

Etymological Compendium of Cycad Names

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INTRODUCTION

The botanical (or scientific) names of cycads are Latin (or Latinized) binomials consisting of a genus and a specific epithet. While some of these botanical names are self-explanatory, many are not. This document has been compiled as an educational resource to provide the etymological origins (or ‘meanings’) of all currently accepted cycad names. It will be modified as needed based on new species described or published changes in taxonomy or nomenclature. It should be noted that there is still some controversy regarding the synonymy and/or validity of certain names, particularly within the genus *Zamia*. Notes have been added to specific entries which may be controversial or where the validity of a particular name deviates from the most recent published version of the World List of Cycads (Osborne *et al.*, 2012)—which was used as the basis for the list of names provided below. Many of the etymologies follow Hill and Stevenson (2009) and/or Whitelock (2002), whereas the etymologies for many of the new taxa were obtained from the respective species descriptions.

GENERA

Below are the genera of extant cycads with their authorities, dates of publication, and etymological derivations.

***Bowenia* Hook. ex Hook.f. (1863)** – Honoring Sir George F. Bowen (1821-1899), first governor of Queensland, Australia.

***Ceratozamia* Brongn. (1846)** – From the Greek *ceratos* (‘horn’) and *Zamia* (a genus of cycads), referring to its characteristic bicornate (‘two-horned’) sporophylls.

***Cycas* L. (1753)** – From the Greek *koikas*, a kind of palm.

***Dioon* Lindl. (1843)** – From the Greek *dis* (‘two’) and *oon* (‘eggs’), referring to the paired seeds on each megasporophyll. (Note: All genera except *Cycas* have two seeds per megasporophyll; therefore, the derivation of this name is actually not specific to members of this genus.)

***Encephalartos* Lehm. (1834)** – From the Greek *en* (‘in’), *cephale* (‘head’), and *artos* (‘bread’), referring to flour obtained from the trunks (or ‘heads’) of some species by the indigenous tribespeople of Africa.

***Lepidozamia* Regel (1857)** – From the Greek *lepidos* (‘scale’) and *Zamia* (a genus of cycads).

***Macrozamia* Miq. (1842)** – From the Greek *makros* (‘large’) and *Zamia* (a genus of cycads).

***Microcycas* (Miq.) A. DC. (1868)** – From the Greek *micro* (‘small’) and *Cycas* (a genus of cycads).

***Stangeria* T. Moore (1853)** – Honoring Dr. Max Stanger, Surveyor General of Natal (now KwaZulu-Natal) Province, South Africa.

***Zamia* L. (1763)** – From the Greek *azaniae* (‘pine cone’), referring to its ‘pine cone-like’ reproductive structures.

SPECIES & SUBSPECIES

Below are the currently recognized species and subspecies of extant cycads with their authorities, dates of publication, and etymological derivations. The list of names is based on the most recent World List of

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Cycads (Osborne *et al.*, 2012). Discrepancies with, or deviations from, the World List are noted where relevant.

***Bowenia spectabilis* Hook. ex Hook. f. (1863)** – From the Latin *spectabilis* (‘visually striking’ or ‘remarkable’), referring to the unusual habit.

***B. serrulata* (W. Bull) Chamb. (1912)** – From the Latin *serrulatus* (‘finely serrate’ or ‘toothed’), referring to the toothed leaflet margins.

***Ceratozamia alvarezii* Pérez-Farrera, Vovides & Iglesias (1999)** – Honoring Mexican conservationist Miguel Alvarez del Toro.

***Cz. becerrae* Pérez-Farrera, Vovides & Schutzman (2004)** – Honoring Prof. Marco E. Becerra, who collected this species for the first time.

***Cz. brevifrons* Miq. (1847)** – Referring to its relatively short leaves.

***Cz. chimalapensis* Pérez-Farrera & Vovides (2004)** – Referring to Chimalapas, the region of endemism in Oaxaca, Mexico, with the Latin termination *-ensis* (‘place of origin’).

***Cz. decumbens* Vovides, Avendaño, Pérez-Farrera & González-Astorga (2008)** – From the Latin *decumbens* (meaning prostrate on the earth with the tips turning up), alluding to the decumbent nature of trunks in older, mature plants.

***Cz. euryphyllidia* Vasq. Torres, Sabato & D.W. Stev. (1986)** – From the Greek *eurys* (‘broad’) and *phyllon* (‘leaf’), with the diminutive *idion*, although technically referring to leaves, this epithet is actually referring to the extraordinarily broad leaflets.

***Cz. fuscoviridis* D. Moore (1878)** – From the Latin *fuscus* (‘dark grayish-brown’ or ‘dusky’) and *viridis* (green), referring to the brownish undersides and green upper sides of the leaflets. (Note: The original description of this species was invalid because Moore used the word “provisional” in his publication; this name and the associated taxon was recently [and validly] resurrected by Osborne *et al.* [2009].)

***Cz. hildae* G.P. Landry & M.C. Wilson (1979)** – Honoring Hilda Guerra Walker, daughter of the original collector.

***Cz. hondurensis* J.L. Haynes, Whitelock, Schutzman & R.S. Adams (2008)** – From Honduras, with the Latin termination *-ensis* (‘place of origin’), referring to the country of endemism.

***Cz. huastecorum* Avendaño, Vovides & Cast.-Campos (2003)** – From the *Huasteca* region of northern Veracruz State, Mexico.

***Cz. kuesteriana* Regel (1857)** – Honoring Baron K. von Kuester (?-1894), 19th century plant collector, with the Latin suffix *-ana* (‘a connection’).

***Cz. latifolia* Miq. (1848)** – From the Latin *latus* (‘wide’) and *folium* (‘leaf’), although technically referring to leaves, this epithet is actually referring to the distinctively broad leaflets.

***Cz. matudae* Lundell (1939)** – Honoring Eizi Matuda (1894-1978), Japanese born botanist who immigrated to Mexico, became a botanical explorer, and discovered this species in southern Chiapas.

***Cz. mexicana* Brongn. (1846)** – From Mexico, with the Latin suffix *-ana* (‘a connection’), referring to the country of origin.

***Cz. microstrobila* Vovides & J.D. Rees (1983)** – From the Greek *micros* (‘small’) and *strobilus* (‘pine cone’), referring to the small cones.

***Cz. miqueliana* H. Wendl. (1854)** – Honoring famed Dutch botanist F.A.W. Miquel (1811-1871).

***Cz. mirandae* Vovides, Pérez-Farrera & Iglesias (2001)** – Honoring Faustino Miranda, researcher of the flora of Chiapas.

***Cz. mixeorum* Chemnick & T.J. Greg. & S. Salas-Mor. (1998)** – Referring to the region of endemism in the Sierra de Oaxaca (also known as the Sierra Mixes), and the Mixe Indians who inhabit it.

***Cz. morettii* Vazques Torres & Vovides (1998)** – Honoring Prof. Aldo Moretti of the Orto Botanico, University of Naples, Italy, and leading researcher of New World cycads.

- Cz. *norstogii* D.W. Stev. (1982)** – Honoring Knut Norstog (1921-2003), American botanist and eminent student of cycads.
- Cz. *robusta* Miq. (1847)** – From the Latin *robusta* ('large' or 'robust'), referring to the large size.
- Cz. *sabatoi* Vovides, Vazques Torres, Schutzman & Iglesias (1993)** – Honoring Prof. Sergio Sabato, cycad taxonomist of the Orto Botanico, University of Naples, Italy.
- Cz. *santillanii* Pérez-Farrera & Vovides (2009)** – Honoring Prof. Trinidad Alemán Santillán for his accomplishments as Professor of Botany and Ecology at the University of Science & Arts of Chiapas (UNICACH) and in training young biologists in Chiapas, Mexico.
- Cz. *vovidesii* Pérez-Farrera & Iglesias (2007)** – Honoring Dr. Andrew P. Vovides, pioneer researcher of Mexican cycads.
- Cz. *whitelockiana* Chemnick & T.J. Greg. (1996)** – Honoring Loran Whitelock of Los Angeles, California, eminent student and collector of cycads.
- Cz. *zaragozae* Medellin-Leal (1963)** – Honoring General Ignacio Zaragoza (1829-1862), hero of the Mexican revolution.
- Cz. *zoquorum* Pérez-Farrera, Vovides & Iglesias (2001)** – Honoring the Zoque Indians who inhabit the region of endemism in Chiapas, Mexico.

