

MIREN Rocks Frankenjura

Species identification booklet

Frankenjura



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Sources:

Plant photos by Flora Helvetica. 6th Edition

Plant Sketches by Rothmaler Exkursionsflora von Deutschland, Atlasband, 12th Edition 2013, Springer

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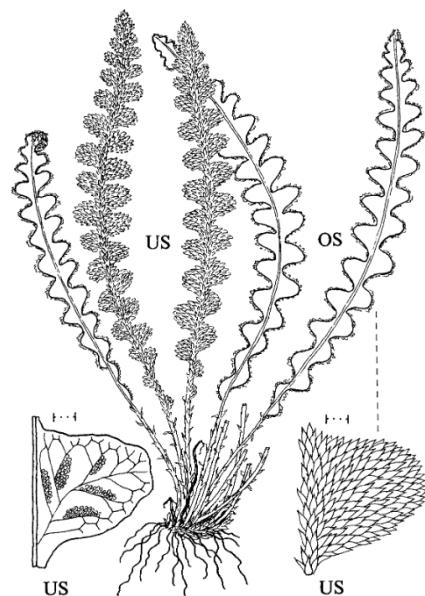
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Asplenium ceterach (Aspleniaceae) L.



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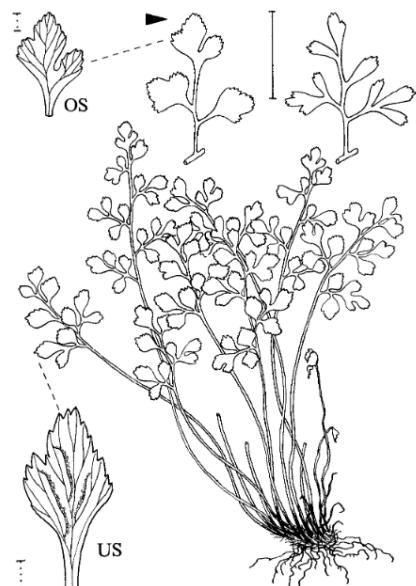


Milzfarn – *Asplenium ceterach* 0,05–0,20
2 6–8 ▽

Asplenium ruta-muraria (Aspleniaceae) L.



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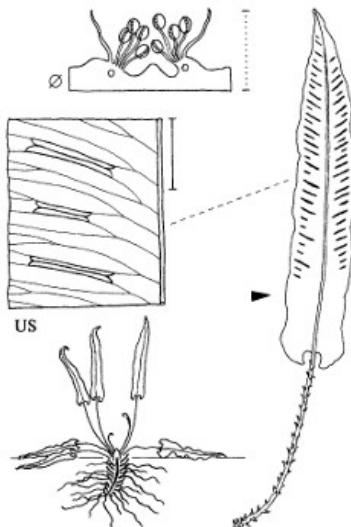


Mauer-Streifenfarn, Mauerraute –
Asplenium ruta-muraria 0,03–0,15 2 7–9

Asplenium scolopendrium (Aspleniaceae) (L.) Newman *Phyllitis scolopendrium*



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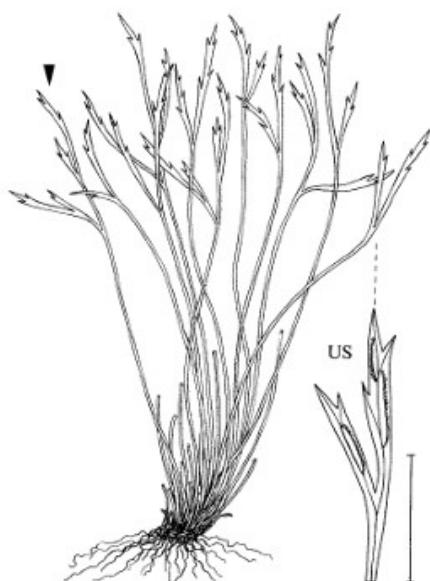


Hirschzunge – Asplenium scolopendrium
0,15–0,50 ♂ 7–8 ▽ (Pfl immergrün)

Asplenium septentrionale (Aspleniaceae) (L.) Hoffm.



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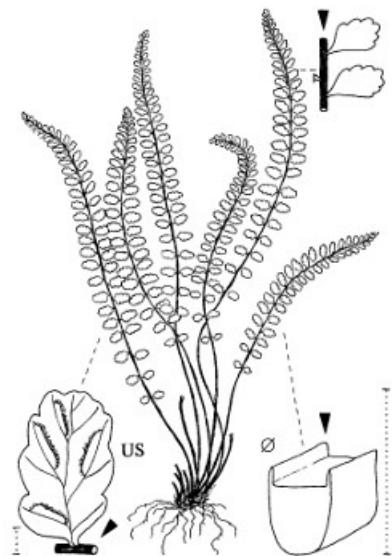


**Nördlicher Streifenfarn – Asplenium
septentrionale** 0,08–0,15 ♂ 7–8

Asplenium trichomanes (Aspleniaceae) L.



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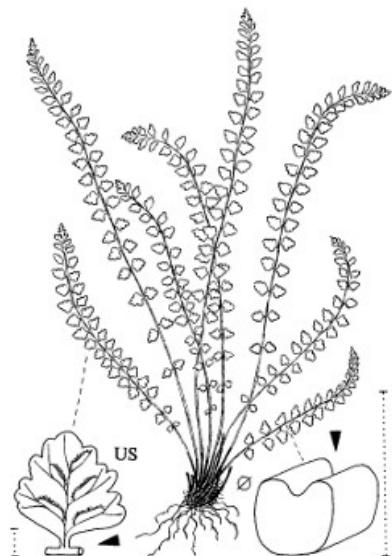


****Braunstieler St. – *A. trichomanes* s. l.**
0,05–0,30 ♂ 7–8 (BlStiel u. Bl-Spindel bis
zur Spitze braun)

Asplenium viride (Aspleniaceae) Huds.

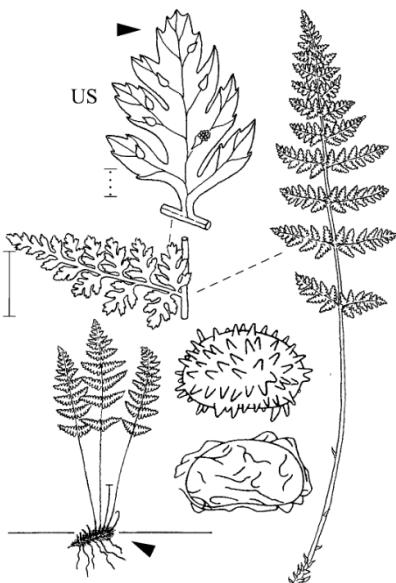


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Grünstieler Streifenfarn – *Asplenium*
viride 0,05–0,20 ♂ 7–8 (BlStiel nur am
Grund braun)

Cystopteris fragilis (*Cystopteridaceae*) (L.) Bernh.

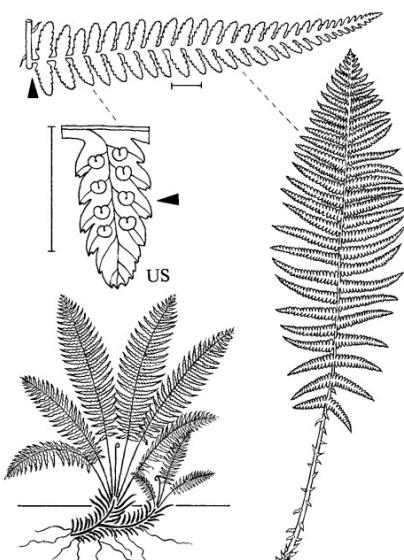


Zerbrechlicher B. – *C. fragilis* 0,10–0,50 24
7–9; (Spore unten: Runzelsporiger B. – *C. dickieana*) ✸ S. 781

Dryopteris filix-mas (*Dryopteridaceae*) (L.) Schott



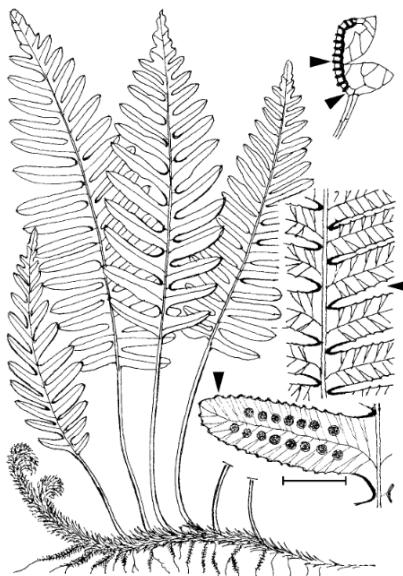
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Gewöhnlicher W. – *D. filix-mas* 0,30–1,20
24 7–9

***Polypodium vulgare* (Polypodiaceae) L.**

Leaf blade 3.5 - 5 times longer than broad, spores ripen July-august



Gewöhnlicher Tüpfelfarn – *Polypodium vulgare* 0,10–0,50 ♂ 8–9 (Sori schleierlos)

***Polypodium interjectum* (Polypodiaceae) Shivas**

Leaf blade 1.5 - 2.5 (3) times longer than broad, spores ripen august-september



Gesägter T. – *P. interjectum* 0,10–0,50 ♂ 9–10 (Sori schleierlos)

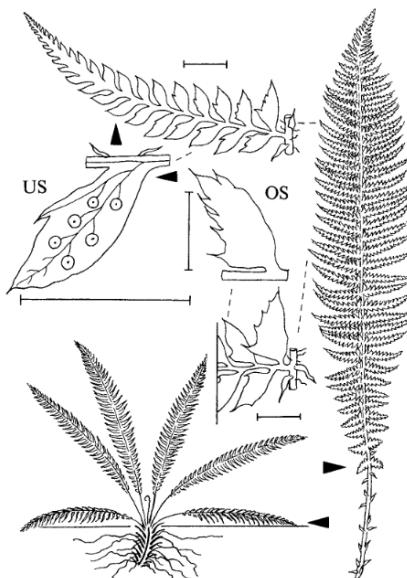
Polystichum aculeatum (Polypodiaceae) (L.) Roth



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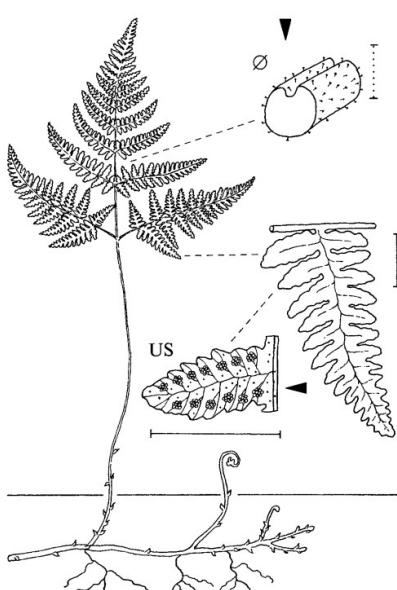


Dorniger Sch. – *P. aculeatum* 0,60–1,00 ♀
8–9 ▽ (Bl ledrig, immergrün)

Gymnocarpium robertianum (Woodsiaceae) (Hoffm.) Newman



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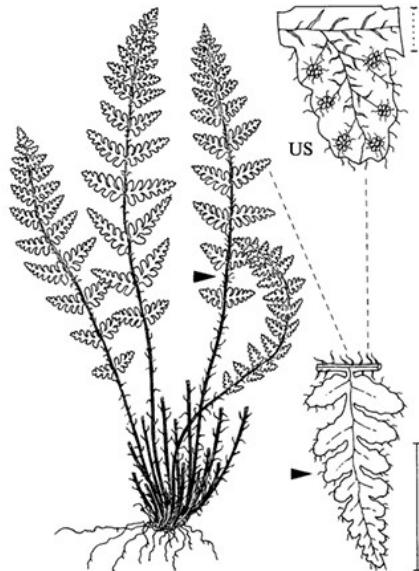


Ruprechtsfarn – *Gymnocarpium*
robertianum 0,15–0,55 ♀ 7–8

Woodia ilvensis (Woodsiaceae) (L.) R. Br.



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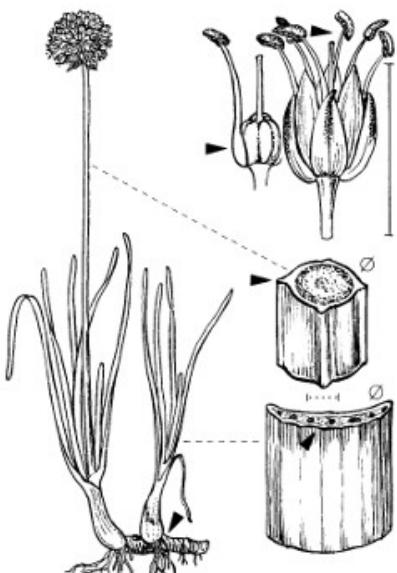


Rostroter W. – *W. ilvensis* 0,10–0,20 ♂
7–8 ▽

Allium lusitanicum (Amaryllidaceae) Lam. *Allium senescens*

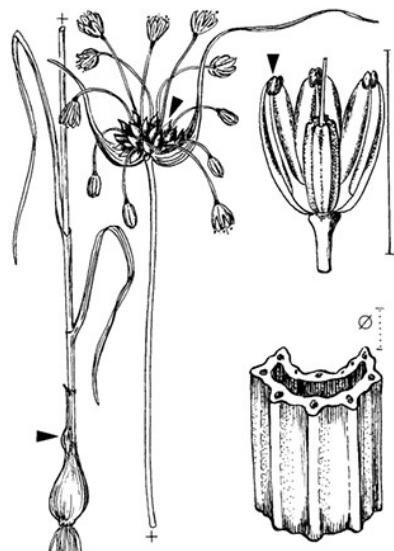


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Berg-L. – *A. lusitanicum* 0,15–0,30 ♂ 7–8
▽ (lilapurpur. Ohne Blathäutchen)

Allium oleraceum (Amaryllidaceae) L.



Gemüse-Lauch – *Allium oleraceum*
0,30–0,60 ♂ 7–8 (lilapurpur. Ohne
Blathäutchen)

Bupleurum falcatum (Apiaceae) L. Subsp. *faclatum* for left image

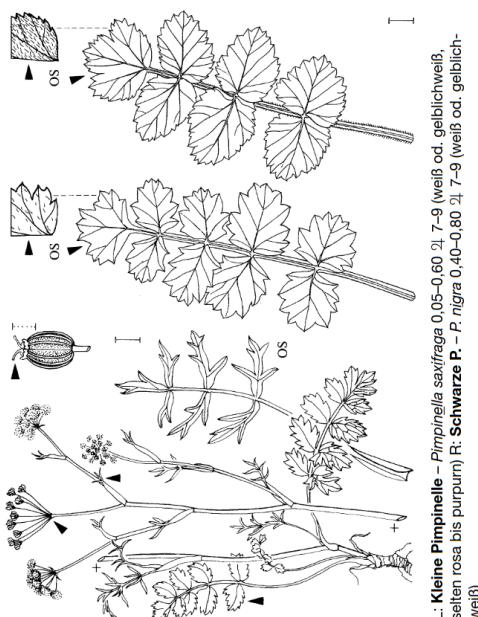


Sichel-H. – *B. falcatum* 0,20–1,00 ♂ 7–9
(gelb)

Pimpinella saxifraga (Apiaceae) L.



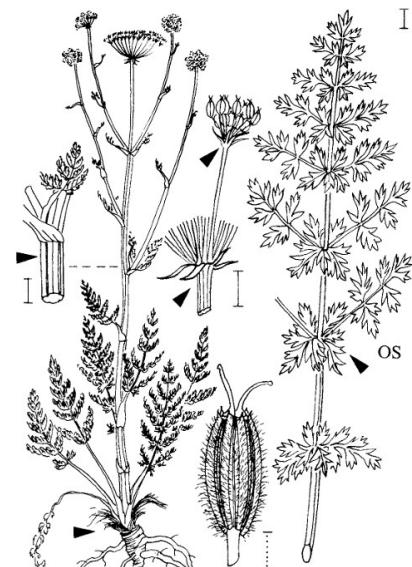
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Seseli libanotis (Apiaceae) (L.) W. D. J. Koch *Libanotis pyrenaica*



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Berg-Heilwurz – *Seseli libanotis* 0,60–1,20 ♂ 7–8 (weiß od. rötlich)

Vincetoxicum hirundinaria (Apocynaceae) Medik.



Weiße Schwalbenwurz – *Vincetoxicum hirundinaria* 0,30–1,40 ♂ 5–8 (gelblichweiß)

Hedera helix (Araliaceae) L.



Gewöhnlicher Efeu – *Hedera helix*
0,10–20,00 ♂ 9–11 (gelbgrün. Fr schwarz)

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Anthericum ramosum (Asparagaceae) L.



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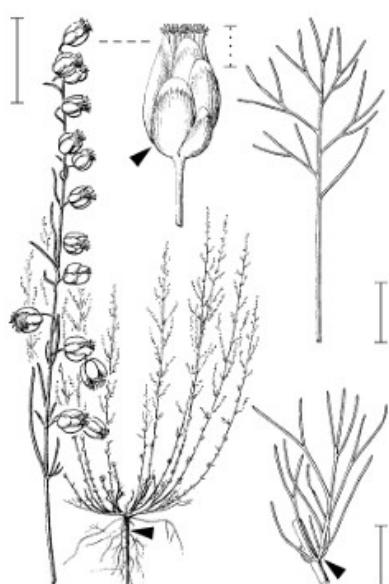


Ästige G. – *A. ramosum* 0,30–0,80 ♂ 6–8
▽ (weiß)

Artemisia campestris (Asteraceae) L. Subsp. *campestris* for left image



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**Feld-B. – *A. campestris* 0,30–0,60 ♂
8–10 (gelb od. rötlich. Bl zuerst seidig
behaart, verkahlend) ↗ S. 791

Artemisia vulgaris (Asteraceae) L.



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Gewöhnlicher Beifuß – *A. vulgaris*
0,60–1,50 ♂ 7–11 (gelblich od. rotbraun)

Buphthalmum salicifolium (Asteraceae) L.



