of half a dozen *Asteranthera ovata* and then set off on another walk. This one entered the forest and crossed a suspension bridge passing the now familiar incredibly lush forests up and over to Lago Sargazo. Conditions were on the damp side, but it was all very atmospheric and the forest beautiful with every available surface covered in something green as Chucao Tapaculos chuckled in the undergrowth. Despite the mizzle, today had been a fascinating contrast to what we had seen in Chile so far.

Day 17 **12 Dec** **Alerce Costero**

The journey back north began today and went via the interesting coastal Alerce forests. It has to be said it was a rather soggy day with rain throughout, but this is an area of Valdivian rainforest. The rain eased at times as it did when we stopped for a fine display of orangey-yellow *Alstroemeria aurea*. Growing near these was a bush of *Corynabutilon ochsenii* and a semi-climbing *Oxalis* sp. We continued to the park and had lunch in the shelter of the new buildings being constructed (in fact it seems considerable investment is being made at the park with an impressive viewing tower, visitor centre, etc). Two Patagonian Sierra Finches showed an interest in the picnic scraps, but the local dog was in no mood to share. The forest here is remarkable, with a lush growth of *Fitzroya cupressoides*, *Saxa-gothea conspicua*, *Nothofagus dombeyi* and *nitida*, with an understorey of bamboo, *Philesia magellanica* and *Desfontainea spinosa*. Many of the trunks

were plastered in beautiful lichens and despite the rain we took a walk in the woods. As we left a Chilean Flicker flew across the road.

Just a short distance away was a fine colony of *Ourisia coccinea* growing in a mossy bank and further along we stopped for *Berberis darwinii*, *Lomatia hirsuta*, *Luzuriaga radicans* and a pretty mass of pink flowered *Rubus geoides* as Tufted Tit-tyrants buzzed about the *Embothrium*. In fact a huge specimen of the latter smothered in flowers was out next stop. A final stop was for a lovely display of *Libertia chilense* that lined a section of road at the base of a diverse shrubbery that included *Lomatia ferruginea* almost in flower. All that was left was to retrace our steps through La Union and onto Villarica and the pleasant confines of our hotel.

Day 18 13 Dec Conguillio NP

We started the day with fine stands of *Alstroemeria aurea*. Near Melipeuco we stopped first for some good orchids with the odd *Chloraea barbata* scattered among the many *Chloraea virescens* and then again for an area of damp pasture where we found the striking Spectacled Tyrant flashing its wings. There was also a wonderful row of Black-necked Ibises perched on fence posts beside the road and for more colour several Long-tailed Meadowlarks. Moving on towards the national park we stopped again for orchids this time abundant *Chloraea gaudichaudii* and the ubiquitous *virescens*. Although we couldn't see the crater (Volcan Lliama) the vast lava flows and cinder fields that spread out below were still very impressive, peppered with golden-flowered *Senecio chilense* and mats of silvery-green *Rachmetrium* moss. The road meandered through areas of lichen draped nothofagus forest, past blue lake to the first architectural stands of *Araucaria araucana* set against the snows of the Sierra Nevada. There were various stops for particularly good groups and then we had lunch under a canopy.

Post-lunch we went around a short trail through magnificent araucaria and nothofagus woodland, with an understorey of bamboo. Before we set off a flock of Austral parakeets could be seen feeding on araucaria seeds next to the car park. There were some fantastic specimens of old Monkey Puzzles and as the trail rose a little into mixed forest there were views through the lichen clad trunks and occasionally out to the landscape beyond. It really was lush and beautiful. Driving out of the park there was a fine flowery bush of *Berberis trigona*, and the dangling flowers of *Ribes magellanica*.

Day 19 14 Dec Nahuelbuta NP

We drove up towards the beautiful forests of Nahuelbuta, past drifts of *Caleolaria integrifolia* and on to where we stopped for some fine plants of *Loasa acerifolia* and flowering bushes of *Lomatia hirsuta*. There was also a solitary *Myostemma* (= *Rhodophiala*) *chilensis*, but on entering the park there was a fine group of four of these as well as masses of fat-pouched *Calceolaria corymbosa*. Moving further on we found the first of two good populations of *Gavilea venosa* amid amazing forests of *Nothofagus obliqua* and the first *Araucaria araucana*, the conifer this park is most famous for – and they weren't going to disappoint. The hoots of Black-throated Huet-huet and explosive utterance of a very close Chucao Tapaculo accompanied the orchids. Our next main stop was for a particularly large specimen of araucaria set among the woods and claimed to be over a

thousand years old. Another superb group of *Gavilea venosa* followed and then a few golden *Chloraea nudilabia* before we arrived at our picnic spot beneath some venerable araucarias.

The forest became progressively more stunning and we stopped repeatedly for delightful scenes with fiery bushes of *Embothrium coccineum* or the colourful parasite *Desmardia mutabilis* set amidst lichen draped trees. We went up towards a viewpoint with mists swirling in among the trees and presenting the most amazing scenes of spidery araucarias. Also at the top was the most stunning fifteen-flowered *Chloraea nudilabia* imaginable, a perfect specimen. A male Magellanic Woodpecker was seen well as we descended and the Chilean Flicker and Thorn-tailed Rayadito. It was hard to leave this wonderful verdant paradise and we stopped again for yet more lichen-covered araucarias or golden-flowered *Berberis darwinii*. It really had been magical throughout the day, with the mists adding to the surreal landscapes and overall feeling of the place. For a finale we found a flowery tangle of *Mutisia ilicifolia* above a huge flowery clump of *Calceolaria valdiviana* and then a wooded area studded with the fiery flowers of *Myostemma chilensis*. The skies were most definitely clearing as we returned to base.

Day 20 15 Dec Nahuelbuta & to Vilches

The day began with clear blue skies and superb views of snow-capped volcanoes as we drove back up above Angol. Our first stop was for a stunning *Puya bertroniana* with its unique blue-green flowers attended at times by White-crested Elaenias. Further on were the lovely white orchid *Chloraea longipetala* mingled with *Chloraea gavilu*, but we were to see better of both later on. Orchids were very much the theme of the morning with drifts of *Chloraea volkmannii* by the roadside with blue *Pasithea caerulea* and *Conanthera bifolia*. Another little roadside bank had some stunning specimens of *Chloraea longipetala* as well as *Gavilea araucana* and *Chloraea barbata*. Our last stop was for a good *Chloraea gavilu* with a very tall *Chloraea chrysantha* with superb multi-volcano views across the plain towards the Andes.

We now had to reposition again first buying supplies in town and then driving on to the waterfalls at Salto de Laja where we had a restaurant lunch before visiting the falls. Thriving behind the water curtain itself were billowing clumps of *Mimulus luteus*. From here we had to drive back up to our pleasant hotel at Vilches, seeing a couple of White-tailed Kites on the way.

It was decided this place had the best pisco sours of the tour.

Day 21 16 Dec Laguna de Maule

Leaving the pleasant surround of Vilches Alto we drove back to the main road and then began our journey east towards the Andes. A flock of Austral Parakeets interrupted the drive down hill. The next stop was for masses of *Calceolaria thyrsiflorus* and pink-stemmed *Puya caerulea*, as two Black-chested Buzzard-eagles soared overhead. Then there were abundant *Mutisia ilicifolia/spinosa* scrambling over shrubberies full of scented *Diostea juncea*. A delicate little yellow *Myostemma (Rhodophiala) montana* was found too. Rocky slopes further on had masses of showy *Alstroemeria ligtu*. Nice stands of *Schizanthus hookeri* and views of the valley followed and going higher to Laguna de Maule we reached an area with *Viola cotyledon*, a big clump of *Calceolaria pennellii* and lovely patches of pink *Oxalis adenophylla*. Mingled among the latter were the pale yellow

Olsynium frigidum and a crisply plumaged Andean Gull flew over us as we had lunch among these floral delights.

Continuing around the picturesque lake with snow streaked colourful mountains all around we found areas with abundant pink *Olsynium junceum* and Greater Yellow-finches. Another stop had a beautifully plumaged Lesser Seedsnipe scurrying around with Common Miner and big lizards below slopes with abundant *Calceolaria corymbosa* ssp *flocosa*. Başak then found a solitary *Viola glacialis*. Many more of the same were found at our next location where they populated a bare gravelly expanse along with a few *Nassauvia* sp. Then we found the *Viola cotyledon* colony to end all others with some huge domes smothered in flowers ranging from deep purple, to lilac or white all with a superb Andean backdrop. There were short stops for views and *Tropaeolum polyphyllum* before we had to move on to Curico for the night.

