



A taxonomic analysis of fungi collected and described from Egypt up to 1931

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Abstract

A revisit of 13 publications published since 1813 to 1931 is presented and the 340 taxa reported are taxonomically re-evaluated. The Egyptian taxa treated belong to two kingdoms and three major groups: zygomycetes (1 spp.), ascomycetes (124 spp.), basidiomycetes (197 spp.) and chromistian fungal analogues (18 species). Taxa of true fungi are distributed among three phyla, ten classes, 38 orders, and 67 families, while Chromistean fungal analogues distributed in only one phylum, two orders and three families. About 35% of the original names of taxa have undergone changes, although for a few new designations are still debatable. The binomials of the remaining taxa are unchanged. Thus despite it being over 200 years since publication of Delile on Egyptian fungi and the present analysis, the taxonomic status of many Egyptian taxa, awaits re-assessment in modern terms.

Key words – Arid – ascomycetes – basidiomycetes – biodiversity – fungi- nomenclature – taxonomy

Introduction

Saprobic and phytopathogenic fungi on wild and domesticated plants of economic importance have been attracted the attention of many researchers in the late 19th/ early 20th century in Egypt e.g. Delile (1813), Thüemen (1878, 1879, 1880), Ascherson (1879), Roumeguère (1881, 1887), Sickenberger (1901), Fletcher (1902), Reichert (1921), Fahmy (1923), Shearer (1924), Briton-Jones (1922, 1923, 1925), Bishara (1928) and Melchers (1931).

Works of Reichert and Melchers were considered the starting date of the documentation of Egyptian phytopathogenic fungi. Israel Reichert (1891–1975) obtained his doctorate on *Die Pilzflora Ägypten* in which 237 species were recognized, of which 42 were new to science without any specimens were retained in Egypt. He used material collected before 1914 found in the

Botanisches Museum in Berlin-Dahlem, which Reichert used when compiling his list of 1921, but it is not known if these specimens survived World War II (Abdel-Azeem 2010). A check list of plant diseases and fungi occurring in Egypt published by Melchers (1931) in Transactions of the Kansas Academy of Science is considered the valuable update of aforementioned studies and species list. Melchers went to Egypt in 1927 as chief mycologist for 18 months by the invitation of the Egyptian Minister of Agriculture. His checklist included 345 species of fungi, especially those causing plant diseases and he met a series of difficulties such as there being no records available on the occurrence, distribution, or dates of any mycological observations conducted previously by any investigator in Egypt and no mycological reference collection (Melchers 1931).

Taxonomy requires continual updates and checklists. Checklists are important tools in taxonomy, systematics and conservation (Söderström et al. 2007, 2008). Records of Egyptian fungi, are scattered through a wide array of journals, books, and dissertations, but preliminary annotated checklists and compilations are not all readily available and this is the main reason that Egypt lacks recent checklists (Abdel-Azeem 2010, Abdel-Azeem & Salem, 2013). Only very few comprehensive assessments of Egyptian fungi have been published in the 20th and 21st centuries e.g. El-Abyad and Abu-Taleb 1993; El-Abyad 1997; Abdel-Azeem, 2010, Moustafa & Abdel-Azeem 2011, Abdel-Azeem & Salem 2013).

Materials & Methods

The main target of this study is the 19th and early 20th collections of Egyptian fungi initially identified by Delile (1813), Decaisne (1835), Ascherson (1879), Thümen (1878, 1879, 1880), Roumeguère (1881, 1887), Patouillard (1895), Sickenberger (1901), Magnus (1910), Reichert (1921), and Melchers (1931). These fungi and their descriptions are hardly accessible or traceable, however, a systematic review of these taxa is long overdue. Therefore, the classification of these fungi are now updated and resubmitted below, together with their original data to provide a contemporary and comparative taxonomic study. The names of authors of fungal taxa are abbreviated according to Kirk and Ansell (1992). The systematic arrangement of the recorded list follows the 10th edition of Anisworth and Bisby's Dictionary of the Fungi (Kirk et al. 2008). All name corrections, authorities, and taxonomic assignments of recorded species in this study were checked against the Index Fungorum database (www.indexfungorum.org).

Results

One hundred and forty-seven genera and 340 (119 synonymized) species were recorded during this period. Taxa of true fungi distributed among three phyla, ten classes, 38 orders, and 67 families, while Chromistean fungal analogues are distributed in only one phylum, two orders and three families. Taxa with uncertain position are distributed among classes, orders and families. The records are reviewed and are enumerated below in alphabetical and hierarchical order. Species of each group are given in a taxonomic sequence and accepted names are highlighted in bold. Classification of Dothideomycetes was followed Hyde et al. (2013) and Wijayawardene et al. (2014).

Ascomycota, Dothideomycetes

Botryosphaeriaceae, Botryosphaeriales

1. ***Diplodia dracaenae*** Henn., Hedwigia 48: 112 (1908)
Ref.: Melchers 1931.
2. ***Diplodia opuntiae*** Sacc., Michelia 2 (no. 7): 267 (1881)
Ref.: Reichert 1921, Melchers 1931.
3. ***Diplodia warburgiana*** Reichert, Bot. Jb. 56: 715 (1921)
Ref.: Reichert 1921, Melchers 1931.
4. ***Macrophoma engleriana*** Reichert, Bot. Jb. 56: 712 (1921)
Ref.: Reichert 1921, Melchers 1931.
5. ***Microdiplodia machlaiana*** Reichert, Bot. Jb. 56: 714 (1921)

Ref.: Reichert 1921, Melchers 1931.

6. *Sphaeropsis calotropidis* Thüm., in Schweinfurth & Thümen, *Grevillea* 8 (no. 46): 51 (1880)

Ref.: Thüemen 1879, 1880.

7. *Phaeobotryosphaeria visci* (Kalchbr.) A.J.L. Phillips & Crous, in Phillips, Alves, Pennycook, Johnston, Ramaley, Akulov & Crous, *Persoonia* 21: 47 (2008)

Synonym: - *Sphaeropsis visci* (Alb. & Schwein.) Sacc., *Michelia* 2 (no. 6): 105 (1880)

Ref.: Melchers 1931.

Phyllostictaceae, Botryosphaeriales,

8. *Guignardia egyptiaca* (Müll. Arg.) Reichert, *Bot. Jb.* 56: 669 (1921)

Ref.: Reichert 1921, Melchers 1931.

9. *Phyllosticta gossypina* Ellis & G. Martin, *J. Mycol.* 2(11): 129 (1886)

Ref.: Melchers 1931.

10. *Phyllosticta palmarum* Rabenh., *Fungi europ. exsicc.*, *Edn nova. Cent.* 2: no. 2161 (1876)

Ref.: Reichert 1921, Melchers 1931.

Capnodiaceae, Capnodiales

11. *Capnodium citricola* McAlpine, *Proc. Linn. Soc. of New S. Wales* 1869, part IV, p. 491 (1896)

Ref.: Melchers 1931.

Cladosporiaceae, Capnodiales,

12. *Cladosporium acaciae* Reichert, *Bot. Jb.* 56: 720 (1921)

Ref.: Reichert 1921, Melchers 1931.

13. *Cladosporium herbarum* (Pers.) Link, in Willdenow, *Mag. Gesell. naturf. Freunde*, Berlin 8: 37 (1816).

Ref.: Thüemen 1880, Roumeguère 1881, Sickenberger 1901, Reichert 1921, Melchers 1931.

14. *Cladosporium hibisci* Reichert, *Bot. Jb.* 56: 721 (1921)

Ref.: Reichert 1921, Melchers 1931.

15. *Cladosporium pyriforme* Reichert *Bot. Jb.* 56: 721 (1921)

Ref.: Reichert 1921, Melchers 1931.

16. *Cladosporium typharum* Desm., *Pl. crypt. exsicc.* 1: no. 304 (1834)

Ref.: Sickenberger 1901, Reichert 1921, Melchers 1931.

Capnodiales genera, incertae sedis

17. *Torula herbarum* (Pers.) Link, *Mag. Gesell. naturf. Freunde*, Berlin 3(1-2): 19 (1809)

Ref.: Sickenberger 1901, Reichert 1921, Melchers 1931.

18. *Torula opuntiae* Reichert, *Bot. Jb.* 56: 718 (1921)

Ref.: Reichert 1921, Melchers 1931.

Mycosphaerellaceae, Capnodiales,

19. *Cercospora apii* Fresen., *Beitr. Mykol.* 3: 91 (1863)

Ref.: Melchers 1931.

20. *Cercospora beticola* Sacc., *Nuovo G. bot. ital.* 8 (2): 189 (1876)

Ref.: Melchers 1931.

21. *Cercospora roesleri* (Catt.) Sacc., *Michelia* 2 (no. 6): 128 (1880)

Ref.: Reichert 1921, Melchers 1931.

22. *Cercospora violae* Sacc., *Nuovo G. bot. ital.* 8 (2): 187 (1876),

Ref.: Reichert 1921- Melchers 1931.

23. *Cymadothea trifolii* (Pers.) F.A. Wolf, *Mycologia* 27(1): 71 (1935)

Synonym: - *Phyllachora trifolii* (Pers.) Fuckel, *Jb. nassau. Ver. Naturk.* 23-24: 218 (1870) [1869-70]

- *Polythrincium trifolii* Kunze, in Kunze & Schmidt, *Mykologische Hefte* (Leipzig) 1: 14 (1817)

Ref.: Magnus 1910, Reichert 1921, Melchers 1931.

24. *Mycosphaerella berkeleyi* W.A. Jenkins, J. Agric. Res., Washington 56: 325 (1938)
 Synonym: -*Cercospora personata* (Berk. & M.A. Curtis) Ellis, J. Mycol. 1(5): 63 (1885)
 Ref.: Melchers 1931.
25. *Mycosphaerella engleriana* Reichert, Bot. Jb. 56: 670 (1921)
 Ref.: Reichert 1921, Melchers 1931.
26. *Mycosphaerella fragariae* (Tul. & C. Tul.) Lindau, in Engler & Prantl, Nat. Pflanzenfam.,
 Teil. I (Leipzig) 1(1): 424 (1897)
 Ref.: Melchers 1931.
27. *Mycosphaerella tassiana* (De Not.) Johanson, Öfvers. K. Svensk. Vetensk.-Akad.
 Förhandl. 41(no. 9): 167 (1884)
 Synonym: - *Cladosporium graminum* (Pers.) Link, in Willdenow, Sp. pl., Edn 4 6(1): 42
 (1824)
 Ref.: Reichert 1921, Melchers 1931.
28. *Passalora fulva* (Cooke) U. Braun & Crous, in Crous & Braun, CBS Diversity
 Ser. (Utrecht) 1: 453 (2003)
 Ref.: Melchers 1931.
29. *Pseudocercospora snelliana* (Reichert) U. Braun, H.D. Shin, C. Nakash. & Crous, in
 Crous, Braun, Hunter, Wingfield, Verkley, Shin, Nakashima & Groenewald, Stud.
 Mycol. 75: 106 (2012)
 Synonym: -*Cercospora snelliana* Reichert, Bot. Jb. 56: 724 (1921)
 Ref.: Reichert 1921.
30. *Pseudocercospora vitis* (Lév.) Speg., Anal. Mus. nac. B. Aires, Ser. 3 13: 438 (1911)
 Ref.: Reichert 1921.
31. *Sphaerella carlii* Fuckel, Jb. nassau. Ver. Naturk. 23-24: 103 (1870)
 Ref.: Thüemen 1880.
32. *Stigmatidium schaeferi* (A. Massal.) Trevis., Conspect. Verruc.: 17 (1860)
 Synonym: - *Pharcidia epicymatia* (Wallr.) G. Winter, Rabenh. Krypt.-Fl., Edn 2 (Leipzig)
 1.2: 342 (1885)
 Ref.: Sickenberger 1901, Reichert 1921, Melchers 1931.
33. *Stigmium carpophila* (Lév.) M.B. Ellis, Mycol. Pap. 72: 56 (1959)
 Synonym: -*Coryneum beijerinckii* Oudem., Hedwigia 22: 115 (1883)
 Ref.: Melchers 1931.

Dothideaceae, Dothideales

34. *Scirrhia rimosa* (Alb. & Schwein.) Fuckel, Jb. nassau. Ver. Naturk. 23-24: 221 (1870)
 Ref.: Reichert 1921, Melchers 1931.

Gloniaceae, Mytilinidiales

35. *Glonium guttulatum* Reichert, Bot. Jb. 56: 673 (1921)
 Ref.: Reichert 1921, Melchers 1931.
36. *Glonium salsolae* Reichert, Bot. Jb. 56: 672 (1921)
 Ref.: Reichert 1921, Melchers 1931.

Didymosphaeriaceae, Pleosporales

37. *Didymosphaeria epidermidis* (Fr.) Fuckel, Jb. nassau. Ver. Naturk. 23-24: 140 (1870)
 Ref.: Reichert 1921, Melchers 1931.

Pleosporales genera, incertae sedis

38. *Diplodina dracaenicola* Sacc., Syll. fung. (Abellini) 3: 413 (1884)
 Synonym:- *Ascochyta dracaenicola* (Sacc.) Allesch., Rabenh. Krypt.-Fl., Edn 2
 (Leipzig) 1(6): 641 (1900)
 Ref.: Reichert 1921.
39. *Sporidesmium bicolor* (S. Hughes) M.B. Ellis, Mycol. Pap. 70: 52 (1958)
 Ref.: Melchers 1931.
40. *Sporidesmium longipedicellatum* Reichert, Bot. Jb. 56: 723 (1921)
 Ref.: Reichert 1921.

Massarinaceae, Pleosporales

41. *Helminthosporium flexuosum* Corda Icon. fung. (Prague) 1: 13 (1837)
Ref.: Thüemen 1878.

Phaeosphaeriaceae, Pleosporales

42. *Ampelomyces quisqualis* Ces., Bot. Ztg. 10: 301 (1852)
Ref.: Thüemen 1878, Melchers 1931.
43. *Sphaerellopsis filum* (Biv.) B. Sutton, Mycol. Pap. 141: 196 (1977)
Synonym:- *Darluca filum* (Biv.) Castagne, Outl. Brit. Fung. (London): 318 (1860)
Ref.: Reichert 1921.
44. *Eudarluca caricis* (Fr.) O.E. Erikss., Bot. Notiser 119: 33 (1966)
Ref.: Melchers 1931.

Pleosporaceae, Pleosporales

45. *Alternaria brassicae* (Berk.) Sacc., Michelia 2(no. 6): 129 (1880)
Ref.: Melchers 1931.
46. *Alternaria citri* Ellis & N. Pierce, in Pierce, Bot. Gaz. 33: 234 (1902)
Ref.: Melchers 1931.
47. *Alternaria cucumerina* (Ellis & Everh.) J.A. Elliott, Am. J. Bot. 4: 472 (1917)
Ref.: Melchers 1931.
48. *Alternaria euphorbiicola* E.G. Simmons & Engelhard, in Simmons, Mycotaxon 25(1): 196 (1986)
Synonym:- *Macrosporium euphorbiae* Reichert, Bot. Jb. 56: 723 (1921)
Ref.: Reichert 1921, Melchers 1931.
49. *Alternaria solani* Sorauer, Z. PflKrankh. PflSchutz 6: 6 (1896)
Ref.: Melchers 1931.
50. *Alternaria tomato* (Cooke) L.R. Jones, Bull. Torrey bot. Club 23: 353 (1896)
Ref.: Melchers 1931.
51. *Bipolaris oryzae* (Breda de Haan) Shoemaker, Can. J. Bot. 37 (5): 883 (1959)
Synonym:- *Helminthosporium oryzae* Breda de Haan, Bulletin Inst. Bot. Buitenzorg 6: 11 (1900)
Ref.: Melchers 1931.
52. *Clathrococcum magnusianum* Reichert, Bot. Jb. 56: 726 (1921)
Ref.: Reichert 1921, Melchers 1931.
53. *Macrosporium oleae* Reichert, Bot. Jb. 56: 724 (1921)
Ref.: Reichert 1921, Melchers 1931.
54. *Pleospora asphodeli* Rabenh., Un. Ital. Crypt. 12 (1866)
Ref.: Reichert 1921, Melchers 1931.
55. *Pleospora egyptiaca* Reichert [as 'aegyptiaca'], Bot. Jb. 56: 671 (1921)
Ref.: Reichert 1921, Melchers 1931.
56. *Pleospora herbarum* (Pers.) Rabenh., Klotzschii Herb. Viv. Mycol.: no. 547 (1854)
Synonym:- *Macrosporium commune* Rabenh., Fungi europ. exsicc.: no. 1360 (1870)
Ref.: Sickenberger 1901, Reichert 1921, Melchers 1931.
57. *Pleospora lindaviana* Reichert 1921, Bot. Jb. 56: 671 (1921)
Ref.: Reichert 1921, Melchers 1931.
58. *Pleospora rotundata* Reichert, Bot. Jb. 56: 671 (1921)
Ref.: Reichert 1921, Melchers 1931.
59. *Pyrenophora graminea* S. Ito & Kurib., J. Fac. agric., Hokkaido Imp. Univ., Sapporo 29: 85-123 (1931)
Ref.: Melchers 1931.
60. *Pyrenophora teres* Drechsler, J. Agric. Res., Washington 24 (8): 656 (1923)
Ref.: Melchers 1931.
61. *Setosphaeria turcica* (Luttr.) K.J. Leonard & Suggs, Mycologia 66(2): 295 (1974)
Synonym:- *Helminthosporium turcicum* Pass., Boln Comiz. Agr. Parmense 10: 3 (1876)

Ref.: Melchers 1931.

Venturiaceae, Venturiales

62. *Fusicladium artiges* Pez., in Sickenberger, Mémoires Présentés a L'Institut Égyptien 4(1): 331 (1900)

Ref.: Sickenberger 1901.

63. *Fusicladium cynanchi* Reichert, Bot. Jb. 56: 720 (1921)

Ref.: Reichert 1921, Melchers 1931.

Ascomycota, Eurotiomycetes

Trichocomaceae, Eurotiales

64. *Aspergillus candidus* Link, Mag. Gesell. naturf. Freunde, Berlin 3(1-2): 16 (1809)

Ref.: Reichert 1921, Melchers 1931.

65. *Aspergillus niger* Tiegh., Annls Sci. Nat., Bot., sér. 5 8: 240 (1867)

Synonym:- *Ustilago phoenicis* Corda, Icon. fung. (Prague) 4: 9 (1840)

Ref.: Thüemen 1878, Reichert 1921, Melchers 1931.

66. *Aspergillus phoenicis* Corda) Thom & Currie, Journal of Agricultural Research 7: 9 (1916)

Ref.: Reichert 1921.

67. *Penicillium digitatum* (Pers.) Sacc., Fungi italica autogr. del. 17-28: tab. 894 (1881)

Ref.: Melchers 1931.

68. *Penicillium italicum* Wehmer, Hedwigia 33: 211 (1894)

Ref.: Melchers 1931.

Ascomycota genera, incertae sedis

69. *Bispora hammonis* (Ehrenb.) Reichert, Bot. Jb. 56: 719 (1921)

Ref.: Reichert 1921, Melchers 1931.

70. *Bispora opunticola* Reichert, Bot. Jb. 56: 719 (1921)

Ref.: Reichert 1921, Melchers 1931.

71. *Fumago vagans* Pers., Mycol. eur. (Erlanga) 1: 9 (1822)

Ref.: Reichert 1921, Melchers 1931.

72. *Hormiscium calligoni* Reichert, Bot. Jb. 56: 718 (1921)

Ref.: Reichert 1921, Melchers 1931.

73. *Hormiscium saccharicola* Reichert, Bot. Jb. 56: 718 (1921)

Ref.: Reichert 1921, Melchers 1931.

Triblidiaceae, Triblidiales

74. *Triblidium punctum* (Pat.) Reichert [as "Tryblidium"], Bot. Jb. 56: 673 (1921)

Basionym: *Blitridium punctum* Pat., Bull. Soc. mycol. Fr. 11: 87 (1895) interpreted as a new combination

Ref.: Patouillard 1895, Sickenberger 1901, Reichert 1921.

Ascomycota, Leotiomycetes

Erysiphaceae, Erysiphales

75. *Blumeria graminis* (DC.) Speer, Sydowia 27(21-26): 2 (1975)

Synonym:- *Erysiphe graminis* DC., in de Candolle & Lamarck, Fl. franç., Edn 3 (Paris) 6: 106 (1815)

Ref.: Magnus 1910, Reichert 1921, Melchers 1931.

76. *Erysiphe cruciferarum* Opiz ex L. Junell, Svensk bot. Tidskr. 61(1): 217 (1967)

Synonym:- *Erysiphe communis* (Wallr.) Schltdl., Fl. berol. (Berlin) 2: 168 (1824)

Ref.: Melchers 1931.

77. *Erysiphe lamprocarpa* (Wallr.) Link, in Willdenow, Sp. pl., Edn 4 6(1): 108 (1824)

Ref.: Thüemen 1880.

78. *Erysiphe necator* Schwein., Trans. Am. phil. Soc., New Series 4(2): 270 (1832)

Ref.: Melchers 1931.

79. *Erysiphe polygoni* DC., Fl. agen. 2: 614 (1821)

Ref.: Reichert 1921.

- 80. *Fibroidium abelmoschi*** (Thüm.) U. Braun & R.T.A. Cook, Taxonomic Manual of the Erysiphales (Powdery Mildews): 167 (2012)
 Synonym:- *Oidium abelmoschi* Thüm., Grevillea 6(no. 39): 102 (1878)
 Ref.: Thüemen 1878, Thüemen 1879, Thüemen 1880, Sickenberger 1901, Reichert 1921, Melchers 1931.
- 81. *Golovinomyces cichoracearum*** (DC.) V.P. Heluta [as 'cichoraceorum'], Ukr. bot. Zh. 45(5): 62 (1988).
 Synonym:- *Erysiphe cichoracearum* DC., in Lamarck & de Candolle, Fl. franç., Edn 3 (Paris) 2: 274 (1805)
 Ref.: Melchers 1931.
- 82. *Leveillula taurica*** (Lév.) G. Arnaud, Anns Épiphyt. 7: 92 (1921)
 Ref.: Melchers 1931.
- 83. *Oidium lippiae*** Thüm., Grevillea 6 (no. 39): 103 (1878)
 Ref.: Thüemen 1878, Reichert 1921, Melchers 1931.
- 84. *Oidium mangiferae*** Berthet, Boln Agric., São Paulo 15: 818 (1914)
 Ref.: Melchers 1931.
- 85. *Oidium medicagineum*** Thüm. Grevillea. 8:49 (1879)
 Ref.: Thüemen 1879, Reichert 1921, Melchers 1931.
- 86. *Podosphaera clandestina*** (Wallr.) Lév., Anns Sci. Nat., Bot., sér. 3 15: 136 (1851)
 Ref.: Melchers 1931.
- 87. *Podosphaera fuliginea*** (Schltdl.) U. Braun & S. Takam., Schlechtendalia 4: 29 (2000)
 Synonym:- *Oidium erysiphoides* Fr., Syst. mycol. (Lundae) 3(2): 432 (1832)
 - *Oidium erysiphoides* Fr. f. *cucurbitae maximae* (1832)
 Ref.: Thüemen 1878, Thüemen 1879, Thüemen 1880, Sickenberger 1901, Reichert 1921, Melchers 1931.
- 88. *Podosphaera pannosa*** (Wallr.) de Bary, Abh. senckenb. naturforsch. Ges. 1(no. 3): 48 (1870)
 Synonym:- *Oidium leucoconium* Desm., Pl. Crypt. Nord France, Edn 1: no. 303 (1846)
 - *Sphaerotheca pannosa* (Wallr.) Lév., Anns Sci. Nat., Bot., sér. 3 15: 138 (1851)
 Ref.: Thüemen 1878, Reichert 1921, Melchers 1931.

Dermateaceae, Helotiales

- 89. *Diplocarpon rosae*** F.A. Wolf, Bot. Gaz. 54: 231 (1912)
 Ref.: Melchers 1931.
- 90. *Gloeosporium schweinfurthianum*** Thüm., Grevillea VII., p. 49 (1879)
 Ref.: Thüemen 1879, Reichert 1921, Melchers 1931.
- 91. *Marssonina kriegeriana*** (Bres.) Magnus, Hedwigia 45: 88 (1906)
 Ref.: Reichert 1921, Melchers 1931.
- 92. *Pseudopeziza medicaginis*** (Lib.) Sacc., Malpighia 1: 455 (1887)
 Ref.: Melchers 1931.
- 93. *Pseudopeziza trifolii*** (Biv.) Fuckel, Jb. nassau. Ver. Naturk. 23-24: 290 (1870)
 Ref.: Melchers 1931.

Helotiales genera, incertae sedis

- 94. *Coniothecium heterosporum*** Reichert, Bot. Jb. 56: 722 (1921)
 Ref.: Reichert 1921, Melchers 1931.
- 95. *Coniothecium tamariscinum*** Thüm., , Flora, Regensburg 63: 477 (1880)
 Ref.: Thüemen 1880, Reichert 1921, Melchers 1931.
- 96. *Coniothyrium diedickeanum*** Reichert, Bot. Jb. 56: 713 (1921)
 Ref.: Reichert 1921, Melchers 1931.
- 97. *Coniothyrium sporoboli*** Reichert, Bot. Jb. 56: 713 (1921)
 Ref.: Reichert 1921, Melchers 1931.

98. *Monostichella salicis* (Westend.) Arx, Verh. K. ned. Akad. Wet., tweede sect. 51(3): 131 (1957)
Synonym:- *Gloeosporium salicis* Westend., *Pl. crypt. exsicc.*: no. 1269 (1859)
Ref.: Melchers 1931.

Sclerotiniaceae, Helotiales,

99. *Botrytis cinerea* Pers., Ann. Bot. (Usteri) 1: 32 (1794)
Ref.: Reichert 1921, Melchers 1931.

Rhytismataceae, Rhytismatales

100. *Leptostroma donacinum* (Sacc.) Sacc., *Michelia* 2(no. 7): 352 (1881)
Ref.: Reichert 1921, Melchers 1931.

Ascomycota, Pezizomycetes

Morchellaceae, Pezizales

101. *Morchella esculenta* (L.) Pers., Syn. meth. fung. (Göttingen) 2: 618 (1801)
Synonym:- *Morchella cónica* Pers., *Traité sur les Champignons Comestibles* (Paris): 257 (1818)
-*Morchella esculenta* f. *rotunda* (Pers.) Reichert, *Bot. Jb.* 56: 673 (1921)
Ref.: Reichert 1921, Melchers 1931.
102. *Terfezia arenaria* (Moris) Trappe, *Trans. Br. mycol. Soc.* 57(1): 90 (1971)
Synonym:- *Terfezia leonis* (Tul. & C. Tul.) Tul. & C. Tul., *Fungi hypog.*: 173 (1851)
Ref.: Sickenberger 1901, Reichert 1921, Melchers 1931.
103. *Terfezia deflersii* Pat., *J. Bot.*, Paris 8: 154 (1894)
Ref.: Sickenberger 1901, Reichert 1921, Melchers 1931.
104. *Tirmania nivea* (Desf.) Trappe, *Trans. Br. mycol. Soc.* 57(1): 88 (1971)
Synonym:- *Tirmania africana* Chatin, *Truffe*, Edn 2: 80 (1892)
- *Tirmania ovalispora* (Pat.) Pat., *J. Bot.*, Paris 8: 155 (1894)
Ref.: Reichert 1921, Melchers 1931.

Ascomycota, Sordariomycetes

Diaporthaceae, Diaporthales

105. *Phomopsis citri* H.S. Fawc., *Phytopathology* 2(3): 109 (1912)
Ref.: Melchers 1931.

Melanconidaceae, Diaporthales

106. *Melanconium echinosporum* Reichert, *Bot. Jb.* 56: 715 (1921)
Ref.: Reichert 1921, Melchers 1931.

Hypocreaceae, Hypocreales

107. *Hypomyces galericola* Henn., *Hedwigia* 41: 214 (1902)
Ref.: Reichert 1921, Melchers 1931.

Incertae sedis, Hypocreales

108. *Stilbella dielsiana* Reichert, *Bot. Jb.* 56: 725 (1921)
Ref.: Reichert 1921, Melchers 1931.
109. *Trichothecium roseum* (Pers.) Link, *Mag. Gesell. naturf. Freunde*, Berlin 3(1-2): 18 (1809)
Synonym:- *Cephalothecium roseum* Corda, *Icon. fung.* (Prague) 2: 14 (1838)
Ref.: Melchers 1931.

Glomerellaceae, Incertae sedis

110. *Colletotrichum gloeosporioides* (Penz.) Penz. & Sacc., *Atti Inst. Veneto Sci. lett.*, ed Arti, Sér. 6 2: 670 (1884)
Ref.: Reichert 1921, Melchers 1931.
111. *Vermicularia culmifraga* Fr., *Summa veg. Scand.*, Section Post. (Stockholm): 420 (1849)
Ref.: Magnus 1910, Reichert 1921, Melchers 1931.

Magnaporthaceae, Magnaporthales

112. *Clasterosporium lindavianum* Reichert, *Bot. Jb.* 56: 722 (1921)

Ref.: Reichert 1921, Melchers 1931.

Nectriaceae, Hypocreales

113. *Fusarium neocosmosporiellum* O'Donnell & Geiser, *Phytopathology* 103(5): 400-408 (2013)

Synonym:- *Neocosmospora vasinfecta* E.F. Sm., *Bull. U.S. Department of Agriculture* 17: 45 (1899)

Ref.: Reichert 1921, Melchers 1931.

114. *Fusarium uredinicola* Jul. Müll., *Ber. dt. bot. Ges.* 3: 395 (1885)

Ref.: Reichert 1921, Melchers 1931.

115. *Gibberella pulicaris* (Kunze) Sacc., *Michelia* 1(no. 1): 43 (1877)

Synonym:- *Fusarium roseum* Link, *Mag. Gesell. naturf. Freunde, Berlin* 3(1-2): 10 (1809)

Ref.: Sickenberger 1901, Reichert 1921, Melchers 1931.

116. *Haematonectria haematococca* (Berk. & Broome) Samuels & Rossman, in Rossman, Samuels, Rogerson & Lowen, *Stud. Mycol.* 42: 135 (1999)

Synonym:- *Fusarium solani* (Mart.) Sacc., *Michelia* 2(no. 7): 296 (1881)

Ref.: Melchers 1931.

Niessliaceae, Hypocreales

117. *Melanopsamma pomiformis* (Pers.) Sacc., *Michelia* 1(no. 3): 347 (1878)

Ref.: Reichert 1921, Melchers 1931.

Phyllachoraceae, Phyllachorales

118. *Phyllachora cynodontis* Niessl, *Verh. nat. Ver. Brünn* 14: 219 (1876)

Ref.: Thüemen 1878, Magnus 1910, Reichert 1921, Melchers 1931.

119. *Phyllachora ehrenbergii* Reichert, *Bot. Jb.* 56: 668 (1921)

Ref.: Reichert 1921, Melchers 1931.

120. *Phyllachora graminis* (Pers.) Fuckel, *Jb. nassau. Ver. Naturk.* 23-24: 216 (1870)

Ref.: Melchers 1931.

121. *Sphaerodothis schweinfurthii* Reichert, *Bot. Jb.* 56: 669 (1921)

Ref.: Reichert 1921, Melchers 1931.

Trichosphaeriaceae, Trichosphaeriales

122. *Brachysporium flexuosum* (Corda) Sacc., *Syll. fung. (Abellini)* 4: 429 (1886)

Ref.: Reichert 1921, Melchers 1931.

Diatrypaceae, Xylariales

123. *Eutypa hypoxantha* (Lév.) Starbäck, *Ascomy. Regn. Exped. Vet. Akad. Handl.* 25(no. 3): 63 (1900)

Ref.: Melchers 1931.

Xylariaceae, Xylariales

124. *Xylaria hypoxylon* (L.) Grev., *Fl. Edin.*: 355 (1824)

Ref.: Reichert 1921, Melchers 1931.

Basidiomycota, Agaricomycetes

Agaricaceae, Agaricales

125. *Agaricus campestris* L. [as 'campester'], *Sp. pl.* 2: 1173 (1753)

Synonym:- *Psalliota campestris* (L.) Quél., *Mém. Soc. Émul. Montbéliard, Sér. 2* 5: 140 (1872)

Ref.: Decaisne 1835, Roumeguère 1887, Sickenberger 1901, Reichert 1921, Melchers 1931.

126. *Battarrea phalloides* (Dicks.) Pers., *Syn. meth. fung. (Göttingen)* 1: xiv, 129 (1801)

Ref.: Reichert 1921, Melchers 1931.

127. *Crucibulum laeve* (Huds.) Kambly, *Gast. Iowa*: 167 (1936)

Synonym:- *Crucibulum vulgare* Tul. & C. Tul., *Annl. Sci. Nat., Bot., sér. 3* 1: 90 (1844)

Ref.: Melchers 1931.

128. *Cyathus stercoreus* (Schwein.) De Toni, in Berlese, De Toni & Fischer, *Syll. fung. (Abellini)* 7: 40 (1888)

Ref.: Reichert 1921, Melchers 1931.

129. *Gyrophragmium delilei* Mont., Annls Sci. Nat., Bot., sér. 2 20: 77 (1843)
Ref.: Sickenberger 1901, Magnus 1910, Reichert 1921, Melchers 1931.
130. *Leucoagaricus leucothites* (Vittad.) Wasser, Ukr. bot. Zh. 34(3): 308 (1977)
Synonym:- *Lepiota holosericea* Gillet, Hyménomycètes (Alençon): 67 (1874) [1878]
Ref.: Reichert 1921, Melchers 1931.
131. *Leucoagaricus meleagris* (Gray) Singer, Lilloa 22: 422 (1951) [1949]
Synonym:- *Lepiota meleagris* (Gray) Sacc., Syll. fung. (Abellini) 5: 36 (1887)
Ref.: Reichert 1921, Melchers 1931.
132. *Montagnea candollei* (Fr.) Fr., in Corda in Zobel, Icon. fung. (Prague) 6: 85 (1854)
Synonym:- *Montagnites candollei* Fr. Epicr. syst. mycol. (Upsaliae): 241 (1838) [1836-1838]
Ref.: Sickenberger 1901.
133. *Montagnea radiosa* (Pall.) Šebek, Česká Mykol. 8(3): 144 (1954)
Synonym:- *Montagnites radiosus* (Pall.) Henn., Hedwigia 40: 98 (1901).
Ref.: Reichert 1921, Melchers 1931.
134. *Podaxis arabicus* Pat. [as 'Podaxon'], Bull. Soc. Mycol. France 3: 122, 123. (1887)
Ref.: Sickenberger 1901, Reichert 1921, Melchers 1931.
135. *Podaxis calyptratus* Fr. Syst. mycol. (Lundae) 3(1): 63 (1829)
Ref.: Reichert 1921, Melchers 1931.
136. *Podaxis carcinomalis* (L. f.) Fr. Syst. mycol. (Lundae) 3(1): 62 (1829)
Ref.: Reichert 1921, Melchers 1931.
137. *Podaxis deflersii* Pat. Bull. Soc. Mycol. France 6: 165 (1890)
Ref.: Reichert 1921, Melchers 1931.
138. *Podaxis egyptiacus* Mont. