

Determination Key to the Genera (updated from Schaefer & Renner 2011)

1. Tendrils absent 2
- Tendrils present 14
2. Trees or (sub)shrubs or erect herbs, not climbing or trailing 3
- Herbaceous trailers or creepers 11
3. Trees to 6 m tall with large trunks (to 1 m across). Socotra *Dendrosicyos*
- Shrubs or subshrubs or erect herbs 4
4. Shrubs or subshrubs 5
- Erect or prostrate herbs 7
5. Plants not spiny. Africa, Madagascar, and Asia *Corallocarpus*
- Plants spiny 6
6. Tendrils transformed into c. 1 cm long, straight spines; leaves reduced to small scale like, ovate, c. 2 mm long bracts; thecae flexuous. Southern Africa *Acanthosicyos*
- On older stems, the bases of the tendrils thickened and transformed into a pair of straight or curved, rather blunt, 0.4–3 cm long spines; leaves well-developed, petiolate, 2–7 by 2–5 cm, broadly ovate; thecae curved. East and Northeast Africa *Momordica*
7. Fruit a small subglobose berry, to 2 cm long 8
- Fruit a large gourd-like pepo, >2 cm long, ripening green or yellow 9
8. Receptacle-tube cylindrical, 10–18 mm long with conical nectary; leaves entire or 3-lobed. South and East Africa *Trochomeria*
- Receptacle-tube shallowly saucer-shaped, 0.5–1 mm long; leaves deeply palmately dissected. East Africa *Cucumis*
9. Ripe fruit expelling seeds explosively. Mediterranean region and North Africa *Ecballium*
- Fruit indehiscent 10
10. Fruit <10 cm across; anthers distinct. Africa *Cucumis*
- Fruit >10 cm across; anthers connate into a central head. America, introduced in Africa, Europe, Asia, Australia *Cucurbita*
11. Plant spiny. Southern Africa *Citrullus*
- Plant not spiny 12
12. Plant with long underground branches and subterranean fruits. Southern Africa *Kedrostis*
- Plant creeping and fruiting above ground 13
13. Thecae flexuous, glabrous. Southern Africa *Citrullus*
- Thecae straight, fringed with hairs. Brazil *Melothria*

14. Tendrils in groups of 5–8 per node, simple; fruit geocarpic, maturing below ground. Southern Africa *Cucumis*
- Tendrils solitary (1 or rarely 2 per node), simple or 2–8-fid with a basal, unbranched part; fruit usually maturing above ground (but see *Echinopepon*) 15
15. Tendrils simple, not 2-fid or multi-fid with basal, unbranched part 16
- Tendrils 2–8-fid (often only at apex, which might be lost in herbarium material) 103
16. Thecae fringed with hairs 17
- Thecae glabrous (or hairs minute) 20
17. Stamens 3; anthers all 2-theous. Africa, Asia, Australia, and Pacific Islands *Zehneria*
- Stamens 3; two anthers 2-theous, one 1-theous 18
18. Testa covered by long appressed hairs. South and Central America (naturalized in Asia)
- Melothria*
- Testa glabrous 19
19. Fruit small, gourd-like, to 2.5 cm long, ornamented with long, soft bristles. Madagascar, Indonesia, Northeastern Australia *Muellerargia*
- Fruit a globose to ellipsoid, up to 20 cm long, smooth pepo. Tropical Africa and South/Central America *Melothria*
20. Ovules few, pendent; pollen small to medium-sized, striate 21
- Ovules many, horizontal; pollen mostly medium-sized to large, reticulate, perforate, gemmate or echinate/baculate, very rarely striate-reticulate (*Dactyliandra*, *Papuasicyos*) 23
21. Fruit indehiscent, globose. South America *Sicydium*
- Fruit dehiscent. Asia 22
22. Fruit dehiscing into 3 valves; seeds winged *Zanonia*
- Fruit operculate; seeds winged or unwinged *Actinostemma*
23. Petals fringed 24
- Petals not fringed 26
24. Stamens 5; anthers all 1-theous; thecae triplicate. Madagascar *Ampelosicyos*
- Stamens 3; two anthers 2-theous, one 1-theous 25
25. Anthers connate into a central head; filaments distinct. Hispaniola *Linnaeosicyos*
- Anthers distinct. Asia *Trichosanthes*
26. Pollen echinate or perforate 27
- Pollen reticulate or striate-reticulate 35
27. Filaments connate into a central column 28
- Filaments distinct, sometimes very short or absent 32