Day 22

17 Dec

Paso Vergara

The final foray into the field and it was a very enjoyable one. A slightly earlier departure from the hotel had us driving towards the Andes once again and we didn't stop until we reached a superb specimen of *Puya bertroniana* in full flower. Around and about were deep magenta *Cistanthe grandiflora*, the scrambling stems of *Scyrphanthus elegans* and some *Eriosyce curvoispina* about to burst into bloom. We continued for quite a way until Morag spotted a *Famatina cisandina* on a dry slope. The slopes further on were smothered in bushy *Calceolaria thyrsiflora* and the big pink heads of *Alstroemeria ligtu* and the scenery was becoming more dramatic as we drove above a canyon. The frontier was closed because of snow (this year being an El Nino meant more snow than normal) but we were allowed to pass via a rough backdoor route and begin our drive to the pass. Abundant *Tropaeolum polyphyllum* tumbled over the rocks and there were bushy plants of *Calceolaria hypericina* as a pair of Black-chested Buzzard-eagles soared overhead and Rufous-capped Ground-tyrants flitted about the slope. From here we pushed on to the pass itself arriving just in time as a digger had only just cleared the large snow banks and was busy working on the next one. This didn't really affect us as on the snow-free rocky knoll were some lovely alpines with *Oxalis adenophylla* and the very choice *Oxalis erythrorhiza*, cabbage-like *Nastanthus scapigerus* and pretty mats of soft yellow *Oreopolus glacialis*. Crossing a snow patch we reached another slopes with lots of *Calceolaria corymbosa* ssp *flocosa* and in the wet green flushes were *Calandrinia affinis* and the odd *Caltha sagitata*. The landscape all around was extra snowy this year and as we drove back down a couple of White-browed Ground-tyrants were seen on the snow banks. There were a couple of interesting stops on the way with the first for some fine spreading mats of *Azorella monantha*. Unfortunately these were not in flower so we stopped at another patch, which were. It was here that a sudden "Oooh!" from Morag drew our attention to the gorgeous little *Viola atropurpurea* that were growing among and within the azorellas the little columns of tightly-overlapping leaves had small white and purple flowers poking out and were perfect little alpines. The *Schizanthus grahamsi* we stopped for afterwards were an altogether showier affair with deep red-pink and orangey-yellow flowers. At the bottom of the track the big rosettes of *Pachylaenia atriplicifolia* were all ready to flower but hadn't started yet.

We had to move on to Santiago so now we drove on but hadn't gone that far when we saw a pair of Torrent Ducks on a section of river right next to the road. We had superb views of these stunning, sleek ducks as they moved upstream to feed. The last planned stop had been for

Mimulus naiandinus but the colony had been washed out and buried under rock falls with only a few flowers seen.

From here we drove quickly enough to Santiago (failing to find anywhere to wash the very dirty cars) and we arrived at the comfortable Holiday Inn in good time to check in and then have a final dinner. All in all it had been a very successful trip full of beautiful scenery, wonderful flowers and a fair scattering of other wildlife from tarantulas to guanacos.

Day 23 **18 Dec** **Santiago to London**

We all made our flights and...

Day 24 **19 Dec** **Arrive London**

...arrived home in time for Christmas shopping.

Systematic List Number 1 Flora

The list comprises principally the native species with only the most obvious alien species included as so many Eurasian 'weeds' are widespread in lowland Chile and these do not seem particularly relevant. Species in parentheses [] were seen on previous trips (2008) and are included for completeness although they were not seen during tour. There have been a number of identification revisions please check the list carefully.

*denotes species seen in northern Chile during 2011's unique pre-tour.

Lycopodiaceae

Lycopodium magellanicum Torres del Paine

Pteridophytes

Adiantaceae

Adiantum spp Various species encountered.

Aspidiaceae

Polystichum spp

Various species seen, especially at Alerce Andino, also Nahuelbuta

Polystichum andinum

Among vegetation patches on the cinder slopes of Volcan Antuco

Aspleniaceae

Asplenium sp

A species seen similar to 'Black Spleenwort'

Azolaceae

Azolla filiculoides

Freshwater pools

Blechnaceae

Blechnum chilense (*magellanicum*)

The common large fern with once pinnate leaves, abundant in wet areas. A second similar species was seen at Alerce Costanera

Blechnum penna-marinum

Widespread small fern

Cheilanthes sp

Antucalhue

Cyathaceae

Cyathea sp

Alerce Andino - a 'trunkless' tree fern.

Gleicheniaceae

Gleichenia quadripartita

Alerce Andino, Alerce Costero, bifurcate leaves

Hymenophyllaceae

Hymenophyllum spp

Several species at Alerce Andino with dense coverings on many trees and logs

Gymnosperms

Araucariaceae

Araucaria araucana

Magnificent forests at Nahuelbuta, Conguillio and Villarica

Cupressaceae

Austrocedrus chilensis
Fitzroya cupressoides

Pilgerodendron uviferum

Siete Tazas, Laguna del Laja, Paso Vergara
Alerce Andino, Alerce Costero; relative of redwoods with a huge specimen at Alerce Costero (2013)
Alerce Andino – similar to *Fitzroya*

Podocarpaceae

Podocarpus nubigena
Podocarpus salignus
Prumnopitys andina
Saxe-gothea conspicua

Typical podocarp, Alerce Andino
Graceful long-leaved conifer, a few below Nahuelbuta (2013)
Somewhat 'yew-like' with berry-like fruits (2013)
Similar to *Prumnopitys* but spinier and cone-like fruits and characteristic mauvish-grey scaled bark. Alerce Costero, Heurquehue

Angiosperms - Dicotyledons

Acanthaceae

[*Stenandrium dulce*

Low growing pink flower, seen before the group arrived near Siete Tazas 2010]

Ampelopsiaceae

Cissus striata

Palmate leaved climber, scattered in north

Apiaceae

Apium prostrata
Azorella monantha
Azorella monteroi
Azorella sp

Torres del Paine
Paso Vergara, hard spreading mats, also Torres del Paine.
Distinct pointed leaves, Siete Tazas, (Altos de Lircay 2010)
Looser sprawling mats with tight rosettes of rounded leaves, Altos de Lircay

Azorella trifurcata
Eryngium pandanifolium

Torres del Paine, three part pointed leaves
Widespread, rosette of long soft-spined leaves and tall spiny-bracted flowers

Foeniculum vulgare
Mulinium spinosum
Osmorhiza chilense
Pozoa volcanica

Common alien weed
Abundant spiny domed shrub, Torres del Paine
Unexciting small-flowered umbellifer, Torres del Paine
Unusual leaved species in cinder at Siete Tazas, Laguna de Laja

Sanicula graveolens

Low growing yellow flowered alpine forms at Paso Vergara, Laguna de Maule, taller at lower altitudes e.g. Nahuelbuta

Araliaceae

Pseudopanax valdiviense
Pseudopanax laetivirens

Widespread in wetter forests
Widespread in wetter forests

Asteraceae

Acrisione denticulata

Large yellow flowered shrub at Alerce Andino and Alerce Costero

Adenocaulon chilense

Small pinkish flowers, rosette of oval leaves silver on the reverse, Nahuelbuta, Torres del Paine

Antennaria chilensis

Torres del Paine

Symphotrichum (= Aster) vahlii

Common white daisy in marshy areas at Torres del Paine

Baccharis magellanica

Common in the far south

<i>Baccharis</i> sp	Various species seen, all similar in flower
<i>Chilotrichum diffusum</i>	Abundant white flowered shrub in far south
<i>Cichorium intybus</i>	Abundant roadside weed
<i>Cotula scariosa</i>	Pinnate leaves, yellow flowers, low-growing spreading herb, Alerce Andino, Torres del Paine
<i>Erigeron leptopetalus</i>	Torres del Paine
<i>Erigeron patagonicus</i>	Torres del Paine, hairy
<i>Gamochaeta nivalis</i>	Widespread in meadows and roadsides
<i>Grindelia prunelloides</i>	Mat-forming with yellow daisy flowers, Laguna de Laja.
<i>Haplopappus baylahuen</i>	Possibly this bushy species (in seed) on rocks and rocky ground en route to Paso Vergara
<i>Haplopappus macrocephalus</i>	Reddish-orange daisy near Siete Tazas
<i>Haplopappus</i> spp	Various other species seen
<i>Hypochaeris incana</i>	Honey-scented white flowers, prominent brown styles, far south
<i>Leucheria glacialis</i>	White, branched daisy at Paso Vergara
<i>Leucheria hahnii</i>	Pretty sweet-scented white daisy in heath near Puerto Natales, entire tomentose leaves
<i>Leucheria purpurea</i>	Lovely deep-reddish purple flowered daisy at Torres del Paine
<i>Leucheria rosea/paniculata</i>	White form – possibly this at Siete Tazas
[<i>Mutisia cana</i>	One in fine flower at Siete Tazas, orange-red, near roadside 2011]
<i>Mutisia decurrens</i>	Leaves at Siete Tazas
<i>Mutisia ilicifolia</i>	A (whitish to) pink species en route to Nahuelbuta, only small or non-existent point to phyllaries. Possibly also en route to Laguna del Maule road, Paso Vergara, but calyx seems too spiny so these are probably <i>spinosa</i> .
<i>Mutisia oligodon</i>	Pink flowered species at Laguna del Laja. leaf margin entire.
<i>Mutisia spinosa</i>	Possibly this species en route to Laguna de Maule and Paso Vergara, the calyx certainly had pronounced ‘points’ to the overlapping phyllaries. Very similar in other respects to <i>ilicifolia</i> .
<i>Nardophyllum bryoides</i>	Attractive apricot-flowers in spreading cushions Torres del Paine
<i>Nassauvia fuegiana</i>	Torres del Paine, sprawling mats, small flower clusters
<i>Nassauvia lagascae</i>	Villarica ski-centre, also Paso Vergara
<i>Nassauvia magellanica</i>	Torres del Paine, shingle beach near Grey
<i>Nassauvia revoluta</i>	Almost in flower at Laguna de Maule
<i>Pachylaena atriplicifolia</i>	Stunning creamy-daisies set among fleshy rosettes, Paso Vergara – not quite flowering 2015
<i>Perezia magellanica</i>	White flowers, pinnate leaves, Torres del Paine
<i>Perezia recurvata</i>	Sky-blue to white flowers in mats, far south
<i>Podanthus mitiqui/ovatifolius</i>	Shrub with round yellowish inflorescences akin to <i>Buddleja globosa</i> . Siete Tazas
<i>Senecio argyreus</i>	Cinder fields at Conguillio
<i>Senecio bipontinii</i>	On cinder at Laguna de Laja not flowering 2015
<i>Senecio chionophylus</i>	Conguillio (2013)
<i>Senecio clarionifolius</i>	Possibly this along the roadside at Villarica, spreading mats with tomentose leaves, pale yellow flowers (2013)

