Key to the *Strigula* species of Australasia [Australia and its tropical and subtropical island territories, New Guinea and New Zealand]

Based on descriptions in Harris (1975, 1995), McCarthy (1995, 1997, 2000, 2009a, b), McCarthy & Malcolm (1996), McCarthy *et al.* (1996b), Sérusiaux & Polly (1996), Aptroot *et al.* (1997), Sérusiaux (1998), Galloway (2007), Lücking (2008)

GROWING ON BARK OR ROCK, RARELY ON SOIL

1 Growing on bark 2
1: Growing on rock, rarely on soil 5

2 Ascospores submuriform; macroconidia 3-septate, fragmenting into 4 parts .... **S. fracticonidia**
2: Ascospores with transverse septa only; macroconidia, if present, 1-septate, not fragmenting 3

3 Ascospores 5–7-septate, 16–32 × 4.0–7.5 µm ..... **S. albicascens**
3: Ascospores 1-septate 4

4 Ascospores 6–12 × 2.0–3.5 µm ..... **S. phaea**
4: Ascospores 12–21 × 3–5 µm ..... **S. viridiseda/S. subsimplicans**

5 Ascospores 1-septate 6
5: Ascospores 3–7-septate, or submuriform to muriform 12

6 Growing on calcareous rocks, ±endolithic 7
6: Growing on siliceous rocks, epilithic 10

7 Perithecia 0.44–0.92 mm diam. ..... **S. wilsonii**
7: Most or all perithecia less than 0.5 mm diam. 8

8 Ascospores 11–20 µm long ..... **S. elixii**
8: Ascospores 7.5–14.5 µm long 9

9 Perithecia 0.15–0.22 mm diam.; asci 40–56 µm long ..... **S. natalis**
9: Perithecia 0.21–0.42 mm diam.; asci 60–91 µm long ..... **S. bermudana**

10 Ascospores 22–32 × 4–6.5 µm; perithecia 0.23–0.40 mm diam. ..... **S. occulta**
10: Ascospores to 15 µm long; perithecia 0.15–0.28 mm diam. 11

11 Ascospore cells separating within or outside the ascus; asci 80–110 µm long; thallus corticate, with a dark discontinuous basal layer ..... **S. fractans**
11: Ascospore cells not separating within or outside the ascus; asci 45–65 µm long; thallus ecorticate, lacking a dark basal layer ..... **S. phaea**

12 Ascospores with transverse septa only 13
12: Ascospores submuriform to muriform 14

13 Ascospores (1–)3(–5)-septate; thallus on calcareous rocks, ±endolithic ..... **S. affinis**
13: Ascospores 5–7-septate; thallus on siliceous rocks, epilithic; rarely on soil . **S. decipiens**

14 Ascospores submuriform, 16–36 × 5.5–11.5 µm 15
14: Ascospores muriform, 37–63 × 10–22 µm 16

15 Macroconidia 3-septate, cylindrical, (11–)15.5(–20) × (3–)3.5(–4.5) µm ..... **S. rupestris**
15: Macroconidia submuriform, fusiform, (19–)23.5(–30) × (6–)7.5(–9) µm .... **S. australiensis**

16 Perithecia 0.2–0.3 mm diam. ..... **S. muriformis**
16: Perithecia 0.42–0.82 mm diam. ..... **S. johnsonii**

GROWING ON THE LEAVES OF TREES OR SHRUBS OR ON FERN PINNAE

1 Usually growing on the lower leaf surface; paraphyses richly branched and anastomosing 2
1: Usually growing on the upper leaf surface; paraphyses simple or sparingly branched, rarely anastomosing 3

2 Perithecia convex to hemispherical, 0.25–0.50 mm diam.; ascospores 12–18 × 4–6 µm ..... **S. prasina**
2: Perithecia conical, 0.35–0.90 mm diam.; ascospores 35–60 (–70) × 4.5–7.0 (–7.5) µm ... . **S. janeirensis**

3 Ascospores 3-septate ..... **S. orbicularis**
3: Ascospores 1-septate 4

4 Perithecia aggregated in groups of 5 or 6 under a common involucrellum; ascospores with terminal gelatinous appendages ..... **S. kaitokensis**
4: Perithecia remaining separate, not aggregated under a common involucrellum; ascospores lacking gelatinous appendages 5

