

Leaders

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Cover: Copiapoa cinerascens, Pan de Azucar National Park.

Above: Piedra Rojas, Los Flamencos National Park (top) and Chaxa lagoon (bottom)

A gallery of photos from the trip is at www.flickr.com/photos/wildlifetravel/albums/72157711277880418

25th September 2019. Santiago, and Rio Clarillo National Reserve

An early start for those of us who had already arrived in Chile over the past few days saw us convening back at Santiago Airport, to meet up with the arrival of the Air France flight. Introductions made, coffee drunk and we were off, heading to the Maipo Valley on the south side of the city. Lunch was at a pleasant restaurant, with red-flowered mistletoe Tristerix corymbosus adorning the roadside poplar trees, and then we were on to our first excursion of the trip... to the Concha y Toro winery, and the famous Casillero del Diablo.

26 varieties of grape, three wines tasted, and one tall tale of the devil in the cellar later, and after watching the Spotflanked Gallinules on the lake and Monk Parakeets feeding in the Parana Pine Araucaria angustifolia trees, we set off into the foothills of the Andes, and the Reserva Nacional de Rio Clarillo, an important reserve on the outskirts of the city protecting an area of dry, sclerophyllous forest.

Highlights of the afternoon included the bright red *Phycella cyrtanthoides*, the red, blue and yellow 'little soldiers' of Tropaeolum tricolor and the yellow 'lady's slipper' Calceolaria corymbosa. Profusely flowering Adesmia confusa proved extremely popular with pollinators, with at least four species of bees busying themselves on the flowers, and a couple of Dusky Hairstreak butterflies, while three different lizard species scuttled around the undergrowth, with several of the brightly coloured Slender Liolaemus, the males with bright orange heads and turquoise tails.

Eventually, with time zones catching up with us, we headed back into the city centre, and our hotel.

Pteridophyta Pteridophyta Ephedraceae	Adiantum sulphureum Blechnum hastatum Ephedra chilensis	large-leaved Maidenhair Fern tall Blechnum fern
Anacardiaceae	' Lithraea caustica	The caustic tree
Boraginaceae	Plagiobothrys myosotoides	tiny white forget-me-not
Boraginaceae	Amsinckia calycina	yellow-flowered Boraginaceae
Cactaceae	Trichocereus chiloensis	Tall columnar cactus (= <i>Echinopsis chiloensis</i>)
Calceolariaceae	Calceolaria cf corymbosa	yellow 'lady's slipper'
Convolvulaceae	Cuscuta chilensis	Chilean Dodder
Fabaceae	Adesmia cf confusa	yellow-flowered 'gorse', popular with bees
Fabaceae	Vachellia (=Acacia) caven	yellow-flowered Acacia
Loasaceae	Loasa triloba	stinging
Loranthaceae	Tristerix corymbosus	red-flowered mistletoe, especially common in poplar trees
Oxalidaceae	Oxalis roseus	pink oxalis with larger flowers
Tropaeolaceae	Tropaeolum tricolor	'Little Soldiers', beautiful red-flowered vine
Amaryllidaceae	Phycella cyrtanthoides	red-flowered Amaryllid

26th September. Pacific Coast: Cachagua, La Laguna and Concon

Olsynium junceum

Puya alpestris

Bromeliaceae

Iridaceae

From the foggy, traffic-clogged heart of Santiago, we headed off northwards along the Pan American Highway, eventually outrunning the fog as we headed towards the coast, pausing along the way for coffee and to stock up on sugar...

In the car park

white-flowered Irid

At the little beachside community of Cachagua, we got our first look at the Pacific Ocean, and the rich marine life associated with the cold Humboldt Current offshore. From the viewpoint just above the beach, we could see Peruvian Pelicans and Peruvian Boobies fishing offshore, with American and Blackish Oystercatchers on the rocky beach. The offshore island was home to a colony of nesting Humboldt Penguins, as well as Neotropic Cormorants and more Peruvian Pelicans. The attentions of a small group of pelicans just out past the island revealed a little Marine Otter

swimming in from his fishing trip, with another seen later much closer in on the rocks by the beach, before slipping into the water and disappearing.

Out on the island, two species of cactus could be seen: the barrel-like *Neoporteria subgibbosa*, with its pink flowers, and the more extensive patches of *Eulychnia castanea*, while nearer at hand, on the beach, four different purple flowers attracted the attentions of the botanists: *Cistanthe grandiflora, Cristaria glaucophylla, Nolana paradoxa* and *Astragalus amatus*. Heading to lunch, we passed some large roadside stands of the impressively shaggy Moustached Orchid *Bipinulla fimbriata*.

Cactaceae Cactaceae	Eulychnia castanea Neoporteria subgibbosa	'floppy' cactus growing on the penguin island Pink-flowered barrel cactus, on the penguin island
Campanulaceae	Lobelia excelsa	Red-flowered Lobelia, frequent at roadside, and planted near steps down to the penguins
Fabaceae	Astragalus amatus	On the beach
Fabaceae	Vachellia (=Acacia) caven	yellow-flowered Acacia
Malvaceae	Cristaria glaucophylla	Large lilac flowers, greyish fleshy leaves, on the beach
Montiaceae	Cistanthe grandiflora	Large pink flowers, upright plant, on the sandy beach
Solanaceae	Nolana paradoxa	Low-growing, purple flower, on the sandy beach
Bromeliaceae	Puya x bertoroniana	Flowering Puya along the rocky roadside
Bromeliaceae	Puya chilensis	Yellow-flowered Puya, planted along the coast
Orchidaceae	Bipinulla fimbriata	Moustached Orchid

Fully fed, we stopped briefly at the river at La Laguna, where Red-gartered and White-winged Coot posed next to each other, White-backed Stilts and Brown-hooded Gulls rested on the island, and various ducks and grebes fed on the water, while a single Coscoroba Swan sailed past.

From here, we headed south some more, driving along the coast through the town of Concon. An offshore rock was home to plenty of Peruvian Boobies and a group of South American Sea Lions, with Grey Gulls flying past, and the endemic Chilean Seaside Cinclodes feeding on the rocky shore, alongside the smaller Grey-flanked Cinclodes.

Our final stop was a mile or two south again, where we got amazingly close-up views of the star of the Humboldt Current, the beautiful Inca Terns, nesting in cracks and crevices in the sea wall just beneath us.

27th September. La Campana National Park: Ocoa, Cajon Grande and Granizo

We spent the day exploring the La Campana National Park, home to the bell-shaped mountain that Darwin climbed on 17th August 1834, from the peak of which Darwin was able to see 'Chile and its boundaries, the Andes and the Pacific... as in a map."

We first travelled around to the northern side of the park, in the Ocoa sector, where we could admire the impressive stands of Chilean Bottle Palm *Jubaea chilensis*, native to this small area of Chile, between 32° and 32° south, and the second most massive extant palm species. The small nut-like seeds, for all the world like tiny coconuts, are the food for an endearing rodent, the Common Degu, also endemic to the Chilean matteral, which we saw a couple of times, scampering about between its burrow entrances.

Nearby, we found the Cyclamen-like leaves of the Chilean Dutchman's Pipe *Aristolochia chilensis*, which is the food plant for the large black swallowtail *Battus polydammus* that we saw flying about as the morning warmed up.

Birds here included plenty of California Quail, Chilean Mockinbird and Chilean Elaenia. An angry Austral Pygmy Owl put in an appearance, being scolded by Plain-mantled Tit-Spinetail and Tufted Tit-Tyrants, while Chimango Caracara, American Kestrel and a pair of Black-chested Buzzard Eagles appeared overhead.

From Ocoa, we headed round to the southern side, close to Olmue. The whole area was very, VERY dry, after more than 10 months without rain (the worst drought to hit Chile for more than 70 years), so flowering plants were very

few and far between. We did find some nice stands of *Lobelia polyphylla*, along with the yellow flowes of *Sophora macrocarpa*, but alas the only Puya we could find in flower, a single yellow-flowered specimen of *Puya chilensis*, was high up on the hillside.

Several Striped Woodpeckers were found amongst the taller trees on this side of the park, along with another Austral Pygmy Owl, a brief Giant Hummingbird, and a lovely Moustached Turca that posed on the top of his sentry rocks, for all to see, even running closer to give us a better look.

We gave it one last shot for flowering Puyas at the Granizo sector of the Park, but drew a blank, having to make do with some spectacular scenery, and a stand of flowering *Trichocereus chiloensis* in flower, while a pair of Variable Hawks soared overhead.