<i>Senecio magellanicus</i>	Possibly this at Torres del Paine (2013)
<i>Senecio chilensis</i>	Yellow with grey tomentose leaves, Siete Tazas (2010), Laguna de Laja, Laguna de Maule, Paso Vergara
<i>Senecio smithii</i>	In bud at Torres del Paine, large somewhat woolly leaves and white flowers. (2013)
<i>Senecio sp</i>	Various species seen!
[<i>Senecio tricuspoidatus</i>	Ottway Sound (2010)]
<i>Viguiera revoluta</i>	Tall yellow daisy along roadsides below Paso Vergara

Berberidaceae

<i>Berberis montana</i>	Large (for <i>Berberis</i>) yellow flowers, rounded leaves, Nahuelbuta, Villarica. <i>B. buxifolia</i> is now incorporated in this species. <i>B. microphylla</i> is similar and common in the far south
<i>Berberis darwinii</i>	Fine shrub, small holly-like leaves, golden-yellow flowers widespread in Araucania e.g. Nahuelbuta, Alerce Costero (Conguillio, Heuquehue, Villarica 2013)
<i>Berberis empetrifolia</i>	Narrow leaves and yellow flowers, small bush, abundant at Laguna del Laja on cinder, also Altos de Lircay, Villarica, Paso Vergara generally at altitude except in Torres del Paine
<i>Berberis microphylla</i>	Torres del Paine – local name is Calafate
[<i>Berberis negeriana</i>	Villarica (Puesco), large leaves some spines]
<i>Berberis serratodentata</i>	Villarica (Puesco) – large glossy leaves with spines along margins, (yellow-apricot flowers but none this year)
<i>Berberis trigona</i>	Spectacular orange flowered shrub, Nahuelbuta, Villarica. Previously known as <i>linearifolia</i>

Bignoniaceae

<i>Campsidium valdivianum</i>	Red tubular flowers on climbing stems, Heurquehue, Alerce Andino, Alerce Costero
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Boraginaceae

<i>Cynoglossum creticum</i>	Scattered. Alien weed
<i>Phacelia secundum</i>	Common native borage e.g. Siete Tazas, Paso Vergara where superb mauve forms
	Many ruderal aliens species seen

Brassicaceae

<i>Brassica rapae</i>	Alien. Torres del Paine
<i>Capsella bursa-pastoris</i>	Widespread alien
<i>Cochlearia</i>	Puerto Natales
<i>Noccaea magellanica</i>	Torres del Paine
<i>Onuris spegazziniana</i>	Possibly this in steppe en route to Puerto Natales, growing with <i>Oxalis enneaphylla</i>

Cactaceae

<i>Echinopsis chilensis</i>	Stands on slopes south of Santiago
<i>Eriosyce curvispina</i>	Fine globular cactus with yellow-pink flowers at Siete Tazas, also Paso Vergara road
<i>Maihuenia poeppigii</i>	Wonderful mat-forming cactus with pale yellow flowers
	Laguna del Laja

Calceolariaceae

<i>Calceolaria cavanillesii</i>	Yellow species, slightly serrate leaves, with prominent bract below inflorescence, on cliffs with <i>Ourisia microphylla</i> and various rocky areas at Laguna del Laja
<i>Calceolaria arachniodea/purpurea</i>	In leaf/bud at Paso Vergara
<i>Calceolaria biflora</i>	Variable, but flat green oval basal leaves and tall stems of yellow flowers common at Torres del Paine.
<i>Calceolaria cana</i>	Lovely pink species, grey leaves and long stemmed infl.
<i>Calceolaria crenatiflora</i>	Large pouched yellow species with red markings, on wet rocks at Heurquehue and also Villarica (2013)
<i>Calceolaria corymbosa</i>	Nahuelbuta, lovely showy masses this year
<i>Calceolaria corymbosa ssp flocosa</i>	Paso Vergara, Laguna de Maule. Red speckled pouches and grey floccose leaves
<i>Calceolaria dentata</i>	Tall, corymbose species growing with <i>Chloraea lamellata</i> , flowers somewhat flattened, soft yellow.
<i>Calceolaria filicaulis</i>	Paso Vergara in wet turf, round inflated pouches and rest of flower reduced
<i>Calceolaria hypericina</i>	Large bushes on slopes at PasoVergara, golden yellow, slim flowers
<i>Calceolaria integrifolia</i>	Locally abundant bushy species, especially en route to Nahuelbuta. Dense infl with bright yellow spotless flowers
<i>Calceolaria meyeniana</i>	The common bushy yellow woodland species at (Altos de Licay), Siete Tazas
<i>Calceolaria paralia</i>	Tall species, with large inflorescence of smooth soft yellow pouches, by a stream at Paso Vergara (2013)
<i>Calceolaria polifolia</i>	Possibly this grey leaves species at Laguna del Laja 2011 and Laguna de Maule road this year.
<i>Calceolaria polyrhiza</i>	Torres del Paine, hybridising with <i>uniflora</i>
<i>Calceolaria spp</i>	Other species seen but not identified
<i>Calceolaria tenella</i>	Small yellow species in wet seeps at Villarica
<i>Calceolaria thrysiflora</i>	Near Siete Tazas, Paso Vergara
<i>Calceolaria uniflora</i>	Stunning large flowers of orange-brown to golden with red and white lip, locally common at Torres del Paine.
<i>Calceolaria uniflora x polyrhiza</i>	Hybrids at TDP
<i>Calceolaria valdiviana</i>	Bright yellow flowers with flattened, indented pouches, Villarica, Nahuelbuta, Conguillio and Heurquehue.
<i>Calceolaria pennellii</i>	Rocky slopes at Laguna de Laja, also Laguna de Maule, short dense clumps. Originally called as <i>volkmannii</i> .

Caliceraceae

<i>Nastanthus scapigerus</i>	Unusual rosettes of glaucous leaves with dense flowerheads, Altos de Lircay (2010) and Laguna del Laja
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Caryophyllaceae

<i>Cerastium arvense</i>	Widespread in woods, steppe
<i>Cerastium montioides</i>	Siete Tazas, Laguna de Laja
<i>Silene chilensis</i>	Possibly this at Paso Vergara
<i>Silene magellanica</i>	Torres del Paine
<i>Stellaria debilis</i>	Torres del Paine

Celastraceae

Maytenus magellanicum

Torres del Paine, Grey

Convolvulaceae

Convolvulus chilensis

Roadsides

Cunoniaceae

Caldcluvia paniculata

Weinmannia trichosperma

Everygreen shrub at Heurquehue

Impressive flowering trees at Villarica, Alerce Costanera, dense spikes of creamy flowers

Desfontainiaceae

Desfontainea spinosa

Scattered Nahuelbuta, Alerce Andino, Alerce Costanera, but none in flower

Eleocarpaceae

Crinodendron hookerianum

Superb stands at Alerce Andino, crimson lanterns aplenty

Empetraceae

Empetrum rubrum

Locally abundant in heaths of far south + north alpine zone

Ephedraceae

Ephedra chilensis

Typical *Ephedra*, leafless green stems, Laguna del Laja

Ericaceae

Gaultheria insana

Gaultheria mucronata

Gaultheria proved a confusing genus and many specimens not determined! However, there probably only two or three variable taxa involved.

