

A Solo Trek in the Julian Alps of Slovenia, Studying the Ecology of the Region.

by Ben Stainton

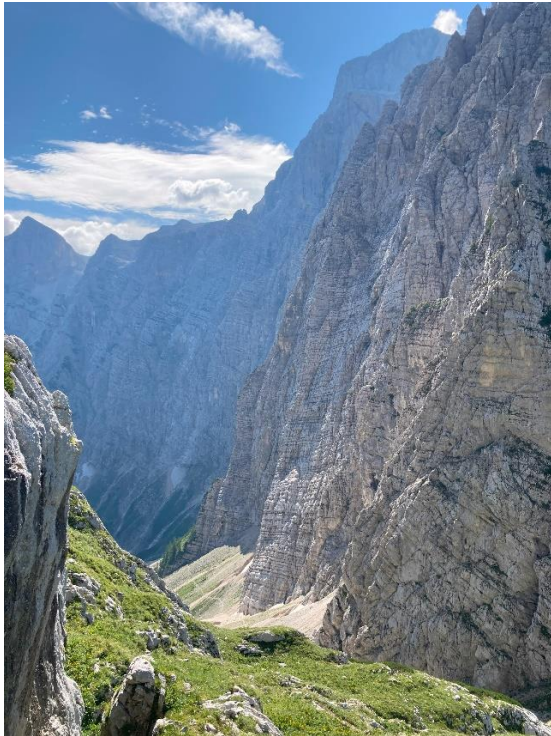


The Krnica Valley above Kranjska Gora

Thanks to a contribution from the Des Reubens and Bill Wallace Grant, I was able to complete a week-long trek in the Julian Alps of Slovenia. As I travelled through these mountains I hoped to study their ecology, with a particular focus on plants: Triglav National Park is a highly protected area, not only for its geology and wildlife, but also for the highly diverse array of plant species found there including many species which are unique to the range. During the course of my trek, I travelled through a huge variety of habitats. I made note of the nature of these and recorded key plant species, with the hope of understanding the incredible diversity found in these mountains. In the process, I ended up recognising a lot of important lessons about how our own wild places could be better protected, which I hope to carry forward into a career in nature conservation.

My week began a world away from the mountains, at Milan's monumental Central Station. Boarding an early train, I made my way to Austria, then hitched a ride with a Slovene forester over a pass to cross the border into Slovenia. Along the way he proudly told me how Slovenia boasts a forest cover of 58%, with many areas of primeval forest, and some areas left deliberately unmanaged for over 100 years – arguably an early form of rewilding. By contrast, Scotland has a forest cover of just 18%, with many of its ancient woodlands in a state of decline. Clearly I was entering a country with a lot of lessons to offer on the subject of conservation.

After being dropped off in Kranjska Gora, I gathered supplies and then set out up the Krnica Valley. Following the road along the river, I turned off into the quiet of the woods. Although it's a far cry from the mountains of Scotland to those of Slovenia, I continued to recognise similarities between them. The woods were thick with Spruce, but also Beech; on the ground, exotic Alpine Cyclamen mingled with more familiar Strawberry. At times the forest would suddenly open into alpine meadow, hinting at human management of the landscape over time.



The sheer walls of Triglav rise above the Luknja Pass

After spending the night at a Dom (refuge) in the forest, I set out towards the towering walls of Razor to the South. As I climbed higher, evidence of human influence disappeared, revealing a wild landscape. The scree was riven with dry channels, the river itself probably flowing deep underground, and was studded with a huge diversity of plants: including Round-headed Rampion, which can be found on the chalk downs of Sussex; and Julian Columbine, which is endemic to the mountains of Slovenia alone. I was excited to see tens of species, both familiar and new to me, within such a relatively small area. The key factor in creating such incredible diversity is limestone: the thin calcareous soils are low in fertility, which allows many species of plants to coexist. Each is able to exploit a different niche, from bone-dry gravel to cracks in the rock, but no one species can dominate. Amongst this arid landscape were islands of lush greenery. Small streams watered scattered Larch trees set amidst Alpenrose, Monkshood, and grasses – a whole new set of species metres from

another. This kind of heterogeneity often found in wild places is the foundation on which diversity is built, contributing to a rich and complex ecology.