Aristolochiaceae Aristolochia chilensis Chilean Pipe Vine: leaves only, like Cyclamen leaves. Leucheria tomentosa Small woolly-leaved white Asteraceae, Cajon Grande Asteraceae Madia sativa Small yellow daisy Asteraceae Moscharia pinnatifida White-flowered Asteraceae with pinnate leaves, Ocoa Asteraceae Asteraceae Podanthus mitiqui Yellow-flowered Asteraceae bush. Palo Negro Dark red flowered Lobelia Campanulaceae Lobelia polyphylla Yellow-flowered pea bush Fabaceae Sophora macrocarpa Fabaceae Adesmia tenella Fabaceae Adesmia microphylla Fabaceae Vachellia (=Acacia) caven yellow-flowered Acacia The magenta-flowered 'Salvia' at Cajon Grande Lamiaceae Lepechinia salviae Loasa tricolor Large yellow-flowered Loasa with broad glaucous leaves Loasaceae Loranthaceae Tristerix aphylla The cactus mistletoe Montiaceae Cistanthe sp. Solanaceae Cestrum parqui Yellow-flowered, similar to Nicotiana Jubaea chilensis Arecaceae Chilean Bottle Palm. Mini coconut seeds, fed on by Degu Amaryllidaceae Leucocoryne ixioides Lilac-flowered 'lily' White-flowered 'lily' Amaryllidaceae Nothoscordum gracile Bromeliaceae Puya alpestris The smaller, glaucous-leaved puya Bromeliaceae The larger puya: one bright yellow flowering spike, high Puya chilensis on the hillside

28th September. Los Molles, Pichidangui and Huentelauquen

Chusquea cumingii

Poaceae

This morning we set off after breakfast, heading north again along the Pacific coast, to the local nature reserve at Los Molles (named after the Peruvian Pepper Tree, *Schinus molle*. On a fairly arid coastline, this reserve protects a patch of vegetation 'watered' by the coastal fogs and sea spray, and we found interesting new plants aplenty, from as soon as we stepped through the entrance gates.

Darwin's Bamboo

Within the first few meters of the reserve, we found our first (finally!) flowering Puyas, the beautiful *Puya venusta*, with a Giant Hummingbird feeding from the flowers, with plenty of Moustached Orchids *Bipinulla fimbriata* growing amongst them.

A trio of cacti were growing together around the cliff edge: the long-spined *Eulychnia castanea*, the rare coastal subspecies (ssp *litoralis*) of *Trichocereus chiloensis*, and the bright pink flowers of *Eriosyce (=Pyrrhocactus) chilensis*, growing on the rocky cliffs.

Down on the stony beach, our first Alstroemeria was growing in profusion, with a couple of patches in stunning flower: *Alstroemeria pelegrina*.

Chile 2019: trip report and species lists





Top: **La Campana National Park**, with *Jubaea chilensis* and *Trichocereus chiloensis* Bottom: **Los Molles**, with *Eriosyce chilensis*

With our plant list (finally) moving on nicely, we headed further north along the coast, to the rocky outcrop at Pichidangui. Here we found more cacti in flower, with the large white flowers of *Eulychnia castanea*, and, after some searching, a squat, spherical little cactus with beautiful peachy-yellow flower, apparently the *albidiflora* variety of *Eriosyce chilensis*. Nearby, we found more *Alstroemeria pelegrina*, as well as the large, black and green lizard *Liolaemus nigroviridis*, while a Variable Hawk posed briefly on a rocky stack and a couple of Red-legged Cormorants flew past.

Continuing our journey northwards, a very short roadside stop revealed a flowering spike of *Puya chilensis*, at eye level for a change rather than halfway up a mountainside.

Our final stop of the day was at the community reserve at Huentelauquen, an amazingly arid, almost desolate looking area of coastal desert, leading down to the mouth of the Rio Choapa. Driving across the 'desert', we found a 'covey' of around a dozen Least Seedsnipe, an endearingly peculiar wader, more like a cross between a quail and a lark, shuffling across the pebbly ground, picking at seeds. A Common Miner was feeding quietly behind them.

At the end of the track, we walked out to view the river mouth, where good numbers of ducks (Chiloe Wigeon, Yellow-billed Pintail and Speckled Teal, with a couple of male Cinnamon Teal and a solitary White-cheeked Pintail) and waders (flocks of Baird's Sandpipers, with a couple of Semipalmated Sandpipers and Lesser Yellowlegs) were feeding and resting on the waters' edge. Smaller birds included Spectacled Tyrant, Austral Negrito and Correndera Pipit.

From here, it was heads down for the long drive up to Ovalle, our home for the next couple of nights.

A	C-1-:	Damwien Damen Tea
Anacardiaceae	Schinus molle	Peruvian Pepper Tree
Asteraceae	Bahia ambrosioides	White daisy bush
Asteraceae	Tessaria absinthioides	
Cactaceae	Eulychnia castanea	long-spined, columnar cactus: In flower at Pichidangui
Cactaceae	Eriosyce chilensis	pink-flowered, squat cactus on the cliffs. Smaller, peach-
		flowered form on beach at Pichindangui
Cactaceae	Trichocereus chiloensis ssp litoralis	shorter-spined columnar cactus on the beach
Frankeniaceae	Frankenia sp	
Lamiaceae	Stachys grandidentata	
Nyctaginaceae	Mirabilis ovata	
Onagraceae	Clarkia (=Godetia) tenella	Purple flower
Onagraceae	Fuchsia lycioides	Coastal endemic Fuchsia
Onagraceae	Oenothera acaulis	white-flowered evening primrose, on the beach
Plumbaginaceae	Armeria maritima	Thrift
Sapotaceae	Pouteria splendens	Leathery-leaved bush, endemic to this short section of
		coast
Schoepfiaceae	Quinchamalium chilense	yellow, hemiparasitic
Solanaceae	Nolana crassulifolia	Larger-leaved Nolana
Solanaceae	Nolana sedifolia	Smaller-leaved Nolana
Solanaceae	Solanum pinnatum	
Verbenaceae	Verbena (=Glandularia) porrigens	
Alstroemeriaceae	Alstroemeria pelegrina	
Asparagaceae	Oziroe arida	Small white 'lily'
Bromeliaceae	Puya chilensis	Yellow flowers, at the roadside
Bromeliaceae	Puya venusta	nectar source for Giant Hummingbird
Hemerocallidaceae	Pasithea coerulea	Blue-flowered 'lily'
Orchidaceae	Bipinulla fimbriata	Moustached Orchid

29th September. Fray Jorge National Park

Driving under, and at times through, a low-hanging cloud, we made our way towards the coast, and to Fray Jorge National Park, where the coastal cordillera catches the incoming fog. Our first stop was some roadside mattoral, where we found new cacti in the form of Cumulopuntia sphaerica, Eulychnia acida and the lovely squat barrel of Eriosyce aurata, another bright red Amaryllid (Rhodophiala phycelloides) and a runaway Brown Hare.

After a short stop at the ranger station (and its facilities), where a Giant Hummingbird was feeding on Eucalyptus flowers, and then along the road where a handsome Culpeo or Andean Fox halted us dead in our tracks, we headed higher up to the top of the ridge, into the cloud itself and to an area of relict hydrophilic 'mist forest'. This bizarre habitat, seemingly so out of place next to the arid, cactus-covered hillsides, was made up of Drimys winteri and Aextoxicon punctatum trees, Baccharis vernalis and Senecio planiflorus shrubs, with a scrambling understorey of Griselinia scandens, and even some moist forest epiphytes in the form of Peperomia coquimbensis and the bright red flowers of Sarmentia scandens. On the edge of the 'forest', the stunning yellow flower spikes of Puya chilensis were amongst the highlights of the morning, and perhaps of the trip.

Heading down from the mountain, past a trio of ground-feeding birds amongst the Fabiana shrubby included a Chilean Tinamou, a Moustached Turca and a White-throated Tapaculo, an impressive hat trick of usually not easily seen birds.

Lunch was in the little 'pueblo' at the bottom of the hill, before we returned towards Ovalle, and a late afternoon visit to the 'enchanted valley: home to interesting petroglyphs, a water hole clogged with Azolla filiculoides, and two new mammals: a couple of Coastal Degus, and a large colony of Coruros, fossorial, burrow-dwelling rodents that feed on roots and bulbs beneath the surface: while we waited, at least five little black heads popped up from their burrows here and there.

Big yellow daisy-bush

Aextoxicon punctatum Aextoxicaceae

Anacardiaceae Schinus molle Apocynaceae Tweedia cf stipitata

Baccharis vernalis Asteraceae Asteraceae Senecio planiflorus

Berberis actinacantha Berberidaceae

Small, globular cactus with yellow-orange flowers Cactaceae Cumulopuntia sphaerica

Cactaceae Eriosyce aurata Large, barrel-shaped cactus

Eulychnia acida Cactaceae

Cactaceae Trichocereus chiloensis Calceolariaceae Calceolaria cf georgiana

Fabaceae Senna cumingii Frankeniaceae Frankenia sp

Gesneriaceae Sarmentia scandens Red bottle-flowered epiphyte

Griseliniaceae Griselinia scandens The slightly succelent, glossy-leaved scrambling plant

Grossulariaceae Ribes cucullatum Lamiaceae Stachys grandidentata

The cactus mistletoe Loranthaceae Tristerix aphylla

Onagraceae Fuchsia lycioides

Piperaceae Peperomia cf coquimbensis Epiphyte

Rhamnaceae Colletia hystrix Very spiky, sprawling plant

Salicaceae Azara microphylla

Alonsoa meridionalis like a red Verbascum Scrophulariaceae

Solanaceae Fabiana viscosa Drimys winteri Winteraceae

Amaryllidaceae Rhodophiala phycelloides Large red Amaryllid, with no leaves Bromeliaceae

Puya chilensis









Clockwise, from top left: Bipinulla fimbriata, Puya venusta, Rhodophiala bagnoldii and Alstroemeria pelegrina

30th September. La Serena and Punta de Choros

A travel day, during which we covered a little under 400km, heading north from Ovalle up to end the day on the coast at Huesco.

