



<https://www.biodiversitylibrary.org/>

Botany of the Faeröes, based upon Danish investigations

Copenhagen, Nordisk Forlag, 1901-1908

<https://www.biodiversitylibrary.org/bibliography/8101>

Pt.2: <https://www.biodiversitylibrary.org/item/34796>

Page(s): Page 625, Page 626, Page 627, Page 628, Page 629, Page 630, Page 631, Page 632, Page 633, Page 634, Page 635, Page 636, Page 637, Page 638, Page 639, Page 640, Page 641, Page 642, Page 643, Page 644, Page 645, Page 646, Page 647, Page 648, Page 649, Page 650, Page 651, Page 652, Page 653, Page 654, Page 655, Page 656, Page 657, Page 658, Foldout, Illustration, Text, Foldout, Text, Page 659

Holding Institution: MBLWHOI Library

Sponsored by: MBLWHOI Library

Generated 29 December 2022 2:14 PM

<https://www.biodiversitylibrary.org/pdf4/1539471i00034796.pdf>

This page intentionally left blank.

THE HIERACIA FROM THE FÆRÖES

BY

H. DAHLSTEDT.

Some time after his return home from a botanical journey to the Færøes in 1895, Mr. H. G. Simmons sent the Hieracia he had gathered there to me for determination and description. At that time I was prevented from investigating them scientifically, and I was obliged to content myself with a cursory examination, which, however, proved the gatherings to be of so much interest that when Mr. C. H. Ostenfeld some years later asked me to investigate the *Hieracia* gathered in the Færøes by himself, Mr. J. Hartz and Prof. E. Warming during the summers of 1895, 1896 and 1897, but mostly in the latter year, it was with very great interest that I took up the work. The gatherings proved to work in well with each other, partly because each of them contained different forms, and partly because some of the forms were identical though they had been gathered from different localities. The gatherings are, moreover, representative of almost the whole area of the group of islands. An unexpectedly rich knowledge of the *Hieracium*-flora has thereby been attained, especially when we bear in mind that previously no scientific knowledge of the *Hieracium*-flora of these islands had existed. The number of the distinct forms is certainly not large (21 species and 2 varieties) in proportion to the numerous forms which occur in the surrounding countries, but they are notwithstanding of great interest on account of the insight they give us when considered in relation to the neighbouring floral districts. Now that attention has been drawn to the *Hieracium*-flora of these islands it will unquestionably prove to be much richer than we have been led to believe, judging from the previous finds. As is well known, the genus *Hieracium* is perhaps at the present time, the European plant-genus which is richest in forms, and in full

development. Usually the different forms have not a wide geographical distribution. I am therefore of opinion that the study of the *Hieracia* of a single district in its relation to the neighbouring floral districts ought to be particularly useful as a contribution towards the solving of various plant-geographical questions. This has become still more clear to me by studying the *Hieracium*-flora of Scandinavia. I think that it will more particularly be of great help to us in determining the ways by which the flora of a land immigrates, and also the relative time for its immigration. The composition of the *Hieracium*-flora of the Færøes confirms the opinion expressed by C. H. Ostenfeld regarding the origin of the rest of the phanerogamous flora. Its composition proves to be rather peculiar. As I said before, 21 species and 2 varieties are known. These belong to the following groups of the genus: —

<i>Vulgata</i> , sub-group <i>Subcæsia</i>	2
— — — <i>Vulgata genuina</i>	4
<i>Rigida</i>	3
<i>Cerinthoidea</i>	12 (of which two are varieties)
<i>Alpestris</i>	2

The forms in question stand in the following relation to the flora of the neighbouring countries: — Of the two forms of *Subcæsia*, *H. sarcophylloides* is closely allied to a forma *H. sarcophyllum* Stenstr. which occurs in Norway and the south of Sweden, while *H. ardisodon* has, as far as I know, no closely related forms in Scandinavia. *H. sarcophyllum* has otherwise a distribution in Scandinavia which suggests that it belongs to a western floral element. Of the forms referred to *Vulgata genuina*, *H. cordifrons* is extremely closely allied to the Icelandic *H. holopleurum* Dahlst., and *H. holopleuroides* Dahlst., as also to *H. ciliolatum*. *H. constrictiforme* is unquestionably very closely connected with the Scandinavian forms: — *H. constringens* Norrl. and *H. subalpestre* Norrl. — which have a northern distribution — but it comes perhaps nearer to *H. prolatatum* K. Joh. from the south of Sweden. All these belong beyond doubt to the same group of forms, comprising both lowland and sub-alpine forms. *H. epileucum* occupies a more isolated position, and as yet I know nothing regarding its relation to the forms from the surrounding countries.

Of the Færøese *Rigida*, *H. Simmonsianum* belongs to a group of forms which is represented in Scandinavia by *H. lapponicum* Fr.,

and approaches forms allied to *H. sparsifolium* Lbg., it must thus be regarded as a subalpine form. Both the others, *H. epileucooides* and *H. færoëse* are closely related to each other. The latter is, moreover, genetically allied to *H. stictophyllum* Dahlst. which occurs in the west of Norway, and, again, a form parallel to the latter is developed in Wales, Scotland, and the Shetland Islands. Both the last-mentioned Færøese forms may without doubt be referred to an Atlantic floral element. With regard then to the two forms: *H. Hartzianum* and *H. Ostenfeldii* referred to *Alpestris*, sub-group *Semidovrensia*, none of them appear to be connected with the Scandinavian forms of the same group, though the former somewhat resembles *H. glaucicolor* Dahlst. which occurs in the mountain regions in the south of Norway. Both of them belong, however, to the Alpine floral element. The most interesting of all the Færøese forms, and those which characterize its *Hieracium*-flora are those belonging to *Cerinthoidea*. They are also the most numerous and constitute upwards of one half the number of the forms hitherto known. They would have been in a still greater majority, if I had been able to include some other forms which occurred in the gathering, but which I was obliged to lay aside undetermined owing to the incompleteness of the material. — *Cerinthoidea* is a group of forms which belongs exclusively to the Atlantic region. From the Pyrenees it partly spreads sparsely across the South European Alps as far as Greece, and partly extends along the Atlantic to Scotland. It is plentifully represented in England and especially in Ireland and Scotland, and is also met with dispersed over the Shetland Islands. Some of its forms occur in Iceland, and a single species was discovered in the west of Norway. The greater part of the Færøese, some of the Scottish, and both the Icelandic forms belong to a sub-group, which is somewhat modified in habit in conformity with certain *Cæsia* of *Vulgata* or with *Schmidtii*-like forms of *Oreadea*. To this sub-group belong *H. kalsoëse*, *H. leucograptum*, *H. heterophyllum*, *H. perintegrum*, and *H. subrubicundum* (forms allied to which occur in Scotland) and *H. veterascens* which stands in a close genetic relation to the Icelandic *H. arctocerinthe* Dahlst., and *H. mesopolium* Dahlst. *H. peramplum*, *H. perampliforme* and *H. melanochrotum*, on the other hand, come much nearer to the southern, true *Cerinthoidea*, and forms allied to them are also met with in the British Isles, viz. *H. anglicum* Fr., etc. As regards *H. scoticiforme*, the latter belongs to a form-group

of *Cerinthoidea*, the members of which have a *rigidum*-like habit. It has allied forms (*H. scoticum* Hanb., etc.) in the British Isles.

The above proves that the greater part of the Færøese forms are Atlantic, especially so all the *Cerinthoidea*, *H. færøense* and *H. epileucoides* of *Rigida*, and perhaps *H. sarcophylloides*, and *H. ardisodon* (both of which ought otherwise to belong to the Temperate-European element), or, in all, 14 (16) forms; 5 (perhaps 7) may, on the other hand, be reckoned among the Temperate-European forms, viz., *H. constrictiforme*, *H. ciliolatum*, *H. epileucum* and *H. cordifrons* of *Vulgata*, and *H. Simmonsianum* of *Rigida*. Both the *Alpestria*: *H. Hartzianum* and *H. Ostenfeldii* belong to the Arctic-Alpine element. It is an interesting fact that the Atlantic element in this genus, is so strongly represented in the Færøes. The presence of this element lends considerable weight to the theory of a post-glacial land connection, which perhaps existed much longer than we have hitherto believed, judging from the other data. The occurrence in Iceland of two *Cerinthoidea*, closely related to the Færøese forms, appears to me also to be an important support for the above theory. It may be argued that these forms having flying apparatus, may easily be carried to great distances by the help of the wind; but, on the one hand, I have proved that the fruits of the *Hieracia* usually do not spread very far, and on the other, that the *Cerinthoidea* have heavier and larger fruits than the greater part of the other groups, with the exception of *Oreadea* and *Alpina vera*, consequently, if it be maintained that they are conveyed across larger areas by the agency of the wind, then they ought to be more poorly represented in the Færøes than the rest of the groups which have lighter fruits.

That the forms of the remaining categories are so few in number may be accounted for by the climatic and physical conditions prevailing on the islands. The greater part of the forms of *Vulgata*, *Rigida* and *Alpestria* are especially adapted to life in various localities in woody districts. The *Cerinthoidea*, on the other hand, as proved by their general structure, are distinctly coast and rock forms. It is therefore very remarkable that the *Oreadea*-group, which almost exclusively consists of rock and coast forms, and numerous forms of which are represented in Great Britain (chiefly Scotland), on the Norwegian coasts, in western as also in eastern Sweden, and a few, moreover, in Iceland, is quite wanting in the Færøes. The *Alpina* are likewise totally absent from the Færøes,

though numerous forms of this group occur in the rocky districts of Scotland and Scandinavia and in Iceland. But as regards the latter group, the climatological conditions prevailing in the Færøes are hardly favourable for its growth. What is applicable to *Vulgata*, etc. may also be applied to *Foliosa*, which are not represented in the Færøes, though they occur in the three areas just mentioned. *Piloselloidea* are also totally absent, but the latter are also extremely rare in Great Britain, and in Europe the greater part of them have a chiefly eastern and a southern distribution¹. Lastly, I may remark, that none of the Færøese forms are identical with those from the adjacent countries, but judging from our present knowledge of them, they all appear to be endemic. The immigrated forms have doubtless originated the latter. But as far as comparison has been possible, they come extremely near to forms from the neighbouring countries. With regard to the Færøese *Hieracium*-flora, the fact of its being endemic is not of any great importance, as not only some wider groups of the *Hieracia*, but also many of its sub-sections (e. g. in Scandinavia) are as a rule endemic.

I. *Vulgata* Fr.

A. SUBCÆSIA (Almq.) Dahlst.

1. HIERACIUM SARCOPHYLLOIDES *Dahlst.* n. sp.

(Tab. XI. Fig. 2.)

Caulis 15—25 ctm. altus, crassiusculus, 0—1-phyllus, glaber v. superne parcissime pilosus, parce v. apice sparsim stellatus. — **Folia basalia** 3—5, exteriora elliptica — ovalia v. late ovata, denticulata, obtusa — obtusiuscula, intermedia ovalia — ovato-lanceolata denticulata v. basi longius dentata sæpe subtruncata, obtusiuscula — subacuta, intimum \pm anguste — late ovato-lanceolatum — oblongo-lanceolatum ad basin obliquam, contractam irregulariter et longe, sæpe late dentatum — laciniato-dentatum, dentibus imis sæpe curvatis et in petiolum decurrentibus, a medio subintegrum v. parcissime dentatum — denticulatum; omnia in petiolis densissime et longe, in nervo dorsali sat floccoso \pm dense pilosa, in marginibus sparsim pilosa v. adulta \pm scabra, supra glabra — subglabra,

¹ Besides, forms of this group do not at all, or only as a rare exception, enter the alpine region.

subtus parce pilosa et leviter stellata. — **Folium caulinum** minutum lineare, sessile, subintegrum v. parvum, lanceolatum, petiolatum, basi parce, anguste et longe dentatum, cæterum \pm integrum, \pm stellatum et pilosum. — **Inflorescentia** furcato-paniculata 2—3-cephala, pedicellis erecto-patentibus, summis acladium 20—45 mm. longum \pm longe superantibus, infimis brevioribus, pilis raris, brevibus, obscuris, glandulis sparsis v. sub involucris densioribus et floccis sparsis, superne densiusculis vestitis. — **Involucra** obscura, brevia, crassa, 12—14 m. m. longa 8—10 mm. lata basi rotundata, postea truncata, squamis latis, extimiis linearibus, obtusis, intermediis basi lata sensim in apicem obtusiusculum attenuatis, intimis e basi lata vulgo subito v. sensim in apicem acutiusculum contractis, in marginibus stria floccosa \pm angusta notatis, in apicibus præsertim squ. interiorum efloccosis, leviter v. vix comosis, cæterum in dorso parce stellatis, pilis mollibus, brevibus, albescentibus v. fuscis basi brevi crassa nigra, \pm densis et glandulis brevibus parum conspicuis oblectis. — **Calathium** 40—45 mm. diametro, subplenum, *ligulis* latis, breviter dentatis, *stylo* luteo-ferrugineo.