Alerce Andino, Villarica altogether larger and longer leaves

Near Nahuelbuta, also Villarica, Torres del Paine, widespread, common and variable, some densely-flowering bushes at Villarica

Gaultheria poeppigii

Widespread small shrub, common in forest at Siete Tazas and Altos de Lircay, Villarica, longer leaves than *mucronata*

Gaultheria pumila

Very dwarf, leaves without spines, bells not constricted at distal end. Torres del Paine, but probably seen elsewhere

Escalloniaceae

Escallonia rubra

Siete Tazas, Villarica, superb bushes at Torres del Paine, red-pink

Escallonia paniculata

Unexciting shrub with dense panicles of white flowers, near Nahuelbuta

Escallonia alpina

Pale pink or white, Torres del Paine

Eucryphiaceae

Eucryphia cordifolia

Common large shrub to huge tree at Alerce Andino, non-flowering

Euphorbiaceae

Euphorbia collina

Common especially in cinder on Volcan Antuco, also Villarica

Fabaceae

[<i>Adesmia aspera/radicifolia</i>	There is some confusion with <i>Lathyrus</i> with conflicting illustrations in the Hoffmann series of books and other publications. I defer to Hoffmann which offers the clearest distinctions
<i>Adesmia boronioides</i>	2011]
<i>Adesmia campestris</i>	Abundant bushy species at Torres del Paine
<i>Adesmia corymbosa</i>	TDP, spiny shrublet at Lago Sarmiento
<i>Adesmia longiseta</i>	Fine species in rocky cinder at pass, Altos de Lircay (2013)
<i>Adesmia lotoides</i>	Relatively large-flowered species in meadow near Nahuelbuta
<i>Adesmia pumila</i>	Dwarf species at Torres del Paine, non hairy
<i>Adesmia sp</i>	Similar to <i>lotoides</i> but pinnate leaflets and hairy, Torres del Paine
<i>Anarthophyllum desideratum</i>	Confusing and difficult genus, many species seen
<i>Anarthophyllum andicola</i>	Superb displays in places on this earlier than usual visit to Torres del Paine
<i>Astragalus palenae</i>	Golden yellow species, in bud at Paso Vergara (2013)
<i>Astragalus pehuenches</i>	Pretty pinkish species at Torres del Paine (2010)
<i>Cytisus scoparius</i>	Abundant at Paso Vergara, greatly inflated seedpods on the ends of stems, some with purplish flowers too
<i>Galego officianalis</i>	Common alien shrub, spectacular displays at Laguna del Laja, Villarica
<i>Lathyrus magellanicus</i>	Widespread alien
	Purplish and pale lilac-white 'sweet pea' scrambling in woods and roadsides in Torres del Paine. Noticeably smaller flowered, with more slender leaves than <i>neruosus</i> . Further north it is pure purplish-magenta and much lusher scrambling into trees at Siete Tazas, becoming bicoloured again further south at Nahuelbuta.
<i>Lathyrus multiceps</i>	Common and widespread, large bicoloured purple and white flowers, large squarish standards and wide keels. Laguna del Laja.
<i>Lathyrus nervosus</i>	Fine large flowered oval-leaved species at Torres del Paine. Larger flowered than <i>magellanicus</i> .
<i>Lathyrus subandinus</i>	Smaller, narrower flowers than <i>multiceps</i> , bicoloured rose-white, Altos de Lircay (2010)
<i>Lupinus arboreus</i>	Abundant alien, common near coasts
<i>Lupinus microcarpus</i>	Pinkish-purple small lupin on beach at Boca Budi 2010, near Nahuelbuta 2011
<i>Lupinus nookatensis</i>	Colourful alien! Too common at Torres del Paine
<i>Senna arnottiana</i>	Prostrate species with big golden flowers on slopes at Laguna del Laja, Paso Vergara, Laguna de Maule.
<i>Sophora macrocarpa</i>	Scattered, yellow flowered shrub, pinnate leaves, Altos de Lircay, Conguillio
<i>Teline monspessulanus</i>	Alien shrub, Laguna del Laja, Nahuelbuta
<i>Vicia diffusum</i>	Far south, small mauve flowers on scrambling plants
<i>Vicia magellanica</i>	Torres del Paine
<i>Vicia magnifolia</i>	Large creamy vetch common at Altos de Lircay, also Siete Tazas, Maule, Vergara
<i>Vicia nigricans</i>	Laguna de Laja, Villarica, Conguillio, handsome deep pink vetch

Fagaceae

Nothofagus alpina
[*Nothofagus alexandrina*
Nothofagus antarctica
Nothofagus betuloides
Nothofagus dombeyi
Nothofagus glauca
Nothofagus nitida

Nothofagus obliqua
Nothofagus pumilo

Long leaved species at Conguillio, Villarica
Los Ruiles 2011]
Abundant in windblown steppe of south
Near Cueva de Milodon, bronzy tint to leaves
Common small dark green leaved species, some huge trees
Widespread, Siete Tazas, Villarica
Alerce Andino, triangular, rigid, glossy leaves, new growth a
lovely rusty colour
Common oval-leaved mid-green species at Nahuelbuta
Conguillio, Heurquehue, Torres del Paine, etc

Flacourtiaceae

Azara lanceolata
Azara microphylla
Azara petiolaris
Azara serrata

Nahuelbuta, slender leaves (2013)
Shrubberies in Lake District, small roundish leaves (2013)
Altos de Lircay (2013)
Oval serrate leaves, yellow flowers; Heurquehue, Villarica,
Conguillio

Geraniaceae

Cissarabylon elegans

Erodium cicutarium
Geranium magellanicum
Geranium sessiliflorum

Siete Tazas, pink with purple veins, woodland, flower rather
like an oxalis
TDP
Torres del Paine
Torres del Paine, dissect

Gesneriaceae

Asteranthera ovata

Mitraria coccinea

Sarmienta scandens

Lovely crimson-flowered epiphyte, some wonderful flowers
found at Alerce Andina
Similar to *Sarmienta*, but tending to grow as a scrambling
shrub through other plants and with bright orange flowers,
stamens not strongly exerted. Alerce Andino
Epiphyte with red-orange flowers, stamens strongly exerted.
Generally too high to see well at Alerce Andino.

Gunneraceae

Gunnera magellanica

Gunnera tinctoria (chilense)

Common trailing species with glossy round leaves, Torres
del Paine
Immense herb with spiny 'rhubarb-like' leaves. Widespread
in wet places especially Valdivian rainforest south to Torres
del Paine.

Hydrangeaceae

Hydrangea serratifolia

Common at Laguna del Laja, Siete Tazas with some huge old
plants, also Heurquehue

Hypericaceae

Hypericum perforatum

Abundant alien

Icacinaceae

Citronella mucronata

Evergreen shrub with fragrant flowers, Siete Tazas

Lamiaceae

Stachys grandidentata
Stachys gilliesii
Teucrium bicolor

Common at Siete Tazas
Meadow near Nahuelbuta, pinkish-cream
Siete Tazas, Nahuelbuta road

Lentibulariaceae

Pinguicula chilensis

Alerce Andino (Nahuelbuta 2010)

Linaceae

Linum bienne
Linum chamissonis

Slender pale blue alien, scattered
Bright yellow flax

Loasaceae

Loasa acanthifolia
Loasa acerifolia
Loasa tricolor
Scyphanthus elegans

Alerce Costero, Nahuelbuta (2011)
Near Nahuelbuta
Orange with red and white, Siete Tazas, Villarica (2013)
Yellow cup shaped flowers on twining stems, Siete Tazas (2010), superb at Paso Vergara

Lobeliaceae

Lobelia tupa

Tall deep red with large acute leaves. Below Nahuelbuta 2011 in magnificent stands

Pratia longiflora

Creeping prostrate herb with lilac flowers, damp areas, Torres del Paine

Loganiaceae

Buddleja globosa

Globular yellow flowers, superb at Villarica, also Paso Vergara where strongly dwarfed at altitude

Loranthaceae

Misodendron linearifolium

Heurquehue, Villarica, Siete Tazas, peculiar green parasite on *Nothofagus*

Misodendron punctulatum

Abundant parasite in far south and seemingly causing great damage to some forests

Tristerix corymbosus

Scarlet flowers, Alerce Andino 2010

Desmaria mutabilis

Golden to scarlet parasite at Siete Tazas 2010, Nahuelbuta 2011

Malvaceae

Corynabutilon ceratocarpum
Corynabutilon ochsenii
Sphaeralcea obtusiloba

Mauve flowers, forest at Siete Tazas
Larger flowered species en route to Alerce Costero
Abundant along roadsides near Fray Jorge. Mallow-like sub-shrub, pink flowers darker centres.

