

Family 280. COMPOSITAE

Revisions:

Koster, J. Th. 1935. *The Compositae of the Malay Archipelago. I. Vernonieae and Eupatorieae*. Blumea 1: 351-536.

various papers in Blumea and Nova Guinea

Peng, CI and KF Chung, Li HL. 1998. *Compositae* in: TC Huang (ed.). Flora of Taiwan, 2nd edition, 4: 807-1101.

Acanthospermum Schrank

Acanthospermum hispidum DC, Prodr. 5 (1836) 522; --Koster, Blumea 25 (1979) 254.

Native to South America. Introduced in Africa, Madagascar, India, Lesser Sunda Isls, Philippines, New Guinea, N Australia.

Acmella Richards ex Persoon

Revision:

Jansen, RK. 1985. *The systematics of Acmella (Asteraceae-Heliantheae)*. Systematic Botany Monograph 8: 1-115.

Acmella grandiflora (Turcz.) RK Jansen, Syst. Bot. Monogr. 8 (1985) 75.

Spilanthes grandiflora Turcz., Bull. Soc. Nat. Mosc. 24¹ (1851) 183; --Merr., EPFP 3 (1923) 612; --Koster & Philipson, Blumea 6 (1950) 353.

Spilanthes ovata Merr., PJS 1 (1906) Suppl. 246; EPFP 3 (1923) 612.

Philippines, Tropical Australia.

LUZON: Ilocos Sur, Ifugao, Mountain Province, Benguet. Open grassy slopes in the pine forests, altitude 1200-1950m. (As *Spilanthes grandiflora* & *S. ovata*, fide Merr., 1923):

Acmella paniculata (Wall. ex DC) RK Jansen, Syst. Bot. Monogr. 9 (1985) 67; --Peng, CI et al. in: TC Huang (ed.). Fl. Taiwan, ed. 2, 4 (1998) 814, pl. 376, photo 406.

Spilanthes iabadicensis AH Moore, Proc. Amer. Acad. Arts & Sc. 42 (1907) 542; --Koster & Philipson, Blumea 6 (1950) 354.

Spilanthes acmella *auctt.*, --Merr., EPFP 3 (1923) 612, *non* (L.) Murr.

India, Sri Lanka, Burma, Thailand, Vietnam, S China, Taiwan, across Malesia, also reported from South America.

LUZON: Benguet, Cagayan, Nueva Vizcaya, Rizal, Laguna, MINDORO, BALABAC. Low and medium altitudes, open waste places, old clearings, etc.

Adenostemma JR & G Forster

Adenostemma lavenia (L.) Kuntze, Rev. Gen. Pl. (1891) 304; --Merr., EPFP 3 (1923) 596; --Koster, Blumea 1 (1935) 470; --Peng, CI et al. in: TC Huang (ed.). Fl. Taiwan, ed. 2, 4 (1998) 816, pl. 377; photo 407.

var. lavenia

India, Sri Lanka, S China, Taiwan, SE Asia.

BABUYAN ISLS, LUZON: Ilocos Norte, Abra, Mountain Province, Benguet, Cagayan, Nueva Vizcaya, Zambales, Bataan, Bulacan, Laguna, Quezon, CULION, CATANDUANES, PANAY, CAMIGUIN, MINDANAO. Sea-level to 1800m, in open wet places along streams, forests, and thickets.

var. parviflorum (Hook.) Hochr., Candollea 5 (1934) 298.

Adenostemma parviflorum (Blume) DC, Prodr. 5 (1836) 111; --Koster, Blumea 25 (1979) 476.

Hawaiian Isls, Samoa Isls, Society Isls, New Caledonia, C & S China, Taiwan, Thailand, across

Malesia.

Ageratina Spach

Ageratina adenophora (Sprengel) R King & H Robinson, *Phytologia* 19 (1970) 211; --Peng, CI et al. in: TC Huang (ed.). *Fl. Taiwan*, ed. 2, 4 (1998) 378; --Eupatorium adenophorum Spreng., *Syst.* 3 (1826) 420; --Koster, *Blumea* 1 (1935) 502.

Native of Mexico, California and the West Indies, now adventive in all tropical regions of the world.

Ageratum Linnaeus

Ageratum conyzoides L., *Sp. Pl.* (1753) 839; --Merr., *Fl. Manila* (1912) 467; EPFP 3 (1923) 597; --Koster, *Blumea* 1 (1935) 484; --Peng, CI et al. in: TC Huang (ed.). *Fl. Taiwan*, ed. 2, 4 (1998) 820, pl. 379.

Native of the Neotropics, now widely naturalized in all warm regions of the world.

Throughout the Philippines. A common weed in open waste places, 0-2000m.

Ageratum houstonianum Mill., *Dict. ed.* 8, no. 2 (1768); --Koster, *Blumea* 1 (1935) 490.

Native of the Neotropics, now widely distributed in all warm regions of the world.

Ainsliaea de Candolle

Ainsliaea latifolia (D Don) Sch.-Bip., *Jahresber. Pollichia* 18-19 (1861) 190.

subsp. henryi (Diels) H Koyama, *Acta Phytotax. Geobot.* 32 (1981) 60; --Peng, CI et al. in: TC Huang (ed.). *Fl. Taiwan*, ed. 2, 4 (1998) 822.

Ainsliaea reflexa Merr., *PJS* 1 (1906) Suppl. 242; EPFP 3 (1923) 620.

Himalayas, Burma, Thailand, Vietnam, S China, Taiwan, Philippines.

LUZON: Abra, Mountain Province, Benguet, Laguna-Quezon (Mt Banahaw), MINDORO:

Mindoro Oriental (Mt Halcon). Mossy forests, altitude 2000-2400m.

Anaphalis de Candolle

Anaphalis morrisonicola Hayata, *Icon. Pl. Formos.* 8 (1919) 56; --Peng, CI et al. in: TC Huang (ed.). *Fl. Taiwan*, ed. 2, 4 (1998) 828, photo 410.

Anaphalis margaritacea (L.) Benth. & Hook.f. subsp. *morrisonicola* (Hayata) Kitam., *Fauna Fl. Nepal Himalaya* (1955) 244.

Anaphalis contorta auct. non (Don) Hook.f. (1881); --Merr., EPFP 3 (1923) 608.

Himalayas, Taiwan, Philippines.

LUZON: Mountain Province, Benguet. Grassy slopes in thin pine forests, altitude 1500-2200m.

Anisopappus Hooker & Arnott

Anisopappus chinensis (L.) Hook. & Arn., *Bot. Beechy Voy* (1836) 196; --Merr. & Rolfe, *PJS* 3 c (1908) Bot. 125; --Merr., EPFP 3 (1923) 609.

Chrysogonum philippinense Elmer, *LPB* 1 (1906) 161. --Type: Merrill 514 (NY*, iso). Culion: Halsey Harbor. Dry grassy valley, Dec 1902.

Burma, S China, W-C Philippines.

CULION. Low altitudes, in dry open places.

Artemisia Linnaeus

Artemisia asiatica Nakai ex Pampanini, Nuovo Giorn. Bot. Ital. n.s. 36 (1930) 383; --Hatusima, Mem. Fac.

Agr. Kagoshima Univ. 5 (1966) 53.

Artemisia vulgaris auctt. Philip. *non* L.; --Blanco, Fl. Filip. (1837) 625; *ibid.*, ed. 2 (1845) 435; *ibid.*, ed. 3, 3 (1879) 14, t. 329; --Fern.-Villar, Novis. App. (1880) 119; --Elmer, LPB 1 (1906) 141; --Merr., PJS 3 c (1908) Bot. 441; Fl. Manila (1912) 472; Sp. Blancoanae (1918) 381; EPFP 3 (1923) 53, non L.

Pantropic.

Throughout the Philippines, but certainly an introduced species. In and about towns at low and medium altitudes. Often planted. Naturalized.

Artemisia capillaris Thunb., Fl. Jap. (1784) 309; --Merr., EPFP 3 (1923) 616; --Peng, CI et al. in: TC Huang (ed.). Fl. Taiwan, ed. 2, 4 (1998) 837, pl. 388, photo 414.

China, Korea, Japan, Taiwan, Philippines.

LUZON: Ilocos Norte, Mountain Province, Benguet. Dry open sites in the montane zone, altitude 1200-1600m.

Artemisia japonica Thunb., Fl. Jap. (1784) 310; --Merr., EPFP 3 (1923) 616; --Peng, CI et al. in: TC Huang (ed.). Fl. Taiwan, ed. 2, 4 (1998) 839, photo 415.

Afghanistan, India, NE and S China, Taiwan, Lanyu, Korea, Japan, Thailand, N Philippines.

LUZON: Ilocos Norte, Mountain Province. Dry slopes, low altitudes.

Aster Linnaeus

Aster philippinensis Moore, J. Bot. 43 (1905) 138; --Merr., EPFP 3 (1923) 600. --Type: Merrill 4726.

Aster luzonensis Elmer, LPB 1 (1906) 131; --Merr., EPFP 3 (1923) 600, **syn. nov.** --Type: Elmer 6251

LUZON: Ifugao, Mountain Province, Benguet. Montane thickets and forests, altitude 1400-2400m.

Aster trinervius Roxb., Hort. Beng. (1814) 61, *nomen nudum*; Fl. Ind. ed. 2, 3 (1832) 433; --Merr., PJS 5 c (1910) Bot. 394; EPFP 3 (1923) 600.

India to China, Taiwan, Japan, and N Philippines.

LUZON: Benguet. On slopes in pine forests, altitude c. 1400m.

Ayapana Spach

Ayapana triplinervis (Vahl) R King & H Robinson, xxxxx

Eupatorium triplinerve Vahl, Symb. 3 (1794) 97; --Merr., Fl. Manila (1912) 467; Sp. Blancoanae (1918) 376; EPFP 3 (1923) 598; --Koster, Blumea 1 (1935) 493.

Tropical America (Mexico, West Indies, Trinidad, Guyana, Brazil), Mauritius, Sumatra, Java, Sulawesi, Borneo, Philippines.

LUZON. According to Merrill, introduced here from Mexico and occasionally planted for medicinal purposes.

Bidens Linnaeus

Revision:

Sherff, EE. 1937. *The genus Bidens, Parts I & II*. Field Museum Nat. Hist. Bot. Series 16: 1-709.

Bidens bipinnatus L., Sp. Pl. (1753) 832; --Merr., EPFP 3 (1923) 613; --Peng, CI et al. in: TC Huang (ed.). Fl.

Taiwan, ed. 2, 4 (1998) 868, photo 422.

Probably native of E United States and E Asia, naturalized in South America, Australia, S Asia and Europe.

LUZON: Benguet. Dry open slopes, altitude c. 1300m.

Bidens biternatus (Lour.) Merr. & Scherff in Scherff, Bot. Gaz. 88 (1929) 293; --Koster, Blumea 25 (1979) 261; --Peng, CI et al. in: TC Huang (ed.). Fl. Taiwan, ed. 2, 4 (1998) 869.

Bidens leucorrhiza (Lour.) DC, Prodr. 5 (1836) 605; --Merr., EPFP 3 (1923) 613.

Cape Verde, Madeira, Africa, Madagascar, Reunion, France (introduced), Arabia, Afghanistan, India, Thailand, Indochina, China, Taiwan, Korea, Japan, Peninsular Malaysia, Philippines, New Guinea, Australia, Polynesia.

BATANES and N LUZON to PALAWAN and MINDANAO. Open waste places, thickets, etc., from sea-level to 2300m.

Bidens pilosus L., Sp. Pl. (1753) 832; --Merr., Fl. Manila (1912) 478; EPFP 3 (1923) 614 'pilosa'; --Peng, CI et al. in: TC Huang (ed.). Fl. Taiwan, ed. 2, 4 (1998) 869.

var. pilosus

Tropical and subtropical regions of the world.

