FLORA.

68. Jahrgang.

No. 8. Regensburg, 11. März 1885.

Inhalt. E. Hackel: Andropogoneae novae. (Schluss.) — Dr. F. Arnold: Die Lichenen des fränkischen Jura. (Fortsetzung.) — Anzeige. — Einläufe zur Bibliothek und zum Herbar.

Beilage. Pag. 147—178.

Andropogoneae novae

proposuit

E. Hackel.

(Schluss.)

D. Sect. *Arthrolophis* Trin.

16) *A. longiberbis.* Perennis. Culmi 60—80 cm. alti. Folia viridia: Vaginae innovationum compressae, inferne ac superne aequilatae, ad os usque se invicem vel culmum amplectentes, omnes tota longitudine vel superne appresse-villosae. Laminae innovationum 6—10 cm. lg., culmeae inferiores —20 cm. lg., innovationum complicatae; culmeae saepius planae 2—3 mm. latae breviter acutatae submucronatae, subtus pilis appressis longis deciduis vestitae, supra glabrae, laeves, margine scaberulae. Paniculа foliosa lineari-elongata attenuata 20—30 cm. lg. parce ramosa; rami primarii 1—2ni 1—2-nodes secundarios solitarios uninodes breves simplices agentes, omnes infra nodos longe barbati. Spathae propriae 3—5 cm. lg., lanceolatae, acuminatae, ecarinatae, rufae raro viridulae, glabrae, pedunculum spicarum communem 5—8 mm. longum pluries superantes. Spicae binae omnes in spathis

Universitätsbibliothek Regensburg

urn:nbn:de:bvb:355-ubr03548-0133-2

inclusae, subrobustae, 3 cm. lg., densiflorae, rhacheos tenuis subflexuosae articuli crassiuscule filiformes superne subdilatati apice obsolete cupulati spicula duplo breviores, a basi ad apicem usque villis densissimis candidis summis articulo 3—4-plo longioribus vestiti. Spiculae ♀ lineari-lanceolatae 4—4·5 mm. lg., pallidae; gluma Ima breviter acutata haud mucronulata inter carinas elevatas aculeolato-scabras canaliculato-depressa, callo pilis crebris gluma parum brevioribus barbata; IIda et IIIa acutae, glabrae, IVa breviter bidentata, glabra; arista imperfecta gracilis recta 15—18 mm. lg. Anthera 1·5 mm. longa. Pedicelli steriles filiformes spiculam ♀ superantes, demum extrorsum curvati, villis copiosis ipsos superantibus vestiti, spiculae rudimentum uniglume 1 mm. longum gerentes.

America borealis: Florida leg. Garber, Curtiss.

Proximus *A. dissitiflorus* Michx. (*A. virginicus* Gray Man.) differt vaginis glabris, spicis gracillimis articulis pedicellisque neutris laxius villosis ipsa basi subnudis, gluma Ima dorso inter carinas planiuscula, callo parce breviterque pilosa, spicula neutra 0.

17) *A. Liebmanni.* Perennis. Culmi 50—60 cm. alti, validi, compressi, glaberrimi, supra medium ramosi, basi vaginis emortuis dense aggregatis tecti. Vaginae compressae, carinatae, superne hirsutae, superiores valde dilatatae. Ligula 1 mm. lg. rotundata, lacinulata. Laminae culmeae inferiores 6—10 cm. lg., e basi aequilata lineares, acutiusculae, planiusculae v. complicatae expansae 2·5—3 mm. lt., subtus pilis basi saepe papillosis hirsuta, supra similibus adspersa, virides, flaccidulae, costa media tenui acute carinante percursae. Rami floriferi ex axillis vaginarum culmi superiorum plerumque aphyllarum oriundi, bini, spathis propriis experti, simplices vel e nodo altero ramulum agentes. Vaginae ramos fulcrantes 5—7 cm. lg., lanceolatae submembranaceae, albido-viridulae, nervosae, nervulis crebris transversis percursae, pedunculum spicarum communem superantes. Spicae 3—5nae (saepius 4nae), digitatae, aliae sessiles, aliae breviter pedicellatae, 3 cm. lg., graciles, sericeae, multiarticulatae; rhacheos gracilis subflexuosae articuli $^3/_4$ spiculae aequantes, filiformes, pilis articulum duplo superantibus villosi. Spiculae ♀ 3—3·5 mm. lg., lineari-oblongae, trigonae, pallidae; gluma Ima supra

Universitätsbibliothek Regensburg
urn:nbn:de:bvb:355-ubr03548-0134-8

medium sensim attenuata acutiuscula, integra, carinis valde elevatis aculeolato-scabris, ceterum enervis, dorso leviter impressa, glabra, laevis, callo pilis spicula 2—3-plo brevioribus vestito; IIda acutiuscula, mucronulata, uninervis, carina aculeolato-scabra, margine ciliolata; IVa parum brevior, oblonga, brevissime acuteque bidentata, glabra; arista gracilis 15—16 mm. lg. prope glumarum apicem leviter geniculata spiris 1—2 inferne torta superne scabra. Anthera unica ovali-oblonga 1 mm. lg. Pedicelli steriles spiculam ♀ subsuperantes, ceterum articulo simillimi, glumam unicam 1—1·5 mm. longam saepius mucronatam v. setigeram ferentes.