As I climbed the steep scree slopes further up I saw a herd of Ibex, with two males wrestling for the higher ground and clashing heads, which was an awesome sight. Soon I was enclosed on all sides by forbidding walls of rock, and found that the trail picked its zig-zag way up one of these - even here, the bare rock supported a diversity of new alpine plants, such as White Mountain Saxifrage, Silvery Yarrow, and Earleaf Bellflower. Soon I had reached the summit of Križ, coated in mats of Thrift and Thyme. The peak offered magnificent views down over the journey I'd made so far, and across Slovenia to the Kamnik Alps just catching the sun as it lowered. I then descended a south-facing slope, suddenly greener with patches of alpine meadow, over limestone pavements dotted with Edelweiss, through stands of dwarf Mugo Pine, to reach the next Dom.

In just two days I had already passed through perhaps 10 distinct habitats, each with a unique assemblage of plant species. At dinner that night, I spoke to a Slovene couple who told me that Slovenes are widely aware and proud of this diversity, and that there is widespread understanding not to pick flowers or damage vegetation here. Indeed, the refuges were busy with Slovenians from across the country – perhaps this widespread engagement with nature is part of the reason it can be so effectively protected here.

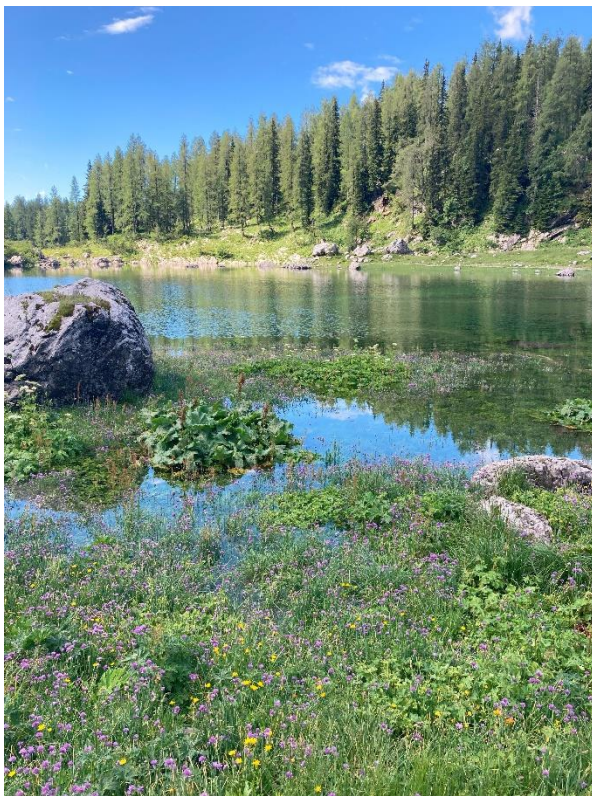


Mat-forming plants such as Shining Cinquefoil cling to outcrops of Limestone

The next morning I set out early, crossing limestone pavements and scrambling up a via ferrata to the summit of Pihavec. The sheer and sharply stratified walls of Triglav soared high over the pass below, with an eagle gliding across the space between. As I descended, I passed through high alpine meadows with tens of flowering species. Outcrops of rock teemed with mats of Shining Cinquefoil, while Earleaf Bellflower and Globe-Headed Rampion burst through the cracks. Having descended to the Luknja Pass, I began to climb steep switchbacks through Larch woodland across the southern flanks of Triglav. Before too long I was faced with another striking contrast, as the woodland quickly gave way to bare rock and scree, with only the hardiest plants clinging on. Here was a moonscape plateau of stone, scree, and cratered cave entrances. With a storm rolling in I was beating trail to make it to the refuge, but slowed when a young Chamois stepped from among the rocks to watch me. Being on my own, it allowed me to pass within a couple of metres of it before scarpering out of sight.



A young Chamois



*Marginal vegetation along the edge of Dvojno Jezero,
largest of the Triglav Lakes*

I was now descending into the mighty Triglav Lakes Valley, a cradle of greenery amidst the barren high mountains of the Triglav range. While elsewhere water flows quickly beneath the ground in Summer, here it is held in abundance, forming a blue mirror across the valley floor. Among limestone pavements and boulder fields, the water held here allows alpine meadows and stands of dwarf Mugo Pine to flourish, amongst which was nestled my refuge for the night.

Heavy rain set in overnight, and by morning dark clouds threatened another downpour. I set off at a good pace down the valley, but soon had to slow as dozens of Alpine Salamanders were crawling along the path, drawn out by the rain - it was amazing to see so many up close. I was soon hearing the call of marmots as I wandered through an alpine meadow lusher and richer in flowers than any I had seen. Due to the solid bedrock of this hanging valley moisture is able to pool, forming richer soil and the lakes for which the area is named. The Triglav Lakes Valley was made an Alpine Conservation Park in 1924 – the seed from which the National Park grew.