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Weidenblatt-Rindsauge – *Buphthalmum salicifolium* 0,15–0,70 ♂ 6–9 (goldgelb)

Carlina acaulis (Asteraceae) L. Subsp. *caulescens* for right image



Schmalblättrige Silberdistel – *Carlina acaulis* subsp. *caulescens* (0,03–)0,20–0,60
⌚ 7–9 ▽

Cota tinctoria (Asteraceae) L. *Anthemis tinctoria*

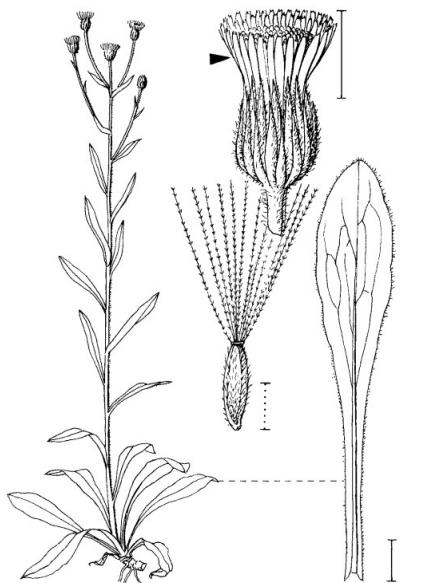


Färber-Hundskamille – *Anthemis tinctoria*
0,30–0,60 ⌚ 6–9 (goldgelb, RöhrenB
goldgelb)

Erigeron acris ssp. acris (Asteraceae) L. Left image not subspecies



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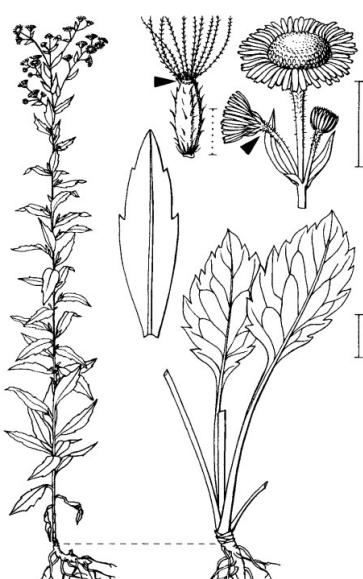


**Scharfes B. – *E. acris* subsp. *acris*
0,10–0,30 ♂ 2 (5–)6–7 (rötlich od. bläulich,
RöhrenB gelb) ↗ S. 790

Erigeron annuus ssp. annuus (Asteraceae) (L.) Desf. Left image not subspecies



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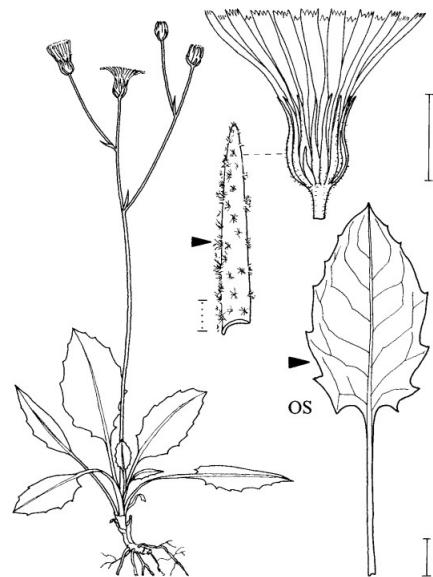


*Feinstrahl-Berufkraut – *Erigeron annuus*
0,50–1,00 ♂ 6–9 (weiß od. hellviolett,
RöhrenB gelb) ↗ S. 790

Hieracium bifidum (Asteraceae)

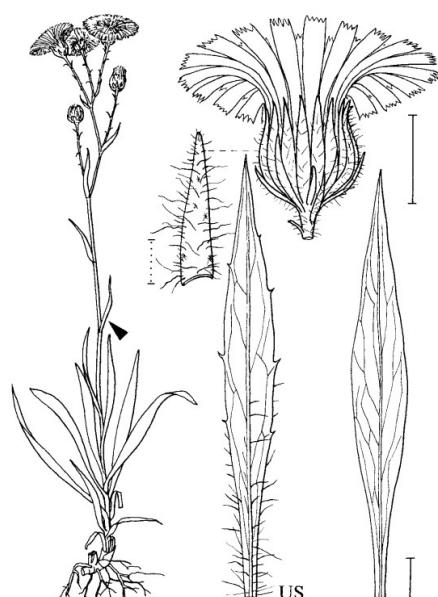


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*Gabel-Habichtskraut – *Hieracium bifidum* 0,10–0,40 ♂ 5–7 (goldgelb. Bl grün bis blaugrün)

Hieracium bupleuroides (Asteraceae) C. C. Gmel.



*Hasenohr-H. – *H. bupleuroides* 0,20–0,60 ♂ 7–8 (gelb. Bl blaugrün)

Hieracium calodon (Asteraceae) Tausch *Pilosella auriculoides*



Hieracium franconicum (Asteraceae) (Griseb.) Zahn



Hieracium harzianum (Asteraceae) Zahn



"Vulgate" type.

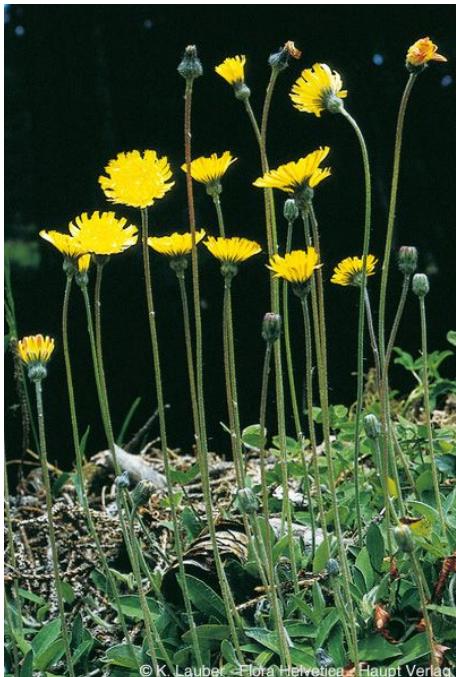
- Sheets 0, sit 1-3
- Sheets 5-10(-20), blue. green, lancettl. to br lancetly., coarsely 1-3-toothed, in the upper third completely margined.
- Overall inflorescence loosely panicled.
- Branches 5-10.
- Head peduncles scattered hairy, moderately hostile, up to abundant. flaky.
- Heads 10-30. bracts, blunt to pointed, hair and glands moderate, to richly flaky at the margins.

Hieracium murorum agg. (Asteraceae) L.



*Wald-H. – *H. murorum* 0,20–0,60 ♂ 5–8
(gelb od. goldgelb)

Hieracium pilosella (Asteraceae) L. *Pilosella officinarum*



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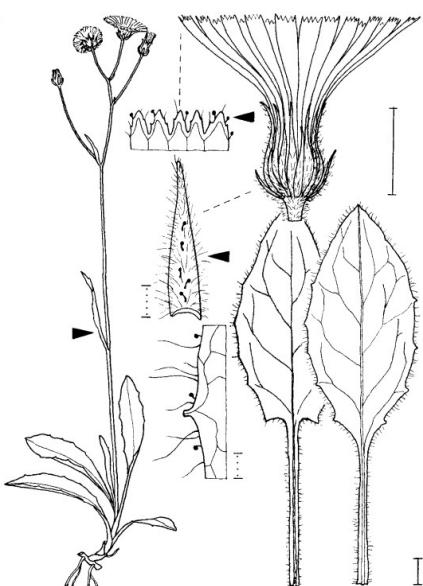


Kleines Mausohrhabichtskraut – *Pilosella officinarum* 0,05–0,30 ♂ 5–10 (schwefel-gelb, RandB useits meist rotstreifig)

Hieracium schmidti (Asteraceae) agg.



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Bleiches Habichtskraut – *Hieracium schmidti 0,10–0,40 ♂ 5–7 (helle gelb. Bl blaugrün)

Hieracium schneidii (Asteraceae) Schack et Zahn



HERBARIUM MUSEI PARISIENSIS

Lactuca perennis (Asteraceae) L.



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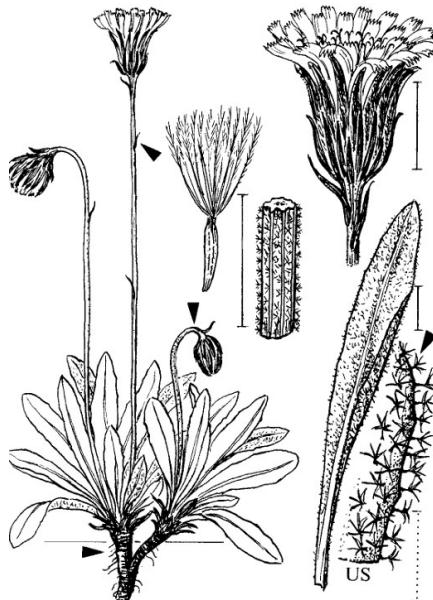


Blauer L. – *L. perennis* 0,30–0,50 2f 5–6
(blau od. blauviolett. Bl blaugrün)

Leontodon incanus (Asteraceae) (L.) Schrank



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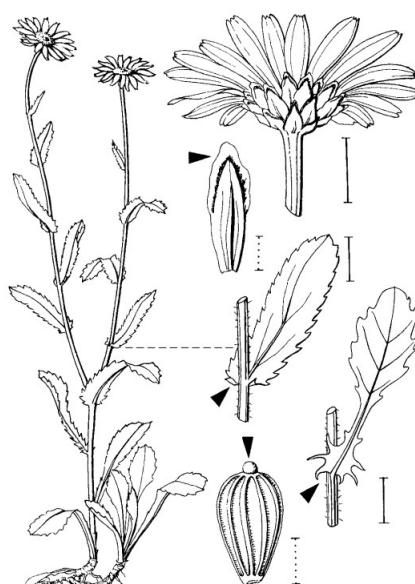


Grauer L. – *L. incanus* 0,15–0,45 2 5–6
(goldgelb)

Leucanthemum vulgare (Asteraceae) L. *Leucanthemum ircutianum*



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*Wiesen-Margerite – *Leucanthemum ircutianum* 0,20–0,80 2 6(–10) (weiß,
RöhrenB gelb) ✎ S. 791

Mycelis muralis (Asteraceae) (L.) Dumort.



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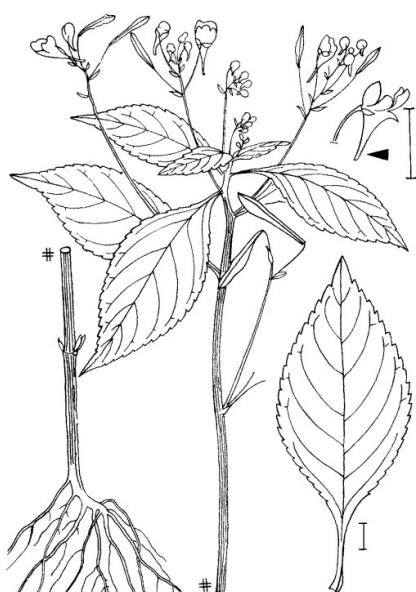


Gewöhnlicher Mauerlattich – *Mycelis muralis* 0,40–0,80 ♀ 7–8 (hellgelb)

Impatiens parviflora (Balsaminaceae) DC.



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Kleinblütiges S. – *I. parviflora* 0,30–0,60
⌚ 6–9 (gelb)

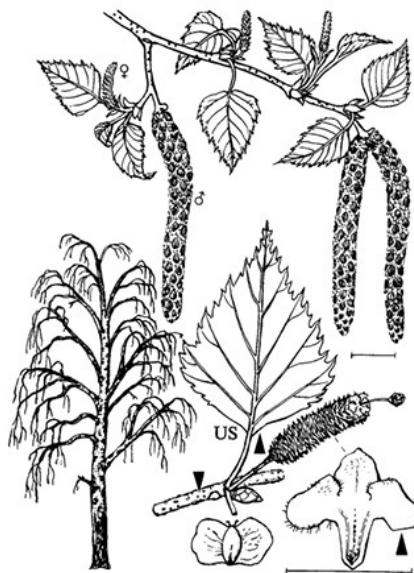
Betula pendula (Betulaceae) Roth



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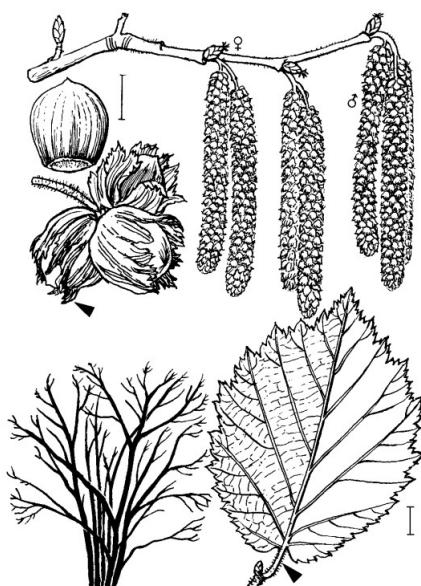


Gewöhnliche B. – *B. pendula* Bis 25,00 ♂
4–5 (♂ hell bräunlichgelb, ♀ grün)

Corylus avellana (Betulaceae) L.



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Gewöhnliche Hasel – *Corylus avellana*
2,00–6,00 ♂ 2–4 (♀ grün, Narben rot,
♂ grünlichgelb)

Asperugo procumbens (Boraginaceae) L.



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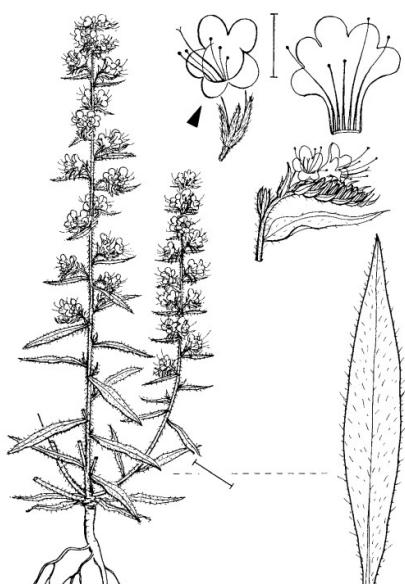


Schlängenäuglein – *Asperugo procumbens* 0,20–0,50 ♂ ① 5–8 (erst violett, dann blau, Schlundschuppen weiß)

Echium vulgare (Boraginaceae) L.



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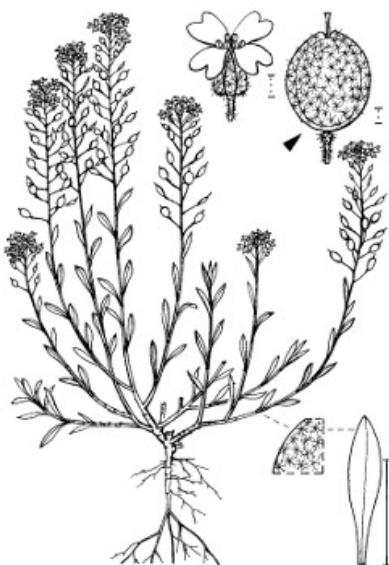


Gewöhnlicher Natternkopf – *Echium vulgare* 0,25–0,80 ♂ 5–10 (erst rosa, dann leuchtendblau)

Alyssum montanum (Brassicaceae) L.

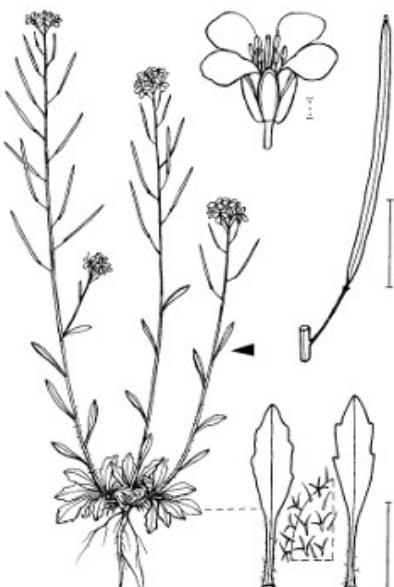


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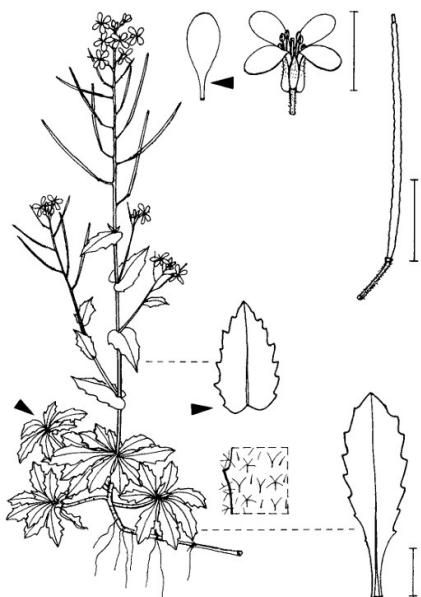
**Berg-St. – *A. montanum* 0,10–0,20 ♂
3–5 ▽ (goldgelb)

Arabidopsis lyrata subsp. *petraea* (Brassicaceae) L. *Cardaminopsis petraea*



Felsen-Sch. – *A. petraea* 0,10–0,25 ♂ 5–7
(weiß)

Arabis alpina (Brassicaceae) L.



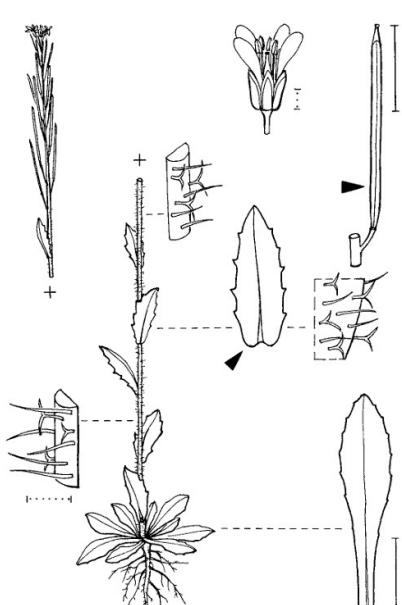
Alpen-G. – *A. alpina* 0,05–0,40 ♀ 3–10
(weiß)

Arabis hirsuta (Brassicaceae) L.



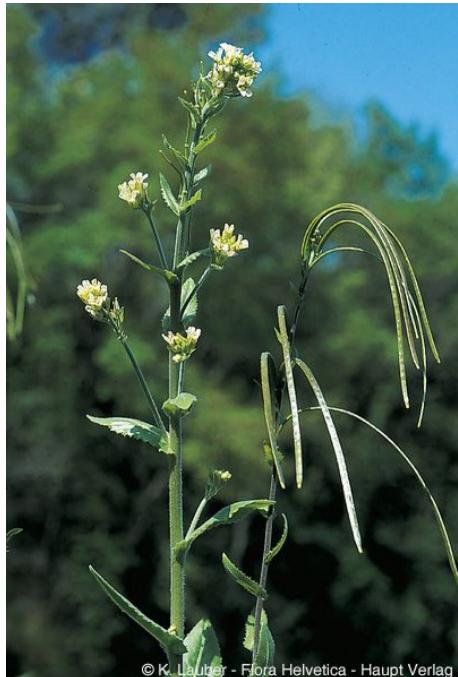
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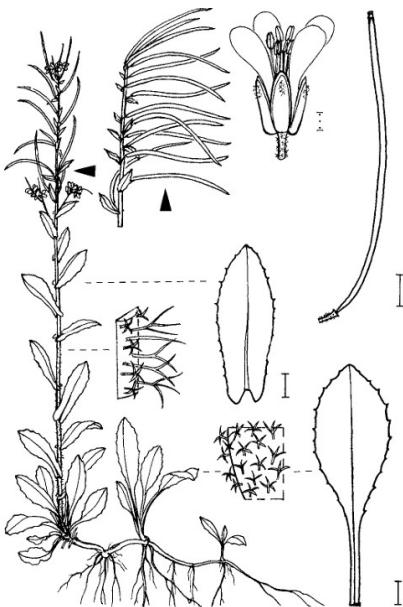


Behaarte G. – *A. hirsuta* 0,10–0,80 ♂ 2–7 (weiß)

Arabis turrita (Brassicaceae) L. *Pseudoturritis turrita*

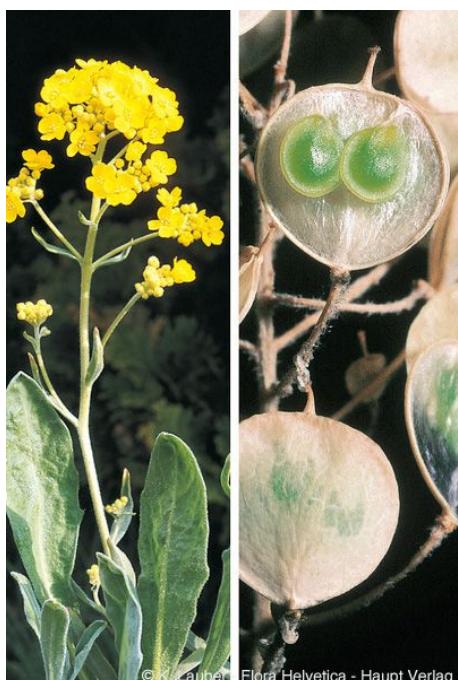


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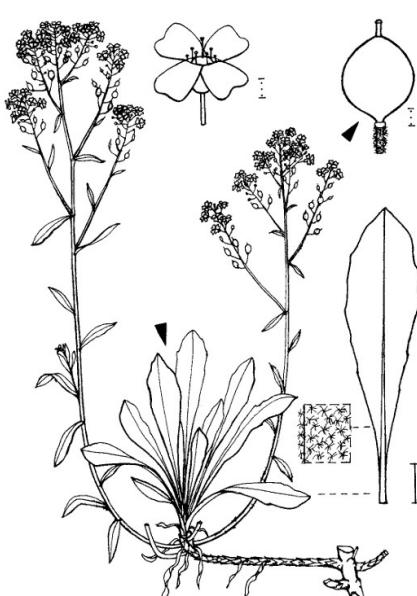


Turmgänsekresse – *Pseudoturritis turrita*
0,10–0,70 ♀ 4–6 (gelblichweiß)

Aurinia saxatilis (Brassicaceae) (L.) Desv.