We started the day off well, with a 9am start, followed by great views of a pair of Burrowing Owls on the outskirts of Ovalle.An hour or so north, we stopped to visit the market at La Serena, where the combination of chocolate, postcards and warm alpaca knitwear proved irresistible...

After another 80km, we took a diversion from the main Pan American Highway, and struck off towards the coast, passing through some pretty stunning arid landscapes along the way.

Our first stop was to investigate the roadside cacti, with a newcomer to our growing Cactus list, in the form of *Miqueliopuntia miqueli*, a sprawling spider of a thing, common on the rocky flats and hillsides, growing alongside *Copiapoa coquimbana, Cumulopuntia sphaerica* and *Eulychnia acida*. Here we also found a tiny gecko under a rock, and several interesting flowering plants taking advantage of some irrigation going on behind the fence, with *Balbisia peduncularis* and *Heliotropium stenophyllum* in quite showy flower.

Back on the bus, and as we climbed out of the dry valley on the far side we stumbled across a small herd (10+ animals) of handsome Guanaco, browsing on the shrubby vegetation as they made their way up the slope. A couple of these handsome Camelids paused, looking back over their shoulder and posing for photos before carrying on their way.

The second new mammal of the day wasn't far behind: up on the 'plateau', we were confronted by not one but 8 Chilla, also known as the South American Grey Fox. This little pack has apparently become something of a tourist attraction, begging for scraps in a nearby car park. Whilst they didn't get any food from us, they did come over and post for photos next to the bus, nonetheless, and very endearing photographic subjects they proved to be.

Onwards, to the end of the road at Punta de Choros, where we had a short wander around the fishing port and stretched our legs on the beach, while Peruvian Boobies, Peruvian Pelicans and all three species of Humboldt Current cormorant fished offshore, and yet another lizard appeared in the form of Liolaemus silvai.

All too soon our time was up, and we had to head back inland. But not, of course, before another couple of botanical stops. First, just on the edge of the village, where the striking *Encelia canescens* was in flower. And then, a stop at a small olive grove where the system of irrigation had produced its own, mini-"flowering desert", with an amazing profusion of bright yellow *Rhodophiala bagnoldii* bulbs and lilac *Cristaria integrifolia*. Closer inspection revealed two more new bulbs amongst the rows of olive trees: the tall, elegant *Oziroe biflora* and the squat, dense-flowered *Zephyra compacta*.

And with that, and after some more retail therapy at the little olive oil shop, we carried on northwards, ever northwards, to end the day at Huesco, with an impressive sunset over the Pacific Ocean...

Aizoaceae	Tetragonia ovata	'ice plant' at the beach
Asteraceae	Encelia canescens	Bright 'sunflower' at the roadside by the beach
Boraginaceae	Heliotropium cf megalanthur	n At the beach
Boraginaceae	Heliotropium stenophyllum	White-flowered shrub at the cactus stop
Cactaceae	Copiapoa coquimbana	At the roadside cactus stop
Cactaceae	Cumulopuntia sphaerica	At the roadside cactus stop
Cactaceae	Eulychnia acida	
Cactaceae	Miqueliopuntia miqueli	The 'sprawling' cactus at the roadside cactus stop
Frankeniaceae	Frankenia chilensis	
Ledocarpaceae	Balbisia peduncularis	Tall bush with large yellow flowers, at the cactus stop
Malvaceae	Cristaria integrifolia	Mauve-pink flowers, eg the olive grove stop

Oxalidaceae

Oxalis gigantea

Solanaceae Nolana sp Acid-green mound-forming plant, with small white flowers

Solanaceae Solanum cf heterantherum Pale blue flowers, in the olives

Zygophyllaceae Fagonia chilensis At the beach and in the olives: purple flowers, scrambling plant

Amaryllidaceae Leucocoryne appendiculata Elegant white Amaryllid at the cactus stop

Amaryllidaceae Rhodophiala bagnoldii Big yellow Amaryllid in the olives
Asparagaceae Oziroe biflora Taller, delicate white 'lily' in the olives

Tecophilaeaceae Zephyra compacta The bulb with a short, white 'umbel' of flowers, in the olives

1st October. Rio Huasco, Llanos de Challe National Park, Los Pozos trail, Carrizal Bajo, Rio Copiapo

A pre-breakfast wander took some of us down to the beach, where around 20 Great Grebes were swimming in the bay, with a single Southern Silvery Grebe closer in. A handful of Sanderling were running about on the beach, with Dark-faced Ground Tyrant and Dark-bellied Cinclodes on the rocks, and a female Oasis Hummingbird was seen briefly buzzing around in a nearby garden.

Heading northwards (always northwards!), our first stop of the day was at the bridge over the Rio Huasco. The now-familiar mix of ducks were present around the wetland in small numbers, with Red-fronted Coot, one each of Great and Snowy Egrets and a brief Cocoi Heron. A nearby patch of reeds revealed a Plumbeous Rail who emerged a couple of times to feed in the shallows. A few Oasis Hummingbirds were seen, with a Giant Hummingbird.

At our next stop, not far north of Huasco, on the edge of Llanos de Challe National Park, we found a plain covered in *Copiapoa fiedleriana*, with a new 'candelabra' cactus *Eulychnia breviflora* and the sprawling spidery *Miqueliopuntia miqueli*.

Into the National Park, we stopped to walk the Los Pozos trail. Unfortunately, the hoped-for 'Garra de Leon' *Bomarea ovallei* was not found this year, probably not flowering during the drought, but we found the beautiful *Nolana rupicola* amongst the rocks, the yellow-flowered *Skytanthus acutus* and a couple of patches of a new cactus *Copiapoa echinoides*.

After a short visit to the ranger-less ranger station, where we found *Argylia radiata* and *Aristolochia chilensis* in flower, and a couple of Guanacos appeared at the roadside nearby, we headed north again, to visit the wetlands at Carrizal Bajo, where a single Black-necked Swan and a lone Chilean Flamingo amongst a flock of Coscoroba Swans were the highlights.

North of Carrizal Bajo, we stopped at an area covered in beautiful stands of *Copiapoa dealbata*, and a final stop at the Rio Copiapo, where we found a beautiful stand of flowering *Geoffroea decorticans*, attracting the handsome mining bee *Caupolicana flavicollis*.

We ended our journey in the sleepy village of Bahia Inglesa, where Atacama Lava Lizards were sunning on the rocks at the back of the beach, and at least 3 Oasis Hummingbirds were zipping about the gardens.

Aizoaceae Tetragonia maritima

Apocynaceae Skytanthus acuta Yellow flowers, curled seed pods
Aristolochiaceae Aristolochia chilensis Planted outside the ranger station
Asteraceae Polyachyrus poeppigii Pinky 'valerian' on the beach

Bignoniaceae Argylia radiata The orange flower by the ranger station

Cactaceae Copiapoa coquimbana 'Fiedleriana' Just north of Huasco

Cactaceae Copiapoa echinoides Around the Los Pozos trail, and planted at the ranger

station

Cactaceae Copiapoa dealbata North of Carrizal Bajo

Cactaceae Eulychnia breviflora
Cactaceae Miqueliopuntia miquelii

Fabaceae Geoffroea decorticans Yellow-flowered bush covered in bees

Malvaceae Cristaria viridiluteola

Papaveraceae Argemone hunnemanni One plant by the Rio Huasco

Solanaceae Nolana rupicola Large blue flower, sticky leaves, on the rocks at Los Pozos
Solanaceae Nolana peruviana Small blue flower, succulent shrub with small round leaves

Solanaceae Nolana racemosa Blue flowers, scrambling 'vine' just north of Huasco

Solanaceae Nolana salsoloides Shrub with longer succulent leaves

2nd October. Caldera, Quebrada El Leon, Punta Froden (Orbicular Granite site)

After a windy night, the day dawned calm and sunny, for a change.

We started the day by travelling the handful of kilometres across to the neighbouring fishing town of Caldera. In the little harbour, we found a handful of Belcher's Gulls amongst the more numerous Kelp Gulls on the beach and around the fishing docks. Whilst picking out the slimmer, northern gulls, a Marine Otter swam past, heading to its den site beneath the jetty to the naval area.

