

Some new or little-known African *Malpighiaceae*

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The new taxa described in this paper are the result of researches carried out during the preparation of the account of *Malpighiaceae* for 'The Flora of Tropical East Africa'. All the specimens cited are in the Kew Herbarium unless otherwise indicated by the standard abbreviation for the Herbarium concerned.

***Acridocarpus congestus* Launert**, sp. nov. ab omnibus congeneribus praesertim corymbis terminalibus distincta.

Frutex scandens, multiramosus; ramulis subpatentibus vel oblique adscendentibus. *Ramuli* teretiusculi, novelli plus minusve dense ferrugineo-sericei, tarde glabrescentes, lenticellati. *Folia* alterna, petiolata; *lamina* 4.5–9 (11) cm. longa et 2–4 cm. lata, obovata usque oblongo-obovata, subcoriacea, utrinque glabra, apice obtusa interdum acuminata, basi cuneata, marginibus plus minusve involutis, nervis secundariis utrinsecus costae 12–16, plerumque eglandulosa vel raro subtus supra basin glandulis 2 minutis circularibus impressis inconspicuis ornata; *petiolus* 3–5 mm. longus, canaliculatus, glabratus; *stipulae* nullae. *Corymbi* multiflori, ramulos terminantes; bracteis 3–4 mm. longis lanceolato-triangularis acutis persistentibus; bracteolis 1–2 mm. longis triangularis eglandulosus. *Flores* 2.5–3 cm. diametro, pentameri, hermaphroditi, subactinomorphi. *Calyx* glandulis (1–)2(–3) circularibus instructus, raro eglandulosus, lobis 5–6 mm. longis ovatis usque oblongo-ovatis extra ferrugineo-sericeis vel glabrescentibus, marginibus brevissime ciliatis. *Petala* 11–15 mm. longa, laete lutea, subrotundata usque late obovata, breviter unguiculata, marginibus profunde laceratis raro integris. *Stamina* non exserta; filamenta inter se libera, glabra, leviter complanata, basin versus dilatata; antherae 4.5–5 mm. longae, oblongo-ovatae. *Ovarium* dense ferrugineo-sericeum. *Styli* 2, plerumque glabri, circiter 12 mm. longi. *Samarae* glabrae, rigide coriaceae; ala dorsalis 4.5–6 cm. longa et 1.8–2.25 cm. lata, circiter tertiam basalem nucis partem ut crista tantum anguste percurrans, oblique oblonga usque oblongo-obovata, apice acuta vel subobtusata, marginibus integris, margine superiore leviter curvato.

TANGANYIKA. Morogoro District: Uluguru Mts., Morningside, fl. Dec. 1953, *Eggeling* 6788 (K, holotype; EA, FHO, PRE, isotypes); without precise locality, fl. 18 Nov. 1932, *Wallace* 453.

This attractive new species is related to *A. ugandensis*, *A. pauciglandulosus*, *A. chloropterus* and *A. natalitius*. It differs from all of these species by having the flowers arranged in terminal corymbs instead of terminal and/or axillary pyramidal usually elongate racemes, and by the long horse-tail shaped wing of the samara with its usually curved upper margin and obliquely truncate distal part.

Acridocarpus pauciglandulosus Launert, sp. nov. *A. natalitii* Niedenzu affinis, sed inflorescentiis axillaribus minoribusque et foliis brevioribus facile distinguenda.

Acridocarpus natalitius A. Juss. var. *acuminatus* Nied. in Arb. Bot. Inst. Akad.

Braunsberg 7: 8 (1921); and in Engl., Pflanzenr. IV, 141: 267 (1928), pro parte, excl. specim. Afr.-Austr. (*Rudatis* 126, 352, 750 & 1257; *Schlechter* s.n.; *Beyrich* 93).