Monimiaceae

Laureliopsis philipiana

Glaucous pungent leaves with serrated margin, evergreen, Heurquehue and further south

Myrtaceae

Amomyrtus luma

Attractive orangey smooth bark, Alerce Andino, Heurquehue, etc

Luma apiculata

Strongly scented creamy flowers in dense corymbs, Alerce Andino, Heurquehue

Ugni molinae

Pretty wide pink bells, dwarf evergreen near Pucon. (Los Ruiles 2011)

Onagraceae

Clarkia gayana

Roadsides, pink to mauve annual near Siete Tazas

Clarkia tenella

Similar to *gayana* but purple-blue flowers, Siete Tazas and north

Fuchsia magellanica

Widespread, especially in the south

[*Oenothera acaulis*

Huge white flowers, near Chol-Chol 2011]

Oenothera affinis

Abundant Evening Primrose

Oxalidaceae

Oxalis adenophylla

Stunning clumps at Paso Vergara with big pink flowers, also Altos de Lircay

Oxalis compacta

Dwarf yellow species on drier stony slopes at Paso Vergara (2013)

Oxalis enneaphylla

Handsome clumps north of Punta Arenas in steppe, pink with darker veins, dense leaflets

Oxalis lacinata

Pink, with fine leaves, TDP

Oxalis rosea

Tall stoloniferous pink species

Oxalis valdiviensis

Taller yellow flowered species at Villarica, Siete Tazas

Oxalis erythrorhiza

Lovely cushions with yellow flowers, Paso Vergara

Oxalis squamata

Pretty bright pink, among cinder at Siete Tazas, Laguna del Laja, Paso Vergara

Plantaginaceae

Plantago lanceolata

Abundant and widespread alien

Plantago major

Alien

Plumbaginaceae

Armeria maritima ssp *andina*

Widespread in far south, also at Paso Vergara

Polemoniaceae

Collomia biflora

Similar but shorter and deeper red, Torres del Paine

Collomia cavanillesii

Scarlet flowers, a bit like a centaury, Siete Tazas

Microsteris gracilis

Laguna de Laja, Torres del Paine

Polygalaceae

[**Pteromonnia pterocarpa*

Syn. *Monnina pterocarpa* Los Molles 2011]

Polygala gnidioides

Pretty lilac milkwort at Altos de Lircay, also Laguna del Laja. Shrubby (2010)

Polygala salasiana

Mauve milkwort, prostrate, growing among *Azorella monantha* at Paso Vergara, Torres del Paine (2010).

Polygonaceae

Rumex acetosella

Abundant alien weed

Portulacaceae

Calandrinia affinis

Large white flowers from low rosettes of narrow leaves, (common at Altos de Lircay 2013) and at Paso Vergara

Calandrinia colchaguensis

Pink flowers, similar to *affinis*. Altos de Lircay, Nahuelbuta

Calandrinia graminifolia

A couple in cinder at Villarica – originally considered *colchaguensis*, but on reflection habitat rules this out

Calandrinia sp/Montiopsis sp

Various unidentified species seen

Cistanthe grandifolia

Large pink saucer-flowers on long stems above fleshy grey leaves, cliffs en route to Paso Vergara

[*Montiopsis andicola*

Altos de Lircay 2008, Paso Vergara (2011)

Montiopsis cistiflorus

Laguna del Laja, white? Possibly this.

Montiopsis sericea

Large pink flowers on stems from narrow basal leaves, Altos de Lircay (2013)

Montiopsis umbellata

Heads of deep magenta flowers on tallish stems as we returned from Laguna del Laja, also Paso Vergara

Primulaceae

Anagallis alternifolia

Native, pinkish flowers on trailing stems, near Nahuelbuta, Torres del Paine also below Laguna de Maule where deep pink.

Anagallis arvensis

Widespread weed

Samolus spathulatus

Common in marshy places at Torres del Paine, pink flowers

Proteaceae

Embothrium coccineum

Fabulous intense scarlet flowers on large bushes, superb throughout Lake District north to Nahuelbuta, also Torres del Paine

Gevuina avellana

Pinnate glossy, leaves Heurquehue

Lomatia ferruginea

Ferny-leaved shrub, Alerce Andino, Alerce Costero, in flower at Villarica hotel (2011)

Lomatia hirsuta

Common large shrub in Araucania region, dentate oval leaves creamy flowers with petaloid anthers

Ranunculaceae

Anemone decapetala

White-flowered species at Nahuelbuta

Anemone multifida

Laguna del Laja, Villarica and Conguillio, creamy anemone with dissect leaves. Common at Torres del Paine.

Ranunculus chilensis

Like *peduncularis* but larger and taller, Nahuelbuta

Ranunculus peduncularis

Altos de Lircay to Torres del Paine, celandine-like flowers on tall stems

Ranunculus repens

Torres del Paine

Rhamnaceae

Colletia spinosissima (syn *ulicina*)

Taller shrub, also very spiny

Discaria articulata

Spiny near leafless bush with dense clusters of white bells flowers, Altos de Lircay, Siete Tazas, Laguna de Laja

Discaria trinervis

Common white flowered spiny shrub, akin to *Pyracantha*, Laguna del Laja to Torres del Paine.

Rosaceae

Acaena digitata

Siete Tazas

<i>Acaena lucida</i>	Torres del Paine
<i>Acaena magellanica</i>	Ottway Sound penguin colony
<i>Acaena ovalifolia</i>	Widespread and common especially in Torres del Paine, Villarica
<i>Acaena pinnatifida</i>	?
<i>Acaena splendens</i>	Big mats with tall inflorescences at Paso Vergara
<i>Fragaria chilensis</i>	Common forest strawberry
<i>Geum magellanicum</i>	Common at Torres del Paine, tall golden-yellow
<i>Rosa moschatus</i>	Abundant alien shrub
<i>Rubus geoides</i>	Common at Heurquehue, Alerce Andino creeping stems white flowers
<i>Rubus radicans</i>	Similar to above but pink
<i>Rubus ulmifolius</i>	Abundant alien 'blackberry-like' shrub
<i>Rubiaceae</i>	
<i>Oreopolus glacialis</i>	Wonderful mats smothered in yellow flowers at Paso Vergara
<i>Santalaceae</i>	
<i>Quinchamalium chilense</i>	Widespread, small round heads of golden-yellow flowers, narrow leaves, the common species from Nahuelbuta south
<i>Quinchamalium majus</i>	Similar. Altos de Lircay, Siete Tazas, broader orange-yellow heads of flowers (2013) lanceolate leaves.
<i>Saxifragaceae</i>	
<i>Ribes magellanicum</i>	Long racemes of greenish flowers, Nahuelbuta, Villarica, Torres del Paine
<i>Ribes trilobum/punctatum</i>	Common forest species at Siete Tazas
<i>Saxifraga magellanica</i>	Torres del Paine, Laguna de Laja
<i>Schoepfiaceae</i>	
<i>Arjona patagonica</i>	Sweet-scented herb with white to pinkish round flowerheads, far south
<i>Arjona pusilla</i>	Similar, but white and near lakes en route to Puerto Natales
<i>Scrophulariaceae</i>	
<i>Jovellana violacea</i>	Roadsides near Concepcion (2008), below Nahuelbuta (2011)
<i>Mimulus cupreus</i>	Wet rock seeps, in bud at Laguna de Maule
<i>Mimulus glabratus</i>	Small yellow flowers, Laguna del Laja
<i>Mimulus luteus</i>	Common by wet flushes at Laguna del Laja, Nahuelbuta, Villarica
<i>Mimulus naiandinus</i>	Fine clumps en route to Paso Vergara – poor this year because of habitat disturbance
<i>Ourisia coccinea</i>	Lovely delicate species with tubular flowers widely flared at the mouth on long stems above distinct rosettes, Heurquehue, Villarica.
<i>Ourisia microphylla</i>	Lovely pink flowered chasmophyte at Laguna de Laja
<i>Ourisia ruellioides</i>	Waterfalls and seeps at Torres del Paine, common by streams in Araucana area.
<i>Verbascum virgatum</i>	Very widespread, slender yellow spikes
<i>Veronica anagallis-aquatica</i>	Wet areas, widespread

Solanaceae

Cestrum parqui

Fabiana imbricata

Nierembergia repens

Salpiglossis sinuata

Schizanthus alpestris

Schizanthus grahamii

Schizanthus hookeri

Solanum crispum

Solanum etuberosum

Solanum krauseanum

Solanum ligustrinum

Solanum valdivianum

Common at Siete Tazas, yellowish flowers

Fine shrub with tubular white to lilac flowers, widespread
Siete Tazas, Laguna del Laja, Paso Vergara

Locally abundant creeping herb, cup-shaped white flowers;
Siete Tazas, Laguna del Laja

Both a gorgeous deep red-brown form at Laguna de Laja,
superb white with reddish throats near Siete Tazas (Paso
Vergara 2013), and a yellow form (2013)

Small lilac flowers, near Siete Tazas

Simply stunning at Paso Vergara, tall red-pink and golden
flowers in abundance

Tall pink and orange flowered herb at Siete Tazas, (Altos de
Lircay), Laguna de Maule

Very different to garden forms – broad greyish leaves, large
corymbs of paleish mauve flowers, Siete Tazas, Laguna de
Laja

Common and widespread, pinnate leaves

Maybe this species climbing at Alerce Andino (2013)

Frequent in forest at Siete Tazas and elsewhere, oval leaves,
purple flowers. Dwarf forms on Paso Vergara

Villarica, slender shrub, not very showy, pale flowers.