Around the other side of the port, a boardwalk took us out around the rocky beach, where Hudsonian Whimbrel and Ruddy Turnstones were feeding, a handful of Peruvian Pelicans and Neotropic Cormorants were loafing on a rocky islet whilst the ever-present Peruvian Boobies fished offshore. A little further out, a handful of handsome Red-legged Cormorants were fishing, close in enough to finally give us decent views of their red face, grey plumage and white neck stripe. Out even further, a dumpy little black and white bird was sitting on the water: a Peruvian Diving Petrel, perhaps blown into the bay by the winds overnight.

Back at the fishing dock, a massive bull South American Sea Lion was hanging about offshore, waiting for handouts from the fishermen.

After a visit to the town centre, with its coffee, pharmacy and facilities, we headed a short way north along the coast, and then struck inland along some increasingly unlikely sandy tracks, to the Quebrada El Leon, the Lion's Canyon. The vegetation here was dominated by *Euphorbia lactiflua* and *Eulychnia breviflora*, with lots of the tiny *Cumulopuntia sphaerica*. Although we couldn't find the hoped-for Copiapoas that are named after this valley, we did find a new cactus, the small spherical *Erioscyce confinis*, with a bright cerise flower.

Two new lizards were seen in the canyon: *Liolaemus platei* on the rocky slopes and the pallid *Liolaemus nigromaculatus* zippying across the bare sand. At the head of the canyon, a trickle of a stream was attracting Greyheaded Sierra Finch down to drink, along with the ever-familiar Common Diuca Finch and Rufous-collared Sparrow, while a Spot-billed Ground Tyrant flitted about the rocks and a trio of Rufous-banded Miners were feeding on the flatter ground.

With the sun definitely warming up at this point, we headed back to the coast for our lunch, at the 'Orbicular Granite' picnic site, where a couple of Atacama Lava Lizards were lazing on the rocks near to the 'famous', leopard-spotted rocks.

A free afternoon gave us the chance to track down ice creams and coffee in town, wander further along the beach, or just catch up on sorting of photos...

Pteridophya Cheilanthes mollis The fern amongst the rocks at the head of the canyon

Asteraceae Polyachyrus cinereus
Cactaceae Eriosyce confinis
Cactaceae Eulychnia breviflora
Cactaceae Cumulopuntia sphaerica
Euphorbiaceae Euphorbia lactiflua







Top Left: **Caldera.** Top Right: *Puya chilensis* at **Frey Jorge National Park** Bottom: *Copiapoa cinerascens* at **Pan de Azucar National Park**

3rd October. Pan de Azucar, Taltal

A day of cactuses, as we headed north, through Pan de Azucar National Park.

After a short visit to Chañaral, for stamps and coffee and fuel, our first botanical stop was within the range of *Copiapoa serpentisulcata*, just north of the town, with a very arid hillside spotted with clumps of the cacti, along with our first *Cristaria integerrima*.

Further on, into the National Park proper, and we found sandy flats covered with Copiapoa cinerascens.

Lunch was in the cove below the Sugar Loaf, where the beach-side restaurant did a fantastic job in supplying us with seafood empanadas and fish and chips, while Grey Gulls posed on the sand.

Onwards, and as we headed inland we stopped within the range of our next Copiapoa: *C. cinerel ssp columna-alba,* with a handful of clumps of *C grandiflora* on the slopes.

Inland from here, and the vegetation disappeared altogether, with the wide, arid landscapes of the Atacama Desert keeping us company as we travelled north to our destination, in a cove just north of Taltal.

Cactaceae Eulychnia iquiquensis

Cactaceae Copiapoa serpentisulcata hillsides north of Chañaral

Cactaceae Copiapoa cinerascens

Cactaceae Copiapoa cinerea ssp columna-alba

CactaceaeCopiapoa grandifloraMalvaceaeCristaria integerrimaSolanaceaeNolana cf patula

Solanaceae Nolana mollis With pinky, swollen calyxx

4th October. Taltal to Paposo Gorge

A shorter drive today, heading north from Taltal to Paposo and then up along the switch-back road into the gorge.

Just north of Taltal we found an area that seemed to have recent rains, with the bright yellow flowers of *Solanum chilensis*, white *Heliotropium pycnophyllum* and lilac *Cristaria integerrima* all in flower, and an Oasis Hummingbird taking advantage of the nectar.

Towards Paposo, we stopped to enjoy our last new Copiapoa, with the rocky roadsides full of *Copiapoa haseltoniana* (or maybe *Copiapoa cinerea ssp haseltoniana* or indeed *Copiapoa gigantea*, depending on whose taxonomy you choose to use). A flock of 'finches' (none of whom is actually a finch, but rather a mixture of New World sparrows and tanagers, but best not to worry too much about these things!) was made up of the usual Rufous-collared Sparrows and Common Diuca Finches, with a handful of Grey-hooded Sierra Finches, Greenish Yellow Finches and at least one male Band-tailed Sierra Finch.

Offshore, a South American Sea Lion made short work of an octopus, all the usual seabirds included plenty of Grey Gulls, together with a handful of Peruvian Diving Petrels and at least three storm petrels, just too far out to identify with any certainty... [later in the afternoon, through the telescope, a couple of Elliot's Storm Petrels were seen from the cabins, so perhaps these were the same thing, or perhaps they were the all-black Markham's Storm Petrels].

Onwards, and upwards, into the Paposo Gorge, where we found a very different vegetation, obviously enjoying some recent moisture, with flowers aplenty. Most obvious were the white *Cleome chilensis*, flowering in great profusion up a damp side-valley, along with *Lycium leiostemum* and the lovely yellow *Viola polypoda*, while the botanical star of the valley was found on the other side of the road, where *Alstroemeria violacea* was flowering on a (thankfully, accessible) scree slope.

'Flipping' some pieces of roadside litter revealed a trio of reptiles: a handful of Chilean Marked Geckos, a single speedy *Liolaemus platei* and best of all, a young Chilean False Monitor, Chile's largest terrestrial reptile and a very handsome fellow to boot.

After our picnic lunch, with more botanising, we headed back to Taltal, where the afternoon was spent variously shopping, chasing hummingbirds and swimming in the pool. Rudolpho treated us to his culinary skills later in the evening, and the day ended with a Tsudi's Nightjar (a desert dweller, recently split from the more widespread Bandwinged Nightjar) hawking over the pool and posing, briefly, in the torchlight.

Alstroemeriaceae	Alstroemeria violacea	
Apocynaceae	Cynanchum viride	Ephedra-like scrambling plant, on the cactus rocks
Asteraceae	Bahia ambrosioides	Pale yellow daisy busy
Asteraceae	Ophryosporus triangularis	'Fox tails', in the gorge
Asteraceae	Oxyphyllum ulicinum	Spiky-leaved bush, pale pink flowers, in the gorge
Asteraceae	Polyachyrus fuscus	Pink pom-pom flowers
Boraginaceae	Heliotropium pycnophyllum	Roadside, by the coast, pale round leaves
Boraginaceae	Heliotropium taltalense	Roadside in the gorge, dark narrow leaves
Cactaceae	Copiapoa haseltoniana	=C gigantea
Cactaceae	Copiapoa humilis	
Cactaceae	Eriosyce taltalensis	
Cactaceae	Eulychnia iquiquensis	
Cleomaceae	Cleome chilensis	
Cucurbitaceae	Sicyos baderoa	Small white flowers, broad leaves, at the lunch spot
Euphorbiaceae	Euphorbia lactiflua	
Frankeniaceae	Frankenia chilensis	
Ledocarpaceae	Balbisa peduncularis	Large yellow flowers
Malvaceae	Cristaria integerrima	
Montiaceae	Cistanthe cachinalensis	Succulent glaucous leaves: not yet in flower
Oxalidaceae	Oxalis cf megalorhiza	The larger yellow Oxalis with leathery leaves and reddish tinge
Oxalidaceae	Oxalis sp 2	The smaller Oxalis in the gorge
Solanaceae	Grabowskia glauca	The purple-flowered bush in the hotel car park
Solanaceae	Lycium leiostemum	Covered in small white trumpet flowers
Solanaceae	Nicotiana solanifolia	Yellow flowers, broad lush green leaves
Solanaceae	Nolana acuminata	Blue-flowered Nolana at the roadside
Solanaceae	Nolana sp	
Solanaceae	Solanum brachyanthemum	Small purple flowers
Solanaceae	Solanum chilensis	Bright yellow flowers
Tropaeolaceae	Tropaeolum tricolor	In the gorge
Violaceae	Viola polypoda	Yellow-flowered, rosette-forming Viola

5th October. Paranal and Calama

A day of learning about world-leading astronomy at the 'Very Large Telescope' at Paranal, with a glimpse of the forthcoming 'Extremely Large Telescope' on a nearby hilltop and some spectacular views down to the coastal desert, before driving inland across the amazing landscapes of the hyper-arid Atacama...

