

Family 257. SCROPHULARIACEAE

Literature:

Backer, CA & RC Bakhuizen van den Brink. 1965. Flora of Java 2: 498-515.

Liu, HY. 1998. Scrophulariaceae. In TC Huang (ed). Flora of Taiwan 2nd edition: 582-646.

Yamazaki, T. 1985. Flora of Cambodia, Laos, Vietnam 21: 1-217.

Adenosma R Brown

Adenosma bilabiatum (Roxb.) Merr., EPFP 3 (1923) 434; --Erinus bilabiatus Roxb., Hort. Beng. (1814) 47, nomen nudum; Fl. Ind. ed. 2, 3 (1832) 92.

India to Malaya.

LUZON: Nueva Vizcaya, Rizal, PALAWAN, MINDANAO: Bukidnon. Low and medium altitude thickets.

Adenosma javanicum (Blume) Koord., Exkursfl. Java 3 (1912) 175; --Merr., EPFP 3 (1923) 434; --Herpestis javanica Blume, Bijdr. (1826) 748.

Burma and Indochina through Malesia to the Moluccas.

LUZON: Pangasinan, Bulacan, Rizal, Laguna, PANAY, SAMAR, MINDANAO: Lanao del Sur, Surigao del Norte. Lowland and medium altitude forests along small streams.

Artanema D Don

Artanema longifolia (L.) Merr., EPFP 3 (1923) 436.

Tropical Asia and Malesia.

LUZON: Cagayan.

Bacopa Aublet

Bacopa floribunda (R Br.) Wettst. in Engl. & Prantl, Nat. Pflanzenfam. 4^{3b} (1891) 76; --Merr., Fl. Manila (1912) 422; EPFP 3 (1923) 435.

Tropical Africa, India, Java, and tropical Australia.

LUZON: Ilocos Norte, Zambales, Rizal. A characteristic rice paddy weed.

Bacopa monnieri (L.) Wettst. in Engl. & Prantl, Nat. Pflanzenfam. 4^{3b} (1891) 77; --Merr., Fl. Manila (1912) 422; EPFP 3 (1923) 435 ('monniera'); --Liu, HY in TC Huang (ed.), Fl. Taiwan ed. 2, 4 (1998) 585.

Pantropical.

LUZON: Ilocos Norte, Cagayan, Rizal, Laguna, CEBU. Lowland open wet places, chiefly within the influence of salt or brackish water.

Bythophyton Hooker *filius*

Bythophyton indicum (Hook.f. & Thomson) Hook.f., Fl. Brit. Ind. 4 (1884) 286; --Merr., EPFP 3 (1923) 436.

India (Khasya Mtns), N Philippines.

LUZON: Mountain Province (Mt Data). In shallow water, and along the marshy margin of a small pond, altitude c. 2200m.

Curanga Jussieu

Curanga fel-terrae (Lour.) Merr., Interpret. Herb. Amb. (1917) 467; --Merr., EPFP 3 (1923) 439.

India to Indochina through Malaya to the Moluccas.
LUZON: Kalinga, Cagayan, Laguna. Forested slopes at low altitudes, ascending to 400m; rare and local.

Dopatrium Buchanan-Hamilton

Dopatrium junceum (Roxb.) Buch.-Ham. ex Benth., Scroph. Ind. (1835) 31; --Merr., Fl. Manila (1912) 426; EPFP 3 (1923) 435; --Liu, HY in TC Huang (ed.), Fl. Taiwan ed. 2, 4 (1998) 589, pl. 268.

India to S China through Malesia to tropical Australia. Naturalized in North America.
LUZON: Rizal, PANAY. Lowland old rice paddies. Very local in the Philippines.

Ellisiophyllum Maximowicz

Ellisiophyllum pinnatum (Wall.) Makino, Bot. Mag. Tokyo 20 (1906) 91, t. 5; --Merr., EPFP 3 (1923) 441; --Liu, HY in TC Huang (ed.), Fl. Taiwan ed. 2, 4 (1998) 591, pl. 269, photo 310.