Österö: Kodlen near Ejde at 400 m. (H. G. Simmons). Flower and fruit, August 17, 1895.

H. sarcophylloides belongs to *Subcæssia* of *Silvatica* and especially to the section of forms, the more developed members of which are represented in Scandinavia by *H. sarcophyllum* Stenstr. and *H. plumuligerum* Dahlst. These and related forms undoubtedly belong to an older group of forms within the section just mentioned, and, on the one hand, have characters in common with such extreme forms as *H. stenolepis* Lbg. and *H. sagittatum* Lbg., and, on the other, approach certain forms of *Cerinthoidea*, especially those bearing a decided resemblance to the *silvaticum*-type¹.

This form is distinguished from *H. sarcophyllum* Stenstr. by its thinner, longer, and fewer-toothed leaves, by its shorter stem, which is usually leafless or has an undeveloped narrow leaf, by the fewness of its heads which occur in a more dichotomous inflorescence, with longer and more erect peduncles, covered sparsely with glandular hairs, by its broader involucre, more densely hairy, and with a few glandular hairs, and by its broader and more obtuse phyllaries.

¹ As regards the morphologic-biologic types belonging to the genus *Hieracium* I refer to my: »Bidrag till sydöstra Sveriges *Hieracium*-flora«. II. Kongl. Svenska Vetenskapsakademiens Handlingar, Bd. 25, No. 3, 1893.

2. HIERACIUM ARDISODON *Dahlst.* n. sp.

(Tab. XI. Fig. 1.)

Caulis 25—32 ctm. altus, gracilis, 0—1-phyllus, inferne subglaber v. parce pilosus, superne sparsim pilosus parce stellatus. — **Folia basalia** in rosulam 3—6-foliam congesta, parva, exteriora ovata — elliptica v. lanceolata, breviter et acute dentata acuta, interiora \pm lanceolata, longe et irregulariter subulato-dentata longe acuta, in petiolis sæpe rubicundis sat dense et longe pilosa, in marginibus pilis sparsis et floccis parcis (interdum etiam microglandulis rarissimis) obsita, supra dilute viridia, subglabra v. ad marginem versus parce pilosa, subtus canescenti-viridia, sparsim, in nervo dorsali \pm dense stellato densiuscule pilosa, cæterum rare stellata. — **Folium caulinum** nullum v. lineare subulato-dentatum — subintegrum, supra medium caulis v. ad medium affixum v. etiam \pm ovato-lanceolatum — lanceolatum, longe et irregulariter subulato-dentatum, longe acutum, infra medium, sæpe ima basi affixum, sessile, subtus \pm dense stellatum. — **Inflorescentia** (vulgo) bicephala acladio 17—40 mm. longo ramoque \pm superante, erecto-patente v. leviter curvato floccis parcis, pilis albescensibus basi crassa nigra et glandulis gracilibus parcis, microglandulis densiusculis immixtis obtectis. — **Involucra** sat gracilia basi ovata in pedicello 2—3-squamoso subdecurrente; *squamis* exterioribus brevibus linearibus sublaxis \pm obtusis, cæteris e basi latiore lineari-lanceolatis, in apicem angustum obtusiusculum v. acutum sensim et longe protractis, pilis densis mediocriter longis albescensibus basi crassa longa nigra et glandulis raris — sparsis obtectis, in marginibus præsertim basin versus stria angusta floccosa notatis, intimis \pm virescenti-marginatis, apice \pm vinose coloratis. — **Calathium** c. 35 m. m. diametro \pm radians, ligulis angustis, stylo badio-virescente.

Vaagö: Sandevaag (J. Hartz and C. Ostenfeld). Flower and fruit, August 27, 1897.

On account of the richly leafy basal rosette, and the generally leafless stem, which has often a rudimentary, sometimes fairly well-developed stem-leaf with short petiole (in the latter case often situated near the base of the stem), this form is allied to the *Silvaticum*-type, and it may most properly be placed under the subgroup *Subcæsia* of *Vulgata*. Among the different groups of forms belonging to the latter, the present form belongs to the group which comes nearest to *Cæsia*. It has several features in common with

H. constrictiforme, e. g. in the clothing of the involucre, and the dentation of the leaves; but except for its decidedly *cæsium*-like habit, the latter form differs widely from the form in question, by its usually coarse stem with often 2 sessile leaves, its short, coarse involucre, more closely covered with stellate hairs, and furnished with broader, more obtuse phyllaries. Neither in Scandinavia nor in the British Isles have I hitherto observed forms related to *H. ardisodon*, nor have they been met with in Iceland.

The most noteworthy feature of this form is the distinctly toothed hairs in the lower parts of the plant, which gives it a certain resemblance to *Oreadea* and *Cerinthoidea*. Similar hairiness has been observed in several of the *Silvatica* from the west coast of Scandinavia and from the British Isles. In certain cases it must be explained as an inheritance from common ancestors and indicating relationship to the above-mentioned groups; in other cases it is unquestionably an adaptation to certain climatological conditions. Moreover, the occurrence of the small (often, however, rather indistinct) microglands on the peduncles is peculiar, and may possibly point to a relationship to *Oreadea*.

B. VULGATA GENUINA (Almqu.) Dahlst.

3. HIERACIUM CORDIFRONS *Dahlst.* n. sp.

(Tab. XI. Fig. 9.)

Caulis 20—35 ctm. altus, crassiusculus, subflexuosus, 1—2-folius, basi usque ad folium caul. infimum sparsim, molliter et longe pilosus, cæterum glaber, apice parce stellatus. — **Folia basalia** sub anthesi 3—5, exteriora parva elliptica obtusa subintegra, intermedia ovalia — ovata subintegra — parce denticulata basi sæpe obliqua dentibus \pm reversis angustis sæpe prædita, intimum ovatum basi ovata sæpe obliqua \pm cordata dentibus longioribus paucis \pm reversis acutis prædita, cæterum parce dentatum acutum; **folium caulinum** infimum sæpe magnum prope basin caulis affixum, interdum ad rosulum basalem valde approximatum \pm ovatum, basi sæpe \pm cordatum, subintegrum — sparsim dentatum, ima basi dentibus paucis longioribus acutis reversis præditum, sat longe petiolatum, **folium summum** (v. unicum) subtus \pm stellatum parvum \pm ovatum — cordatum, sessile — breviter petiolatum, \pm acutum — cuspidatum, inferne sparsim subulato-dentatum — subintegrum, margine sæpius \pm plicatum; omnia in petiolis et in nervo dorsali \pm stellato sat dense,

longe et moliter villosa, in marginibus brevius et minus dense ciliata, supra glabra, subtus sparsim pilosa. — **Inflorescentia** paniculata, 2—5-cephala, ramis petiolisque \pm erecto-patentibus, summis accladium 12—30 mm. longum \pm superantibus, inferioribus haud superantibus v. æquantibus, dense floccosis, epilosis et eglandulosis v. sub involucri pilis raris interdum obsitis. — **Involucria** \pm atroviridi-canescencia, variegata, subcrassa basi ovata, squamis sat latis, exterioribus \pm linearibus obtusis, intermediis \pm ovato-lanceolatis obtusiusculis, interioribus e basi latiore sensim in apicem obtusum — acutiusculum attenuatis, omnibus apice \pm obscuris nudis v. leviter comosis, in marginibus fere ad apicem stria \pm lata conspicua floccosa notatis, pilis mediocriter longis, basi \pm longa crassa obscura apiceque brevi albido, \pm densis obtectis, glandulis nullis v. raris minutis obsitis, intimis paucis subepilosis, cuspidatis. — **Calathium** c. 40 mm. diametro, *ligulis* sat longe dentatis, apice glabris v. \pm papillois, *stilo* fusco-virescente, \pm fusco-hispidulo.

Syðerö: Tværaa, flowering and fruiting, July 19, 1897 (J. Hartz and C. Ostenfeld); Tværaa (Trangisvaag), flowering and fruiting, July 26, 1897 (Warming); Kvalbö at »Karagjov«, beginning to flower, August 7, 1895 (Simmons); Österö: »Gjov« at Selletræ, in fruit on August 21, 1897 (J. Hartz and C. Ostenfeld).

This form is more particularly distinguished by its broad radical leaves, short-toothed or almost entire, of which the inner ones, as well as the large, petiolate, lower stem-leaf, have a decidedly cordate base, by its densely floccose peduncles, and the distinctly variegated involucries, the phyllaries of which have a broad floccose margin, and which are, moreover, plentifully covered with short, coarse hairs. The stem-leaves are usually two in number, but occasionally a single stem-leaf occurs, in the former case the lower one often constitutes a part of the rosette, or is at least situated very closely to it. The upper stem-leaf is rather small, acute, and of an ovate form, sometimes with a more or less distinctly cordate base, when it is often furnished with a petiole, which is, however, small. It has often a very characteristic appearance on account of the long, narrow teeth at its base, and the strongly waved and folded upper margin. The appearance, and several of the characters of this form, and especially of the one from Österö, which has the base of the basal leaves more decurrent, and stem-leaf more elongated, remind one considerably of *H. holopleurum* Dahlst. as well as of *H. holopleuroides* Dahlst., both of which are natives of Iceland. It

is unquestionably very closely related to both of them, but especially to the latter. It is distinguished from them more particularly by the form of the leaves, by the absence of hairs and glands on the peduncles, by the shorter and denser hairs on the involucre, and by the almost total absence of glandular hairs. Judging from the form of the leaves, the Österö-form should be regarded as an intermediate form, but as regards the clothing of the involucre and the peduncles it exactly agrees with the form from Syderö. The occurrence in the Færøes of a form so distinctly and closely related to the above-mentioned Icelandic forms is of really great interest as it is a further proof of the relationship of the flora of these countries.

4. HIERACIUM CONSTRICTIFORME *Dahlst.* n. sp.

(Tab. XI. Fig. 3.)

Caulis 20—55 ctm. altus, 2—3-phyllus, erectus v. adscendens, sæpe subflexuosus, sat robustus, inferne sparsim — dense et longe pilosus, parce stellatus, medio parce — sparsim pilosus, ± scaber, sparsim stellatus, apice pilis mollibus densiusculis, floccis sat frequentibus et glandulis raris obtectus. — **Folia basalia** in rosulam 4—5-foliam (rosulis 3—4-foliis, prolepticis sæpe auctam) congesta, sæpius sat magna, exteriora ovalia — elliptica v. ovata denticulata ± obtusa, intermedia et intima ± ovata — ovato-lanceolata v. late lanceolata v. etiam ovalia ± acuta, breviter, longiuscule et acute, sat regulariter dentata; **folia caulina** inter se longissime distantia, infimum breviter — mediocriter et ± late petiolatum v. etiam subsessile, ovatum — ovato-lanceolatum, nunc prope basin, nunc ad tertiam partem caulis (v. supra) insertum et intermedium ovato-lanceolatum — lanceolatum, sessile, ± acuta, longiuscule et acute, magis irregulariter dentata, summum lanceolatum — sublineare v. etiam ovato-lanceolatum, parvum, ad basin argutius dentatum — denticulatum, interdum subintegrum; omnia in petiolis, ad basin marginum et subtus in nervo dorsali ± stellato sat dense — dense, molliter et longe pilosa, cæterum in pagina inferiore sparsim, in pag. superiore parce pilosa v. subglabra. — **Inflorescentia** ± contracta, 3—5-cephala, ramo 2—3-cephalo, ex axillo fol. summi evoluto sæpe aucta, ramis summis v. omnibus et pedicellis ± superantibus acladioque 10—20(—30) mm. longo ± dense floccosis, pilis mollibus, ± densis et glandulis sparsis — densiusculis (sub involucri sat densis), parvis obtectis. — **Involucra** mediocria — magna,

crassa basi ovata — rotundata postea \pm truncata, obscure atro-virescentia, variegata, *squamis* extimis brevibus linearibus, intermediis lineari-lanceolatis, latis, in apicem obtusum — obtusiusculum contractis, intimis paucis sæpe acutis, in marginibus \pm anguste floccosolimbatis v. apice latius limbatis et albido-barbatis, dorso parce floccosis, pilis albidis, sat longis, mollibus, densis — densissimis vestitis et glandulis parvis, densiusculis — sparsis obtectis. — **Calathium** 40—45 mm. diametro, sat plenum, *ligulis* sat latis, apice glabris v. parce et levissime ciliatis, breve dentatis, *stylo* sicco fusco-atro.

Syderö: Vaag (H. G. Simmons); Vaagö: Sandevaag (J. Hartz and C. Ostenfeld). In full flower on August 10, 1895.

This form approaches the Scandinavian form-group to which *H. constringens* Norrl., *H. subalpestre* Norrl., and *H. prolatum* K. Joh. belong. It resembles most closely the latter in the clothing of its involucre, but is easily distinguished from it by the greater breadth as well as the rounder base of the involucre, by the leafy stem (2—3 leaves), and by the regularly, closely, and sharply toothed leaves. As in the case of *H. prolatum* it agrees fairly well with *H. sagittatum* Lbg. of *Silvatica* with reference to its involucre. It must unquestionably be regarded as a western parallel form of *H. prolatum*. It is doubtless closely allied to the preceding ones, as also to *H. ciliolatum*, while at the same time it is possible that it stands in a distant, genetic relation to *H. holopleurum* Dahlst. from Iceland.