6th October. Alma, Lago Chaxa

An early start saw us arriving in the oasis town of San Pedro de Atacama in time for our appointment with the astronomical geniuses at the Alma radio telescope array, where we learned yet more about the power of radio interferometry and explored our cosmic origins to our hearts' content.

Chile 2019: trip report and species lists









Clockwise, from top left: *Alstroemeria violacea, Cleome chilensis, Cristaria integerimma* and *Tropaeolum tricolor*

After some R&R time, to catch up with ourselves after the last couple of days of desert driving and astronomical boffin-ery, we set off south across the flats of the Salar de Atacama, a great, flat, dry, bright expanse of saltiness where we ended up, rather incongruously, at a bright blue lagoon, filled with birds.

Most obvious were the flamingos, with flocks of elegant Andean Flamingos feeding close to the shore, pairs of bright pink Chilean Flamingos flying overhead as they commuted to and from a distant pool, and a pair of immature James's (or Puna) Flamingos feeding close to the start of the trail.

Amongst the flamingos were large numbers of Wilson's Phalaropes, probably more than 300, spinning around on the water surface, while Baird's Sandpipers fed on the shore, often at ridiculously close range, and we found a single Least Sandpiper, somewhat out of range.

Elegant Andean Avocets and scuttling Puna Plovers were both present with newly-hatched youngsters, tiny balls of fluff totally unphased by the nearby humans, and equally bold were the lizards, *Liolaemus fabiani*, endemic to these salt-encrusted lagoon margins.

We stayed at the Chaxa Lagoon until the sun dipped below the horizon, painting the mountains behind us a stunning shade of pink, when we headed back into town for a late dinner.

Cactaceae Cumulopuntia ignescens the orangey-spined cushion cactus in the pre-Puna, at the

roadside

Fabaceae Prosopis tamarugo Tamarugo. Common tree in the oasis, and planted

outside of town

Fabaceae Geoffroea decorticans

7th October. Los Flamencos National Park: Lagunas Miskanti and Miniques, Aguas Calientes

We set off southwards once again, skirting the Salar de Atacama before climbing up into the altiplano.

This area of the desert had heavy rains earlier in the year, with a couple of diversions around washed out bridges evidence of the power of the waters. More beneficial results of the rains was the flowering of roadside vegetation, and we stopped to get a closer look at this 'flowering desert', dominated by the deep red of *Cistanthe amaranthoides*, along with several patches of the beautiful blue lupin *Lupinus oreophilus*, and another very friendly lizard, this time *Liolaemus constanzae*.

After our obligatory photo stop at the Tropic of Capricorn, and a comfort break/retail stop at the village of Socaire, with its photogenic church and terraced hillsides, we climbed up onto the altiplano of the Los Flamencos National Park, where we began to scan for life...

A photostop to enjoy the scenic grasslands of *Stipa* and *Festuca* revealed an extensive colony of the Highland Tucotuco, with a distant Culpeo hunting for these subterranean rodents.

Nearby a trio of Puna Tinamou were feeding close to the road, before we turned a corner and (finally) found our main target of the day: a herd of beautiful Vicuña, the smallest extant Camelids, much more elegant than their larger cousins the Guanacos of earlier in the trip. The male stood sentinel on a rock, whilst his family browsed on the vegetation as they moved slowly past us, all stopping to use the same latrine spot as they went...

Climbing higher, up to over 4000m asl, we reached the twin lakes of Miskanti and Miniques, where we had our picnic lunch at a viewpoint overlooking the blue waters, home to a colony of the impressive Horned Coot. The total Chilean population is thought to number no more than 620 birds, and this is one of the two main nest sites for this Near Threatened species.

After lunch, we headed back to the main road and continued southwards for some more kilometres, stopping at the 'Piedras Rojas' viewpoint looking out over the amazing colours of a salt lake and the pink mountains behind, with the

Argentine border just beyond. A Great Yellow Finch joined us as we enjoyed the view, and after a couple of 'near misses', we finally found a trio of Mountain Vizcachas sunbathing amongst the rocks.

From here, it was time to turn round and head back to San Pedro.

Boraginaceae Tiquilia atacamensis Small purple-flowered, mat plant in the desert

Fabaceae Lupinus oreophilus

Montiaceae Cistanthe amaranthoides The deep dark red 'flower' in large patches across the

desert

Montiaceae Cistanthe cf salsoloides The taller, pink flower in the desert

Malvaceae Tarasa operculata The tall, grey-leaved plant with pale purple flowers

Verbenaceae Aloysia deserticola =Acantholippia, the twiggy plant with papery flowers

8th October. El Tatio Geyser Field, Lago Putana, Machuca wetlands, 'cactus valley', Valley of the Moon

All too soon, the next day began with a very early start as we headed off north from San Pedro along unmetalled roads leading high up onto the altiplano. The sky was just starting to brighten as we reached our highest point of the trip, travelling over a pass at 4600m asl, before dropping a little into the 'caldera' at El Tatio. Here, the reason for our early start became clear, with the steam and bubbling water of the world's third largest, and highest altitude geyser field filling the caldera.

We explored the various jets, cauldrons and steam vents until the sun began to appear above the surrounding mountains, when we retreated to the warmth of the bus for our picnic breakfast. The car park was home to numerous Red-backed and Plumbeous Sierra Finches and a few Andean Gulls, ever hopeful that they might be able to share in the breakfast.

As the sun warmed the slope above us, the Mountain Vizcachas appeared on the rocky ledges, at least ten of them sitting out in the sunshine, meditating zen-like as they heated up enough to stretch, yawn and bounce away.

While most of the other tourist buses headed off to the 'aguas calientes' hot baths, we set off slowly back down towards San Pedro, passing numerous small herds of browsing Vicuñas before, finally, in the distance on a barren plain, we found a pair of two-legged browsers: Puna Rheas, picking their way slowly across the altiplano.

Around the corner, and we stopped at the 'bofedales' below the Putana volcano, which were alive with birds: Andean Goose, Puna Teal, Crested Duck and the beautiful red-legged Giant Coot were all much in evidence, with Baird's Sandpipers probing the muddy margins and a handful of quiet Yellow-billed Teal hiding in the margins. Andean Negrito, Cream-winged and White-winged Cinclodes and Cordilleran Canastero all put in appearances close at hand.

Lunch was in the village of Machuca, with goat's cheese empanadas and grilled llama skewers, while Greenish Yellow Finch and Cordilleran Canastero visited their nests in the roof.

A little way out of the village, and the roadside lagoon was home to large numbers of flamingos, with both Chilean and Andean present, along with our sixth species of coot in the form of Andean (or Slate-coloured) Coots. A surprise amongst them were a handful of larger birds, two pairs of Horned Coots, building nests at the far side of the water.

Our final stop of the morning was a 'cactus valley', where our final two species of cactus for the trip included the spectacular columns of *Trichocereus atacamensis*.

We spent the late afternoon indulging in some retail therapy in San Pedro, before a visit to the 'Valley of the Moon' as the sun set.

Cactaceae Trichocereus atacamensis Large, columnar cactus in 'cactus valley'

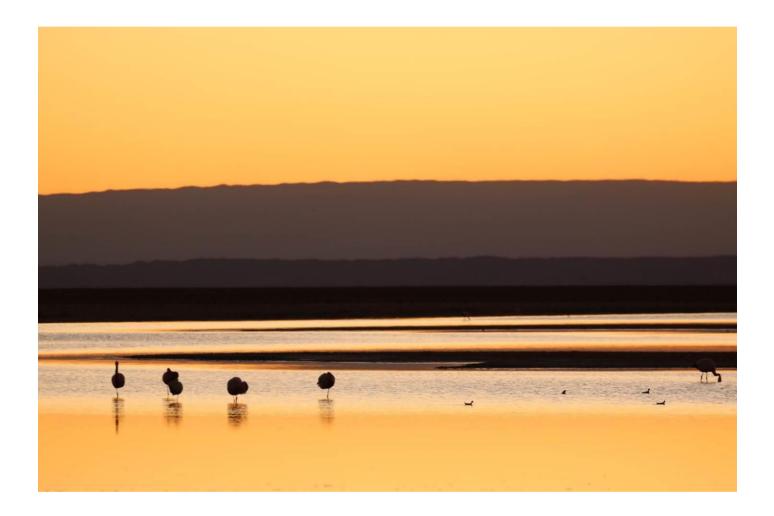
Cactaceae Maihueniopsis glomerata The 'cushion' cactus, filled with sand, in 'cactus valley'

9th October. Back to Santiago

One last drive through the desert landscapes of the Atacama took us to Calama airport, where we bade a very fond farewell to Rudolpho, and wished him 'buenos y seguros viajes' for his long drive back to Santiago.

Our journey took us slightly less time than his would, and by mid-afternoon we were landing back in Chile's capital, where this time it was the turn of Claudio to receive the hugs, sending him on his way down south to a snowy Punta Arenas.

And from there, it was just a waiting game before our flights back to the UK next day.