BABUYAN ISLS and LUZON to MINDANAO. Waste places, chiefly at medium altitudes, ascending to 2200m.

var. minor (Blume) Scherff, Bot. Gaz. 80 (1925) 387; --Peng, CI et al. in: TC Huang (ed.). Fl. Taiwan, ed. 2, 4 (1998) 869; --*Bidens sundaicus* Blume var. *minor* Blume, Bijdr. (1826) 914.

Most tropical and subtropical regions of the world.

var. radiata Sch.-Bip. in Webb & Berthel., Hist. Canar. 3 (1842-50) 242; --Peng, CI et al. in: TC Huang (ed.). Fl. Taiwan, ed. 2, 4 (1998) 870, pl. 404.

Probably native of the United States, now naturalized and common weed in North and South America, N Africa, and S Asia.

Bidens tripartita L., Sp. Pl. (1753) 831; --Merr., EPFP 3 (1923) 614 'tripartita'; --Koster, Blumea 25 (1979) 261.

Eurasia, N Africa and Australia.

var. repens (G Don) Scherff, Bot. Gaz. 81 (1926) 45.

Eurasia, N Africa and Australia. (distribution of the species).

Blumea de Candolle

Revision:

Randeria, AJ. 1960. *The Composite genus Blumea, a taxonomic revision*. Blumea 10: 176-317.

Blumea balsamifera (L.) DC, Prodr. 5 (1836) 447; --Merr., Fl. Manila (1912) 470; EPFP 3 (1923) 601; --Randeria, Blumea 10 (1960) 237; --Peng, CI et al. in: TC Huang (ed.). Fl. Taiwan, ed. 2, 4 (1998) 875, pl. 407, photo 424.

Blumea appendiculata (Blume) DC, Prodr. 5 (1836) 447; --Merr., EPFP 3 (1923) 601.

India, Nicobars, Andamans, Himalayas, Bangladesh, Burma, Thailand, Indochina, S China, Hainan, Taiwan, Malesia: Sumatra to Moluccas, Philippines.

LUZON, MINDORO, CULION, PALAWAN, BALABAC, NEGROS, LEYTE, SAMAR, CAMIGUIN, SIARGAO, MINDANAO, BASILAN, TAWI-TAWI. Low and medium altitudes, usually common in open grasslands and thickets.

Blumea bicolor Merr., PJS 7 c (1912) Bot. 356; EPFP 3 (1923) 602; --Randeria, Blumea 10 (1960) 231. --Type:

Merrill 8080 (not seen). Mindanao: Zamboanga
Sumatra, Philippines, New Guinea.
LUZON, PANAY, CAMIGUIN, MINDANAO: Zamboanga. Moist localities in dense forests, 900-1100m.

Blumea clarkei Hook.f., Fl. Brit. Ind. 3 (1882) 267; --Randeria, Blumea 10 (1960) 252.

Blumea lessingii Merr., EPFP 3 (1923) 603.

India, Sikkim, Burma, S China, Hainan, Thailand, Indochina, Malesia: Sumatra, Peninsular Malaysia, Borneo, Philippines, Sulawesi.

LUZON: Ilocos Norte, Abra, Mountain Province, Nueva Vizcaya, Zambales, Bulacan, Rizal, Laguna, PANAY, LEYTE, MINDANAO. Along roadsides, hill slopes and clearings, up to 1000m.

Blumea fistulosa (Roxb.) Kurz, J. As. Soc. Beng. 46 (1877) 187; --Randeria, Blumea 10 (1960) 256.

Blumea glomerata DC in Wight, Contrib. Bot. Ind. (1834) 15; --Merr., EPFP 3 (1923) 602.

India, Himalayas, Burma, Thailand, Indochina, S China, Hainan, Philippines.

LUZON: Cagayan, Mountain Province, Benguet, Nueva Vizcaya, Pangasinan, Zambales, Batangas, MINDORO, NEGROS, MINDANAO. No citation of occurrence in the Philippines by Randeria.

Blumea hieraciifolia (Don) DC, in Wight, Contrib. Bot. Ind. (1834) 15; --Randeria, Blumea 10 (1960) 246;

--Peng, CI et al. in: TC Huang (ed.). Fl. Taiwan, ed. 2, 4 (1998) 878, pl. 410, photo 427.

Blumea sericans Hook.f., Fl. Brit. Ind. 3 (1881) 262; --Merr., EPFP 3 (1923) 604.

var. hieraciifolia

India, Bangladesh, Himalayas, Burma, Indochina, S China, Hainan, Taiwan, Ryukyus, Malesia: Sumatra to New Guinea.

LUZON: Cagayan, Nueva Vizcaya, MINDANAO: Lanao, Davao. Open grasslands, chiefly at medium altitudes.

var. macrostachya (DC) Hook.f., Fl. Brit. Ind. 3 (1882) 263; --Randeria, Blumea 10 (1960) 248.

India, Nepal, Burma, Indochina, S China, Hainan, Malesia: Lesser Sunda Isls., Philippines: LUZON.

Blumea lacera (Burm.f.) DC in Wight, Contr. Bot. Ind. (1834) 14, Prodr. 5 (1836) 436; --Merr., EPFP 3 (1923)

602; --Peng, CI et al. in: TC Huang (ed.). Fl. Taiwan, ed. 2, 4 (1998) 878, pl. 411, photo 428.

Cape Verde Isls, Africa, SE Asia from India to Ryukyus and New Guinea to N Australia and Guam.

BATAN, CAMIGUIN, LUZON, ALABAT, MINDORO, CULION, PALAWAN, PANAY, NEGROS, SAMAR, MINDANAO. Dry fields and grasslands, along roadsides, forest edges, at low and medium altitudes.

Blumea laciniata (Roxb.) DC, Prodr. 5 (1836) 436; --Merr., Fl. Manila (1912) 470; EPFP 3 (1923) 602;

--Randeria, Blumea 10 (1960) 258; --Peng, CI et al. in: TC Huang (ed.). Fl. Taiwan, ed. 2, 4 (1998) 878, pl. 412.

India to New Guinea, Solomon Isls and Hawaii.

LUZON, CULION, BALABAC, SAMAR, SIARGAO, MINDANAO. Old clearings, along roadsides and in waste places up to c. 1200m.

Blumea lanceolaria (Roxb.) Druce, Rept. Bot. Exch. Club Brit. Isls. 4 (1917) 609; --Hatusima, Mem. Fac.

Agr. Kagoshima Univ. 5 (1966) 53; --Randeria, Blumea 10 (1960) 218; --Peng, CI et al. in: TC Huang (ed.). Fl. Taiwan, ed. 2, 4 (1998) 884, pl. 413.

var. lanceolaria

India to Java, S China, Ryukyus, Taiwan, N Philippines.

BATAN, based on Hatusima 28787. Lowland thickets.

var. spectabilis (DC) Randeria, *Blumea* 10 (1960) 220.

Blumea spectabilis DC, *Prodr.* 5 (1836) 446; --Merr., *EPFP* 3 (1923) 604.

India, Sri Lanka, S Vietnam, Taiwan and the Philippines:

LUZON, MINDORO, PANAY, NEGROS, LEYTE, SAMAR, MINDANAO. Along streams in forests, and also in open places at low and medium altitudes to 1200m.

Blumea manillensis (Less.) DC, *Prodr.* 5 (1836) 435; --Merr., *EPFP* 3 (1923) 603.

LUZON: Ilocos Sur, Rizal, Cavite, Batangas. Along streams in ravines at low altitudes.

Blumea mollis (D Don) Merr., *PJS* 5 c (1910) Bot. 395; *Fl. Manila* (1912) 603; *EPFP* 3 (1923) 603;

--Randeria, *Blumea* 10 (1960) 261; --Peng, *Cl et al. in: TC Huang (ed.). Fl. Taiwan, ed. 2, 4 (1998) 864, pl. 415, photo 429.*

Africa, Madagascar, Indian Ocean Isls to S and SE Asia, S China, Hainan, Taiwan, Philippines, Java, Australia to New Caledonia.

LUZON: Ilocos Sur, Benguet, Mountain Province, Nueva Vizcaya, Bulacan, Rizal, MINDORO.

Dry places in open grasslands, roadsides, etc. up to 1500m.

Blumea ramosii Merr., *PJS* 5 c (1910) Bot. 256; *EPFP* 3 (1923) 604; --Randeria, *Blumea* 10 (1960) 246.

LUZON: Mountain Province, Benguet, Zambales. Damp ravines, along trail margins and hillside thickets, 1100-1600m. *Fl. Mar.-May.*

Blumea riparia (Blume) DC, *Prodr.* 5 (1836) 444; --Randeria, *Blumea* 10 (1960) 213.

Blumea pubigera (L.) Merr., *PJS* 14 (1919) 250; *EPFP* 3 (1923) 604.

var. riparia forma riparia

India, Himalayas, Burma, Indochina, S China, Taiwan, Malesia: Sumatra to New Guinea and Solomon Isls.

LUZON: Mountain Province, Laguna, Quezon, MINDORO, PALAWAN, BALABAC, CATANDUANES, PANAY, BOHOL, LEYTE, SAMAR, SIARGAO, MINDANAO, BASILAN, JOLO, TAWI-TAWI. Thickets, grassy plains, clearings, stream and riverbanks or rambling on the undergrowth in rainforests, 0-1500m.

var. riparia forma angustifolia Koster, *Blumea* 4 (1941) 490.

Sumatra, Borneo, Java, Philippines, Sulawesi.

NEGROS, MINDANAO, BASILAN.

Blumea saxatilis Zoll. & Mor., *Nat. en Geneesk. Arch. N. I.* 2 (1845) 243;

Blumea tenera Merr., *PJS* 7 c (1912) Bot. 250; *EPFP* 3 (1923) 605.

N Australia, Indochina, Thailand, Laos, Vietnam, Philippines, Java, Timor, Wetar, New Guinea.

LUZON: Zambales, Rizal, CULION, PALAWAN, MANAMOC, PANAY. Among rocks or in sunny grasslands or clearings up to alt. 700m.

Blumea stenophylla Merr., *PJS* 29 (1926) 495; --Mattfeld, *Bot. Jahrb.* 62 (1929) 417

C Philippines, New Guinea.

BOHOL: Valencia, along stream in damp forest, 300m.

Blumea sylvatica (Blume) DC, *Prodr.* 5 (1836) 447; --Merr., *EPFP* 3 (1923) 605; --Randeria, *Blumea* 10 (1960) 223.

var. sylvatica

Sumatra, Borneo, Philippines, Sulawesi, Java, Sumbawa, Ternate, New Guinea. LUZON:

Mountain Province, Benguet, Nueva Vizcaya, Zambales, Bataan, Pampanga, Laguna, Quezon, PALAWAN. Forest edges, along streams and rivers.

Blumea vanoverberghii Merr., *PJS* 7 c (1912) Bot. 105; *EPFP* 3 (1923) 605; Mattfeld, *Bot. Jahrb.* (1929)

420; --Randeria, *Blumea* 10 (1960) 216.

N Philippines, New Guinea.

LUZON: Mountain Province. On slopes, c. 1300m.

Blumea virens (Wall.) DC in Wight, *Contrib. Bot. Ind.* (1834) 14; --Merr., *EPFP* 3 (1923) 605.

NE and S India, Bhutan, Bangladesh, Andaman Isls, Sri Lanka, Burma, Thailand, Indochina, SW China (Yunnan), Peninsular Malaysia, Philippines.