Thymeleaceae

Ovidia andina

Pretty white flowers small shrub at Nahuelbuta, Villarica

Tropaeolaceae

Tropaeolum polyphyllum

Impressive golden yellow species with big spreading plants
on rocky slopes at Paso Vergara, also Laguna de Maule

Tropaeolum speciosum

Stunning climber with big red flowers, near Alerce Costero
(2013)

Tropaeolum tricolor

Lovely red, yellow and blue tubular flowers on scrambling
stems at Siete Tazas

Valerianaceae

Valeriana carnosia

Valeriana fonkii

Torres del Paine

Villarica, dense corymb of white flowers, alpine heath,
somewhat *Lychnis*-like

Valeriana laxiflora

Scattered and widespread, typical tall white valerian

Verbenaceae

Diostea juncea

Fine large shrub with white to lilac tubular flowers in dense
clusters on long stems, Siete Tazas, Laguna de Maule, Paso
Vergara

Junellia spp

Other species seen but not identified e.g. Siete Tazas, Paso
Vergara

Junellia thymifolia

Altos de Lircay (2013)

Junellia tridens

Scented pale pink flowers on wiry unkempt shrubs at Torres
del Paine

Violaceae

Viola atropurpurea

Viola glacialis

Viola maculata

[*Viola subandina*

Viola reichei

Viola congesta

Viola cotyledon

Viola volcanica

Five fantastic rosular violets were seen in flower.

Gorgeous tight rosettes and columns at Paso Vergara, an unusual white-flowered form

Purple flowers, in bare gravels at Laguna de Maule

The common yellow violet at Torres del Paine, **longer tapered leaves with acute to acuminate apices**. Chileflora.com show this as the main species in Siete Tazas and quite different to what we saw at TDP! Yellow species are confusing and some were probably not identified correctly if at all! However, it may be that relatively few variable taxa are concerned.

Small rosular violet at Siete Tazas, but flowering over. In flower at Paso Vergara 2011]

Common **round-leaved** yellow violet at Villarica, Nahuelbuta but perhaps also a big form of the same at Siete Tazas although some authorities give this as *maculata*!

Lovely rosular violet at Siete Tazas, where still in flower. Altos de Lircay (2013), brownish rosettes with red glands and prominent white to purple flowers

Lovely large flowered rosular violet at Laguna del Laja, white to purple, also at Villarica and truly superb clumps at Laguna de Maule

Similar to *congesta* but more pointed leaves, smaller white flowers that barely emerged from the rosettes. Laguna del Laja.

Winteraceae

Drimys winteri

Large white flowered shrub/tree, at Siete Tazas, also Alerce Andino, understory at Villarica, widespread.

Alstroemeriaceae

Alstroemeria aurea

[*Alstroemeria exserens*

Alstroemeria ligtu

Alstroemeria patagonica

Bomarea salsilla

Some superb stands by roadsides and in plantations near Alerce Costero, en route to Conguillio, often bicoloured

Pretty pink species by roadside en route to Laguna del Laja 2010]

Variable tall species pink to deep orange, abundant in Siete Tazas area, the orange form *simsii* encountered near Siete Tazas.. Incredible displays of the pink form at Paso Vergara, although there remains a question mark over what this taxa is and may even be a large form of *angustifolia*

Diminutive golden-flowered species at Torres del Paine, really rather common this year

Crimson-flowered climber, Siete Tazas.

Amaryllidaceae

[*Famatina maulensis*

Famatina cisandina

Rhodophiala = *Myostemma andicola*

Rhodophiala = *Myostemma araucana*

Rhodophiala = *Myostemma chilense*

Rhodophiala now reclassified as *Myostemma*

Bright red tubular flowers, Altos de Lircay 2008]

Deep red narrowish tubes, Paso Vergara

Conguillio (2008), Villarica deep pink with dark centre

Called as *montana* but it is this (similar) species

Larger flowers, bright red with some yellow in throat, Siete Tazas and Nahuelbuta - a stunning colony near the entrance

Rhodophiala = *Myostemma montana*
Rhodophiala = *Myostemma phycelloides*

Tristagma bivalve

Small yellow species, Maule

Called as *advena* but I now think it is this species at Siete Tazas

Common white bulb near snowmelt (at Altos de Lircay 2013), a few at Paso Vergara

Bromeliaceae

Fascicularia bicolor

Puya alpestris/bertroniana

Dense colonies at viewpoint at Nahuelbuta

Spectacular bromeliad (at Siete Tazas 2013) and en route to Paso Vergara. Also near Nahuelbuta. Singular coloured blue-green flowers.

Puya coerulea

En route to Laguna de Maule and Paso Vergara, much more slender than previous species with bright pink stems, dark blue tubular flowers

Burmanniaceae* / *Corsiaceae

Arachnitis uniflora

There is some debate as to whether the genus *Arachnitis* actually better belongs in *Burmanniaceae* rather than *Corsiaceae*

Extraordinary saprophyte with long spidery appendages, Siete Tazas, also Nahuelbuta, Altos de Lircay (2013)

Iridaceae

Conanthera bifolia

Herbetia lahue

Libertia chilensis

Libertia formosa

Pretty blue 'shooting stars', Siete Tazas, Nahuelbuta

Near Los Ruiles (2011). Near Nahuelbuta (2013)

Common with three-petaled white flowers.

Large-flowered species, en route to Conguillio, Alerce Andino, Alerce Costero

Olsynium frigidum

Olsynium philippii

Yellowish, dwarf species, Maule

Pink with yellow centre Nahuelbuta (2013). Bract beneath inflorescence does not or scarcely exceed the flowers. We did not see this species in 2015

Olsynium junceum

Taller white to pinkish flowers, rush-like jointed stems. There is obvious confusion between this and *philippii*, but the bract beneath the inflorescence is long and (often greatly) exceeds it, with an obvious membranous margin. It would seem that all the plants we saw were this species.

Olsynium junceum ssp *depauperatum*

Olsynium biflora

Smaller form of the above, Villarica

Purple-veined white trumpets, common in far south, superb displays in places

Sisyrinchium arenarium

Possibly this dark maroon-eyed pale yellow flowered, variable in size, scattered

Sisyrinchium azureum

Purple flower at Siete Tazas, not quite sure what it was but maybe this? (2013)

Sisyrinchium cuspidatum

Slender yellow species at Siete Tazas

Sisyrinchium maculatum

Dark eyed pale yellow species, near Angol (2013)

Sisyrinchium patagonicum

Torres del Paine, Punta Arenas

Solenomelus peduncularis

Pretty yellow species, near Nahuelbuta (2013)

Solenomelus segethii

Pretty mauve bulb at Torres del Paine

Liliaceae

Fortunaria biflora

Common white bulb in meadows, dark mid-vein. Near , Antuco and Nahuelbuta.

Pasithea coerulea

Blue-purple open flowers on spindly stems, scattered Siete Tazas, Laguna del Laja, common at Nahuelbuta

Orchidaceae

Bipinnula apinnula

Twenty-nine taxa of superb Chilean orchids were seen, mostly tall showy plants with large flowers.

Tall green orchid with prominent tubercle 2013) and Siete Tazas

Chloraea alpina

Gorgeous golden orchid in alpine zone (at Altos de Lircay 2013), just gone over at Siete Tazas.

Chloraea barbata

Mid- to deep-yellow with obvious serrate lip with lots of tubercles, near Laguna de Laja, wher eit hybridises with *bidentata*

Chloraea bidentata

Yellow and green orchid with characteristic reflexed sepals, Laguna del Laja

Chloraea chica

Good population at Torres del Paine, small white flowers, the least showy species seen (2013)

Chloraea chrysantha

Tall small-flowered golden orchid, widespread e.g. Siete Tazas, Nahuelbuta, etc

Chloraea galeata

Wonderful tall white flowered orchid with reflexed sepals, widespread but most common at Siete Tazas, also Nahuelbuta, Conguillio

Chloraea gavilu

Appearance is similar to *lamellata* (and *barbata*), long ridge-like projections on lip, variable amount of green lines behind column. Near (Altos de Lircay 2010), Nahuelbuta. Though similar in form (but not colour) to *longipetala* it seems they are separate species.

Chloraea grandiflora

Nahuelbuta, in leaf and bud only (Jan flowering).

Chloraea gaudichaudii

Widespread small white flowered orchid, variable amounts of green on sepals and lip; Laguna del Laja, common near Conguillio.

[*Chloraea homopetala*

One in bud at Los Ruiles 2011, although surely this is just an ecotype of *nudilabia*?]

Chloraea lamellata

Tall golden-flowered orchid, predominantly smooth lip with only a few green ridges, near Siete Tazas (Altos de Lircay 2013). This and *lamellata* may actually be a variants of the same species.

Chloraea lechleri

Somewhat similar to *gaudichaudii*, but larger flowers and greener, prominent green tips, en route to and at Siete Tazas.

Chloraea leptopetala

Dense heads of green flowers, stony slopes at Torres del Paine

Chloraea longipetala

Stunning white species, yellow on lip and prominent green lines of lamellae. Nahuelbuta road.

Chloraea magellanica

Porcelain Orchid, perhaps the finest *Chloraea* with amazing green-veined grey-green flowers and tubercle-covered lips, Villarica, but most abundant at Torres del Paine.

Chloraea nudilabia

Lovely golden flowers with green veins at Nahuelbuta.