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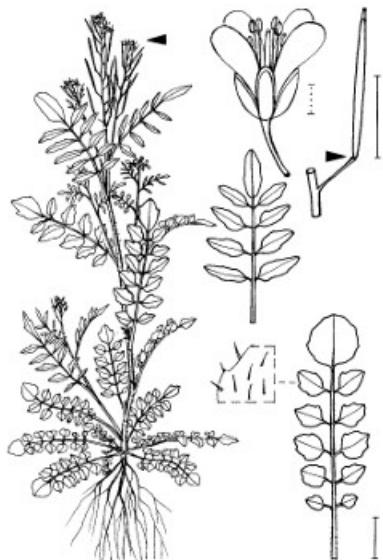


Felsensteinkraut – *Aurinia saxatile*
0,15–0,35 h 4–5 ▽ (leuchtend gelb)

Cardamine flexuosa (Brassicaceae) With.



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Wald-Sch. – *C. flexuosa* 0,10–0,50 ♂ ① ♀
4–10 (weiß)

Cardamine impatiens (Brassicaceae) L.

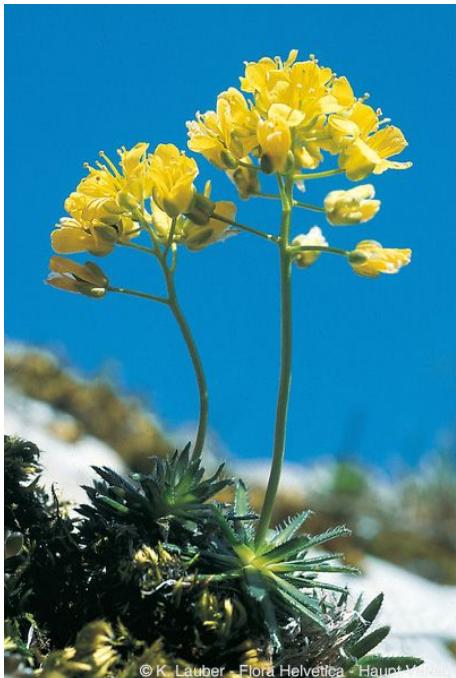


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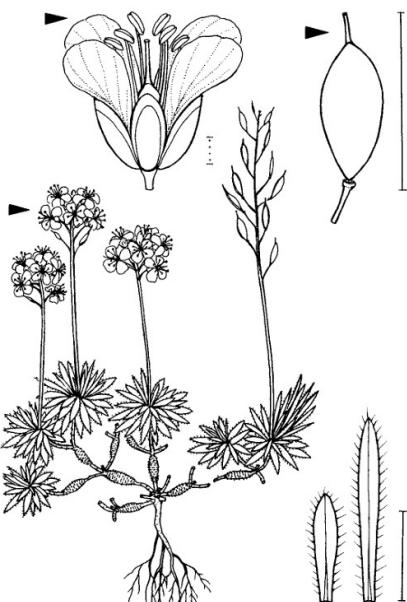


Spring-Schaumkraut – *Cardamine impatiens* 0,10–0,85 ♂ ① ♀ 5–7 (Kr weiß, oft fehlend)

Draba aizoides (Brassicaceae) L.



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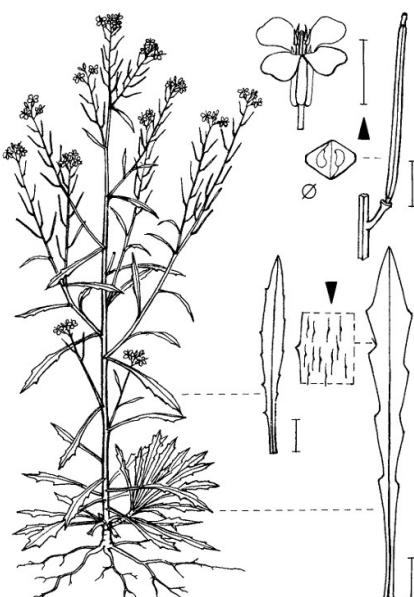


Immergrünes F. – *D. aizoides* 0,03–0,10 2^{4–8} ▽ (goldgelb)

Erysimum crepidifolium (Brassicaceae) Rchb.



- Flower light yellow, ripe pods 0-40°, crown leafs 11-16 mm, stem **only** 2-parted hairs, leafs **mostly** 2-parted hairs
- Blüte hellgelb, reife Schoten 0-40°, Kronenblätter 11-16 mm, Stiel **nur** 2-teilig behaart, **Blätter meist 2-teilig behaart**

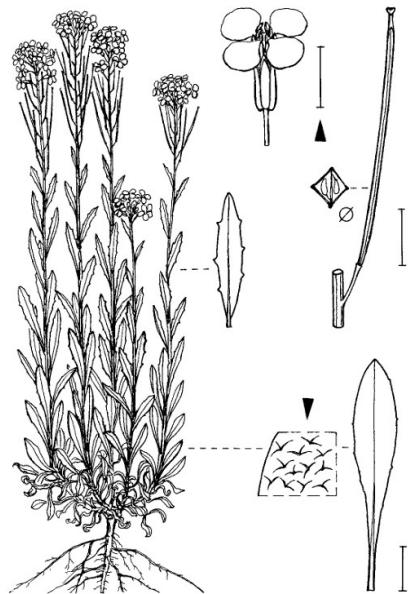


Bleicher Sch. – *E. crepidifolium* 0,15–0,80 ☺ ⊗ 4–6 (hellgelb)

Erysimum odoratum (Brassicaceae) Ehrh.

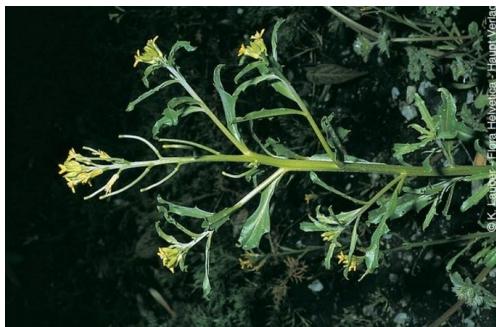


- Crown leafs 13-16 (20) mm, flower **dark yellow** with **strong scent**, pods 0-40°, stem mostly 2-parted but **few 3-parted hairs**, leafs mostly **3-parted hairs**
- Kronenblätter 13-16 (20) mm, Blüte **dunkelgelb** mit **starkem Duft**, Schoten 0-40°, Stängel meist 2-teilig, aber selten 3-teilig behaart, Blätter meist 3-teilig behaart

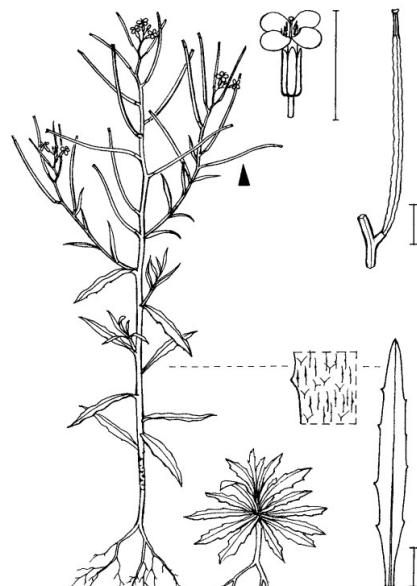


Duft-Sch. – *E. odoratum* 0,20–0,90 ① ☺
5–7 (sattgelb, duftend)

Erysimum repandum (Brassicaceae) L.

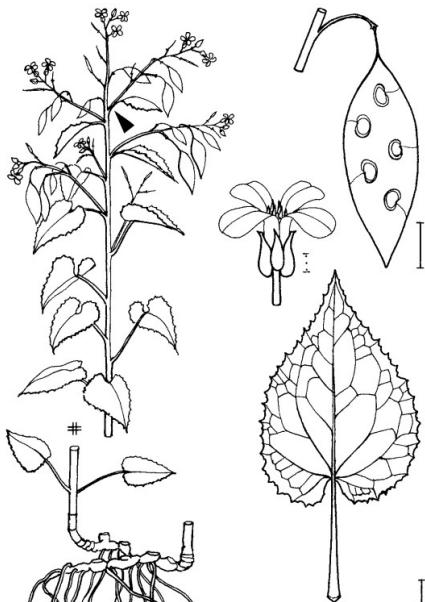


- Flower light yellow, ripe pods **horizontal** (40-90°), annual, **crown leafs 6-8 mm**, leafs with mainly 3-parted and 2-parted hairs
- Blüten hellgelb, reife Schoten **waagerecht** (40-90°), einjährig, **Kronenblätter 6-8 mm**, Blätter mit überwiegend 3-teiligen und 2-teiligen Haaren



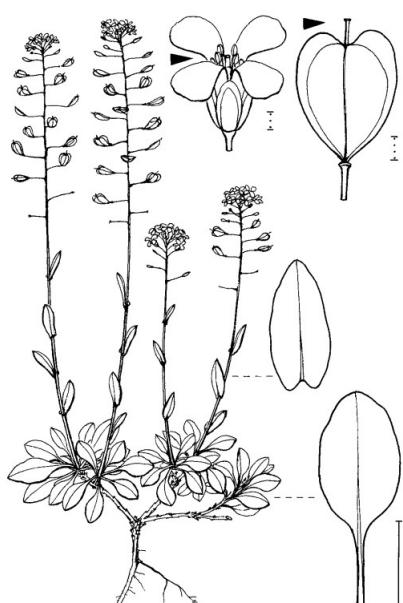
Spreiz-Sch. – *E. repandum* 0,15–0,35 ☺
3–6 (hellgelb)

Lunaria rediviva (Brassicaceae) L.



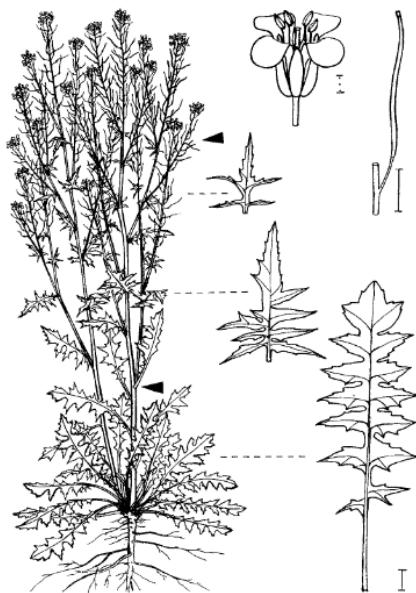
Ausdauerndes S. – *L. rediviva* 0,30–1,40
♀ 5–7 ♂ (hellviolett bis weißlich)

Noccea montana (Brassicaceae) (L.) F.K.Mey. *Thlaspi montanum*



Berg-T. – *N. montana* 0,10–0,20 ♀ 4–5
(weiß, Staubbeutel gelb bleibend)

Sisymbrium austriacum (Brassicaceae) Jacq.



Österreichische R. – *S. austriacum*
0,30–0,60 ♂ 5–6 (goldgelb)

Campanula gentilis (Campanulaceae) Kovanda



Very similar to *C. rotundifolia*.

Differences:

- Most **stem leafs** mostly in **lower third of stem** (*rotundifolia*: all over)
- Upper leafs threadlike (*rotundifolia*: linealistic)
- Stem with **very few or 1 flower** (*rotundifolia*: several flowers)

Campanula persicifolia (Campanulaceae) L.

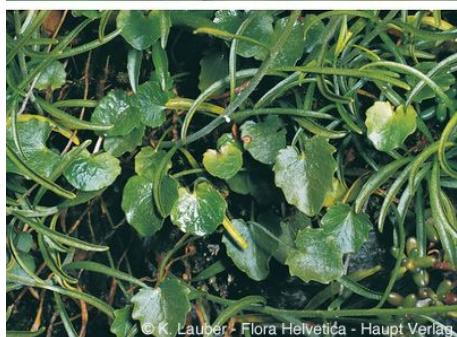


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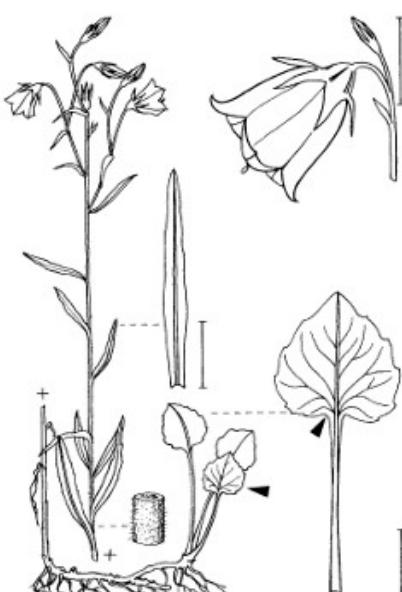


Pfirsichblättrige G. – *C. persicifolia*
0,30–0,80 ♂ 6–9 (hellblau, selten weiß)

Campanula rotundifolia (Campanulaceae) L.



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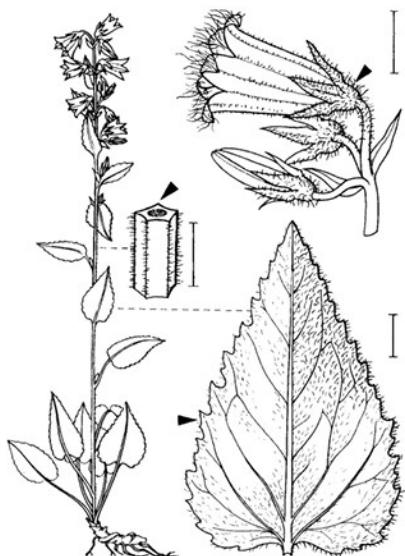


*Rundblättrige G. – *C. rotundifolia*
0,10–0,30 ♂ 6–10 (blauviolett)

Campanula trachelium (Campanulaceae) L.

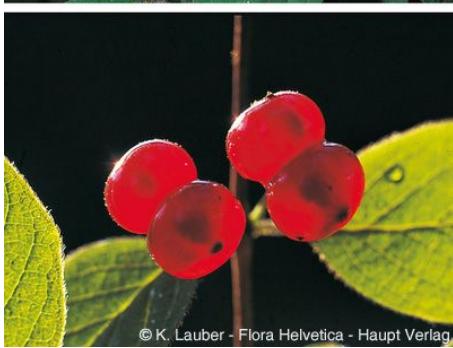


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Nesselblättrige Glockenblume –
Campanula trachelium 0,60–1,00 ♂ 7–8
(hell blauviolett bis hellblau)

Lonicera xylosteum (Caprifoliaceae) L.

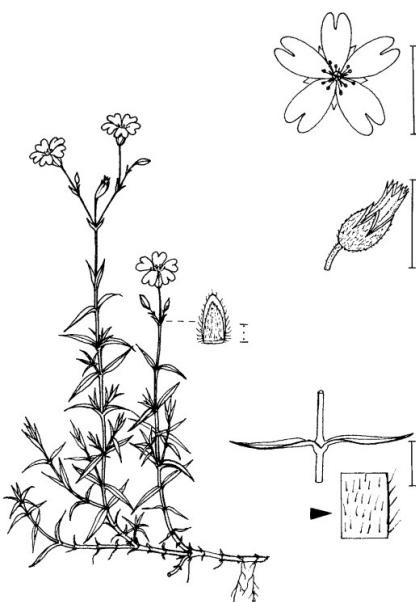


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rote Heckenkirsche – *L. xylosteum*
1,00–2,00 ♂ 5–6 (gelblichweiß, später
mattgelb. Fr scharlachrot)

Cerastium arvense (Caryophyllaceae) L. Subsp. Arvense



**Acker-H. – *C. arvense* 0,03–0,30 ⌚ 4–8
(weiß. Pfl grauflaumig)

Arenaria serpyllifolia (Caryophyllaceae) L.



**Quendel-Sandkraut – *Arenaria serpyllifolia* 0,03–0,30 ♂ ⊖ 5–9 (weiß. Pfl graugrün) ↗ S. 786

Cerastium tomentosum (Caryophyllaceae) L.



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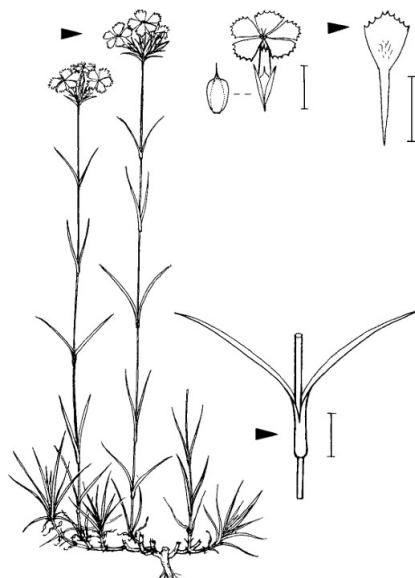


Filziges H. – *C. tomentosum* 0,15–0,30 ♀
5–7 (weiß. Pfl dicht weißfilzig)

Dianthus carthusianorum (Caryophyllaceae) L. Subsp. *Carthusianorum*

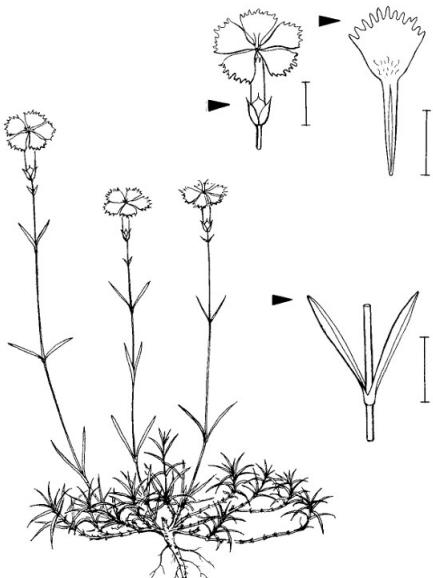


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Kartäuser-N. – *D. carthusianorum*
0,15–0,45 ♀ 6–9 ▽ (dunkelpurpur bis
rosa, dunkler geadert)

Dianthus gratianopolitanus (Caryophyllaceae) vill.



Pfingst-Nelke – *Dianthus gratianopolitanus*
0,10–0,25 ♂ 5–6 ▽ (hellpurpur, ohne
Zeichnung. Bl blaugrün)

Moehringia muscosa (Caryophyllaceae) L.

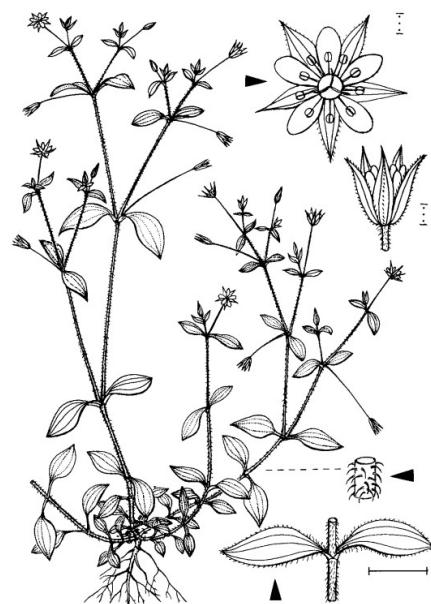


Moos-N. – *M. muscosa* 0,05–0,20 ♂ 5–9
(weiß)

Moehringia trinervia (Caryophyllaceae) (L.) Clairv.