Nepal, India, China, Taiwan, Japan, N Philippines, Papua New Guinea.
LUZON: Benguet. Mossy forests on the highest mountains, altitude 2000-2400m.

Hemiphragma Wallich

Hemiphragma heterophyllum Wall., Tent. Fl. Nepal. (1824) 16, t. 8; --Merr., EPFP 3 (1923) 441; --Liu, HY in TC Huang (ed.), Fl. Taiwan ed. 2, 4 (1998) 597, pl. 272, photo 315.

Nertera dentata Elmer, LPB 1 (1906) 15. --Type: Elmer 6239 (BISH*, L*, NY*, US*, iso). Luzon: Benguet prov., Mt Sto Tomas, forming dense mats in clay-like soil at c. 2000m, May 1904.

E Himalayas, Burma, W and C China, Taiwan, Philippines.

LUZON: Mountain Province, Benguet. High montane regions, altitude 2000-2600m, in open grasslands, marshy borders of sluggish streams, etc.

Ilysanthes Rafinesque = *Lindernia*

Legazpia Blanco

Legazpia polygonoides (Benth.) T Yamazaki, J. Jap. Bot. 30 (1955) 359; --Liu, HY in TC Huang (ed.), Fl. Taiwan ed. 2, 4 (1998) 599; --*Torenia polygonoides* Benth., Scroph. Ind. (1835) 39; --Merr., EPFP 3 (1923) 437. --Type:

Taiwan (S tip), India across Malesia to New Guinea, Micronesia.

Throughout the Philippines in most islands and provinces. Lowland and medium altitude forests, old clearings, etc.

Limnophila R Brown

Limnophila aromatica (Lam.) Merr., Interpret. Herb. Amb. (1917) 466; --Merr., EPFP 3 (1923) 432; --Liu, HY in TC Huang (ed.), Fl. Taiwan ed. 2, 4 (1998) 599, pl. 273.

India to Taiwan, across Malesia to tropical Australia.

LUZON: Ilocos Norte, Mountain Province, Benguet, Nueva Vizcaya, Camarines, POLILLO, BUSUANGA, PALAWAN, MINDANAO: Davao. Lowlands to medium altitudes, ascending to 1600m, in marshes and open wet places.

Limnophila chinensis (Osbeck) Merr., Am. J. Bot. 3 (1916) 581; --Merr., EPFP 3 (1923) 433. India to S China to Borneo. MINDANAO: Lanao del Sur, Davao. Low and medium altitude open swampy places.

Limnophila fragrans (Forst. f.) Seemann, Fl. Vit. (1865) 180; --Merr., Fl. Manila (1912) 423; EPFP 3 (1923) 433. Malesia to tropical Australia and Polynesia. POLILLO. Lowland rice paddies.

Limnophila indica (L.) Druce, Bot. Exch. Club (Feb. 1914) 420; --Merr., EPFP 3 (1923) 433. India to Japan, across Malesia to tropical Australia. LUZON: Ilocos Norte, Pangasinan, Mountain Province, Benguet, Nueva Ecija, Rizal, Laguna, LEYTE, MINDANAO: Lanao del Sur, Bukidnon, Davao. Lowlands and medium altitudes, ascending to 1500m, in shallow sluggish streams.

Limnophila manilensis Merr., PJS 7 c (1912) Bot. 246; Fl. Manila (1912) 423; EPFP 3 (1923) 433. --Type: Merrill 7432 (US*, iso). Luzon: Manila and vicinity, Jan-Feb 1911. LUZON: Bulacan, Rizal. Lowlands, in wet fallow rice paddies.

Limnophila obovata Merr., PJS 20 (1922) 439; EPFP 3 (1923) 433. --Type: Merrill 7227 (L*, US*, iso). Palawan, Sept 1910. Borneo, SW Philippines. PALAWAN. Lowland, along small streams, often in shallow water, in shaded places.