28. Thecae connate into a horizontal, ring-like structure. South and Central America
Cyclanthera
– Thecae distinct or connate into a central head-like structure 29
29. Fruits fleshy, unarmed, indehiscent, 1-seeded. Central America *Sicyos*
– Fruit \pm dry, seeds few to many 30
30. Fruit globose, smooth, 5–7 cm in diam., indehiscent. Hispaniola *Penelopeia*
– Fruit dehiscent, \pm setose or prickly. America 31
31. Fruit operculate; seeds relatively small, \pm compressed *Echinopepon*
– Fruit not operculate; seeds large, \pm globose *Marah*
32. Fruit a large, fleshy, indehiscent pepo 33
– Fruit a small dry or fleshy berry 34
33. Petals yellow. America, introduced in Africa, Europe, Asia, Australia *Cucurbita*
– Petals greenish white. Central America *Cionosicyos*
34. Fruit a fleshy berry, ripening red. Argentina and Uruguay *Abobra*
– Fruit a dry berry with a firm, thin wall, ripening green, red, brown or black; seeds in loose cellular pulp. America *Cayaponia*
35. Pollen striate-reticulate 36
– Pollen reticulate or gemmate 37
36. Stigma 3-lobed. Africa and Asia *Dactyliandra*
– Stigma-lobes feather-like divided. New Guinea *Papuasicyos*
37. Stamens 5 38
– Stamens 2–3 44
38. Thecae triplicate/sinuate 39
– Thecae straight or \pm curved 40
39. Sepals > petals. Indonesia *Zehneria*
– Sepals < petals. Africa and Socotra *Eureiandra*
40. Plant densely black- or reddish-glandular hairy. Tropical Africa *Siraitia*
– Plant glabrous or hairy but not black- or reddish-glandular 41
41. Seeds pear-shaped to subglobose. Africa, Madagascar, Asia 42
– Seeds ovate-oblong, \pm compressed. Asia 43
42. Fruit operculate, the basal part of the fruit green, expanded into a cup, the upper part red
Corallocarpus
– Fruit indehiscent or opening by valves, ripening entirely orange to red *Kedrostis*
43. Petals small, to 5 mm long, cream-colored or white *Baijania*

- Petals >5 mm long, yellow ***Thladiantha***
- 44. Stamens 2 45
- Stamens 3 50
- 45. Adult plants usually leafless with succulent stems. Madagascar ***Seyrigia***
- Adult plants with well-developed leaves; stems not succulent 46
- 46. Sepals showy, orange to red, sepals > petals. Tropical America ***Gurania***
- Sepals green or dark-colored, sepals < petals 47
- 47. Flowers small; petals inconspicuous, c. 3 mm long, yellowish-green. Tropical America
- Helmontia***
- Flowers medium-sized; petals >5 mm long, yellow, orange or white 48
- 48. Male flowers often subtended by a ± orbicular bract, often 1–3 of the petals with an incurved basal scale. Africa and Asia, introduced in Australia and America ***Momordica***
- Male flowers not subtended by bracts; petal scales absent 49
- 49. Pollen often in tetrads; woody or less often herbaceous climber; petals orange, red or pink. Tropical and subtropical America ***Psiguria***
- Pollen in monads; herbaceous climber or trailer; petals greenish-white to yellow. Southern US to Argentina ***Apodanthera***
- 50. Pollen in tetrads. Indonesia ***Borneosicyos***
- Pollen in monads 51
- 51. Male flowers often subtended by a ± orbicular bract, often 1–3 of the petals with an incurved basal scale. Africa and Asia, introduced in Australia and America ***Momordica***
- Male flowers not subtended by an orbicular bract, petal scales absent 52
- 52. Petiole base with suborbicular ciliate bract 53
- Petiole base without ciliate bract 54
- 53. Thecae linear, straight; petals ± 1 mm long. Africa, Madagascar, and Asia ***Blastania***
- Thecae triplicate; petals larger. Africa and Madagascar ***Trochomeria***
- 54. Thecae straight or slightly curved (sometimes apically hooked) 55
- Thecae strongly curved, duplicate, triplicate or flexuous 79
- 55. Petals 2-furcate to deeply 2-fid. Central and South America 56
- Petals entire 57
- 56. Filaments very short, distinct ***Ceratosanthes***
- Filaments longer, connate into a central column ***Ibervillea***
- 57. Fruit a large, hard-shelled pepo, to 20 cm long; thecae fringed with hairs. Tropical Africa and America ***Melothria***