Chloraea viridiflora

Similar to *magellanica*, but greener. Siete Tazas

<i>Chloraea virescens</i>	Handsome white orchid with drooping lateral sepals, variable amounts of green on some, very tall pure white forms along roadsides en route to Laguna del Laja. Greener forms near Pucon and Conguillio.
<i>Chloraea volkmannii</i>	Similar to <i>virescens</i> but generally shorter, with horizontal lateral sepals. Common near Nahuelbuta
<i>Chloraea bidentata x barbata</i>	Natural hybrid between <i>barbata</i> and <i>bidentata</i> with both parents growing together and many intermediates; Laguna del Laja
<i>Codonorchis lessonii</i>	Pretty white orchid with pinkish markings. Solitary flowers.
<i>Gavilea araucana</i>	Near Nahuelbuta, also Torres del Paine. Smallish flowers, lateral sepals have long slender tips.
<i>Gavilea glandulifera</i>	Siete Tazas, also below Nahuelbuta (2011). Similar to <i>araucana</i> but flowers larger with more yellow on lip.
<i>Gavilea kingii</i>	Peculiar taxa with lip same as other two petals, possibly a hybrid or mutation of more common <i>littoralis</i> which grow quite literally next to them.
<i>Gavilea littoralis</i>	Similar to <i>odoratissima</i> . Less orange on lip, smaller stature. Torres del Paine
<i>Gavilea lutea</i>	Bright, lemon yellow with green tips. Villarica in bud. The hybrid <i>supralabellata</i> is very similar and it was this that was probably seen at Torres del Paine.
<i>Gavilea odoratissima</i>	Fine tall yellow and orange species, widespread Siete Tazas and Laguna del Laja (where over), but in good flower at Nahuelbuta and Villarica where many good spikes.
<i>Gavilea supralabellata</i>	Locally abundant at Torres del Paine. On reviewing images it seems it was this species seen at Torres del Paine. Very similar to <i>lutea</i> which was probably also seen! More pronounced and green lip tubercles. Considered to be of hybrid origin.
<i>Gavilea venosa</i>	Fine orchid with white sepals and bright yellow and green. Nahuelbuta.

Palmaceae

<i>Jubaea chilensis</i>	Some planted specimens near Molina, the native Chilean Palm
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Philesiaceae

[<i>Lapageria rosea</i>	Non-flowering (March) stems scrambling over shrubs at Los Ruiles 2011]
<i>Luzuriaga polyphylla</i>	Pretty white flowered epiphyte common at Alerce Andino. Smaller leaves than <i>radicans</i> .
<i>Luzuriaga radicans</i>	Orange-berries epiphyte at Heurquhuehue, Alerce Costero. Longer leaves than <i>polyphylla</i> .
<i>Philesia magellanica</i>	Gorgeous waxy pink bells, Alerce Andino

Poaceae

<i>Chusquea coleou</i>	Abundant bamboo – shorter and denser than <i>quila</i>
<i>Chusquea quila</i>	Abundant bamboo, especially in damper forest, taller and lusher than <i>coleou</i>

Systematic List Number 2 Birds

List includes a number of species seen in parentheses during a previous visits to give a full picture of what may be encountered during the tour.

Chilean Tinamou	<i>Nothoprocta perdicaria</i>	One ran across the road near Vilches
Darwin's Rheas	<i>Rhea pennata</i>	Locally common in far south steppe. On the way to and at Torres del Paine. Some stellar views from only a few metres, including a male with chicks facing off with nose Guanacos.
California Quail	<i>Callipepla californica</i>	Common and widespread in rural areas especially
White-tufted Grebe	<i>Rollandia rolland</i>	Torres del Paine, Villarica
Silvery Grebe	<i>Podiceps occipitalis</i>	Torres del Paine, (near Curico 2011)
Great Grebe	<i>Podiceps major</i>	Torres del Paine, (Villarica 2011)
[Magellanic Penguin	<i>Spheniscus magellanicus</i>	Thousands at Isla Magdalena. Not visited 2015]
[Sooty Shearwater	<i>Puffinus griseus</i>	Thousands at Boca Budi 2010]
[White-chinned Petrel	<i>Procellaria aequinoctialis</i>	Punta Arenas 2010]
[Southern Giant Petrel	<i>Macronectes giganteus</i>	Puerto Natales, Isla Magdalena. Not visited 2015]
[Magellanic Diving Petrel	<i>Pelecanoides magellani</i>	On journey to Isla Magdalena. Not 2015.]
Neotropical Cormorant	<i>Phalacrocorax brasilianus</i>	Widespread in wetlands throughout. Torres del Paine, near Curico, Lago Colbun
Imperial Cormorant	<i>Leucocarbo atriceps</i>	Colonies on piers at Punta Arenas, Puerto Natales also Puerto Montt
Rock Cormorant	<i>Phalacrocorax magellanicus</i>	Near Punta Arenas
Black-crowned Night Heron	<i>Nycticorax nycticorax</i>	Puerto Montt seafront
Cocoi Heron	<i>Ardea cocoi</i>	?
[Great Egret	<i>Ardea alba</i>	Near Conguillio 2011]
[Snowy Egret	<i>Egretta thula</i>	Puerto Varas area]
Cattle Egret	<i>Bubulcus ibis</i>	Scattered in northern rural areas, some large flocks.
Chilean flamingo	<i>Phoenicopterus chilensis</i>	Small numbers in the far south
Coscoroba Swan	<i>Coscoroba coscoroba</i>	Southern lakes
Black-necked Swan	<i>Cygnus melanocoryphus</i>	Common in the south
Upland Goose	<i>Chloephaga picta</i>	Abundant in south, also one at Laguna de Maule
[Ashy-headed Goose	<i>Chloephaga poliocephala</i>	En route to Torres del Paine 2010]
Flying Steamer Duck	<i>Tachyeres patachonicus</i>	Torres del Paine, (Conguillio, 2013)
[Flightless Steamer Duck	<i>Tachyeres pteneres</i>	Two near Punta Arenas 2011]
Spectacled Duck	<i>Specularus specularis</i>	Torres del Paine
Torrent Duck	<i>Merganetta armata</i>	Seen superbly well below Paso Vergara (Siete Tazas 2010)
Chiloe Wigeon	<i>Anas sibilatrix</i>	Widespread in south, also Villarica
Yellow-billed Pintail	<i>Anas georgica</i>	Widespread
Speckled Teal	<i>Anas flavirostris</i>	Probably more widespread than we recorded in Torres del

		Paine
Red Shoveler	<i>Anas platalea</i>	Lovely duck, Torres del Paine
[Silver Teal	<i>Anas versicolor</i>	Ponds near Punta Arenas 2008]
Rosy-billed Pochard	<i>Netta peposaca</i>	Near Torres del Paine 2013]
Andean Duck	<i>Oxyyura ferruginea</i>	Torres del Paine
Lake Duck	<i>Oxyyura vittata</i>	Two at Villarica
Crested Duck	<i>Lophonetta specularioides</i>	Widespread in south
Black-faced Ibis	<i>Theristicus melanopis</i>	Common and widespread in pasture from Lake District southwards
[White-faced Ibis	<i>Plegadis chihi</i>	Lago Budi 2010]
Turkey vulture	<i>Cathartes aura</i>	Common
Black vulture	<i>Coragyps atratus</i>	Common
Andean condor	<i>Vulture gryphus</i>	Daily in Torres del Paine, also Paso Vergara
Cinereous Harrier	<i>Circus cinereus</i>	Good view at Torres del Paine
Black-chested Buzzard Eagle	<i>Geranoaetus melanoleucus</i>	Seen well at Torres del Paine, also Laguna de Maule, Paso Vergara
Variable hawk	<i>Buteo polyosoma</i>	Common in north
[Chilean Hawk	<i>Accipiter chilensis</i>	Scattered in wooded habitats, 2011]
White-tailed Kite		En route to Vilches
Southern Caracara	<i>Caracara plancus</i>	Common in the far south, scattered further north
Chimango Caracara	<i>Milvago chimango</i>	Abundant and widespread
Mountain Caracara	<i>Phalcoboenus megalopterus</i>	Two at Laguna de Laja
[Peregrine Falcon	<i>Falco peregrinus</i>	One at Laguna del Laja, at Alerce Andino, a pair calling loudly and seen 2010]
American kestrel	<i>Falco sparverius</i>	Widespread
[Aplomado Falcon	<i>Falco femoralis</i>	Torres del Paine in 2008]
[White-winged coot	<i>Fulica leucoptera</i>	Torres del Paine, usually more widespread in wetlands throughout]
Red-gartered Coot	<i>Fulica armillata</i>	Widespread, Villarica, Torres del Paine.
Plumbeous Rail	<i>Pardirallus sanguinolentus</i>	Seen very well at Torres del Paine
Southern Lapwing	<i>Vanellus chilensis</i>	Abundant and widespread
[Two-banded Plover	<i>Charadrius falklandicus</i>	Ottway Sound 2010]
Magellanic Oystercatcher	<i>Haematopus leucopodus</i>	Southern shores and inland rivers, Torres del Paine, Puerto Montt
[American Oystercatcher	<i>Haematopus palliatus</i>	Puerto Montt 2011]
Whimbrel	<i>Numenius phaeopus</i>	Puerto Montt
White-rumped Sandpiper	<i>Calidris fuscicollis</i>	Ottway Sound 2010]
Least Seedsnipe	<i>Thinocorus rumicivorus</i>	Seen very well at Laguna de Maule
[South American Snipe	<i>Gallinago paraguaiensis</i>	Torres del Paine 2011]
[Dolphin Gull	<i>Larus scoresbii</i>	Southern shores 2010]
Kelp gull	<i>Larus dominicanus</i>	Common in the south, also Puerto Montt
Franklin's gull	<i>Larus pipixcan</i>	Puerto Montt