- Cycas aculeata* K.D. Hill & H.T. Nguyen (2004)** – From the Latin *aculeatus* ('prickly'), referring to the prominent spines on the petiole.
- Cy. aenigma* K.D. Hill & A. Lindstr. (2008)** – From the Latin *aenigma* ('to speak darkly'), the root of the English word *enigma* ('a thing which cannot be satisfactorily explained'), referring to knowledge of this particularly distinctive species only as a cultivated plant.
- Cy. angulata* R. Br. (1810)** – From the Latin *angulatus* ('angled'), referring to the strong angle of insertion of the leaflets on the rachis.
- Cy. annaikalensis* Rita Singh & P. Radha (Singh & Radha, 2006)** – Referring to the region of endemism in the Annaikal Hills, western Ghats, India, with the Latin termination *-ensis* ('place of origin').
- Cy. apoa* K.D. Hill (1994)** – From a rendering of the local vernacular name in the Kaka language, as spoken around the Sepik estuary in northwestern New Guinea, pronounced AP-wah, with the first syllable stressed but short, as in 'cap'.
- Cy. arenicola* K.D. Hill (1993)** – From the Latin *arenarius* (pertaining to sand), with the suffix *-cola* ('dweller' or 'inhabitant'), referring to its occurrence in broken sandstone country.
- Cy. armstrongii* Miq. (1868)** – Honoring John Armstrong (1820-1902), collector for Kew Gardens appointed to establish a government garden at Port Essington, Australia, in 1838.
- Cy. arnhemica* K.D. Hill (1994)** – Referring to its occurrence in central Arnhem Land, Australia.
- subsp. *muninga* Chirgwin & K.D. Hill (1996)** – From a rendering of the vernacular name for this plant in the language of the Aboriginal people of Groote Eylandt.
- subsp. *natja* K.D. Hill (1996)** – From a rendering of the vernacular name for this plant in the Bureia language of the local Aboriginal people.
- Cy. badensis* K.D. Hill (1996)** – Referring to its occurrence on Badu Island, Australia, with the Latin termination *-ensis* ('place of origin').
- Cy. balansae* Warb. (1900)** – Honoring Benedict Balansa (1825-1892), French naturalist and botanical explorer who collected extensively for the Museum of Natural History in Paris, and spent the years 1885-1892 collecting in Tonkin (North Vietnam), where he died.
- Cy. basaltica* C.A. Gardner (1923)** – Referring to its occurrence on basaltic lithologies.

- Cy. beddomei* **Dyer (1885)** – Honoring English Col. Richard Henry Beddome (1830-1911), director of the Lal Bagh, or government gardens, Bangalore, and forestry botanist in India who (erroneously) first described it as *C. revoluta*.
- Cy. bifida* (**Dyer**) **K.D. Hill (2004)** – From the Latin *bi* ('two') and *fidus* ('divided'), referring to the dichotomously divided leaflets.
- Cy. bougainvilleana* **K.D. Hill (1994)** – Referring to its center of distribution on Bougainville Island, South Pacific, with the Latin suffix *-ana* ('a connection').
- Cy. brachycantha* **K.D. Hill (2004)** – From the Greek *brachys* ('short') and *acanthos* ('spine'), referring to the characteristically short petiolar spines.
- Cy. brunnea* **K.D. Hill (1992)** – From the late Latin *brunneus* ('brown'), referring to the brown trichomes on new growth that distinguish it from related taxa.
- Cy. cairnsiana* **F. Muell. (1876)** – Honoring Sir William Wellington Cairns (1828-1888), governor of Queensland, Australia.
- Cy. calcicola* **Maconochie (1978)** – From the Latin *calcareus* (pertaining to lime), with the suffix *-cola* ('dweller' or 'inhabitant'), referring to its occurrence on limestone outcrops.
- Cy. campestris* **K.D. Hill (1994)** – From the Latin *campestris* (pertaining to plains or meadows), referring to its occurrence in open, grassy country.
- Cy. canalis* **K.D. Hill (1994)** – From the Latin *canalis* ('canal' or 'channel'), referring to its occurrence at Channel Point, Australia.
- Cy. candida* **K.D. Hill (2004)** – From the Greek *candida* ('white'), referring to the white seeds.
- Cy. cantafolia* **Jutta, K.L. Chew & Saw (2010)** – Latin for singing leaves (*canto* = song, singing; *folium* = leaf), in reference to the name 'paku lagu' used by the local Temuan community that alludes to the sound created when the leaves rustle in the wind.
- Cy. chamaoensis* **K.D. Hill (1999)** – From the mountain of Khao Chamao, Thailand, the type locality and only known habitat, with the Latin termination *-ensis* ('place of origin').
- Cy. changjiangensis* **N. Liu (1998)** – Referring to its occurrence in Changjiang County, western Hainan Province, China, with the Latin termination *-ensis* ('place of origin').
- Cy. chevalieri* **Leandri (1931)** – Honoring French botanist, explorer, and historian Auguste Jean Baptiste Chevalier (1873-1956), General Inspector of Agriculture and Forestry in Vietnam and collector of the type specimen.
- Cy. circinalis* **L. (1753)** – From the Latin *circinus* ('spiral'), referring to the in-rolled leaflets of the developing leaves.
- Cy. clivicola* **K.D. Hill (1999)** – From the Latin *clivis* ('cliff'), with the suffix *-cola* ('dweller' or 'inhabitant'), referring to the cliff-dwelling habit and habitat.
- subsp. lutea** **K.D. Hill (1999)** – From the Latin *luteus* ('yellow'), referring to the yellow trunks.
- Cy. collina* **K.D. Hill (2004)** – From the Latin *collinus* (pertaining to hills), referring to its occurrence at moderate to high elevations in mountainous country of Vietnam.
- Cy. condaoensis* **K.D. Hill & S.L. Yang (2004)** – Referring to its endemic occurrence on the Con Dao group of islands off the coast of Vietnam, with the Latin termination *-ensis* ('place of origin').
- Cy. conferta* **Chirgwin ex Chirgwin & Wigston (1993)** – From the Latin *confertus* ('crowded'), referring to the close crowding of the leaflets on the rachis.
- Cy. couttsiana* **K.D. Hill (1992)** – Honoring Pat and David Coutts, cycad enthusiasts of Townsville, Australia, who brought this species to botanical attention and who were endeavoring to ensure its conservation in habitat.
- C. cupida* **P.I. Forst. (2001)** – From the Latin *cupidus* ('desirous'), alluding to the desirability of this plant to collectors.

- Cy. curranii* (J. Schust.) K.D. Hill (1995) – Honoring Hugh McCullom Curran III, American botanist who worked as forest officer for the Bureau of Forestry in Manila, Philippines, and collector of the type specimen.
- Cy. debaoensis* Y.C. Zhong & C.J. Chen (1997) – Referring to its occurrence in the county of Debao, western Guangxi Province, China, with the Latin termination *-ensis* (‘place of origin’).
- Cy. desolata* P.I. Forst. (1995) – From the Latin *desolatus* (‘ruinous’ or ‘desolate’), referring to the austere habitat near Charters Towers, northeastern Australia.
- Cy. diannanensis* Z.T. Guan & G.D. Tao (1995) – Referring to its occurrence in the municipality of Diannan, Gejiu County, Yunnan Province, China, with the Latin termination *-ensis* (‘place of origin’).
- Cy. dolichophylla* K.D. Hill (2004) – From the Greek *dolichos* (‘long’) and *phyllon* (‘leaf’), referring to the long leaves.
- Cy. edentata* de Laub. (1998) – From the Latin *dentata* (‘toothed’), with the Latin prefix *e-* (‘without’), referring to the smooth margins of the megasporophyll apices.
- Cy. elephantipes* A. Lindstr. & K.D. Hill (2003) – From a combination of ‘elephant’ and the Latin *pes* (‘foot’), referring to the distinctive, large, swollen base.
- Cy. elongata* (Leandri) D.Yue Wang (1996) – From the Latin *elongatus* (‘elongated’), referring to the elongated apical spine on the megasporophylls. (Note: This is not a constant character in this species.)
- Cy. falcata* K.D. Hill (1999) – From the Latin *falcatus* (‘falcate’ or ‘curved in a sickle-shape’), referring to the distinctively curved leaflets.
- Cy. ferruginea* F.N. Wei (1994) – From the Latin *ferruginea* (‘rusty red’), referring to the abundant, deep red tomentum on the new growth and persisting to some extent on the older leaves.
- Cy. fugax* K.D. Hill, T.H. Nguyen & K.L. Phan (2004) – From the Latin *fugax* (‘fleeting’ or ‘ephemeral’), referring to its near extinction before this species was recognized as a distinct botanical entity.
- Cy. furfuracea* W. Fitzg. (1918) – From the Latin *furfuraceus* (‘scuffy’), referring to the persistent trichomes on the leaves.
- Cy. glauca* Hort. Ex Miq. (1840-41) – From the Greek *glaucus* (with a bluish waxy bloom), referring to the bluish glaucous leaves.
- Cy. guizhouensis* K.M. Lan & R.F. Zou (1983) – Referring to its occurrence in Guizhou Province, China, with the Latin termination *-ensis* (‘place of origin’).
- Cy. hainanensis* C.J. Chen (1975) – Referring to its occurrence in the island province of Hainan, China, with the Latin termination *-ensis* (‘place of origin’).
- Cy. hoabinhensis* K.L. Phan & T.H. Nguyen (2004) – Referring to its occurrence in Hoa Binh Province, northern Vietnam, with the Latin termination *-ensis* (‘place of origin’).
- Cy. hongheensis* S.Y. Yang & S.L. Yang (1996) – Referring to its occurrence near Honghe (the Red River), southeastern Yunnan, China, with the Latin suffix *-ensis* (‘place of origin’).
- Cy. indica* A. Lindstr. & K.D. Hill (2007) – Referring to its endemic occurrence in India.
- Cy. inermis* Lour. (1793) – From the Latin *inermis* (‘unarmed’), reference uncertain, since the petiole is not thornless—although the soft leaves in contrast to the stiff, pungent leaflets of *C. revoluta* may have suggested the name.
- Cy. javana* (Miq.) de Laub. (1996) – Referring to its occurrence on, and initial collection from, the island of Java, with the Latin suffix *-ana* (‘a connection’).
- Cy. lacrimans* A. Lindstr. & K.D. Hill (2008) – From the Latin *lacrimans* (‘crying’), referring to the drooping or weeping habit of the leaves.
- Cy. lane-poolei* C.A. Gardner (1923) – Honoring Charles Edward Lane-Poole (1885-1970), conservator of forests for Western Australia.