- Fruit smaller, a fleshy berry or gourd; if large (*Cucumis melo*), then thecae not hairy 58
- 58. Fruit ornamented 59
- Fruit \pm smooth 60
- 59. Fruit with long, soft bristles. Madagascar, Northern Australia, and Indonesia

Muellerargia

- Fruit with dense to scattered fleshy spines, pustules or tubercles that end in a hyaline bristle. Africa, Asia, naturalized in America, Australia, and the Pacific Islands ***Cucumis***
- 60. Stamens inserted near the base or halfway up the receptacle-tube 61
- Stamens inserted in the upper half or near the mouth of the receptacle-tube 62
- 61. Anthers all 2-thealous; leaves petiolate, triangular to \pm ovate, entire to 3-lobed. Africa, Asia, Australia, and Pacific Islands ***Zehneria***
- Two anthers 2-thealous, one 1-thealous; leaves shortly petiolate to sessile, base cordate or hastate. Asia ***Solena***
- 62. Filaments connate into a central column. Mexico and Southern US 64
- Filaments distinct or very short to absent 63
- 63. Fruit a fusiform or ellipsoid berry, shortly rostrate, 6–15 cm long and 3–6 cm in diam.

Ibervillea

- Fruit a globose berry, c. 1 cm in diam., glabrous, with remains of flower ***Tumamoca***
- 64. Stigma 3-lobed, long-hairy. Southeast Asia ***Indomelothria***
- Stigmas 1–5, entire or lobed, if 3-lobed, then glabrous, papillose or short-hairy
- 65. Stigmas 2. Central and South America 66
- Stigmas 3–5 67
- 66. Fruit fleshy, indehiscent, ovoid to ellipsoid, \pm rostrate, 1–7 cm long, ripening green or red to brown often with white stripes or spots ***Apodanthera***
- Fruit an ovoid-conical berry, c. 2 cm long and 1.5 cm in diam., sessile in the leaf axils, rostrate ***Wilbrandia***
- 67. Stigmata 4–5 68
- Stigmata 3 69
- 68. Testa smooth, chocolate-brown, often with distinct, ivory-colored margin. Southern US to Argentina ***Apodanthera***
- Testa smooth, margin \pm distinct, not winged. South America ***Cucurbitella***
- 69. Two anthers 2-thealous, one 1-thealous 70
- All anthers 2-thealous 73
- 70. Testa covered by long appressed hairs. America, introduced in Asia ***Melothria***

- Testa glabrous or rarely puberulent 71
- 71. Testa light-colored, ± yellowish. Africa, Asia, Australia, introduced in America ***Cucumis***
- Testa brown 72
- 72. Testa finely sculptured, no distinct margin. Madagascar ***Trochomeriopsis***
- Testa smooth, often with distinct, ivory-colored margin. Southern US to Argentina
- Apodanthera***
- 73. Anthers 2 74
- Anthers 3 75
- 74. Testa chocolate-brown. Southern US to Argentina ***Apodanthera***
- Testa pale brown or yellowish. Africa, Asia, Australia ***Zehneria***
- 75. Seeds tumid to globose 76
- Seeds compressed 77
- 76. Disk in male flowers urceolate, ± connate with base of tube. New Guinea ***Papuasicyos***
- Disk in male flowers ± globose, distinct. Africa, Asia, Australia ***Zehneria***
- 77. Testa covered by long appressed hairs. America, introduced in Asia ***Melothria***
- Testa glabrous 78
- 78. Stigmas hairy. Southeast Asia ***Scopellaria***
- Stigmas glabrous or papillose but not hairy. Africa, Asia, Australia ***Zehneria***
- 79. Thecae strongly curved or duplicate 79
- Thecae triplicate or flexuous 80
- 80. Filaments inserted near the base or in the lower half of the receptacle-tube 81
- Filaments inserted halfway up or in the upper half of the tube 82
- 81. Leaves petiolate, triangular to ± ovate, entire to 3-lobed; disk in male flowers globose, entire or 3-parted. Africa, Asia, Australia, and Pacific Islands ***Zehneria***
- Leaves shortly petiolate to sessile, base cordate or hastate; disk in male flowers 3–4-lobed, conspicuous, carnose. Asia ***Solena***
- 82. Receptacle-tube elongate, tubular to cylindrical, often dilated at the apex. Asia, Australia, introduced in Africa and the Neotropics ***Trichosanthes***
- Receptacle-tube broadly campanulate or ± cylindrical but not elongated 83
- 83. Fruit laterally compressed, shortly rostrate. Argentina ***Halosicyos***
- Fruit ellipsoid to oblong or subglobose, not laterally compressed, sometimes rostrate 84
- 84. Seeds pear-shaped, slightly compressed, reddish brown, with distinct pale brown margin. Central America ***Doyerea***
- Seeds compressed, pale or dark-colored 85