This means the ecosystem here has been largely undamaged for almost a hundred years, with the result that natural patterns of vegetation can be seen at the landscape scale. This is something I was excited to see as it indicates more ecological variation and complexity. As I

descended through the valley I passed through the treeline. Scattered dwarf Mugo Pine gave way to Larch, which became gradually more abundant, until I was walking through a forest of Larch and Spruce, with the ground carpeted by Alpenrose, Alpine Heath, and Bilberry. I felt transported to the Caledonian Pinewoods, yet in Scotland it is rare to find native woodland so extensive, varied, and regenerating.

Eventually the forest opened to reveal an opal blue-green lake, the perfect place to rest in the sun. Yet before long the weather was coming in again, so I retreated to the Dom for the night. In the morning the descent became steeper, and changes more sudden – the forest quickly became denser and darker, dominated by towering veteran Spruce. The forest looked to be very ancient and in pristine condition. Beside the path were huge anthills, and diverse plants including Narrow-leaved Monkshood and Julian Starthistle, both rare and endemic to the Julian Alps. I could also hear how rich the forest was in the diversity of bird calls – Goldcrest, Firecrest, Coal Tit, Long-tailed Tit, Blackbird, White-backed Woodpecker, Treecreeper, and Kestrel. Again, these reminded me of Scotland – most of these birds can be heard in our woodlands – but the contrast here was in numbers. Left to its own devices, a forest constantly gains in complexity: the richness and abundance of bird species here is just one indicator of that. The forest here was so complex and rich in life because it had abundant space and time over which to develop.



Reminder of home - the Scottish Bluebell (Campanula rotundifolia) growing beside one of the Triglav Lakes

Having passed the lowest of the Triglav Lakes, the woods suddenly became thick with Beech, casting a dense shade over the rocky landscape. Suddenly the ground dropped away to reveal a view of hills thick with forest, which swept down to the shores of Lake Bohinj. The path turned the other way to cross over the mountain pass, following an old military road until I soon reached my refuge for the night – just in time to avoid the rain.

The last few days of my trip revealed a very different landscape outside the heavily protected 1st Conservation Zone of Triglav National Park. The area around Krn fell within the 2nd Conservation Zone: although Lake Krn was well protected, the land around it was grazed by sheep and cattle. Scrub was cleared to open up pasture. The flowers which were so abundant elsewhere were suddenly absent – and the nutrients added to the soil by livestock meant that a few species of rank grasses and nettles crowded out the diverse alpine flora. In short, an ecologically rich landscape had been made poor. Taken in context, there is certainly a place for traditional farming in these mountains. Nonetheless, it was striking to see how a landscape which is fairly ubiquitous in the uplands of Britain was an outlier in contrast to the pristine ecology of Triglav National Park.

Eventually I reached the magnificent Soča Gorge in the valley below, and followed it upstream. After taking a dip in its cool blue waters, I sat by the river and reflected what I'd seen during a week of wandering on my own. Although I'd expected to see exceptional diversity, I hadn't anticipated the sheer abundance and variety of plants I would encounter. Nor had I expected to see so much animal life at close quarters along my route. Most importantly, I hadn't perceived that I would recognise so many similarities between the ecology of the mountains of

Slovenia and our own country. Although the exceptional diversity found in the Julian Alps is driven by its steep topography, limestone geology, and continental location, the intactness of its ecosystems is a product of careful conservation. Perhaps Scotland could seek to imitate Slovenia in this – protecting and enhancing our mountain ecosystems so that they can fulfil their potential richness and diversity.

This trip has broadened my perspective on ecology, and I have realised the utility of this in helping to discern how our own ecosystems could be made richer. In Slovenia, the thriving of wild places seems inevitable, with careful conservation and broad public enthusiasm apparently behind it: in Scotland, there is much to be done in achieving this more widely. However, this is exactly the aim being worked towards by the John Muir Trust, without whose support this trip would not have been possible - my thanks to them. I hope that in the future our mountain environments will be in as fine a state as Slovenia's. This year as I study for a Masters in Biodiversity and Conservation, I look forward to relating my experience to my peers and encouraging them to pursue similar or more ambitious expeditions, as I intend to do in the near future. I hope that I can take forward what I've learned from this experience into a career centred on restoring Scotland's wild places.



Thanks for reading!