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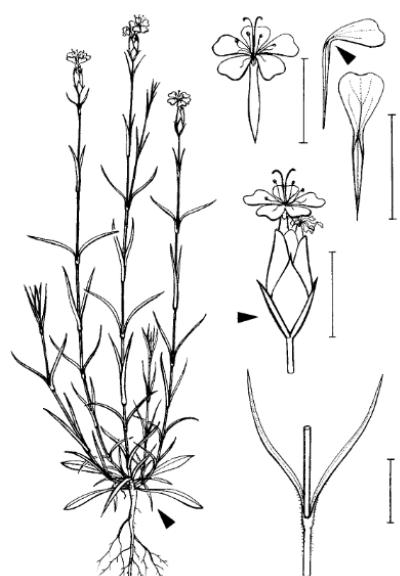


Dreinervige Nabelmiere – *Moehringia trinervia* 0,10–0,30 ♂ ♀ 5–7 (weiß)

Petrorhagia prolifera (Caryophyllaceae) (L.) P.W.Ball & Heywood

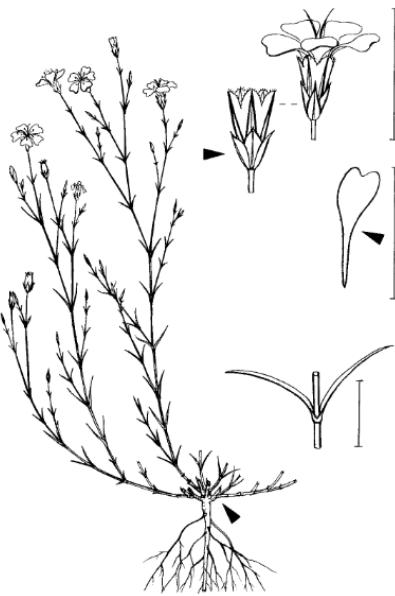


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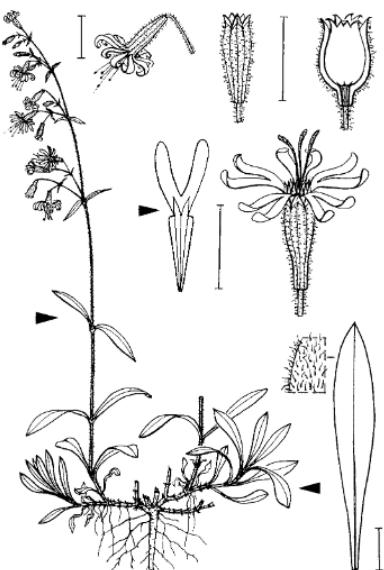
Sprossendes Nelkenköpfchen – *Petrorhagia prolifera* 0,15–0,45 ♂ ♂ 6–10 (rosa)

Petrorhagia saxifraga (Caryophyllaceae) (L.) Link



Felsennelke – *P. saxifraga* 0,10–0,35 ♂
6–9 (helllila bis sattrosa, dunkler geadert)

Silene nutans (Caryophyllaceae) L.

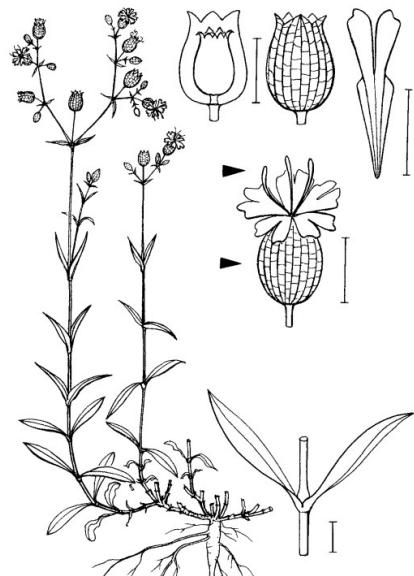


Nickendes L. – *S. nutans* 0,30–0,50 ♂ 5–8
(weiß, USeite oft grünlich od. rötlich, nur
nachts geöffnet)

Silene vulgaris (Caryophyllaceae) (Moench) Garcke



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****Gewöhnliches Leimkraut – *S. vulgaris***
0,10–0,60 ♂ 6–9 (weiß. K grünlichweiß od.
rötlich. Pfl blaugrün)

Euonymus europaeus (Celastraceae) L.



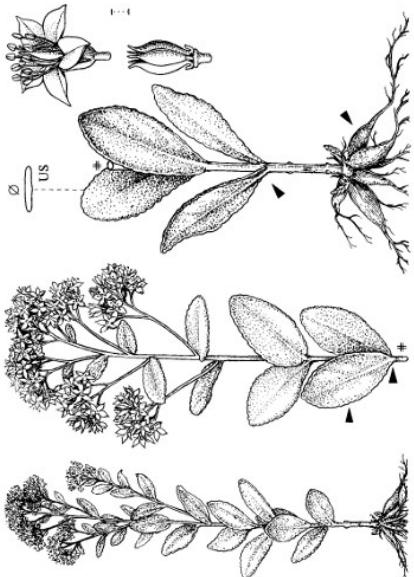
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Europäisches Pfaffenhütchen – *Euonymus europaeus* 1,50–3,00 ♂ 5–6
(hellgrün. Fr rosa, SaMantel orange)

Hylotelephium maximum (Crassulaceae) (L.) Kirsch.

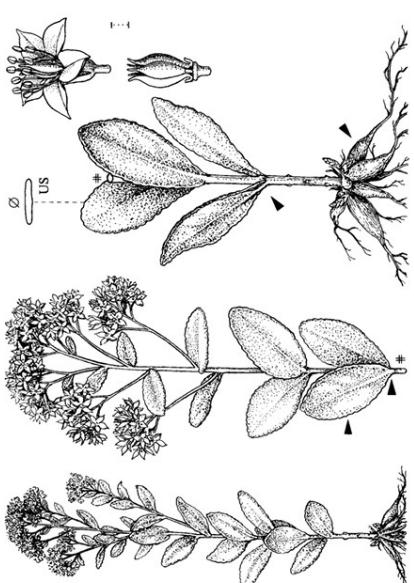
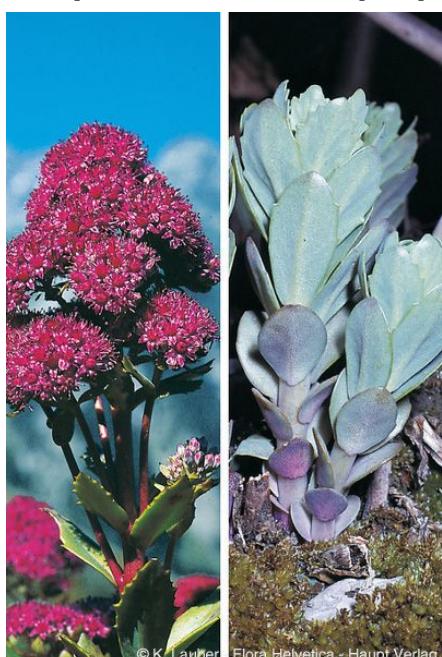
Sedum telephium subsp. *maximum*



Große W. – *H. maximum* 0,30–0,80 \ddagger 7–9 (grünlich, selten röthich). Ähnlich Purpur-F. –
H. telephium (B) rosa bis dunkelrot. Blattgrün kalkförmig verschmälert, alle
 Bl wachselfeinständig

Hylotelephium telephium (Crassulaceae) (L.) H. Ohba.

Sedum telephium, *Sedum maximum* Subsp. *telephium* for image 1

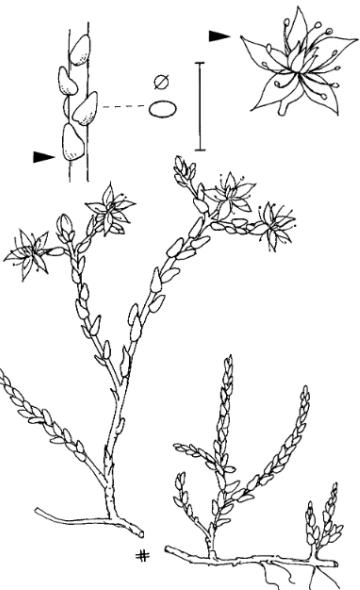


Große W. – *H. maximum* 0,30–0,80 \ddagger 7–9 (grünlich, selten röthich). Ähnlich Purpur-F. –
H. telephium (B) rosa bis dunkelrot. Blattgrün kalkförmig verschmälert, alle
 Bl wachselfeinständig

Sedum acre (Crassulaceae) L.



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Scharfer Mauerpfeffer – *Sedum acre*
0,03–0,15 2l 6–8 (gelb)

Sedum album (Crassulaceae) L.

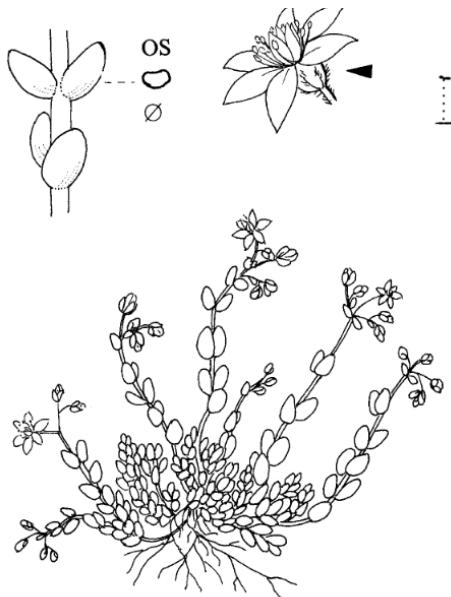
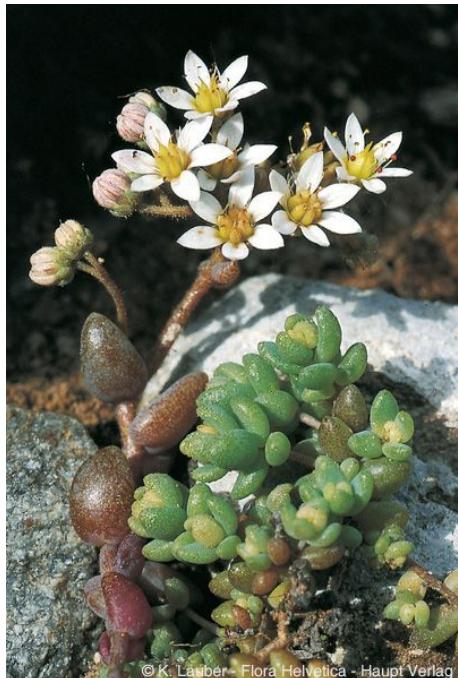


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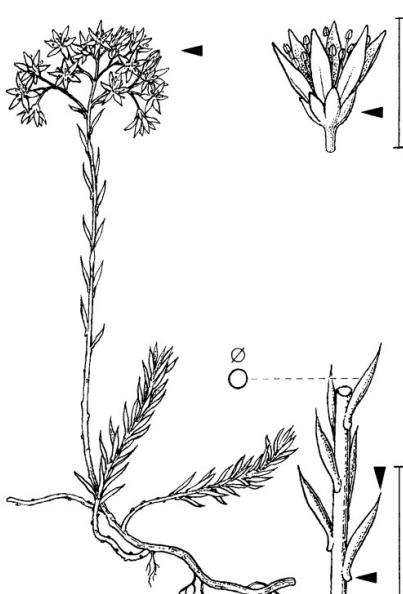
Weiße F. – *S. album* 0,08–0,20 2l 6–9
(weiß)

Sedum dasyphyllum (Crassulaceae) L.



Buckel-F. – *S. dasyphyllum* 0,03–0,10 2
6–8 (weiß, außen zuweilen rötlich)

Sedum rupestre (Crassulaceae) L. *Sedum reflexum*

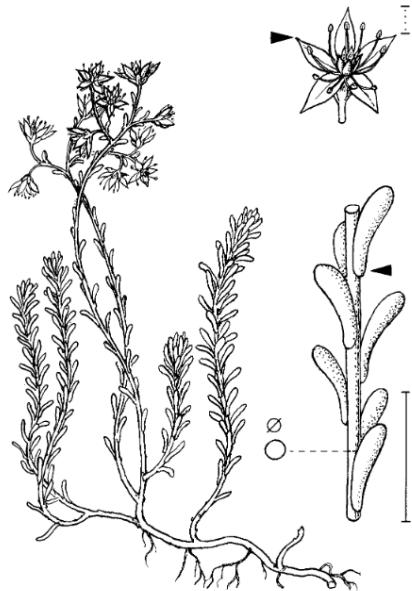


*Felsen-Fetthenne – *Sedum rupestre*
0,10–0,35 2 6–8 (gelb) ↗ S. 784

Sedum sexangulare (Crassulaceae) L.



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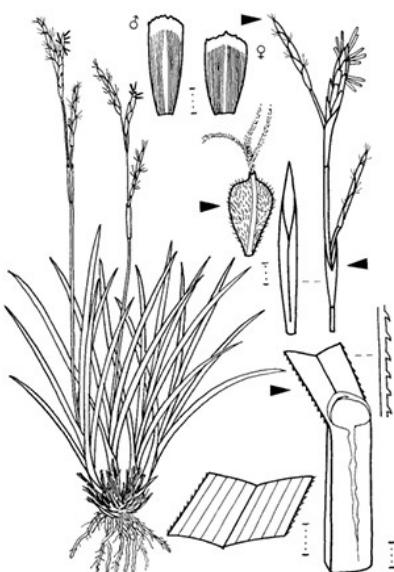


Milder M. – *S. sexangulare* 0,05–0,15 ♂
6–7 (gelb)

Carex digitata (Cyperaceae) L.



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Finger-S. – *C. digitata* 0,10–0,30 ♂ 5
(Sp rotbraun, grün gekielt, weißrandig.
Pfl unten dunkelrot)

Carex flacca (Cyperaceae) Schreber



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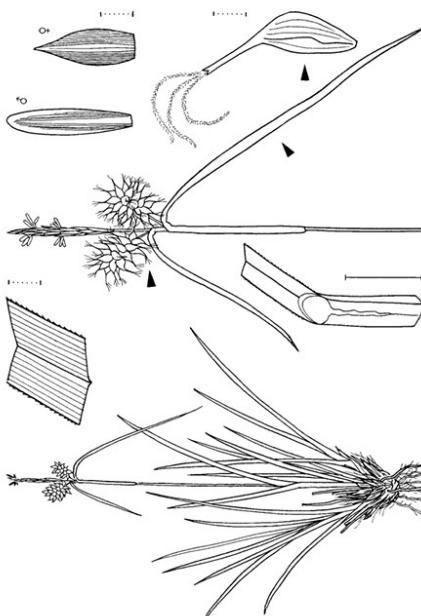


Blaugrüne S. – *C. flacca* 0,20–0,60 ♂ 5–7
(Sp schwarzbraun, Schläuche grün od.
schwarz)

Carex flava (Cyperaceae) L. s. str.



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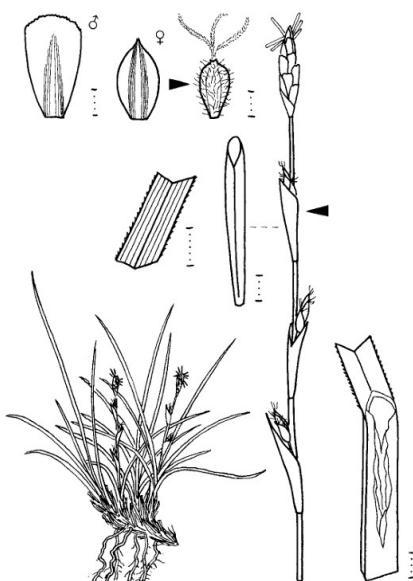


Gelb-Segge – *Carex flava* 0,20–0,60 ♂ 5–9 (Sp gelb- bis rostbraun, Pfl. gelbgrün)
Schläuche hellgrün, Pfl. gelbgrün

Carex humilis (*Cyperaceae*) Leyss.



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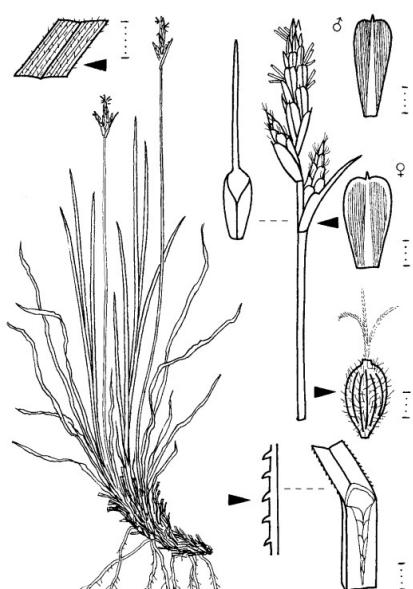


Erd-S. – *C. humilis* 0,03–0,15 ♂ 4–5
(Sp braun, weißrandig. Pfl unten rot. Bl
graugrün)

Carex montana (*Cyperaceae*) L.



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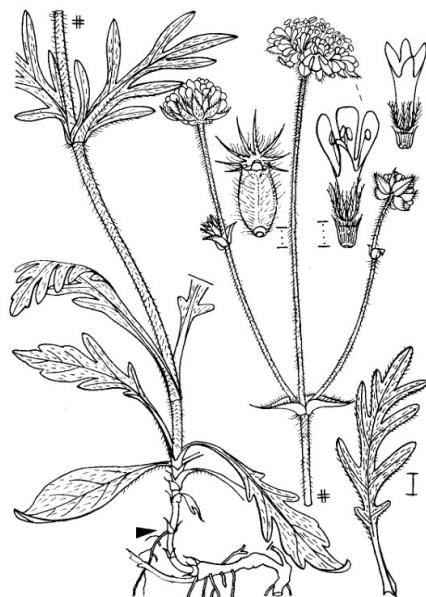


Berg-S. – *C. montana* 0,10–0,30 ♂ 3–5
(Sp braun, Schläuche grün, oben oft braun.
Pfl unten rot)

Knautia arvensis (*Dipsacaceae*) (L.) Coult.



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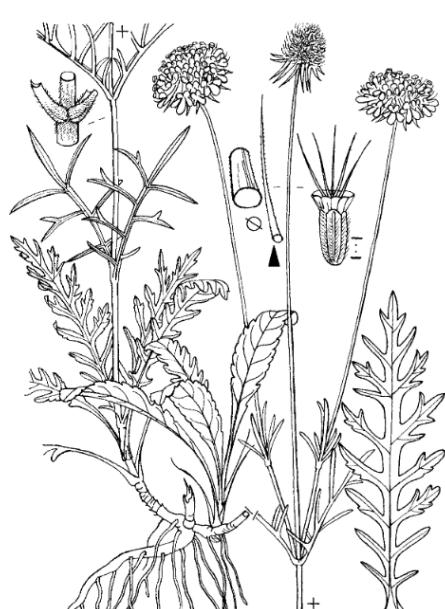


*Acker-Witwenblume – *Knautia arvensis*
0,30–0,80 ♂ 7–8 (bläulichrot bis violett)

Scabiosa columbaria (*Dipsacaceae*) L.