Mexico: prope Chinantla in campis lg. Liebmann nr. 590, prope Orizaba l. Bourgeau n. 2376.

Inter species monandras insignis ramis floriferis spatha propria expertis. Cl. Fournier specimina Bourgeana ad *A. macrothricem* Trium ducit, qui vero staminibus 3 etc. valde differt.

18) *A. Cabanisii.* Perennis. Culmi 60—100 cm. alti, graciles, a medio v. inferius ramosi; rami inferiores 1—2ni, primarii elongati, graciles, arcuato-patentes 1—2-nodes, ad nodos glabri, secundarii solitarii breves vel 0. Vaginae glabrae, laeves v. scaberulae. Laminae 10—20 cm. lg., 2—3 mm. lt., lineares, breviter acuminatae, planae vel plus minusve complicatae, glaucescentes, subtus breves, supra hispidulae, margine scaberulae, basi interdum fimbriatae, ceterum glabrae. Spathae spicarum propriae 6—8 cm. lg., interdum lamina brevissima setacea munitae, glabrae, virides, a spicis plerumque remotae. Pedunculus communis apice dense barbatus. Spicae binae, 4—4·5 cm. lg., crassiusculae; rhacheos articuli crassiuscule lineares, subclavatae, spicula $^1/_4$ breviores, villis laxiusculis, summis articulo subbrevioribus vestiti. Spiculae ♀ lanceolatae 5—6 mm. lg., pallide virides, per lanam parciorem manifestae; gluma Ima a medio attenuata, apice subintegro acutiuscula, praeter carinas nervis 2—3 tenuibus percurrentibus notata, inter carinas aculeolato-scabras parum depressa, dorso scabro-punctata v. hispidula; gluma IVa ciliata, aristam tenerrimam 14—20 mm. longam exserens, cujus columna 1—3-spira paullo glumas superat; gl. Va obsoleta v. 0. Stamina 3, antheris 3 mm. longis. Pedicelli spicularum tabescentium 3 mm. longarum uniglumium subulatarum spiculam ♀ aequantes, ceterum articulis simillimi.

Universitätsbibliothek Regensburg
urn:nbn:de:bvb:355-ubr03548-0135-4

Pennsylvania et Florida leg. Cabanis (in Herb. reg. Berolin.); Florida prope Apalachicola leg. Chapman.

Proximus *A. argyreo* Schult. (*A. argenteo* Ell.), qui differt rhacheos articulis villis densissimis, summis articulum duplo superantibus vestitis, gluma Ima praeter carinas enervi dorso laevi, gluma Va quam IIda 4-plo breviori.

19) *A. Bourgaei.* Perennis. Culmi erecti 1·5 m. alti e nodis 3—6 superioribus remotiusculis florifero-ramosi. Vaginae glaberrimae. Ligula glabra, membranacea. Laminae e basi aequilata lineares, innovationum —30 cm., culmeae —20 cm. lg., hae 4—6 mm. lt., omnes acutiusculae, planae flaccidulae, virides, utrinque v. supra margineque scaberrimae, glabrae v. basi fimbriatae, costa media tenui, subcarinata notatae. Rami floriferi bini graciles elongati haud fastigiati; primarii remote 2—3nodes, secundarii 1—2ni, uninodes, breves, omnes apice nutantes vel suberecti, glaberrimi. Spathae propriae 5—6 cm. lg., virides v. rufescentes, acutae, glabrae, spicarum basin demum vix attingentes. Spicae 2—3nae, 4·5—6 cm. longae, laxissimae, nutantes; rhacheos subundulatae articuli tenue filiformes, villis patentibus canescentibus articulo duplo longioribus vestiti, spiculam ☿ anguste lineari-lanceolatam 4·5—5 mm. longam aequantes. Gluma Ima spiculae sessilis acuta, praeter carinas aculeolato-scabras enervis, dorso leviter canaliculato glabra, callo pilis spicula paullo —$^1/_3$ brevioribus munita; IIda acuta, glabra, IIIa oblonga, obtusa, tenerrime 2-nervis, ciliolata, IVa IIIam aequans, lanceolata, acuta, integra, 1-nervis, glabra, mutica. Stamina 3, antheris 1 mm. longis. Spiculae pedicellatae masculae (v. raro abortu neutrae) lanceolatae, 5—5·5 mm. lg., sordide violascentes, pedicellis spiculam sessilem fere $^1/_3$—$^1/_2$ superantibus insidentes; gluma Ima acutiuscula, 5-nervis, superne scabra, callo longiusculo piloso; IIda 3-nervis, IIIa et IVa lanceolatae, ciliatae. Antherae 2 mm. lg.