LUZON: Ilocos Norte, Abra, La Union, Benguet, Pangasinan, Zambales, Pampanga, Bulacan, Rizal, Batangas, CULION, GUIMARAS. Thickets and open forests along small streams at low and medium altitude.

Doubtful species:

Blumea confertiflora Merr., *PJS* 5 c (1910) Bot. 254; *EPFP* 3 (1923) 602. --Type: FB 11027 (not seen). Mindoro: Mindoro Occidental prov., Mar 1908.

MINDORO: Mindoro Occidental (unspecified type locality and Mt Sablayan). Exposed peaks and ridges, altitude c. 970m.

Blumea incisa (Elmer) Merr., *PJS* 5 c (1910) Bot. 395; *EPFP* 3 (1923) 602; --*Pluchea incisa* Elmer, *LPB* 1 (1908) 358. --Type: Elmer 8936 (not seen). Luzon: Benguet prov., Mt Sto Tomas (near Baguio), altitude c. 2200m, Mar 1907.

LUZON: Benguet. Mossy forests, altitude 2000-2200m.

Blumea longipes Merr., *PJS* 5 c (1910) Bot. 255; *EPFP* 3 (1923) 603. --Type: MS Clemens 893 (not seen). Mindanao: Lanao del Sur prov., Lake Lanao, Camp Keithley, Jan 1907

MINDANAO: Lanao del Sur (Camp Keithley). Open grasslands or thickets about Lake Lanao, c. 650m.

Blumea mindanaensis Merr., *PJS* 5 c (1910) Bot. 256; *EPFP* 3 (1923) 603. --Type: MS Clemens 736 (not seen). Mindanao: Lanao del Sur prov., Lake Lanao, Camp Keithley, Nov 1906.

MINDANAO: Lanao del Sur (Camp Keithley). Open grasslands or thickets about Lake Lanao, c. 650m.

***Carpesium* Linnaeus**

Carpesium cernuum L., *Sp. Pl.* (1753) 859; --Merr., *EPFP* 3 (1923) 609; --Backer & Bakh.f., *Fl. Java* 2 (1965) 397; --Steen., *Mountain Fl. Java* (1972) Plate 10-3; --Koster, *Blumea* 25 (1979) 251; --Peng, *CI et al. in: TC Huang* (ed.). *Fl. Taiwan*, ed. 2, 4 (1998) 893, pl. 419.

S Europe through S Asia to Japan, N Sumatra, Java (Mt Tengger), Borneo (Sabah, Mt Kinabalu), N Philippines.

LUZON: Mountain Province, Benguet. Open sites and light forest in the montane zone, altitude 1800-2400m.

***Centipeda* Loureiro**

Centipeda minima (L.) A Br. & Aschers., *Ind. Sem. Hort. Berol.* (1867) App. 6; --Merr., *Fl. Manila* (1912) 473; *EPFP* 3 (1923) 615; --Peng, *CI et al. in: TC Huang* (ed.). *Fl. Taiwan*, ed. 2, 4 (1998) 898, pl. 423.

Madagascar, S, SE and E Asia, Malesia, Australia, New Zealand, New Caledonia, Fiji, Samoa. LUZON: Cagayan, Nueva Vizcaya, Pampanga, Rizal, Laguna, MINDANAO: Lanao. Low and medium altitudes, open waste places, rice paddies, etc.

Centratherum Cassini

Centratherum fruticosum Vidal, Phan. Cuming. Philipp. (1885) 121; --Merr., EPFP 3 (1923) 592. --Type: Cuming 1556 (not seen).

BABUYAN ISLS, LUZON: Ilocos Norte, Mountain Province, Benguet, Bataan, Rizal. Forest edges, thickets and clearings, chiefly at medium altitudes, ascending to 2000m.

Chromolaena de Candolle

Chromolaena odorata (L.) R King & H Robinson, Phytologia 20 (1970) 204; --Peng, CI et al. in: TC Huang (ed.). Fl. Taiwan, ed. 2, 4 (1998) 901, pl. 424; --Eupatorium odoratum L., Syst. ed. 10, 2 (1759) 1205. Native of the Neotropics, escaped and naturalized in Asia.

Chrysanthemum Linnaeus =Dendranthema; Glebionis

Cirsium Miller

Cirsium luzoniense Merr., PJS 5 c (1910) Bot. 399; EPFP 3 (1923) 620. --Type: RS Williams 1981 (NY* 3 sheets, US*, iso). Luzon: Benguet prov., Mt Sto Tomas, 30 Nov 1904.

LUZON: Mountain Province, Ifugao, Benguet, Laguna-Quezon (Mt Banahaw). High montane exposed sites, altitude 1800-2500m.

Conyza Linnaeus

Conyza japonica (Thunb.) Less., Syn. Comp. (1832) 204; --Merr., EPFP 3 (1923) 601; --Peng, CI et al. in: TC Huang (ed.). Fl. Taiwan, ed. 2, 4 (1998) 918.

Afghanistan, India (Himalayas, Khasya Mtns) China, Japan, Taiwan, N Vietnam, Thailand, across Malesia to New Guinea.

LUZON: Mountain Province, Benguet, Nueva Vizcaya, MINDANAO: Bukidnon. Montane sites at 1200-2400m, in open sunny places, grasslands, along foot trails, pine forest, etc.

Conyza leucantha (D Don) Ludlow & Raven, Kew Bull. 17 (1963) 71; --Peng, CI et al. in: TC Huang (ed.). Fl. Taiwan, ed. 2, 4 (1998) 918.

Conyza viscidula Wall., Cat. (1831) No. 3006, *nom. nud.*; --DC, Prodr. 5 (1836) 383; --Merr., EPFP 3 (1923) 601. India, Thailand, S China, Taiwan, Ryukyus, Java, Philippines, Australia.

LUZON: Ilocos Norte, Mountain Province, Benguet, Bulacan, Rizal, PANAY. Lowlands to 1800m altitude, in old clearings, thickets and foot trail in open forests.

Conyza sumatrensis (Retz.) Walker, J. Jap. Bot. 46 (1971) 72; --Peng, CI et al. in: TC Huang (ed.). Fl. Taiwan, ed. 2, 4 (1998) 919; --Erigeron sumatrensis Retz., Obs. 5 (1789) 28; --Merr., EPFP 3 (1923) 600. *Erigeron linifolius* Willd., Sp. Pl. 3 (1804) 1955; --Merr., Fl. Manila (1912) 474.

Native of South America, early established in Sumatra. Now pantropic in distribution.

Throughout the Philippines, lowlands to c. 2000m, in open waste places, old clearings, etc. Often abundant.

Cosmos Cavanilles

Cosmos caudatus Kunth in Humb., Bonpl. & Kunth, Nov. Gen. Sp. Pl. 4 (1820) 240; --Merr., Fl. Manila (1912)

478; EPFP 3 (1923) 614.

Native of tropical America (Mexico), now pantropical in distribution.

Throughout the Philippines at low and medium altitudes, a common weed in open waste places, fallow lands, etc.

Cosmos sulphureus Cav., Icon. 1 (1791) 56, t. 79; --Merr., EPFP 3 (1923) 614.

Native of Mexico.

Throughout the Philippines although less common than the preceding species. Lowlands and medium altitudes, in open grasslands, thicket edges, etc.

Crassocephalum Moench

Crassocephalum crepidioides (Benth.) S Moore, J. Bot. 50 London (1912) 211; --Mendoza (or Quisumbing?), PJS xxx; --Koster, Blumea 26 (1980) 237; --Peng, CI et al. in: TC Huang (ed.). Fl. Taiwan, ed. 2, 4 (1998) 922, pl. 434.

Native of tropical Africa, widely distributed in the tropics and subtropics.

Throughout the Philippines, generally at low to medium altitudes. Common roadside weed, in waste places, abandoned cultivation, forest clearings, etc.

Crepidiastrum Nakai (~Ixeris Cassini)

Revision:

Koyama, H. 1995. *Crepidiastrum Nakai*. In K Iwatsuki, DE Boufford & H Ohba (eds.) *Flora of Japan* 3(b): 13-15.

Crepidiastrum lanceolatum (Houtt.) Nakai, Bot. Mag. Tokyo 34 (1920) 150; --Hatusima, Mem. Fac. Agr.

Kagoshima Univ. 5 (1966) 53; --Peng, CI et al. in: TC Huang (ed.). Fl. Taiwan, ed. 2, 4 (1998) 924, pl. 435, Photo 440.

Japan to S Korea, China, Taiwan and N Philippines.

BATAN. On littoral rocky cliff, locally frequent. Based on *Hatusima 28681*.

Crossostephium Lessing

Crossostephium chinense (L.) Makino, Bot. Mag. (Tokyo) 20 (1906) 33; --Merr., PJS 15 (1919) 260; EPFP 3 (1923) 616; --Peng, CI et al. in: TC Huang (ed.). Fl. Taiwan, ed. 2, 4 (1998) 927, pl. 437, photo 442; --*Artemisia chinense* L., Sp. Pl. (1753) 849.

Crossostephium artemisioides Less. ex Cham. & Schlecht., *Linnaea* 6 (1831) 220; --Merr., Fl. Manila (1912) 471.

Ryukyus, S China, Taiwan, Lanyu, N Philippines.

BATANES: ITBAYAT, based on Lopez s.n. (cited by Merr., 1923). Open slopes near the sea. In the Philippines this is otherwise grown in flowerpots only.

Cyanthilium Blume

Cyanthilium cinereum (L.) H Robinson, Proc. Biol. Soc. Wash. 103 (1990) 252; --*Vernonia cinerea* (L.) Less., *Linnaea* 4 (1829) 291; --Merr., Fl. Manila (1912) 466; EPFP 3 (1923) 592; --Koster, *Blumea* 1 (1935) 407, as var. *typica*; --Peng et al., Fl. Taiwan ed. 2, 4 (1998) 1086, Plate 518; Photo 494.

Vernonia cinerea var. *parviflora* (Blume) DC, *Prodr.* 5 (1836) 24; --Koster, *Blumea* 1 (1935) 412.

Pantropical.

Throughout the Philippines at low and medium altitudes, a common weed in settlements, along

roadsides, cultivated lands, open wastelands, etc.

Cyanthillium patulum (Aiton) H Robinson, Proc. Biol. Soc. Wash. 103 (1990) 252; --Vernonia patula (Dryand.) Merr., PJS 3 c (1908) Bot. 439; Fl. Manila (1912) 466; EPFP 3 (1923) 594; --Koster, Blumea 1 (1935) 430 'var. typica'; --Peng et al., Fl. Taiwan ed. 2, 4 (1998) 1091, Plate 521; Photo 497.--Conyza patula Dryand., Hort. Kew (W Aiton) 3 (1789) 184.

Vernonia patula var. multiflora Koster, Blumea 1 (1935) 435.

Widespread in tropical Asia: Taiwan, Philippines, Java, Tanimbar Isls, New Guinea.

Throughout the Philippines at low and medium altitudes, a common weed in settlements, along roadsides, cultivated lands, open wastelands, etc.

Vernonia benguetensis Elmer, LPB 1 (1906) 94 *in nota*; --Merr., EPFP 3 (1923) 592. --Type: Elmer 6584 LUZON: Mountain Province, Ifugao, Benguet, Cagayan, Nueva Vizcaya. Open grasslands up to 1500m. Similar to some forms of *V. cinerea* Less.

Dendranthema (de Candolle) des Moul.

Dendranthema grandiflora (Ramat.) Kitam., Acta Phytotax. Geobot. 29 (1978) 165.

Chrysanthemum x morifolium Ramat., J. Hist. Nat. 2 (1792) 240; --L.H. Bailey, Gent. Herb. 1 (1923) 131; --Merr., EPFP 4 (1925) 247.