CACTACEAE

Eriosyce subgibbosa

Eriosyce taltalensis

There is a really useful 'Field Guide to the Native Cactuses of Chile' available online at issuu.com/terranoide/cact ceas nativas de chile - gu a

Copiapoa cinerea ssp columna-alba Least Concern

Copiapoa cinerescens Endangered (stable)
Copiapoa coquimbana Least Concern

Copiapoa gigantea Least Concern (treated by IUCN as ssp of C. cinerea ssp.) = C.

haseltoniana

Copiapoa fiedleriana Endangered (decreasing) = C. coquimbana var Fiedleriana

Copiapoa echinoides Near Threatened (decreasing)

Copiapoa dealbata Least Concern (stable)

Copiapoa grandiflora Endangered (population trend unknown)

Copiapoa serpentisulcata Endangered (decreasing)
Copiapoa humilis Near Threatened (stable)

Cumulopuntia sphaerica Frey Jorge NP: yellow flowers

Cumulopuntia ignescens Around San Pedro, = C. boliviana ssp ignescens

Eriosyce aurata Barrell cactus, Fray Jorge NP

Eriosyce confinis Vulnerable (decreasing) Cerise flowers, Quebrada El Leon

Eriosyce chilensis Critically Endangered (decreasing)

Large plants at Los Molles. Small, globular plants at Pichidangui

On the penguin island, off from Cachagua

Vulnerable (stable) Small Eriosyce, not in flower, eg Paposo Gorge

Eulychnia brevifloraLlanos de ChalleEulychnia castanea=Los MollesEulychnia acidaFrey Jorge NPEulychnia iquiquensiseg Paposo GorgeTrichocereus chiloensis ssp chiloensisIn the central region

Trichocereus chiloensis ssp littoralis Los Molles

Trichocereus atacamensis Near Threatened (decreasing). Near San Pedro

Miqueliopuntia miquelii Near Huasco

Maihueniopsis glomerata (=M camachoi) the cushion-forming cactus in 'cactus valley', near San Pedro



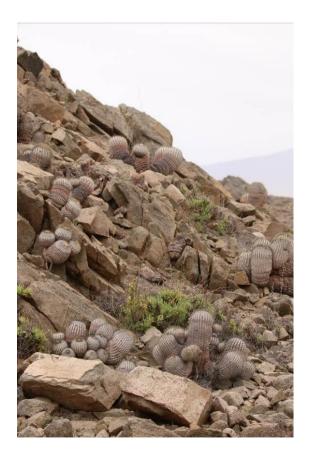


Above: Eriosyce chilensis (left) and Eriosyce confinis (right)









Cacti of Chile: Copiapoas
Clockwise, from top left:
Copiapoa cinerea ssp columna alba; C. dealbata; C. gigantea (=C. haseltoniana); C. serpentisculcata









Cacti of ChileClockwise, from top left:
Cumulopuntia sphaerica; Eulychnia castanea; Miqueliopuntia miquelii; Trichocereus atacamensis

	ENGLISH NAME	LATIN NAME	25 th	26 th	27th	28 th	29 th	30 th	1st	2nd	3rd	4th	5th	e_{th}	£	
	BIRDS															
	Family Rheidae (Rheas)	Dhas taranasansis														į
	Puna Rhea	Rhea tarapacensis Near Threatened Recently	 'enlit'	fro	 m [) Jari	,,ir	 n'c	 Rha	 a= /	l wh	en.	lum	nne/	Ч	
		Lesser Rhea)	Split	110		Jai	7711	13	IXIIC	u (VVII	CII	iuii	ipc	u,	,
	Family Tinamidae (Tinamous	,														ı
	Chilean Tinamou	Nothoprocta perdicaria					Χ									
	Puna Tinamou	Tinamotis pentlandii													X	
	Family Odontophoridae (Nev	World Quails)														ı
•	California Quail	Callipepla californica	Χ	Χ	Χ											
	Family Anatidae (Wildfowl)															l
	Coscoroba Swan	Coscoroba coscoroba		Χ		Χ			Х			<u> </u>				_
	Black-necked Swan	Cygnus melancoryphus							Χ							_
	Andean Goose	Oressochen melanoptera													.,	_
	Crested Duck	Lophonetta specularoides	_	\ <u></u>											Χ	
	Yellow-billed Pintail Yellow-billed Teal	Anas georgica Anas flavirostris		Х		X			X							-
	reliow-billed real	We saw two subspecies: the	lowla Iowla	l nd	l 'Sn		امطا	Ta		 / /	f	flər	iro.	ctric	c) (
		28 th and 1 st . and the Andean														
	White-cheeked Pintail	Anas bahamensis	Jilai	T	VII IQ	Х	10	ui	(///	1.0	ijΡ	Cre	1) (1	<u> </u>	-
_	Puna Teal	Spatula puna												Χ		+
	Cinnamon Teal	Spatula cyanoptera				Х			Χ					, ,		
	Chiloe Wigeon	Mareca sibilatrix		Х		Χ			Χ							
	Lake Duck	Oxyura vittata		Х												
	Family Podicipedidae (Grebe	s)														
	Pied-billed Grebe	Poldilymbus podiceps	Х	Χ												
	White-tufted Grebe	Rollandia rolland		Χ												
	Northern Silvery Grebe	Podiceps juninensis		L					<u> </u>		_	١ .	إ		Χ	
		Near Threatened Recently	'split'	fro	m S	Sou	the	ern	Sil	ery/	/ G	eb	e (ı	whe	'n	
	Courthous Cilvon, Cucho	lumped, as Silvery Grebe)		V	1				\ <u></u>		I		1			_
	Southern Silvery Grebe	Podiceps occipitalis Podiceps major		X					X	v						_
	Great Grebe Family Phoenicopteridae (Fla								^	Λ						ı
	Chilean Flamingo	Phoenicopterus chilensis							Υ					Υ		1
	Cilican Flamingo	Near Threatened	l	I	ļ	l l		l	^	Į	l	ı		^		
	Andean Flamingo	Phoenicopterus andinus												Χ	Χ	-
		Vulnerable	ı	1				ı	1	ı		j				
	Puna Flamingo	Phoenicopterus jamesi												Χ		
		Near Threatened = James's	s Flan	nin	go											
	Family Columbidae (Pigeons															ı
	Feral Pigeon/Rock Dove	Columba livia	Х	Х			Χ	Χ	Χ	Χ	Χ	X	Χ	Χ	X	
	Chilean Pigeon	Patagioenas araucana			Χ	Χ						L				_
	Eared Dove	Zenaida auriculata	X	Χ	Χ		<u>X</u>						X		X	
	West Peruvian Dove	Zenaida auriculata		-	V				Χ	Х	Χ	Χ	Χ	Х	X	
	Picui Ground-Dove	Columbina picui	X	-	Χ	Χ	Χ	X				\vdash			_	_
	Golden-spotted Ground-Dove	Metriopelia aymara													X	J
_	Family Caprimulgidae (Nightian											V				1
	Lesser Band-winged Nightjar	Systellura decussatus =Tschudi's Nightjar, this pale	 r do	 Sert	l · fo:	 m	hər	 h/	 aer	 rc	 Cen	X Hv	 enli	it fr	·On	r
		widespread Greater Band-win														í

