Key to some genera and species often confused with *Mycosphaerella*, including those into which some are newly combined below:

1 ascospores not septate ..... *Glomerella*
1 ascospores 1-septate (3-septate only in *Mycosphaerella sphaerulinae*)
2 ascospores brown
3 ascospores ornamented ..... *Arecophila*
3 ascospores not ornamented
4 hamathecium absent ..... *Dothidotthia*
4 hamathecium present ..... *Montagnula*
2 ascospores hyaline
5 ostiole with a long neck ..... *Gnomonia*
5 ostiole punctiform or schizolytic
5 ostiole punctiform or schizolytic
6 ascospores with incomplete pseudosepta ..... *Wettsteinina*
6 ascospores with 1 true septum
7 hamathecium filamentous
8 periphyses present in the ostiole ..... *Stigmidium*
8 periphyses absent
9 hamathecium anastomosing above asci ..... *Collemopsidium*
9 hamathecium branched between asci ..... *Didymella*
9 hamathecium simple, moniliform ..... *Arthopyrenia*
7 hamathecium absent or parenchymatous
10 hamathecium parenchymatous ..... *Planistromella*
11 ascospores 9.5-10 µm long, on trees ..... *conglomeratiformis*
11 ascospores 8.5-11 µm long, on palms ..... *zonata*
11 ascospores 11-12.5 µm long, ascomata simple ..... *operculata*
11 ascospores 11-13 µm long, ascomata aggregate ..... *majuscula*
11 ascospores 22-30 µm long ..... *acervata*
10 hamathecium absent
12 ascospores apiosporous, 9-11 µm long ..... *Omphalospora stellariae*
12 ascospores with median septum
13 ascomata in stromata
14 only upper half of ascoma carbonized ..... *Oligostroma proteae*
14 ascoma wall fully carbonized ..... *Cymadothea*
15 ascospores 11-13 µm long ..... *lenticula*
15 ascospores 22-25 µm long ..... *trifolii*
15 ascospores 13-16 µm long ..... *Scirrhiachora groveana*
13 ascomata simple
16 asci cylindrical to clavate ..... *Mycosphaerella*
16 asci pyriform, ascospores sole-shaped ..... *Davidiella*

Key to the morphological species of *Davidiella*:

1 on spots on living leaves
2 ascospores 8-11 µm long, host Leguminosae ..... *ariadna*
2 ascospores 8.5-10.5 µm long, host Menispermaceae ..... *cepharantha*
2 ascospores 9.5-11 µm long, host Arecaceae ..... *acrocomiicola*
2 ascospores 10-12 µm long, host Rosaceae ..... *rosigena*
2 ascospores 11-14 µm long, host Leguminosae ..... *carinthiaca*
2 ascospores 12-14 µm long, host Dioscoreaceae ..... *dioscoreicola*
2 ascospores 13-15 µm long, host Asteraceae ..... *lactucae*
2 ascospores 14-16 µm long, host Caryophyllaceae ..... *woronichinii*
2 ascospores 14-17 µm long, host Myrtaceae ..... *myrticola*
2 ascospores 14-17 µm long, host Asteraceae ..... *decidua*
2 ascospores 14-19 µm long, host Pontederiaceae or Nymphaeaceae ..... *pontederiae*
2 ascospores 14-20 µm long, host Fabaceae ..... *nemorosa*

2 ascospores 15-17 µm long, host Oleaceae ..... *sapindi*
2 ascospores 15-19 µm long, host Thymelaeaceae ..... *dircae*
2 ascospores 15-19 µm long, host Moraceae ..... *cecropiae*
2 ascospores 16-19 µm long, host Lamiaceae ..... *pogostemonis*
2 ascospores 17-22 µm long, host Poaceae ..... *spilota*
2 ascospores 18-21 µm long, host Icacinaceae ..... *mappiae*
2 ascospores 18-23 µm long, host Chrysobalanaceae ..... *chrysobalani*
2 ascospores 23-35 µm long, host Rubiaceae ..... *craterispermi*
1 on dead tissues, including dead leaf tips etc.
3 ascospores usually wider than 4.5 µm
4 ascospores mostly below 22 µm long ..... *allicina*
4 ascospores mostly 22-30 µm long ..... *clandestina*
4 ascospores 30-35 µm long, on Asteraceae leaves ..... *liabi*
4 ascospores 26-36 µm long, on Apiaceae leaves ..... *stephanorossiae*
3 ascospores usually thinner than 4.5 µm
5 ascospores (6-)10-13(-17) µm long ..... *ammophilae*
5 ascospores 10-15 × 3-5 µm long ..... *disseminata*
5 ascospores 12.5-13.5 × 3-3.5 µm, with sheath, on *Populus* ..... *populorum*
5 ascospores 15-18 × 3-4 µm, on *Ephedra* branches ..... *ephedricola*

Key to the morphological species of *Mycosphaerella*:

1 on spots on living leaves, asci cylindrical to clavate: many species; identify by using the host index and comparing the comments under the species listed
1 on dead tissues, including dead leaf tips etc.
2 ascomata schizolytic, ascospores 7-12 µm long, on conifers ..... *juniperina*
2 ascomata opening with a preformed punctiform ostiole
3 asci cylindrical to clavate
4 ascospores linear (ratio over 6:1) ..... sect. ***Longispora***
6 ascospores lower ends pointed, 25-60 µm long ..... *populi*
6 ascospores lower end rounded
7 ascospores 12-22 µm long ..... *millegrana*
7 ascospores over 20 µm long .....
8 ratio 6-7:1 ..... *topographica*
8 ratio over 8:1
9 ascospores 20-39 µm long ..... *latebrosa*
9 ascospores 36-40 µm long, on ferns ..... *pteridis*
4 ascospores pyriform to ovoid, asci strictly cylindrical ..... sect. ***Mycosphaerella***
10 ascospores 6-7 × 1.5-2 µm ..... *nigromaculans*
10 ascospores 7-11 × 2-3 µm ..... *punctiformis*
10 ascomata grouped, ascospores 8-9 × 1.5-2 µm ..... *bumeliae*
10 ascospores 12-14 × 3.5-5 µm ..... *catesbeyi*
4 ascospores ellipsoid to irregular, asci clavately cylindrical ..... sect. ***Caterva***
11 ascospores 7.5-10 µm long ..... *arachnoidea*
11 ascospores 11-18 × 3-4 µm long, on ferns etc ..... *filicum*
11 ascospores (8-)10-13(-15) µm long, ascomata over 0.2 mm ..... *subradians*
11 ascospores 11-13 µm long, ascomata tiny, under 0.2 mm ..... *asensioi*
11 ascospores 13-17 µm long, turning stems red ..... *rubella*
11 ascospores 15-17 µm long, on grasses ..... *graminicola*
11 ascospores (13-)15-19 µm long ..... *superflua*
11 ascospores 21-24 µm long ..... *molluginis*
11 ascospores 18-21 µm long, on conifers ..... *cunninghamiae*
3 asci pyriform, ascospores fusiform ..... sect. ***Fusispora***
12 ascospores 15-18 µm long, on Cyperaceae ..... *caricicola*
12 ascospores 16-19 µm long, on Leguminosae ..... *mimosicola*
12 ascospores 16-19 µm long, on Moraceae ..... *arachnoidea*
12 ascospores 17-20 µm long, on Poaceae ..... *panicicola*
12 ascospores 21-25 µm long, on Ericaceae ..... *munyangica*
12 ascospores 24-32 µm long, on Cyperaceae etc ..... *alpina*