5. HIERACIUM CILIOLATUM Dahlst. n. sp.

(Tab. XI. Fig. 4.)

Caulis 20—25 ctm. altus, 1—2-phyllus, erectus, sæpe \pm flexuosus, sat robustus, basi sparsim — densiuscule, medio parce pilosus, apice subglaber, parce stellatus. — **Folia basalia** c. 3, exteriora ovata — lanceolata sparsim et inæqualiter dentata, interiora ovata, basi sæpe subobliqua subcontracta \pm cordulata, crebre, inæqualiter et \pm late dentata dentibus basalibus \pm reversis; **folia caulina**: infimum parvum ovato-lanceolatum basi sæpe \pm cuneata, semiamplectente sessile \pm acutum \pm inæqualiter et argute dentatum, summum parvum lineare; omnia in petiolis pilis mediocriter longis, mollibus — rigidiusculis, dentatis, albidis dense vestita, marginibus sparsim et brevius, in nervo dorsali, parce stellato dense v. densiuscule pilosa, subtus sparsim pilosa, supra glabra — subglabra. — **Inflorescentia** laxa — laxissime paniculata, sæpe ampla, ramo ex axillo folii caulini summi sæpe aucta, ramis pedicellisque acladium

20—35 mm. longum sæpe longe superantibus, \pm patentibus, inferne densiuscule superne dense floccosis, pilis brevibus rigidiusculis, inferne sparsis superne densiusculis vestitis et glandulis inferne nullis superne sparsis et sub involucrio sat frequentibus obtectis. — **Involucra** medioeria obscura, subvariegata, basi ovata postea truncata, *squamis* exterioribus linearibus obtusis, intermediis et intimis e basi lata in apicem obtusiusculum — subacutum leviter comosum attenuatis, exterioribus in marg. anguste floccoso-limbatis, intermediis præsertim apicem versus in marg. floccosis, intimis late viridimarginatis, omnibus (intimis exceptis) pilis brevibus rigidiusculis albidis \pm dense obtectis et glandulis mediocribus raris (— sparsis) obsitis. — **Calathium** 35—40 mm. diametro, subradians, *ligulis* sub apicem v. apice parce et breviter pilosis, *stylo* sicco valde obscuro.

Syderö: Frødebö, on a »hammer« (J. Hartz and C. Ostenfeld). In full flower on July 19, 1897.

This form comes very near the preceding, to which it bears a great likeness as regards the clothing of the involucries. It is, however, easily distinguished from it by the more irregularly and coarsely toothed leaves, and by the inner radical leaves at the somewhat attenuate base being slightly cordate, with reflexed teeth. Besides, the hairs are everywhere shorter, stiffer, and more distinctly toothed, and the involucries less densely floccose. Usually there occurs at the margin of the outer phyllaries a narrow, but occasionally interrupted stripe, which becomes somewhat more dark-red towards the top which terminates in a thick tuft of small hairs. On the edges of the middle and inner phyllaries the hairs are either quite wanting or more or less indistinct towards the top. The phyllaries are, in contradistinction to those of the preceding form, somewhat attenuated into a narrow, obtuse, or shorter, sharp point. The present form comes, however, so near to the preceding one that it ought perhaps more properly to be regarded as a variety of it. But as I have not met with any intermediate forms, and I do not know anything about their relation to each other in nature, I think, for the present, they may most conveniently be recorded under different names.

6. HIERACIUM EPILEUCUM *Dahlst.* n. sp.

(Tab. XI. Fig. 5.)

Caulis 20—30 ctm. altus, rectus, gracilis, 1—3-phyllus, sparsim et longe pilosus, parce v. superne sparsim stellatus. — **Folia**

basalia 3—4, exteriora \pm anguste ovata, breviter et inæqualiter dentata, interiora \pm late lanceolata (— subrhomboidea), sparsim et acute dentata, omnia \pm acuta, breve petiolata in petiolis sparsim et longe pilosa; **folia caulina**: infimum \pm lanceolatum (subrhomboidum) basi longa cuneata sessile, sparsim dentatum acutum, superiora \pm lanceolato-linearia sparsim et minute dentata, v. summum lineare \pm integrum, \pm cuspidata; omnia in marginibus \pm sparsim ciliata, in nervo dorsali sparsim floccoso sparsim pilosa, supra subglabra v. parce pilosa, subtus sparsim pilosa, pilis omnibus \pm crassis rigidiusculis. — **Inflorescentia** paniculata oligocephala, ramis \pm erectis leviter curvatis, acladium 8—30 mm. longum \pm longe superantibus, sat dense floccosis et pilis sparsis — densiusculis, sat rigidis vestitis. — **Involucra** parva c. 10 mm. longa, crassiuscula basi \pm ovata, sat obscura; **squamis** exterioribus \pm linearibus obtusis, intermediis \pm ovato-lanceolatis sensim et intimis subito in apicem obtusiusculum — subacutum attenuatis, in marginibus ad basin parce, apice dense et sæpe sat late floccosis, cæterum pilis rigidiusculis sat densiusculis et glandulis minutis rarissimis vix conspicuis obtectis. — **Calathium** 35—40 mm. diametro, radians, **ligulis** latis, longiuscule dentatis, **stylo** luteo.

Kalsö: Mygledal (J. Hartz and C. Ostenfeld). In flower on August 5, 1897.

This form, which somewhat reminds one of the preceding in the clothing of its involucre, is easily distinguishable by its short, slender, and sparsely leafy stem, by having few, ovate-lanceolate — lanceolate, few-toothed radical leaves with short petioles, by its lanceolate, sometimes somewhat rhomboidal to linear-lanceolate, sessile stem-leaves, with few and short teeth, by its long and somewhat stiff, sparsely distributed to fairly densely grown hairs on stem and leaves, by its small, dark involucre, with fairly numerous, somewhat stiff, and patent hairs, among which a few hardly conspicuous glands occur dispersed, by the stellate hairs of its phyllaries, occurring sparingly at the margins and growing denser towards the tops; and, lastly, by its pure, yellow style. As regards the involucre and the colour of the style it is extremely like *H. epileuroides*, which is, however, easily distinguished from it by its larger involucre with broadly obtuse phyllaries, its more leafy stem (the leaves narrow, lanceolate, only slightly toothed and furnished with small, pointed teeth) and its fewer and narrower radical leaves.

H. epileucum is morphologically related to the *vulgatum*-type; *H. epileucoides* on the other hand, to the *rigidum*-type, and probably also genetically to the form-group belonging to *H. rigidum*.

II. Rigida Lbg.

7. HIERACIUM SIMMONSIANUM *Dahlst.* n. sp.

(Tab. XI. Fig. 6.)

Caulis 30—50 ctm. altus, robustus, rigidus 3—5(—6)-folius, sæpe ex axillis fol. summorum v. a medio ramosus, inferne pilis longis densis — crebris, medio sparsis — parcis vestitus, superne parce pilosus — subglaber, apice parce stellatus, basin versus fere effloccosus. — **Folia basalia** florendi tempore emarcida v. 1—3, sæpe inter se paullum distantia, extimum \pm obtusum, intermedia \pm lanceolata — ovata, basi interdum truncato-ovata vulgo cuneata, \pm acuta, intimum \pm ovato-lanceolatum — lanceolatum, \pm acutum, omnia a basi ad medium v. supra medium denticulata — dentata, dentibus paucis 2—4; **folia caulina** cito decrescentia, inferiora internodia vulgo æquantia v. iis longiora, superiora quam internodia vulgo breviora, tertiam v. dimidiam partem eorum vulgo æquantia, inferiora nunc petiolata ovali-lanceolata, nunc \pm lanceolata sessilia, 2—3-dentata v. denticulata, acuta, superiora lineari-lanceolata denticulata — dentata et summa \pm linearia \pm integra, in apicem longum, acutum protracta; omnia saturate viridia in petiolis et in nervo dorsali \pm stellato densiuscule — sat dense pilosa, subtus sparsim pilosa, supra glabra — parce pilosa. — **Inflorescentia** ramis ex axillis fol. summorum 1 — pleiocephalis ortis deorsum sæpe in determinata, \pm paniculata, ramis inferioribus brevibus, summis acladium (5—)25—50 ctm. longum æquantibus v. vulgo superantibus, inferne parce apicem versus sparsim — densiuscule floccosis, inferne subglabris, superne pilis rigidiusculis sparsis v. passim densiusculis obtectis v. parce pilosis — glabriusculis glandulisque inferne nullis, superne solitaribus — raris obsitis. — **Involucra** sat magna atroviridia, 13—14 mm. longa basi ovata — turbinata, postea fere rotundata, squamis plurimis, exterioribus linearibus — elongate triangularibus (v. ovato-lanceolatis) \pm obtusis, paucis in petiolum descendentibus, intermediis e basi lata lanceolatis, cito in apicem angustum obtusiusculum attenuatis, intimis marginibus \pm late viridescendentibus, e basi lata elongate lanceolato-linearibus in apicem

longum obtusiusculum — subacutum, sæpe coloratum attenuatis, exterioribus sæpe apice \pm albido-comosis et floccosis, cæteris apice leviter comosis v. nudis, ad basin sæpe parce et dorso interdum levissime stellatis, pilis raris — sparsis v. subnullis et glandulis parvis — minutis, solitaribus — raris obsitis. — **Calathium** 40—45 mm. diametro, subplenum, *ligulis* apice glabris, dentibus sat longis angustis, *stylo* obscure luteo, sæpe fusco-hispidulo.

Österö: Ejde at Mölen, alt. 25 m., in full flower on August 19, 1895 (Simmons); Syderö on rocks at Vaag (Simmons); Vaagö: Sandevaag in fruit August 27, 1897 (J. Hartz and C. Ostenfeld).

H. Simmonsianum doubtless belongs to the *Rigida*, and among these it comes nearest to the group of forms, which connects the *sparsifolium*-like forms with *Vulgata*, viz. *H. lapponicum* Fr. and forms allied to it. It is unquestionably closely related to *H. epileucoides* as well as to *H. jæröense*, but is distinguished from them by its broader radical leaves, and lower stem-leaves (therefore reminding one somewhat of forms developed like the *subrigidum*-type of *Vulgata*), by having fewer simple hairs and stellate hairs, and by the distinct though sparsely occurring glands on its phyllaries. The middle and inner phyllaries are often very broad, almost ovate at the base, and from somewhere about the middle they rapidly contract into a long, linear-lanceolate, obtuse or tapering part. The stellate hairs are often wanting on most of the phyllaries, sometimes they occur only at the tops of either all or some of the outer ones. The tufts of hairs at the tops of the phyllaries are rather indistinct and are often wanting on almost all the inner ones.

8. HIERACIUM EPILEUCOIDES *Dahlst.* n. sp.

Caulis 30—40 ctm. altus, gracilis, 4—5-folius, inferne sat dense — densiuscule, medio sparsim, superne parce pilosus, rare v. superne sparsim floccosus, subaphyllopodus. — **Folium** infimum (basale) \pm lingulatum — spathulatum, breve petiolatum; *caulina* inferiora \pm lanceolata, acuta, sessilia (v. infimum breve petiolatum), parce et sæpe minute dentata, \pm approximata, intermedia lineari-lanceolata et summa linearia — anguste lineari-lanceolata parce et acute denticulata, cuspidata, magis magisque remota, omnia cito decrescentia, in nervo dorsali \pm stellata, densiuscule pilosa, in marginibus parce pilosa — subglabra, supra glabra, subtus parce pilosa, in pagina superiore interdum \pm maculata. — **Inflorescentia** parva pani-

culata oligocephala, e ramis ex axillis fol. summorum ortis sæpe aucta, ramis pedicellisque \pm erecto-patentibus, accladium (5—)25—50 mm. longum \pm superantibus, inferne sparsim, superne \pm dense floccosis et pilis sat longis rigidiusculis, inferne sparsis, superne sat densiusculis vestitis. — **Involucra** magna c. 14 mm. longa, crassa, atroviridia, basi ovato-turbinata; *squamis* exterioribus linearibus — elongate triangularibus \pm obtusis, intermediis latis \pm ovato-lanceolatis, in apicem obtusiusculum, angustum v. latum \pm obtusum cito v. sensim contractis, in marginibus præsertim ad basin parcissime et passim stellatis, apice densius et latius floccosis, intimis e basi lata in apicem obtusum — obtusiusculum (v. acutum) sensim attenuatis, \pm late viridi-marginatis, omnibus apice \pm comosis, pilis sparsis rigidiusculis obsitis, haud glandulosis. — **Calathium** 43—45 mm. d., subradialis, *ligulis* sat latis, dentibus longis angustis parce papillois, *stylo* lutoo-ferrugineo, fusco-hispidulo.

