Most welcome to the course

Practical and pedagogical skills in vascular plant field botany (3 ECTS/HEC)

9-14 August 2020 at Tovetorp field station, Södermanland, Sweden

Practical experience with morphology based species identification is in high demand in both basic and applied biological research. You will acquire species identification, field collection and habitat survey skills, as well as learn how to prepare specimens for preservation in museum collections. The course is composed of two parts. In a first preparatory part, the students should read assigned literature. In the second part of the course at the field station Tovetorp (58°56'50"N, 17°08'56"E, see e.g. Google Earth) in Södermanland 40 km SW of Södertälje, there will be excursions during day-time and teacher-led lectures combined with student presentations and hands-on exercises in e.g. Case studies during evenings. The participants will also perform an inventory. Tovetorp is strategically located with species rich habitats as seashores, rich fens, calcareous rocks, broadleaved deciduous forests and coniferous forests as well as bogs and lakes nearby.

Language

Teaching will be in English. Scientific species names will be used for species.

Learning outcomes

- (i) See 300-400 vascular plant species in the field and gain understanding on keying out species with the help of floras.
- (ii) Develop a working knowledge of performing, summarizing, and presenting an inventory of vascular plant species of an area.
- (iii) Gain introductory knowledge of the pedagogic method Case-studies and how this method can be used in teaching of species and nature conservation
- (v) Build familiarity with the different categories of species included under the term Conservation biology species
- (vi) Develop a working knowledge on how to collect and prepare herbarium specimens

Requirements for examination

Pass or Fail. To pass, the students should:

- 1. Have full attendance at field course
- 2. Perform, summarize and present an inventory during the field course (in groups)
- 3. Actively participate in discussions during the field course

Information

Organizer and teacher: Göran Thor, SLU, Uppsala, <u>goran.thor@slu.se</u> tel. 018-672410 or 073-6297465.

Lodging and food: 2-3 persons will share room. We will have breakfast (07.30) and dinner (18.00) at Tovetorp and bring field lunch.

Literature: Krok & Almquist, Svensk flora (29 ed.), a Norwegian, Danish or Finnish flora, Flora Europaea or Stenberg & Mossberg.

To bring: thermos, swimwear (to study water plants), GPS and compass (preferably), hand lens (8–10x magnification), sheets, dinner for Sunday 9 August.

TBE: There are ticks in the area. Vaccination against TBE is strongly recommended.

https://www.iamat.org/country/sweden/risk/tick-borne-encephalitis

Schedule

Depending on the weather, there might be minor changes.

Sunday 9 August

Minibuses will start from SLU, Uppsala. You can come to the railway station in Uppsala (15.00) or the railway station Södertälje Syd (16.45). We will arrive Tovetorp around 18.00. There will be no-one in the kitchen this evening and everyone should bring her/his own dinner. Preferably, bring something just to warm up.

19.00-21.00 Introduction to the course. Why and how do we teach about species knowledge?

Monday 10 August

8.30–18.00 Lakes and floating mats (S end of Lake Likstammen, Lomsjön, Fräkenkärret, Sidsjön).
19.00–21.00 What to include in a vascular plant knowledge course? Introduction to Case studies.
Determination of collected material.

Tuesday 11 August

8.30–18.00 Rich fen (Skräddarkärret), Furholmen and a park surrounding Tullgarn castle. 19.00–21.00 Determination of collected material, Case studies

Wednesday 12 August

8.30–18.00 Project work (inventory). 19.00–21.00 Determination of collected material.

Thursday 13 August

8.30–18.00 Plants nearby barns and in towns (Vagnhärad, Hunga, Trosa), 19.00–21.00 Presentation of project works, final remarks

Friday 14 August

-09.00 Packing and cleaning
 9.00-13.00 Sea shore meadow and broadleaved deciduous forest (Näset).
 13.00-16.00 Back to railway stations (14.00 Södertälje Syd, 16.00 Uppsala)

Course literature

Hallingbäck, T. (red.) 2013. *Naturvårdsarter*. ArtDatabanken Rapporterar 14. SLU, Uppsala. Available at https://www.artdatabanken.se/globalassets/ew/subw/artd/2.-var-verksamhet/publikationer/9.-naturvardsarter/rapport_naturvardsarter.pdf

Krok, Th. O. B. N. & Almquist, S. 2001. *Svensk flora*. 29 ed. Liber, Stockholm. (other floras for northern Europe also work)

Rydberg, H. & Wanntorp, H. 1999. Sörmlandsfloran. Botaniska Sällskapet

Stenberg, L. & Mossberg, B. 2018. Nordiska floran. Wahlström & Widstrand.

Strand, M., Aronsson, M. & Svensson, M. 2019. *Klassificering av främmande arters effekter på biologisk mångfald i Sverige – ArtDatabankens risklista*. ArtDatabanken Rapporterar 21. SLU, Uppsala. Available at https://www.artdatabanken.se/publikationer/artdatabanken-rapporterar/frammande-invasiva-arter/

Sundberg S., Carlberg T., Sandström J. & Thor G. (eds.) 2019. Värdväxters betydelse för andra organismer – med fokus på vedartade värdväxter, *ArtDatabanken Rapporterar 22*, SLU. Available at file:///C:/Users/thor/AppData/Local/Microsoft/Windows/INetCache/IE/VP59V4S8/vardartsrapport.p df

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