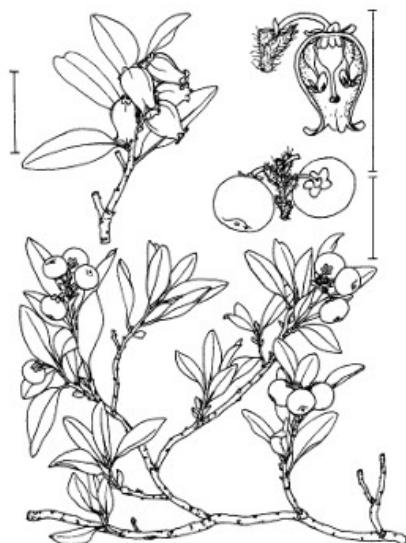


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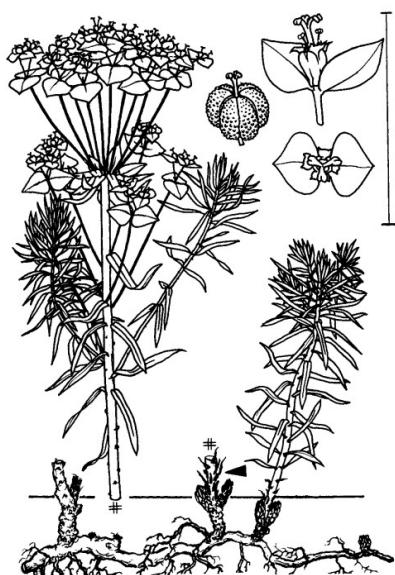
Tauben-S. – *S. columbaria* 0,25–0,60 ♂
7–11 (blaulila, KBorsten schwärzlich)

Arctostaphylos uva-ursi (Ericaceae) L.



Echte Bärentraube – *Arctostaphylos uva-ursi* 0,20–0,60 h , 3–7 \triangledown (weiß bis rosa, KrZipfel rötlich. Fr rot)

Euphorbia cyparissias (Euphorbiaceae) L.



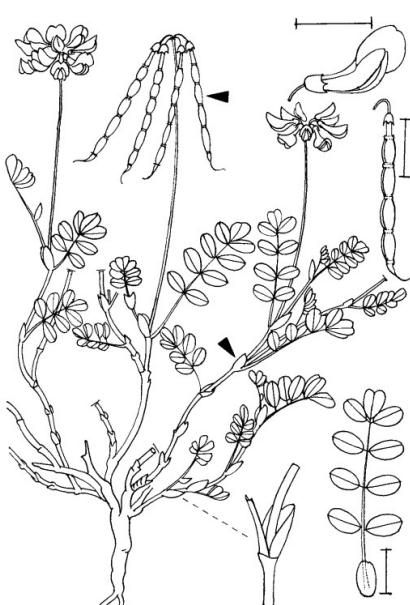
Zypressen-Wolfsmilch – *Euphorbia cyparissias* 0,15–0,30 \triangleleft 4–5 (grünlichgelb, später rötend)

Anthyllis vulneraria (Fabaceae) L.



**Gewöhnlicher Wundklee – *Anthyllis vulneraria* 0,05–0,60(–0,90) ♂ 5–8 (gelb, weißlich od. rötlich)

Coronilla vaginalis (Fabaceae) Lam.

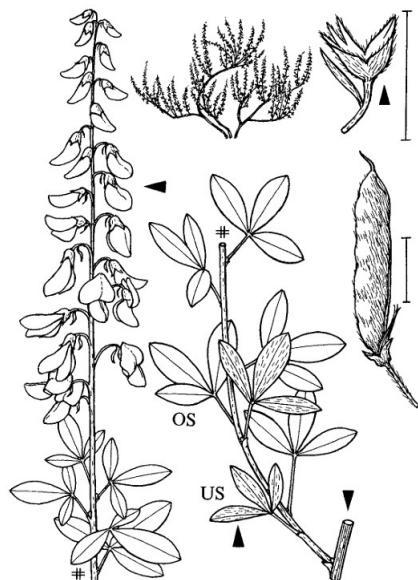


Scheiden-Kronwicke – *Coronilla vaginalis*
0,05–0,10 h 5–7 (gelb)

Cytisus nigricans (Fabaceae) L.



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Schwarzwerdender Geißklee – *Cytisus nigricans* 0,30–1,20 h h 6–8 (gelb. Bl trocken schwarz)

Hippocrepis comosa (Fabaceae) L.



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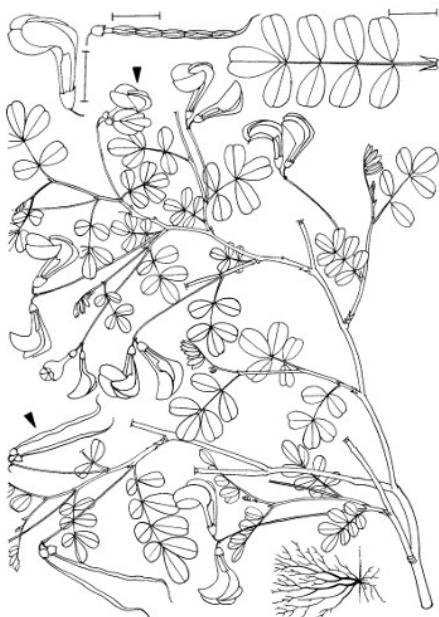
Hufeisenklee – *H. comosa* 0,08–0,25 2 h 5–7 (gelb)

Hippocrepis emerus (Fabaceae) L.

Subsp. Lassen

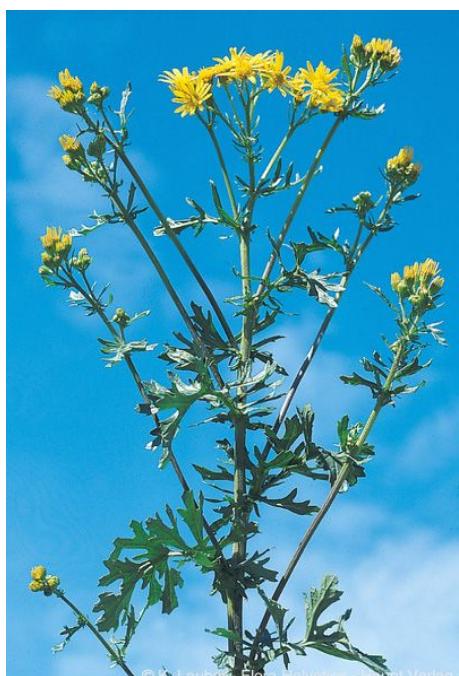


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Strauchwicke – *Hippocrepis emerus* 1,00–2,00 ♂, 5–7 (gelb)

Jacobaea vulgaris (Fabaceae) L. *Senecio jacobaea*



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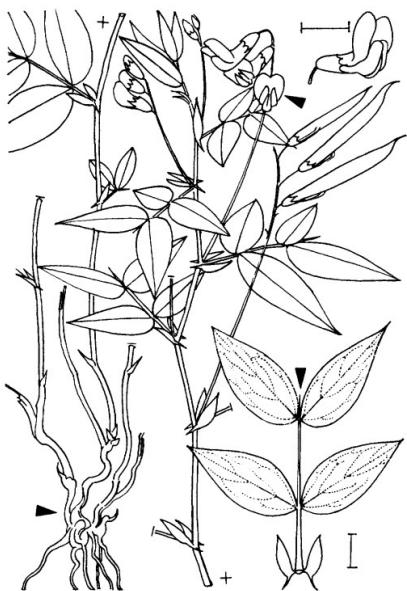
**Jakobs-G. – *S. jacobaea* 0,30–1,00 ☺ ☺
♀ 7–9 (goldgelb) ✸ S. 790

Lathyrus vernus (*Fabaceae*) (L.) Bernh.

Subsp. *Vernus*

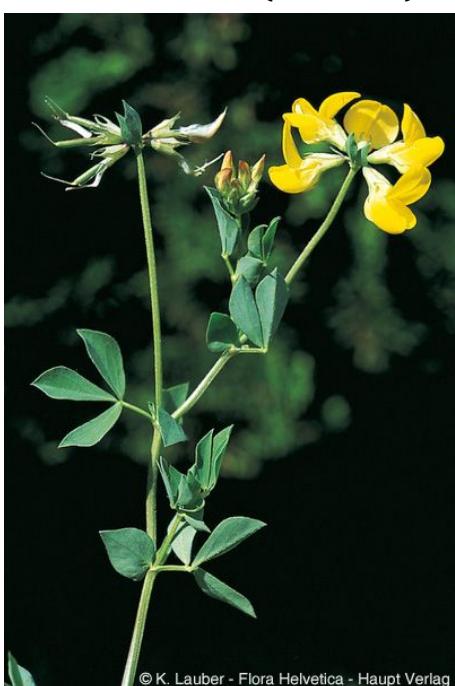


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Frühlings-P. – *L. vernus* 0,20–0,40 2f 4–5
(purpur, später blaugrün)

Lotus corniculatus (*Fabaceae*) L.

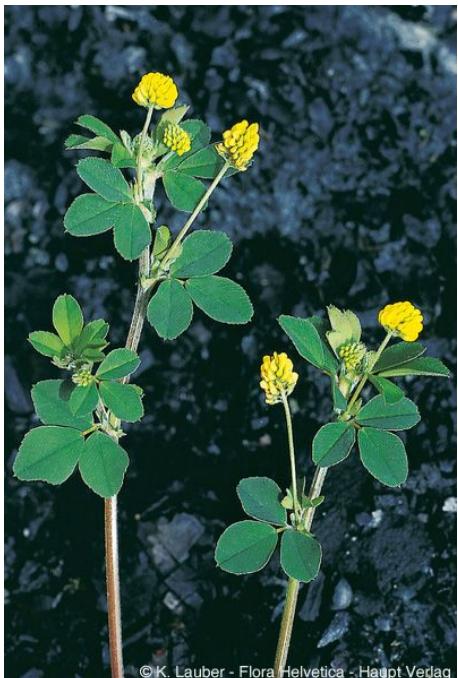


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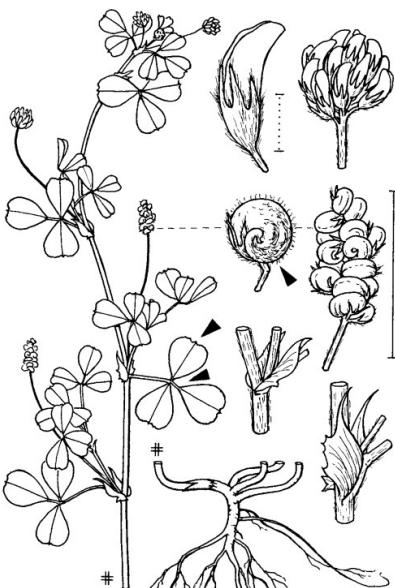


***Gewöhnlicher H.** – *L. corniculatus*
0,20–0,30(–0,50) 2f 6–8 (gelb, außen ± rot
gezeichnet, getrocknet grünlich) ↗ S. 785

Medicago lupulina (Fabaceae) L.



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Hopfen-Luzerne – *Medicago lupulina*
0,15–0,60 ♂ bis ♀ 5–10 (gelb)

Fagus sylvatica (Fagaceae) L.

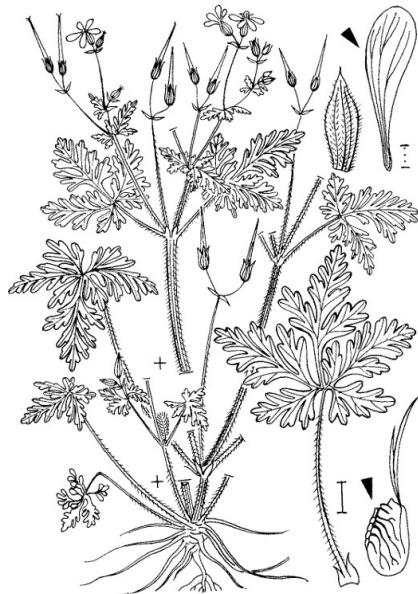


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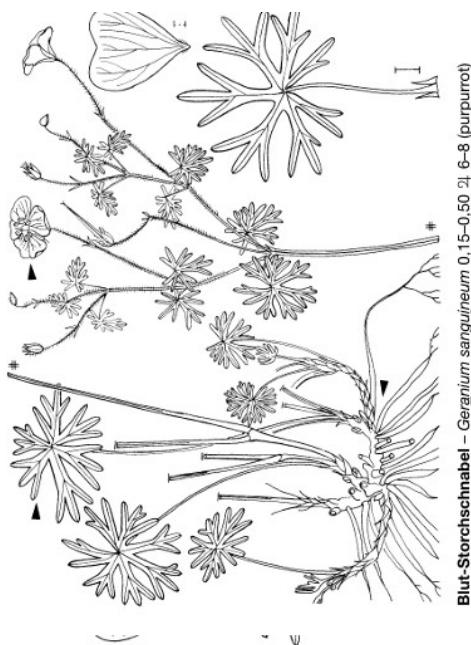
Rot-Buche – *Fagus sylvatica* Bis 40,00 ♂
4–5 (rötlichbraun)

Geranium robertianum (Geraniaceae) L. Subsp. Robertianum



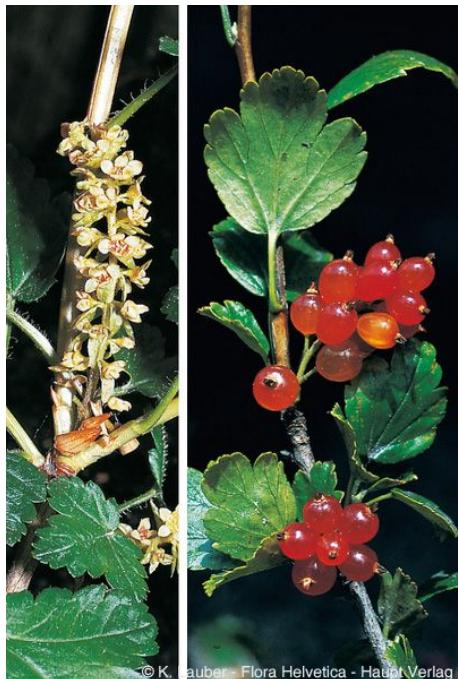
**Stinkender St. – *G. robertianum*
0,20–0,40 ♂ Ⓛ 5–10 (hellpurpur)

Geranium sanguineum (Geraniaceae) L.



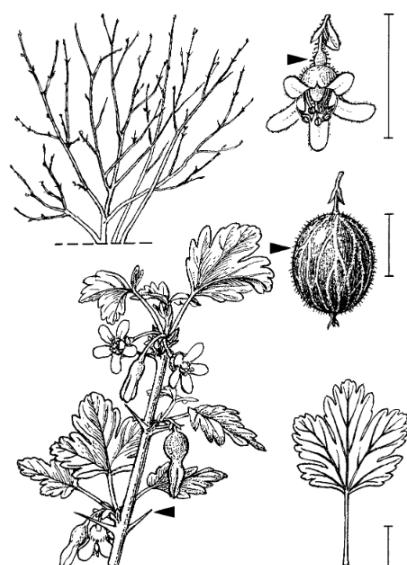
Blut-Storchschnabel – *Geranium sanguineum* 0,15–0,50 ♂ 6–8 (purpurrot)

Ribes alpinum (Grossulariaceae) L.



Alpen-Johannisbeere – *Ribes alpinum*
0,80–1,50 ₋ 4–5 (grünlichgelb, unvollkommen zweihäusig. Fr rot)

Ribes uva-crispa (Grossulariaceae) L.

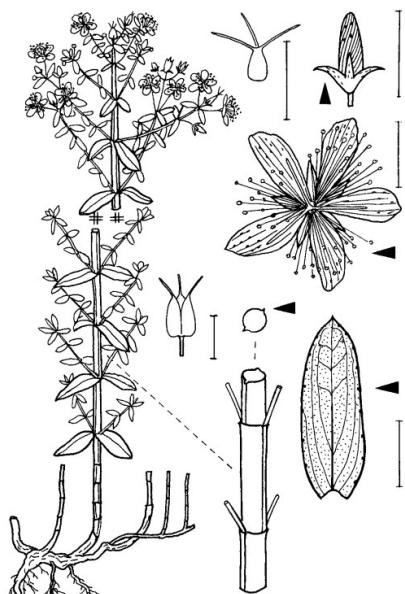


Stachelbeere – *Ribes uva-crispa* 0,60–1,20
₦ 4–5 (grünlichgelb. Fr grün, gelb od.
purpurn)

Hypericum perforatum (*Hypericaceae*) L. Subsp. *Perforatum*



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**Tüpfel-H. – *H. perforatum* 0,15–0,80 2
6–8 (goldgelb, wie KBI schwarz punktiert)

Acinos arvensis (*Lamiaceae*)



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Gewöhnlicher S. – *A. arvensis* 0,10–0,30
◎ ☺ 6–9 (blasslila)

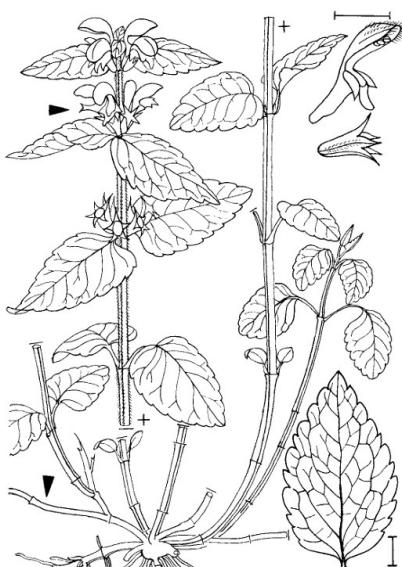
Ajuga genevensis (Lamiaceae) L.



Heide-G. – *A. genevensis* 0,07–0,30 ♂ 4–6
(meist dunkelblau)

Galeobdolon luteum (Lamiaceae)

Lamium galeobdolon (L.) L. subsp. galeobdolon

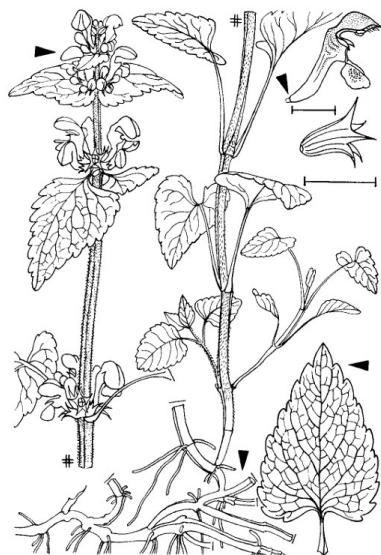


Echte Goldnessel – *Galeobdolon luteum*
0,15–0,40 ♂ 5–7 (gelb)

Lamium maculatum (Lamiaceae) L.



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Gefleckte T. – *L. maculatum* 0,15–0,60 ♂
4–9 (purpurn)

Origanum vulgare (Lamiaceae) L.



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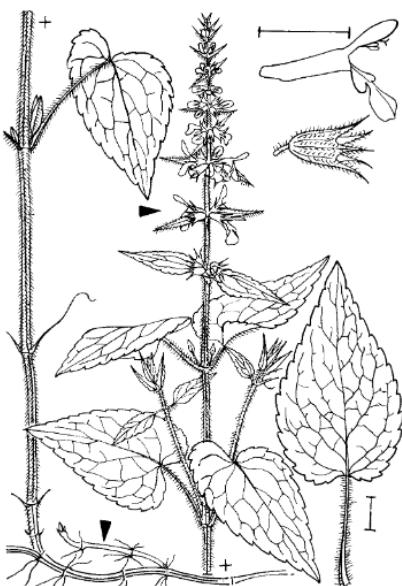


**Gewöhnlicher Dost – *Origanum vulgare*
0,20–0,60 ♂ 7–9 (hellpurpurn, selten weiß)
↗ S. 788

Stachys sylvatica (Lamiaceae) L.



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Wald-Z. – *S. sylvatica* 0,30–1,00 ♂ 6–9
(dunkel braunrot)

Teucrium botrys (Lamiaceae) L.



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Trauben-Gamander – *Teucrium botrys*
0,10–0,40 ♂ ♂? 7–9 (rötlich)

Teucrium chamaedrys (Lamiaceae) L.