Mexico: Orizaba (Bourgeau nr. 2645, F. Müller n. 1393 ex p., Mirador (Liebmann n. 505, Sartorius).

Proximus *A. glaucescenti* Kunth, cui cl. Fournier adjunxit; hic vero differt spicis erectis, rhacheos strictae articulis villis suberectis v. patulis canescentibus articulum aequantibus vel eo brevioribus vestitis, glumae Iae spiculae ♂ callo glabro, spiculis sessilibus aristatis.

20) *A. arenarius.* Perennis. Culmi dense caespitosi, recte profundeque in terram descendentes, 60—80 cm. alti, erecti, ex

Universitätsbibliothek Regensburg
urn:nbn:de:bvb:355-ubr03548-0136-9

internodiis 4—6 superioribus ramos solitarios v. binos elongatos floriferos 1—3-nodes saepe subramulosos ramulisque ad nodos longe barbatos agentes, teretes, strictae, glaberrimae, inferiores internodia superantes. Ligula 1—1·5 mm. lg. truncata, glabra. Laminae anguste lineares, acutae, plerumque junciformi-complicatae, 15—25 cm. lg., explicatae 2—2·5 mm. lat., patentes, rigidae, glaucescentes, glaberrimae, costa media acutiuscule carinante percursae. Spathae propriae spicarum 7—8 cm. lg., superne rubentes, aphyllae, anguste lanceolatae, pedunculum communem spicarum anthesi parum usque subduplo superantes. Spicae 2—3nae erectae; 3—4 cm. lg., crassiusculae, longe albo-villosae, densiusculae; rhacheos rectae articuli pedicellique spicula ♀ $^1/_3$ breviores, lineares, tenues, margine villis aequalibus longissimis laxiusculis articulum ipum 5—6-plo superantibus mollissimis (12—16 mm. lgis) vestiti. Spiculae ♀ 3·5 mm. lg., anguste lineari-oblongae, griseo-virides et violaceo-suffusae; gluma Ima acutiuscula, integra, praeter carinas aculeolato-scabras enervis, dorso leviter canaliculato glabra, callo pilis parcis gluma 3—4-plo brevioribus vestita; IIda acuta, glabra, IIIa oblonga, enervis, IVa paullo brevior, lanceolata, 1-nervis, subintegra, paullisper infra apicem aristam inperfectam gracillimam 3—3 mm. longam glumas parum superantem exserens. Stamina 3, antheris 0·7 mm. longis. Spiculae pedicellatae ♂ (v. raro abortu neutrae) lanceolatae, 4·5—5 mm. lg., sordide violascentes, glabrae (etiam callo); gluma Ima acutissima 3-nervis, IIda et IIIa 1-nervis, glabrae, IVa ciliata, Va duplo brevior, ciliolata, obtusa; antherae 2 mm. lg.

Montevideo, in arenosis leg. Arechavaleta (nr. 204).

Proximus praecedenti, qui differt foliis planis viridibus, spiculis muticis etc.; *A. glaucescens* Kunth differt articulis breviter villosis.

21) *A. exaratus.* Perennis? Culmi 1·5—2 m. alti, ramosi, glaberrimi. Vaginae teretes, glaberrimae. Ligula brevissima, truncata, ciliolata. Laminae e basi angustata sublanceolato-lineares, inferiores ultra 30 cm. lg., —8 mm. lt., flaccidae, subtus laeves et virides, supra glaucescentes, scabrae, margine scaberrimae, costa media inferne crassa, subtus obtuse carinata percursae. Rami floriferi 2—3ni, simplices, uninodes, graciles, stricti, laeves, summi subfastigiati; spathae usque 10 cm. lg., angustae, a spicis plerumque longe remotae. Spicae binae v. saepius ternae, inaequales, 5—8 cm. lg., graciles, erec-

