

STUDIES IN THE EUPATORIEAE (ASTERACEAE). CI.

NEW SPECIES OF FLEISCHMANNIA AND NEOMIRANDEA.

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The following one new species of Fleischmannia and two new species of Neomirandea are described from Central America.

Fleischmannia splendens R.M.King & H.Robinson, sp. nov. Herbae erectae pauce ramosae. Caules teretes minute villosi. Folia opposita longe petiolata, petiolis 1.5-4.5 cm longis villosis, laminis late cordatis 3-5 cm longis 3-4 cm latis breviter distincte acuminatis margine regulariter dentatis base trinervatis supra et subtus distincte pilosis. Inflorescentiae dense corymbosae, pedicellis villosis 1-3 mm longis. Capitula ca. 5 mm alta, floribus ca. 22; involucri squamae ca. 20 subimbricatae triseriatae inaequilongae ovatae vel oblongae extus glabrae 1.5-2.5 mm longae; corollae ca. 3 mm longae anguste infundibulares, lobis breviter triangularibus extus dense hirsutis non glanduliferis; filamenta antherarum in parte superiore ca. 300 μ longa, thecae ca. 1 mm longae basi rotundatae, appendicibus vix longioribus quam latioribus; appendices stylorum leniter papilloso; achaenia glabra; carpodia brevia valde distincta, cellulis parvis, parietibus distincte incrassatis; pappi setae ca. 30 non fragiles tenues. Grana pollinis ca. 18 μ diam.

Type: GUATEMALA: without precise locality. (18)57. Warszewicz 164. (Holotype P!). Additional specimens: COSTA RICA: without precise locality, 3-500 ft. (18)32. Warszewicz s.n.(P!). Donnesberg, Mai 1851, Warszewicz s.n.(P!).

The species is distinct from others of the genus by the broadly cordate leaves which are papyraceous with numerous hairs evenly distributed over both surfaces. The name of the species was apparently given by Schultz-Bip. and was on specimens as Eupatorium splendens in both Paris and Berlin. We have a photograph of the Berlin material which is a duplicate of

one in Paris but the Berlin specimen has been destroyed. The name was passed by Klotsch to Polakowsky who published a listing without description. The photograph of the Berlin specimen shows an annotation as Eupatorium subcordatum by Klatt and more recently the name E. splendens has resided in the synonymy of E. subcordatum which is a totally different species belonging to the genus Ageratina. The specimen cited by Polakowsky from Costa Rica which has not been seen may actually have been A. subcordata. The three specimens seen have been cited as labelled but we doubt that the species is as widely distributed and that one collector would have been so fortunate to obtain a species in two countries of which we have seen no other material. For the present the actual locality must remain in doubt.

Neomirandea burgeri R.M.King & H.Robinson, sp. nov. Frutices usque ad 5 m alti erecti e stolonibus horizontalibus. Caules subteretes crassi subglabri fistulosi. Folia opposita majuscula longipetiolata petiolo usque ad 22 cm longo superne alato et 10-12 spinoso-dentato; lamina orbicularis cordata 4-6-lobata argute dentata, 3-7 palmato-nervatis usque ad 2.5-2.9 dm diam. supra obscure vel distincte glandulifera parce pubens subtus in venis reticulatis tomentosa. Inflorescentiae late corymbosae; pedicelli breviter tomentosi. Involucri squamae anguste triquadriseriatae ca. 15 valde inaequilongae ad apicem late rotundatae fimbriatae extus subglabrae; receptacula glabra. Flores 5-6 in capitulo 9-10 mm longi erubescens; corollae anguste infundibulares intus glabrae, lobis oblongo-lanceolatis extus glanduliferis, glandulis sessilibus cellulis plerumque quadratis parietibus non sinuosis; appendices antherarum late ovatae; styli inferne inflati glabri; achaenia glabra vel superne pauca setifera; carpodia distincta breviter cylindrica, cellulis subquadratis parvis 7-9 seriatis; pappi setae ca. 57 ad apicem vix scabrae. Grana pollinis 23-25 μ diam.

Type: Costa Rica: San Jose: Cerro de La Muerte on the Pan-American Highway (route 2). Elevation 9400 ft. Uncommon shrubs in deep barranca. Plants erect but arising from a long stoloniferous stem. More than 3 meters tall. Flowers pink. 22 January 1972. Robert Merrill King 6413 (Holotype US!). Additional specimen: San Jose & Cartago: about 22 km SE of Empalme, Cerro de La Muerte, 2500-2600 m, Dec. 28, 1969, Burger & Liesner 7026 (F!, US!).

The new species is a member of the subgenus Neomirandea similar to N. angularis by the broad leaves and non branching erect stems. The strikingly distinctive features of the species include two that are macroscopic and one microscopic. The upper part of the petiole is winged and armed with a striking series of large spreading to recurved teeth. Observations in the field indicate the erect stems arose from a long horizontal stem held by prop roots rather than from an erect base as in other species. Also, the flowers lack hairs on the inner surface which makes the species distinct among those having swollen style bases. More subtle distinctions of the species are the number of pappus setae, greater than any other species in the genus, and the smaller compact phyllaries.

Neomirandea guevarii R.M.King & H.Robinson, sp. nov. Plantae herbaceae vel suffrutescentes erectae usque ad 4 m altae plerumque subglabrae. Caules subteretes crassi fistulosi. Folia opposita majuscula longipetiolata subcarnosa, petiolo gracili usque ad 12 cm longo; lamina ovata vel oblongo-ovata acuta ad 20 cm longa 14 cm lata penninervia margine grosse dentata et serrata. Inflorescentiae late corymbosae; pedicelli plerumque subglabri, lateralibus axillaribus et superioribus hirsutis. Involucri squamae amplae tri-quadriseriatae ca. 15 valde inaequilongae ad apicem late rotundatae distincte fimbriatae extus subglabrae; receptacula glabra. Flores 6-10 in capitulo 10-12 mm longi lavanduli; corollae anguste infundibulares intus hirsutae lobis aequalateraliter triangularibus vel longioribus extus glanduliferis, glandulis prominulis, cellulis plerumque quadratis parietibus non sinuosis; appendices antherarum late ovatae; styli inferne inflati glabri; achaenia glabra vel superne pauce setifera; carpodia distincta breviter cylindrica, cellulis quadratis vel latioribus parvis ca. 6 seriatis; pappi setae ca. 50 ad apicem vix scabrae. Grana pollinis 25-27 μ diam.

Type: COSTA RICA: Cartago. Steep mountain slopes in wet forest ca. 27 kms generally SE of Orosi. Elev. ca. 5600 ft. Uncommon succulent herbs up to 4 meters tall, partial shade, flowers lavender. 27 January 1972. Robert Merrill King 6420 (Holotype 2 sheets US!) Paratype same locality, R.M.King 6421, 27 Jan. 1972. US!

The new species is a member of the subgenus Neomirandea and is very closely related to N. standleyi

having the same habit and approximately the same number of pappus setae. The most obvious distinction of the species is the larger phyllary size, up to 10 mm long and 2.5 mm wide. Microscopically the species has glands on the corolla lobes on distinct stalks and pollen grains 25-27 μ in diameter where N. standleyi has the glands nearly sessile and pollen grains 18-20 μ in diameter.

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