

## Family 1. CYCADACEAE

### 1. *Cycas* Linnaeus

#### Revisions:

Laubenfels, DJ de & F Adema. 1998. *A taxonomic revision of the genera Cycas and Epicycas gen. nov. (Cycadaceae)*. Blumea 43: 351-400.

Lindstrom AJ, KD Hill & LC Stanberg. 2008. *The genus Cycas (Cycadaceae) in the Philippines*. Telopea 12 (1): 119-145.

***Cycas aenigma*** KD Hill & A Lindstr., Telopea 12 (2008) 130. --Type: ES Fernando 1617 (LBC, holo). Palawan: Puerto Princesa City, cult., 26 Jun 2001.

PALAWAN. Known only in cultivation in Puerto Princesa City, Palawan.

***Cycas curranii*** (J Schust.) KD Hill, Proceed. 3<sup>rd</sup> Internat. Conf. Cycad. Biol. (ed. P. Vorst.) (1995) 150; --Lindstrom et al., Telopea 12 (2008) 126; --*Cycas circinalis* L. var. *curranii* J Schust. In Engl., Pflanzenreich 99 (1932) 69. --Type: Curran 3842 (PNH, holo, destroyed; neotype in K, isoneo in P). Palawan: Molinao River, on river bank, Mar 1906.

*Cycas circinalis* auct. non L.; --Foxw., PJS 6 c (1911) Bot. 151, *pro parte*; --Amoroso, PJS 115 (1986) 182, t. 5, 7-9, 27-30.

*Cycas rumphii* auct. non Miq.: --Merr., Sp. Blancoanae (1918) 52; EPFP 1 (1922) 1, *pro parte*.

*Cycas silvestris* de Laub. & Adema, Blumea 43 (1998) 372, *non* KD Hill, 1992.

PALAWAN (Puerto Princesa; Aborlan; Narra). Apparently confined to lowland ultramafics, occurring in the understory of mixed closed forest, common on steep slopes, occasionally on alluvial outwash from ultramafic hills.

***Cycas edentata*** de Laub., Blumea 43 (1998) 373, Fig. 1, map 4; --Lindstrom et al., Telopea 12 (2008) 1. --Type: PNH 38877 Kondo & Edaño (L, holo; iso in A, BM). Sulu Archipelago: Mt Caducan, Jan-Feb 1957.

*Cycas circinalis* ssp. *riuminiana* var. *curranii* forma *maritima* Schuster, Pflanzenreich 99 (1932) 69. --Type: BS 15660 Fenix (K, lecto, designated by Lindstrom et al., 2008; isolecto L\*, US\*). Cagayan Island Group, Sulu Sea, Calusa Island, 29 July 1912.

*Cycas rumphii* auct. non Miq.; --Amoroso, PJS 115 (1986) 182, t. 2, 6, 17-19, 23-26.

Andaman Isls, Peninsular Thailand, Sumatra, Peninsular Malaysia, Java, Borneo, Philippines, Sulawesi, Lesser Sunda Isls.

LUZON, MINDORO, CULION, PALAWAN, BANCALAN, PANAY, NEGROS, OLANGO, HAMORAON (part of Masbate prov.), BASILAN, MINDANAO. Coastal vegetation and lowland rainforests immediately behind it. Rarely venturing far from the coast.

***Cycas lacrimans*** KD Hill & A Lindstr., Telopea 12 (2008) 136, Fig. 5. --Type: BS 48953 Ramos & Edaño (NY, holo; iso BM, BO, P). Mindanao: Davao Oriental prov., Mati, Mar-Apr 1927.

MINDANAO: Davao Oriental (Mati; San Isidro, Mt Galintan; Mt Hamiguitan). Forests over ultramafics on serpentine soil.

***Cycas nitida*** KD Hill & A Lindstr., Telopea 12 (2008) 136, Fig. 5. --Type: Female plant cultivated at Sydney Botanical Gardens (NSW 728768, holo), from Rapu-Rapu Island, E of Albay prov., Luzon, 2006.

DALUPIRI (in the Babuyan Isls Group), LUZON: Quezon, POLILLO, ALABAT, RAPU-RAPU. Littoral forests.