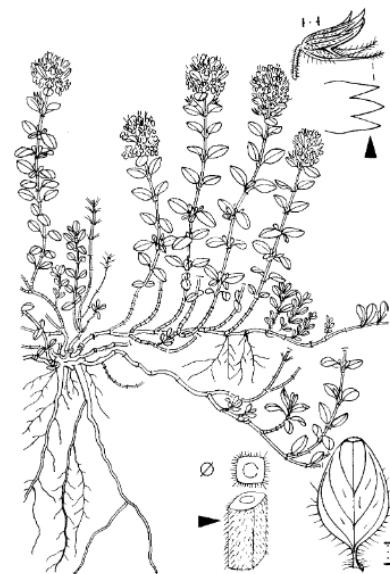
Edel-Gamander – *Teucrium chamaedrys*
0,10–0,30 h 7–9 (hellpurpur)

Teucrium montanum (Lamiaceae) L.



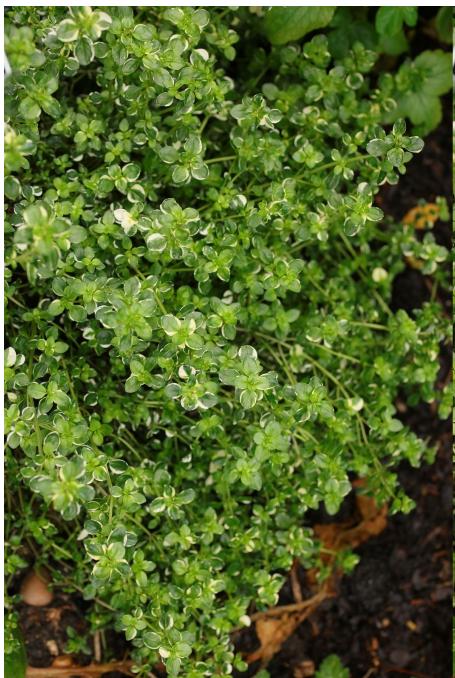
Berg-G. – *T. montanum* 0,05–0,35 h 6–9
(hellgelb)

Thymus praecox subsp. *praecox* (Lamiaceae)



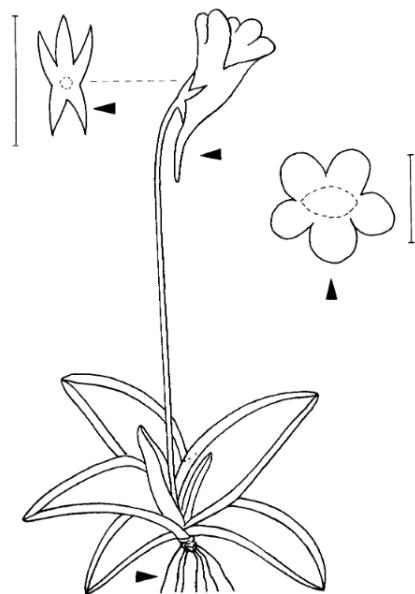
**Frühblühender Th. – *Th. praecox*
0,03–0,15 h 5–7 (hell- bis dunkelpurpur)
↗ S. 788

Thymus pulegioides (Lamiaceae) L.



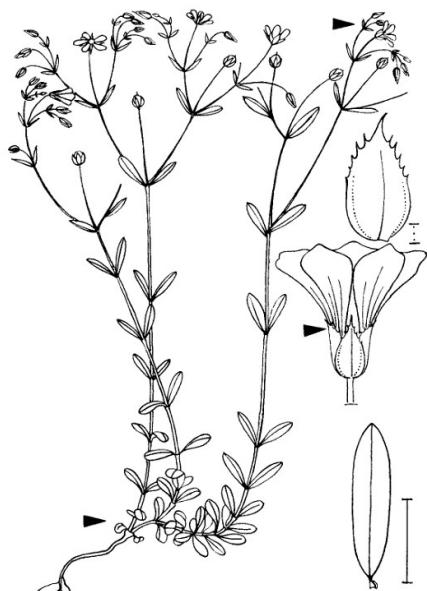
*Arznei-Th. – *Th. pulegioides* 0,05–0,30 h
6–9 (hell- bis dunkelpurpur) ↗ S. 788

Pinguicula vulgaris (Lentibulariaceae) L.



Echtes F. – *P. vulgaris* 0,05–0,15 ♂ 5–6 ▽
(violettblau)

Linum catharticum (Linaceae) L.

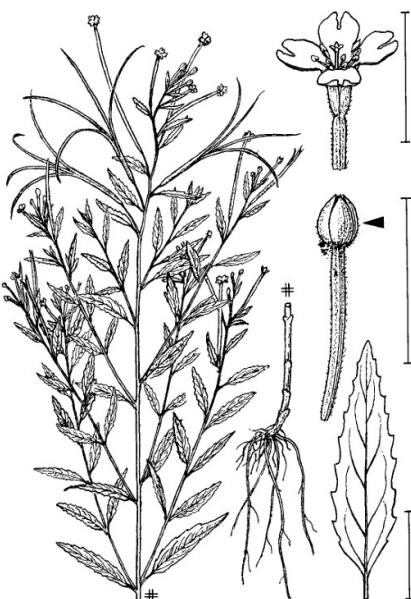


Purgier-Lein – *Linum catharticum*
0,05–0,30 ☺ 6–7 (weiß, Grund gelb)

Epilobium collinum (Onagraceae) C. C. Gmel.



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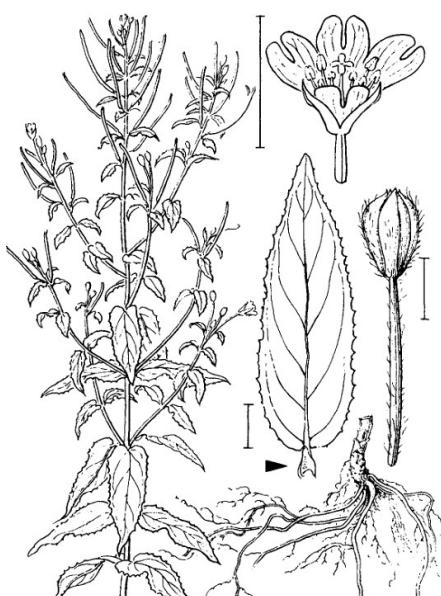


Hügel-W. – *E. collinum* 0,10–0,40 ♂ 6–9
(rosa. Stg graugrün)

Epilobium montanum (Onagraceae) L.

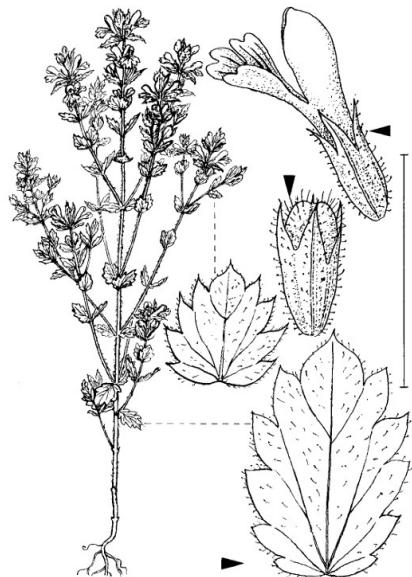


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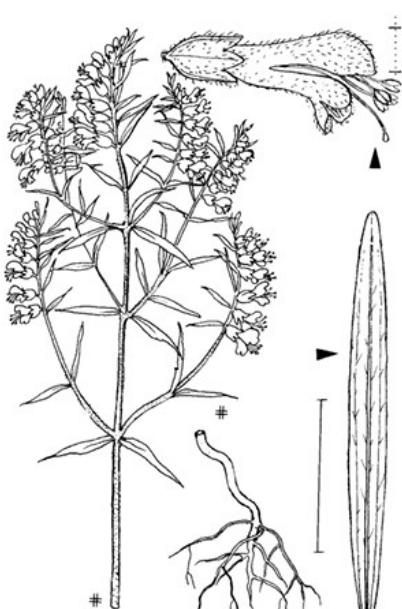
Berg-W. – *E. montanum* 0,10–0,80 ♂ 6–9
(rosa. Stg grasgrün)

Euphrasia officinalis subsp. *rostkoviana* (Orobanchaceae)
(Hayne) F. Towns. *Euphrasia rostkoviana*



Gewöhnlicher A. – *E. officinalis* 0,01–0,45
○ 5–10 (weiß, bläulich od. gelb) ↗ S. 788

Odontites luteus (Orobanchaceae) (L.) Clairv.

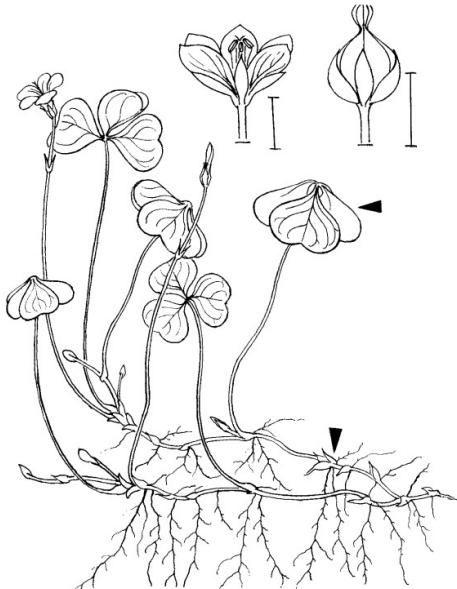


Gelber Z. – *O. luteus* 0,15–0,60 ○ 7–10
(gelb)

Oxalis acetosella (Oxalidaceae) L.



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Wald-Sauerklee – *Oxalis acetosella*
0,05–0,12 ♂ 4–5 (weiß, purpur geadert)

Chelidonium majus (Papaveraceae) L.



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Schöllkraut – *Chelidonium majus*
0,30–0,70 ♂ 4–10 (gelb. Milchsaft orange)

Pseudo-fumaria alba (Papaveraceae) (Mill.) Lidén *Corydalis alba* (Mill.) Mansf.

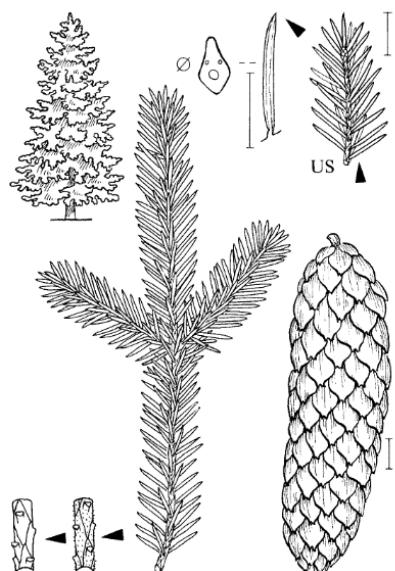


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Blassgelber S. – *P. alba* 0,10–0,40 ♂
6–10 (weißlich, Spitze dunkler, gelblich. Bl
beidseits blaugrün)

Picea abies (Pinaceae) (L.) H.Karst.

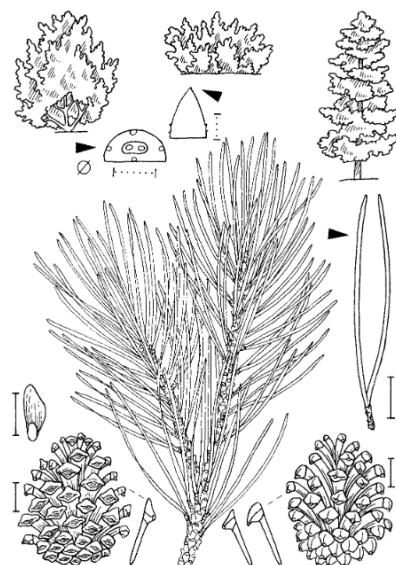


Gewöhnliche F. – *P. abies*
Bis 50,00 (~60,00) ♂, 4–6 (Nadeln allseits
dunkelgrün. Zapfen braun)

Pinus sylvestris (Pinaceae) L.

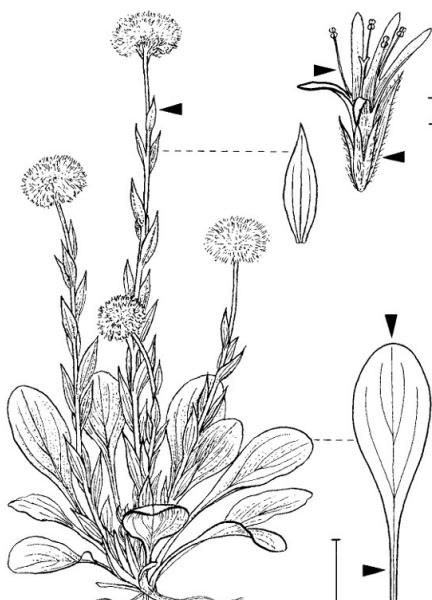


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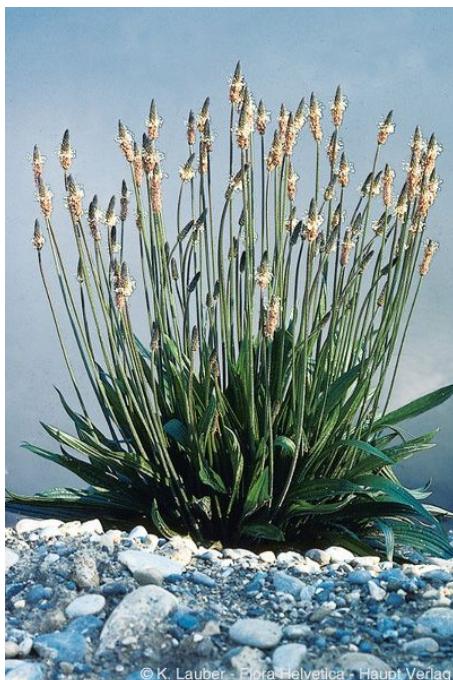
**Gewöhnliche Kiefer – *Pinus sylvestris*
Bis 30,00(–40,00) ♂ 5–6 (Zapfen matt grau-bräun. Stamm oben hell rotbraun)

Globularia bisnagarica (Plantaginaceae) L. *Globularia punctata*

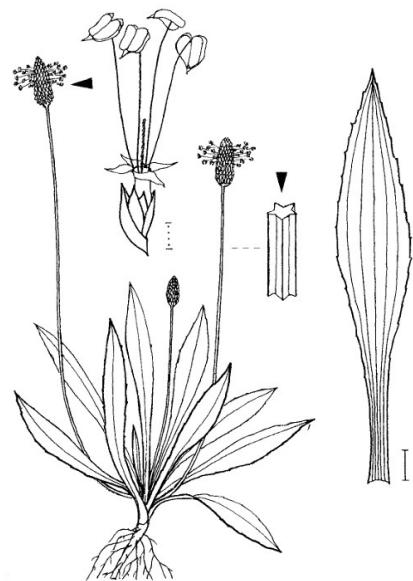


Gewöhnliche K. – *G. bisnagarica*
0,05–0,30 ♀ 5–6 ▽ (blau-lila)

Plantago lanceolata (Plantaginaceae) L.



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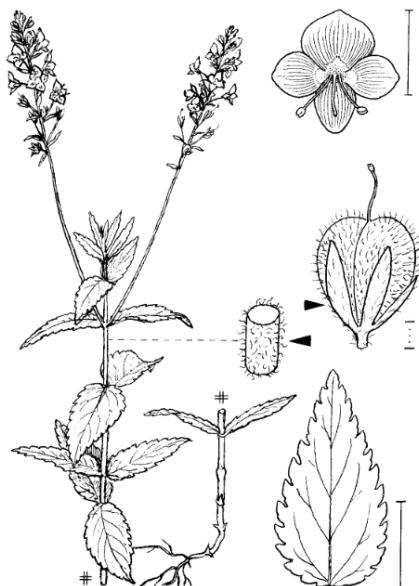


Spitz-Wegerich – *Plantago lanceolata*
0,10–0,50 ♂ 5–9 (StaubBl blassgelb, Kr
bräunlich)

Veronica teucrium (Plantaginaceae) L.

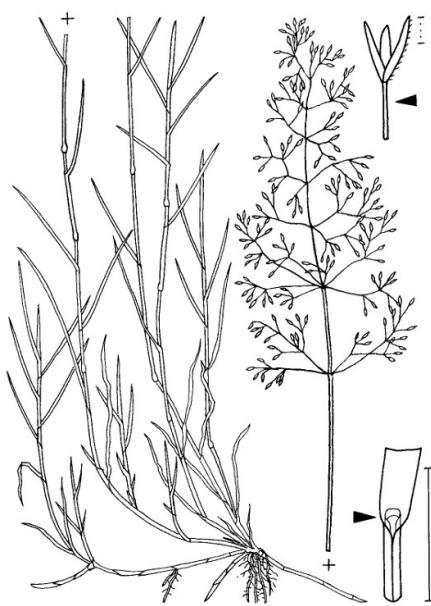


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Großer E. – *V. teucrium* 0,30–0,80 ♂ 6–7
(azurblau, dunkler geadert)

Agrostis capillaris (Poaceae) L.



Rotes Straußgras – *Agrostis capillaris*
0,20–0,80 ♂ 6–7 (variabel)

Arrhenatherum elatius (Poaceae) (L.) J. Presl & C. Presl



**Glatthafer – *Arrhenatherum elatius*
0,60–1,20 ♂ 6–7

Brachypodium pinnatum (Poaceae) (L.) P. Beauv.



*Fieder-Zwenke – *Brachypodium pinnatum* 0,60–1,00 ⌚ 6–7

Brachypodium sylvaticum (Poaceae) (Huds.) P. Beauv.

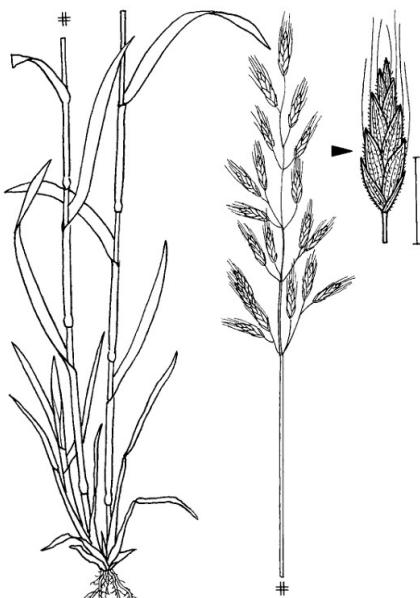


Wald-Z. – *B. sylvaticum* 0,60–1,20 ⌚ 7–8

Bromus hordeaceus (Poaceae) L.



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**Weiche T. – *B. hordeaceus* 0,05–0,80 ☺

Bromus sterilis (Poaceae) L.

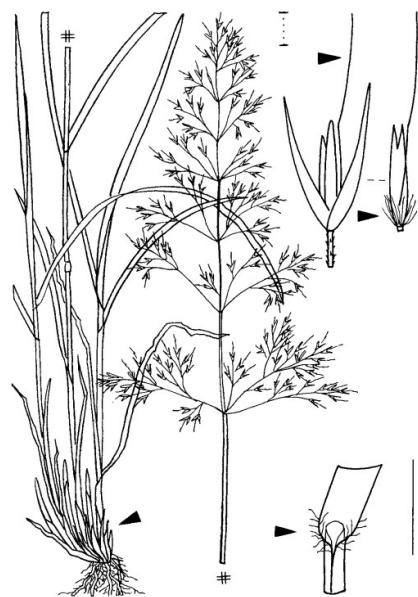


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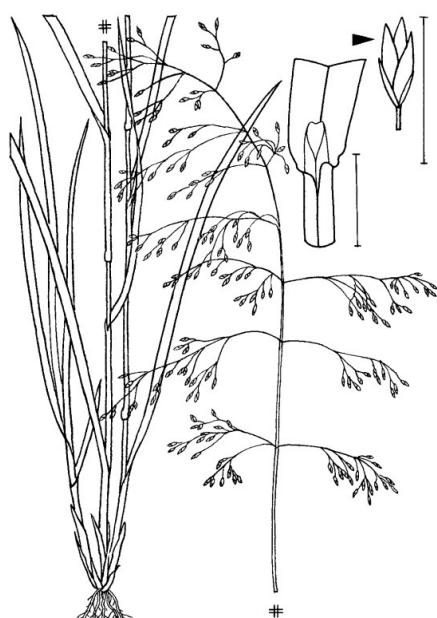
Taube T. – *B. sterilis* 0,30–0,60 ☺ ① 5–6

Calamagrostis arundinacea (Poaceae) (L.) Roth



Wald-R. – *C. arundinacea* 0,60–1,20 ♂ 6–7

Festuca altissima (Poaceae) All.