85. Testa verrucous. Brazil **Melothrianthus**
 – Testa smooth or finely scrobiculate 86
86. Testa finely scrobiculate. New Guinea **Papuasicyos**
 – Testa smooth 87
87. Testa brown. Southern US to Argentina **Apodanthera**
 – Testa pale yellowish or cream-colored 88
88. Staminodes forming a ring; seeds with distinct margin. Madagascar **Blastania**
 – Staminodes distinct; seeds without distinct margin or rarely margin thickened. Australia
Austrobryonia
89. Filaments inserted halfway up or in the upper half of the tube 89
 – Filaments/stamens inserted near the base or in the lower half of the receptacle-tube 92
90. Seeds with broad, flattened margin; leaves pedately 3–7-lobed, drying black. Tropical West Africa **Ruthalicia**
 – Seeds without distinct margin or margin narrow; leaves unlobed or palmately 3–5-lobed, usually drying green 91
91. Seeds tumid, subglobose, or asymmetrically ovoid. Africa and Socotra **Eureiandra**
 – Seeds ovate or elliptic, small to medium-sized, globose or lenticular compressed. Africa, Asia, Australia, introduced in America **Cucumis**
92. Fruit densely brown-setose. Tropical Africa and Madagascar **Raphidiocystis**
 – Fruit ± glabrous or sparsely setose or hairy or with prominent spines but not brown-setose 93
93. Fruit hairy 94
 – Fruit ± glabrous 96
94. Testa blackish, smooth, not winged, no distinct margin. Africa and Madagascar **Peponium**
 – Testa brown or grayish-brown, without distinct margin or with dentate or narrow, corky margin 95
95. Testa brown; leaves petiolate, palmately 3–5-lobed, the lobes lobulate-dentate. Madagascar
Lemurosicyos
 – Testa grayish-brown; leaves shortly petiolate to sessile, the blade ovate or elliptic, margin entire, base cordate or hastate. Asia **Solena**
96. Leaves very shortly petiolate to sessile, ± amplexicaul 97
 – Leaves with distinct petioles 100
97. Seeds slightly compressed to ± globose 98
 – Seeds strongly compressed 99
98. Testa grayish-brown, sometimes with narrow, corky margin. Asia **Solena**