Planta volubilis, elegans, divaricata. *Ramuli* teretiusculi, usque 3 m. longi, novelli dense ferrugineo-pubescentes tarde glabrescentes, lenticellati. *Folia* alterna, petiolata; lamina 4–7 cm. longa et 1.5–2.5(3) cm. lata, oblanceolata usque (raro) obovata, apice obtusa et/vel breviter acuminata, basi cuneata, marginibus leviter involutis, coriacea, nervis secundariis utrinsecus costae 9–13 subtus prominulis, novella utrinque praecipue in nervis inferioribus puberula, adulta plerumque glabra, eglandulosa vel subtus supra basin glandulis 2 circularibus impressis inconspicuis ornata; petiolus 1–2 mm. longus, robustus, subcanaliculatus, puberulus vel glaber; stipulae nullae. *Racemi* plerumque axillares, multiflori, late pyramidati, 3–5 cm. longi, plus minusve dense ferrugineo-sericei. *Bractee* 1.5–2.5 mm. longae, triangulato-subulatae, persistentes; bracteolae 1–1.5 mm. longae, subulatae, eglandulosae. *Flores* circiter 2.25 cm. diametro. *Calyx* eglandulosus vel glandulis 1–2(3) circularibus impressis inconspicuis instructus, extra dense sericeus; lobis 2–2.5(3) mm. longis ovatis usque ovato-oblongis plerumque glabris, marginibus autem breviter ciliatis. *Petala* circiter 12 mm. longa, obovata, integra vel breviter lacerata, modice unguiculata, intense lutea. *Stamina* non exserta; filamenta 1–1.5 mm. longa, carnosa, subcylindrica usque ligulata, inter se libera, glabra; antherae 3–4 mm. longae, oblongo-ovatae. *Ovarium* dense sericeum. *Styli* 2, glabri, 7–10 mm. longi. *Ala samarae* 4–5 cm. longa et 1.75–2.25 cm. lata, rigide coriacea, oblique obovata, supra nucem leviter constricta, distaliter oblique truncata, basalem nucis partem ut crista angustissima tantum percurrens, marginibus integris, margine superiore recta vel leviter curvata, plerumque glabra vel raro puberula.

TANGANYIKA. Lindi District: Mwera [Rondo] Plateau, 70 km. W. of Lindi, 550 m., fl. & fr. 21 Oct. 1934, *Schlieben* 5498 (BM, holotype; B*, M, isotypes); Kitangare, fl. 23 Mar. 1943, *Gilman* 1329.

This species is undoubtedly closely related to *A. natalitius*. Niedenzu who, certainly not having seen any fruiting material from East Africa, treated it as a variety of that species. *A. pauciglandulosus* differs from *A. natalitius* by having mostly axillary inflorescences, which are also usually much smaller, and by the smaller leaves. Moreover the glands which are always distinct on the calyx of *A. natalitius* are not present or only very small in our species. Finally the shape of the wing of the samara of *A. pauciglandulosus* differs from that of *A. natalitius*, which is broadly ovate, never constricted in the lower half, and surrounds the nut as a narrow crest nearly to the base.

The Natal specimens included by Niedenzu in his variety, however, do not belong to our taxon; they are not essentially different from the material of *A. natalitius* of that region. *A. pauciglandulosus* is known only from Tanganyika, but may well occur in the adjacent regions of Mozambique.

* The isotype at Berlin has a different locality on the label—'Lutamba See 40 km. westlich Lindi 1934–35'. Thus it is doubtfully the same gathering.

Nieden zu did not designate a type-specimen, and the East African specimen which he cited (together with those erroneously mentioned from South Africa by him) was destroyed by war action in Berlin. Thus I decided to use a new name for this species based on its own type-specimen.

THE TAXONOMIC POSITION OF *ACRIDOCARPUS FERRUGINEUS* ENGLER

Engler when describing *A. ferrugineus* saw only a single gathering on which he based his description. Nieden zu, who monographed the family, accepted this species but he also had only the type specimen to study. When preparing the genus for the 'Flora of Tropical East Africa' more gatherings were available, especially due to the courtesy of the Director of the Florence Herbarium who most kindly lent us his valuable material. A thorough investigation of this material showed that the characters of *A. ferrugineus* differ from those of *A. glaucescens* only in quantity. Thus it is impossible to find a clear distinction between the two taxa, especially when the plants are in a juvenile state. On the other hand the differences are sufficient to recognize our plant as a variety of *A. glaucescens*. One other variety, mainly based on the leaf-shape and the form of the wing of the samara has already been established by Fiori and accepted by Nieden zu.

Acridocarpus glaucescens Engl. in Ann. Ist. Roma 9: 253 (1902); Sprague in Journ. Bot. 44: 202 (1906); Nied. in Arb. Bot. Inst. Akad. Braunsberg 7: 5 (1921) & in Engl., Pflanzenr. IV, 141: 264 (1928).

A. glaucescens is very distinct within the genus and shows no close relation-ship to any of the other species. A key to the varieties is given below.

Leaf-laminas densely ferrugineous-villous to subtomentose on both surfaces, older ones ferrugineous-sericeous or greyish-pubescent, mainly beneath, rarely glabrescent. Lobes of the calyx (usually only 3 or 4 of them) distinctly biglandular at the very base. Wing of the samara ovate, extending the nut nearly to the base 3. var. **ferrugineus**

Leaf-laminas usually quite glabrous, only when young sometimes slightly ferrugineous-sericeous. Calyx with 3-5 usually small and differently sized glands on the commissures of the lobes:

Leaf-laminas linear or linear-lanceolate, 1.5-4 × 0.5 cm. Wing of the samara obliquely obovate or obovate-oblong, not extending the nut to the base 1. var. **glaucescens**

Leaf-laminas oblanceolate, oblong-lanceolate or elliptic-lanceolate, 2-6 × 0.5-1.5 cm. Wing of the samara broadly obliquely ovate to elliptic, sometimes extending the nut to the base . . . 2. var. **graniticus**

1. var. **glaucescens**

TYPE: Somalia, Dar, near Barden, *Ruspoli* (legit Riva) 200(?) (FI).