Universitätsbibliothek Regensburg
urn:nbn:de:bvb:355-ubr03548-0137-5

tae, densiusculae; articuli pedicellique spiculam ♀ dimidiam subsuperantes, crassi, lineari-subclavati, compressi, apice urceolati, integri v. erosuli, margine parcius ciliati, ciliis albidis articulo $^1/_3$—duplo brevioribus infra apicem desinentibus. Spiculae sessiles lineari-lanceolatae 4·5—5·5 mm. lg., brunneo-viridulae; gluma I^ma minute bidentata, acutiuscula, chartacea, carinis spinuloso-ciliatis, praeter carinas 2-nervis, dorso glabro inter nervos intracarinales sulco longitudinali profundo exarata, callo minuto glabro; II^da navicularis, carina serrulato-scabra; III^a oblonga, obtusa, 2-nervis, ciliata; IV^a —$^1/_4$ brevior, ovato-lanceolata, breviter biloba, 3 nervis, aristam 4—5 mm. longam subperfectam exserens, cujus columna vix e glumis exserta, fusca, glabra, oligospira subulam divergentem basi undato-flexuosam flavam aequat; V^a duplo brevior, oblonga, obtusa enervis, ciliata. Antherae 3, 2—2·5 mm. lg. Spiculae pedicellatae sessiles aequantes, ♂, lanceolatae, virides v. livide violascentes: gluma I^ma acutiuscula, carinis setuloso-aspera, 3—7-nervis, glabra; II^da acutiuscula 1—3nervis, III^a et V^a ut in ♀; IV^a mutica, enervis, ciliata.

Paraguay: in pascuis planitiei pr. Pirayu-bi lg. Balansa nr. 224.

Remote affinis *A. incano* Hack. (*A. glaucescenti* Nees Agrost. bras. non Kunth), sed notis litteris distantibus expressis valde discrepans.

22) *A. madagascariensis.* Perennis. Culmi 80—100 cm. alti, compressi, glaberrimi, e nodis 2—3 superioribus remotis ramos solitarios usque ternos simplices elongatos strictos, superioribus subfastigiatis, agentes. Vaginae compressae, obtuse carinatae, laeves, glabrae v. ore barbatae, superne a culmo solutae, summae aphyllae. Ligula elongata, lineari-oblonga, 3—6 mm. lg., obtusa, membranacea, glabra v. ciliata, plerumque pilis stipata, in vaginam decurrens. Laminae inferiores 20—40 cm. lg., e basi aequilata anguste lineares subjunceae, 1·5—2 mm. lt., inferne semicylindricae, superne canaliculato-apertae, setaceo-acuminatae, rigidae, glabrae v. basi barbatae, virides, margine scaberrimae, ceterum laeves v. laeviusculae, costa media inferne fere totam latitudinem occupante percursae. Spicae 2—4nae digitatae, a vagina summa primo basi tectae, demum ab ea remotae, pedunculo communi superne scaberulo insidentes, inaequales, 4—6 cm. lg., graciles;

Universitätsbibliothek Regensburg
urn:nbn:de:bvb:355-ubr03548-0138-1

articuli pedicellique spicula sessili $^1/_6$—$^1/_4$ breviores, graciles, anguste lineari-clavatae, apice oblique urceolatae, urceolo integro v. bidentato, margine laxissime et saepe altero tantum latere ciliati, ciliis albidis articulo 3—4-plo brevioribus. Spiculae sessiles 5—6 mm. lg., lineari-lanceolatae viridulae v. livide violascenti suffusae, gluma Ima acuta, brevissime bidentula, carinis scabris, praeter nervos carinales instructa nervis duobus intracarinalibus brevibus, dorso toto glabro laevi leviter canaliculato-impresso, callo pilis parcis ipsa 4—5-plo brevioribus vestita; IIIa acutiuscula, enervis, ciliata; IVa parum brevior, lanceolata, ad $^1/_3$ usque in lacinias acutas ciliatas fissa, aristam emittens 8—10 mm. longam, cujus columna gluma glabra parum e glumis eminet. Va 3-plo brevior, ovata, ciliata, enervis. Antherae 3,2·5 mm. lg. Spiculae pedicellatae etiam hermaphroditae sessiles subaequantes, lanceolatae, livide violascentes; gluma Ima acuta, 3—5-nervis, glabra; IIda 1—3-nervis, ciliata, IIIa 2-nervis, IVa 1-nervis, interdum breviter aristata. Stamina ut in sessilibus. Ovarium cum stigmatibus plerumque evolutis, rarius hebetatis.

Madagascar: prope Tananarivo, lg. Hildebrandt nr. 4052 et 4107.

Affinis *A. campestri* Trin. (brasiliensi) et *A. tristi* Nees (indico), sed culmo ramoso, foliis subjunceis ab hoc, culmo ramoso, vaginis superne a culmo distantibus, callo glumae Iae barbato ab illo distinctus.