Chrysanthemum sinense Sabine, Trans. Linn. Soc. 14 (1825) 145; --Merr., Fl. Manila (1912) 475; EPFP 3 (1923) 615.

Native of China.

Cultivated for ornamental purposes in the Philippines.

Dendranthema indica (L.) Des Moul., Actes Soc. Linn. Bordeaux 10 (1855) 561; --Peng, CI et al. in: TC Huang (ed.), Fl. Taiwan, ed. 2, 4 (1998) 929; --Chrysanthemum indicum L., Sp. Pl. (1753) 889; --Merr., Fl. Manila (1912) 474; EPFP 3 (1923) 615.

India, China, Taiwan, Korea, Japan, Russia.

Widely cultivated for ornamental and medicinal purposes in the Philippines. Apparently established in some high elevation areas like the Cordillera highlands of N Luzon.

Dichrocephala L'Héritier ex de Candolle

Dichrocephala chrysanthemifolia (Blume) DC, in Guill., Arch. Bot. 2 (1833) 518; --Merr., EPFP 3 (1923) 599; --Backer & Bakh.f., Fl. Java 2 (1965) 381; --Steen., Mountain Fl. Java (1972) Plate 11-2.

Tropical Africa, Socotra, India, Java, Lesser Sunda Isls (Bali; Lombok; Timor), Philippines, Sulawesi, New Guinea.

LUZON: Mountain Province, Benguet. Altitude 1800-2200m. In pine forests, grassy slopes, along trails and roadsides.

Dichrocephala integrifolia (L.f.) Kuntze, Revis. Gen. Pl. 1 (1891) 333; --Peng, CI et al. in: TC Huang (ed.), Fl. Taiwan, ed. 2, 4 (1998) 933, Pl. 440, Photo 444.

Dichrocephala bicolor (Roth) Schlecht., Linnaea 25 (1852) 209; --Koster, Nova Guinea, Bot. 24 (1966) 594.

Dichrocephala latifolia (Lam.) DC in in Guill., Arch. Bot. 2 (1833) 518; --Merr., EPFP 3 (1923) 599.

Tropical and subtropical Africa and Asia.

LUZON: Mountain Province, Benguet, Nueva Vizcaya, Quezon, MINDORO, NEGROS, MINDANAO: Lanao. Chiefly at and above 900m, ascending to 2200m, along mountain trails, old clearings and open sites.

Eclipta Linnaeus

Eclipta prostrata (L.) L., Mantissa (1771) 286; --Koster, Blumea 25 (1979) 273; --Peng, CI et al. in: TC Huang (ed.). Fl. Taiwan, ed. 2, 4 (1998) 935; --Verbesina prostrata L., Sp. Pl. (1753) 902.

Eclipta alba (L.) Hassk., Pl. Jav. Rar. (1881) 528; --Merr., Fl. Manila (1912) 476; EPFP 3 (1923) 610.

Warmer regions of the world.

Throughout the Philippines in the lowlands generally, ascending to 1600m. Common in water-logged or semi-aquatic habitats such as edges of muddy pools, canals, and rice paddies.

Eclipta zippeliana Blume, Bijdr. (1826) 914; --Merr., Fl. Manila (1912) 476; EPFP 3 (1923) 611; --Pancho & Obien, Manual Weeds Tobacco Faros Philip. (1983) 177, Fig. 110; --Peng, CI et al. in: TC Huang (ed.). Fl. Taiwan, ed. 2, 4 (1998) 937.

Eclipta prostrata (L.) L. var. *zippeliana* (Blume) J Koster, in Backer & Bakh.f., Fl. Jav. 2 (1965) 402.

Malesia, introduced in Taiwan via merchant ships from SE Asia.

LUZON: Pangasinan, Rizal, Laguna, CAMIGUIN, MINDANAO: Zamboanga.

Elephantopus Linnaeus

Elephantopus scaber L., Sp. Pl. (1753) 814; --Merr., Fl. Manila (1912) 468; EPFP 3 (1923) 596; --Koster, Blumea 1 (1935) 457 'var. typicus'; --Peng, CI et al. in: TC Huang (ed.). Fl. Taiwan, ed. 2, 4 (1998) 938.

var. scaber

Pantropical and subtropical.

Certainly a naturalized weed in the Philippines, common in lowland grasslands and waste places.

var. sinuatus Miq., Pl. Jungh. (1854) 496; --Koster, Blumea 1 (1935) 461.

Distribution

Elephantopus tomentosus L., Sp. Pl. (1753) 814; --Koster, Blumea 1 (1935) 464.

Elephantopus mollis Kunth in Humb. & Kunth, Nov. Gen. Sp. Pl. 4 (1820) 26; --Merr., Fl. Manila (1912) 468; PFP 3 (1923) 595; --Koster, Blumea 1 (1935) 464 (nec syn. *E. tomentosus* L., fide Philipson, J. Bot. (1939) 14); --Peng, CI et al. in: TC Huang (ed.). Fl. Taiwan, ed. 2, 4 (1998) 938, Plate 442, Photo 445.

Native of tropical America, now pantropical in distribution.

Throughout the Philippines from the lowlands to 2000m. A common weed in grasslands and other exposed sites.

Distribution

Emilia Cassini

Literature:

Nicolson, DH. 1980. *Summary of cytological information on Emilia and the taxonomy of four Pacific taxa of Emilia (Asteraceae: Senecioideae)* In: Systematic Botany 5 (4): 391-407.

Emilia pinnatifida Merr., PJS 1 (1906) suppl. 243; EPFP 3 (1923) 619. --Syntypes: Merrill 4664 (US*). Luzon: Benguet prov., Buguias, Oct-Nov 1905; --Merrill 4265 (US*). Luzon: Benguet prov., Baguio, Oct-Nov 1905.

LUZON: Mountain Province, Benguet. Grassy understory of pine forests, altitude 1300-2000m.

Emilia prenanthoidea DC, Prodr. 6 (1837) 303; --Koster, Blumea 26 (1980) 239.

forma prenanthoidea

India, China, Sumatra, Philippines, New Guinea.

Emilia sonchifolia (L.) DC, Prodr. 6 (1837) 302; --Merr., Fl. Manila (1912) 467; EPFP 3 (1923) 620; --Peng, CI et al. in: TC Huang (ed.). Fl. Taiwan, ed. 2, 4 (1998) 940, Plate 443, Photo 446; --*Cacalia sonchifolia* L., Sp.

Pl. (1753) 835.

var. sonchifolia

Pantropic weed of Old World origin (E Asia, Malesia to E Polynesia).

Throughout the Philippines, chiefly at low to medium altitudes, ascending to c. 1500m.

Common in about towns and settlements, along open grassy sites, trails, rice paddy fallows, lawns, etc.

var. javanica (N Burm.) Mattfeld, Bot. Jahrb. 62 (1929) 445; Nova Guinea 14, Bot. (1928) 529; --Koster, Blumea 26 (1980) 239; --Emilia javanica (N Burm.) C Robinson., PJS 3 (1908) Bot. 217; --Merr., EPFP 3 (1923) 619; --Hieracium javanicum N Burm., Fl. Ind. (1768) 174, t. 57, Fig. 1. --Type from Java.

Emilia marivelensis Elmer, LPB 1 (1908) 362. --Type: Merrill 3282 (US, iso?). Luzon: Bataan prov., Mt Mariveles, Oct 1903.

India to Malesia.

LUZON: Ifugao, Mountain Province, Benguet, Nueva Vizcaya, Zambales, Bataan, LEYTE,

MINDANAO: Lanao, Misamis Occidental, Cotabato. Chiefly at medium altitudes, ascending to 2000m, in exposed sites.

Enhydra Loureiro

Enhydra fluctuans Lour., Fl. Cochinch. (1790) 511; --Merr., EPFP 3 (1923) 610.

Tropical Africa and Asia to Malaya. Reportedly an introduced plant in the Philippines (possibly no longer persisting?).

LUZON: Rizal, based on Merrill 11204. Occasional along the banks of small streams in and about Manila.

Epaltes Cassini

Epaltes australis Less., Linnaea 5 (1831) 148, 206; --Merr., Fl. Manila (1912) 473; EPFP 3 (1923) 607; --Peng, CI et al. in: TC Huang (ed.). Fl. Taiwan, ed. 2, 4 (1998) 942, Plate 444.

India, S China, Taiwan, across Malesia to Australia.

LUZON: Rizal. Lowlands, on fallow rice paddies.

Erechtithes Rafinisque

Revision:

Belcher, RO. 1956. *A revision of the genus Erechtithes (Compositae) with inquiries into Senecio and Arrhenechtithes*. Annals of the Missouri Botanical Garden 43: 1-85

Erechtithes valerianifolia (Wolf ex Reichb.) DC, Prodr. 6 (1837) 295; --Merr., EPFP 3 (1923) 617; --

Peng, CI et al. in: TC Huang (ed.). Fl. Taiwan, ed. 2, 4 (1998) 944, Photo 447; --*Senecio valerianifolia* Wolf ex Reichb., Icon. Bot. Exot. 1 (1827) 59.

Native of South America.

LUZON: Sotrsogon, CATANDUANES, NEGROS, SAMAR, MINDANAO, BALUT, BUCAS

GRANDE. Old clearings at low and medium altitudes, often abundant.

Erigeron Linnaeus =Conyza

Ethulia Linnaeus

Ethulia conyzoides L.f. ex L., Sp. Pl. ed. 2 (1763) 1171; --Merr., EPFP 3 (1923) 591; --Koster, Nova Guinea, Botany 24 (1966) 499.
Ethulia megacephala Schulz-Bip. in Zoll. Syst. Verz. Ind. Arch. (1854) 119, *nomen*; --Miq., Pl. Jungh. (1854) 495 (*descriptio*); --Koster, Blumea 1 (1935) 373.
Africa (Egypt, Ethiopia, Zanzibar, Ivory Coast), Madagascar, India, Thailand, Laos, Vietnam, N Philippines, New Guinea.
LUZON: Mountain Province, Benguet. Montane thickets in stream depressions, also in the mossy forests, altitude 1300-2300m.

Eupatorium Linnaeus

Eupatorium camiguinense Merr., PJS 7 c (1912) Bot. 355; EPFP 3 (1923) 597. --Type: BS 14688 Ramos (not seen). Camiguin: Camiguin prov., Mt Mahinog, 11 Apr 1912.
Eupatorium catense Elmer, LPB 7 (1915) 2584. --Type: Elmer 11506 (BISH*, NY*, US*, iso). Mindanao: Davao, Mt Apo, Todaya, 'scandent among small trees along the Cati Creek above the falls at 5750ft', Aug 1909.
CAMIGUIN, MINDANAO: Davao. Medium altitude thickets and forests, ascending to 1700m.

Eupatorium cannabinum L.

ssp. asiaticum Kitam., Acta Phytotax. et Geobot. 19 (1961) 16; *ibid.* 32 (1981) 139.
Eupatorium formosanum Hayata var. quasitripartitum (Hayata) Kitamura, Acta Phytotax. et Geobot. 1 (1932) 284; --Hatusima, Mem. Fac. Agr. Kagoshima Univ. 5 (1966) 53.
Eupatorium japonicum *sensu* Merr., PJS 7 c (1912) Bot. 355; EPFP 3 (1923) 597, *non* Thunb.
Eupatorium reevesii *sensu* Merr., EPFP 3 (1923) 597, *non* Wall.
Himalayas, S China, Taiwan, Ryukyu Isls, N Philippines.
BATAN, SABTAN, LUZON: **Tayabas** (E coast). Lowland thickets, hill grasslands, boulders on the seashore.