- Cy. lindstromii** S.L. Yang, K.D. Hill & T.H. Nguyen (1997) – Honoring Anders Lindström, cycad enthusiast from Stockholm, Sweden, and current curator of cycads at Nong Nooch Tropical Garden near Pattaya, Thailand, who assisted in the initial discovery of this species.
- Cy. maconochiei** Chirgwin & K.D. Hill (1996) – Honoring John Maconochie (1941-1984), botanist with Northern Territory, Australia, who had commenced a major revision of the genus *Cycas*.
- subsp. lanata** K.D. Hill (1996) – From the Latin *lanatus* ('woolly'), referring to the densely hairy cataphylls.
- subsp. viridis** K.D. Hill (1996) – From the Latin *viridis* ('green'), referring to the bright green leaves.
- Cy. macrocarpa** Griff. (1854) – From the Greek *makros* ('large') and *karpos* ('fruit'), referring to the large seeds.
- Cy. media** R. Br. (1810) – From the Latin *media* ('middle'), possibly referring to the morphologically intermediate form of this species in between the other two species of *Cycas*—*C. angulata* and *C. thouarsii*—that Robert Brown described in the same publication.
- subsp. banksii** K.D. Hill (1996) – Honoring Sir Joseph Banks, botanist on Cpt. Cook's voyage and the first European to collect this taxon.
- subsp. ensata** K.D. Hill (1996) – From the Latin *ensatus* ('sword'), referring to the unusually long, sharp cataphylls.
- Cy. megacarpa** K.D. Hill (1992) – From the Greek *mega* ('large') and *karpos* ('fruit'), referring to the distinctive large seeds.
- Cy. micholitzii** Dyer (1905) – Honoring William Micholitz (1854-1932), discoverer of this species and a collector for Sander and Sons, an English nursery of the early 1900's that first introduced it into cultivation.
- Cy. micronesica** K.D. Hill (1994) – Referring to its endemic occurrence in Micronesia.
- Cy. montana** A. Lindstr. & K.D. Hill (2009) – Referring to its mountainous habitat on Flores, Indonesia.
- Cy. multipinnata** C.J. Chen & S.Y. Yang (1994) – From the Latin *pinnatus* ('pinnate'), with the compound prefix *multi-* ('many'), referring to the complexly branched leaflets.
- Cy. nathorstii** J. Schust. (1932) – Honoring Swedish palaeobotanist Alfred Gabriel Nathorst (1850-1921), professor at the Natural History Museum in Stockholm.
- Cy. nitida** K.D. Hill & A. Lindstr. (2008) – From the Latin *nitida* ('shining'), referring to the extremely glossy leaves.
- Cy. nongnoochiae** K.D. Hill (1999) – Honoring the Nong Nooch Tropical Garden near Pattaya, Thailand, supporters of the study of Thai cycads.
- Cy. ophiolitica** K.D. Hill (1992) – From the Greek *ophis* or *ophios* ('serpent' or 'snake') and *lithos* ('stone' or 'rock'); in combination, 'ophiolite' is used for the rock serpentinite, referring to its occurrence on serpentinite-derived soils.
- Cy. orientis** K.D. Hill (1994) – From the Latin *orientis* ('of the east'), referring to its occurrence in the east of Arnhem Land, Australia.
- Cy. pachypoda** K.D. Hill (2004) – From the Greek *pachys* ('thick') and *podos* ('foot'), referring to the distinctive broad trunk base.
- Cy. panzhihuaensis** L. Zhou & S. Y. Yang (1981) – Referring to its natural occurrence in the Panzhihua Prefecture of southern Sichuan Province, China, with the Latin termination *-ensis* ('place of origin').
- Cy. papuana** F. Muell. (1876) – Referring to its original collection from the British Territory of Papua, with the Latin suffix *-ana* ('a connection').
- Cy. pectinata** Buch.-Ham. (1826) – From the Latin *pectina* ('comb'), referring to the long, comb-like teeth of the megasporophylls.

- Cy. petraea* **A. Lindstr. & K.D. Hill (2003)** – From the Latin *petraeus* (‘of rocky places’), referring to the habitat of bare limestone cliffs and boulders.
- Cy. platyphylla* **K.D. Hill (1992)** – From the Greek *platys* (‘broad’) and *phyllon* (‘leaf’), referring to the broad, sterile tip of the megasporophylls.
- Cy. pranburiensis* **S.L. Yang, W. Tang, K.D. Hill & P. Vatcharakorn (1999)** – Referring to its occurrence in the province of Pranburi, Thailand, with the Latin termination *-ensis* (‘place of origin’).
- Cy. pruinosa* **Maconochie (1978)** – From the Latin *pruinus* (‘covered with a waxy whitish bloom’), referring to the glaucous, whitish-blue leaves.
- Cy. revoluta* **Thunb. (1782)** – From the Latin *revolutus* (‘rolled’), referring to the rolled leaflet margins.
- Cy. riuminiana* **Porte ex Regel (1863)** – Honoring Mr. Riumin, 1863 president of the Moscow Garden Tree Society.
- Cy. rumphii* **Miq. (1839)** – Honoring German-born Dutch naturalist Georg Eberhard Rumpf (a.k.a. Rumphius, 1628-1702), botanist, merchant, and physician with the Dutch East India Company in Ambon.
- Cy. saxatilis* **K.D. Hill & A. Lindstr. (2008)** – From the Latin *saxatilis* (‘dwelling among rocks’), referring to the soil-free cliff-face habitat.
- Cy. schumanniana* **Lauterb. (1900)** – Honoring German botanist Prof. Dr. Karl Moritz Schumann (1851-1904), curator of the Botanical Museum of Berlin.
- Cy. scratchleyana* **F. Muell. (1885)** – Honoring English military engineer and colonial administrator Sir Peter Henry Scratchley (1835-1885), Special Commissioner for the Territory of New Guinea.
- Cy. seemannii* **A. Braun (1876)** – Honoring German naturalist and publisher Berthold Carl Seemann (1825-1871), collector of the type, who trained as a botanical collector and left most of his collections at Kew.
- Cy. segmentifida* **D.Yue Wang & C.Y. Deng (1995)** – From the Latin *segmentatus* (‘segmented’), referring to the finely dichotomously branching marginal spines of the megasporophyll lamina.
- Cy. semota* **K.D. Hill (1996)** – From the Latin *semotus* (‘remote’ or ‘distant’), referring to its occurrence in the farthest extremity of Cape York Peninsula, Australia.
- Cy. sexseminifera* **F.N. Wei (1996)** – From the Latin *sex* (‘six’) and *seminifera* (‘seed-bearing’), in the misplaced belief that the six seeds observed on the megasporophyll of the type specimen were diagnostic.
- Cy. shanyaensis* **G.A. Fu (2006)** – Referring to its occurrence in the Shanya district, southern Hainan Province, China, with the Latin termination *-ensis* (‘place of origin’).
- Cy. siamensis* **Miq. (1863)** – Referring to its occurrence in Thailand, known as the Kingdom of Siam when this species was described, with the Latin termination *-ensis* (‘place of origin’).
- Cy. silvestris* **K.D. Hill (1992)** – From the Latin *silvestris* (‘of the forests’), referring to the closed forest habitat.
- Cy. simplicipinna* **(Smitinand) K.D. Hill (1995)** – From the Latin *pinna* (‘first division of a compound leaf’), with the compound prefix *simplici-* (‘simple’), referring to the simple leaflets—in contrast to the divided leaflets of *C. micholitzii*, of which this species was initially regarded as a variety.
- Cy. sphaerica* **Roxb. (1832)** – From the Latin *sphaerica* (‘spherical’), referring to the rounded seeds.
- Cy. sundaica* **Miq. ex A. Lindstr. & K.D. Hill (2009)** – Referring to its endemic occurrence within the Sunda Island group, Indonesia.
- Cy. szechuanensis* **C.Y. Cheng, W.C. Cheng & L.K. Fu (1975)** – Referring to Szechuan (Sichuan) Province, China, with the Latin termination *-ensis* (‘place of origin’), in the mistaken assumption that this species was native to the region from which the cultivated type specimen was collected. (Note: It is actually known only from eastern Fujian Province, China.)