ENGLISH NAME	LATIN NAME	25 th	26 th	2 7 th	28 th	29 th	30th	1st	2nd	3rd	4 th	2th	9 th	7 th
Family Trochilidae (Hummir				V	V	V	V	V						
Giant Hummingbird	Patagonas gigas			X	Χ	Χ	Χ	X	\ <u></u>	\ <u></u>	V	· ·		_
Oasis Hummingbird	Rhodopis vesper							Χ	Х	Χ	Х	Χ		
Family Rallidae (Rails)	Banding the age as size of autors	1						V						
Plumbeous Rail	Pardirallus sanguinolentus				Н			Χ						
Spot-flanked Gallinule	Gallinula melanops	Χ	V											
White-winged Coot	Fulica leucoptera Fulica armillata		X X					Χ						_
Red-gartered Coot Red-fronted Coot	Fulica arrilliata Fulica rufifrons		^					X						_
Andean Coot	Fuica rumrons Fuica ardesiaca							^						-
Giant Coot	Fulica gigantea													_
Horned Coot	Fulica gigantea Fulica cornuta												,	X
Horned Cool	Near Threatened	J	l	l	l I		l	l	l	Į		l	ŀ	`
Family Spheniscidae (Pengu														
Humboldt Penguin	Spheniscus humboldtii		Χ								Χ			
Turnbolae Ferigani	Vulnerable	ı	J/ \	l	l I		l	l	l	l	· ·	ı	I	l
Family Procellaridae (Petrel														
Peruvian Diving-Petrel	Pelecanoides garnoti									Χ	Χ			
	Endangered		•	1						1				ļ
Family Hydrobatidae (Storm														
Elliot's Storm Petrel	Oceanites gracilis										Χ			
Family Threskiornithidae (Il	oises)													
Black-faced Ibis	Theristicus melanopis						Χ	Χ						
	Formerly lumped with Andean I	bis	(7	bra	anic	kii)) of	Ec	uac	dor	and	d Po	eru,	ar
	Buff-necked Ibis (T caudatus) o	f lo	wla	ınd	So	uth	ı Ar	nei	ica					
Family Ardeidae (Herons)														
American Great Egret	Casmerodius egretta		Χ					Χ						
	Often lumped as Great White E	gre			1					1				
Snowy Egret	Egretta thula		Х			.,		Χ						_
Cattle Egret	Bubulcus ibis		Χ			Χ	Χ							_
Cocoi Heron	Ardea cocoi		\ <u>\</u>		\ <u>'</u>			Χ	\ <u>\</u>					
Black-crowned Night Heron	Nycticorax nycticorax obscurus		Χ		Χ				Χ					
Family Pelecanidae (Pelican Peruvian Pelican			Χ		V		V	V	V	V	V	V		
Peruvian Pelican	Pelecanus thagus Near Threatened	ļ	ΙΛ	l	Χ		Α.	X	ΙΛ	ΙΛ	Λ	Λ		
Family Sulidae (Gannets and														
Peruvian Booby	Sula variegata		Χ		Χ		Υ	Υ	Υ	Χ	Υ	Υ		
Family Phalacrocoracidae (C			^		^		^	^	^	^	^	^		
Neotropic Cormorant	Nannopterum brasilianus		Υ		Υ		Υ	Υ	Υ	Υ	Υ	X		
Red-legged Cormorant	Poikilocarbo gaimardi		X		X		X		X	X X	X	^		-
Red legged combiant	Near Threatened	ı	/ `	l	/ \		/\	l	/ \	 ^\	, ·	ı	I	ļ
Guanay Cormorant	Leucocarbo bougainvilliorum		Χ				Χ							
January Schmisterine	Near Threatened	,	17.	ı			1, ,	ı	l	ı			I	ļ
Family Haematopidae (Oyst														
Blackish Oystercatcher	Haematopus ater		Χ		Χ		Χ	Χ	Χ	Χ	Χ			
American Oystercatcher	Haematopus palliatus		Х				Χ	Χ	Χ	Х				
Family Recurvirostridae (Av														
White-backed Stilt	Himantopus melanurus		Χ											
	Often lumped as Black-winged S	Still		_		_						_	_ '	_ '
Andean Avocet	Recurvirostra andina												Х	
Family Charadriidae (Plover	s)													
Southern Lapwing	Vanellus chilensis	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ					
Snowy Plover	Charadrius nivosus									Χ			\Box	
	Formerly lumped with Kentish P	lov	er				_			_		_ '		_ '
<u> </u>			-										Χ	_

	ENGLISH NAME	LATIN NAME	25 th	26 th	27 th	28 th	29th	30th	1st	2 nd	3rd	4th	5th	6th	7th	8th	9th
	Family Thinocoridae (Seedsn															V	
	Grey-breasted Seedsnipe	Thinocorus orbignyianus														Х	
	Least Seedsnipe	Thinocorus rumicivorus				Χ											
	Family Scolopacidae (Sandpi								V								
	Greater Yellowlegs	Tringa melanoleuca				V			Χ								
	Lesser Yellowlegs Hudsonian Whimbrel	Tringa flavipes		Х		X X		V	V	V	Χ	· ·					
	nudsonian whimbrei	Numenius hudsonicus	ļ	ΙΛ.	l	Λ		Λ	Λ	Λ	Α.	Λ.			l	I	ŀ
	Ruddy Turnstone	Often lumped as Whimbrel Arenaria interpres	T	Χ					Χ	Х	Χ						\dashv
	Sanderling	Calidris alba		^					^ X	^	Λ						
	Baird's Sandpiper	Calidris bairdii				Χ			X		^			Χ		Х	_
	Semipalmated Sandpiper	Calidris semipalmatus				Λ			^					^		^	_
	Least Sandpiper	Calidris minutus				^								Χ			_
	Wilson's Phalarope	Phalaropus tricolor												Χ		Х	_
	Family Laridae (Gulls, Terns													Λ		^	
	Kelp Gull	Larus dominicanus		Χ		Χ		Χ	Υ	Υ	Χ	Y	Χ				
	Belcher's Gull	Larus belcheri		^		^		^	^			X	X				
	Grey Gull	Leucophaeus modestus		Χ								X	Х				_
	Brown-hooded Gull	Chroicocephalus maculipennis		Х							^	^	^				_
	Andean Gull	Chroicocephalus serranus		^										Χ	Χ	Х	—
	South American Tern	Sterna hirundinacea						Y			Χ			^	^	^	
	Inca Tern	Larosterna inca		Χ				^			X	Y					
	inca rem	Near Threatened	ļ	^	I	ļ		l	l	I	 ^	 ^	I	!	ı	ļ	
	Family Strigidae (Owls)																
	Magellanic Horned Owl	Bubo magellanicus Formerly lumped with Great Ho	rne	ed C] Dwl		Χ										
	Burrowing Owl	Athene cunicularia						Χ									
	Austral Pygmy Owl	Glaucidium nanum			Χ												
	Family Cathartidae (New Wo	rld Vultures)															
	Turkey Vulture	Cathartes aura		Х		Χ	Χ	Χ	Χ	Х	Χ	Χ	Χ				
	Black Vulture	Coragyps atratus		Χ													
	Family Accipitridae (Hawks a	1															
	White-tailed Kite	Elanus leucurus						Χ									
	Cinereous Harrier	Circus cinereus				Χ	Χ										
	Harris's Hawk	Parabuteo unicinctus	Χ		Х												
	Variable Hawk	Geranoaetus polyosoma The form found in the High And split at Puna Hawk G. poechiloo		and				X eer	 0	 า 7¹		X th) :	son		X ime		Х
	Black-chested Buzzard-Eagle	Geranoaetus melanoleucus			Х	Χ											
	Family Picidae (Woodpeckers	<u> </u>															
	Striped Woodpecker	Veniliornis lignarius			Χ	Χ	Χ										
	Family Falconidae (Falcons a	nd Caracaras)															
	Southern Caracara	Caracara plancus										Χ					
	Mountain Caracara	Phalcoboenus megalopterus									Χ				Χ		
	Chimango Caracara	Milvago chimango	Χ	Χ	Χ	Χ	Χ	Χ	Χ								
	American Kestrel	Falco sparverius	Χ		Х		Χ	Χ									
	Family Psittacidae (Parrots)																
	Monk Parakeet	Myiopsitta monachus	Χ														
	Family Rhinocriptidae (Tapad	culos)															
END	Moustached Turca	Pteroptochos megapodius			Χ		X										
END	White-throated Tapaculo	Scelorchilus albicollis					Χ										
	Family Furnariidae (Ovenbiro	ls)															
	Family Furnariidae (Ovenbirg Common Miner	Geositta cunicularia				Χ		Χ									
						Χ		X	X			X			X		