Eupatorium lindleyanum DC, Prodr. 5 (1836) 180; --Merr., EPFP 3 (1923) 597; --Peng, Cl et al. in: TC Huang (ed.). Fl. Taiwan, ed. 2, 4 (1998) 960, Plate 456.
China, Taiwan, Korea, Japan, N Philippines.
LUZON: Ilocos Norte, Cagayan, Isabel, Nueva Vizcaya. Low and medium altitudes in open damp places.

Eupatorium nodiflorum Wall., Cat. (1828) 3166 comp. 276; --Koster, Blumea 1 (1935) 494.
Bangladesh, Assam, Himalayas, Thailand, N & C Vietnam, China, Lombok, the Philippines.
LUZON: **distribution**

Eupatorium toppingianum Elmer, LPB 1 (1906) 101; --Merr., EPFP 3 (1923) 597; --Koster, Blumea 1 (1935) 500.
Eupatorium sambucinum Elmer, LPB 1 (1906) 101. --Type:
Eupatorium benguetense C Robinson, PJS 3 c (1908) Bot. 217; --Merr., PJS 5 c (1910) Bot. 393. --Type:
Philippines, Moluccas (Seram, Buru).
LUZON: Abra, Ifugao, Mountain Province, Benguet, Zambales, Laguna, NEGROS. Stream depression thickets, mossy forest clearings, mountain meadows, 1300-2400m.

Fenixia Merrill

Fenixia pauciflora Merr., PJS 12 c (1917) Bot. 119, t. 3; EPFP 3 (1923) 611. --Type: BS 26036 Fenix (L*, NY*, US*, iso). Mindanao: Bukidnon prov., Gaboc, vicinity of Tanculan, "damp rocky hillsides associated especially with Begonia", 13 Jul 1916.

MINDANAO: Bukidnon. Damp rocky slopes at medium altitudes.

Galinsoga Ruiz & Pavon

Galinsoga parviflora Cav., Icon. Descr. Pl. 3 (1795) 41, t. 281; --Quisumb., PJS 41 (1930) 368; --Koster, Blumea 25 (1979) 267; --Peng, CI et al. in: TC Huang (ed.). Fl. Taiwan, ed. 2, 4 (1998) 967.

Native of tropical America now widely distributed in the temperate, subtemperate and tropical regions of the world.

LUZON: Benguet and Mountain Province, altitude 1200-2400m. Very common weed in the temperate vegetable areas.

Glebionis Cassini

R: FNA 19 (2006) 554.

Glebionis coronaria (L.) Spach.

Chrysanthemum coronarium L., Sp. Pl. (1753) 890; --Merr., Fl. Manila (1912) 475; EPFP 3 (1923) 615. Europe to SE Asia. Cultivated in the Philippines.

Glossocardia Cassini

Glossocardia bidens (Retz.) Veldk., Blumea 35 (1991) 468; --Peng, CI et al. in: TC Huang (ed.). Fl. Taiwan, ed. 2, 4 (1998) 971, Plate 461, Photo 455; --Zinnia bidens Retz., Obs. Bot. 5 (1788) 28.

Glossogyne tenuifolia Cass., Dict. Sci. Nat. 51 (1827) 475; --Merr., EPFP 3 (1923) 613 (excl. syn. Bidens tridentata & Glossogyne tridentata); --Koster, Blumea 25 (1979) 256.

S Asia, Taiwan, Australia, New Caledonia.

Philippine distribution

Glossocardia tridentata (Turcz.) Veldk., Blumea 35 (1991) 478; --Guerreroia tridentata (Turcz.) Steen., Blumea 30 (1985) 429; --Bidens tridentata Turcz., Bull. Soc. Nat. Mosc. 24 (1851) 183; --Merr., EPFP 3 (1923) 613, *pro syn.* Glossogyne tenuifolia.

Guerreroia monocephala Merr., PJS 12 c (1917) Bot. 118, t.2; EPFP 3 (1923) 613.

Distribution

Glossogyne Cassini =Glossocardia

Gnaphalium Linnaeus

Gnaphalium adnatum Wall. ex DC, Prodr. 6 (1838) 274; --Peng, CI et al. in: TC Huang (ed.). Fl. Taiwan, ed. 2, 4 (1998) 973, Plate 462, Photo 456.

Anaphalis adnata (Wall.) DC, Prodr. 6 (1837) 274; --Merr., EPFP 3 (1923) 608.

N India, Burma, Indochina, S China, Taiwan, N Philippines.

LUZON: Mountain Province, Benguet. Open slopes in pine forests, altitude 1300-2000m.

Gnaphalium hypoleucum DC in Wight, Contrib. Bot. Ind. (1834) 21; --Merr., EPFP 3 (1923) 608; --Peng, CI et al. in: TC Huang (ed.). Fl. Taiwan, ed. 2, 4 (1998) 975, Photo 457.

var. hypoleucum

S & SE Asia, China, Korea, Japan, Taiwan, N Philippines.

LUZON: Mountain Province, Benguet. Altitude 1200-2200m, in open vegetation associated with pine forests, frequently on steep slopes.

Gnaphalium involucreatum Forst., Fl. Ins. Austr. (1786) 55.

var. simplex DC, Prodr. 6 (1838) 236; --Peng, CI et al. in: TC Huang (ed.). Fl. Taiwan, ed. 2, 4 (1998) 976, Photo 459.

Taiwan, Philippines, Java, Australia, New Zealand. **Philippine distribution?**

Gnaphalium japonicum Thunb., Fl. Jap. (1784) 311; --Merr., EPFP 3 (1923) 608; --Backer & Bakh.f., Fl. Java 2 (1965) 394; --Steen., Mountain Fl. Java (1972) Plate 10-5; --Peng, CI et al. in: TC Huang (ed.). Fl. Taiwan, ed. 2, 4 (1998) 977, Plate 463.

E China, Taiwan, Korea, Japan, C Sumatra (Mt Kerinci), Java, Lesser Sunda Isls (Bali; Lombok; Timor), N Philippines.

LUZON: Mountain Province, Benguet, Zambales, Quezon. Montane meadows and open slopes, altitude 1500-2400m.

Gnaphalium luteoalbum L., Sp. Pl. (1753) 851; --Merr., EPFP 3 (1923) 609; --Backer & Bakh.f., Fl. Java 2 (1965) 394; --Steen., Mountain Fl. Java (1972) Plate 10-7 & 8; --Peng, CI et al. in: TC Huang (ed.). Fl. Taiwan, ed. 2, 4 (1998) 977.

ssp. luteoalbum

Europe and Africa to India, China, Taiwan and Japan towards Australia, in Malesia scattered through Philippines and Indonesia.

LUZON: Pangasinan, Ifugao, Mountain Province, Benguet, Cagayan, Camarines. Chiefly at médium altitudes, ascending to 2400m, along trails, sunny places, talus slopes, etc.

Grangea Adanson

Grangea maderaspatana (L.) Poiret in Lam., Encycl. Suppl. 2 (1812) 825; --Merr., Fl. Manila (1912) 471; EPFP 3 (1923) 599; --Soejima & CI Peng in: TC Huang (ed.). Fl. Taiwan, ed. 2, 4 (1998) 982, Plate 465, Photo 460; --Artemisia maderaspatana L., Sp. Pl. (1753) 849.

Africa, India, Indochina, Taiwán, Java, Philippines.

LUZON: La Union, Pampanga, Bulacan, Rizal. An occasional weed in open waste places in and about towns, certainly introduced.

Guerreroia Merrill =Glossocardia tridentata

Gynura Cassini

Gynura aurantiaca (Blume) DC, Prodr. (DC.) 6 (1838) 300; --Backer & Bakh.f., Fl. Java 2 (1965) 425; --Steen., Mountain Fl. Java (1972) Plate 12-3;

Sumatra, Java, Philippines, Sulawesi.

Precise distribution can only be established after a comprehensive study of the genus.

Gynura elliptica Y Yabe & Hayata ex Hayata, J. Coll. Sci. Tokyo 18, no. 8 (1904) 25, t. 2; --Merr., EPFP 3 (1923) 617; --Peng, CI et al. in: TC Huang (ed.). Fl. Taiwan, ed. 2, 4 (1998) 984, Plate 467, Photo 462.

Lanyu, N Philippines.

BATAN, SABTAN. Old fields, low altitudes.

Gynura latifolia (Moore) Elmer, LPB 1 (1906) 145; --Merr., EPFP 3 (1923) 617; --Crassocephalum latifolium Moore, J. Bot. 43 (1905) 138. --Type:

MINDORO, NEGROS. Thickets or forests up to 1500m.

Gynura macgregorii Merr., PJS 5 c (1910) Bot. 398; EPFP 3 (1923) 617. --Type:

LUZON: Ifugao, Mountain Province, Benguet, Nueva Vizcaya. Mossy forests, altitude 2000-2500m.

Gynura piperi Merr., PJS 7 c (1912) Bot. 355; EPFP 3 (1923) 617. –Type: Piper 384.
SIQUIJOR. Low and medium altitudes, thickets and open places.

Gynura procumbens (Lour.) Merr., EPFP 3 (1923) 618; --*Cacalia procumbens* Lour., Fl. Cochinch. (1790) 485.

Gynura sarmentosa DC, Prodr. 6 (1837) 298; --Fern.-Villar, Novis. App. (1880) 120; --Vidal, Rev. Pl. Vasc. Filip. (1886) 163; Phan. Cuming. Philip. (1885) 122; --Elmer, LPB 1 (1906) 146; --Merr. & Rolfe, PJS 3 c (1908) Bot. 127; --Merr., Sp. Blancoanae (1918) 381.

Cacalia sarracenic Blanco, Fl. Filip. (1837) 618, non L.

Senecio cacaliaster Blanco, ibid., ed. 2 (1845) 441; ibid. ed. 3, 3 (1879) 24, non Lam.

Gynura affinis Turcz., Bull. Soc. Nat. Mosc. 24, 1 (1851) 201; --Fern.-Villar, Novis. App. (1880) 120.

Gynura scabra Turcz., loc. cit; --Fern.-Villar, loc. cit.

Gynura angulosa Fern.-Villar, Novis. App. (1880) 119, non DC.

Senecio mindorensis Elmer, LPB 1 (1906) 155. –Type: Elmer 5936 (NY*, US*, iso). Luzon: Benguet prov., Mt Sto Tomas, Mar 1904.

Gynura clementis Merr., PJS 1 (1906) Suppl. 244; --Elmer, LPB 1 (1906) 145; --Merr., EPFP 3 (1923) 617. –Type:

Gynura agusanensis Elmer, LPB 7 (1915) 2585. –Type: Elmer 13864 (BISH*, NY*, US*, iso). Mindanao: Agusan del Norte prov., Cabadbaran, Mt Urdaneta, Sept 1912.

Thailand, Indochina to Malesia.

N LUZON (Cagayan) to MINDANAO, in most islands and provinces. Low and medium altitudes, ascending to 1500m, In thickets along streams, old clearings, etc.

Climbing. Throughout Java; 1-2100m altitude, especially above 500m; sunny or moderately shadowy, humid, or at least not very dry localities, brushwood, hedges, forest-borders, not too dense forest, rarely on grassy plains, usually scattered; sometimes cultivated as a medicinal plant (Backer 1939) (*G. procumbens*)

As *G. clementis*: MINDANAO: Lanao del Sur, Agusan del Norte. Old clearings up to 1050m altitude.

Gynura rubiginosa (Elmer) JR Drummond ex Merr. & Rolfe, PJS 3 c (1908) Bot. 127; EPFP 3 (1923) 618; --*Senecio rubiginosus* Elmer, LPB 1 (1906) 154. –Type: Elmer 6246 (NY*, US*, iso). Luzon: Benguet prov., Mt Sto Tomas, May 1904.