- subsp. *fairylakea* (D.Yue Wang) N. Liu (1996)** – Referring to the Shenzhen Fairy Lake Botanic Garden, China, from which the cultivated type specimen was collected.
- Cy. taitungensis* C.F. Shen, K.D. Hill, C.H. Tsou & C.J. Chen (1994)** – Referring to its occurrence in the prefecture of Taitung, a mountainous region in southeastern Taiwan, with the Latin termination *-ensis* (‘place of origin’).
- Cy. taiwaniana* Carruth. (1893)** – Referring to Taiwan, from where this species was (erroneously) thought to originate, with the Latin suffix *-ana* (‘a connection’).
- Cy. tanqingii* D.Yue Wang (1996)** – Honoring Tan-Qing, director of the Shenzhen Fairy Lake Botanic Garden in Shenzhen, China, at the time this species was described.
- Cy. tansachana* K.D. Hill & S.L. Yang (1999)** – Honoring Kampon Tansacha, with the Latin suffix *-ana* (‘a connection’), current director of the Nong Nooch Tropical Gardens near Pattaya, Thailand, who was instrumental in its discovery.
- Cy. terryana* P.I. Forst. (2011)** – Honoring Irene Terry, University of Utah, in recognition of her ground-breaking work on cycad pollination in Australia and Guam.
- Cy. thouarsii* R. Br. ex Gaudich (1829)** – Honoring French botanist Louis-Marie Aubert du Petit-Thouars (1758-1831), who worked extensively in Africa and who, in 1804, mistakenly identified it as the Indian species *C. circinalis*.
- Cy. tropophylla* K.D. Hill & S.L. Yang (2004)** – From the Greek *tropos* (‘boat keel’) and *phyllon* (‘leaf’), referring to the distinctively keeled leaves, which are unique among the cycads of northern Vietnam.
- Cy. tuckeri* K.D. Hill (1996)** – Honoring Robert Tucker (1955-1992), director of the Parks and Gardens Department, Townsville, Australia, and keen naturalist and horticulturist who recognized its distinctive nature.
- Cy. vespertilio* A. Lindstr. & K.D. Hill (2008)** – From the Latin *vespertilio* (‘a bat’), from vesper (evening), literally ‘the little one of the evening’, referring to the wing-like extensions on the megasporophyll apex.
- Cy. wadei* Merrill (1936)** – Honoring Dr. H. Windsor Wade (1886-1968), U.S.-born medical doctor working in the Philippines who brought this species to the attention of its author.
- Cy. xipholepis* K.D. Hill (1996)** – From the Greek *xiphos* (‘sword’) and *lepis* (‘scale’), referring to the long, hard, pungent cataphylls.
- Cy. yorkiana* K.D. Hill (1996)** – Referring to its occurrence in Cape York Peninsula, Australia, with the Latin suffix *-ana* (‘a connection’).
- Cy. zambalensis* Madulid & Ago (2005)** – Referring to its endemic occurrence in Zambales, Luzon Island, Philippines, with the Latin termination *-ensis* (‘place of origin’).
- Cy. zeylanica* (J. Schust.) A. Lindstr. & K.D. Hill (2002)** – From ‘Zeylona’, the Latinized rendering of Ceylon (Sri Lanka), referring to where the type was collected (as *C. rumphii*).

***Dioon angustifolium* Miq. (1848)** – From the Latin *angusti-* (‘narrow’) and *folius* (‘leaf’), although technically referring to leaves, this epithet is actually referring to the narrow leaflets.

***D. argenteum* T.J. Greg, Chemnick, S. Salas-Mor. & Vovides (2003)** – From the Latin *argenteus* (‘of silver’), referring to the persistent silvery tomentum on the leaves.

***D. califanoi* De Luca & Sabato (1979)** – Honoring Luigi Califano (1901-1976) of the Accademia Nazionale dei Lincei, Italy, who introduced the authors to the dioons of Mexico.

***D. caputoi* De Luca, Sabato & Vásq. Torres (1980)** – Honoring Giuseppe Caputo, professor of botany and director of Orto Botanico, University of Naples, Italy.

***D. edule* Lindl. (1843)** – From the Latin *edulis* (‘edible’), referring to the use of the seeds as food.

- D. holmgrenii* De Luca, Sabato & Vásq. Torres (1981)** – Honoring Noel Herman Holmgren, taxonomist and curator at New York Botanical Garden.
- D. mejiae* Standl. & L.O. Williams (1951)** – Honoring Dr. Isidoro Mejia H. (?-1950) of Danlí, Honduras, from whose garden the type specimen was collected.
- D. merolae* De Luca, Sabato & Vásq. Torres (1981)** – Honoring Aldo Merola (1924-1980), director of the botanical garden of the University of Naples, Italy, in recognition of his knowledge and conservation of cycads.
- D. purpusii* Rose (1909)** – Honoring Carl Anton Purpus (1853-1914), one of the leading researchers in Mexico at the turn of the 20th century.
- D. rzedowskii* De Luca, A. Moretti, Sabato & Vásq. Torres (1980)** – Honoring Jerzy Rzedowski, prominent taxonomist and researcher of Mexican flora.
- D. sonorensis* (De Luca, Sabato & Vásq. Torres) Chemnick & T.J. Greg. & S. Salas-Mor. (1998)** – Referring to its occurrence in the Mexican state of Sonora.
- D. spinulosum* Dyer ex Eichler (1883)** – From the Latin *spinulosus* ('spiny'), referring to the spiny leaflet margins.
- D. stevensonii* Nicolalde-Morejón & Vovides (2009)** – Honoring Dennis Wm. Stevenson of the New York Botanical Garden, for his many contributions to cycad research.
- D. tomasellii* De Luca, Sabato & Vásq. Torres (1984)** – Honoring Ruggero Tomaselli (1920-1982), professor of botany at the University of Pavia and president of the Italian Botanical Society.

- Encephalartos aemulans* Vorster (1990)** – From the Latin *aemulans* ('equalling'), referring to the similar male and female cones.
- E. altensteinii* Lehm. (1834)** – Honoring Karl Altenstein (1770-1840), 19th century Prussian statesman and patron of science.
- E. aplanatus* Vorster (1996)** – From the Latin *planatus* ('flat'), with the modifying prefix *a-* ('not'), referring to the twisted and undulated leaflets.
- E. arenarius* R.A. Dyer (1956)** – From the Latin *arenarius* ('sandy'), referring to the habitat on relic beach dune deposits.
- E. barteri* Carruth. ex Miq. (1868)** – Honoring Charles Barter (?-1859), collector of the type specimen in northern Nigeria.
- subsp. *allochrous* L.E. Newton (1978)** – From the Greek *allochroous* ('changing color'), presumably referring to the emergent leaves changing color from brownish to green.
- E. brevifoliolatus* Vorster (1996)** – From the Latin *brevis* ('short') and *foliola* ('leaflet'), referring to the shorter leaflets, which distinguish it from the similar *E. laevifolius*.
- E. bubalinus* Melville (1957)** – From the Latin *bubalinus* ('buff'), referring to the buff-brown tomentum on the cataphylls and leaf bases.
- E. caffer* (Thunb.) Lehm. (1834)** – Referring to its occurrence in the Caffrara region of the eastern Cape Province, South Africa.
- E. cerinus* Lavranos & D.L. Goode (1989)** – From the Latin *cerina* ('wax'), referring to the heavy waxy coating that gives the leaves a bluish color.
- E. chimanimaniensis* R.A. Dyer & I. Verd. (1969)** – Referring to its endemic occurrence in the Chimanimani Mountains, eastern Zimbabwe, with the Latin termination *-ensis* ('place of origin').
- E. concinnus* R.A. Dyer & I. Verd. (1969)** – From the Latin *concinnus* ('neat' or 'trim'), referring to the compact and attractive habit.

