

- 4c Hochlandflora der Karrasberge
 5 Inneres Namaland
 6a Kalaharikalkflora
 6b Südliches Sandfeld der Kalahari
 6c Mittleres Sandfeld der Kalahari
 Revierbestände bes. mit *Acacia horrida* und *Euclea*
pseudebenus
 * Vorkommen von Naras

Im übrigen wolle man den Text vergleichen.

(Es folgt der spezielle Teil!)

XII. R. Knuth, *Dioscoreaceae novae VI.*

51. *Dioscorea Macbrideana* R. Knuth in Fedde, Rep. XXVIII (1930) 88 (forma ♀). — f. ♂: Spicae 5—9 cm longae, in racemum aphyllum axillarem 10—30 cm longum compositae, usque 5—8 mm supra basin floribus destitutae; rachis $\frac{1}{2}$ mm crassa, satis rigida, sicut flores glabra; flores solitarii, sessiles vel subsessiles, 2—5 mm inter se remoti. Perianthium usque ad $\frac{1}{2}$ partitum, inferne crateriforme; lobi ovati vel rotundati, \pm patuli vel erecto-patuli. Stamina 6; antherae medium loborum perianthii attingentes, vix magnae; filamenta basi tubi adnata. Rudimentum stylinum satis magnum tricenatum (Sect. *Sphaerantha* Uline).

Peru: Dept. Loreto, Caballo-Cocha am Amazonen-Strom (Williams a. 1929 n. 2460 ♂ — Typus). — Blüh. August.

52. *Dioscorea Klugii* R. Knuth, spec. nov. (Sect. *Chondrocarpa* Uline). — Glabra. Caulis ca. 5 m altus, saepe 2—2½ mm crassus, \pm angulatus, profunde purpureus, glaber. Folia alterna, ca. 8 cm inter se remota; lamina exs. subcoriacea, glaberrima, saepe 13 cm longa et 7—9 cm lata, ambitu oblongo-ovata, basi retusa vel vix perspicue incisa, apice acuminata, acumine 15 mm longo et basi fere triquetro, 5-nervata, nervis 3 mediis aream oblongo- vel ovato-lanceolatam determinantibus; petiolus 3½ cm longus, 1½ mm crassus, quam lamina 4-plo brevior. Spicae solitariae in axillis foliorum, simplices, 16—21 cm longae, rhachi 1½ mm crassa, usque ad basin fere floribus obsitae. Flores solitarii, 2—3½ mm inter se remoti, sessiles. Bractae e basi triquetro-lanceolata subulatae, 1½—1¾ mm longae. Corolla tubiformis, tubo 1½—2 mm longo; limbi lobi expansi vel reflexi, late ovati, obtusiusculi. Stamina parte superiore tubi vel fere basi loborum affixa. Antherae medium loborum perianthii attingentes. Rudimentum stylinum satis magnum.

Peru: Dept. Loreto, Mishuyacu, bei Iquitos, 100 m (Klug a. 1929 n. 344 — Typus in Herb. Field Mus.!). — Blüh. November.

53. *Dioscorea tequendamensis* R. Knuth, spec. nov. (Sect. *Chondrocarpa* Uline) — Volubilis, satis robusta, 5 m saltem alta. Caulis glaber, subsimplex, subalatus, 4 mm crassus. Folia 6—12 cm inter se distantia; lamina ambitu late vel rotundato-ovata, saepe 16 cm longa lataque, basi late cuneato-cordata, apice mucrone 1 cm longo inferne 5 mm lato terminata, exs. chartaceo-papyracea, integra, 9-nervata, nervis primariis et secundariis subtus valide prominentibus, nervis 3 mediis aream oblongo-lanceolatam determinantibus, supra glabra, subtus ad nervos venulasque tomentoso-pubescentes; petiolus usque 9 cm longus, 3 mm crassus, subglaber. — Racemi ♀ 14-24 cm longi, 2—3-ni in axilla folii, sicut perigonium tomentoso-puberuli, densiflori. — Species caule subalato et foliis magnis infra tomentoso-pubescentibus facilliter recognoscitur.

Colombia: Tequendama bei Bogota, im Bergwald, 2000—2400 m (Troll a. 1929 n. 3698 ♀ — Typus in herb. Berol.!). — Blühend März.

