Sampling of the selected taxa from the pink family (*Caryophyllaceae*)

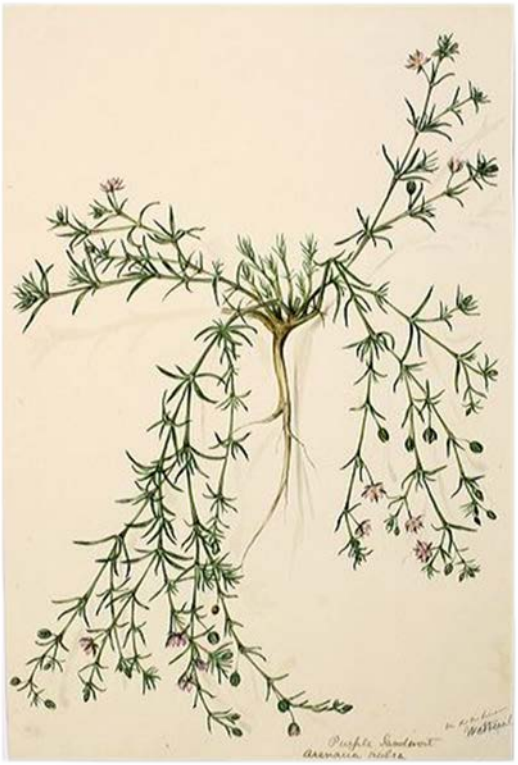
Appeal for cooperation

Dear colleagues,

I would like to ask you for your help with the collection of plant material for the intended project focusing on genetic studies of the genus *Spergularia* and its relatives. Many of you travel abroad, either because of research or just for a trip, and you certainly meet many representatives of the local floras. So, if you come across some representatives of the below mentioned genera, I will be very grateful if you make the time and collect a few individuals for me. Detailed instructions on what and how to sample are in the following paragraphs.

What to sample

Spergularia



Important characters:

- annual or perennial herbs with radially arranged stems
- flowers pentamerous, in various shades of pink (from white to mauve)
- **leaves opposite**, acicular, with **membranous stipules** at the base

Possibly confusable with:

- other species from the *Caryophyllaceae* family (e.g. *Gypsophila muralis*, *Arenaria* sp., *Scleranthus* sp., *Minuartia* sp.) or other families (*Linum catharticum*, *Polycnemum* sp.)
  ! none of these species has stipules

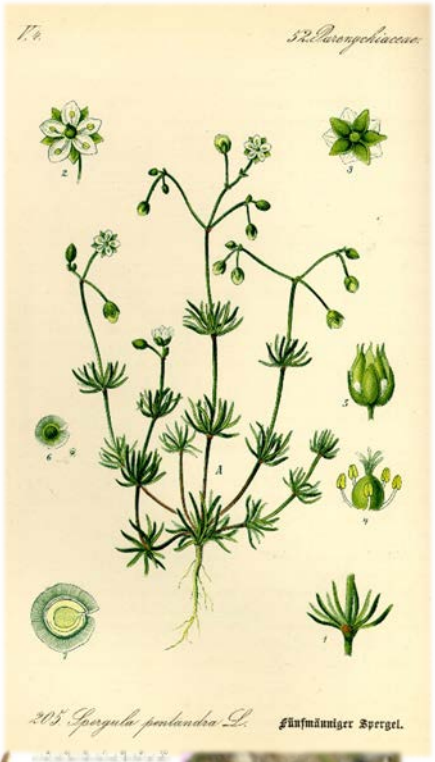
Distribution:

- two centers of diversity: Mediterranean region (S Europe, N Africa) and S America (esp. Chile)
- many species can be, however, found in other regions too; some species are distributed (sub)cosmopolitally
- the only general rule is that the *Caryophyllaceae* family rather avoids the tropics

Habitats:

- very wide range, especially:
  - coastal or inland salt marshes, secondarily salted soils (road margins, salt mines, spoil tips)
  - maritime rocks and cliffs, crevices
  - shores and exposed bottoms of ponds and lakes, vernal pools
  - trampled lawns, field and path margins, other kinds of disturbed lands
  - dry sandy stands, sandpits
  - even deserts and semi-deserts

Spergula



Important characters:

- annual, rarely perennial herbs
- flowers pentamerous, white
- **leaves opposite**, often **fasciculate** in pseudo-whorls
- **membranous stipules** at the leaf base

Possibly confusable with:

- sometimes confused with *Spergularia*, which, however, is not a problem since the both genera are of interest to me

Distribution:

- temperate zone of Eurasia, esp. Europe and the Mediterranean region, but also S America (Patagonia)
- introduced worldwide

Habitats:

- fields, fallow lands, disturbed stands with sparse vegetation
- sandy places, pine forests, eroded rocks

Rhodalsine geniculata (Minuartia geniculata)

Important characters:

- perennial herb, richly branched
- flowers pentamerous, pink
- **leaves opposite**, acicular to elliptical, **without stipules**

Possibly confusable with:

- similar to some representatives of the genus *Spergularia*, although it does not possess stipules. It does not matter much since the both genera are of interest to me.

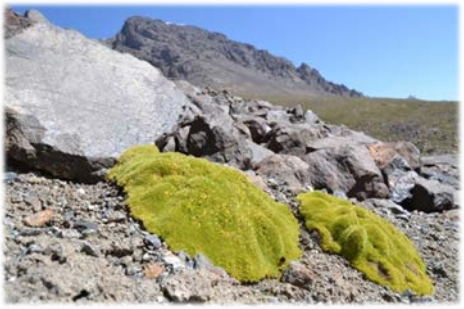
Distribution:

- Mediterranean region (S Europe, N Africa)

Habitats:

- dry stands in the vicinity of the sea, disturbed lands

Thylacospermum caespitosum



Important characters:

- low perennial herbs with woody bases, forming compact spiny cushions
- flowers pentamerous, rarely tetramerous, greenish

Distribution:

- high mountains in Asia – India, Nepal, Middle Asia, China

Habitats:

- debris fields, pastures

How to sample

- at least **10–20 plants per population**, if possible
  - plants should be collected in whole, i.e. including the basal parts which hold the stems together
- each plant should be at least kept as a **herbarium specimen**
  - **ripe plants with seeds** are preferred, so that they can be grown and used for analyses requiring fresh material (chromosome counting etc.)
- if possible, collect a part of each individual (one lateral branch should be enough) and **dry it in silica-gel** (or use other method of conservation for DNA extraction, e.g. CTAB fixation)
  - always mark clearly which dried part belongs to which herbarium specimen
  - in case of individuals too small to have enough material left for a useful herbarium specimen after cutting off the part for drying in silica-gel, collect a double number of individuals from the population and use one half for herbarium specimens and put the other half into silica-gel
- it is also possible to collect only **seeds** (from each individual separately, do not mix up) if the plants are ripe, for example if you are afraid of the border check-up
- please, supply each sampled population with the **exact locality** (if possible, locate the population with a GPS receiver), **collection date**, and at least basic **information about the stand** (biotope, type of substrate, orientation etc.)
  - if possible, you may also document the locality with a photo or species list or phytosociological relevé
- it is worth to collect even widespread species like *Spergularia rubra* or *Spergula arvensis*, especially out of Central Europe
- if you are unsure about the right determination, please collect the plants anyway. It is better to throw them later away than to miss a potentially important locality.

Thank you in advance for your cooperation!

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