

Alta in Wahsatch Mts., 2800 m (Jones, Pl. Ut. n. 1150)! Arizona. Kalifornien (Palmer)! — Juli—September.

Nota. Hue pertinere videtur etiam 538. *H. longiberbe* Howell, Fl. N.-W.-Am. I. (1908) 295. — Tota planta pilis longis mollibus sparsim vestita, caule humili 45—45 cm alto ascendente vel suberecto, foliis lanceolatis haud vel sparsim dentatis 7,5—15 cm longis, anthela irregulariter paniculata saepe oligocephala, involucris campanuliformibus 12 mm longis, squamis interioribus 10—20 lanceolatis acuminatis, externis angustioribus, omnibus eglandulosis pilis longis patentibus dense vestitis. — Oregon: Am Columbiafluß in der Cascadenkette.

539. *H. Babcockii* Zahn. — *H. cynoglossoides nudicaule* Hall et Babcock, Pl. of the Sierra Nevada Mts. n. 4225! — Pseudophyllopodum. Caulis 2—3 dm tenuis glaberrimus basi ipsa tantum subpilosus, scapiformis. Anthela subracemosa eglandulosa epilosa, interdum parcefloccosa, acladio 10—15 mm, ramis ad 6 viridibus, inferioribus remotis 1(—2)-cephalis, capitulis 3—8 (reliquis abortis). Folia caulina inferiora 6—10 dense conferta glauca effloccosa utrinque densissime et longe pilosa subtus et basin versus petioleque dense crinita (ad 6 mm) integerrima, reliqua remota abrupte reducta anguste lanceolata vel bracteiformia. Involucra 8 mm cylindrico-ovata canofloccosa sparsim microglandulosa saepissime epilosa, pedicellis tenuibus viridibus bracteolis pallidis obsitis, squamis lanceolatis obtusiusculis vel subacutis. Ligulae subexsertae, stylis ± inteis saepe subexsertis. Achaenia 3,5 mm sursum subattenuata.

Var. *setosiceps* Zahn. — Squamis minus floccosis densius microglandulosis setis basi obscuris modice numerosis obsitis; ligulis stylosis.

Kalifornien: Auf vulkanischem Boden in N.-O.-Shasta Co. an der Sierra Nevada, 1300 m! — Juli—September.

540. *H. chelannense* Zahn. — *H. Scouleri* valde simile. Caulis 7 dm, crassus, aphyllododum, supra medium glaberrimus, anthela glaberrima (epilosa, eglandulosa) vel parcefloccosa thyrsioideo-paniculata, ramis ad 20, inferioribus valde remotis patentibus ad 8 cm longis divaricatis oligo- vel pleiocephalis (capitulis subnumeris abortis!), summis subumbellatis, pedicellis vix vel apice floccosis (ceterum glabris). Folia caulina ad 20 sensim decrescentia (densissime setosa!). Involucra canofloccosa epilosa microglandulosa. Ligulae stylosae, stylis lividis. Reliqua ut in *H. Scouleri*.

Washington: Chelan in Okanogan Co. (Elmer n. 496)! — Juli—September.

541. *H. cascadorum* Zahn. — *H. longipilo* affine. Pseudophyllopodum. Caulis glaberrimus tenuis ad 25 cm altus; anthela paniculato-thyrsoidea vix vel parcefloccosa, acladio 10 mm, ramis tenuibus viridibus deorsum eglandulosis remotis parum elongatis oblique vel arcuato-patentibus 1—3-cephalis, pedicellis tenuibus epilosis dense glandulosis apice floccosis bracteolis 1—2 glandulosis obsitis; capitulis c. 12. Folia caulina inferiora ad 10 dense conferta late lanceolata integerrima utrinque attenuata latissime alato-subpetiolata vel subsessilia acuminata subacuta saepe plicata effloccosa utrinque densiuscule setosa (3—4 mm), reliqua 5 abrupte parva anguste lanceolata vel reducta valde glabrescentia subtus unacum bracteolis brevissime setulosa. Involucra 8—9 mm dense floccosa et glandulosa epilosa, squamis latiusculis ± attenuato-obtusis obscure viridibus canescentibus pallide vel subviridi-marginatis. Ligulae exsertae, stylis livescentibus Achaenia 3,5 mm fusco-nigra.