54. *Dioscorea calcensis* R. Knuth, spec. nov. (Sect. *Centrostemon* Griseb.) — Caulis 2—3 m altus, simplex, volubilis, exs. 2 mm crassus et profunde sulcatus; internodia saepe 10 cm longa. Folia alterna; lamina usque 8 cm longa et 5½ cm lata, ambitu triquetro-cordata, apicem versus cuneata, apice summo acute apiculata, ad basin sinu obtuso (110°) usque 1½ cm profundo incisa, supra glabra, subtus pilis minutis ciliaribus in nervis venulisque manifeste scabriuscula, 9-nervata, nervis 3 mediis aream lanceolatam determinantibus; petiolus quam laminae dimidium manifeste longior, usque 5 cm longus, 1¼—1½ mm crassus, sicut rachis dense minute puberulus. Spicae ♂ 6—17 cm longae, plerumque solitariae in axillis; rachis 1—1¼ mm crassa, inferne usque 3 cm floribus denudata. Flores solitarii, 5—10 mm distantes. Pedicelli 4—5 mm longi, puberuli. Bractee 2 mm longae, lineari-lanceolatae, acutae. Perianthium aperto-campanulatum, usque 4—5 mm latum, usque ad ⅔ partitum; segmenta oblongo-ovata vel oblonga, 3 mm longa, apice rotundata, brunnea. Staminum 6 filamenta brevissima, fere nulla. — Spicae ♀ ca. 12—15 cm longae, inferne ca. 3 cm floribus denudatae, floribus 6—10 cm inter se distantibus. Perianthium 6—7 mm diam.; segmenta oblonga, subviridia. — In sectione foliis subtus ad nervos puberulis insignis.

Peru: Dept. Cuzco, Prov. Calca, Lares-Tal zwischen Calca und Pasto Grande, 1400—1500 m (Weberbauer a. 1929 n. 7928a ♂ in Exp. Marsh. Field Fund — Typus in herb. Berol.!). An demselben Standort (Weberbauer a. 1929 n. 7928 ♀!).

55. *Dioscorea longirachis* R. Knuth, spec. nov. (Sect. *Monadelpha* Uline) — Glabra. Caulis ca. 5 m altus, saepe 2 mm crassus, perspicue sulcatus, glaber. Folia alterna, saepe 20 cm inter se remota; lamina exs. membranacea, glaberrima, saepe 13 cm longa et 4½ cm lata, ambitu oblongo-lanceolata, basi sinu obtusis-

simo vel leviter semilunato-excavato excisa, apicem versus sensim angustata, acutissima, 7. (—9)-nervata, nervis 3 mediis aream oblanceolatam determinantibus; petiolus saepe 4 cm longus, $1\frac{1}{2}$ mm crassus, quam lamina 3-plo brevior. Racemi simplices, solitarii in axillis foliorum, cum pedunculo 6 cm longo usque 12 cm longi; rachis fere filiformis; pedicelli usque 7 mm longi, 2—5 mm remoti. Perianthium membranaceum, viridulum, 8 mm diam.; segmenta exteriora ovata, interiora angustiora, basi contracta, patentissima, trinervia. Stamina 3; filamenta in columnam stamineam cylindricam perianthio tantum parum breviorern connata, partibus liberis brevibus erectis vel fere divaricatis.

Peru: Dept. Cuzco, Prov. Quispicanchi, Marcapata-Tal bei Chilechile (Weberbauer a. 1929 n. 7862 — Typus in Herb. Field Mus.). — Blüh. Februar.

56. *Dioscorea irupanensis* R. Knuth, spec. nov. (Sect. *Cincinno-rhachis* Uline) — Volubilis, 3—4 m alta. Caulis subsimplex, glaber, angulosus, $2\frac{1}{2}$ —3 mm crassus. Foliorum lamina elongato-cordata, usque 10 cm longa et $6\frac{1}{2}$ cm lata, basi cordata, tamen in petiolum brevissime contracta, apicem versus angustata, acutissima, exs. membranacea, facie utraque glabra, margine petiolum versus ciliis minutis sparsis obsita, integra, 7-nervata, nervis subtus prominulis, nervis 3 mediis aream ovato-lanceolatam vel lanceolatam determinantibus; petiolus usque 3 cm longus, $1\frac{1}{4}$ — $1\frac{1}{2}$ mm crassus. Racemi ♂ 1—3-ni in axilla folii, simplices vel parte inferiore ± furcati; rachis 1 mm crassa, fere laxa, $\frac{3}{4}$ —2 cm supra basin floribus denudata, ciliis vitreis asperula. Flores solitarii, 3—4 mm inter se distantes, bractea satis magna 3— $3\frac{1}{2}$ mm longa 2 mm lata ovato-lanceolata acutiuscula membranacea 1-nervata suffulti, rarius bibracteati. Perianthium usque ad $\frac{3}{4}$ partitum, $2\frac{1}{2}$ —3 mm diam.; lobi ovati, obtusi. Stamina fertilis 3, brevia, basi loborum insidentia, connectivo lato, cum 3 staminodiis anantheris lanceolato-filiformibus alternantia. Rudimentum stylinum satis parvum, manifeste 3-partitum. — Species bracteis sat magnis bene distincta est.

Bolivia: La Paz-Tal bei Irupana, im Trockenwald, 1200 m (Troll a. 1928 n. 1772 ♂ — Typus in herb. Berol.!) — Blühend März.