***Cycas riuminiana*** Porte ex Regel, Gartenfl. 12 (1863) 16, Fig. on p. 17; --de Laub., Blumea 43 (1998) 382, Map 6; --Lindstrom et al., Telopea 12 (2008) 132.

*Cycas circinalis* L. ssp. *riuminiana* (Porte) J Schust. In Engl., Pflanzenreich 99 (1932) 68. --Lectotype: Regel 62.10 (K, designated by de Laubenfels & Adema, 1998. Because of uncertainties on the status of this specimen as an authentic original material, Lindstrom et al. suggest designating this as neotype), cult. in Manila.

*Cycas chamberlainii* WH Brown & Kienholtz, PJS 26 (1925) 47, t. 1, 2, Fig. 1; --Merr., EPFP 4 (1925) 241; --

PM Zamora & Co, Guide Philipp. Fl. and Fauna 2 (1986) 219; --Amoroso, PJS 115 (1986) 181, Fig. 4, 14-16, 39-41. --Type: BS 42539 Brown & Kleinholz (PNH, holo, lost; iso in A, BM, K, L, NY\*(2 sheets), P, US\*). Luzon: Pampanga prov., Mt Arayat, 23 May 1923.

Philippines, Sulawesi, Moluccas.

BATAN, LUZON: Cagayan, Isabela (Mt Dipalayag), Pampanga (Mt Arayat), Bataan (Mt Mariveles, Lamao River), Cavite, Laguna, Batangas, MINDORO. Understorey of lowland rain forests, forested areas on ridges and mountains, in closed mixed evergreen forests usually on steep slopes, also in disturbed areas, often on limestone, 0-1030m.

**Cycas saxatilis** KD Hill & A Lindstr., *Telopea* 12 (2008) 128. --Type: SMHI 2035 Podzorski (L, holo). Palawan: St Paul's Bay, major outcrop to SE, pendulous on limestone cliff face, 6 Apr 1984. PALAWAN. Known only from St Paul's mountain massif, in crevices of vertical limestone cliffs with no soil.

**Cycas vespertilio** KD Hill & A Lindstr., *Telopea* 12 (2008) 134, Fig. 4. --Type: Lindstrom 06/008 (LBC, holo; iso NSW, BKF). Panay: Iloilo prov., Barotac Viejo, Barangay Lipata, Sitio Nagpana, Mt Opao, 4 Mar 2006.

LUZON: Camarines Sur (Panagan River), MINDORO: Mindoro Oriental (Mt Yagaw), MARINDUQUE (Torrijos, Bonliw, Talisay), PANAY: Iloilo (Barotac Viejo, Nagpana), NEGROS: Negros Oriental, CEBU, LEYTE: Leyte (Gigantangan), SAMAR. Hill forests, seasonally deciduous forests.

**Cycas wadei** Merr., PJS 60 (1936) 234; --PM Zamora & Co, Guide Philipp. Fl. and Fauna 2 (1986) 222, Fig. 4; --Amoroso, PJS 115 (1986) 183, Fig. 1, 20-22, 31-34; --de Laub. & Adema, *Blumea* 43 (1998) 385, Map 7; --Lindstrom et al., *Telopea* 12 (2008) 124. --Type: WH Brown, *s.n.* (PNH, holo, lost; iso in B, G, GH, K, L, 2 sheets\*, MO, 4 sheets\*, NY, 4 sheets\*, P. Culion Is. *Cycas cairnsiana* Merr., EPFP 1 (1922) 1, *non* F Muell. (1876-77).

CULION. Seasonally dry Imperata grassland periodically subjected to fire.

**Cycas zambalensis** Madulid & Agoo, *Blumea* 50 (2005) 519-522; --Lindstrom et al., *Telopea* 12 (2008) 138. --Type: PNH 173358 Madulid & Agoo (PNH, holo). Luzon: Zambales prov., San Antonio, Kawag, Bucao. Open grasslands on ultrabasic hills.

LUZON: Zambales. Only known from the type locality. Seasonally dry hilly grassland over chromite-rich ultramafics, scattered.

#### **Cultivated:**

**Cycas revoluta** Thunb., *Nova Acta Soc. Sci. Upsal.* 4 (1783) 40; --Merr., *Fl. Manila* (1912) 65; EPFP 1 (1922) 1; --De Laub., *Blumea* 43 (1998) 384.