Limnophila rugosa (Roth) Merr., Interpret. Herb. Amb. (1917) 466; --Merr., EPFP 3 (1923) 434; --Liu, HY in TC Huang (ed.), Fl. Taiwan ed. 2, 4 (1998) 601, photo 316. India, Indochina, Ryukyus, Taiwan, Malesia, Polynesia. LUZON: Mountain Province, Nueva Vizcaya, Pampanga, Bulacan, Camarines, Sorsogon, PALAWAN, PANAY, NEGROS, MINDANAO: Zamboanga. Lowlands, open wet places.

Limnophila stolonifera (Blanco) Merr., Sp. Blancoanae (1918) 345; EPFP 3 (1923) 434. --Type: Not extant. Possible neotype: Merrill Sp. Blancoanae 201. LUZON: Rizal. Lowland fallow rice paddies.

Lindernia Allioni

Lindernia anagallis (Burm.f.) Pennell, J. Arnold Arb. 24 (1943) 252; --Liu, HY in TC Huang (ed.), Fl. Taiwan ed. 2, 4 (1998) 604; --Vandellia anagallis (Burm.f.) Yamazaki, J. Jap. Bot. 30 (1955) 176; --Ruellia anagallis Burm.f., Fl. Ind. (1768) 135.

Lindernia cordifolia (Colsm.) Merr., EPFP 3 (1923) 437.

India, Burma, Indochina, S China, Taiwan, Ryukyus, Malesia to New Guinea, Australia. BABUYAN ISLS and N LUZON to MINDANAO. Sea-level to 1600m, in damp open places, old rice paddies, seepage slopes, etc.

Lindernia antipoda (L.) Alston in Trimen, Handbook Fl. Ceylon 6, suppl. (1931) 214; --Vandellia

antipoda (L.) Yamazaki, J. Jap. Bot. 30 (1955) 177; --Liu, HY in TC Huang (ed.), Fl. Taiwan ed. 2, 4 (1998) 604; --*Ilysanthes antipoda* Merr., Interpret. Herb. Amb. (1917) 467; --Merr., EPFP 3 (1923) 439; *Ruellia antipoda* L., Sp. Pl. (1753) 635.
Bonnaya veronicaefolia (Retz.) Sprengel, Syst. 1 (1825) 41; --Merr., Fl. Manila (1912) 426.
Nepal, India, Sri Lanka, Burma, Indochina, S and C China, Taiwan, Japan, Malesia, Papua New Guinea, Australia, Micronesia, Polynesia.
Throughout the Philippines. A characteristic rice paddy weed, usually very common.

Lindernia blancoi (Merr.) Philcox, Kew Bull. 22 (1968) 23; --*Torenia blancoi* Merr., Sp. Blancoanae (1918) 346; EPFP 3 (1923) 436; --*Vandellia multiflora* Blanco, Fl. Filip. (1837) 505, *non* G Don. -- Type: not extant; Neotype: Merrill Sp. Blancoanae 157, neotypified by Philcox, 1968 (NY*, US*, isoneo). Luzon: Rizal prov., thickets near Fort McKinley, 11 Oct 1914.
LUZON: Tarlac, Rizal. Low altitudes, on boulders in bamboo thickets and in recently cleared lands.

Lindernia ciliata (Colsm.) Pennell, Brittonia 2 (1936) 182; --*Vandellia ciliata* (Colsm.) Yamazaki, J. Jap. Bot. 30 (1955) 177; --Liu, HY in TC Huang (ed.), Fl. Taiwan ed. 2, 4 (1998) 605; --*Ilysanthes ciliata* (Colsm.) Kuntze, Rev. Gen. Pl. (1891) 461; --Merr., EPFP 3 (1923) 440; --*Gratiola ciliata* Colsm., Prodr. Desc. Gratiola (1793) 14.
Nepal, India, Burma, Indochina, S China, Taiwan, Ryukyu Isls, Malesia, Papua New Guinea, Australia, Micronesia, Polynesia.
LUZON: Pangasinan, Bulacan, Laguna, MINDANAO: Zamboanga. Low and medium altitudes, chiefly along streams and open places in forests.