57. *Dioscorea putumayensis* R. Knuth, spec. nov. (Sect. *Hemidematostemon* Griseb.) — Volubilis, tenera, 3 m alta, glaberrima. Caulis subsimplex, leviter angulosus, $1\frac{1}{2}$ —2 mm crassus. Folia usque 10 cm inter se distantia; lamina cordato-hastiformis, saepe 9 cm longa, inter auriculas rotundatas $4\frac{1}{2}$ cm lata, basi semilunato-excisa et ad petiolum vix perspicue contracta, in apicem acutissimum sensissime angustata, acutissima, exs. membranaceo-papyracea, integra, 7-nervata, nervis subtus graciliter prominulis, nervorum duobus jugis exterioribus mox submarginalibus, nervis 3 mediis aream elongato-lanceolatam determinantibus; petiolus usque 3 cm longus, 1 mm crassus. Racemi ♂ 4—6-ni in axilla folii,

simplices; rachis fere filiformis, usque ad basin fere florifera. Flores capitulati, 2—3-ni uniti, glomerulis 5—8 mm inter se distantibus. Bractae minutae, filiformes. Perianthium usque ad $\frac{3}{4}$ partitum, 2 mm diam.; lobi late vel rotundato-ovati, obtusi. Stamina fertilia 3, brevissima, basi perianthii inserta, connectivo lato; staminodia nulla. Rudimentum stylinum minutum. — Species forma foliorum longe protractorum et staminum connectivis recognoscitur.

Colombia: Comisaria del Putumayo; Umbria, in Wäldern, 325 m (Klug a. 1930 n. 1713 ♂ — Typus in herb. Berol!). — Blühend Oktober bis November.

58. *Dioscorea chagllaensis* R. Knuth in Fedde, Rep. XXVIII (1930), 88 (f. ♀). — forma ♂: Spicae 5—8 cm longae, in ramum multispicatum saepe 45 cm longum aphyllum compositae, usque ad basin floribus obsitae; rachis $\frac{1}{2}$ mm crassa, dense puberula; flores solitarii, sessiles, 2—4 mm inter se remoti. Perianthium usque ad $\frac{1}{4}$ partitum; tubus 2 mm longus, superne 1 mm crassus; lobi \pm late ovati, obtusiusculi, patuli. Stamina 6, infra basin loborum tubo affixa; antherae basin loborum attingentes, satis parvae; filamenta libera satis brevia. Rudimentum stylinum perspicuum (Sect. *Cryptantha* Uline).

Peru: Dept. Loreto, Mishuyacu, bei Iquitos, 100 m (Klug a. 1929 n. 168 ♂ — Typus!). — Blüh. Oktober bis November.

59. *Dioscorea nicolasensis* R. Knuth in Fedde, Rep. XXIX (1931) 94 (f. ♂). — forma ♀: Spicae 8—12 cm longae, fructibus numerosis praeditae, in ramis saepe 30 cm longis multispicatis congestae. Capsulae 2 cm latae et 1 cm longae, brunneae, alis \pm rotundatis. Semina 7 mm diam., pallide brunnea; semen proprium ca. 4 mm diam., profunde brunneum; ala 2 mm lata. (Sect. *Strutantha* Uline, non *Triapodandra* [ut olim indicatum]).

Peru: Dept. San Martin, Tarapoto, 750 m (Williams a. 1929 n. 6146 ♀ — Typus!). — Frucht. Dezember.

60. *Dioscorea Trollii* R. Knuth, spec. nov. (Subgen. *Eudioscorea* Pax) — Volubilis, 4—5 m alta. Caulis subsimplex, rotundatus, 2 mm crassus. Folia usque 10 cm inter se distantia; lamina lanceolata, usque 10 cm longa et 3 cm lata, basi rotundata vel latissime cuneato-contracta, apice acuta vel acutissima, exs. papyracea, integra, facie superiore glabra, inferiore ad venas minute scabriuscula, integra, 5-nervata, nervis subtus prominulis, nervis exterioribus submarginalibus, nervis 3 mediis aream lanceolatam determinantibus; petiolus usque $2\frac{1}{2}$ —3 cm longus, $1-1\frac{1}{4}$ mm crassus. — Racemi ♀ ca. 18 cm longi, axillares vel ad apicem plantae in corymbum usque $\frac{1}{2}$ m longum congesti; rachis 1 mm crassa, glabra, gracilis, satis dense floribus obsita. Capsulae (plane immaturae) 10 mm longae, 8 mm latae, glabrae. — Forma foliorum inter species americanas raro invenitur.

Bolivia: San Carlos (Mapiri), Regenwald, 800 m (Troll a. 1927 n. 2776 ♀ — Typus in herb. Berol!). — Blühend Mai.