LUZON: Benguet. Damp thickets, altitude 1600-2000m.

Gynura subglabra Merr., PJS 12 c (1917) Bot. 120; EPFP 3 (1923) 618. –Type: BS 27023 Ramos (NY*, US*, iso). Luzon: Abra prov., Mt Posuey, Feb 1917.

LUZON: Abra, Kalinga. Damp thickets and forests, apparently at medium altitudes.

Gynura vidaliana Elmer, LPB 1 (1906) 144; JR Drummond ex Merr. & Rolfe, PJS 3 c (1908) Bot. 127; --Merr., PJS 5 c (1910) Bot. 398; EPFP 3 (1923) 618. –Type: Merrill 3937 (NY*, iso). Luzon: Pampanga prov., Mt Arayat, Oct 1904.

Gynura purpurascens Vidal, Rev. Pl. Vasc. Filip. (1886) 164, non DC.

Gynura acuminatissima Merr., PJS 12 c (1917) Bot. 121; EPFP 3 (1923) 617. –Type: BS 26556 Ramos & Edaño (L*, NY*, US*, iso). Luzon: Aurora prov., Mt Dingalan, Aug-Sept 1916.

var. vidaliana

LUZON: Mountain Province, Benguet, Zambales, Pampanga (Mt Arayat), Aurora (Mt Dingalan), Batangas, PALAWAN. Chiefly in the mossy forest, altitude 750-2200m.

var. apoensis (Elmer) FG Davies, Kew Bull. 35 (1981) 732; --*Gynura apoensis* Elmer, LPB 7 (1915) 2587; --Merr., EPFP 3 (1923) 617. –Type: Elmer 11584 (L*, iso). Mindanao: Davao, Mt Apo, Todaya, Aug 1909.

MINDANAO: Bukidnon, Davao. Altitude c. 1800m, along streams.

Helianthus Linnaeus

Helianthus annuus L., Sp. Pl. (1753) 904; --Merr., Fl. Manila (1912) 476; EPFP 3 (1923) 612.

Native of tropical America, now planted in all warm countries. Cultivated here and there for ornamental purposes but nowhere established. Sunflower.

Helichrysum Miller

Helichrysum bracteatum (Vent.) Andrews, Bot. Repos. 6 (1805) sub t. 428; --

Ixeridium (A Gray) Tzvelev

Ixeridium laevigatum (Blume) JH Pak & Kawano, Mem. Fac. Sci. Kyoto Univ., Ser. Biol. 15 (1992) 45; --Peng et al., Fl. Taiwan ed. 2, 4 (1998) 993, pl. 471, photo 465; --*Lactuca laevigata* (Blume) DC, Prodr. 7 (1838) 140; Koster, Blumea 23 (1976) 169; --*Ixeris laevigata* (Blume) Yamamoto, J. Soc. Trop. Agric. Taiwan 8 (1936) 353; --*Prenanthes laevigata* Blume, Bijdr. 2 (1826) 836.

Lactuca laevigata (Blume) DC var. *exciso-dentata* Koster, Blumea 23 (1976) 174.

Lactuca dentata (Thunb.) C Robinson, PJS 3 c (1908) Bot. 218; --Merr., EPFP 3 (1923) 621, *pro parte*; --*Ixeris laevigata* (Blume) Schultz-Bip. var. *oldhami* (Maxim.) Kitam., Mem. Coll. Sci. Univ. Kyoto, ser. B, 28¹, Art. 14 (1956) (Compos. Jap. 5) 111; --Hatusima, Mem. Fac. Agr. Kagoshima Univ. 5 (1966) 54.

Indochina, S China, Taiwan, Japan, across Malesia.

BATANES, LUZON: Ilocos Norte, Apayao, Ifugao, Mountain Province, Benguet, Nueva Vizcaya, Zambales, Pampanga, Laguna, Quezon, Camarines, Albay, MINDORO, PANAY, NEGROS, MINDANAO. Chiefly along shaded streams at medium altitudes, ascending to 2000m. (as *Lactuca dentata*)

Lactuca integra Merr., PJS 20 (1922) 475; EPFP 3 (1923) 622. --Type: BS 26586 Ramos & Edaño (US*, iso). Luzon: Aurora prov., Dingalan, on rocks along the seashore, 24 Aug 1916.

According to Merrill (1922), most closely allied to *Lactuca dentata* (Thunb.) C Robinson [= *Ixeridium laevigatum*].

Lactuca Linnaeus

Lactuca sativa L., Sp. Pl. (1753) 795; --Merr., Fl. Manila (1912) 479; EPFP 3 (1923) 622. Cultivated for food, but nowhere established. Lettuce.

Lagenophora Cassini

Revision:

Cabrera, AL. 1966. *The genus Lagenophora (Compositae)*. In: Blumea 14: 285-308.

Lagenophora stipitata (Labill.) Druce, Rep. Bot. Exch. Cl. Brit. Isl. (1917) 630; --Cabrera, Blumea 14 (1966) 301, Fig. 8A-F.

Lagenophora billardieri Cass., Dict. Sci. Nat. 25 (1826) 111; --Merr., EPFP 3 (1923) 599.

var. stipitata

Papua, SE Australia, Tasmania.

Laggera Schulz-Bipontius

Laggera alata (D Don) Schulz-Bip. ex Oliver, Trans. Linn. Soc. 39 (1873) 94; --Merr., EPFP 3 (1923) 606; --Backer & Bakh.f., Fl. Java 2 (1965) 390; --Steen., Mountain Fl. Java (1972) Plate 11-6; --Peng et al., Fl. Taiwan ed. 2, 4 (1998) 1006, Plate 478, Photo 469; --*Erigeron alatum* D Don, Prodr. Fl. Nepal. (1825) 171.

South and tropical Africa and the Comoros to SE Asia, N Sumatra (Aceh; Toba Lands), Java, Lesser Sunda Isls (Bali; Lombok; Sumba; Sumbawa), N Philippines, Sulawesi, New Caledonia. LUZON: Ilocos Norte, Pangasinan, Mountain Province, Benguet, Rizal. Chiefly in medium

altitude grasslands, ascending to 1500m.

Melampodium Linnaeus

Melampodium diffusum Cass., Dict. Sci. Nat. 59 (1829) 238; --Merr., EPFP 3 (1923) 609.

Melampodium manillense Less., Linnaea 5 (1830) 155, t. 2, Fig. G.

Melampodium divaricatum Rolfe, J. Bot. 23 (1885) 213; --Vidal, Rev. Pl. Vasc. Filip. (1886) 162; --Elmer, LPB 1 (1906) 161, *non* DC.

Melampodium sericeum Fern.-Villar, Novis. App. (1880) 117; --Elmer, LPB 1 (1906) 160, *non* Lagasca.

Native of Mexico.

Naturalized in the Philippines. LUZON: Nueva Vizcaya, Rizal, Cavite, Laguna. Open dry sandy soil in and about towns.

Merrittia Merrill (~Blumea)

Merrittia benguetensis (Elmer) Merr., PJS 5 c (1910) Bot. 396; EPFP 3 (1923) 606; --Senecio *benguetensis* Elmer, LPB 1 (1906) 152. --Type: Elmer 6247.

LUZON: Ifugao, Mountain Province, Benguet. Damp thickets and in the mossy forest, 1800-2400m.

Microglossa de Candolle

Microglossa pyrifolia (Lam.) Kuntze, Rev. Gen. 1 (1891) 353; --Koster, Nova Guinea, Bot. 24 (1966) 558;

--Peng et al., Fl. Taiwan ed. 2, 4 (1998) 1014, Photo 473; --Conyza *pyrifolia* Lam., Encycl. 2 (1786) 89.

Microglossa volubilis (Wall.) DC, Prodr. 5 (1836) 320; --Merr., EPFP 3 (1923) 600; --Conyza *volubilis* Wall., Cat. (1831) 3057, *nomen nudum*.

Tropical Africa, Madagascar, Comoros, India, Burma, China, Taiwan, Thailand, Laos, Vietnam, Peninsular Malaysia, Philippines, New Guinea.

LUZON: Mountain Province, Benguet, Nueva Vizcaya, NEGROS, MINDANAO. Chiefly medium altitude thickets, ascending to 1500m.

Mikania Willdenow

Mikania cordata (Burm.) BL Robinson, Contr. Gray Herb. 104 (1934) 65; --Koster, Blumea 1 (1935) 504.

Mikania scandens (L.) Willd., Sp. Pl. 3 (1804) 1743; --Merr., EPFP 3 (1923) 598.

forma undulata Koster, Blumea 1 (1935) 506.

Native of tropical America, now pantropic in distribution.

Throughout the Philippines in all islands and provinces. Very common in lowland and medium altitude thickets, ascending to 1600m.

forma villosa Koster, Blumea 1 (1935) 509.

Distribution:

Mikania micrantha Kunth in Humb., Bonpl., & Kunth, Nov. Gen. 4 (1820) 134; --Koster, Blumea 1 (1935) 510; Nova Guinea, Bot. 24 (1966) 522.

Tropical America. Introduced to Fiji, Marianas, Solomon Isls, New Britain, New Guinea, Philippines.

Myriactis Lesson

Myriactis humilis Merr., PJS 1 (1906) Suppl. 244; *ibid.* 5 c (1910) Bot. 394; --Elmer, LPB 1 (1906) 129; --Merr., EPFP 3 (1923) 600; --Soejima & Peng in TC Huang (ed.). Fl. Taiwan ed. 2, 4 (1998) 1017, Plate 483.
Taiwan, Philippines, Borneo, New Guinea.
LUZON: Benguet, Quezon (Mt Banahaw), MINDORO: Mindoro Oriental (Mt Halcon), NEGROS.
Check Blumea

Myriactis mindanaensis Elmer, LPB 7 (1915) 2589; --Merr., EPFP 3 (1923) 600, under syn. of *M. humilis*; --Koster, Nova Guinea, Bot. 24 (1966) 610., Fig. 17a. --Type: Elmer 11507 (BISH*, L*, NY*, iso). Mindanao: Davao, Mt Apo, Todaya, "upon water-soaked moss-covered rocks strewn along the Cati creek at 5750ft altitude of the east to northeastern side of Mt Apo", Aug 1909.
Borneo (Sabah: Mt Kinabalu), S Philippines, Sulawesi, Moluccas, New Guinea.
MINDANAO: Misamis Occidental (Mt Malindang), Davao (Mt Apo). **Check Blumea**

Pluchea Cassini

Pluchea indica (L.) Less., *Linnaea* 6 (1831) 150; --Merr., Fl. Manila (1912) 471; EPFP 3 (1923) 606; --Peng et al., Fl. Taiwan ed. 2, 4 (1998) 1036, Plate 492.
Pluchea scabrida DC, Prodr. 5 (1836) 453; --Fern.-Villar, Novis. App. (1880) 116; --Elmer, LPB 1 (1906) 106; --Merr., PJS 2 c (1907) Bot. 309; EPFP 3 (1923) 606. --Type: Haenke s.n. (not seen, cited by Merrill (1923) to be in G-DC).
India, Thailand, Indochina, S China, Taiwan, Japan, across Malesia, N Australia, Hawai'i.
N LUZON to MINDANAO. Along the seashore, common in littoral sites such as mangroves, brackish swamps, and tidal flats. Occasionally more inland.

Pseudelephantopus Rohr

Pseudelephantopus spicatus (Juss.) Rohr, Skrivt. Nat. Selsk. Kiob. 2 (1792) 213; --Koster, *Blumea* 1 (1935) 465; --Peng et al., Fl. Taiwan ed. 2, 4 (1998) 1041, Plate 495; --*Elephantopus spicatus* Juss. in *Aubl., Pl. Guin.* 2 (1775) 808; --Merr., Fl. Manila (1912) 469; EPFP 3 (1923) 596.
Native of South America, introduced and naturalized in Asia.
Common throughout the Philippines in most islands and provinces. Lowland waste places and settlements generally.