Lindernia crustacea (L.) F Muell., Census (1882) 97; --Merr., EPFP 3 (1923) 437; --Liu, HY in TC Huang (ed.), Fl. Taiwan ed. 2, 4 (1998) 605; --*Vandellia crustacea* (L.) Benth., Scroph. Ind. (1835) 25; --*Capraria crustacea* L., Mant. Pl. (1767) 87.
Nepal, India, Sri Lanka, Indochina, China, Taiwan, Japan, Malesia, Papua New Guinea, Australia, Polynesia. Throughout the Philippines. Common weed in settlements, open sites, rice paddies, and disturbed soil generally.

Lindernia philippinensis Philcox, Kew Bull. 22 (1968) 23; --*Lindernia grandiflora* (Merr.) Merr., EPFP 3 (1923) 438, nom. illeg. --Type: Merrill 4359 (L*, lecto, designated by Philcox, 1968; isolecto NY*). Luzon: Benguet prov., Suyoc to Pauai, Oct-Nov 1905.
LUZON: Mountain Province, Benguet, MINDORO. On banks and cliffs and in open places along trails, altitude 1800-2400m.

Lindernia procumbens (Krock.) Borbas, Bekesm. Fl. (1881) 80; --Philcox, Kew Bull. 22 (1968) 30; --Liu, HY in TC Huang (ed.), Fl. Taiwan ed. 2, 4 (1998) 606; --*Anagaloides procumbens* Krock., Fl. Siles. 2 (1790) 398.
Lindernia pyxidaria Allioni, Misc. Taur. 3 (1755) 178; --Merr., EPFP 3 (1923) 438.
Tropical and subtropical regions of the Old World. LUZON: Nueva Vizcaya, Rizal, Laguna. Low and medium altitudes, in rice paddies and open wet sites. Very local in the Philippines.

Lindernia pusilla (Willd.) Boldingh, Zahl. Landoustr. Java (1916) 165; --Merr., PJS 11 c (1916) Bot. 312; EPFP 3 (1923) 438; --Liu, HY in TC Huang (ed.), Fl. Taiwan ed. 2, 4 (1998) 607, photo 318; --*Vandellia pusilla* (Thunb.) Merr., PJS 7 c (1912) Bot. 246; Fl. Manila (1912) 424; --*Gratiola pusilla* Willd., Sp. Pl. 1 (1797) 105.
Vandellia hirta (Cham. & Schlecht.) Yamazaki, J. Jap. Bot. 30 (1955) 174; --*Torenia hirta* Cham. & Schlecht., Linnaea 2 (1827) 571.
Africa to India, Sri Lanka, Burma, Indochina, S China, Taiwan, across Malesia, Polynesia.
Throughout the Philippines. Lowlands and medium altitudes, a common weed in cultivated soil, rice paddies, etc.

Lindernia serrata (Roxb.) F Muell., Census (18xx) 97; --*Ilysanthes serrata* (Roxb.) Urban, Ber. Deutsch. Gesellsch. 2 (1884) 436; --Merr., EPFP 3 (1923) 440; --*Gratiola serrata* Roxb., Fl. Ind. 1 (1820) 140.

Bonnaya brachiata Link & Otto, Icon. Pl. Sel. (1820-28) 25, t. 11; --Fern.-Villar, Novis. App. (1880) 148; --Merr., Fl. Manila (1912) 426; Sp. Blancoanae (1918) 348.

India to S China and Java.

N LUZON to MINDANAO, in most islands and provinces. Low and medium altitudes in the settled areas, in meadows, fallow rice paddies, etc.

Lindernia subconnivens Philcox, Kew Bull. 22 (1968) 23. --Type: Merrill 7652 (L*, iso). Luzon: Benguet prov., May 1911.

Lindernia viscosa (Hornem.) Boldingh, Zahl. Landoustr. Java (1916) 165; --Liu, HY in TC Huang (ed.), Fl. Taiwan ed. 2, 4 (1998) 608; --Merr., EPFP 3 (1923) 439.

Nepal, India, Burma, Indochina, S China, Taiwan, Malasia.

Throughout the Philippines. Common weed in rice paddies, cultivated lands, etc.

Microcarpaea R Brown

Microcarpaea minima (Koenig) Merr., PJS 7 c (1912) Bot. 100; EPFP 3 (1923) 436; --Liu, HY in TC Huang (ed.), Fl. Taiwan ed. 2, 4 (1998) 612, pl. 275.

Tropical and subtropical Asia to tropical Australia.

LUZON: Mountain Province. Rice paddies, altitude c. 1200m.

Scoparia Linnaeus

Scoparia dulcis L., Sp. Pl. (1753) 116; --Merr., Fl. Manila (1912) 420; EPFP 3 (1923) 441; --Liu, HY in TC Huang (ed.), Fl. Taiwan ed. 2, 4 (1998) 621, pl. 281.

Native of tropical America, now pantropic in distribution.

Throughout the Philippines. Low and medium altitudes, a very common weed in the settled areas.

Torenia Linnaeus

Torenia concolor Lindl., Bot. Reg. (1846) t. 62; --Merr., Fl. Manila (1912) 425; EPFP 3 (1923) 436; --Liu, HY in TC Huang (ed.), Fl. Taiwan ed. 2, 4 (1998) 629.

India, Indochina, S China, Taiwan, Ryukyus.

Cultivated in the Philippines for ornamental purposes.

Torenia violacea (Azaola ex Blanco) Pennell, J. Arnold Arb. 24 (1943) 255; --Liu, HY in TC Huang (ed.), Fl. Taiwan ed. 2, 4 (1998) 631; --*Mimulus violacea* Azaola ex Blanco, Fl. Filip. ed. 2 (1845) 357.

Torenia peduncularis Benth. in Wall., Cat. (1831) No. 3956, *nom. nud.*; --Hook.f., Fl. Brit. Ind. 4 (1884) 276; --Merr., EPFP 3 (1923) 436.

Africa, India, Burma, C and S China, Taiwan, Malasia to Papua New Guinea.

LUZON: Abra, Laguna, PALAWAN, MINDANAO: Zamboanga, Davao, Agusan. Low and medium altitude thickets, stream embankments, old rice paddies, etc.

Vandellia =Lindernia

Veronica Linnaeus

Veronica javanica Blume, Bijdr. (1826) 746; --Quisumb., PJS 41 (1930) 345; --Steen., Mountain Fl. Java (1972) Pl. 51-4; --Liu, HY in TC Huang (ed.), Fl. Taiwan ed. 2, 4 (1998) 632, pl. 288.
Tropical Africa, India, SE China, Taiwan, Japan, Ryukyus, Sumatra, Java, Philippines.
LUZON: Cordillera Highlands (Mt Data and Pauai). Near trails, altitude 2000m.

Veronica monantha Merr., PJS 5 c (1910) Bot. 385; EPFP 3 (1923) 441. --Type: Merrill 6593 (US*, iso). Luzon: Benguet prov., Mt Pulag, May 1909.
LUZON: Benguet (Mt Pulag). Mossy forest, altitude c. 2600m.

Non-naturalized:

Digitalis purpurea L., Sp. Pl. (1753) 622; --Liu, HY in TC Huang (ed.), Fl. Taiwan ed. 2, 4 (1998) 589.

Native of Europe. In the Philippines commonly cultivated as an ornamental at high altitudes, e.g. Cordillera Highlands of N Luzon.

Russelia equisetiformis Schlecht. & Cham., Linnaea 6 (1831) 377;
Russelia juncea Zucc., Flora 15 (1832) Beibl. 99; --Merr., Fl. Manila (1912) 421; EPFP 3 (1923) 431.
Native of Mexico. Cultivated for ornamental purposes, occasionally spontaneous on damp stone walls in towns.