	ENGLISH NAME	LATIN NAME	25 th	26 th	27 th	28 th	29th			2nd	3rd	4 th	5th	6th	7 th	8th	9th
	Scale-throated Earthcreeper	Upucerthia dumetaria						Χ	Χ								<u></u>
END	Seaside Cinclodes	Cinclodes nigrofumosus		Χ		Χ						Χ					l
		Sometimes lumped with Surf Ci	ncl	ode	s (=P6	eru	via			ide	Ci	nclo	ode	s)		
	Dark-bellied Cinclodes	Cinclodes patagonicus							Χ	Χ							
	Cream-winged Cinclodes	Cinclodes albiventris														Χ	
	Buff-winged Cinclodes	Cinclodes fuscus		Χ		Χ			Χ								l
		Cream-winged and Buff-winged								d v	vith	Ch	est	nu	t-w	ing	ed
		Cinclodes <i>C albidiventris,</i> as Bai	r-wi		ed	Cin	clo	des		1	1	1	1		1		_
	Grey-flanked Cinclodes	Cinclodes oustaleti		Χ													—
	White-winged Cinclodes	Cinclodes atacamensis														Χ	<u> </u>
	Thorn-tailed Rayadito	Aphrastura spinicauda			X						_						—
	Plain-mantled Tit Spinetail	Leptasthenura aegithaloides			Χ				Χ		Χ	Χ	Χ				—
	Cordilleran Canastero	Asthenes modesta														Χ	—
	Dusky-tailed Canastero	Pseudasthenes humicola			Н												<u> </u>
	Family Cotingidae (Cotingas)		1					1	1								
	Rufous-tailed Plantcutter	Phytotoma rara		X													
	Family Tyrannidae (Tyrants)	April mis - 1' 1												\/			
	White-tailed Shrike-Tyrant	Agriornis andicola				l		ļ	ļ		l			Х			ı
	Defense and Consumal Transmit	Vulnerable	1				1	1	1	1		\ <u>'</u>	1		\ <u>\</u>	\ <u>\</u>	
	Rufous-naped Ground-Tyrant	Muscisaxicola rufivertex										Χ				Х	<u> </u>
	Cinereous Ground-Tyrant	Muscisaxicola cinerea								\ <u>'</u>	\ <u>\</u>	\ <u>'</u>			Χ		<u> </u>
	Spot-billed Ground-Tyrant	Muscisaxicola maculirostris									Χ	Χ					<u> </u>
	Dark-faced Ground-Tyrant	Muscisaxicola macloviana				\ <u>'</u>		Χ		Χ							
	Austral Negrito	Lessonia oreas				Χ			Χ								<u> </u>
	Andean Negrito	Lessonia rufa				\ <u></u>										Χ	<u> </u>
	Spectacled Tyrant	Hymenops perspicillata			.,	X											
	Fire-eyed Diucon	Xolmis pyrope		Χ	X	Χ	X										
	Chilean Elaenia	Elaenia chilensis		 	X		X	 	<u> </u>	l bio			ч р 			_	
		Often lumped with non-migrator Elaenias <i>E modesta</i>	иу	VVIII	ite-	·Cre	ste	u z	aı	DIC	eps	an	u P	ert	IVIA	11	
	Tufted Tit-Tyrant	Anairetes parulus	Χ		Х		V		Y	Χ							
	Family Hirundinidae (Swallov		Λ		Λ		Λ		Λ	Λ							
	Chilean Swallow	Tachycineta meyeni	Υ	Υ	γ	Χ	Υ	Υ	Υ	Υ	Υ						
	Blue-and-white Swallow	Pygochelidon cyanoleuca	^	Х	^			^	^		^			X	Χ	Y	
	Barn Swallow	Hirundo rustica		^		Χ							Χ		Х	^	
	Family Troglodytidae (Wrens					/							/		/		
	Southern House Wren	Troglodytes musculus			Χ				Χ		Χ	Χ					
	Family Turdidae (Thrushes)	Trogical tes mascalas			/ (/\		/\	/\					
	Austral Thrush	Turdus falcklandii	Χ	Χ	Χ	Χ	Χ	Χ	Χ								
	Chiguanco Thrush	Turdus chiquanco				<u> </u>								Х	Χ	Х	
	Family Mimidae (Mockingbire													, ,	, ,	, ,	
	Chilean Mockingbird	Mimus tenca	Χ	Χ	Χ	Χ	Χ	Χ									
	Family Motacillidae (Pipits ar																
	Correndera Pipit	Anthus correndera				Χ											
	Family Thraupidae (Tanagers	I .															
		Sicalis luteola luteiventris				Χ											
	(Misto) Grassland Yellow-Finch		+									Χ	Χ	Χ	Χ	Χ	
1	Greenish Yellow-Finch	Sicaliis olivascens					ı							/\		_	
	*	Sicaliis olivascens Sicaliis auriventris											, .		Χ		
	Greenish Yellow-Finch									X		X					
	Greenish Yellow-Finch Greater Yellow-Finch	Sicaliis auriventris								X		Χ			Χ	X	
	Greenish Yellow-Finch Greater Yellow-Finch Grey-hooded Sierra-Finch	Sicaliis auriventris Phrygilus gayi								X		X			Χ	X X	
	Greenish Yellow-Finch Greater Yellow-Finch Grey-hooded Sierra-Finch Black-hooded Sierra-Finch	Sicaliis auriventris Phrygilus gayi Phrygilus atriceps Geospizopsis unicolor								X		X			Χ		
	Greenish Yellow-Finch Greater Yellow-Finch Grey-hooded Sierra-Finch Black-hooded Sierra-Finch Plumbeous Sierra-Finch	Sicaliis auriventris Phrygilus gayi Phrygilus atriceps			X	X	X	X		X		X			Χ	Χ	
	Greenish Yellow-Finch Greater Yellow-Finch Grey-hooded Sierra-Finch Black-hooded Sierra-Finch Plumbeous Sierra-Finch Red-backed Sierra-Finch	Sicaliis auriventris Phrygilus gayi Phrygilus atriceps Geospizopsis unicolor Ephippiospingus dorsalis			X	X	X	X		X		X			Χ	Χ	

	ENGLISH NAME	LATIN NAME	25th	26 th	27 th	28 th	29th	30th	1st	2nd	3rd	4 th	5th	6 th	7th	8th	9th
	Family Passerellidae (America	an Sparrows)															
	Rufous-collared Sparrow	Zonotrichia capensis	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	
	Family Passeridae (Old World	Sparrows)															
INT	House Sparrow	Passer domesticus	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Х	Χ	Χ	Х	Χ	Χ	
	Family Fringillidae (Finches)																
	Black-chinned Siskin	Spinus barbatus			Χ				Χ								
	Family Icteridae (New World	Blackbirds and Orioles)															
	Austral Blackbird	Curaeus curaeus	Χ	Χ	Χ	Χ	Χ	Χ	Χ								
	Yellow-winged Blackbird	Agelaius thilius		Χ		Χ	Χ		Χ								
	Shiny Cowbird	Molothrus bonariensis							Χ								
	Long-tailed Meadowlark	Sturnella loyca		Χ	Χ	Χ	Χ	Χ	Χ								

148 spp

	MAMMALS															
	South American Sea Lion	Otaria byronia		Χ		D				Χ	Χ	Χ				
	Bottle-nosed Dolphin	Tursiops truncatus		Χ												
	Marine Otter	Lontra felina		Χ						Χ	Χ					
		Endangered (decreasing)														
	Chilla Fox	Lycalopex griseus						Χ								
	Culpeo Fox	Lycalopex culpaeus			S		Χ							Χ		
	Guanaco	Lama guanicoe						Χ	Χ		Н					
	Vicuña	Vicugna vicugna												Χ	Χ	
	Mountain Viscacha	Lagidium viscacia												Χ	Χ	
	Tawny Tuco-tuco	Ctenomys fulvus												S		
END	Degu	Octodon degus			Χ											
END	Coastal Degu	Octodon lunatus					Χ									
		Near Threatened (decreasing))			-					-					
END	Coruro	Spalacopus cyanus	S	S		S	Χ	S								
	Coypu	Myocastor coypus	S													
INT	Brown Hare	Lepus europaeus			S		Χ		Χ							
INT	European Rabbit	Oryctolagus cuniculus						Χ								
INT	Feral Donkey	Equus africanus asinus											Χ	Χ		

	REPTILES													
END	Chilean Long-tailed Snake	Philodryas chamissonis			Χ									
END	Chilean Short-tailed Snake	Tachymenis chilensis						Χ						
END	Chilean Marked Gecko	Garthia gaudichaudii				Χ	Χ			Χ				
END		Liolaemus tenuis	Χ	Х										
END		Liolaemus fuscus	Χ		Χ									
END		Liolaemus lemniscatus	Χ	Х										
END		Liolaemus monticola		Х										
END		Liolaemus zapallarensis			Χ									
END		Liolaemus nitidus			Χ									
END		Liolaemus silvai				Χ								
END		Liolaemus platei						Χ	Χ	Χ				
END		Liolaemus nigromaculatus						Χ	Χ					1
END		Liolaemus fabiani									Χ			
END		Liolaemus constanzae										Χ	Χ	
END	Atacama Lava Lizard	Microlophus atacamensis					Χ	Χ						1
END	Chilean False Monitor	Callopistes maculatus								Χ				

Chile 2019: trip report and species lists









Clockwise, from top left: Andean Flamingo, Inca Tern, Vicuña and Chilla Fox



Chile's Endemic Lizards
Clockwise, from top left:
Callopistes maculatus, Liolaemus zapallarensis, L. fabiani, L. tenuis, L. platei and Microlophus atacamensis

BEES	
Nothanthidium cf rudolphi	Rio Clarillo, 26 th . Black and white striped abdomen, red
	legs
Megachile euzona	Rio Clarillo, 26 th . Black bee with a single creamy stripe
	across the abdomen
Centris cineraria	Rio Clarillo, 26 th . Fluffy grey thorax, black abdomen: flying
	panda.
Epiclopus cf lendlianus	Rio Clarillo, 26 th . Fluffy grey thorax, black abdomen with
	grey band at base. A cuckoo of <i>Centris cineraria</i>
Caupolicana flavicollis	The 'friendly' bee, orange thorax and black&white striped
	abdomen, feeding on Geoffroea, Rio Copiapo
Isepeolus sp.	The 'blue eyed' bee at Cachagua, a cuckoo.
BUTTERFLIES	
Dusky Hairstreak, <i>Pseudolucia chilensis</i>	26 th . Small brown 'copper', on the Adesmia at Rio Clarillo
Pipevine Swallowtail, Battus polydammus	Chile's largest butterfly, and only swallowtail. La Campana
	NP.
Western Painted Lady, Vanessa carye	One at Los Molles
Dusky Grizzled Skipper, Pyrgus fides	







Left to Right: Epiclopus of lendlianus, Isepeolus op and Caupolicana flavicollis