Pterocaulon Elliot

Pterocaulon redolens (G Forst. ex Willd.) Fern.-Villar, Novis. App. (1880) 116; --Merr., PJS 12 c (1917) Bot. 122; EPFP 3 (1923) 607; --*Gnaphalium redolens* G Forst., Prodr. (1786) 91.
Pterocaulon cylindrostachyum CB Clarke, Comp. Ind. (1786) 98; --Fern.-Villar, Novis. App. (1880) 116; --Vidal, Phan. Cuming. Philip. (1885) 122; Rev. Pl. Vasc. Filip. (1886) 162; --Merr., Sp. Blancoanae (1918) 379.
Sphaeranthus elongatus Blanco, Fl. Filip. (1837) 636; *ibid.* ed. 2 (1845) 443; *ibid.* ed. 3, 3 (1879) 30.
Burma to Australia and New Caledonia.
LUZON: Ilocos Norte, Pangasinan, Mountain Province, Benguet, Bataan, Batangas, MINDORO.
Lowlands and medium altitudes, in open waste places.

Pterocypsela C Shih

Revision:
Shih, C. 1988. *Revision of Lactuca L. and two new genera of the tribe Lactuceae (Compositae) of the mainland China of Asia.* Acta Phytotaxonomica Sinica 26: 382-393.

Pterocypsela indica (L.) C Shih, Acta Phytotax. Sin. 26 (1988) 387; --Peng et al., Fl. Taiwan ed. 2, 4 (1998)

1043, pl. 496; --*Lactuca indica* L., Mant. 2 (1771) 278; --Merr., EPFP 3 (1923) 621.
Lactuca brevirostris Champ. In Hook., J. Bot. Kew Miscell. 4 (1852) 237; --Fern.-Vill., Novis. App. (1880) 120; --Vidal, Rev. Pl. Vasc. Filip. (1886) 165; Phan. Cuming. Philip. (1885) 122; --Elmer, LPB 1 (1906) 182.
Lactuca squarrosa Miq., Ann. Mus. Bot. Lugd.-Bat. 2 (1864) 189; --Merr., PJS 3 c (1908) 442.
India, Indochina, S China, Taiwan, Ryukyu Isls, Japan, Sumatra, Peninsular Malaysia, Java, Philippines, New Guinea.
BATANES, LUZON: Ilocos Norte, Mountain Province, Benguet, Laguna, Quezon, ALABAT, MINDORO, PANAY. Chiefly at medium altitudes, occasionally at sea level or ascending to 1500m. Grassy hillsides, open waste places along trails and streams, old clearings and garden regrowths, etc.

Senecio Linnaeus

Senecio luzoniensis Merr., PJS 1 (1906) Suppl. 245; *ibid.* 3 c (1908) Bot. 127; *ibid.* 5 c (1910) Bot. 399; --Elmer, LPB 1 (1906) 154; --Merr., EPFP 3 (1923) 619. --Type: Merrill 4791 (NY*, US*, iso). Luzon: Benguet prov., Suyoc to Pauai, Oct-Nov. 1905.
LUZON: Ifugao, Mountain Province, Benguet, Zambales. High montane thickets, steep slopes and forests, altitude 1800-2600m.

Senecio scandens Buch.-Ham. ex D Don, Prodr. Fl. Nepal. (1825) 178; --Merr., EPFP 3 (1923) 619; --Cl Peng & SW Chung in TC Huang (ed.). Fl. Taiwan ed. 2, 4 (1998) 1056.
S Asia, Thailand, Indochina, China, Taiwan, Japan, N Philippines.
LUZON: Ifugao, Mountain Province, Benguet. Altitude 1300-2200m, in thickets.

Siegesbeckia =Sigesbeckia

Sigesbeckia Linnaeus

Sigesbeckia orientalis L., Sp. Pl. (1753) 900; --Fern.-Villar, Novis. App. (1880) 117; --Vidal, Phan. Cuming. Philip. (1885) 122; Rev. Pl. Vasc. Filip. (1886) 163; --Elmer, LPB 1 (1906) 162; --Merr., PJS 3 c (1908) Bot. 411; *ibid.*, 5 c (1910) Bot. 397; EPFP 3 (1923) 610; --Koster, Blumea 25 (1979) 274; --Peng et al., Fl. Taiwan ed. 2, 4 (1998) 1062, Plate 506; Photo 488.
Africa to India, SE Asia, China, Taiwan, Japan, Australia.
BATANES, LUZON: Abra, Mountain Province, Benguet, Rizal, MINDANAO: Lanao. Chiefly at medium altitudes, ascending to 2100m in the Cordillera highlands of N Luzon. In waste places, fallow fields, etc.

Solidago Linnaeus

Solidago virgaurea L., Sp. Pl. (1753) 880; --Elmer, LPB 1 (1906) 126; --Merr., PJS 1 (1906) Suppl. 245; *ibid.* 5 c (1910) Bot. 393; EPFP 3 (1923) 598.
N Temperate Zone in both hemispheres, descending southward in the mountains through Japan to S China and Taiwan.
LUZON: Mountain Province, Benguet. Altitude 1400-2100m, in thin pine forests on grassy slopes.

Sonchus Linnaeus

Literature:

Boulos, L. 1961. *On the synonymy and distribution of Sonchus arvensis L.* Botaniska Notiser 114: 57-64, 4 fig., 2 maps.

Sonchus brachyotus DC

Sonchus arvensis *auctt.*, Merr., EPFP 3 (1923) 621, non L.

Distribution of **S brachyotus**.

Introduced in the Philippines. LUZON: E Abra, Ifugao, Mountain Province, Benguet. Montane areas at 1000-2400m. Common weed in cultivated lands, thin pine forests, along trails, talus slopes, open waste places, etc.

S. brachyotus DC is distinguished from *S. arvensis* L. by its shorter pappus.

Sonchus oleraceus L., Sp. Pl. (1753) 794; --Merr., Fl. Manila (1912) 479; EPFP 3 (1923) 621; --Peng et al., Fl. Taiwan ed. 2, 4 (1998) 1073, Plate 512; Photo 491.

Eurasia, in temperate and subtemperate countries. An introduced plant in the Philippines.

LUZON: Mountain Province, Benguet, Rizal, Laguna. Altitude 1200-2400m in the Cordillera highlands of N Luzon, where it thrives as a common weed in temperate vegetable farms, talus slopes, sunny trails and other exposed sites.

Sparganophorus Boehmer =Struchium

Sphaeranthus Linneaus

Sphaeranthus africanus L., Sp. Pl. ed. 2 (1762) 1314; --Fern.-Villar, Novis. App. (1880) 116; --Vidal, Phan. Cuming. Philip. (1885) 122; Rev. Pl. Vasc. Filip. (1886) 162; Elmer, LPB 1 (1906) 118; --Merr., Fl. Manila (1912) 469; Sp. Blancoanae (1918) 379; EPFP 3 (1923) 607; --Peng et al., Fl. Taiwan ed. 2, 4 (1998) 1073.

Sphaeranthus alatus Blanco, Fl. Filip. (1837) 635.

Sphaeranthus indicus Blanco, Fl. Filip. ed. 2 (1845) 722; *ibid.* ed. 3, 3 (1879) 29; --Fern.-Villar, Novis. App. (1880) 116, *non* L.

Tropical Africa and Asia through Malesia and Australia.

Throughout the Philippines at low and medium altitudes. A weed in open rather damp waste places in and about towns.

Spilanthes Jacquin =Acmella

Struchium P Browne

Struchium sparganophorum (L.) Kuntze, Revis. Gen. Pl. 1 (1891) 366.

Sparganophorus vaillantii Crantz, Inst. Rei Herb. 1 (1766) 261.

Synedrella Gaertner

Synedrella nodiflora (L.) Gaertn., Fruct. 2 (1791) 456, t. 171; --Naves in Blanco, Fl. Filip. ed. 3 (1877-83) t. 404; --Fern.-Villar, Novis. App. (1880) 118; --Elmer, LPB 1 (1906) 171; --Merr., Fl. Manila (1912) 472; EPFP 3 (1923) 612; --Koster, Blumea 25 (1979) 271; --Peng et al., Fl. Taiwan ed. 2, 4 (1998) 1075, Plate 513; --*Verbesina nodiflora* L., Amoen. Acad. 4 (1759) 290.

Blainvillea latifolia Walp., Nov. Act. Acad. Nat. Cur. 19 (1843) Suppl. 1: 266; --Ceron, Cat. Pl. Herb. (1892) 102, *non* DC.

Blainvillea rhomboidea Elmer, LPB 1 (1906) 165, *non* Cass.

Native of tropical America, now a common pantropic weed.

Throughout the Philippines at low and medium altitudes, a ubiquitous weed in open waste

places.

Tagetes Linnaeus

Tagetes erecta L., Sp. Pl. (1753) 887; --Novis. App. (1880) 119; --Elmer, LPB 1 (1906) 136; --Merr., Fl. Manila (1912) 474; EPFP 3 (1923) 614.

Native of Mexico, now pantropical in cultivation. A common ornamental plant in the Philippines.

Tagetes patula L., Sp. Pl. (1753) 887; --Blanco, Fl. Filip. (1837) 632; *ibid.* ed. 2 (1845) 440; *ibid.* ed. 3, 3 (1879) 23, t. 404bis; --Merr., Sp. Blancoanae (1918) 381; EPFP 3 (1923) 614.

Native of Mexico, now widely distributed in cultivation.

A common ornamental plant in the Philippines, said to be thoroughly naturalized in the Cordillera highlands of N Luzon, along streambanks and gravel bars at 1200-1500m altitudes. Marigold.

Taraxacum Weber ex Wiggers

Taraxacum officinale Weber in Wiggers, Prim. Pl. Holst. (1780) 56; --Merr., EPFP 3 (1923) 621; --Peng et al., Fl. Taiwan ed. 2, 4 (1998) 1079, Plate 515.

Temperate zone weed, native of Eurasia.

Thoroughly naturalized in LUZON: Benguet (vicinity of Baguio-La Trinidad), in temperate vegetable gardens, roadsides, lawns, etc., altitude c. 1400m.

Tithonia Desfontaines ex Jussieu

Tithonia diversifolia (Hemsl.) A Gray, Proc. Amer. Acad. 19 (1883) 5; --Merr., EPFP 3 (1923) 611; --Koster, Blumea 25 (1979) 264; --Peng et al., Fl. Taiwan ed. 2, 4 (1998) 1083; --Mirasolia diversifolia Hemsl., Biol. Centr. Amer., Bot. 2 (1881) 168, t. 47.

Native of Mexico and Central America. Naturalized in many other tropical countries.

Tridax Linnaeus

Tridax procumbens L., Sp. Pl. (1753) 900; --Koster, Blumea 25 (1979) 263; --Peng et al., Fl. Taiwan ed. 2, 4 (1998) 1084, Plate 517; Photo 493.

Native of tropical America, now in all warm countries.

Thoroughly naturalized in the lowland areas of the Philippines.

Vernonia Schreber

Vernonia acrophila Merr., PJS 5 c (1910) Bot. 253; EPFP 3 (1923) 592. --Type: FB 8057 Curran & Merritt (NY*, iso). Luzon: Zambales prov., Mt Tapulao (=High Peak), in the elfinwood, exposed peaks, above 2000m, 13 Oct 1907.

LUZON: Zambales (High Peak). Exposed peaks and ridges near the summit, altitude c. 2000m.