Strömö: »hammer« at Sjøv (J. Hartz and C. Ostenfeld). In flower on July 31, 1897.

This form is distinguished by its slender, high stem, with the lower leaves closely approximate, lanceolate, and upper ones widely dispersed, lanceolate-linear, acute, with a few indistinct teeth. The involucre are rather large and coarse, with broad, generally obtuse and often broadly obtuse phyllaries, of which the outer and middle ones are slightly floccose at the margins, but have usually a broad, continuous floccose stripe towards the tops, while the inner ones are generally naked. The hairiness differs greatly not only on the different involucre, but often on the different sides and on the different phyllaries of one and the same involucre. Hairs are few on the latter, and glands are almost wanting. On the peduncles and in the lower part of the stem the hairs are rather numerous, stiff and moderately long. This form is distinguished from the one mentioned below by coarser heads, and by being more hairy in all its parts; and from the one mentioned above by its narrower leaves, faintly toothed, and more numerous hairs, and by the absence of glandular hairs on the inflorescence.

9. HIERACIUM FÆROËNSE *Dahlst.* n. sp.

(Tab. XI. Fig. 10.)

Caulis 20—60 ctm. altus, pro maxima parte rufescens, sæpe \pm flexuosus, 6—9-folius, subaphyllopodus, inferne sparsim — den-

siuscule pilosus, parce stellatus, medio subglaber v. rare pilosus, vix stellatus, apice glaber, sub inflorescentia parce stellatus. — **Folia infima** (sæpe sub anthesi emarcida) 1—2 \pm brevia ovalia — oblongo-lanceolata obtusa v. lanceolata acutiuscula petiolata, proxima 1—2 \pm anguste oblonga — oblongo-linearia obtusiuscula, reliqua 4—5 lanceolato-linearia — linearia \pm acuta, inferiora internodiis sæpe triplo — quadruplo longiora, intermedia internodiis duplo v. plus duplo longiora, superiora inter se longe remota parva, summa bracteiformia, omnia remote — remotissime denticulata dentibus patentibus, sæpe mucrone solum significatis, in inferiore parte folii numero 2—3 evolutis, interdum subintegra v. summa magis conspicue dentata, infimis exceptis sessilia, basi ipsa \pm dense pilosa, supra glabriuscula, obscure viridia, fuscopurpureo-maculata, subtus pallidiora, rubropurpureo-maculata, cæterum in marginibus et subtus in pagina sparsim, in nervo dorsali, \pm stellato, præsertim basin versus densius pilosa. — **Inflorescentia** paniculata ramis \pm erecto-patentibus subrectis — leviter curvatis, summis brevibus, inferioribus sat longis, acladium 10—20(—55) m. m. longum æquantibus v. vulgo \pm superantibus, sæpe e ramis brevibus ex axillis fol. summorum ortis \pm indeterminata, ramis pedicellisque sparsim — sat dense floccosis, pilis rigidiusculis sparsis v. sub involucris sæpe densioribus obsitis, eglandulosis. — **Involucra** mediocria 11—12 m. m. longa, sat angusta, atrovirescentia, basi \pm ovato-turbinata, postea sat turbinata, *squamis* exterioribus linearibus sat angustis obtusis, intermediis ovato-lanceolatis in apicem obtusiusculum cito attenuatis sæpe triangulari-lanceolatis (2—2,5 mm. latis), intimis ex ovata basi \pm lanceolatis late viridimarginatis in apicem longum \pm obtusum — obtusiusculum v. (in paucis) subacutum abrupte v. sensim attenuatis, exterioribus parce v. sparsim pilosis, cæteris glabris, omnibus v. plurimis ad marginem apicis parce floccosis, dorso effloccosis v. rare stellatis. — **Calathium** parvum, c. 30 mm. diametro, *ligulis* glabris, *stylo* luteo, leviter fuscohispidulo.

Sy der ò, on rocks at Vaag (H. G. Simmons), »Gjov« at Vaag (J. Hartz and C. Ostenfeld); Fr ò deb ò (J. Hartz and C. Ostenfeld); Ò ster ò, Borgen in Toftevatn (J. Hartz and C. Ostenfeld); Kun ò, »hammer« at Haraldsund (J. Hartz and C. Ostenfeld).

H. færoëense is easily distinguished from the other Færøese forms known to me by its dark-purple spotted leaves. It is very much like *H. epileucum* (which sometimes occurs with spotted leaves), but is easily distinguished from it by the fewer hairs on the involucre

and the peduncles, by the much sparser stellate hairs towards the tops of the few and broad phyllaries and lastly by its rather small involucre with conical base. *H. færoëense* is undoubtedly very closely related to *H. stictophyllum* Dahlst. [Herbarium Hieraciorum Scandinaviæ. Cent. IV (1893) No. 81] from Øxendalen in Norway, but in spite of their having several points in common, the latter is well distinguished by its glabrous stem, which is hairy only at the leaf-insertions, its broader, fewer toothed, glabrous leaves, hairy only on the median nerve beneath, its glabrous peduncles covered more or less with stellate hairs at the upper part only, its long (50—60 mm.) accladium, and lastly by its broader involucre with rounded base, and narrower (1—1,5 mm.) phyllaries with extremely short and few hairs on the back, almost destitute of stellate hairs, but occasionally sparsely intermixed with extremely small glands. Here it may be remarked that in the British Isles generally, as well as in the Shetlands, a form occurs which is exactly identical with *H. stictophyllum*, and is distinguished from it only by its phyllaries being occasionally more richly covered with hairs, and by its leaves being frequently more finely and closely toothed¹. Both the latter forms undoubtedly belong to the same species and may at most be reckoned as two geographical races. Though *H. færoëense* belongs to the same group of species as *H. stictophyllum* and its British parallel form, yet it differs so considerably from both of them, that it is justifiable to give it a separate name, and either classify it — as I have done — as a distinct species, or at least as a sub-species or variety. It has unquestionably been developed more recently in the Færøes. The occurrence of *H. stictophyllum* on the west coast of Norway, where Atlantic species occur dispersed here and there right up to Finmarken, and the fact of its parallel form being widely distributed in Great Britain, seem to suggest that the group of forms to which it belongs should be referred to the Atlantic floral element. This form doubtless immigrated to the Færøes at a period when the climate there was warmer than now, and later on developed into the form I have named *H. færoëense*. These forms throw an interesting light — so it appears to me — on the relationship between the different floral districts in which they occur.

¹ I have seen specimens of this form from Wales, Carnarvonshire (W. R. Linton), Scotland, Perth, Fortingal, and Skye (W. R. Linton), and the Shetland Islands (W. H. Beeby).

III. *Alpestria* Fr.

SEMIDOVRENSIA Elfstr.

10. *HIERACIUM HARTZIANUM* Dahlst. n. sp.

(Tab. XI. Fig. 7.)

Caulis c. 35 ctm. altus, gracilis, flexuosus, 2—3-folius, inferne rare — sparsim et longe pilosus, medio glaber — subglaber, superne vix v. parce stellatus, basi \pm rubicundus. — **Folia basalia** 3—4, exteriora elliptica — obovata obtusa, basi ovata in petiolum apice late alatum abrupte decurrentia, subintegra — breviter dentata, interiora \pm obovata — ovalia in petiolum \pm descendunt \pm crebre et acute fere ad apicem dentata, in petiolis sat dense et longe pilosa, in marginibus sat dense ciliata, subtus in nervo dorsali leviter stellato sat dense — densiuscule pilosa, cæterum sparsim — densiuscule pilosa; **folia caulina** inter se longe remota, cito decrescentia, infimum sat magnum ovatum acutum, sat crebre et acute dentatum — longe subulato-dentatum \pm longe petiolotum, petiolo sat alato basi subamplectente; folia superiora sessilia parva, panduræformia basi amplectente, inferiore parte angustiore \pm longe subulato-dentata, cæterum denticulata — subulato-dentata acuta v. etiam subintegra. — **Inflorescentia** oligocephala, paniculata pedicellis acladium 20—30 m. m. longum \pm superantibus, suberectis, leviter arcuatis, inferne sparsim, superne densiuscule stellatis et glandulis gracilibus densiusculis obtectis. — **Involucra** 14—15 mm. longa basi ovato-turbinata, atrovirescentia, squamis exterioribus lanceolato-linearibus obtusiusculis, intermediis et intimis e basi lata lineari-lanceolatis, sensim in apicem obtusum — subacutum attenuatis, exterioribus et intermediis in marginibus anguste et vix conspicue floccoso-limbatis, cæterum glandulis gracilibus, longis et parvis dense obtectis, intimis late virescenti-marginatis v. totis virescentibus, apice leviter coloratis, sparsius glandulosis. — **Calathium** 35—40 mm. diametro, sat radians, *ligulis* longe et inæqualiter dentatis, *stylo* luteoferrugineo, fuscohispidulo.

Bordö: »hammer« at Bordövig (J. Hartz and C. Ostenfeld). In flower on August 17, 1897.

H. Hartzianum belongs unquestionably to *Semidovrensia* of *Alpestria*. Among the Scandinavian forms it reminds one most of *H. glaucicolor* Dahlst., but is easily distinguishable by its more

numerous hairs on leaf and stem, its broader and larger radical leaves, with sharp and often long and subulate teeth and its broader and shorter stem-leaves and longer involucre, more densely covered with glandular hairs without admixture of simple hairs. From the one mentioned below it is distinguished by its broader, and more finely toothed radical leaves, with longer petioles, its fewer and smaller stem-leaves and its longer involucre, with narrower and more obtuse phyllaries, densely glandular, and showing a few stellate hairs at the margins. The present species is not closely related to *H. glaucicolor* in spite of its outward resemblance.

11. *HIERACIUM OSTENFELDII* *Dahlst.* n. sp.

(Tab. XI. Fig. 8.)

Caulis 20—35 ctm. altus, crassiusculus, flexuosus, 2—3-folius, pbasi \pm ruicundus sparsim et sat longe pilosus, medio glaber, apice arce stelblatus et rare — rarissime glandulosus. — **Folia basalia** 2—5, exteriora parva, ovato-ovalia — obovata obtusa, parce denticulata — subintegra, basi sæpe truncata, apice sæpe rotundata interdum \pm retusa, intermedia ovalia — obovata obtusa — obtusiuscula, \pm late denticulata, interiora \pm ovata breviter acuta, basi sæpe obliqua, \pm inæqualiter et ad basin crebrius et acutius dentata, in petiolis, in nervo dorsali leviter stellato et in marginibus sparsim et longe pilosa, supra glabra, subtus rare pilosa — glabra; **folia caulina** 2—4, infimum a basi sat longe remotum sat longe petiolatum, petiolo basi dilatato semiamplectente, \pm ovatum — ovale, sat magnum, inæqualiter et acute præsertim basin descendentem v. cuneatam versus dentatum, \pm acutum, superiora magis approximata, subsessilia (v. breviter petiolata) — sessilia basi ipsa auriculato-dilatata semiamplectente, magis inæqualiter et argutius dentata, acuta ovalia — obovato-ovalia v. sublanceolata, summa linearia, omnia cito decrescentia. — **Inflorescentia** 3—5-cephala, paniculata, contracta ramo monocephalo ex axillo folioli caulini summi orto sæpe aucta, pedicellis accladium 10—18 m. m. longum parum superantibus leviter curvatis, dense canotomentosis et glandulis sat validis sparsis — densiusculis obtectis. — **Involucrum** c. 10 mm. longum, crassiusculum, variegatum, basi ovato-truncata, squamis exterioribus linearibus \pm obtusis, intermediis triangulari-lanceolatis obtusiusculis, intimis e basi latiore cito in apicem longum acutum — cuspidatum contractis, glandulis mediocribus sparsis v. densiusculis obtectis, in

marginibus inferne dense et late, superne sparsim — rare floccosis. — **Calathium** c. 35 mm. diametro, sat radians, *stylo* luteo, fuscohispidulo.

Strömö: »Gjov« at Vestmanhavn (J. Hartz and C. Ostenfeld). In flower on August 1. 1897.

This form, like the preceding one, belongs unquestionably to *Semidovrensia*. It does not appear to have any closely related forms in Scandinavia. It is more particularly distinguished by its obtuse and few-toothed radical leaves; large lower stem-leaf, petiolate, and often occurring at a great distance from the rosette; rapidly tapering upper leaves, of which the lower one is furnished with a short, broad petiole or is almost sessile, the upper ones sessile, and at the insertion broadly auriculate, half-clasping; inflorescence contracted, with densely floccose and glandular-hairy branches and peduncles; and short, variegated involucre, glandular-hairy, without admixture of simple hairs, and usually densely floccose at the lower margins of the outer and middle phyllaries. I have seen Scottish forms which agree with the present one in several points.

IV. Cerinthoidea Fr.

12. HIERACIUM KALSOËNSE *Dahlst.* n. sp.

(Tab. XII. Fig. 2.)