- Testa whitish, without distinct margin. Africa and Madagascar ***Trochomeria***
- 99. Testa black, verrucous. Africa ***Cephalopentandra***
- Testa pale, smooth to fibrillose. Africa, Asia, introduced in Australia and America ***Coccinia***
- 100. Seeds subglobose, ovoid or ellipsoid, tumid; testa smooth, hard, whitish. Africa and Madagascar ***Trochomeria***
- Seeds compressed 101
- 101. Testa bright brown, finely grooved, with broad, grooved, crenulate-tuberculate margin. Cambodia ***Khmeriosicyos***
- Testa without distinct margin or margin not grooved, crenulate-tuberculate 102
- 102. Receptacle-tube elongated, ± cylindrical. Africa and Madagascar ***Peponium***
- Receptacle-tube campanulate or turbinate 103
- 103. Flowers small, in axillary, racemose panicles or sub-umbellate fascicles. Europe, Northern Africa, Canaries, Central Asia ***Bryonia***
- Flowers medium-sized to large, if small then solitary (rarely in few-flowered fascicles). Africa and Asia, introduced in Australia and America 104
- 104. Thecae triplicate; style filiform; fruit small and globose or cylindrical and to 30 cm long, baccate, usually glabrous ***Coccinia***
- Thecae flexuous; style short, columnar; fruit large, globose or oblong, glabrous or covered with prominent spines ***Citrullus***
- 105. Tendrils 2-fid 106
- Tendrils 3–8-fid 173
- 106. Basal part of the tendrils sensitive and thus tendrils coiling above and below the bifurcation 107
- Basal part of the tendrils insensitive, not coiling 125
- 107. Sepals and petals 4; leaves entire or 3-lobed, orbicular or flat, succulent or non-succulent, perennial or deciduous. Madagascar ***Xerosicyos***
- Sepals and petals 5, or sepals 3–4 and petals 5 108
- 108. Sepals 3–4 and petals 5 109
- Sepals and petals 5 111
- 109. Stamens 3, two anthers 2-thealous, one 1-thealous; thecae vertical; ovules many per locule; seeds with a butterfly-shaped wing, expanded laterally and divaricate. South East Asia to New Guinea ***Alsomitra***
- Stamens 5, distinct; thecae horizontal; ovules 2 per locule 110
- 110. Leaves entire; seeds with a chalazal wing. Indomalesia ***Zanonia***

- Leaves compound, palmate or pedate; seeds in the median position of an encircling wing expanded along the chalaza-micropyle axis. South America *Siolmatra*
- 111. Filaments connate into a central column 112
- Filaments \pm distinct 115
- 112. Thecae 2–3, horizontal; fruit a samara, indehiscent 113
- Thecae 5, vertical; fruit a dry achene, indehiscent or a subglobose capsule, dehiscent 114
- 113. Thecae 2, semicircular, forming together a split ring. Africa and Madagascar
Cyclantheropsis
- Thecae 3, straight, forming the sides of an equilateral triangle. South America *Pteropepon*
- 114. Leaves cordate; ovule 1 per ovary; fruit dry, globose, indehiscent; seed subspherical. Mexico
Sicydium
- Leaves compound, pedate, 3–7-foliolate; stylodia 3; ovules more than 1 (usually 2–4) per ovary; fruit a subglobose capsule (3-valvate at the apex), dehiscent; seeds not compressed, unwinged or winged. Asia and Indomalesia *Gynostemma*
- 115. Stamens 1, anther 2-thealous. South America *Pteropepon*
- Stamens 2–5, all anthers 1-thealous, distinct or two anthers 2-thealous, one 1-thealous (sometimes the 1-thealous or one of the 2-thealous anthers reduced or aborted) 116
- 116. Stamens 3, two anthers 2-thealous, one 1-thealous; ovary 1-locular; ovule 1 per ovary; fruits indehiscent, baccate; seed subspherical 117
- Stamens 4 and 1 staminode or stamens 5 119
- 117. Fruit a cylindrical-clavate capsule, c. 20 cm long, opening with 3 valves; seeds with broad circular membranous wing, c. 5 cm in diam., testa finely verrucous, dull brown, margin coarsely 8–9-spined. Malaysia *Bayabusua*
- Fruit indehiscent, much smaller. South and Central America 118
- 118. Fruit a large, fibrous samara with 1 continuous, encircling wing or small, membranaceous, with two lateral wings *Pteropepon*
- Fruit baccate, globose, fleshy or fibrous, not winged *Sicydium*
- 119. Stamens 4 and 1 staminode 120
- Stamens 5 121
- 120. Corolla slightly to strongly zygomorphic; ovary 3-locular at the apex, 1-locular at the base; ovules many per locule; fruit a capsule (apically 3-valvate); seeds clearly winged, fusiform. Africa *Gerrardanthus*
- Corolla actinomorphic; ovary 1-locular; ovules 1 per ovary; fruit a samara; seed compressed; pericarp (wing included) fibrous or membranaceous. South America *Pteropepon*

121. Petals lanceolate, long acuminate; corolla actinomorphic. Asia ***Actinostemma***
 – Petals ovate or oblong, never long-acuminate; corolla not actinomorphic 122
122. Fruit operculate or capsule or opening by longitudinal splits. America 123
 – Fruit not operculate. Asia or Africa 124
123. Fruit operculate (rarely a capsule); leaves pedately 3–7-lobed or 3–5-foliolate ***Fevillea***
 – Fruit opening by longitudinal splits; leaves simple, entire ***Anisosperma***
124. Fruit fleshy 125
 – Fruit dry 127
125. Petals fringed. Tropical Africa and Madagascar ***Telfairia***
 – Petals entire 126
126. Plant glabrous or hairy but not glandular. Asia ***Baijania***
 – Plant ± glandular hairy. Tropical Africa or Asia ***Siraitia***
127. Fruit indehiscent, 20–30 cm long; seeds large, 3.5–4 cm long. Asia ***Indofevillea***
 – Fruit apically 3-valvate, to 8 cm long; seeds small 128
128. Seeds with wing on the chalazal end; flowers actinomorphic. China, Indomalesia, and Australia ***Neoalsomitra***
 – Seeds unwinged or wing encircling the seed, uniform in width or extended along the chalaza-micropyle axis. Asia 129
129. Annual, herbaceous climbers or trailers, to 5 m long with fibrous roots ***Gomphogyne***
 – Mostly perennial and tuberous climbers or trailers ***Hemsleya***
130. Filaments connate into a central column 131
 – Filaments distinct or connate to pairs only 138
131. Male flowers 4-merous, female flowers 3-merous. Central America ***Sicyos***
 – All flowers 5-merous 132
132. Thecae connate into a horizontal, ring-like structure. South and Central America
Cyclanthera
 – Thecae distinct or connate into a central head-like structure 135
133. Fruits fleshy, unarmed, indehiscent, 1-seeded. Central America ***Sicyos***
 – Fruit ± dry, if fleshy, then seeds few to many 134
134. Fruit indehiscent, smooth. Hispaniola ***Penelopeia***
 – Fruit dehiscent, ± setose or prickly 135
135. Fruit operculate; seeds relatively small, ± compressed. America ***Echinopepon***
 – Fruit not operculate 136
136. Seeds large, ± globose. North and Central America ***Marah***

- Seeds small, \pm compressed 137
- 137. Fruits dry, indehiscent. America, Pacific Islands, Australia, introduced in Africa *Sicyos*
- Fruits \pm fleshy, opening explosively, solitary. Tropical America *Hanburia*
- 138. Pollen baculate or echinate 139
- Pollen reticulate or striate 146
- 139. Fruit indehiscent 140
- Fruit dehiscing 144
- 140. Fruit fleshy 141
- Fruit dry 143
- 141. Fruit a small red, ovoid to globose, fleshy berry, c. 1 cm long and 1 cm in diam. Argentina and Uruguay *Abobra*
- Fruit a fleshy pepo, >5 cm long 142
- 142. Testa densely appressed hairy, pale yellowish-brown. Central America *Tecunumania*
- Testa glabrous, smooth, cream-colored or black. America, introduced in Africa, Europe, Asia, Australia *Cucurbita*
- 143. Stamens inserted in the center of the flower. Seeds compressed, ovoid or less often \pm triangular or dagger-shaped and apically tricornute; tests not banded. Tropical and subtropical America *Cayaponia*
- Stamens inserted near the mouth of the receptacle-tube. Seeds ovoid, compressed; testa brown or banded crosswise with light and dark stripes. Mexico and Guatemala *Schizocarpum*
- 144. Fruit \pm ribbed, 5–8 cm long, seeds 6, 12 or c. 48, oblong or obovate, compressed; testa smooth, margin obtuse, not winged. Asia *Herpetospermum*
- Fruit \pm rounded, ellipsoid to pear-shaped, rostrate or not, smooth 145
- 145. Seeds broadly ovate, compressed, contracted at base; testa brown, narrowly winged. Central America *Polyclathra*
- Seeds ovoid, compressed, not contracted; testa brown or banded crosswise with light and dark stripes, margin with or without wing. Mexico and Guatemala *Schizocarpum*
- 146. Petals fringed 147
- Petals not fringed 150
- 147. Seeds small. Asia to Australia *Trichosanthes*
- Seeds large 148
- 148. Anthers connate into a central globose head. Asia *Hodgsonia*
- Anthers distinct 149
- 149. Stamens 5, anthers all 1-thecous. Madagascar *Ampelosicyos*

- Stamens 3–5, one or several anthers 2-theous. Tropical Africa and Madagascar ***Telfairia***
- 150. Stamens 2 151
- Stamens 3 or 5 152
- 151. Male flowers often subtended by a ± orbicular bract, often 1–3 of the petals with an incurved basal scale; receptacle-tube broadly campanulate. Africa and Asia, introduced in Australia and America ***Momordica***
- Male flowers long pedunculate but without orbicular sheathing bract; receptacle-tube elongate-cylindrical. Peru ***Apodanthera***
- 152. Stamens 5 153
- Stamens 3 156
- 153. Seeds pear-shaped to subglobose. Africa, Madagascar, Asia 154
- Seeds ± compressed 155
- 154. Fruit operculate, the basal part green, expanded into a cup, the upper part red
Corallocarpus
- Fruit indehiscent or opening by valves, ripening entirely orange to red ***Kedrostis***
- 155. Fruit a ± fleshy berry. Asia ***Thladiantha***
- Fruit dry with seeds in fibrous tissue. Africa, Arabia, Asia, Australia, America ***Luffa***
- 156. Male flowers often subtended by a ± orbicular bract, often 1–3 of the petals with an incurved basal scale; receptacle-tube broadly campanulate. Africa and Asia, introduced in Australia and America ***Momordica***
- Male flowers without prominent, ± orbicular sheathing bract and without petal scales 157
- 157. Thecae straight or ± curved 158
- Thecae duplicate or triplicate or convoluted 160
- 158. Seeds 1–3, pendent, ovate, compressed; testa brown, ± sculptured, margin irregularly dentate, not winged. Asia ***Schizopepon***
- Seeds usually more than 3; testa yellowish or brown, ± smooth, margin sometimes distinct but not dentate 159
- 159. Stamens inserted near mouth of receptacle-tube; seeds often chocolate-brown with distinct ivory-colored margin. America ***Apodanthera***
- Stamens inserted halfway up the receptacle-tube; seeds yellowish or brown but not with distinct, ivory-colored margin. Africa, Asia, Australia, introduced in America ***Cucumis***
- 160. Thecae duplicate. Tropical Africa ***Cogniauxia***
- Thecae triplicate, flexuose or convoluted 161

161. Petioles with two, ± conspicuous apical glands. Africa, introduced in Asia and America
Lagenaria
 – Petioles not with paired glands 162
162. Receptacle-tube elongate, tubular to cylindrical 163
 – Receptacle-tube short, broad, shallow 164
163. Stamens inserted halfway up the receptacle-tube. Asia, Australia, introduced in Africa and America *Trichosanthes*
 – Stamens inserted near the mouth of the tube. Africa and Madagascar *Peponium*
164. Fruits in clusters or racemes 165
 – Fruit solitary (rarely 2–3) 167
165. Fruits up to 8 in racemes, globose, c. 2.5 cm across, with strong gourd-like odor, style and calyx rests persistent on fruit. Tropical West Africa *Bambekea*
 – Fruits in clusters of 2–6, globose, ellipsoid or ovoid, usually <2 cm across, style and calyx not persistent on fruit 166
166. Stamens inserted near the mouth of the receptacle-tube; fruits ripening bright red with silvery white stripes or marks. Africa, Asia, Australia *Diplocyclos*
 – Stamens inserted halfway up the receptacle-tube; fruits ripening yellow, orange, red or greenish to brownish, often with longitudinal pale stripes. Africa, Asia, Australia, introduced in America *Cucumis*
167. Fruit dry with seeds embedded in fibrous tissue. Africa, Asia, Australia, America *Luffa*
 – Fruit ± fleshy 168
168. Fruit a small, baccate, globose, ellipsoid or ovoid berry with white pulp, ripening bright red with silvery white stripes or marks. Africa, Asia, Australia *Diplocyclos*
 – Fruit a ± large pepo or gourd, if berry, then not with white pulp and bright red pericarp 169
169. Fruit at first hispid, later glabrous, dark green and covered with white wax; seeds many, compressed, smooth, white with thick margin. Asia, Australia, Pacific Islands, introduced in Africa *Benincasa*
 – Fruit not hispid when young, not covered with white wax when older 170
170. Stamens inserted near the mouth of the receptacle-tube. Australia *Nothoalsomitra*
 – Stamens inserted at the base of the tube or halfway up 171
171. Stamens inserted halfway up the tube. Africa, Asia, Australia, introduced in America
Cucumis
 – Stamens inserted at the base of the tube. Africa, Asia, introduced in Australia and America

172. Style filiform; fruit small and globose or cylindrical and to 30 cm long, baccate, usually glabrous *Coccinia*
- Style short, columnar; fruit large, globose or oblong, glabrous or covered with prominent spines *Citrullus*
173. Petals fringed 174
- Petals not fringed 175
174. Seeds small. Asia, Australia, introduced in Africa and America *Trichosanthes*
- Seeds large. Asia *Hodgsonia*
175. Petals 6. North America *Echinocystis*
- Petals 3–5 176
176. Male flowers 4-merous, female flowers 3-merous. Central America *Sicyos*
- All flowers 5-merous 177
177. Pollen reticulate 178
- Pollen echinate, baculate or perforate 181
178. Receptacle-tube elongated, cylindrical 179
- Receptacle-tube (broadly) campanulate 180
179. Thecae triplicate; stamens inserted halfway up the tube. Asia *Trichosanthes*
- Thecae straight or \pm curved; stamens inserted near the mouth of the tube. America *Apodanthera*
180. Fruit \pm fleshy, indehiscent. Africa, Asia, introduced in Australia and America *Citrullus*
- Fruit dry with fibrous tissue, operculate. Africa, Asia, Australia, America *Luffa*
181. Filaments connate into a central column 182
- Filaments distinct 188
182. Thecae connate into a horizontal, ring-like structure. South and Central America *Cyclanthera*
- Thecae distinct or connate into a central head-like structure 183
183. Fruit dry, globose, smooth, 5–7 cm in diam., indehiscent. Hispaniola *Penelopeia*
- Fruit \pm fleshy, if dry, then not globose 184
184. Fruit 1-seeded, fleshy, medium-sized to large. Central America 185
- Fruit few- to many-seeded, if 1-seeded, then fruit dry or small 186
185. Nectaries in open pouches. Mexico *Sicyos*
- Nectaries often with umbrella-like covering (not in *F. tacaco* and *F. talamancensis*). Costa Rica, Nicaragua, Panama *Frantzia*
186. Fruit explosively dehiscent *Hanburia*

- Fruit indehiscent or operculate 187
- 187. Fruits indehiscent, winged or 3–4-angled, small ovoid to fusiform, armed with retrorse barbs or unarmed, glabrous or villous, sometimes enclosed by a subtending leaf; seed solitary, ovoid or tumid to compressed. America, Pacific Islands, Australia, introduced in Africa ***Sicyos***
- Fruits operculate, echinate, rostrate, if indehiscent, then subterranean (to 3.5 cm deep), on 6–9 cm long peduncle (*E. arachnoidea*); seeds solitary or few, quadrangular or angular-ovoid, compressed. America ***Echinopepon***
- 188. Fruit dehiscent, dry or fleshy 189
- Fruit indehiscent 191
- 189. Fruit a fleshy pepo, splitting into three carpellar segments at maturity ***Peponopsis***
- Fruit ± dry at maturity 190
- 190. Fruit splitting into several irregular segments. Central America ***Polyclathra***
- Fruit splitting into 3 valves. Asia ***Herpetospermum***
- 191. Fruit a dry berry 192
- Fruit a medium-sized to large, fleshy pepo 193
- 192. Flowers large, solitary in the axils; peduncle of male flowers to 30 cm long, to 15 cm in female; receptacle-tube campanulate to urceolate, ± inflated. South America
Calycophysum
- Flowers small, in racemes, panicles, pairs or solitary, male and female often coaxial; receptacle-tube campanulate, not inflated. America ***Cayaponia***
- 193. Stamens inserted close to the mouth of the receptacle-tube; fruit a globose, ellipsoid or cylindrical pepo, smooth, to 60 cm long. Central America ***Sicana***
- Stamens inserted near the base of the receptacle-tube 194
- 194. Receptacle-tube and corolla ± campanulate or funnel-shaped. America, introduced in Africa, Europe, Asia and Australia ***Cucurbita***
- Receptacle-tube flat, saucer-shaped, villous; corolla flat, villous outside, smooth inside. Asia
Benincasa

Literature:

Schaefer, H. and S.S. Renner. 2011. Cucurbitaceae. Pp. 112-174 in K. Kubitzki (ed.), *Families and Genera of Flowering Plants*, Vol. 10. Springer Verlag, Berlin.