Vernonia apoensis Elmer, LPB 2 (1910) 687; --Merr., EPFP 3 (1923) 592. --Type: Elmer 10764 (BISH*, NY*, US*, iso). Mindanao: Davao del Sur prov., Mt Apo, Todaya, 'in forest at 3750ft', May 1909.

LUZON: Benguet, MINDANAO: Lanao del Sur, Davao del Sur (Mt Apo). In forests, altitude 650-2200m.

Vernonia arborea Ham., Trans. Linn. Soc. 14 (1825) 218; --Merr., EPFP 3 (1923) 592; --Koster, Blumea 1 (1935) 384 (as var. *typica*); --Backer & Bakh.f., Fl. Java 2 (1965) 371; --Steen., Mountain Fl. Java (1972) Plate 12-6;

Vernonia florescens Elmer, LPB 2 (1910) 685; --Merr., EPFP 3 (1923) 593. --Type: Elmer 11613 (BISH*, NY*, US*). Mindanao: Davao del Sur prov., Mt Apo, Todaya, 'in moist humus-covered soil of woods at 3500ft of Mt Calelan', Sept 1909.

var. arborea

Tropical SE Asia and throughout Malesia. N LUZON to MINDANAO, in most islands and provinces. Low and medium altitudes, ascending to c. 1000m, mostly along forest edges and secondary forests.

Vernonia bontocensis Merr., PJS 20 (1922) 473; EPFP 3 (1923) 592. --Type: BS 37752 Ramos & Edaño (US*, iso). Luzon: Mountain Province, Mt Pukis, open slopes, altitude c. 1300m, Mar 1920.

LUZON: Mountain Province. Open slopes, altitude c. 1300m.

Vernonia cuneata Less., Linnaea 6 (1831) 644; --Fern.-Villar, Novis. App. (1880) 114; --Elmer, LPB 1 (1906) 92; --Koster, Blumea 1 (1935) 447.

Vernonia lenticellata Elmer, LPB 1 (1906) 91; --Merr., EPFP 3 (1923) 593. --Type: Elmer 6564 (NY*, US*, iso). Luzon: Benguet prov., Mt Sto Tomas, near the summit, altitude c. 2200m, Jun 1904.

Vernonia pyrropapp Schulz-Bip. ex Klatt, Flora 68 (1885) 203; --Merr., EPFP 3 (1923) 595.

Vernonia villarii Elmer, LPB 7 (1915) 2593. --Type: Elmer 13171 (not seen). Palawan: Palawan prov., Puerto Princesa, Mt Pulgar (=Thumb Peak), 'in woods of the forested ridge at 250ft altitude', May 1911.

Philippines, Moluccas,

LUZON: Mountain Province, Benguet. Mossy forests, altitude c. 2200m (as *V. lenticellata*)

BUSUANGA, PALAWAN, BALABAC, CATANDUANES, LEYTE, MINDANAO: Zamboanga,

Misamis. Low and medium altitude forests. (as *V. pyrropapp*).

Vernonia elmeri Merr., PJS 5 c (1910) Bot. 252; EPFP 3 (1923) 592; --Koster, Blumea 1 (1935) 417.

--Syntypes: Merrill 793

Gynura angulosa Elmer, LPB 1 (1906) 146, excl. syn., *non* DC

LUZON: Ilocos Norte, Nueva Vizcaya, PALAWAN, MINDANAO: Davao. Low and medium altitude thickets.

Vernonia fimbrillata Koster, Blumea 1 (1935) 401.

"In the Philippines a specimen has been collected, that seems to be very closely related to [*V. fimbrillata*]; the involucre scales are not so long-fringed, however, but shortly ciliate along the margin, and subacute, the achenes are densely glandular and glabrous: LUZON, Mountain Province, Vanoverbergh 689 (K, L). A specimen from BUSUANGA, Lopez 41367 (L) has leaves with narrow tips (leaves to 5.5 cm broad, 16 cm long); it apparently belongs to the same species"...

Vernonia glandulifolia Merr., PJS 14 c (1919) Bot. 456; EPFP 3 (1923) 593. --Type: BS 7490 Ramos

LUZON: Ilocos Norte, Cagayan, PALAWAN. Low and medium altitudes. Forested slopes.

Vernonia lancifolia Merr., PJS 5 c (1910) Bot. 253; EPFP 3 (1923) 593. --Type: RS Williams 420 (US*, iso).

Luzon: Bataan prov., Mt Mariveles, Lamao River, 2 Jan 1904.

Vernonia acuminatissima Elmer, LPB 8 (1919) 3076. --Type: Elmer 18064 (BISH*, NY*, US*, iso). Luzon: Laguna prov., Mt Makiling, Jun-Jul 1917.

LUZON: Bataan, Rizal, Laguna, Quezon, MINDANAO: Bukidnon. Forested ridges, altitude 900-1300m.

Vernonia mindanaensis Merr., PJS 20 (1922) 474; EPFP 3 (1923) 594. --Type: BS 38886 Ramos & Edaño (not seen). Mindanao: Bukidnon prov., Mt Candoon, damp forest, altitude c. 1000m, Jun 1920.

MINDANAO: Lanao del Sur (Camp Keithley), Bukidnon (Mt Candoon). Damp forests, altitude 600-1000m.

Vernonia phanerophlebia Merr., PJS 7 c (1912) Bot. 106; EPFP 3 (1923) 594. –Type: Vanoverbergh 688 (not seen). Luzon: Mountain Province, Malamey (Pinggat), in forest, altitude c. 1450m, 23 Jul 1910.
LUZON: Mountain Province. Montane forests, altitude c. 1500m.

Vernonia philippinensis Rolfe, J. Linn. Soc. Bot. 21 (1884) 312; --Vidal, Phan. Cuming. Philip. (1885) 121; Rev. Pl. Vasc. Filip. (1886) 160; --Elmer, LPB 1 (1906) 89; --Merr., PJS 5 c (1910) Bot. 393; EPFP 3 (1923) 594. –Type: Cuming 1092 (not seen). Luzon: Albay prov.
LUZON: Ilocos Norte, Pangasinan, Mountain Province, Benguet, Cagayan, Zambales, Bataan, Rizal, Laguna. Low and medium altitude forests, ascending to 1000m.

Vernonia pulgarensis Elmer, LPB 7 (1915) 2590. –Type: Elmer 12948, cited as 12848 in the original protologue (BISH*, MO*, NY*, US*, iso). Palawan: Palawan prov., Puerto Princesa, 'scandent upon small trees on steep rocky soil of forests at 2000ft', 1 Apr 1911.
PALAWAN. Primary forests, altitude c. 600m.

Vernonia urdanetensis Elmer, LPB 7 (1915) 2591; --Merr., EPFP 3 (1923) 595. –Type: Elmer 13634 (BISH*, MO*, NY*, US*, iso). Mindanao: Agusan del Norte, Cabadbaran, Mt Urdaneta, 'woods of the saddle between Duros and Cawilanan peaks at 3500ft...', Aug 1912.
MINDANAO: Agusan del Norte (Mt Urdaneta). Primary forests, altitude c. 1050m.

Vernonia vidalii Merr., Govt. Lab. Publ. (Philip.) 6 (1904) 6; PJS 1 (1906) Suppl. 138; --Elmer, LPB 1 (1906) 91; --Merr., EPFP 3 (1923) 595. –Type:
Vernonia arborea Ham. var. *vestita* Vidal, Rev. Pl. Vasc. Filip. (1886) 160, *non* *Vernonia vestita* Baker.
LUZON: Ilocos Norte, Ilocos Sur, Pangasinan, Mountain Province, Benguet, Nueva Vizcaya (Bagabag), Zambales, Bataan, Rizal (San Mateo; Tanay), Laguna. Chiefly in secondary forests, sea-level to 1300m.

Vernonia zollingeriana Schulz-Bip. in Zoll., Syst. Verz. Ind. Arch. (1854) 119; --Koster, Blumea 1 (1935) 433.
Vernonia maritima Merr., PJS 3 c (1908) Bot. 440; EPFP 3 (1923) 593; --Peng et al., Fl. Taiwan ed. 2, 4 (1998) 1091, Photo 496. –Type:
S Taiwan, Xiao Lanyu Is, N Philippines, Java.
BATAN. On littoral rocky cliffs.

Wedelia Jacquin

Wedelia biflora (L.) DC in Wight, Contrib. Bot. Ind. (1834) 18; --Merr., Fl. Manila (1912) 477; EPFP 3 (1923) 611; Koster, Blumea 25 (1979) 269; --Peng et al., Fl. Taiwan ed. 2, 4 (1998) 1093, Photo 498.
S China, Taiwan, Japan, India though SE Asia to the Pacific isls.
In littoral sites.

Wedelia chinensis (Osbeck) Merr., PJS 12 c (1917) Bot. 111; EPFP 3 (1923) 611; --Peng et al., Fl. Taiwan ed. 2, 4 (1998) 1094, Plate 522; Photo 499.
India, SE Asia, China, Taiwan, Japan.
Paddy ridges, moist grassy fields,

Wedelia stenophylla Merr., PJS 30 (1926) 429. –Type: FB 29751 (UC*, iso). Mindanao: Misamis prov., on the top of Angyar Ridge, altitude c. 400m, 22 Jul 1924.

Wedelia trilobata (L.) Hitchc., Rep. (Annual) Missouri Bot. Gard. 4 (1893) 99; --Peng et al., Fl. Taiwan ed. 2, 4 (1998) 1097.
Native of tropical America. Widely cultivated as an ornamental ground cover. Escaping cultivation and fast becoming naturalized in many parts of the Philippines.

Youngia Cassini

Youngia japonica (L.) DC, Prodr. 7 (1838) 194; --Backer & Bakh.f., Fl. Java 2 (1965) 437; --Steen., Mountain Fl. Java (1972) Plate 9-8; --Peng et al., Fl. Taiwan ed. 2, 4 (1998) 1098, Plate 525; --Crepis japonica (L.) Benth., Fl. Hongkong. (1861) 194; --Merr., Fl. Manila (1912) 479; EPFP 3 (1923) 622; --Prenanthes japonica L., Mantissa (1767) 107.

India to Japan, across Malesia to Australia and the tropical Pacific isls.

Weed in clearings, talus slopes, riverbanks, etc.

Zinnia Linnaeus

Zinnia elegans Jacq., Icon. Pl. Rar. 3 (1793) t. 589;

Non-naturalized:

Achillea millefolium L., Sp. Pl. (1753) 899;

Europe, N Africa, Asia, introduced in Malesia, Australia, Tasmania, New Zealand, N & S America. LUZON: Benguet.

Boltonia

Carthamus tinctorius L., Sp. Pl. (1753) 830; --Merr., EPFP 3 (1923) 620.

Centaurea Linnaeus

Cichorium intybus L., Sp. Pl. (1753) 813; --Brown, WH., Useful Plants of the Philipp. 3 (1946) xxx; --Peng, CI et al. in: TC Huang (ed.). Fl. Taiwan, ed. 2, 4 (1998) 903.

Native of N Europe. Widely naturalized in North America.

Dahlia Cavanilles

Dahlia rosea Cav.

Dahlia variabilis (Willd.) Desf.

Native of Central America. Several forms cultivated as an ornamental.

Gaillardia Foug.

Gaillardia pulchella Foug.

Native of N America. Several forms cultivated here as an ornamental or as cut-flower.

Gerbera Cassini

Gerbera jamesonii Bolus ex Hook.

Native of South Africa. Cultivated as cut-flower in mountainous regions.

Rudbeckia spp. (check Steiner; Madulid)

Smallanthus

Solidago canadensis L.

Native of N America. Sometimes cultivated as an ornamental from lowlands to lower montane

regions.