The field-label which is attached to the specimen bears the number 1801 and is dated 20.?.1894; on the herbarium-label is written the number 222 (1801) in ink and 200 in brown pencil. Engler, who has put his determination slip on the specimen must have mistakenly quoted 206 instead of 200! The var. *glaucescens* is confined to Somalia as far as is known. Beside the type-specimen one more gathering only has been seen.

SOMALIA. Mansur, fr. 6 July 1913, *Paoli & Stefanini* 565 (FI).

2. var. **graniticus** Fiori in Bull. Soc. Bot. Ital. 1915: 49 (1915); Nied. in Engl., Pflanzenr. IV, 141: 264 (1928); Chiov., Fl. Somala 2: 44 (1932).

TYPE: Somalia, Bur Meldac, fr. 23 July 1913, *Paoli & Stefanini* 714 (FI).

The distribution of this variety is also confined to Somalia. The following gatherings have been seen.

SOMALIA. Between Balad and Mahaddei, fl. & fr. 3 Jan. 1944, *Bally* 3749. Jarbarachi, fl. & fr. 7 Jan. 1920, *Scassellati* 17 (FI). Huna-Afgoi, fl. 16 Apr. 1920, *Scassellati* 28a (FI). Bur Meldac, fr. 23 July 1913, *Paoli & Stefanini* 720 (FI). Presso Gololaule, fl. 29 July 1913, *Paoli & Stefanini* 784 (FI).

3. var. **ferrugineus** (Engl.) *Launert*, var. nov. a var. *glaucescente* praesertim differt foliis utrinque dense ferrugineo-villosis usque subtomentosis, adultis griseo-pubescentibus raro glabrescentibus, et samarae ala ovata nucem circumdante.

Acridocarpus ferrugineus Engl. in Engl., Bot. Jahrb. 36: 250 (1906); Sprague in Journ. Bot. 44: 202 (1906); Nied. in Arab. Bot. Inst. Akad. Braunschweig 7: 5 (1921), & in Engl., Pflanzenr. IV, 141: 263 (1928); Cufod. in Bull. Jard. Bot. Brux. 26, suppl.: 404 (1956).

TYPE: Somalia, near Wonte, Gara Libin, *Ellenbeck* 2207 (B†, holotype). Kenya, Northern Frontier Province, 48 km. S. of El Wak, Bur Wein Mandera (on border of Somalia) *Adamson* 96 (EA, neoholotype!).

The type specimen of *A. ferrugineus* was destroyed in Berlin by war action, but according to the description there cannot be any doubt that our taxon is conspecific with Engler's species. Therefore I have used the same epithet for the variety and based it on the neotype-specimen mentioned above. This variety occurs in Ethiopia, Somalia and northern Kenya. The following specimens have been studied.

ETHIOPIA. Ogaden, Mustar Hill to Ferfer, fl. 5 Dec. 1954, *Ellis* 354.

SOMALIA. Bur Cal (?) Je Corar presso Tigieglo, fr. 12 Mar. 1924, *Puccioni & Stefanini* 246 [274] (FI). Uar Giumal presso Tigieglo fl. 2 Mar. 1924, *Puccioni & Stefanini* 228 [260] (FI). Baidoa, fl. 1 Oct. 1937, *Vatova* 57 (FI). Tra Baidoa & Bur Acaba, fl. 17 Apr. 1939, *Corradi* 7856 (FI); Tra Baidoa & Lugh Jenandi, fl. 20 Apr. 1939, *Corradi* 7857 (FI); presso Baidoa, fl. 19 Apr. 1939, *Corradi* 8567 (FI) & fl. 18 Apr. 1939, *Corradi* 7859 (FI).

Phytosociological terms.*—This publication comprises a compilation of equivalent phytosociological terms in German, Czech and Polish. It is divided into two parts, in the first of which some 250 terms are listed alphabetically in each of the three languages with their equivalents in the other two languages in each case. The second part consists of definitions of and examples of the use of 93 of these terms, again in each language.

A. R. SMITH

* *Termini Phytosociologici, Linguis Germanica et Bohemica et Polonica expressi*. By F. Fukarek, M. Jasnowski and R. Neuhäusl. Pp. 76. Jena: VEB Gustav Fischer Verlag, 1964. Price DM.8.30.