23) *A. annuus*. Culmi gracillimi, erecti, 60—80 cm. alti, simplices, laevissimi. Vaginae teretiusculae, glaberrimae. Ligula oblonga, 2—3 mm. lg., truncata, medio membranacea, lateribus herbaceis in vaginam decurrens, glabra. Laminae angustissime lineares, elongatae (20—35 cm. lg., 1—1·5 mm. lt.), setaceo-acuminatae, planae, glabrae, supra margineque scaberulae, costa media subtus obtusiuscula crassiuscula percursae. Spicae a vagina summa haud spathiformi demum plus minusve remotae 6—7 cm. lg., graciles, altera subsessiles, altera pedicello 4—5 mm. longo glabro fulta, multiflorae; articuli spiculam dimidiam aequantes, lineares, crassiusculae, obliquissime secedentes, secessi cicatricem lineari-oblongam nec cupuliformen exhibentes, postice dentiformi-protracti, utrinque pennato-ciliati, ciliis rigidulis albis articulo 2—3-plo brevioribus. Spiculae sessiles cum callo 3 mm. longo acuto curvulo

Universitätsbibliothek Regensburg
urn:nbn:de:bvb:355-ubr03548-0139-9

antice glabro postice lateribusque albo-sericeo-barbato 11 mm. lg., lineares, flavo-virentes; gluma Ima obsolete bidentula, obtusa, marginibus involuta, glabra, scabra, loco nervi medii sulco profundissimo diaphano etiam callum percurrente notata, ceterum utrinque 3-nervis; IIda oblonga, carina scabra; IVa 1/4 brevior, oblonga, breviter bifida; aristae validissimae 80—90 mm. longae pallide fuscescentis columna scaberrima supra medium geniculata subulam rectam scaberrimam aequans. Spiculae pedicellatae sessiles aequantes lineari-lanceolatae neutrae: gluma Ima acutissima in aristam ipsa breviorem abiens, carinis spinuloso-ciliatis, 7—9nervis; IIda brevior, lanceolato-acuminata, 3-nervis; reliqua praeter glumae IIIae vestigia 0. Utriusque spicae spicularum par imum (vel alterius paria 2 inferiora) homogeneum, neutrum, spiculis ad glumas Ima et IIda redactis.

Africa centralis: in terra Djur ad Seriba Ghattas lg. Schweinfurth (anno 1869) nr. 183. III.

Species inter *Cymbopogones* et *Arthrolophes* ambigens, *A. filifolio* Steud. remote affinis.

24) *A. longipes.* Annuus; culmi basi decumbentes, dein ascendentes, simplices, graciles, 30—40 cm. lg., glaberrimi, compressi. Vaginae subcompressae, superne tuberculato-hirtulae. Ligula brevissima, rotundato-truncata, pilis stipata. Laminae e basi aequilata lineares, angustae, 10—15 cm. lg., 1·5—3 mm. lt., breviter acuminatae, virides, pilis bulbosis hirsutae, rigidae, siccae margine revolutae, costa media crassiuscula percursae. Spicae binae, 6—7 cm. lg., utraque pedunculo 10—15 mm. longo parce piloso fulta, absque spicula in axilla; rhacheos articuli lineari-subclavati spicula sessili plus duplo usque triplo breviores, apice non vel obsoletissime bracteolati, oblique secedentes, utrinque breviter ciliati, ciliis vix dimidium articulum aequantibus. Spiculae sessiles oblongae, 7 mm. lg., virides, gluma Ima brevissime bidenticulata, margine flexura altera supra medium late alata, altera non nisi carinata, scabra, 7-nervis, nervo medio saepe obsoleto, reliquis percurrentibus, secus medium depressa, dorso praecipue superius hirtula, callo brevi obtuso pilis callum aequantibus vestita; IIda inter dentes apicis aristam patulam ipsam aequantem edens, margine villoso-ciliata; IVa parum brevior, oblonga, ad medium

Universitätsbibliothek Regensburg
urn:nbn:de:bvb:355-ubr03548-0140-0

usque in lacinias subulato-triangulares glabras fissa, aristam exserens glabram 14 mm. longam. Spiculae pedicellatae masculae oblongae, sessiles aequantes, virides; gluma Ima superne inaequaliter alata, apice aristam ea duplo breviorem exserens, superne parce pilifera, 6—7-nervis; IIda $^1/_3$—subduplo brevior, mutica, ciliata; IIIa et IVa IIdam subaequantes, lineari-oblongae, enerves, ciliatae. Antherae 3, 1·5 mm. lg.

India orientalis: in montibus Nilgerries lg. Perrotet nr. 1315. Affinis *A. abyssinico* Brown, qui differt spica altera subsessili, laminis flaccidulis, arista glumae IIdae (spiculae ♀) erecta, spicis dense villosis.

Sect. *E. Amphilophis* Trin.