Caulis 15—22 ctm. altus gracilis, 2—3(—4)-folius, basi sparsim et longe pilosus, \pm stellatus, cæterum subglaber, rare stellatus, apice densiuscule stellatus. — **Folia basalia** 3—4, exteriora parva obtusa, elliptica — obovata, subintegra — denticulata et intermedia \pm ovalia — ovata sparsim dentata obtusiuscula — acuta \pm petiolata, in petiolis pilis mollibus longis \pm dense oblecta, in nervo dorsali \pm stellato et in marginibus molliter et longe, \pm densiuscule pilosa, supra parce — sparsim, subtus sparsim — densiuscule pilosa; **folia caulina** cito decrescentia, infimum in basin angustam ad insertionem \pm dilatata contractum, \pm lanceolatum v. ovato-lanceolatum, sparsim et acute dentatum \pm acutum (interdum \pm alate petiolatum) sæpe ima basi affixum, reliqua sessilia \pm lanceolata basi dilatato-amplectente, summa linearia, omnia subtus magis stellata. — **Inflorescentia** furcato-paniculata laxa, ramo monocephalo brevi ex axillo folii caulini summi orto sæpe indeterminata, pedicellis \pm patentibus leviter curvatis, accladium 20—30 mm. longum \pm superantibus,

dense — densiuscule floccis laxis obsitis, pilis brevibus obscuris sparsis et sub involucris glandulis sparsis obtectis. — **Involucra**, brevia, 10—12 mm. longa, canescentia, basi ovato-truncata, *squamis* extimis linearibus — lineari-lanceolatis obtusiusculis, intermediis triangulari-lanceolatis subacutis, interioribus e basi lata ovato-lanceolatis, subito in apicem \pm acutum attenuatis, marginibus densiuscule — dense dorso sparsius floccis laxis obsitis, pilis brevibus basi crassa nigra apice brevi albo \pm dense vestitis et glandulis \pm densiusculis — sparsis brevibus paullum conspicuis obtectis. — **Calathium** 35—40 mm. diametro sat radians, ligulis sat latis dentibus longis angustis præditis, *stylo* badio-fusco.

Kalsö: Mygledal (J. Hartz and C. Ostenfeld). Flowering and fruiting, August 3, 1897.

It is difficult to say anything definite as regards the systematic place to be assigned to this form. In various points it reminds one of some Færøese forms which I have referred to *Vulgata*, viz. *H. constrictiforme*, *H. cordatifrons*, etc. It agrees with these forms more particularly as regards the structure and the clothing of the involucre. The relatively small size of the latter seems also to suggest a closer relationship to *Vulgata*. It possesses, however, several characters — such as the numerous, long and distinctly toothed hairs on the leaves and, especially, on the petioles and the base of the stem, and the loosely adpressed stellate pubescence composed of comparatively large hairs — which point to a relationship with *Cerinthoidea*. It is remarkable that within the northern area of distribution of this group of forms, viz. in England and in Scotland, a good many forms occur, which resemble the true *Cerinthoidea*, some in one point some in another, but in several respects approach sometimes *Vulgata* and sometimes *Nigrescentia*, and remind one also forcibly of *Oreadea*. Similar forms have also often a decidedly *silvaticum*- or *cæsium*-habit. The usually well-defined structure of stem-leaf in *Cerinthoidea* with broadly winged petiole, auriculately enlarged, and half-clasping at the base and with the blade suddenly attenuate, is much less conspicuous in this northern group of forms. The petiole itself, or the base of the leaf or petiole may sometimes be seen to be somewhat enlarged in several forms of *Oreadea* and *Nigrescentia*, but rarely in *Vulgata*. It is, therefore, rather interesting, that in the Færøese forms mentioned above, which I refer to *Vulgata*, the same peculiarity is met with, often fairly well

defined. Perhaps these circumstances suggest that the forms mentioned above belong to older form-groups of *Vulgata*, closely allied to *Cerinthoidea*.

13. HIERACIUM LEUCOGRAPTUM *Dahlst.* n. sp.

(Tab. XII. Fig. 1.)

Caulis 10—25 ctm. altus, sat gracilis, 2—3-folius, basi densissime et longe pilosus, supra caulinum secundum sparsim pilosus, apice pilis paullo densioribus obsitus, medio sparsim, basi et præsertim apice densius stellatus, apice glandulis raris v. solitariis obsitus. — **Folia basalia** sub anthesi 2—4, petiolis dimidium laminæ v. interdum laminam æquantibus, extimum ovatum v. ovale basi truncata v. breviter descendente sparsim — densius et acute dentatum ± obtusum mucronatum, intermedia ovalia — oblonga v. etiam late ovato-lanceolata ± acuta sat crebre et acute dentata — denticulata, intimum ± lanceolatum v. ovato-lanceolatum, sæpe sat longe acutum crebrius et longius dentatum; **caulinum** infimum ± lanceolatum — anguste lanceolatum in petiolum 10—15 m. m. longum et 3—4 m. m. latum marginibus fere parallelis basi amplectente cito contractum v. lineari-lanceolatum basi in petiolum latum vix conspicue contractum, intermedium anguste lanceolatum — lineari-lanceolatum infra medium contractum, basi lata semiamplectente sessile, summum v. summa ± linearia basi sat lata semiamplectente sessilia, superiora vulgo integra, infimum v. inferiora infra medium sparsim et argute dentata ± longe acuta; omnia basi, in marginibus et subtus in nervo dorsali dense et longissime pilosa, subtus in pagina sat dense et supra densiuscule pilosa, cæterum in nervo dorsali parce v. in caulinis sparsim, in marginibus rare stellata. **Inflorescentia** 1—3-cephala contracta ramis subarcuatis acladium 7—10 m. m. longum plus duplo superantibus, sat dense stellatis et glandulis pilisque medioeriter longis, sparsis — sat densiusculis obtectis. — **Involucra** 11—12 m. m. longa atroviridia variegata, basi ovata postea rotundata. — **Squamæ** exteriores breves lineares sublaxæ obtusiusculæ, intermediæ et intimæ e basi latiore sensim in apicem obtusum — obtusiusculum attenuatæ, omnes intimis late viridimarginatis et apice piceis exceptis in marginibus floccis albis lineam deorsum angustam apice latioram formantibus notatæ, cæterum sparsim stellatæ et glandulis parvis sparsis pilisque mediocribus albidis basi crassa nigra ± densis obtectæ. — **Calathium** sat mag-

num, c. 45 mm. diametro, sat radians. — **Ligulæ** c. 3 mm. latæ omnino glabræ, dentibus sat longis. — **Stylus** siccus fusco-ater.

Syderö: Karagjov near Kvalbö (H. G. Simmons). In flower on August 7, 1895.

This form comes fairly near *H. constrictiforme*, and forms allied to it, in several points, such as the shape of the leaf and the clothing of the involucre, but can scarcely be closely related to them; it should rather be referred to *Cerinthoidea*, as indicated by the numerous long and finely-toothed hairs and the enlarged and half-clasping base of the stem-leaf. It belongs to the least typical forms of this group, and it should, I think, be placed under a possible sub-group of *Vulgata*, which is widely developed in the British Isles. It is easily distinguished from *H. constrictiforme* by its shorter growth, its more numerous and longer hairs at the base of the leaf and the lower part of the stem, its enlarged base of leaf, and by its phyllaries, rapidly attenuate towards the top, and less distinctly floccose at the margin, but somewhat denser on the back.

14. HIERACIUM VETERASCENS *Dahlst.* n. sp.

(Tab. XII. Fig. 7.)

Caulis 15—45 ctm. altus robustus, sæpe a medio ramosus, 0—1-folius, inferne subdense et longe, medio sparsim, superne densiuscule pilosus, apice præsertim sub inflorescentia (rare —) sparsim glandulosus et sat dense stellatus. — **Folia basalia** 5 v. plura, exteriora mox evanescentia, ovalia — elliptica, intermedia ovata — late ovato-lanceolata ± acuta, interiora late (— anguste) lanceolata longe acuta, omnia basi ± cuneato-descendente breviter petiolata ± dense acute et inæqualiter dentata dentibus mediocribus ± patentibus, in nervo dorsali marginibusque setis sat longis ± densis oblecta, in petiolis præcipue ad basin setis longis densissimis vestita, cæterum in pagina inferiore sparsim setoso-pilosa, supra glabra, subtus in nervo mediano ± stellata; **folium caulinum** 0 v. 1 sessile, lineare, lanceolatum v. ovato-lanceolatum — ovatum longe acutum, in parte inferiore dentibus inæquilongis acutis — subulatis sæpe sat longis præditum, in nervo dorsali marginibusque ± dense et longe setosum, supra glabrum, subtus in nervo densiuscule stellatum. — **Inflorescentia** oligo- vulgo 2—3-cephala, ramo 3—4-cephalo ex axillo fol. supremi orto interdum aucta, ramis pedicellisque acladium 4—6 usque ad 9 ctm. longum sat dense stellatum, sparsim glandu-

losum et densiuscule pilosum \pm superantibus, superiore parte præsertim \pm stellatis, pilis densiusculis — sparsis mediocribus basi longa crassa nigra et glandulis raris — sparsis obsitis. — **Involucra** magna crassa 16—17 mm. longa, basi rotundata postea truncata, obscure cano-virescentia, dense et longe setoso-pilosa (setis albidis basi crassa nigra), glandulis parvis, sparsis v. raris obsita, basi præsertim in marginibus sq. exteriorum \pm stellata. — **Squamæ** exteriores lineares laxæ, reliquæ e basi lata in apicem vulgo obtusiusculum \pm attenuatæ, intermediæ late viridimarginatæ, intimæ latæ \pm virescentes apice angusto obtusiusculæ, paucae acutæ. — **Calathium** sat radians, magnum usque ad 60 mm. diametro. — **Ligulæ** pallide luteæ, juniores ad apicem et dorso papilloso-pilosæ, denique glabræ. — **Stylus** virescens, fuscohispidulus.

Österö: near Mölen and Kodlen near Eide (H. Simmons), Næs-Reuk on a »hammer« (J. Hartz and C. Ostenfeld); Vaagö: Sandevaag (J. Hartz and C. Ostenfeld); Kalsö: Mygledal (J. Hartz and C. Ostenfeld); Syderö: Vaag (H. Simmons); »hammer« near Tværaa (E. Warming, C. Ostenfeld).

Near Vestmanskø and Trangisvaag forms have been met with which have leaves more elongated, and fewer-toothed; and involucre and peduncles less hairy (E. Warming).

Flowering and fruiting in the middle of August 1895, and from the end of July to the middle of August 1897.

Distinguished by its vigorous growth and hairy stem, its broad, sharply toothed leaves with coarse hairs, its elongated and spreading inflorescence, its large, dark glaucous involucre with a few glandular hairs, and slightly floccose, and its large, rather radiating flowers of pale yellow colour. *H. veterascens* does not belong to the typical *Cerinthoidea*, but to the northern group of forms mentioned above which is richly represented in the British Isles and resembles the *Cæsia*-group of *Vulgata* in habit. In the present species the petioles of the stem-leaves are less perfectly clasping and the dentation and the form of the leaves remind one of *Vulgata*; the large coarse involucre, however, the wide inflorescence, and above all the numerous distinctly toothed, long hairs on leaf and stem, and the stiff, coarse hairs on the inflorescence distinctly assign this form to a place among the *Cerinthoidea*. It is unquestionably very closely allied to *H. arctocerinthe* Dahlst., and *H. mesopolium* Dahlst. from Iceland.

Var. EIDENSE Dahlst. n. var.

A forma primaria foliis basalibus latioribus, magis irregulariter dentatis dentibus parvis, latis, patentibus vel infimis fere retroversis,

folio caulino inferiore petiolato, basi sæpius lata truncata dentibus paucis latis patentibus prædito, nec non pedicellis minus pilosis et minute glandulosis involucrisque crassioribus basi lata truncata sat diversnm.

Österö: Mölen near Eide (H. G. Simmons); Syderö: Frodebö (E. Warming).

Characterized more particularly by its irregularly toothed basal leaves, the teeth being short, and more or less patent or retroflexed; also by the generally truncate base of its lower stem-leaf, the broad, short involucres with truncate base, and the narrower and more obtuse phyllaries.

15. HIERACIUM HETEROPHYLLUM *Dahlst.* n. sp.

(Tab. XII. Fig. 4.)

Caulis humilis 15—25 ctm. altus gracilis oligocephalus, superne v. a medio (interdum basi) furcatus, 1—2 folius, inferne longissime et densiuscule pilosus, cæterum parce — sparsim pilosus, a medio v. superne parce glandulosus parce stellatus. — **Folia basalia** 3—5, ± longe petiolata, exteriora ovata — ovalia crebre et argute dentata, interiora ± obovata — lanceolata, sparsius dentata ± acuta, ± late alato-petiolata, folia caulina 1—2 prope basin affixa (sæpe ad rosulum valde approximata), parva ovato-lanceolata, basi auriculato-amplexentia sessilia v. in petiolum late alatum basi amplexente subdilatata contracta, acuta — subulata parce et acute dentata, basalia in petiolis longissime et dense, molliter pilosa, in marginibus longe et dense ciliata, subtus sparsim et longe in nervo dorsali sat dense pilosa, supra subglabra v. ad margines parce pilosa, caulina in utraque pagina minus pilosa. — **Inflorescentia** profunde furcata, acladio $\frac{1}{3}$ — $\frac{2}{3}$ caulis æquante ramoque longe superante pilis sparsis et glandulis sparsis — densiusculis obtectis, sparsim superne densiuscule stellatis. — **Involucra** sat crassa ± obscura (canescentia) basi ovato-truncata squamis exterioribus linearibus — elongate triangularibus obtusiusculis, interioribus e basi lata ± lanceolatis in apicem obtusum — obtusiusculum (v. acutum) sensim contractis, in marginibus præsertim basin versus stria angusta floccosa notatis, apice ± albo-comosis, cæterum pilis basi crassa nigra et glandulis parvis ± densiusculis obtectis. — **Calathium** c. 45 mm. diametro, *ligulis* latiusculis breviter dentatis, *stylo* obscuro.

Österö: Kodlen near Eide, about 400 m. (H. G. Simmons).

Var. PINNATIFRONS *Dahlst.* n. var.

A forma primaria foliis basalibus acutioribus, folio intimo basali v. caulino ovato-lanceolato v. lanceolato, ad basin v. supra medium crebre et longe — longissime laciniato- v. pinnato-dentato, pilis undique et glandulis sub involucris et in squamis uberioribus, nec non ligulis angustioribus pilosioribus, apice ciliolatis cauleque profundius, sæpe ad basin, furcato distinctum.

Syderö: Frodebö (J. Hartz and C. Ostenfeld).

Has a peculiar appearance owing to the difference between the ovate-oval, broad radical leaves, sharply and closely toothed and on long petioles; and the narrow acuminate stem-leaves, coarsely toothed, if at all, and sessile, or with broadly winged semi-amplexicaul petioles. In the type the teeth of the stem-leaves are sparse, short and rather coarse or are almost wanting; in the variety, the stem-leaves of which are more elongated, the teeth are for the most part developed right at the base, where they are long, irregular in size, narrow, generally curved, and occasionally more than half as long as the breadth of the blade; the teeth are often continued on the broadly winged petiole. The lower or occasionally solitary stem-leaf is often situated so near the basal rosette that it forms a part of it. The relationship of this form to the rest of the *Cerinthoidea* here treated is not quite clear to me owing to the insufficient number of specimens at my disposal.

16. HIERACIUM PERINTEGRUM *Dahlst.* n. sp.

Caulis 20—25 ctm. altus, gracilis, 2—3-folius, monocephalus, inferne longe et sat dense pilosus, medio subglaber, apice sparsim pilosus, parce superne sparsim stellatus, apice glandulis minutis solitariis v. raris obsitus. — **Folia basalia** sub anthesi 3—4, extimum parvum ellipticum obtusum integrum, intermedia paullo majora ± ovato-elliptica acutiuscula integra v. parce denticulata, intimum ± ovatum — ovato-lanceolatum ± acutum subintegrum v. minute denticulatum, omnia in petiolis longe et sat dense pilosa, in nervo dorsali sparsim et subtus in pagina parce pilosa, in marginibus densiuscule ciliata, supra glabra v. subglabra; **folia caulina**, infimum ± petiolatum prope basin caulis affixum petiolo basi ± dilatato, ± ovato-lanceolatum acutum, parce denticulatum, medium brevissime petiolatum petiolo ± late alato basi dilatata subamplectente

v. sessile basi auriculato-amplexante, \pm ovatum v. ovato-lanceolatum, basi ovato-subtruncata v. cuneata, sparsim et brevissime dentatum, acutum, summum sessile v. brevissime petiolatum, parvum v. minutum ovato-lanceolatum — lineare, longe acutum, omnia margine ciliato excepto subglabra, subtus in nervo dorsali \pm stellata et interdum etiam pilosa. — **Involucrum** sat obscure canovirescens, crassiusculum, 12–13 mm. longum, squamis latis, exterioribus triangulari-linearibus obtusis, cæteris e basi lata cito in apicem \pm obtusiusculum — obtusum protractis, pilis validis basi brevi crassa nigra cæterum albidis \pm dense obtectis, subglandulosis, floccis in dorso sparsis, in marginibus uberioribus vestitis. — **Calathium** amplum, c. 50 mm. diametro, radians; *ligulis* latis, mediocriter dentatis, glabris; *stylo* sat obscuro.

Viderö: Mornefjæld, 450 m. (J. Hartz and C. Ostenfeld), Malingsfjæld, 300 m. (J. Hartz and C. Ostenfeld); Sandö: »hammer« near Grothusvatn (J. Hartz and C. Ostenfeld). form with larger radical leaves, narrower stem-leaf. panicle 2–3-headed, and involucre more floccose. (Probably an autumn form).

Flowering and fruiting on Viderö, August 12, 1897; on Sandö, August 29, 1897.

A handsome form, distinguished by its small, elliptical outer, and ovate, obovate-lanceolate, inner radical leaves, almost entire or finely and sparsely toothed, by its lower stem-leaf well-developed, sessile, and in the latter case, imperfectly clasping or on a short petiole, with the cuneate base gradually decurrent, or the base rounded and decurrent into a broad petiole, its few, rather densely hairy, and slightly floccose involucre, which are quite or almost destitute of glandular hairs, and large spreading inflorescence. This form unquestionably belongs to the *Cerinthoidea*, as indicated by the coarse hairs and the large involucre, but it belongs to the least typical of its forms with clasping leaves. In habit it reminds one of *Casia* of *Vulgata*, or of the broad-leaved forms of *H. saxifragum*. The base of the stem-leaf is very slightly clasping if at all.

17. HIERACIUM SUBRUBICUNDUM *Dahlst.* n. sp.

(Tab. XII. Fig. 5.)

Caulis 25–30 ctm. altus, 1–2-folius, basi sparsim et longe pilosus, cæterum subglaber, apice parce stellatus et pilosus glandulis rarissimis obsitus. — **Folia basalia** 2–3, exteriora elliptica, interiora \pm ovata, acuta, omnia subintegra — argute denticulata, in petiolis

densiuscule et longe pilosa, subtus in nervo dorsali sparsim caeterum parce pilosa, supra subglabra — glabra, in marginibus sparsim ciliata. — **Folia caulina**, infimum prope rosulam basalem v. in inferiore tertia parte caulis affixum, \pm petiolatum v. sessile, petiolo v. basi subamplectens, \pm ovatum — ovato-lanceolatum subintegrum — argute et sparsim dentatum, summum parvum sessile, subamplectens, anguste ovato-lanceolatum vulgo subintegrum. — **Inflorescentia** 1—2-cephala, ramo acladium 40—45 mm. longum \pm superante, pilis parcis obscuris, glandulis raris et floccis sparsis obsito. — **Involucra** sat magna crassa obscura, squamis exterioribus linearibus, caeteris e basi lata sensim in apicem obtusum — obtusiusculum \pm coloratum attenuatis, pilis densiusculis obscuris, glandulis raris — sparsis et floccis in marginibus squamarum exteriorum parcis obtectis. — **Calathium** c. 50 mm. diametro, radians; *ligulis* latis; *stylo* sat obscuro.

Syderö: Kvalbö, »Karagjov«, altitude 100 m. (H. G. Simmons), »hammer« near Tveraa (Ostenfeld, 1895); Vaagö, Sörvaag (Lomholt, 1896); Österö: »hammer« near Troaagjov north of Svinaa (Ostenfeld, 1896); Bordö: Holgafjæld, 450 m. (J. Hartz and C. Ostenfeld), differs somewhat in its taller growth and its scattered hairs.

In flower on Syderö, August 7, 1895; on Bordö, August 6, 1897.

This form also belongs to the less well-defined *Cerinthoidea*, but as regards the form of the stem-leaf and the leaf-insertion it is more typical than the preceding, to which it may possibly be closely related. As regards the form of its leaves it has some resemblance to *H. veterascens*. It is, moreover, closely allied to Scottish forms.

18. HIERACIUM PERAMPLUM *Dahlst.* n. sp.

(Tab. XII Fig. 8.)

Caulis 15—35 ctm. altus, flexuosus, 1—2-folius, basi longe — longissime et dense pilosus, medio sparsim pilosus, superne sparsim glandulosus et pilis \pm obscuris densiusculis — densis obtectus, effloccosus v. superne sparsim — densiuscule stellatus. — **Folia basalia** 2—4, mediocriter — longe petiolata, extimum \pm obovatum \pm longe dentatum v. denticulatum, interdum subintegrum, intermedia obovato-lanceolata — lanceolata v. etiam obovata sparsim et praecipue ad basin longe descendentem \pm longe dentata, intimum \pm late — anguste lanceolatum \pm longe acutum, sparsim ad basin in petiolum late alatum longe descendentem densius, acutius et sat longe dentatum, dentibus longis saepe in petiolum de-

scendentibus, haud raro infra medium constrictum et in superiore parte fere integrum: **caulina**, infimum prope basin sæpe ima basi affixum \pm lanceolatum longe acutum, infra medium v. prope basin \pm constrictum, in inferiore parte marginibus fere paralellis longe et densiuscule sæpe irregulariter dentatis v. subintegris, basi rotundata amplectente sæpe dilatata, ad medium sparsim dentatum, apice subintegrum, summum ab infimo longe remotum ovato-lanceolatum — lineare, basi \pm amplectente, longe acutum; **folia basalia** in petiolis, omnia in marginibus et in nervo dorsali longe — longissime et \pm dense pilosa, subtus densiuscule v. \pm dense pilosa, in nervo \pm stellata, supra glabriuscula — glabra. — **Inflorescentia** 1 — oligocephala, furcata, ramis acladium 3—8 mm. longum \pm superantibus, dense floccosis, glandulis densis et pilis sat densis obscuris obtectis. — **Involucra** magna, obscure atroviridia, 15—16 mm. longa, crassa, basi \pm ovata postea rotundata, squamis plurimis, exterioribus \pm linearibus obtusis, reliquis e basi sat lata lineari-lanceolatis in apicem \pm angustum obtusum — obtusiusculum v. acutum attenuatis, apicibus \pm barbatis, marginibus tenuissime stellatis v. omnino effloccosis, pilis obscuris, apice canis, \pm crebris, mediocriter longis et glandulis parvis sparsis v. subdensiusculis obtectis. — **Calathium** sat magnum 40—45 mm. diametro, subradians. — **Ligulæ** apice breviter pilosæ. — **Stylus** siccus fuscus.

Syðerö: Kvalbö, Karagjov (H. G. Simmons); Gjov near Vaag (J. Hartz and C. Ostenfeld); Trangisvaag near the river, Kvanhaugen (E. Warming), mouth of the river (J. Hartz and C. Ostenfeld); Österö: Ejde and near Mölen (H. G. Simmons); »hammer« near Troaagjov north of Svinaa (C. Ostenfeld); Göte gjov (E. Warming); Vaagö: Sörvaag (Lomholt). — In flower, 1895, from July 7th to 19th; 1897, from July 18th to 26th.

One of the handsomest and best defined Færøese forms. Characterized by its large radical leaves, the petioles of which are long and usually broad, and by the inner leaves, which down to their base and on their petioles are plentifully, deeply and usually irregularly toothed, the teeth or lobes being long and curved, by its broadly clasping leaves of the same type as in *H. cerinthoides* or *H. anglicum* and in other typical forms of the group, its large, dark involucre, and wide inflorescence. The stem is usually coarse, varying from single and one-headed to dichotomous and few-headed, with somewhat spreading and curved branches; occasionally branches are developed right from the base. It belongs to the typical forms of the group *Cerinthoidea* and has several closely related forms in Great Britain. It is also undoubtedly very closely related to the forms below.

19. HIERACIUM PERAMPLIFORME *Dahlst. n. sp.*

(Tab XII. Fig. 3.)

Caulis 15—35 ctm. altus, subflexuosus, 1—2-folius \pm longe pilosus, inferne pilis sat densis — densiusculis, medio et apice sparsis — raris obtectus, superne parce stellatus et glandulosus. — **Folia basalia** 3—4, exteriora parva elliptica — ovalia obtusa — breviter acuta, inferiora ovalia — ovali-oblonga v. oboblonga breviter acuta longe et sat anguste v. infimum \pm alate petiolata, in petiolis sat dense et longe pilosa, subtus sparsim — densiuscule in nervo dorsali densiuscule pilosa, supra parce pilosa — glabra, in marginibus \pm densiuscule ciliata; **folia caulina**, infimum sæpe prope basin affixum \pm anguste ovato-lanceolatum — lanceolatum, nunc longe et late alato-petiolatum petiolo basi dilatato-amplexente, nunc sessile panduræforme basi valde dilatato-amplexente, inferne sparsim et breviter \pm acute et irregulariter dentatum, \pm longe acutum, summum ad medium v. supra medium caulis insertum parvum, sessile, linearilanceolatum cuspidatum, subintegrum v. basi \pm amplexente denticulatum. — **Inflorescentia** monocephala v. furcata, ramo acladium $\frac{1}{4}$ — $\frac{1}{3}$ caulis æquans \pm superante curvato, densiuscule floccoso pilis sparsis superne densiusculis brevibus crassis obscuris et apice glandulis sparsis oblecto. — **Involucra** crassa, obscure canovariiegata, squamis exterioribus sat latis triangulari-linearibus obtusis, interioribus e basi lata triangulari-lanceolatis, sensim in apicem obtusum, — acutiusculum v. acutum \pm comosum attenuatis, in marginibus stria angusta dense floccosa notatis, cæterum parce stellatis pilis mediocriter longis crassis obscuris densiusculis et glandulis parvis densiusculis oblectis. — **Calathium** c. 45 mm. diametro, subradialis. — **Stylus** ferrugineus, fuscohispidulus.

Sy der ö: »hammer« near Trangisvaag (J. Hartz and C. Ostenfeld); Kalsö: Mygledal (J. Hartz and C. Ostenfeld). In flower, July 3; in fruit August 5, 1897.

A very characteristic species; in habit it reminds one of the more slender forms of the preceding one, but is well-distinguished by its broader basal leaves, which are almost or quite entire, and by its stem-leaves with finely subulate teeth at the base only, which is much enlarged and half-clasping, by its shorter, variegated involucres with a distinctly defined floccose stripe on the margins of the phyllaries, which, moreover, are covered with about the same number of short, coarse, dark and simple hairs and glands. This form also, on

account of the form of the stem-leaf and the leaf-insertion, is to be referred to the more typical *Cerinthoidea*, and has closely allied forms in the British Isles. It is also very closely related to the one below, but is distinguished by its broader leaves, broader phyllaries with more floccose margins, fewer glands on its involucre and still fewer on its peduncles.

20. *HIERACIUM MELANOCHROTUM* *Dahlst.* n. sp.

(Tab. XII. Fig. 6.).

Caulis 15—35 ctm. altus, flexuosus, 1—2-folius, basi longissime et dense pilosus, medio pilis sparsis — raris, superne pilis obscuris sparsis (— densiusculis) obtectus, medio glandulis raris, superne sparsis obsitus, apice parce floccosus. — **Folia basalia** 2—3, extimum \pm ellipticum — obovatum denticulatum obtusum, interiora \pm ovato-lanceolata — lanceolata, sæpe supra medium latissima, longe petiolata, in petiolum \pm longe decurrentia, integra v. præsertim ad basin denticulata; **folia caulina**, infimum prope basin sæpe ima basi affixum, \pm lanceolatum v. obovato-lanceolatum \pm longe acutum — acuminatum infra medium \pm contractum et basi iterum \pm dilatatum \pm auriculato-amplexans, integrum v. præcipue ad basin \pm irregulariter sparsim — dense \pm anguste denticulatum, summum \pm lineari-lanceolatum — lineare \pm integrum, longe acutum, basi \pm amplexante et sæpe infra medium constrictum; basalia in petiolis, omnia in marginibus et in nervo dorsali vulgo longe et dense pilosa, subtus in pagina densiuscule pilosa, supra parce pilosa — glabra, in nervo dorsali parce stellata. — **Inflorescentia** furcata, 2—3-cephala, ramis arcuatis monocephalis acladium 50—80 mm. longum \pm superantibus (v. infimo haud superante), pilis obscuris sparsis brevibus et glandulis paullo frequentioribus obtectis, inferne sparsim superne densiuscule — dense stellatis. — **Involucrum** magnum 15—16 mm. longum, sat crassum, basi ovata postea rotundata, squamis exterioribus lanceolato-linearibus obtusiusculis, intermediis triangulari-lanceolatis et interioribus e basi lata lanceolatis sensim in apicem \pm obtusum attenuatis, intimis paucis apice angustiore subacutis, omnibus intimis exceptis apice comosis, marginibus præcipue ad basin anguste sed \pm conspicue floccosis, cæterum pilis obscuris mediocribus \pm densis et glandulis densiusculis obtectis. — **Calathium** magnum sat radians, 40—45 mm. diametro. — **Ligulæ** breviter dentatæ, apice glabræ. — **Stylus** fuscus.

Österö: Ejde, Kodlen, 400 m. (H. G. Simmons); Viderö: Malingsfjæld, 260 m.; Bergsmunna 350 m. (J. Hartz and C. Ostenfeld), differs somewhat in having smaller involucre, with somewhat denser hairs.

The form from Österö in flower July 17, 1895; the form from Viderö August 10—12, 1897.

This form belongs likewise to the more typical *Cerinthoidea*. It is unquestionably closely connected with both the preceding forms, of which it comes nearest to *H. perampliforme*. It is distinguished from the latter by its fewer-toothed leaves, and darker involucre with narrower phyllaries, with much fainter floccose stripe at the margins, somewhat fewer simple hairs, and more numerous glands. The upper part of the stem and the peduncles are richer in glandular hairs. It is easily distinguished from *H. peramplum* by its straight growth, faintly toothed leaves, heavier involucre with fewer hairs, and denser glandular-hairiness. The form from Österö, which is here regarded as the chief form, is not quite identical with the form from Viderö. The latter has shorter involucre, with denser, shorter and darker hairs, and the glands are somewhat more faint on the phyllaries, but agrees with the former in all other points. The differences not being very great they may be attributed to the influence of the locality and perhaps the season of the year.

21. *HIERACIUM SCOTICIFORME* *Dahlst.* n. sp.

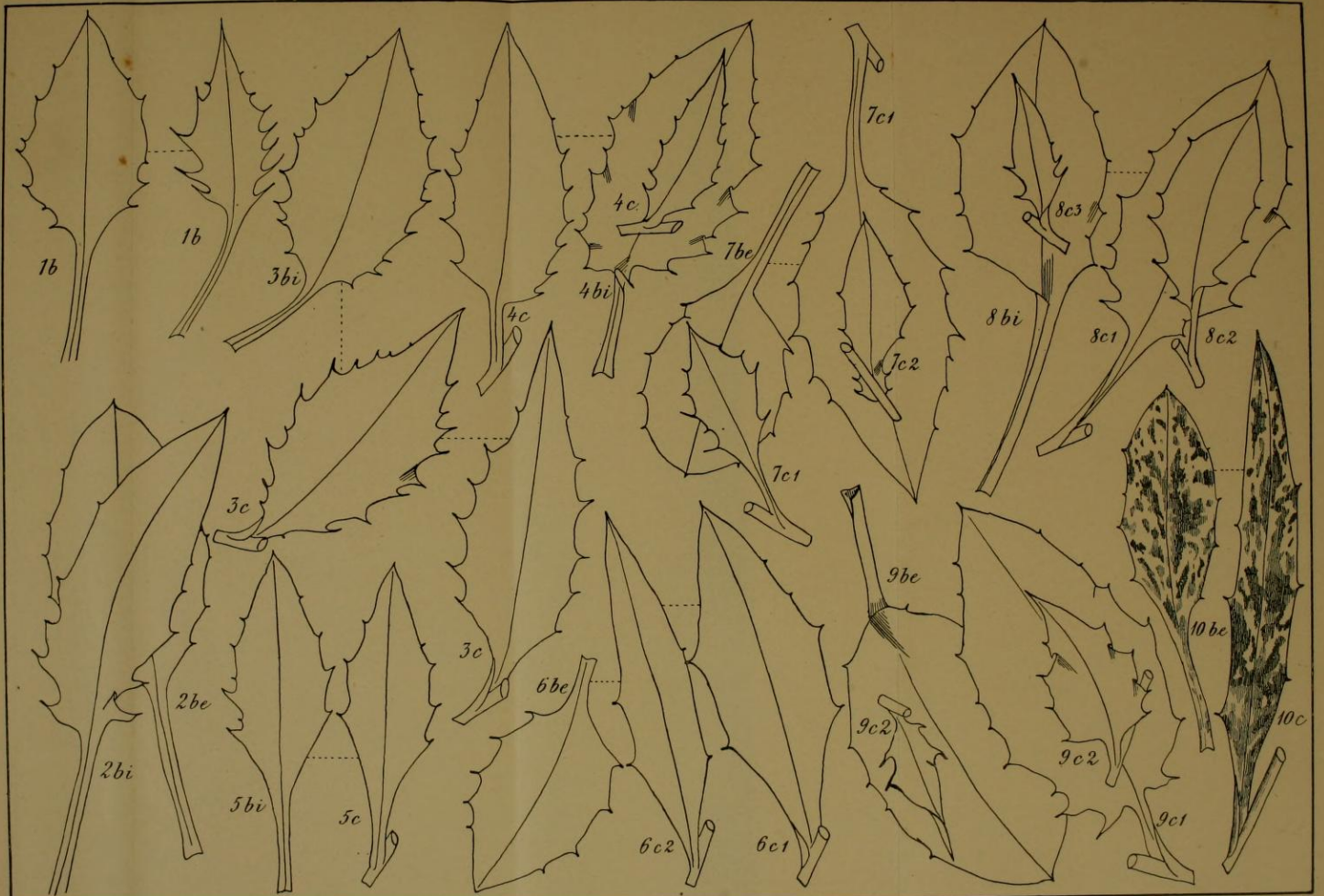
(Tab. XII. Fig. 9.)

Caulis 30—60 ctm. altus, 4—7-folius, \pm rubescens, robustus, \pm flexuosus, inferne dense — densiuscule, medio sparsim — densiuscule, apice parce pilosus, basi apiceque parce stellatus. — **Folia basalia** sub anthesi emarcida v. 1—2 rarius 4, exteriora ovata — ovalia, interiora \pm late lanceolata — oblongo-lanceolata, sparsim denticulata — dentata; **folia caulina**, infimum subsessile v. breviter et late petiolatum late lanceolatum — oblongo-lanceolatum obtusiusculum — subacutum, intermedia \pm ovato-lanceolata v. lanceolata \pm longe acuta, superiora late — anguste ovato-lanceolata basi ovata-truncata, summa parva ex ovata basi lineari-lanceolata, omnia sparsim dentata v. denticulata, sensim decrescentia v. superiora longe distantia, inferiora quam internodia vulgo longiora, superiora iis breviora, in marginibus et in nervo dorsali \pm longe et dense pilosa, subtus in pagina densiuscule pilosa, supra glabriuscula v. glabra. — **Inflorescentia** parva 1—5-cephala, contracta v. polycephala,

effusa, ramo ex axillo folii caulini summi evoluto sæpe aucta, ramis \pm superantibus aequae ac pedicellis et acladio 30—60 ctm. longo floccis inferne parvis superne sparsis v. densiusculis et pilis sparsis v. apice densioribus obtectis. — **Involucra** sat magna 14—15 m. m. longa, crassa, fusco-virescentia, basi rotundata, postea truncata, squamis plurimis, exterioribus late linearibus, obtusis, intermediis triangulari- v. ovato-lanceolatis in apicem obtusiusculum — obtusum cito contractis, interioribus e basi lata lanceolatis sensim in apicem late obtusum \pm albocomosum sanguineo- v. vinoso-coloratum contractis, omnibus, præsertim exterioribus, inferne in marginibus sparsim stellatis, cæterum parce stellatis et pilis mediocribus albidis crassis, densiusculis — sat densis glandulisque minutis parvis obtectis. — **Calathium** 40—45 m. m. diametro, subplenum. — **Ligulæ** apice glabræ. — **Stylus** siccus fuscus.

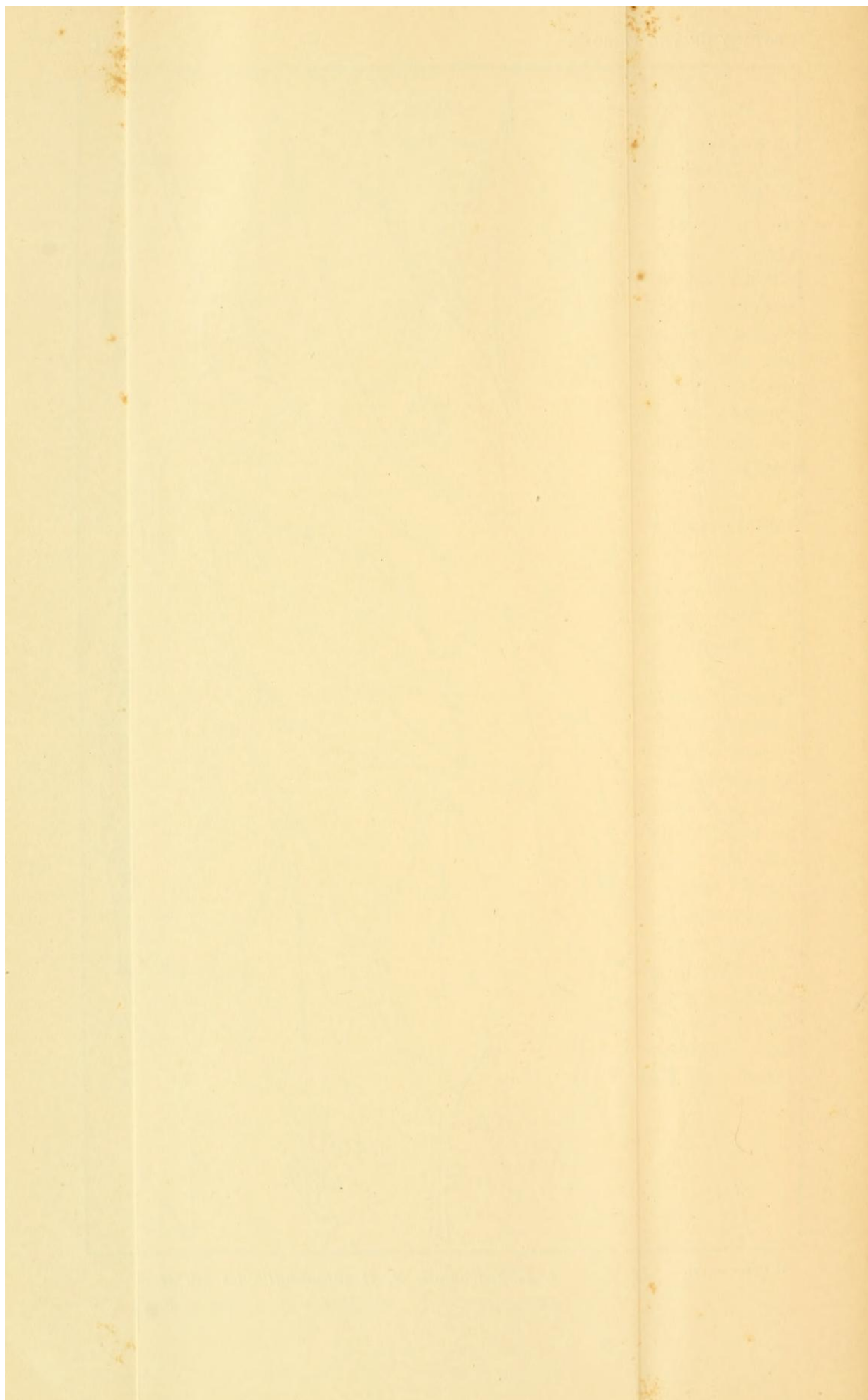
Syderö: Vaag, on rocks (H. G. Simmons); Strömö: Kirkebö (J. Hartz and C. Ostenfeld).

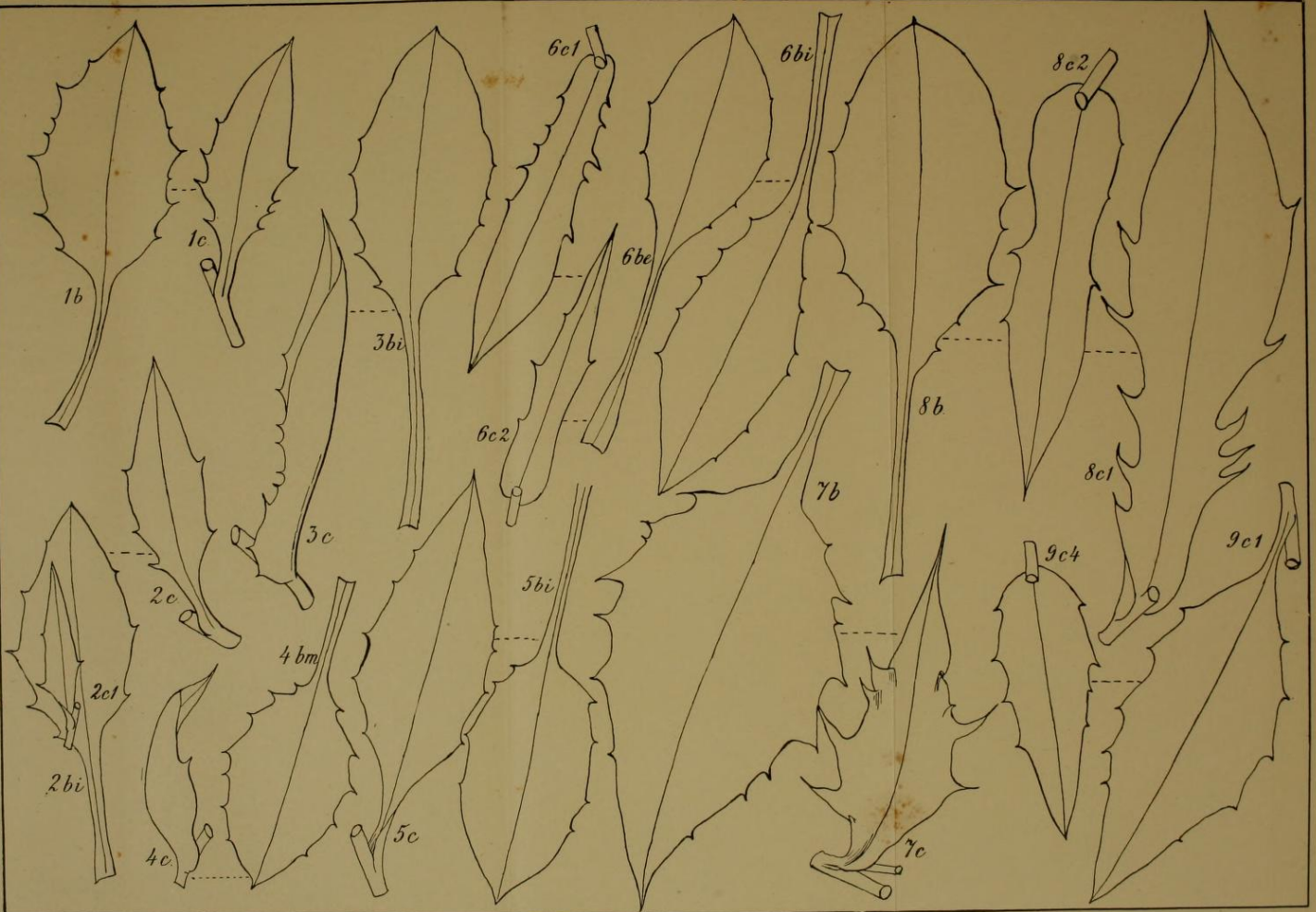
A very characteristic form, belonging undoubtedly to the *Cerinthoidea*, and closely related to forms from the British Isles. In habit it reminds one of several *rigidum*-like forms of *Vulgata*, e. g. *H. norvegicum* of the *Oreadea*. It is distinguished by its usually high, stiff, leafy stem, with broad, lanceolate or ovate-lanceolate leaves; short, coarse involucre, often gathered into an elongated, sometimes dichotomous, as well as more contracted inflorescence, usually with long acladium, and erect, or slightly spreading but generally straight branches. The base of the involucre is to begin with ovate, afterwards truncate. The phyllaries are dark, broad, obtuse, tipped with red, and bear a tuft of hairs at the top; moreover, they are covered with solitary, glandular hairs, and short, coarse, rather numerous hairs; and are sparingly floccose at the margins. As regards habit and character it is quite distinct from the other Færöese *Cerinthoidea*, and approaches forms such as *H. epileucoides* and allied forms. Comes very near to *H. scoticum* Hanb., but differs mainly from it by having more faintly toothed leaves, most of which are sessile, somewhat broader and more obtuse phyllaries, more sparingly clothed with simple hairs and glands, and less floccose peduncles with fewer glands and hairs.



H. Dahlstedt del.

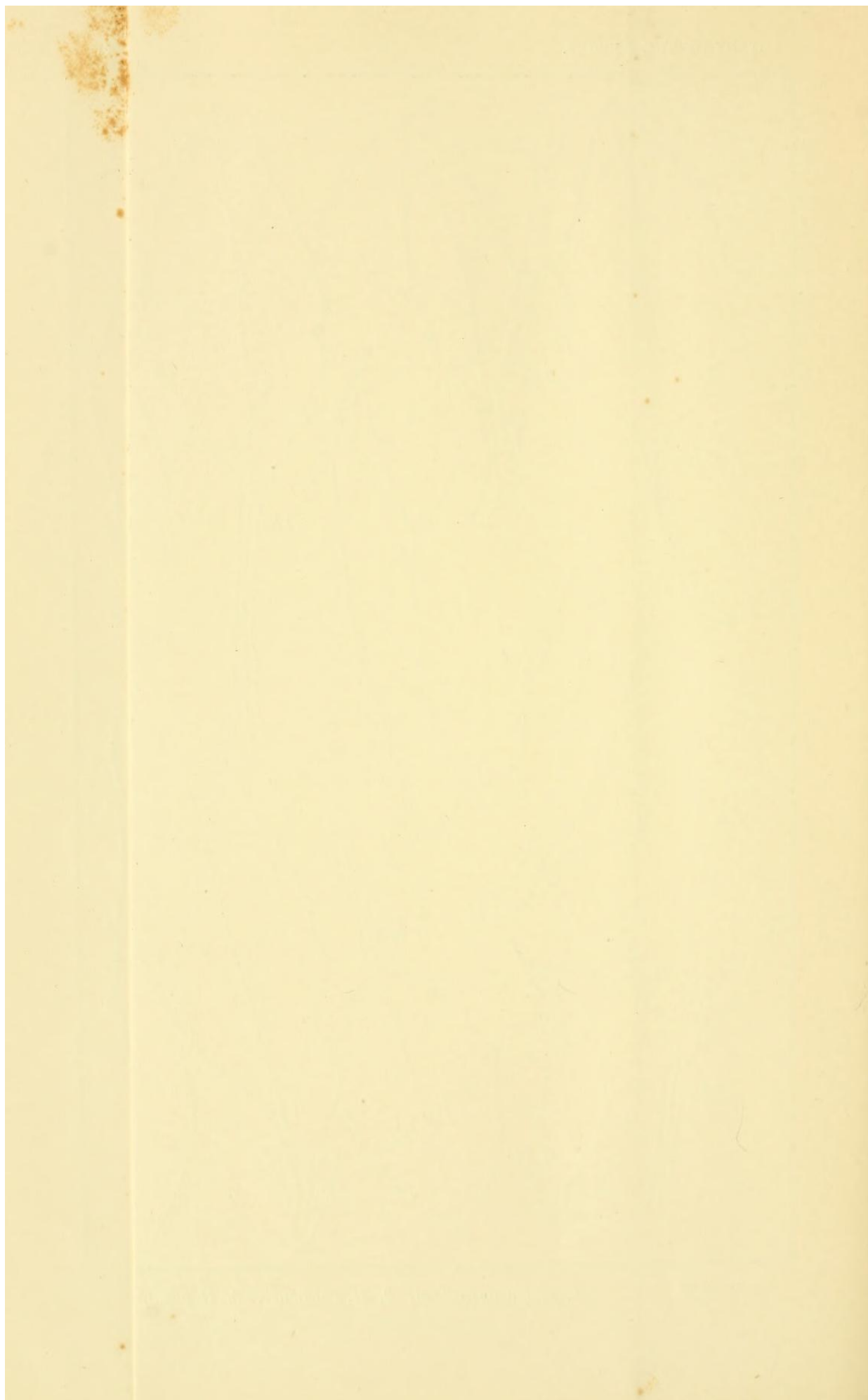
1. *H. ardisodon*. 2. *H. sarcophylloides*. 3. *H. constrictiforme*. 4. *H. ciliolatum*. 5. *H. epileucum*. 6. *H. Simonsianum*. 7. *H. Hartzianum*.
8. *H. Ostenfeldii*. 9. *H. cordifrons*. 10. *H. fieroënsis*.





H. Dahlstedt det.

1. *H. leucograptum*. 2. *H. kalsoënsæ*. 3. *H. perampliforme*. 4. *H. heterophyllum*. 5. *H. subrubicundum*. 6. *H. melanochrotum*. 7. *H. veterascens*.
8. *H. peramplum*. 9. *H. scoticiforme*.



INDEX OF NAMES.

ardisodon	p. 631	melanochrotum	p. 656
ciliolatum	- 635	Ostenfeldii	- 644
constrictiforme	- 634	perampliforme	- 655
cordifrons	- 632	peramplum	- 653
eidense	- 649	perintegrum	- 651
epileucoides	- 639	pinnatifrons	- 651
epileucum	- 636	sarcophylloides	- 629
færoëense	- 640	scoticiforme	- 657
Hartzianum	- 643	Simmonsianum	- 638
heterophyllum	- 650	subrubicundum	- 652
kalsoëense	- 645	veterascens	- 648
leucograptum	- 647		

LIST OF ABBREVIATIONS USED ON THE PLATES.

b i	inner basal leaf	(fol. basale intimum)
b m	middle — —	(- — intermedium)
b e	outer — —	(- — extimum)
c 1	lower stem-leaf	(- caulinum infimum (= primum))
c 2	upper (second) stem-leaf	(- — secundum)
c	stem-leaf	(- caulinum)

CORRIGENDA.

Plate XI, for 1 b (to the left) read 1 be; and for 1 b (to the right), read 1 bi.