5 Ascospores 8–12 (–16) µm long 6
5: Ascospores (10–) 14–23 (–30) µm long 16

6 Thallus subcuticular, not readily separating from the leaf; photobiont *Cephaleuros*, the cells irregularly arranged 7
6: Thallus supracuticular, readily separating from the leaf; photobiont *Phycopeltis*, the cells forming net-like aggregations or radiating plates 11

7 Thallus 10–20 µm thick, medium to dark green (often appearing somewhat metallic), often bordered by a thin black line and/or with black punctae ..... **S. nitidula**
7: Thallus 15–50 (–70) µm thick, pale greyish green to medium green, not bordered by a thin black line, not black-punctate 8

8 Macroconidiomata in compact applanate 0.30–0.77 mm wide groups of 10–20; ascospore cells not separating within or outside the ascus ..... **S. lacericola**
8: Macroconidiomata usually solitary, 0.08–0.15 mm diam.; ascospore cells often separating within or outside the ascus 9

9 Asci clavate, 28–35 × 5.5–7.0 µm ..... **S. fossulicola**
9: Asci cylindrical, 40–75 µm long 10

10 Thallus 15–40 µm thick; perithecia superficial, not overgrown by the thallus .... **S. concreta**
10: Thallus 20–70 µm thick; perithecia semi-immersed, only the black apices exposed .... **S. schizospora**

11 Thallus with numerous blackish punctae, greenish grey ..... **S. multipunctata**
11: Thallus without blackish punctae; colour various 12

12 Perithecia 0.4–0.8 mm diam., hemispherical or conical in the centre, but with a conspicuously spreading base ..... **S. platypoda**
12: Perithecia 0.15–0.50 mm diam., hemispherical or conical; base not markedly spreading 13

13 Asci 25–40 µm long 14
13: Asci 40–60 µm long 15

14 Perithecia usually greenish, overgrown by the thallus; apex ±rounded ..... **S. obducta**
14: Perithecia black, less commonly greyish, not overgrown by the thallus; apex ±pointed ..... **S. phyllogena**

15 Perithecia greyish green; asci 4–6 µm wide; ascospores 9–12 × 2.5–4.0 µm .....**S. viridis**
15: Perithecia black; asci 8–10 µm wide; ascospores 10–15 × 3.5–5.5 µm ..... **S. caerulensis**

16 Thallus supracuticular, readily peeling/flaking from the leaf; ascospore cells usually separating outside the ascus ..... **S. austropunctata**
16: Thallus subcuticular, not readily peeling/flaking from the leaf; ascospore cells usually not separating, or (in *S. oceanica*) separating within the ascus 17

17 Thallus greyish green to bright green, white-punctate ..... **S. albomaculata**
17: Thallus not white-punctate 18

18 Ascospore cells separating within the ascus..... **S. oceanica**
18: Ascospore cells not separating 19

19 Macroconidia polarilocular ..... **S. novae-zelandiae**
19: Macroconidia simple or with 1 complete septum, not polarilocular..... 20

20 Thallus with dichotomously branched lobes forming a reticulum..... **S. delicata**
20: Thallus without dichotomously branched lobes that form a reticulum; lobes absent or marginal and shallow or deeply incised 21

21 Thallus or thalline lobes bordered by a thin black line, often dark green, dark grey-green or olive-brown 22
21: Thallus not bordered by a thin black line, usually pale grey, greyish green or bright green 24

22 Ascospores fusiform, 14–25 × 3–5 µm ..... **S. melanobapha**
22: Ascospores oblong-cylindrical, 10–18 × 2.0–3.5 µm 23

23 Thallus with distinct divergent lobes separated by large spaces; perithecia subconical to subhemispherical .....**S. subtilissima**
23: Thallus with indistinct confluent lobes separated by minute spaces; perithecia conical ... . **S. maculata**

24 Perithecia predominantly or completely whitish to pale greyish green ..... **S. nemathora**
24: Perithecia predominantly black 25

25 Perithecia 0.5–1.2 mm diam. .....**S. macrocarpa**
25: Perithecia 0.2–0.6 mm diam. 26

26 Pycnidia that produce macroconidia clustered in the centre of the thallus ..**S. antillarum**
26: Pycnidia that produce macroconidia solitary, scattered..... 27

27 Thallus bright medium green; ascospores with the 2 cells ±equal in size..**S. smaragdula**
27: Thallus pale bluish grey to greenish grey; ascospores with the distal cell larger than the proximal .....**S. subelegans**