25) ***A. Wrightii.*** Perennis. Culmi erecti, 50—80 cm. alti, simplices, teretes, infra nodos glabros subpruinosi. Vaginae teretes, laeves, pruinosae; ligula brevis, (1 mm.) truncata, glabra. Laminae e basi subangustata lineares, setaceo-acuminatae, 15—20 cm. lg., 4—5 mm. lt., planae, rigidae, subtus glauco-pruinosae, glabrae, utrinque laeves, margine scabrae, costa media subtus prominula percursae. Panicula longe exserta, 3—4-spicata, spicis subdigitatis, subfastigiatis; rhachis communis glaberrima pruinosula; rami simplices basi breviter (cc. 4—6 mm.) nudis, in axillis glabri. Spicae cc. 4 cm. lg., crassiusculae, brunneo-virescentes, parce pilosae, rectae; rhacheos articuli pedicellique lineares, spicula sessili $^1/_3$ breviores, medio late sulcati atque hyalini, marginibus crassis ciliis albis accrescentibus (summis articulo paullo brevioribus) vestiti. Spiculae sessiles 5·5—6 mm. lg., oblongae; gluma Ima coriaceo-chartacea obtusissima margine superne anguste implicata, flexuris setuloso-ciliatis, 7-nervis, secus nervum medium leviter impressa, nervis infra apicem hyalinum desinentibus, dorso glaberrima, nitens, callo brevi pilis gluma 4—5-plo brevioribus vestita; IIda chartacea, late lanceolata, acutiuscula, 3-nervis, elevato-carinata, carina margineque superne breviter ciliatis; IVa $^1/_3$ brevior, anguste linearis, stipitiformis, crassa, glabra, abiens in aristam 12—13 mm. lg., cujus columna recta scaberula subulam subaequat. Spiculae pedicellatae ♂, sessiles aequantes, lineari-oblongae; gluma Ima obtusiuscula, margine in $^1/_2$ superiore spinuloso-ciliata, 9—nervis, glabra; IIda obtusa, 3—5-nervis, IIIa brevior, enervis; IVa 0. Antherae 3, 1·5—2 mm. longae.

Universitätsbibliothek Regensburg
urn:nbn:de:bvb:355-ubr03548-0141-6

America septentrionalis: New Mexico leg. C. Wright nr. 2104 (anno 1851—52).

Remote affinis *A. Ischaemo*, qui differt spiculis sessilibus apice angustissime truncatis, in $^1/_2$ inferiore appresse pilosulis, chartaceis, pallidis, spiculis pedicellatis cum gluma IVa etc.

26) *A. asperifolius*. Annuus. Culmi graciles circ. 90 cm. alti, erecti, superne ramum floriferum brevissimum intra vaginam fere latentem agentes, breviusculi, ad nodos brevissime puberuli ceterum glaberrimi, superne breviter nudi. Vaginae teretiusculae, ore barbatae, ceterum glaberrimae. Ligulae breviter protractae (1·5—2 mm. lg.), rotundato-truncatae, fusco-membranaceae, ciliolatae, pilis stipatae. Laminae e basi angustata sublanceolato-lineares, setaceo-acuminatae, mediae 30—40 cm. lg., 6—10 mm. lt., flaccidulae, virides, utrinque pilis basi tuberculatis adspersae et nervis margineque scaberrimae, costa media inferne crassissima obtusa percursae. Panicula 8—10 cm. lg. ovali-oblonga; rhachis communis gracilis 3—5-nodis, ad nodos barbata, 4—5 cm. lg., scabra; rami inferiores terni, (i. e. ramus primarius solitarius secundarium basilarem (spicam) sessilem atque paullo superius alterum subsessilem edens), superiores bini, dense fasciculati. Spicae longiores pedicello brevi (3—5 mm. lg.) fultae, breviores secundariae sessiles, 3·5—4 cm. lg., imae rhachin communem subaequantes, multiarticulatae; articuli pedicellique ♂ lineares, filiformes, apice non dilatatae nec bracteolatae, recte secedentes, dorso sine sulco, marginibus a basi fere ad apicem usque subaequaliter ciliati, ciliis albis mollibus articulo plus duplo brevioribus. Spiculae sessiles lanceolatae 5 mm. lg., flavo-viridulae, praeter callum glabrae, nitentes. Gluma Ima apice brevissime hyalino anguste truncata, subcoriacea, infra apicem rigide ciliolata, margine involuta, dorso plana exsulca 9-nervis, callo pilis gluma 3-plo brevioribus vestita; IIda lanceolata, acuta, carina sub apice ciliolato glabra, 5-nervis, margine involuta; IIIa lanceolata, acuta, enervis, ciliolata; IVa quam IIa duplo brevior, oblonga, ad $^1/_3$—$^1/_2$ usque fissa, inter lobos obtusos ciliatos exserens aristam gracilem caducissimam 20—24 mm. longam, cujus columna glabra castanea medio subdistincte geniculata subulam flavidam laxe tortam scaberrimam aequat; gluma Va 0. Lodiculae glabrae. Antherae 3, 1·8 mm. lg. Spiculae pedicellatae sessiles aequantes, sed angustiores, lineari-lanceolatae; gluma Ima obtusa, 9-nervis, scaberula; IIda paullo bre-