Cascade Mts.: Dead Indian road (Cusick n. 2956 pp.)! — Juli—August.

542. *H. longipilum* Torr. in Hook. Fl. bor.-am. I. (1833) 298; Torr. et Gray, Fl. of N.-Am. II. (1843) 477; Fr. Symb. 449; Epicr. 154. — *H. barbatum* Nutt. in Trans. Am. Phil. Soc. n. s. VII. (1844) 70. — *Pilosella longipila* Sz. Sz. in Flora (1862) 439. — Phyllopodum, hypo- vel aphyllododum, valde spectabile, ubique longe, inferne longissime (ad 15[—20] mm) setoso-pilosissimum. Caulis ad 1 m altus rigidus valde crassus, inferne dense setosus (setis erectis) et dense foliatus, sursum glabratus sed dense vel densissime glandulosus et ± floccosus; anthela thyrsioidea angusta longissima (ad 60 cm), in planta macra saepe simpliciter racemosa, subcanofloccosa, densiuscule vel densissime glandulosa, ramis tenuibus brevibus pedicellisque brevissimis dense floccosis haud vel disperse pilosis. Folia effloccosa utrinque dense longissime setosa,

interdum supra glabrescentia, oblonga vel oblongo-lingulata vel lanceolata sessilia saepe magna (ad 16 : 3 cm), caulina 10—20 sensim decrescentia, inferiora approximata saepe lanceolato-lingulata obtusa, summa lineari-lanceolata vel subulata bracteisformia. Involucra 7—9(—10) mm, 20—30-flora denique crasse ovata dense vel subcanofloccosa epilosa vel pilis solitariis obsita dense glandulosa. Glandulae ubique lutescentes. Squamae angustae lineares subobtusae vel acutiusculae margine pallidae. Ligulae parvae, stylis livescensibus. Achaenia 2,5 mm atra fusiformia, pappo subfulvo.

Offene Wälder und Prärien: Wisconsin: Albion in Dane Co. (Kumlien, Pl. Visc. n. 20)! Michigan! Illinois! Missouri: St. Louis, usw.! Arkansas! Indian Territory: Sapulpa (Bush)! usw. Kansas. Nebraska. Texas. — Juli, August.

543. *H. cynoglossoides* A.-T. Spicil. (1884) 20 et in Ann. Jard. Genève I. (1897) 97 pp. ?; A. Gray in Proc. Am. Ac. XIX. (1883) 68. — ? *H. Scouleri* Hook. ex Torr. et Gray, Fl. N.-Am. II. (1843) 478 pp. ex A. Gray in Proc. Am. Ac. XIX. (1883) 68; Syn. fl. N.-America I. 2. (1886) 429. — Hypo- vel aphyllodum. Caulis gracilis vel crassiusculus 25—60 cm altus, pilis basi bulbosis dilutis sat brevibus modice vel dense setosus, effloccosus, apice sparsim glandulosus et minus vel haud hispidus. Anthela paniculato-thyrsoidea apice glomerato-subracemosa disperse glandulosa et setis basi obscuris brevibus patentibus modice numerosis vel densiusculis obsita, acladio brevissimo, ramis 8—12, summis dense confertis 2—5-cephalis, inferioribus 2—6 remotis oblique erectis subfoliaceis subbrevibus oligocephalis, bracteis bracteolisque densiuscule breviter setosis, pedicellis brevibus vel brevissimis  $\pm$  dense floccosis minute glandulosis. Folia ad 15, haud vel vix subdenticulata sensim decrescentia, lanceolata vel spatulato-oblonga, praesertim inferiora utrinque dense breviter setosa (setis basi bulbosis) effloccosa parce et minute glandulosa, inferiora approximata longa (ad 15 mm lata) obtusiuscula valde sensim in petiolum latissime alatum basi late vaginantem attenuata, media breviora sessilia, superiora 2 vel numerosiora remota in bracteis lineari-lanceolatas sensim transeuntia. Involucra 8—10 mm crasse cylindrico-ovata densissime minute luteolo- simul microglandulosa, squamis subimbricatis sublatis obtusis dilute submarginatis, exterioribus brevibus laxis subfloccosis et setulis brevibus sparsis vel modice numerosis obsitis. Ligulae subexsertae luteae. Styli fuscii. Achaenia 3—4 mm fusca, pappo albido.

Brit.-Columbia bis Kalifornien und Rocky Mountains. N.-W.-Wyoming (Parry n. 188); Snake River im Yellowstone Park (Nelson, Wyom. Pl. n. 6570)! Montana bis Washington Territory und Oregon. Siskiyou Co. in Kalifornien. — August.

Var.  $\beta$ . *nudicaule* Gray l. c. XIX. 68. — Foliis omnibus radicalibus vel caulinis 1—2 angustis, caule glabro.

Nördliche Sierra Nevada in Kalifornien: Lassen's Peak (Lemmon).

544. *H. Parryi* Zahn. — *H. cynoglossoides* A.-T. in Ann. Jard. Genève I. (1897) 77 pp. — Aphyllodum, inferne hirsutissimum. Caulis tenuis vel gracilis, 4—6 dm, inferne longe setoso-hirsutissimus, sursum cito minus, apice sparsim setulosus sed subglandulosus, effloccosus. Anthela paniculato-thyrsoidea epilosa effloccosa densissime sublonge et obscure glandulosa, acladio ad 15 mm, ramis ad 8 oblique erectis tenuibus (bracteis bracteolisque vix vel setoso-subciliatis) apice 1—3-cephalis, pedicellis tenuissimis vix floccosis sublonge glandulosis. Capitula 10—20. Folia caulina ad 12 glaucescenti-viridia  $\pm$  magna utrinque modice, subtus margineque basin versus dense longe setosa vel supra  $\pm$  glabrescentia, vix vel obsolete denticulata, omnia sensim decrescentia remota vel inferiora approximata, reliqua abrupte minora valde remota, inferiora latissime vel anguste lanceolata obtusiuscula mucronata vel acuta longe in petiolum alatum sublongum longe hirsutissimum attenuata (ad 16 : 2 cm), sequentia attenuato-subpetiolata vel sessilia oblanceolata breviter acuta vel anguste lanceolata vel linearia acutissima multo minus setosa, superiora vix ciliata vel glaberrima. Involucra 8—9 mm ovato-cylindrica vix vel sparsim pilosa densissime obscure micro- et macroglandulosa, squamis subangustis obtusiusculis vel acutiusculis. Ligulae  $\pm$  exsertae luteae. Styli fusciduli. Achaenia 2,5 mm atra columnaria, pappo albescenti.

In offenen Wäldern der pazifischen Küste (Howell, Pacif. coast. Pl. [1884])!

Var.  $\beta$ . *chaetobraehion* Zahn. — Ramis dense glandulosis setulis brevibus modice numerosis obsitis; involucris disperse pilosis.

Pazifische Küste!

545. *H. Bolanderi* Gray in Proc. Am. Ac. VII. (1868) 365; XIX. (1883) 68; Bot. Calif. I. 440; Howell, Fl. N.-W.-Am. I. (1903) 396. — *H. Greenei* Gray valde simile, sed folia effloccosa, scapi et anthela involucrique glabra. Caulis 15—45 cm glaber plerumque solitarius phyllopodus. Folia obovato-spathulata vel late oblanceolata, pleraque obtusa, sparsim vel haud denticulata 5—7,5 cm longa in petiolum alatum attenuata, subtus pallide glauca, supra sparsim vel densius et longe hirsuta; caulina 0 vel reducta. Anthela laxa paniculata diffusa oligo- vel pleiocephala. Involucra angusta 5—15-flora 10 mm longa epilosa, squamis longioribus 5—10 lineari-lanceolatis obtusiusculis vel acutis, externis 2—3 (brevibus) subangustioribus. Achaenia 4—5 mm longa sursum leviter vel vix attenuata castanea, pappo subfusco aequilongo.

Pazifisches Nordamerika: Humboldt Co. (Bolander), Sacramentoquellflüsse (Pringle) und Sierra Co. (Lemmon) in Kalifornien.

546. *H. Cusickianum* Zahn. — Caulis hypo- vel aphylopodus 3—4 dm, tenuis ve gracilis, floccosus, basi ipsa pilosus, apice glandulosus; anthela racemoso-thyrsoidea subfloccosa dense glandulosa, aclado 10—15 mm, ramis viridibus ad 12, inferioribus remotis arcuato-patentibus tenuibus sat brevibus epilosis plerumque 1—3-cephalis. Folia lanceolata vel angustiora utrinque  $\pm$  dense floccosa et breviter setoso-subpilosa, subtus et praesertim inferne et in petiolo dense setosa subcristata, caulina ad 10—15, inferiora 6—8 saepe in caulis basi dense conferta, acutiuscula vel acuta, in petiolum late alatum attenuata vel attenuato-sessilia, vix subdenticulata, reliqua abrupte minora remota anguste lanceolata acuta vel bracteiformia. Involucra crasse (denique ovato-)cylindrica modice vel subdensiuscule floccosa dense luteolo-glandulosa vix vel parcissime pilosa, squamis latiusculis  $\pm$  obtusis dorso viridi-atris, praesertim interioribus late et dilute marginatis. Ligulae breves luteae, stylis lividis. Achaenia 3,5 mm subatra sursum subattenuata. — Inter sequentem et *H. horridum*.

Cascade Mts.: Dead Indian road (Cusick n. 2956 pp. [1902]). — August.

547. *H. chapaceanum* Zahn. — *H. cynoglossoides* Elmer exs. n. 550!; nec A.-T. — Hypophyllopodum. Caulis 4—5 dm gracilis  $\pm$  floccosus, basi tantum breviter setosus; anthela subindeterminata thyrsoidea eglandulosa epilosa subfloccosa vel densiuscule floccosa, aclado 10—15 mm, ramis 10—15, inferioribus valde remotis patentibus oligocephalis (capitulis partim abortis), pedicellis tenuibus subfloccosis apice saepe sparsim minute glandulosis 2—3-bracteolatis; capitulis 20—30. Folia caulina 10—15 viridialabrescentia utrinque dense floccosa integerrima, inferiora approximata longa lanceolata (12:1 cm) in petiolum late alatum attenuata margine costaque dorsali modice, basin versus densiuscule breviter setosa, disperse minute glandulosa, reliqua angustiora dense floccosa tantum, supra caulis medium abrupte decrescentia angusta vel bracteiformia. Involucra 8—9 mm ovato-cylindrica subfloccosa vel densiuscule floccosa epilosa dense subminute glandulosa, squamis sublatiusculis subobtusis vel acutiusculis obscure viridibus dilute marginatis. Ligulae subexsertae substylosae luteae, stylis fuscis. Achaenia 3,5 mm fusca, sursum subattenuata.

Washington: Am Berg Chapaca in Okanogan Co. (Elmer n. 550)! — Juli—Sept.

548. *H. Greenei* Gray in Proc. Am. Ac. XIX. (1883) 69; Syn. Fl. N.-Am. II. 2, p. 429. — Caulis ad 3 dm altus subscapiformis laxa et diffuse paniculatus cum anthela et involucris canotomentosus. Folia radicalia villosa-hirsuta utrinque floccis canescentia obovato-spathulata in petiolum attenuata, caulina 1—2 parva. Involucra 10—11 mm cylindrica eglandulosa angusta 5—15-flora, squamis interioribus 7—9 sublate linearibus obtusis, exterioribus 2—3 brevissimis. Ligulae luteae. Achaenia 5 mm crassiuscula, castanea sursum leviter vel vix attenuata, pappo obscure fusco.

Nordkalifornien: Nadelwälder der Scott-Mountains in Siskiyou Co. (Greene). — Juli—September.

549. *H. oregonicum* Zahn. — *H. barbigerum* Greene in Pittonia III. (1897) 228; How. Fl. N.-W.-Am. I. (1903) 396; nec Stenstr. — Pluricaule, rhizomate terrae profunde inserto. Caules 10—30 cm, hypophyllopori, basin versus saepe conferte foliati sursum scapiformes. Folia lanceolata vel spatulata breviter petiolata, acuta, margine integro longe patenti-hirsuta, utrinque pariter ac caulis minus pilosa, subtus densissime floccosa. Anthela laxa 3—5-cephala cum caule disperse pilosa, pedicellis elongatis. Involucra campanuliformia c. 8—10 mm longa 15—30-flora floccis subtomentosula et pilis subobscuris setulosis hirsuta, squamis linearibus. Achaenia columnaria. Pappus albus.

Pazifisches Nordamerika: Von Ashland Butte in Oregon bis Lassen's County in Kalifornien.

550. *H. hemipolioides* Zahn. — *H. cinereum* Howell, Fl. N.-W.-Am. I. (1903) 396; nec Tausch. — Cinereum, floccis minutis albis obtectum. Caules complures 15—25 cm alti basin versus tantum foliati (hypophyllopori). Folia lanceolata vel angustiora acuta vel acuminata 7,5—10 cm longa sparsim denticulata, in petiolos late alatos attenuata, pilis crispis sparsim hirsuta. Anthela conferte corymboso-paniculata oligo-vel pleiocephala. Involucra 10—12 mm vix vel sparsim hirsuta (tomentosulo-floccosa), squamis linearibus margine late scariosis, externis (brevibus) subulatis. Achaenia columnaria. Pappus sordidus.

Pazifisches Nordamerika; Table Rock in Clackamas County in Oregon.

551. *H. Howellii* Gray in Coult. Bot. Gazette XIII. (1888) 73; How. Fl. N.-W.-Am. I. (1903) 396. — Caulis 3—6 dm dense floccosus inferne hirsutus phyllopodus subscapiformis. Folia spatulata vel oblanceolata haud vel interdum sparsim denticulata 7,5—10 cm longa obtusa in petiolum brevem attenuata, caulina pauca vel 0 sessilia, omnia utrinque subcanofloccosa villosocrinita. Anthela laxe paniculata pleiocephala. Involucra 10 mm 5—15-flora cylindrica, squamis longioribus 6—8 lineari-lanceolatis obtusis, externis paucis, omnibus dense floccosis epilosis. Achaenia vix vel sursum parum attenuata, pappo (initio) albo.

Pazifisches Nordamerika: Mooney Mountain in Josephine County in Oregon.

552. *H. Rydbergii* Zahn. — *H. griseum* Rydb. in Mem. N.-York Gard. I. (1899) 464. — Caulis phyllopodus vel hypophyllopodus gracilis vel crassiusculus ± vel dense floccosus, ubique ± dense setosus (2—4 mm) vel sursum ± glabrescens, basi olivacea saepissime densius setosus, 4—8 dm altus; anthela racemoso-thyrsoidea canotomentosa modice vel dense pilosa, acladio brevi, ramis 8—15 saepe e glandulosis, summis confertis, reliquis remotis brevibus 4—3-cephalis vel 4-cephalis (capitulis reliquis abortis), pedicellis brevissimis saepe minute glandulosis. Folia lanceolata vel angustiora saepe valde elongata ad basin latissime alatum longe attenuata utrinque modice vel densiuscule floccosa et ± dense setosa (2—3 mm), haud vel subdenticulata; radicalia florendi tempore plerumque emarcida, caulina ad 18 longa, superiora magis remota cito minora lineari-lanceolata densius floccosa in bracteis transeuntia, inferiora approximata erecta sensim minora (ad 16: 1,5 cm). Involucra 8,5—10 mm crasse ovato-cylindrica dense vel densissime minute glandulosa subcanofloccosa disperse vel modice pilosa, squamis sublatiusculis obtusis vel obtusiusculis obscuris late dilute marginatis, extimis dilutioribus subulatis. Ligulae subbreves luteae. Styli brunneo-lutei vel livescentes. Achaenia fusca, 3,5 mm, sursum parum attenuata.

Idaho: Henry's Lake, 2650 m (A. Rydberg, Expl. of Montana and Yellowstone Park n. 5309)!

553. *H. horridum* Fr. Epier. (1862) 454; A.-T. Spicil. (1884) 19. — *Pilosella horrida* Sz. Sz. in Flora (1862) 439. — Phyllopodum, pluricaule, ubique pilis longis albis (manifeste dentatis subplumosis exsiccatione rufescentibus) dense crinitum vel lanatum. Caulis 1—4 dm gracilis subfractiflexus densissime pilosus (3—4 mm) superne minutissime et sparsim vel subglandulosus, usque ad apicem foliosus. Anthela indeterminata thyrsoidea vel paniculata ramosissima polycephala subglandulosa sed dense et brevius hirsuta, ramis ad 10, summis confertis subcymosis, inferioribus valde remotis interdum ex omnibus axillis ortis erectis foliolis hirsutissimis obtusis thyrsoideo-oligo-