- E. cupidus* **R.A. Dyer (1971)** – From the Latin *cupidus* (‘desirable’), referring to the striking form, thought by the author to render it desirable to cycad collectors.
- E. cycadifolius* (**Jacq.) Lehm. (1834)** – From *cycadis*, a Latinized form of *Cycas*, with the Latin *folius* (‘leaf’), referring to the *Cycas*-like leaves.
- E. delucanus* **Malaisse, Sclavo & Crosiers (1992)** – Honoring Prof. Paolo Deluca, University of Naples, Italy, well-known student of cycads.
- E. dolomiticus* **Lavranos & D.L. Goode (1988)** – Referring to dolomite, a type of magnesium-rich limestone that makes up the soil in the region of endemism, with the Latin suffix *-iticus* (‘belonging to’ or ‘having to do with’).
- E. dyerianus* **Lavranos & D.L. Goode (1988)** – Honoring 20th century South African botanist R. Allen Dyer (1900-1987), student and monographer of South African cycads.
- E. equatorialis* **P.J.H. Hurter (1995)** – Referring to its habitat near the equator (northern shore of Lake Victoria, Uganda).
- E. eugene-maraisii* **I. Verd. (1945)** – Honoring Eugene Marais (1872-1936), South African naturalist and writer who first reported this species.
- E. ferox* **Bertol. f. (1851)** – From the Latin *ferox* (‘fierce’), referring to the stiff, sharply spiny leaflets.
- E. friderici-guilielmi* **Lehm. (1834)** – Honoring Friedrich Wilhelm III (1770-1840) (Latinized to *friderici guilielmi*), 19th century king of Prussia and patron of science.
- E. ghellinckii* **Lem. (1867)** – Honoring Édouard de Ghellink de Walle, 19th century Belgian horticulturist and amateur botanist.
- E. gratus* **Prain (1916)** – From the Latin *gratus* (‘pleasing’), referring to the pleasing appearance.
- E. heenanii* **R.A. Dyer (1972)** – Honoring Denis Heenan of Swaziland, who recognized it as a distinct species and brought it to the attention of Robert Allen Dyer.
- E. hildebrandtii* **A. Braun & C.D. Bouché (1874)** – Honoring Johann Maria Hildebrandt (1847-1881), 19th century German explorer, botanist, and collector of the type specimen.
- E. hirsutus* **P.J.H. Hurter (1996)** – From the Latin *hirsutus* (‘hairy’), referring to the persistent tomentum.
- E. horridus* (**Jacq.) Lehm. (1834)** – From the Latin *horridus* (‘horrible’), referring to the stiff, spiny leaflets.
- E. humilis* **I. Verd. (1951)** – From the Latin *humilis* (‘humble’ or ‘lowly’), referring to the small stature.
- E. inopinus* **R.A. Dyer (1964)** – From the Latin *opinus* (‘expected’), with the modifying prefix *in-* (‘not’), referring to its unexpectedly dry habitat (atypical for South African cycads).
- E. ituriensis* **Bamps & Lisowski (1990)** – Referring to its endemic occurrence in the Ituri Forest, northeastern Democratic Republic of the Congo (Zaire), with the Latin termination *-ensis* (‘place of origin’).
- E. kisambo* **Faden & Beentje (1989)** – From its vernacular name in the Taita language of the local people of the Taita Hills region of southern Kenya, where it is endemic.
- E. laevifolius* **Stapf & Burt Davy (1926)** – From the Latin *laevis* (‘smooth’) and *folius* (‘leaf’), referring to the lack of tomentum on the leaves compared to the related *E. lanatus*.
- E. lanatus* **Stapf & Burt Davy (1926)** – From the Latin *lanatus* (‘woolly’), referring to the persistently tomentose apex.
- E. latifrons* **Lehm. (1837)** – From the Latin *latus* (‘broad’) and *frons* (fern ‘frond’ or ‘leaf’), actually a misnomer since it is the leaflets that are broad and not the leaves.
- E. laurentianus* **De Wild. (1903)** – Honoring 19th century Belgian collector Emile Laurent (1861-1904), who introduced this species into cultivation.

- E. lebomboensis* I. Verd. (1949)** – Referring to the type locality in the Lebombo Mountains, northern KwaZulu-Natal Province, South Africa, with the Latin termination *-ensis* (‘place of origin’).
- E. lehmannii* Lehm. (1834)** – Honoring Johann Georg Christian Lehmann (1792-1860), director of the botanical gardens in Hamburg, Germany, and researcher of cycads.
- E. longifolius* (Jacq.) Lehm. (1834)** – From the Latin *longis* (‘long’) and *folius* (‘leaf’), referring to the relatively long leaves.
- E. mackenziei* L.E.Newton (2001)** – Honoring Paul Mackenzie, proprietor of the Rosslyn River Garden Centre, Nairobi, Kenya, and collector of the type specimen.
- E. macrostrobilus* S. Jones & J. Wynants (1997)** – From the Latin *macro* (‘large’) and *strobilus* (‘pine cone’), referring to the large cones.
- E. manikensis* (Gilliland) Gilliland (1939)** – Referring to its discovery in the Manica region of southern Rhodesia (now Zimbabwe), with the Latin termination *-ensis* (‘place of origin’).
- E. marunguensis* Devred (1958)** – Referring to its discovery in the Marungu Mountains, southeastern Zaire (now Democratic Republic of the Congo), with the Latin termination *-ensis* (‘place of origin’).
- E. middelburgensis* Vorster (1989)** – Referring to Middelburg, Mpumalanga Province, South Africa, the town near where this species was discovered, with the Latin termination *-ensis* (‘place of origin’).
- E. msinganus* Vorster (1996)** – Referring to its occurrence in the Msinga district, southeastern Natal (now KwaZulu-Natal) Province, South Africa, with the Latin termination *-anus* (‘of’).
- E. munchii* R.A. Dyer & I. Verd. (1969)** – Honoring Raymond C. Munch of Zimbabwe (1901-1985), collector of cycads and student of the *E. manikensis* complex in Zimbabwe and Mozambique.
- E. natalensis* R.A. Dyer & I. Verd. (1951)** – Referring to its discovery in the province of Natal (now KwaZulu-Natal), South Africa, with the Latin termination *-ensis* (‘place of origin’).
- E. ngoyanus* I. Verd. (1949)** – Referring to the type locality in the Ngoya Forest, northeastern KwaZulu-Natal Province, South Africa, with the Latin termination *-anus* (‘of’).
- E. nubimontanus* P.J.H. Hurter (1995)** – According to authority Johan Hurter (pers. comm.), the epithet is from the Latin *nubilus* (‘cloud’) and *montanus* (‘mountain’), with the Latin termination *-anus* (‘of’), referring to the Wolkberg region (Wolkberg translated to English literally means ‘cloud mountain’), Northern (now Limpopo) Province, South Africa, where this species is endemic (although it is now thought to be extinct in the wild). (Note: At least two other erroneous derivations for the first half of this epithet can be found in the literature: Whitelock [2002] stated that it is from the Latin *nubilus*, meaning ‘gray-blue’ and referring to the leaf color, while Hill and Stevenson [2009] stated that it is from the Latin *nubis*, meaning ‘black’, with no additional information provided.)
- E. paucidentatus* Stapf & Burtt Davy (1926)** – From the Latin *pauci* (‘few’) and *denta* (‘teeth’ or ‘toothed’), referring to the relatively smooth margins of the leaflets.
- E. poggei* Asch. (1878)** – Honoring Paul Pogge (1838–1884), 19th century German collector in Central Africa, who discovered it in 1876 while traveling in the Belgian Congo (now the Democratic Republic of the Congo).
- E. princeps* R.A. Dyer (1965)** – According to authority Robert Allen Dyer in the original description, “[t]he specific epithet was chosen because it reflects the thought that *E. princeps* has had a longer history and has a more stately habit than its near allies *E. lehmannii* and *E. trispinosus*” (Whitelock, 2002). (Note: The Latin *princeps* literally means ‘primary’ or ‘first’.)
- E. pterogonus* R.A. Dyer & I. Verd. (1969)** – From the Latin *pteron* (‘wing’) and *gonas* (seed’), referring to the distinctive wing-like and toothed appendages below the terminal facet of the microsporophylls.
- E. relictus* P.J.H. Hurter (2001)** – Described for posterity as a relict species as it was already extinct in the wild when the description was published.

- E. schaijesii* Malaisse, Sclavo & Crosiers (1993) – Honoring Michel Schaijes, whose collection near Kolwezi, Democratic Republic of the Congo, has advanced the knowledge of plants of that region.
- E. schmitzii* Malaisse (1969) – Honoring André Schmitz, director of the Laboratory of Silviculture, University of the Congo, who discovered this species while on a botanical expedition in 1955.
- E. sclavoi* De Luca, D.W. Stev. & A. Moretti (1989) – Honoring Jean Pierre Sclavo of France, well-known student and collector of cycads, who first recognized it as an unknown species.
- E. senticosus* Vorster (1996) – From the Latin *senticosus* ('full of thorns'), referring to the spiny leaflet margins.
- E. septentrionalis* Schweinf. (1871) – From the Latin *septentrionalis* ('north' or 'northern'), referring to this species being one of the northernmost of the central African cycads.
- E. tegulaneus* Melville (1957) – From the Latin *tegula* ('tile'), referring to the overlapping microsporophylls that resemble roof tiles.
- subsp. powysii** Miringu & Beentje (1999) – Honoring Gilfrid Powys, former district officer (Meru District, Kenya) and avid plantsman who introduced the second author to the species.
- E. transvenosus* Stapf & Burtt Davy (1926) – From the Latin *trans* ('across') and *venosus* ('veins'), mistakenly referring to purported "crosswise veinlets" connecting the primary longitudinal veins.
- E. trispinosus* (Hook.) R.A. Dyer (1965) – From the Latin *tri-* ('three') and *spinosus* ('spines'), referring to typical median leaflets, which have two marginal spines and a terminal spine.
- E. turneri* Lavranos & D.L. Goode (1985) – Honoring Ian S. Turner of Zimbabwe, well known student and collector of cycads who provided specimens and field notes for its description.
- E. umbeluziensis* R.A. Dyer (1951) – Referring to its occurrence along the Mbeluzi (Umbeluzi) River, Swaziland, with the Latin termination *-ensis* ('place of origin').
- E. villosus* Lem. (1867) – From the Latin *villosus* ('softly hairy'), referring to the densely woolly crown and emerging leaves.
- E. whitelockii* P.J.H. Hurter (1995) – Honoring Loran Whitelock of Los Angeles, California, well-known contemporary student and collector of cycads.
- E. woodii* Sander (1908) – Honoring John Medley Wood (1827-1915), curator of the Natal Botanic Gardens (later the Durban Botanic Gardens), who discovered the original and only known specimen.
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- Lepidozamia hopei* Regel (1876) – Honoring Louis Hope (1817-1894), known in Australia as father of the Queensland sugar industry.
- L. peroffskyana* Regel (1857) – Honoring Count V.A. Peroffsky, governor of Orenburg Province, Russia, and valued patron of the St. Petersburg Botanical Garden, where the type plant was cultivated. (Note: Whitelock [2002] erroneously stated that it honors Leo Alexejewitsch Perowski, mineralogist and chief administrator of the St. Petersburg Botanical Garden.)
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- Macrozamia cardiacensis* P.I. Forst. & D.L. Jones (1998) – Referring to its occurrence on a precipitous site known locally as Cardiac Hill, Queensland, Australia, with the Latin termination *-ensis* ('place of origin').
- M. communis* L.A.S. Johnson (1959) – From the Latin *communis* ('common'), referring to its abundance in dense stands.
- M. concinna* D.L. Jones (1998) – From the Latin *concinus* ('neat' or 'elegant'), referring to the compact and tidy habit.

- M. conferta* D.L. Jones & P.I. Forst. (1994)** – From the Latin *confertus* (‘crowded’), referring to the close crowding of the leaflets on the rachis.
- M. cranei* D.L. Jones & P.I. Forst. (1994)** – Honoring orchid enthusiast and builder Ralph Crane, who discovered this species.
- M. crassifolia* P.I. Forst. & D.L. Jones (1994)** – From the Latin *crassus* (‘thick’) and *folius* (‘leaf’), although technically referring to leaves, this epithet is actually referring to the thick-textured leaflets.
- M. diplomera* (F. Muell.) L.A.S. Johnson (1959)** – From the Greek *diplo-* (‘double’) and *-merus* (‘part’ or ‘member’), referring to the dichotomously divided leaflets.
- M. douglasii* W. Hill ex F.M. Bailey (1883)** – Honoring pastoralist and politician John Douglas (1828-1904), premier of Queensland, Australia, and collector of the type specimen.
- M. dyeri* (F. Muell.) C.A. Gardner (1930)** – Honoring English botanist Sir William Turner Thiselton-Dyer (1843-1928), director of the Royal Botanic Gardens Kew.
- M. elegans* K.D. Hill & D.L. Jones (1998)** – From the Latin *elegans* (‘elegant’), referring to the neat and pleasing habit.
- M. fawcettii* C. Moore (1884)** – Honoring C. Fawcett, police magistrate who collected the type specimen.
- M. fearnsidei* D.L. Jones (1991)** – Honoring grazier Geoff Fearnside, owner of Wallaroo station, Queensland, Australia, for his conservation efforts of the cycads growing there.
- M. flexuosa* C. Moore (1884)** – From the Latin *flexuosus* (‘zigzag’ or ‘bent alternately in opposite directions’), referring to the spirally twisted leaves.
- M. fraseri* Miq. (1842)** – Honoring Charles Fitzgerald Fraser (1883-1951), colonial botanist of New South Wales and collector of the type specimen (J. Hurter, pers. comm.).
- M. glaucophylla* D.L. Jones (1998)** – From the Greek *glauco-* (‘bluish waxy bloom’) and *-phyllon* (‘leaf’), referring to the bluish glaucous leaves.
- M. heteromera* C. Moore (1884)** – From the Greek *heteros* (‘different’) and *-merus* (‘part’ or ‘member’), referring to the divided and undivided leaflets.
- M. humilis* D.L. Jones (1998)** – From the Latin *humilis* (‘humble’ or ‘low’), referring to the dwarf habit.
- M. johnsonii* D.L. Jones & K.D. Hill (1992)** – Honoring Australian botanist Dr. Lawrence Alexander Sydney Johnson (1925- 1997), director of the Royal Botanic Gardens Sydney and notable student of *Macrozamia* in the 1950’s.
- M. lomandroides* D.L. Jones (1991)** – From the genus *Lomandra*, with the Latin termination *-oides* (‘resembling’), referring to the perceived resemblance of this species to a clump of the Australian monocot *Lomandra*.
- M. longispina* P.I. Forst. & D.L. Jones (1998)** – From the Latin *longi-* (‘long’) and *spina* (‘spine’), referring to the prominent apical spines on the apices of the megasporophylls.
- M. lucida* L.A.S. Johnson (1959)** – From the Latin *lucidus* (‘shining’), referring to the highly glossy leaflets.
- M. macdonnellii* (F. Muell. ex Miq.) A. DC. (1868)** – Referring to the MacDonnell Ranges, southern Northern Territory, Australia, which form a large part of the habitat of this species.
- M. machinii* P.I. Forst. & D.L. Jones (1994)** – Honoring Peter J. Machin, botanist with the Queensland Herbarium.
- M. macleayi* Miq. (1868)** – Honoring Sir William John Macleay (1820-1891), Scottish pastoralist, patron of science, and parliamentarian, whose lifelong interest in science resulted in a large collection of specimens, bequeathed to the University of Sydney, Australia, upon his death and now forming the basis of the Macleay Museum.

- M. miquelii* (F. Muell.) A. DC. (1868)** – Honoring Friedrich Anton Wilhelm Miquel (1811-1871), Dutch botanist who served as director of the Rotterdam Botanical Gardens and the Amsterdam Botanical Garden.
- M. montana* K.D. Hill (1998)** – From the Latin *montanus* (pertaining to mountains), referring to its occurrence on steep, high ridges.
- M. moorei* F. Muell. (1881)** – Honoring botanist Charles E. Moore (1820-1905), director of the Royal Botanic Gardens Sydney and notable student of *Macrozamia* in the 1850's.
- M. mountperriensis* F.M. Bailey (1886)** – Referring to its discovery near the town of Mount Perry, Queensland, Australia, with the Latin termination *-ensis* ('place of origin').
- M. occidua* D.L. Jones & P.I. Forst. (1994)** – From the Latin *occidua* ('of the west'), referring to its occurrence in Sundown National Park, Queensland, Australia (alluding to the setting of the sun in the west).
- M. parcifolia* P.I. Forst. & D.L. Jones (1994)** – From the Latin *parcus* ('sparing' or 'frugal') and *folius* ('leaf'), although technically referring to leaves, this epithet is actually referring to the fine, wispy leaflets.
- M. pauli-guilielmi* W. Hill & F. Muell. (1859)** – Honoring Prince Paul William (Latinized to *Pauli-Guilielmi*) of Württemberg, Germany.
- M. platyrhachis* F.M. Bailey (1898)** – From the Greek *platy-* ('broad') and *rhachis* ('leaf axis above the petiole'), referring to the strongly flattened rachis.
- M. plurinervia* (L.A.S. Johnson) D.L. Jones (1991)** – From the Latin *pluri-* ('several' or 'many') and *-nervius* ('nerves' or 'veins'), referring to its wider leaflets with more veins compared to related taxa.
- M. polymorpha* D.L. Jones (1998)** – From the Greek *poly-* ('many') and *-morphe* ('form'), referring to the divided and undivided leaflets.
- M. reducta* K.D. Hill & D.L. Jones (1998)** – From the Latin *reductus* ('reduced'), referring to its smaller habit compared to the related *M. communis*.
- M. riedlei* (Gaudich.) C.A. Gardner (1930)** – Honoring Anselme Riedle (1775-1801), friend of the great French explorer Nicolas Baudin who accompanied him on scientific expeditions (J. Hurter, pers. comm.).
- M. secunda* C. Moore (1884)** – From the Latin *secundus* ('secund', meaning having organs turned to the same side), referring to the arrangement of the leaflets on the rachis, with their upper surfaces turned toward each other to produce a keeled (boat-shaped) leaf.
- M. serpentina* D.L. Jones & P.I. Forst. (2001)** – Referring to the serpentine soil of the type locality.
- M. spiralis* (Salisb.) Miq. (1842)** – From the Latin *spiralis* ('spiraled'), referring to the (sometimes) twisted rachis.
- M. stenomera* L.A.S. Johnson (1959)** – From the Greek *stenos* ('narrow') and *-merus* ('part' or 'member'), referring to the finely divided leaflets.
- M. viridis* D.L. Jones & P.I. Forst. (1994)** – From the Latin *viridis* ('green'), referring to the bright green leaflets.

***Microcycas calocoma* (Miq.) A. DC. (1868)** – From the Greek *calos* ('beautiful') and *come* ('hair'), referring to its beautiful crown of leaves.

***Stangeria eriopus* (Kunze) Baill. (1892)** – From the Greek prefix *erio-* ('woolly') and *-pus* ('footed'), referring to the woolly leaf bases.

- Zamia acuminata* Oerst. ex Dyer (1884)** – From the Latin *acuminatus* (meaning to taper gradually to a narrow point), referring to the acuminate shape of the leaflets.
- Z. amazonum* D.W. Stev. (2001)** – Referring to its wide distribution throughout the upper Amazon basin.
- Z. amplifolia* hort. Bull ex Mast. (1878)** – From the Latin *amplus* (‘ample’ or ‘large’) and *folium* (‘leaf’), while originally intended to refer to the very large leaflets, the epithet actually refers to the leaves but is not really a misnomer.
- Z. angustifolia* Jacq. (1789)** – From the Latin *angustus* (‘narrow’) and *folium* (‘leaf’), while originally intended to refer to the very narrow leaflets, the epithet actually refers to the leaves and in this case is somewhat of a misnomer because the leaves are not really narrow for *Zamia* (although the leaflets are).
- Z. boliviana* (Brongn.) A. DC. (1868)** – From Bolivia, with the Latin suffix *-ana* (‘a connection’), referring to the country of endemicity.
- Z. chigua* Seem. (1854)** – From *chigua*, a Spanish rendering of the indigenous Indian name for cycads in Panama and Colombia.
- Z. cremnophila* Vovides, Schutzman & Dehgan (1988)** – From the Greek *cremnos* (‘cliff’) and *philo* (‘loving’), referring to its cliff-dwelling habitat preference.
- Z. cunaria* Dressler & D.W. Stev. (1993)** – Honoring the Cuna Indians of Panama, who inhabit the area of endemicity and who use the seeds to make necklaces.
- Z. decumbens* Calonje, Meerman, M.P. Griff. & Hoese (2009)** – From the Latin *decumbens* (meaning prostrate on the earth with the tips turning up), referring to the decumbent habit of the stems.
- Z. disodon* D.W. Stev. & Sabato (2001)** – Said by authorities Dennis Stevenson and Sergio Sabato to refer to the doubly toothed leaflet margins.
- Z. dressleri* D.W. Stev. (1993)** – Honoring Robert Dressler, botanist and taxonomist with the Missouri Botanical Garden, who aided in the study of cycads in Panama and who was the first to recognize it as a distinct species.
- Z. elegantissima* Schutzman, Vovides & Adams (1998)** – From the Latin *elegans* (‘elegant’), referring to the elegant habit.
- Z. encephalartoides* D.W. Stev. (2001)** – From *Encephalartos*, an African genus of cycads, with the Greek termination *-oides* (‘resembling’), referring to the robust, arborescent habit resembling more a species of *Encephalartos* than most other species of *Zamia*.
- Z. erosa* O.F. Cook & G.N. Collins (1899)** – From the Latin *erosus* (‘irregularly notched, toothed, or indented’), referring to the leaflet margins.
- Z. fairchildiana* L.D. Gómez (1982)** – According to authority Luis Diego Gómez (pers. comm.), the epithet honors Dr. David Fairchild (1869-1954), famed American botanist and plant explorer. (Note: Hill and Stevenson [2009] incorrectly state that the epithet honors David Fairchild’s son, Dr. Graham Fairchild.)
- Z. fischeri* Miq. (1845)** – At least three different etymologies can be found in the literature: Jones (1993) stated that the epithet honors M. Fischer, gardener at St. Petersburg Botanic Garden, Russia; Whitelock (2002) stated that it honors Friedrich Ernst Ludwig von Fischer (1782-1854), Russian botanist of German origin who was director of the St. Petersburg Botanic Garden; and Hill and Stevenson (2009) stated that it honors Gustav Fischer, horticulturist and cycad enthusiast of the mid-19th century. (Note: Although there is some debate on this issue, consensus is that the epithet honors Friedrich Fischer and that references to Gustav Fischer, often seen in the literature, are incorrect [R. Osborne, pers. comm.])

- Z. furfuracea L. f., in Aiton (1789)** – From the Latin *furfuraceus* (‘scurfy’), referring to the reddish-brown scales on the newly emerging leaves.
- Z. gentryi Dodson (1998)** – Honoring Alwyn Howard Gentry (1945-1993), botanist and botanical explorer of the neotropics who participated in the collection of the type specimen.
- Z. gomeziana R.H. Acuña (2010)** – Honoring the Costa Rican botanist Luis Diego Gómez Pignataro (1944-2009).
- Z. hamannii A.S. Taylor, J.L. Haynes & Holzman (2008)** – Honoring Gregg Hamann, who discovered this species and financed the expedition during which most of the data and samples that allowed it to be described were collected.
- Z. herrerae Calderón & Standl. (1924)** – Honoring El Salvadorian scientist Héctor Herrera.
- Z. hymenophyllidia D.W. Stev. (2001)** – From the Greek *hymen* (‘thin’ or ‘membranous’) and *phyllon* (‘leaf’), although technically referring to leaves, this epithet is actually referring to the extremely thin, almost transparent leaflets.
- Z. imperialis A.S. Taylor, J.L. Haynes & Holzman (2008)** – Referring to its majestic growth habit and the regal appearance of its huge, red-emergent, deeply plicate leaflets.
- Z. incognita A. Lindstr. & Idárraga (2009)** – From the Latin *incognitus* (‘unknown’), referring to the fact that this species remained unknown until its description.
- Z. inermis Vovides, J.D. Rees & Vázq. Torres (1983)** – From the Latin *inermis* (‘unarmed’), referring to the unarmed (spineless) petiole and rachis.
- Z. integrifolia L. f., in Aiton (1789)** – From the Latin *integer* (‘entire’) and *folium* (‘leaf’), this epithet is actually a double misnomer because ‘integrifolia’ literally means entire leaves but was intended to refer to the leaflets, which are not entire but have small callous teeth in the upper fourth.
- Z. ipetiensis D.W. Stev. (1993)** – Referring to the Ipeti Indians, who inhabit the area of endemism, or the nearby town of Colono Ipeti, or both, with the Latin termination *-ensis* (‘place of origin’).
- Z. katzeriana (Regel) E. Rettig (1896)** – Honoring Franz Katzer, chief of the Pavlovsk Imperial Garden, near St. Petersburg, Russia. [Note: Some still believe this name should be synonymized under *Z. splendens*.]
- Z. lacandona B. Schutzman & Vovides (1998)** – Referring to its occurrence in the Lacandona rainforest of Eastern Chiapas, which is in turn named for the Lacandona Indians of Mayan descent.
- Z. lecointei Ducke (1915)** – Honoring Paul LeCointe, botanist who studied the Amazonian region of Brazil and who accompanied Adolf Ducke when this species was discovered.
- Z. lindenii Regel ex André (1875)** – Honoring Jean Jules Linden (1817-1898), who received plants of this species from Benedikt Roezl and introduced them into cultivation.
- Z. lindleyi Warsz. ex A. Dietrich (1851)** – Honoring John Lindley (1799-1865), British botanist and professor of botany at University College, London.
- Z. loddigesii Miq. (1843)** – Honoring Joachim Conrad Loddiges (1738-1826), London based supplier of exotic plants, close correspondent of Friedrich Anton Wilhelm Miquel, and outstanding general systematist and monographer of cycads in the 19th century.
- Z. lucayana Britton (1907)** – Referring to the Lucayana Indians, who originally inhabited the Bahamas.
- Z. macrochiera D.W. Stev. (2004)** – From the Greek *macros* (‘large’) and *chiera* (‘hand’), referring to the large, gland-like collar separating the leaflets from the petiolules.
- Z. manicata Linden ex Regel (1876)** – From the Latin *manicatus* (‘long-sleeved’), referring to the petiolule of the leaflets.
- Z. meermanii Calonje (2009)** – Honoring Dutch ecologist Jan Meerman, who discovered this species in central Belize.

- Z. melanorrhachis** D.W. Stev. (2001) – From the Greek *melano-* (‘black’ or ‘very dark’) and the Latin *rhachis* (‘stem’), referring to the dark brown to almost dark purple rachis.
- Z. montana** A. Braun (1875) – From the Latin *montanus* (pertaining to mountains), referring to the submontane to montane habitat where this species grows.
- Z. monticola** Chamb. (1926) – From the Latin *montis* (‘mountain’), with the suffix *-cola* (‘dweller’ or ‘inhabitant’), erroneously referring to its presumed mountainous habitat in Veracruz, Mexico, due to the mistaken origin of the original cultivated plant. (Note: This species is actually endemic to rocky lowland slopes in primary and secondary rainforests in Guatemala [Hill & Stevenson, 2009].)
- Z. muricata** Willd. (1806) – From the Latin *muricatus* (meaning rough with short, hard points), referring to the small, sharp teeth of the leaflets margins or the spines on the rachis (or both).
- Z. nesophila** A.S. Taylor, J.L. Haynes & Holzman (2008) – From the Greek *neso* (‘island’) and *phila* (‘loving’), referring to its propensity for an insular existence.
- Z. neurophyllidia** D.W. Stev. (1993) – From the Greek *neuro* (‘nerve’) and *phyllon* (‘leaf’), although technically referring to leaves, this epithet is actually referring to the strongly nerved appearance of the leaflets.
- Z. obliqua** A. Braun (1875) – From the Latin *obliquus* (‘oblique’), referring to the oblique angle of insertion of the leaflets on the rachis.
- Z. oligodonta** E. Calderón-Sáenz & D.W. Stev. (2003) – From the Greek *olig* (‘few’) and *odont* (‘tooth’), referring to the few teeth on the leaflet margins. (Note: Lindström [2009] recently questioned the validity of this name, providing evidence that it is a synonym of *Z. montana*.)
- Z. onan-reyesii** C. Nelson & G. Sandoval (2008) -- Honoring Onán Reyes, student at the Honduran National Autonomous University who participated in the expedition during which the type specimen was collected. [Note: Some workers believe this species should be synonymized with *Z. bussellii* Schutzman, R.S. Adams, J.L. Haynes & Whitelock (Schutzman *et al.*, 2008).]
- Z. oreillyi** C. Nelson (2006) – Honoring Carlos Oreilly, student at the Honduran National Autonomous University, who participated in the expedition during which the type specimen was collected.
- Z. paucijuga** Wieland (1916) – From the Latin *pauci-* (‘few’) and *-jugus* (‘paired’), referring to the few pairs of leaflets of the type specimen, which is an unfortunate misnomer because leaves of mature plants actually have many leaflet pairs.
- Z. poeppigiana** Mart. & Eichler (1863) – Honoring Eduard Friedrich Poeppig (1798-1868), German botanist, zoologist, and explorer from Leipzig who first collected it during an expedition to Brazil and Peru.
- Z. portoricensis** Urban (1899) – Referring to the type specimen being from Puerto Rico, with the Latin termination *-ensis* (‘place of origin’).
- Z. prasina** W. Bull (1881) – From the Latin *prasinus* (‘leek green’), referring to the bright grass-green leaflets.
- Z. pseudomonticola** L.D. Gómez (1982) – Referring to its presumed similarity to *Z. monticola*.
- Z. pseudoparasitica** Yates in Seem. (1854) – From the Greek *pseudo* (‘false’) and the Latin *parasiticus* (‘parasitic’), referring to its epiphytic (not parasitic) habit and habitat.
- Z. pumila** L. (1763) – From the Latin *pumilus* (‘dwarf’ or ‘short’), referring to the small size. (Note: Hill and Stevenson [2009] stated that, while the epithet literally means dwarf or pygmy, *Z. pumila* is not the smallest of this species of *Zamia* when compared to *Z. pygmaea* or *Z. fischeri*—but it was the only *Zamia* species known when Linnaeus described it in 1763. Linnaeus had included the then known cycads, *C. circinalis* and *Z. pumila*, in the pinnately-leaved palms; consequently, in comparison he considered the *Zamia* to be a dwarfed palm.)
- Z. purpurea** Vovides, J.D. Rees & Vázq. Torres (1983) – From the Latin *purpureus* (‘purple’), referring to the deep reddish-purple emerging leaves and purplish immature female cones.

- Z. pygmaea Sims (1815)** – From the Latin *pygmaeus* (‘pygmy’ or ‘dwarf’), referring to the small stature.
- Z. pyrophylla Calonje, D.W. Stev. & A. Lindstr. (2010)** – From the Greek *pyro* (‘heat’ or ‘fire’) and *phyllon* (‘leaf’), referring to the glowing orange and red emergent leaves.
- Z. restrepoi (D.W. Stev.) A. Lindstr. (2009)** – Honoring Padre Sergio Restrepo (1939-1989), Colombian botanist who re-located this species, accompanied and guided Knut Norstog and Dennis Stevenson during their field work, and was subsequently martyred.
- Z. roezlii Linden (1873)** – Honoring Benedikt Roezl (1824-1885), prodigious plant collector who traveled throughout Mexico, Central America, and South America in the of the latter half of the 19th century and who first collected this species.
- Z. sandovalii C. Nelson (2006)** – Honoring German Sandoval, herbarium assistant at the Honduran National Autonomous University, who participated in the expedition during which the type specimen was collected.
- Z. skinneri Warsz. ex A. Dietrich (1851)** – Honoring George Ure Skinner (1804-1867), amateur botanist and plant collector who worked mainly in Central America.
- Z. soconuscensis Schutzman, Vovides & Dehgan (1988)** – Referring to its endemic occurrence in the Sierra del Soconusco (Sierra Madre de Chiapas), Mexico, with the Latin termination *-ensis* (‘place of origin’).
- Z. spartea A. DC. (1868)** – At least three different etymologies can be found in the literature: Whitelock (2002) stated that the epithet is from the Latin *spartea* (‘resembling grass’), referring to the long, narrow leaflets that are difficult to distinguish from grass; Hill and Stevenson (2009) stated that it refers to ‘sparse’, but that it is unknown whether it is in reference to the narrow leaflets or the few apical teeth on the leaflet margins; R. Osborne (pers. comm.) maintains that the epithet alludes to the broom genus *Spartium* (Fabaceae), in reference to the narrow and tapered leaflets.
- Z. splendens Schutzman (1984)** – From the Latin *splendens* (‘shining’ or ‘brilliant’), referring to the striking (and shiny) appearance of the leaflets. (Note: This species is not recognized by the authors of the World List of Cycads [Hill *et al.*, 2012], but it is included here because there is support for its validity as a distinct taxon [see Schutzman, 2004].)
- Z. standleyi Schutzman (1989)** – Honoring Paul C. Standley (1884-1963), botanist and taxonomist well known for his thorough and prodigious work on the flora of Mexico and Central America.
- Z. stricta Miq. (1851)** – From the Latin *strictus* (‘drawn together’, ‘very upright’, or ‘very straight’), referring to the thin, straight leaflets.
- Z. tolimensis Calonje, H.E. Esquivel & D.W. Stev. (2011)** – Referring to Tolima, the department in Colombia where this species has been collected, with the Latin suffix *-ensis* (‘place of origin’).
- Z. tuerckheimii Donn. Sm. (1903)** – Honoring Hans von Türckheim (1853-1920), German plant collector who managed a coffee plantation in Guatemala and who is credited for its discovery.
- Z. ulei U. Dammer (1907)** – Honors Ernst Heinrich Georg Ule (1854-1915), German plant collector who conducted extensive research in the Amazon and who first collected this species in Brazil.
- Z. urep B. Walln. (1996)** – Whitelock (2002) stated that, according to authority Bruno Wallnöfer (pers. comm.), the specific epithet has no meaning. (It should be noted, however, that ‘urep’ is an anagram of Peru, where this species is endemic.)
- Z. variegata Warsz. (1845)** – From the Latin *variegatus* (‘variegated’), referring to the flecks of yellow on the leaflets.
- Z. vazquezii D.W. Stev. (1998)** – Honoring Mario Vázquez-Torres, Mexican botanist and student of Mexican and Central American cycads who first discovered this species.
- Z. wallisii A. Braun (1875)** – Honoring Gustav Wallis (1830-1878), German botanist, plant collector, and explorer of the latter half of the 19th century who first collected this species in the cloud forests of Antioquia Department, Colombia.

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