Universitätsbibliothek Regensburg
urn:nbn:de:bvb:355-ubr03548-0142-2

vior, acuta, 7-nervis, ciliata; IIIa 3-nervis, IVa duplo brevior, ovalis, ciliata. Antherae ut in ♀.

Java, Zollinger nr. 2802.

Species inter sectionem *Amphilophem* et *Sorghum* intermedia nulli propius affinis, et forsan typus sectionis propriae habenda.

27. *A. Hildebrandtii.* Perennis. Innovationes extravaginales. Culmi 60—100 cm. alti, subrobusti, erecti, simplices, compressi, ad nodos minute sericeo-puberuli. Vaginae compressae, inferiores carinatae, strictae, praeter basin appresse pilosam glaberrimae. Ligula brevissima, chartacea, truncata, glabra sed pilis longis rigidis stipata. Laminae e basi valde angusta ad costam mediam crassissimam redacta lineari-lanceolatae, acutae, planae, 25—40 cm. lg., 7—10 mm. lt., (folii summi 10 cm. lg.), rigidae, virides, glabrae, utrinque scaberulae, margine scabrae, costa media subtus carinante percursae. Panicula oblonga laxiuscula folio summo fulta cc. 20 cm. lg., composita, flaccidula; rhachis ramique undique pilis brevibus mollibus albo-sericeis vestiti, rami patuli v. nutantes, solitarii v. bini, primarii inferiores paniculam dimidiam aequantes, 4—6-nodes, secundarios alternos sursum decrescentes basi saepe ramulo tertiano auctos procreantes, primarii omnes basi ad 1—2 cm. usque nudi, secundarii vero atque tertiani ab ipsa basi spiculiferi, spiculis imis in axilla ramulorum nidulantibus. Spicae valde inaequales, longiores 3 cm. lg., 6-articulatae, tertianae saepe tantum 2-articulatae, laxiflorae, subnutantes, breviter canescendo-sericeo-villosulae, rhacheos rectiusculae articuli spiculam sessilem subaequantes, pedicelli ♂ ea $^1/_4$ breviores, utrique lineari-filiformes, apice vix incrassati, undique griseo-villosi, villis articulo 3—4-plo brevioribus. Spiculae sessiles 5 mm. lg., oblongae, dilute griseo-violaceae; gluma Ima chartacea, versus apicem angustata, ipso apice truncata, marginibus in $^1/_3$ superiore implicata, carinis ciliolato-scabris, inferne involuta, dorso plana, exsulca, 5-nervis, a basi ad $^3/_4$ usque moliter cano-villosa, apice glabra, callo minuto obtuso pilis gluma 5-plo brevioribus vestita; IIda lanceolata, acuta, obsolete carinata, uninervis, dorso superne villosa; IIIa paullo brevior, lanceolata, 2-nervis, ciliata; IVa subduplo brevior, ovalis, obtusa, inferne 3-nervis, ex apice exserens aristam jam inferius concrescentem imperfectam 2·5—3 mm. longam glumas parum excedentem; gluma Va quam IVa

Universitätsbibliothek Regensburg
urn:nbn:de:bvb:355-ubr03548-0143-8

duplo brevior, ovalis, enervis, ciliata. Lodiculae late cuneatae, fere bicornes, cornu altero cuspidato. Antherae 3, 2·5 mm. lg. Ovarium apice pilis coronatum; stigmata subsessilia. Spiculae pedicellatae 4 mm. lg., lanceolato-oblongae, pilosae, callo barbatae; gluma Ima obtusiuscula, 5-nervis; IIda acuta, 3—5-nervis; IIIa, IVa, Va decrescentes, enerves, ciliatae. Antherae 1·6 mm. lg.

Madagascar centralis: Andrangolóaka in prov. Imerina, in collibus apricis. leg. Hildebrandt nr. 3755.

Nulli ali affinis, potius typus sectionis propriae *(Lasiorhachis)* habendus.

F. Sect. *Sorghum.*

28) *A. bipennatus.* Annuus; culmi erecti, inferne graciles, superne crassiusculi, 80—130 cm. alti, teretes, saepe e nodis inferioribus ramosi, ad nodos minute puberuli, ceterum glaberrimi. Vaginae teretes, glaberrimae, strictae. Ligulae breves, truncatae, fusco-chartaceae, saepe biauriculatae, glabrae. Laminae e basi angustata lineares, setaceo-acuminatae, planae, mediae 15—30 cm. lg., 4—6 mm. lt., glabrae, virides, subtus scaberulae, supra margineque aculeolis densiuscule consitae inde asperrimae, costa media crassiuscula subtus obtusa notatae. Panicula linearis, 9—18 cm. lg., densiuscula, demum contracta; rhachis teres, glaberrima; rami 2—5-ni: primarii inferiores 4—6-nodes paniculâ 3—4-plo breviores, secundarios et basilares et superiores iterum ramulosos edentes; rami ramulique omnes capillares demum suberecti teretes glaberrimi, apice in cupulam rectam distinctam glabram abeuntes. Spiculae in apice ramulorum solitariae, adjectis 2 pedicellis sterilibus spicula $^1/_4$ brevioribus utrinque eleganter pennato-ciliatis, ciliis albis rigidulis pedicello 3—4-plo brevioribus, sine vestigio spiculae in apice pedicellarum. Spiculae ♀ lanceolatae, 5—5·5 mm. lg., demum fuscae, nitidulae; gluma Ima coriacea, apice angustissime truncata infra apicem bicarinata, carinis scaberulis, in marginis $^1/_2$ inferiore involuta, dorso convexula, tenuiter 5-nervis, in $^2/_3$ inferiore dorsi pilis albis plus minusve villosa, callo obtuso brevissimo pilis gluma 5-plo brevioribus dense barbata; IIda late lanceolata, triangulari-obtusa, in $^1/_2$ superiore carinata carina scaberula, inferius convexa, glabra, 5-nervis; IIIa $^1/_3$ brevior, oblonga, truncata, emarginata, binervis, ciliata; IVa IIIam ae-

Universitätsbibliothek Regensburg
urn:nbn:de:bvb:355-ubr03548-0144-4

quans, lineari-oblonga, bilobulata, ciliolata, inter lobulos aristam exserens jam fere ipsa basi concrescentem validiusculam 40--45 mm. longam, cujus columna medio distincto geniculata atro-fusca secus spiras scaberula v. ciliolata subulam flavam scabram rectam subaequat; gluma V^a 0. Lodiculae parvae, late cuneatae, subcoalitae, glabrae. Antherae 3, 1·2 mm. lg. Ovarium glabrum; stigmata stylis breviora.

Africa centralis: ad Seriba Ghattas in terra Djur lg. Schweinfurth nr. 2486.

Affinis *A. canescenti* Hack. (*Sorghum canescens* Hack. in Mart. et Eichl. Fl. Brasil.) qui differt vaginis cano-hirsutis, spicularum albidarum callo 1 mm. longo acuto, aristae columna secus spiras longiuscule flavo-ciliata.

Die Lichenen des fränkischen Jura.

Von Dr. **F. Arnold.**

(Fortsetzung.)

499. *V. papillosa* (non Ach. univ. 286 sec. Nyl. Scand. 272) Floerke Herb. sec. Koerb. syst. 350.

a) exs. Schaer. 523, Leight. 34, Mudd 274, Rabh. 572, 944, Koerb. 172 (f. *umbrosa* Kb.); Malbr. 249 inf., Arn. 1010.

b) Hic memoretur *V. virens* Nyl. Bot. Not. 1853 p. 180, Scand. p. 270, et var. *obfuscans* Nyl. Luxemb. 1866 p. 370; Exsicc. Arn. 389, Arn. 306 = Rabh. 824 huc pertineant.

I. 2: auf Sandsteinen am Waldsaume bei Burglesau. II. Liassteine unter Gebüsch unter Banz, in der Neuricht bei Amberg. III. 2: an beschatteten Orten auf Kalksteinen, Kalkplatten, besonders längs der kleinen, im Sommer versiegenden Waldbäche: am Gehänge einer Waldschlucht in den Anlagen bei Eichstätt (Koerb. 172). V. 4, 6: vereinzelt auf einem alten Knochen und einem Schneckenhause im Walde zwischen Eichstätt und dem Bahnhofe.

f. *congregata* Hepp in lit. 21 Mart. 1858, Flora 1858, 538.

exs. Arn. 83

Universitätsbibliothek Regensburg urn:nbn:de:bvb:355-ubr03548-0145-9

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: Flora oder Allgemeine Botanische Zeitung

Jahr/Year: 1885

Band/Volume: 68

Autor(en)/Author(s): Hackel Eduard [Ede]

Artikel/Article: Andropogoneae novae 131-143