Brown-hooded gull	<i>Larus maculipennis</i>	Widespread
Andean Gull	<i>Choricocpehalus serranus</i>	Gorgeous gull, seen well at Laguna de Maule (Laguna de Laja 2013)
Chilean Skua	<i>Stercorarius chilensis</i>	Puerto Natales. (Very common en route to Isla Magdalena 2013)
Feral pigeon	<i>Columba livia</i>	As usual
Eared dove	<i>Zenaida auriculata</i>	Widespread
Chilean Pigeon	<i>Patagioenas araucana</i>	Widespread
[Black-winged ground dove	<i>Metriopelia melanoptera</i>	Paso Vergara 2013]
Piqui ground dove	<i>Columbina picui</i>	Widespread south to Siete Tazas
[Burrowing Parakeet	<i>Cyanoliseus patagonus</i>	A flock of a dozen of these handsome parrots flying en route to Paso Vergara 2013]
Austral parakeet	<i>Enicognathus ferrugineus</i>	Common in forest areas
Slender-billed parakeet	<i>Enicognathus leptorhynchus</i>	A couple en route to Alerce Costero (Pucon town 2010) no confirmed sightings this year.
[Band-winged nightjar	<i>Caprimulgus longirostris</i>	Heard at Siete Tazas one evening (one sunning itself at Conguillio after the late snow 2010)]
[Giant hummingbird		En route to Paso Vergara 2011]
Green-backed firecrown	<i>Sephanoides sephanoides</i>	Scattered and widespread, Siete Tazas , Alerce Andino and Huerquehue
Magellanic Woodpecker	<i>Campephilus magellanicus</i>	Widespread in mature forests but only seen well at Nahuelbuta, also seen Torres del Paine
Chilean flicker	<i>Colaptes chilensis</i>	Widespread
Striped woodpecker	<i>Picoides lignarius</i>	Vilches (Siete Tazas, 2010), Torres del Paine (2013)
Common miner	<i>Geositta cunicularia</i>	Laguna de Maule, Torres del Paine 2011
Short-billed Miner	<i>Geositta antarctica</i>	One at Torres del Paine
Bar-winged Cinclodes	<i>Cinclodes fuscus</i>	Conguillio, Torres del Paine
Grey-flanked Cinclodes	<i>Cinclodes oustaleti</i>	Torres del Paine
Dark-bellied cinclodes	<i>Cinclodes patagonicus</i>	Scattered and widespread (Laguna del Laja 2013), Puerto Varas
[Plain-mantled tit-spinetail	<i>Leptasthenura aegithaloides</i>	Only seen at Villarica but widespread in 2008]
Thorn-tailed rayadito	<i>Aphrastura spinicauda</i>	Common and widespread in woodlands
[White-breasted Treerunner	<i>Pygarrhichas albogularis</i>	Usually widespread in woodlands, but only seen at Altos de Lircay and Conguillio 2013]
Scaly-throated Earthcreeper	<i>Upucerthia dumetaria</i>	Great views at Torres del Paine
[Sharp-billed canastero	<i>Asthenes pyrrholeuca</i>	Two near Conguillio 2010]
[Chestnut-throated Huet-huet	<i>Pteroptochos castaneus</i>	Siete Tazas where seen briefly (more than once 2010)]
Black-throated Huet-huet	<i>Pteroptochus tarnii</i>	Seen very well at Huerquehue,heard often at Nahuelbuta and Alerce Andino.

Chuca Tapaculo	<i>Scelorchilus rubecula</i>	Seen at Alerce Andino, and Heurquehue. Heard widely in Lake District and Alerce Costanera
[Ochre-flanked Tapaculo	<i>Eugralla paradoxa</i>	Two seen very well at Alerce Andino (one at Conguillio 2010)]
[Magellanic Tapaculo	<i>Scytalopus magellanicus</i>	Amazing prolonged very close views at Heurquehue 2013]
Spot-billed Ground-tyrant	<i>Muscisaxicola maculirostris</i>	Paso Vergara, Laguna de Maule (Altos de Lircay 2013)
[Cinereous Ground-tyrant	<i>Muscisaxicola cinereus</i>	Larger species at Altos de Lircay 2013]
[Dark-faced ground tyrant	<i>Muscisaxicola maclovianus</i>	Villarica 2010, Conguillio]
Rufous-naped Ground-tyrant	<i>Muscisaxicola rufivertex</i>	Laguna del Laja, Paso Vergara. If habitat is to be believed it is this species, however they both seemed closer to White-browed in appearance, but both were in dry situations with neigh a bog in sight the preferred habitat of the latter.
White-browed Ground tyrant	<i>Muscisaxicola albilora</i>	Possibly at Paso Vergara (Altos de Lircay 2010)
Spectacled Tyrant	<i>Hymenops perspicillata</i>	En route to Conguillio
Austral Negrito	<i>Lessonia rufa</i>	Common and widespread in south
Fire-eyed diucon	<i>Xolmis pyrope</i>	Widespread, Siete Tazas to Torres del Paine
White-crested elaenia	<i>Elaenia albiceps</i>	Common and widespread in woodlands
Tufted tit-tyrant	<i>Anairetes parulus</i>	Frequent and widespread in woodlands, seen at Heuquehue, Alerce Costero
Rufous-tailed Plantcutter	<i>Phytotoma rara</i>	seen well at Torres del Paine. Siete Tazas (2013), Antuco.
Barn Swallow	<i>Hirundo rustica</i>	Paso Vergara
Chilean swallow	<i>Tachycineta meyeni</i>	Widespread
Blue-and-white swallow	<i>Notiochelidon cyanoleuca</i>	Widespread
Southern house wren	<i>Troglodytes aedon</i>	Common and widespread
Austral thrush	<i>Turdus falcklandii</i>	Common and widespread
Chilean mockingbird	<i>Mimus thenca</i>	Common and widespread in rural areas in north
Correndera pipit	<i>Anthus correndera</i>	Scattered, commonest in the south
Austral blackbird	<i>Curaeus curaesus</i>	Widespread
[Yellow-winged Blackbird	<i>Agelasticus thilius</i>	Torres del Paine]
Long-tailed meadowlark	<i>Sturnella loyca</i>	Common and widespread
Grey-hooded sierra-finch	<i>Phrygilus gayi</i>	Laguna de Maule Paso Vergara (2013)
Mourning sierra-finch		Paso Vergara (LOB), Torres del Paine (2008)
Patagonian sierra-finch	<i>Phrygilus patagonicus</i>	Widespread
Plumbeous sierra-finch	<i>Phrygilus unicolor</i>	Laguna del Laja (Altos de Lircay 2010)

[Band-tailed Finch	Sierra	<i>Phrygilus alaudinus</i>	Leaving Siete Tazas 2013]
Common finch	diuca-	<i>Diuca diuca</i>	Common and widespread
Rufous-collared sparrow		<i>Zonotrichia capensis</i>	Common and widespread
House sparrow		<i>Passer domesticus</i>	Common and widespread in towns
Black-chinned siskin		<i>Carduelis barbata</i>	Common and widespread, abundant at Siete Tazas
[Yellow-bridled Finch		<i>Melanodera xanthogramma</i>	One at Villarica 2013]
Greater Yellowfinch			Laguna de Maule , where tame at viewpoint
[Grassland Yellowfinch		<i>Sicalis luteola</i>	Widespread]
[Patagonian Yellowfinch		<i>Sicalis lebruni</i>	Torres del Paine 2010]

Systematic List Number 3 Mammals

Few mammals were (and generally are) seen on this tour, though this year had particularly few. Those from previous tours are included to give an idea of what is possible during the tour.

[Degu [Pudu		<i>Pudu pudu</i>	Probably one of these at Paso Vergara 2013] Tiny deer glimpsed by a few at Altos de Lircay 2010]
Guanaco		<i>Hippocamelus bisulcus</i>	Very common at Torres del Paine. Very close views.
[Patagonian Huemul [Grey fox		<i>Hippocamelus bisulcus</i>	One at Torres del Paine 2013] Seen well at Villarica and Torres del Paine 2013]
[Fuegian Fox		<i>Pseudalopex culpaeus</i>	Torres del Paine, similar to the previous species 2013]
[Puma		<i>Puma concolor</i>	Dung found at Torres del Paine 2010]
[South American Fur Seal		<i>Arctocephalus australis</i>	Isla Magdalena 2008]
[Humbolt's Hog-nosed Skunk		<i>Conepatus humboldtii</i>	Great views at Torres del Paine 2013]
Brown Hare			Widespread alien
Rabbit			Widespread and common alien
[Black Dolphin		<i>Cephalorhynchus eutropia</i>	Two swimming alongside Puerto Montt sea front 2013]
[Peale's Dolphin		<i>Lagenorhynchus australis</i>	Maybe this species briefly riding alongside the boat from Isla Magdalena 2013]