Wald-Sch. – *F. altissima* 0,60–1,20 ♂ 6–7

Festuca arundinacea (Poaceae) Schreb.



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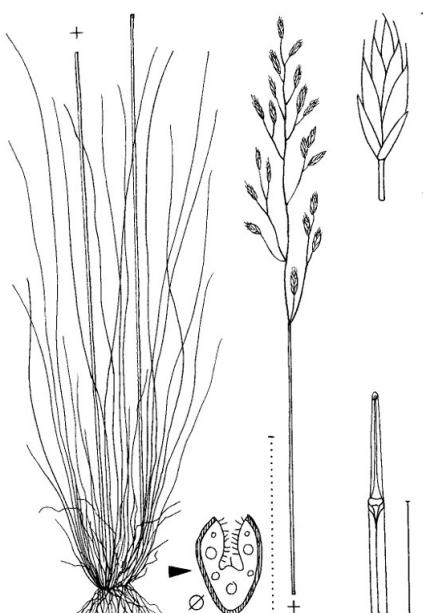


**Rohr-Sch. – *F. arundinacea* 0,60–1,80 2
6–7 (GrundBl Scheiden weißlich)

Festuca ovina (Poaceae) L. agg.



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**Schaf-Sch. – *F. ovina* 0,20–0,70 2 5–8

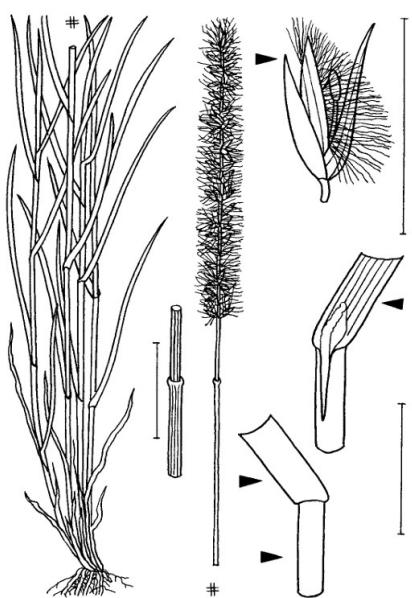
Festuca pallens (Poaceae) Host



Melica ciliata agg. (Poaceae) L.

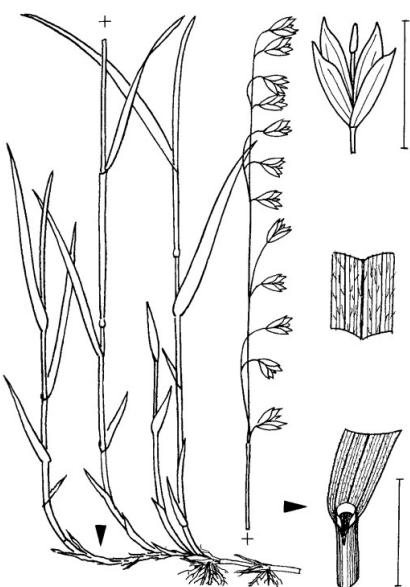


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**Wimper-P. – *M. ciliata* 0,20–0,70 ♂ 6
(Bl graugrün)

Melica nutans (Poaceae) L.



**Nickendes P. – *M. nutans* 0,30–0,60 2½ 5–6
(Hsp braunrot)**

Poa compressa (Poaceae) L.

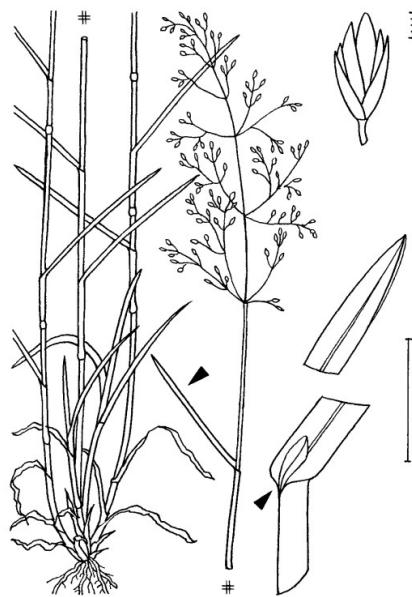


**Platthalm-R. – *P. compressa* 0,20–0,80
2½ 6–7**

Poa nemoralis (Poaceae) L.



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Hain-Rispengras – *Poa nemoralis*
0,30–0,80 ♂ 6–7

Poa pratensis (Poaceae) L.

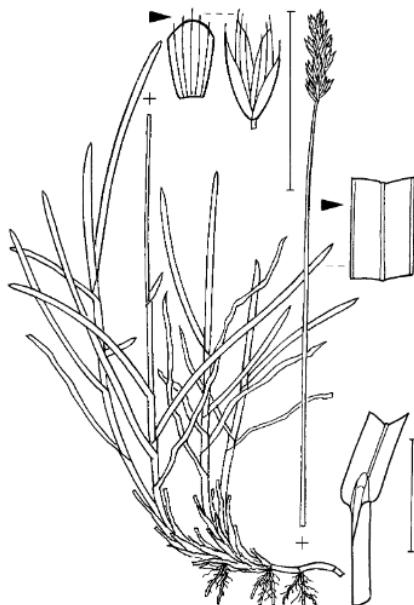


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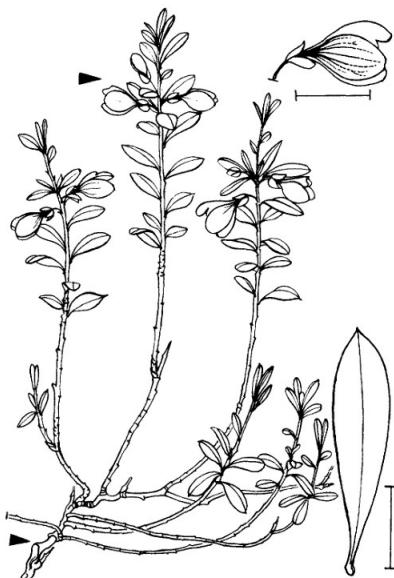
Wiesen-R. – *P. pratensis 0,20–0,90 ♂
5–6 ✸ S. 783

Sesleria caerulea (Poaceae) L. *Sesleria albicans*



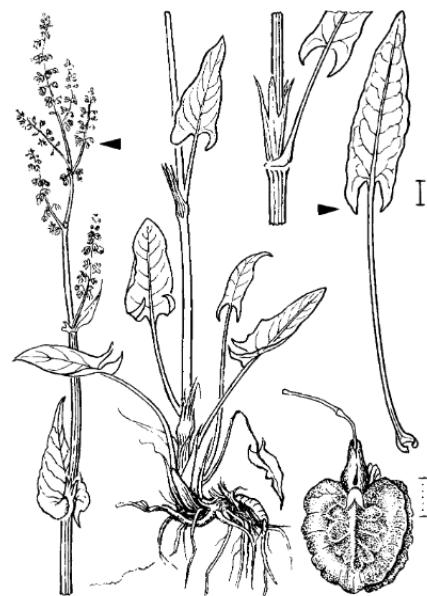
Kalk-B. – *S. coerulea* 0,10–0,45 ♂ 3–5

Polygala chamaebuxus (Polygalaceae) L.



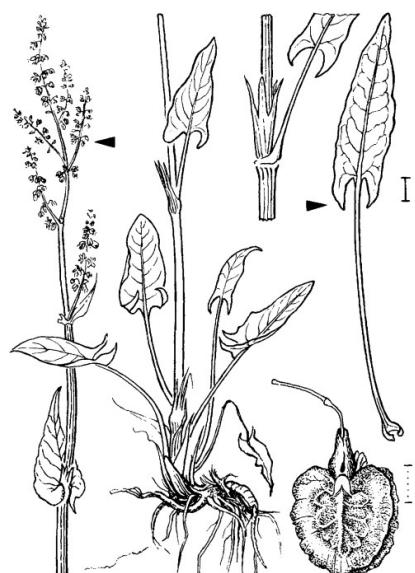
Zwergbüchs – *Polygala chamaebuxus*
0,10–0,25 ♂ 4–8 (gelb-weiß, selten rötlich
überlaufen)

Rumex acetosa (Polygonaceae) L.



Wiesen-Sauerampfer – *Rumex acetosa*
0,30–1,00 ♂ 5–7 (rötlichgrün)

Rumex acetosella (Polygonaceae) L.



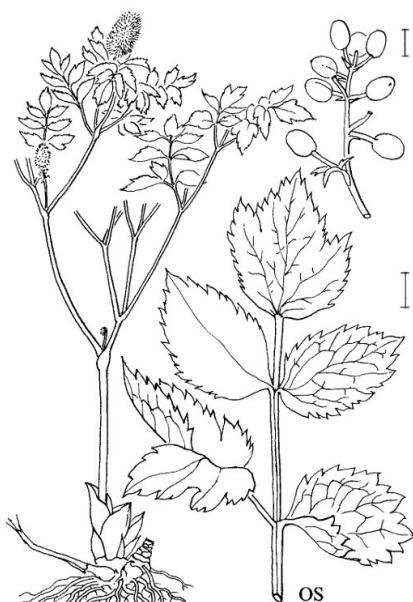
Wiesen-Sauerampfer – *Rumex acetosa*
0,30–1,00 ♂ 5–7 (rötlichgrün)

Aconitum napellus (Ranunculaceae) L.



Blauer E. – *A. napellus* subsp. *lusitanicum*
0,30–2,00 ♂ 6–8 ▽ (tiefblau bis
dunkelviolett) ✕ S. 783

Actaea spicata (Ranunculaceae) L.

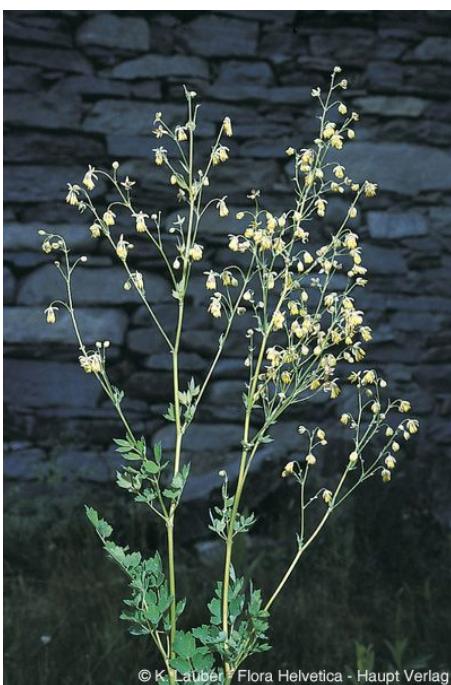


Christophskraut – *Actaea spicata*
0,30–0,60 ♂ 5–6 (weiß. Fr schwarz)

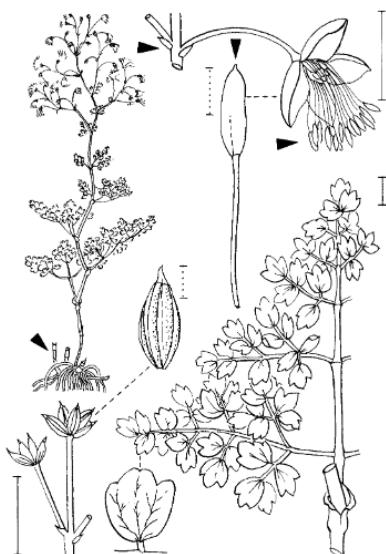
Aquilegia vulgaris (Ranunculaceae) L.



Thalictrum minus (Ranunculaceae) L.



Gewöhnliche Akelei – *Aquilegia vulgaris*
0,40–0,80 ♂ 5–7 ▽ (blauviolett, selten rosa
od. weiß)



**Kleine W. – *Th. minus* 0,15–1,20 ♂ 5–8
(gelblich)

Rhamnus cathartica (Rhamnaceae) L.



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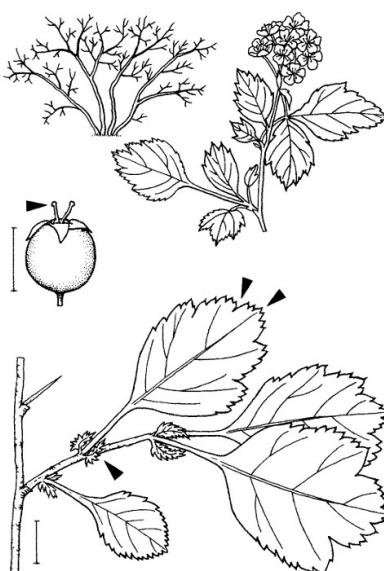


**Purgier-K. – *Rh. cathartica* 1,00–3,00
H. 5–6 (gelblichgrün. Fr von grün sofort
schwarz färbend)**

Crataegus laevigata (Rosaceae) (Poir.) DC.

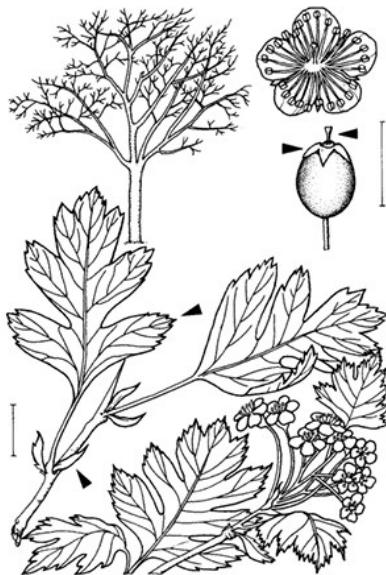


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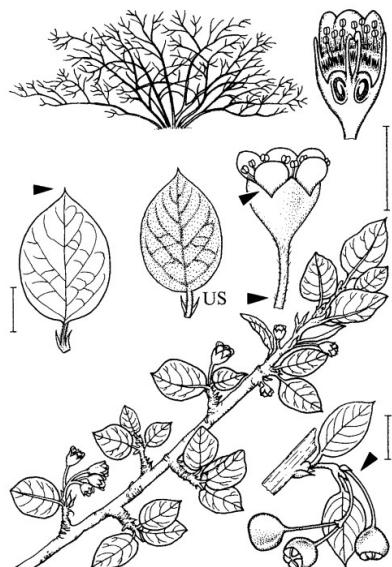
**Zweigriffliger Weißdorn – *Crataegus laevigata* subsp. *laevigata* Bis 8,00 H. 5
(weiß. Fr dunkelrot. Auch Baum)**

Crataegus monogyna (Rosaceae) Jacq.



Eingrifflicher W. – *C. monogyna* Bis 12,00
H 5–6 (weiß od. rot. Fr dunkelrot. BlUS Seite
bläulichgrün. Auch Strauch)

Cotoneaster integerrimus (Rosaceae) Medik.



Gewöhnliche Zwergmispel – *Cotoneaster*
integerrimus 0,50–2,00 H 4–5 ▽ (weiß od.
rosa. Fr rot, selten weiß)

Fragaria vesca (Rosaceae) L.



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Wald-E. – *F. vesca* 0,05–0,20 ♀ 5–6
(weiß. Spitzen der BIZähne hellrosa, grün gesäumt)

Karpatiosorbus franconica (Rosaceae) (Bornm.) Sennikov & Kurtto

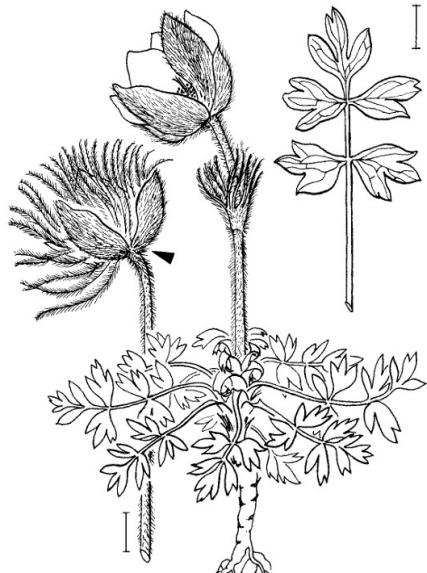
Sorbus franconica



Potentilla verna (Rosaceae) L. *Potentilla tabernaemontani*



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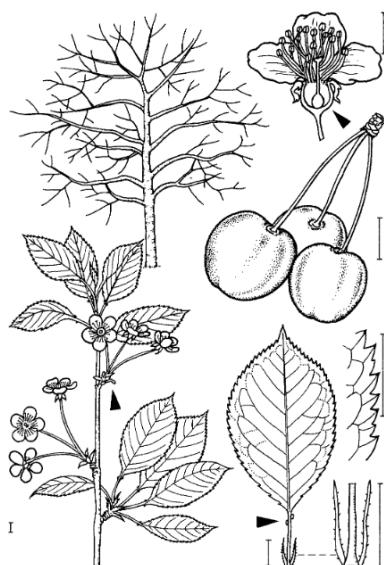


Frühlings-K. – *P. vernalis* 0,05–0,30 ♂
4–6 ▽ (gelblichweiß, außen hellviolett
überlaufen)

Prunus avium (Rosaceae) L.



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****Vogel-Kirsche, Süß-K. – *P. avium***
Bis 25,00 ♂ 4–5 (weiß. Fr schwarzrot bis
gelbrot)

Rosa canina (Rosaceae) L.



Hunds-R. – *R. canina* 1,00–3,50 ₋ 5–7
(blassrosa od. weiß. Formenreich)

Rosa micrantha (Rosaceae) Borrer ex Sm.

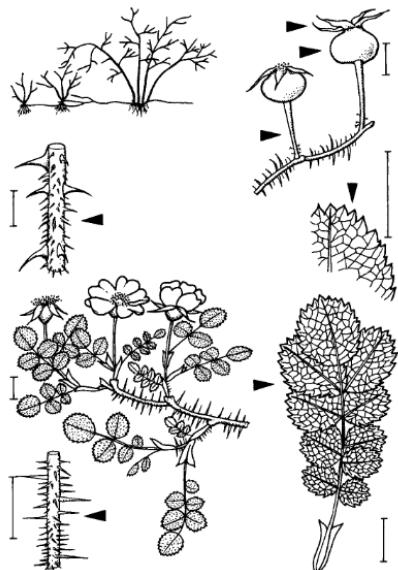


Kleinblütige R. – *R. micrantha*
(1,00–)2,00–3,00 ₋ 6–7 (weiß od. blass-rosa. Bl schwach nach Apfel duftend)

Rosa spinosissima (Rosaceae) L.



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Pimpinell-R. – *R. spinosissima* 0,20–1,20
H 5–6 (weiß, gelblich, selten hellrosa. Fr schwarzbraun)

Rubus idaeus (Rosaceae) L.

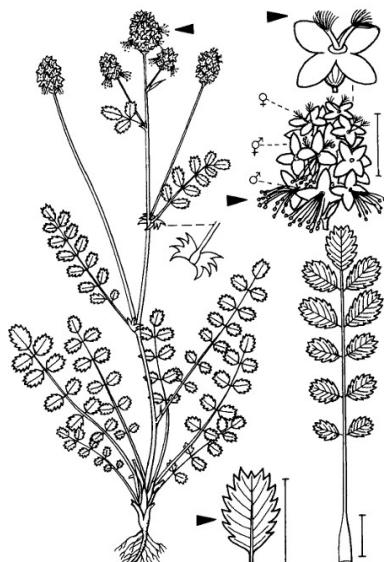


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Himbeere – *R. idaeus* 0,60–2,00 H 5–6
(weiß. Fr rot. BlÜSeite weißfilzig. Stacheln violett)

Sanguisorba minor (Rosaceae) scop.



**Kleiner Wiesenknopf – *Sanguisorba minor* 0,15–0,50(–0,80) ↗ 5–8 (erst grünlich, dann rötlich)

Sorbus aria (Rosaceae) aggr. *Aria edulis*

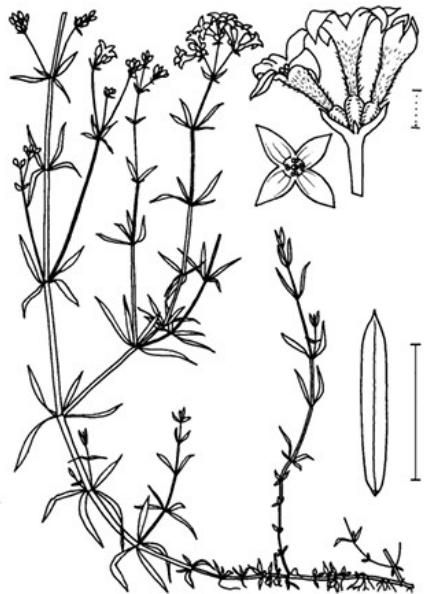


*Gewöhnliche Mehlbeere – *Sorbus aria*
Bis 10,00 ↗ 5–6 (weiß. Fr orange bis rot.
BLUSeite weißfilzig)

Asperula cynanchica (Rubiaceae) L.



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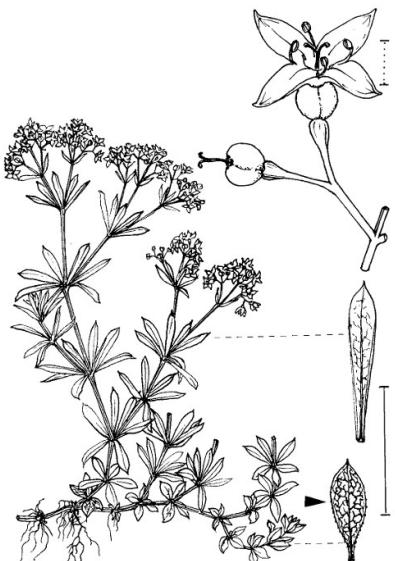


Hügel-M. – *A. cynanchica* 0,05–0,30 ♂
6–9 (weiß, außen rosa überlaufen)

Galium anisophyllum (Rubiaceae) vill.



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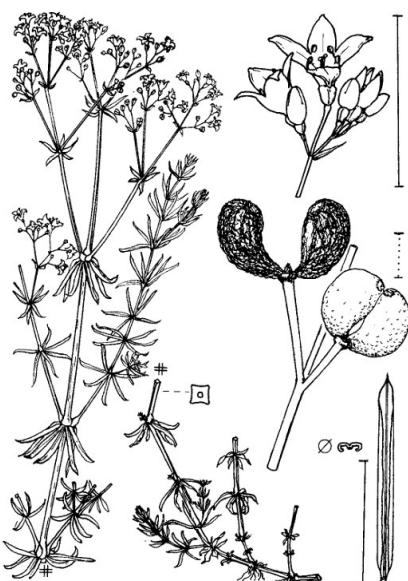


*Ungleichblättriges L. – *G. anisophyllum*
0,05–0,15 ♂ 7–9 (gelblichweiß bis weiß)
↗ S. 787

Galium glaucum (Rubiaceae) L.



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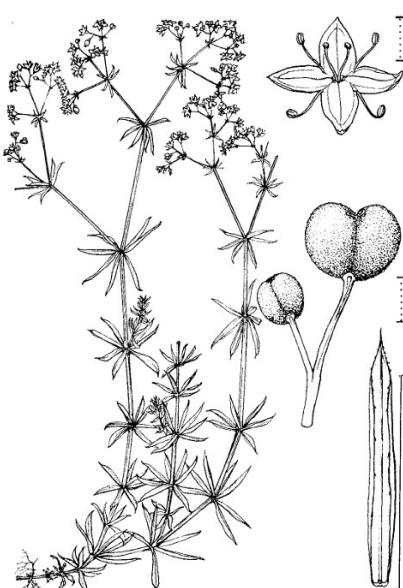


Blaugrünes Labkraut – *G. glaucum*
0,30–0,60 ♂ 5–7 (weiß. Bl u. Stg blaugrün
bis weißlichgrün)

Galium pumilum (Rubiaceae) Murray



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Heide-L. – *G. pumilum* 0,10–0,40 ♂ 6–8
(weiß)

Galium saxatile (Rubiaceae) L.



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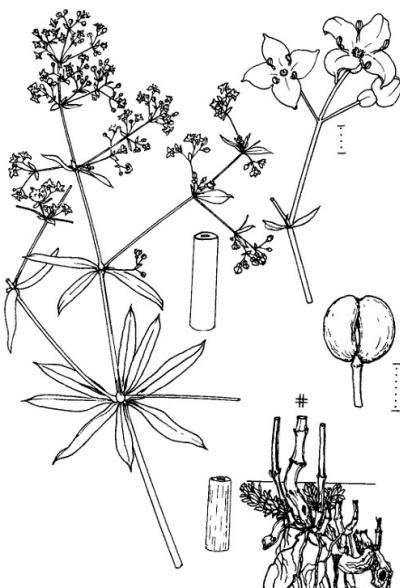


Harzer L. – *G. saxatile* 0,08–0,25 ♂ 6–8
(weiß, in der Knospe manchmal leicht rosa
getönt)

Galium sylvaticum (Rubiaceae) L.



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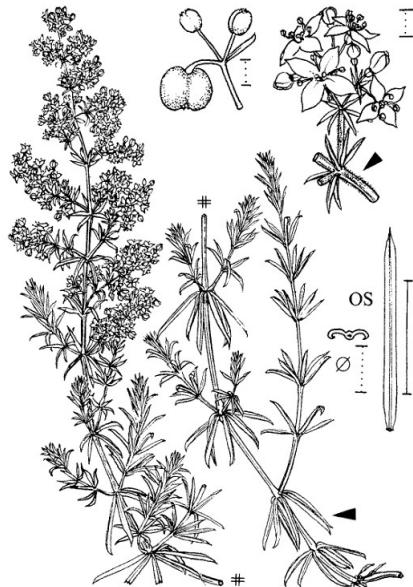


Wald-L. – *G. sylvaticum* 0,30–1,00 ♂ 7–8
(weiß. Ganze Pfl. blaugrün)

Galium verum (*Rubiaceae*) L. Subsp. *verum*



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*Echtes Labkraut – *Galium verum*
0,20–0,70 ♂ 6–9 (zitronen- bis goldgelb)
↗ S. 787

Populus tremula (*Salicaceae*) L.



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Zitter-P. – *P. tremula* Bis 25,00 ♂ 3–4
(♂ purpurgrau, ♀ rötlich, Narben purpur)

Salix caprea (Salicaceae) L.

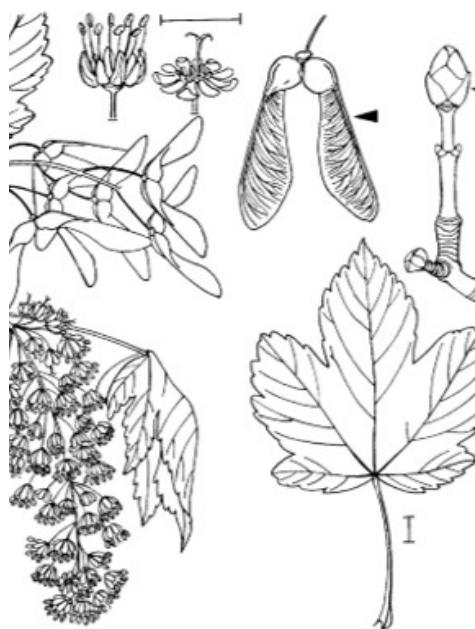


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Sal-Weide – *Salix caprea* 3.00–10.00 ♂ 3–4 ♂ goldgelb, ♀ grün. Zweige kahl, nur amfangs weißhaarig

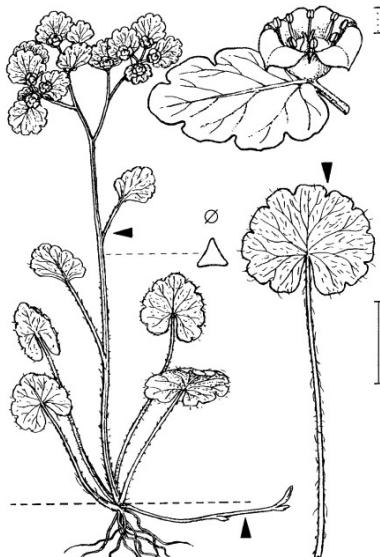
Acer pseudoplatanus (Sapindaceae) L.



Chrysosplenium alternifolium (Saxifragaceae) L.



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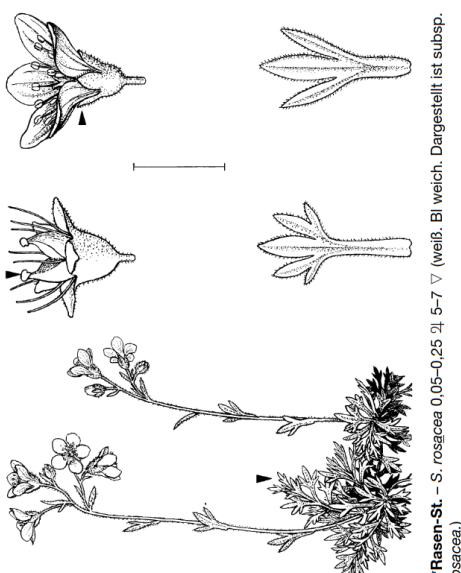


Wechselblättriges Milzkraut –
Chrysosplenium alternifolium 0,15–0,20 ♀
4–6 (gelb. HochBl gelbgrün)

Saxifraga rosacea (Saxifragaceae) Moench



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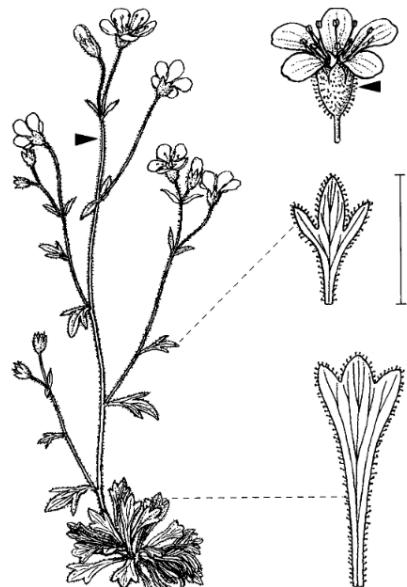


**Weisen-St. – *S. rosacea* 0,05–0,25 ♀, 5–7 ▽ (weiß. Bl. weich. Dargestellt ist subsp. rosacea.)

Saxifraga tridactylites (Saxifragaceae) L.



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Finger-Steinbrech – *Saxifraga tridactylites*
0,02–0,18 ♂ ⊖ 4–6 (weiß)

Verbascum lychnitis (Scrophulariaceae) L.

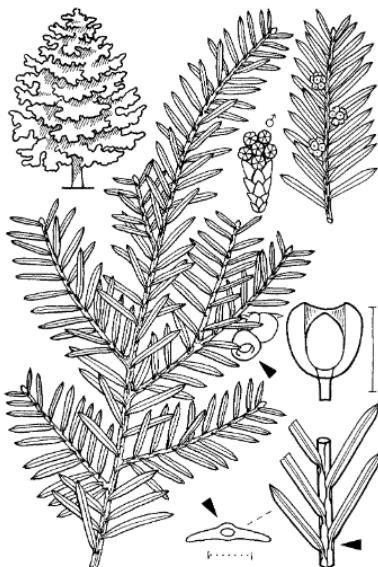
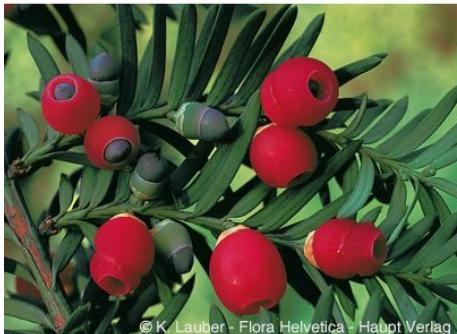


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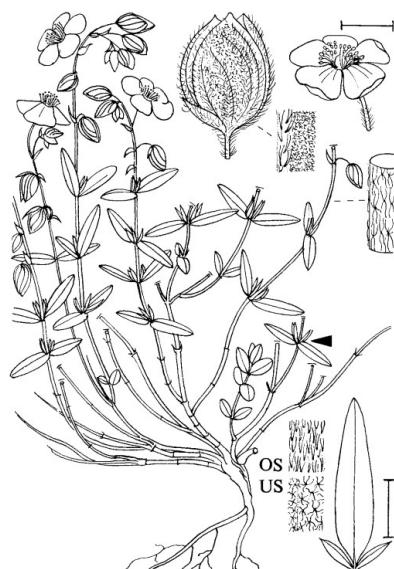
Mehlige Königskerze – *Verbascum lychnitis* 0,60–1,20 ♂ ⊖ 6–8 (hellgelb od.
weiß, Staubfäden weißwollig)

Taxus baccata (Taxaceae) L.



Gewöhnliche Eibe – *Taxus baccata*
Bis 15,00(-18,00) h 3-5 ▽ (Nadeln oseits
dunkelgrün, useits heller. Samenmantel rot)

Helianthemum nummularium ssp. *obscurum* (Thymelaeaceae)
(Celak.) Holub

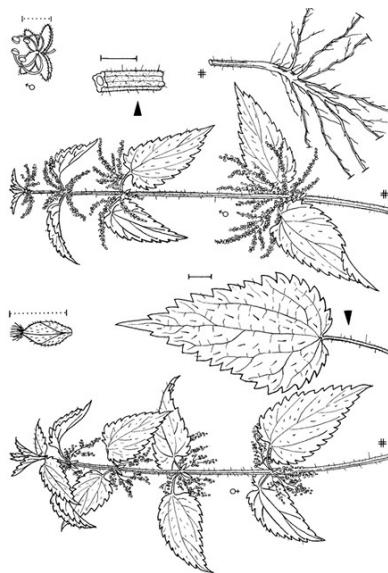


**Gewöhnliches Sonnenröschen –
Helianthemum nummularium 0,10–0,20 h
5–10 (gelb od. gelblichweiß)

Urtica dioica (Urticaceae) L.



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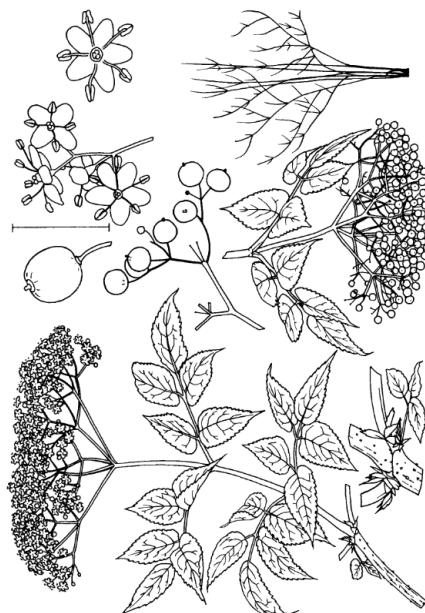


**Große Brennnessel – *Urtica dioica* 0.30–1.50 2l. 7–10 (grün). Pfl. meist 2häusig, seltene thaläusig. Biennia. u. Kurze dornlose Haare. Blätter raumharrig. Blütenstände dunkelgrün, matt od. kaum glänzend) ▶ S.785

Sambucus nigra (Viburnaceae) L.



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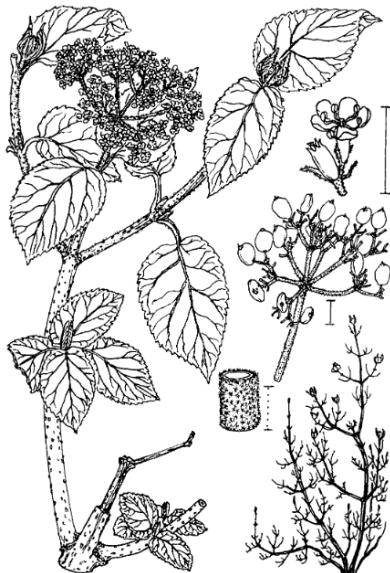


Schwarzer Holunder – *Sambucus nigra* 3.00–7.00 h. 6–7 (weiß. Staubbeutel hellgelb). Fr. über rötlichbraun reif schwarz. Fr. Stiel oft rot überlaufen. SigMark weiß)

Viburnum lantana (Viburnaceae) L.



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Wolliger Sch. – *V. lantana* 1,00–3,00 ♂
4–6 (schmutzigweiß. Fr erst rot, vollreif
schwarz)

Viola hirta (Violaceae) L.



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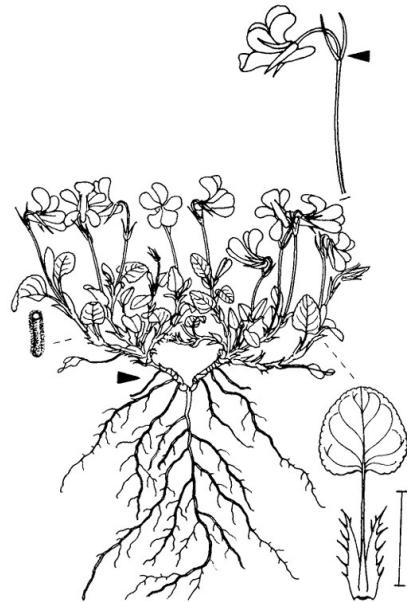


Behaartes V. – *V. hirta* 0,05–0,25 ♀ 4–5
(blau, Sporn rötlichviolett)

Viola rupestris (*Violaceae*) F.W.Schmidt



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Sand-V. – *V. rupestris* 0,03–0,08 ¼ 5–6
(blauviolett, selten rötlich)

Non-Vascular Plants

Bryophytes

Hornworts

- Thalloid body like some liverworts
- Reproductive structures: elongated and horn-like



Bryophytes

Liverworts

- Leafy like mosses, but flatter, more ribbon-like appearance, less obvious differentiation between stems and leaves
- Thalloid: flat and spread out like a thin crust.



Bryophytes

Mosses: Acrocarpous mosses

- Clearly differentiated stems and leaves
- Growth pattern: upright, tend to form dense clumps
- Reproductive placement: reproductive structures at the top of vertical stems
- Environmental preference: adaptive to varying moisture conditions, can survive drying



Bryophytes

Mosses: Pleurocarpous mosses

- Growth pattern: Pleurocarpous mosses spread out, forming mats
- Reproductive placement: along the sides of branches
- Environmental preference: consistently wet habitats



Lichens

Crustose

- Crust adhering tightly to the substrate
- Cannot be removed without damaging the substrate
- Most common morphotype in cliff plots!



Lichens

Foliose

- Leaf-like lichens
- Attached at some points: some parts lift away from the substrate.
- Flat, leafy appearance, distinct upper and lower surface



Lichens

Fruticose

- Bushy or hair-like
- Grow away from the substrate in all directions
- Often cylindrical or branched
- Do not have a distinct upper and lower surface.

