

Description of pre-conference excursions SER 2016 (Freising)

1. Touring the German Limestone Alps

Remnant and restored ecosystems from the valleys to the alpine zone

Date: Tuesday, 16 August to Saturday, 20 August 2016

Excursion leader: Prof. em. Dr. Jörg Pfadenhauer (Technical University of Munich)

Dr. Timo Conradi (Aarhus University)

Maximum number of participants: **20**



Costs (estimate as of 10.12.2015 – if fully booked): Around 360 € per Person, including breakfast, drinks and snacks on the bus.

Requirements: Hiking experience in mountains and alpine regions, good physical condition, hiking boots, weatherproof clothing, cotton sleeping bag ('Hüttenschlafsack') for Tutzinger Hütte (can be rented), rucksack for two nights in mountain huts, willingness to share bedrooms (!). The 1st day includes eight hours hike on uneven mountainous terrain.

Introduction: The Alps, the highest mountain system in Central Europe, extend over 1.200 km from west to east and – at their broadest part – around 240 km from north to south. The excursion offers the opportunity to get to know a section of the northern calcareous Alps: the pre-alps with summits between 1.500 and 1.800 m a.s.l. (Brauneck till Benediktenwand) and the high Alps which reach up to almost 3.000 m a.s.l. (Wetterstein range with Zugspitze mountain).

Climatically, the pre-Alps are moister than the high Alps; the timberline of the latter is at 200 m higher level (ca. 2.000 m a.s.l.). The vegetation consists of beech-fir-spruce forests in the lower and middle montane belt and of (oreo-boreal) spruce (*Picea abies*) and pine (*Pinus cembra*) forests in the upper montane belt. The subalpine belt between timber- and treeline is covered by 'krummholz'

(*Pinus mugo*), intermingled with subalpine meadows; in the alpine belt grasslands, scree vegetation and (alpine) mires dominate. The valleys are of tectonic origin, were transformed by glaciers during the Pleistocene, and drain large alpine rivers such as Isar and Loisach; they are filled with scree material, moraines and river sediments, and the natural vegetation includes large mires (fens and raised bogs) as well as species-rich (unless fertilized) wet and dry meadows. During the excursion, we explore typical forests, grasslands and mire; we will discuss natural erosion processes and well as restoration measures in different ecosystems along an altitudinal gradient.



Near-natural bog in the Loisach valley

Excursion programme

Day 1 (Tuesday, 16 August 2016)

Transfer Freising to Lenggries (690 m a.s.l.) by bus; departure Freising at 6:30 am
8:00 gondola ride to Brauneck summit (Brauneck-Kabinenbahn)

Hike from Brauneck (1.555 m a.s.l.) via Probstalm, Benediktenwand 1.801 m a.s.l.) to Tutzinger Hütte (1.335 m a.s.l.): montane and upper montane beech- und spruce forests, natural and anthropogenic grasslands, tall forb communities; effects of modern alpine pasturing systems and tourism on landscape and vegetation.

Lodging: mountain hut Tutzinger Hütte (German Alpine Association)

Day 2 (Wednesday, 17 August 2016)

In the morning hike down to Benediktbeuern (617 m a.s.l.): different montane forest ecosystems; natural erosion complex and torrent regulation (Lainbach Valley). In the afternoon: Peatland restoration and results of gas exchange measurements on the former fertilized meadows and farmland in the Loisach-Kochelsee mire complex. Guided tour by staff of the “Zentrum für Umwelt und Kultur”. Visit to the famous church of the former Benedictine abbey Benediktbeuern (today educational institution of the Don Bosco Salesians), one of the eldest monasteries of Southern Germany.

Lodging: [Gasthof “Herzogstand”, Benediktbeuern](#)

Day 3 (Thursday, 18 August 2016)

All-day transfer by bus; ca. 66 km

[Glentleiten Open air museum](#) (showing historic farmhouses from southern Bavaria); guided tour by museum staff.

Afternoon: Mire complex in the Upper Loisach valley between Eschenlohe and Garmisch-Partenkirchen (bogs, fens, wet meadows). “Buckelwiesen” (hummock meadow): species-rich calcareous grassland on relicts of late Pleistocene polygon soils near Klais (933 m a.s.l.).

Lodging: [Landgasthof “Sonnenhof”, Klais near Mittenwald](#)

Day 4 (Friday, 19 August 2016)

In the early morning transfer by bus to the valley of Elmau at the foot (around 1.000 m a.s.l.) of the Wetterstein mountain chain; hike up Schachen mountain to former alpine pastures just below the alpine treeline; 1.870 m a.s.l. Montane beech-spruce-fir forests (oreonemoral), upper montane spruce and pine forests (oreoboreal), subalpine krummholz and tall forb communities, species-rich subalpine meadows.

In the evening: Visit to the impressive King’s House at Schachen (hunting lodge of the Ludwig II, the “Fairytale King”).

[Lodging: private lodge “Schachenhaus”](#)

Day 5 (Saturday, 20 August 2016)

Hike to Fraunalpl (2.100–2.400 m a.s.l.): Vegetation of the alpine belt (alpine grassland, scree vegetation, alpine mires, rock crevice vegetation etc.). Effect of sheep grazing on vegetation and soils. Afternoon hike down to Elmau (altitude difference around 1.300 m);

Return to Freising by bus. Arrival at Freising ca. 8 p.m.

