

# Internship at the Alpen Garten auf dem Schachen



A report on time spent working in a around the Schachen alpine garden

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All photos by author

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## Project Brief

For as long as I have loved plants, I have loved those that grow and flourish in extreme environments; deserts, salt water and of course, mountains. I also love having the opportunity to observe and work with plants in their natural habitat, I believe that much can be gained from developing a better understanding of the conditions and interactions between flora, fauna and environment that can be applied to gardens and collections that grow these plants ex situ.

I am currently finishing my horticultural apprenticeship at Kew Gardens and when planning this trip, I was looking into opportunities to round out my knowledge/experience working with alpiners in their natural habitat. Jennifer Wainwright-Klein from the Munich Botanical Garden very kindly offered to host me for just under three weeks to work with and learn from herself, other Munich staff and other visiting interns. I envisioned this project as an opportunity to learn horticultural practices from experts in alpine plant cultivation, learn about the relationship that the Schachen alpine garden has with the environment surrounding it as well as spend some time observing the plants and habitats outside of the garden to develop my understanding of the Bavarian alpine region.

## Itinerary & Report

<b>Date</b>	<b>Location</b>	<b>Activity</b>
01/07/24	London to Garmisch-Partenkirchen	Outbound travel to and overnight stay in G-P
02/07/24	Garmisch to Schachen	Pick up and induction to the alpine garden
03-05/07/24	Schachen Alpine Garden	Work Experience in the garden
07/07/24	Schachen	Hike up to Millehutte and down to Reintal

08-12/07/24	Schachen Alpine Garden	Work Experience in the garden
13/07/24	Schachen	Hike to Badestelle Partnachklamm
15-17/07/24	Schachen Alpine Garden	Work Experience in the garden
18/07/24	Munich to London	Return travel, after being dropped off at the Munich Botanical Garden

After arriving in the Alpen Garten, I was given an induction and tour of the collection. The Alpen Garten is certainly not a large garden at approximately 5 acres, but it contains a staggering diversity of plants from alpine regions across the globe. Its position at just under 2000m above sea level on the Bavarian side of the alps makes it an ideal environment for growing alpiners used to a long and snowy winter season.



Left to right – Fig 1, *Lilium martagon*, a common but beautiful plant found inside and outside the garden. Fig 2, *Sepervivens tectorum*, an example of a plant growing happily in a crevice

The first thing that stood out to me was the layout/design of the garden. Making use of the natural slope, combined with creative stone placements and use of different substrates and top dressing, Jennifer and her team have created multiple distinct micro-habitats that allow for the huge range of plants to flourish in the garden while also creating a clear distinction between the different alpine regions the plants are native to.



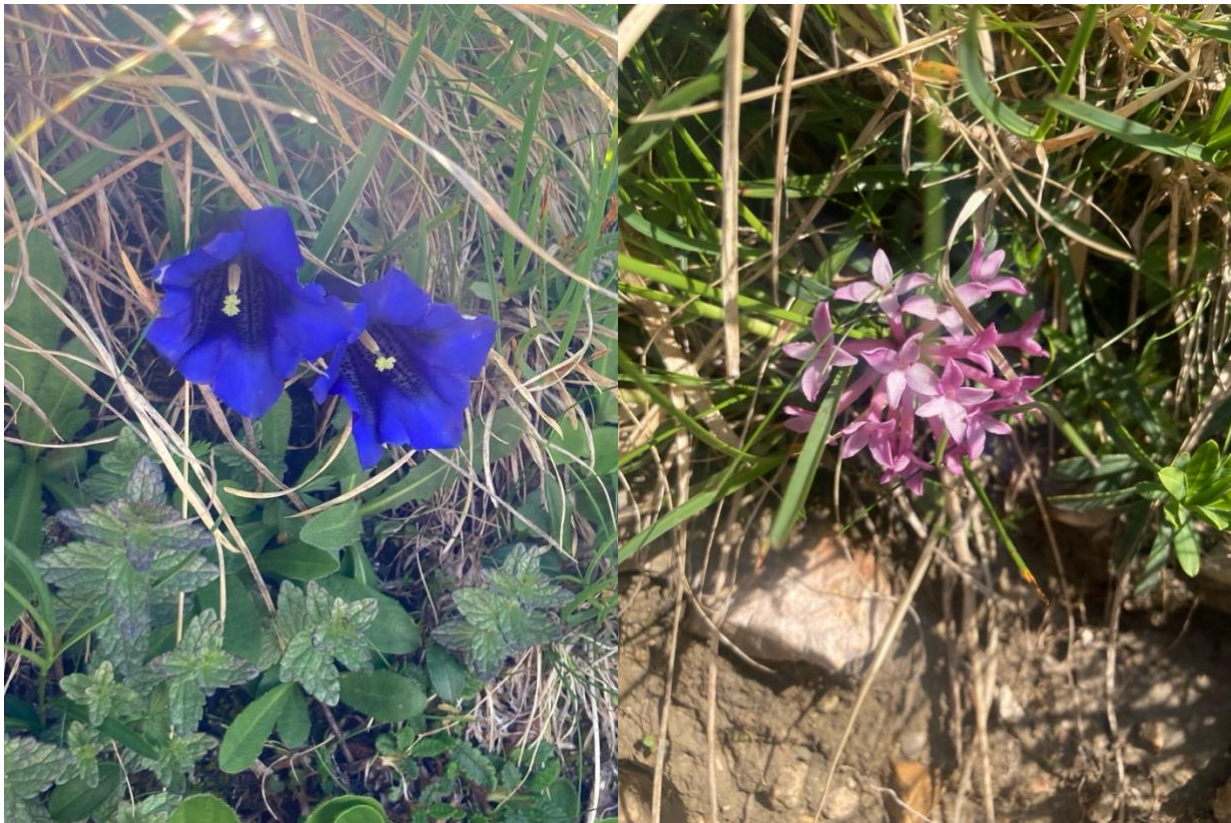
Left to right – Fig 3, Me, part way through planting up a bed in the renovated Himalayan portion of the garden. Fig 4, *Mecanopsis pucinea*, my personal favorite of the garden's collection

I was able to get some firsthand experience in how to create/set up these crevice gardens as I arrived partway through a renovation project covering some of the Himalayan, Pyrenees, and Rocky Mountain beds. Getting a chance to develop my sense for how slopes, stones, substrate choice and use of shade can alter the growing environment and how to best tailor that environment for alpins was a great learning experience. I also worked with the extensive collection of *Mecanopsis* that flourish in the Alpen Garten, which is a genus that cannot thrive in the dry heat of Kew summers.

The Alpen Garten is situated within the Schachen and Reintal Nature Reserve and as such there are quite strict restrictions on bringing material on-site and taking material off. Specifically, all the compost and substrate material must be sourced from the surroundings and all organic waste is taken to Munich to be sterilized and brought back up

the mountain. While this might appear to be a hinderance to horticultural efforts, the Schachen contains a wide variety of useful geologies; the Wetterstien mountains are primarily comprised of limestone on dolomite bedrock with large deposits of shale. Through agreement with the local government, the Alpen Garten is allowed to harvest some of these materials for horticultural purposes, which has the benefit of increased biosecurity as well as creating a stronger sense that the Alpen Garten is *of* the mountains it is built on.

One practice I got involved with while at the Alpen Garten recorded phenological reading from the plants within and near to the garden. Being based in Kew, I am familiar with the value of gathering climatic data, but not with the practice of phenology. There is something very tangible in observing and recording a flower budding, open, and go to seed and comparing the timings of the complete process to years past to build an understanding of the changing climate and weather patterns that all horticulturalists are at the mercy of.



Left to right – Fig 5, *Gentiana angustifolia*, growing wild on the rocky path up to the Millehutte. Fig 6, *Daphne striata*, found on the same path



Left to right – Fig 7, *Gymnadenia odoratissima* in its white form, near the base of the Reintal valley.  
Fig 8, *Dactylorhiza maculata*, less than a meter from where the previous orchid grew.

On the weekends – when the weather allowed – I could go on some exciting hikes near the Alpen Garten. Following some of the field guides and the garden staff's advice, I explored a sample of the local wildflowers and their habitats. From scree high up on the Schachentor and even higher up pastures near the Millehutte, and down into the dense forest that fills the valleys where the Reintal river begins. The Schachen is a noted spot for terrestrial Orchids; I met with several botany student groups from Munich who were hiking to find these plants and we were able to share good spots for observing specimens to tick off our lists.

## Costing

Expense Type	Description	Cost (£)
Outgoing Rail Travel	London to Paris	94
	Paris to Munich HBF	74.02
	Munich to Garmisch Partenkirchen	25.25
Return Travel	Munich HBF to Paris	74.02
	Paris to London	94
Accommodation	One night stay Moun10 Hostel	45

	Schchenhaus stay for remainder of trip	440
Groceries		122.36
Insurance	Travel insurance for trip	15

**Total**

**983.65**

## Outcomes

I gained a lot of valuable knowledge and experience through this trip - the Schachen is such a special place, unlike any garden or environment I have been in before.

I was exposed to more alpine plants during my time there than I had seen in all my life up until that point. The variety of terrestrial orchids alone would have been worth dedicating a trip to.

Learning what goes into running a garden inside a nature reserve was a real eye opener and I hope to apply some of the principles in economical design and use of material to my own work.

I have already been applying some of the practical tips and tricks for creating and maintaining crevice gardens in my work with arid plants in Kew's Princess of Wales conservatory and I've been liaising with some of the alpine team at Kew to pass on contacts for seed exchanges, collection trips and future work experience trips to the Alpen Garten. I now feel far more confident and capable in working with Kew's alpine collection that did prior to

The only regret I have from this trip is not having longer to spend visiting the Munich botanic garden itself. While the focus of this trip was the Alpen Garten, I would love to have an opportunity to return to Munich and see more of their collection, speak to their staff, and learn about their projects.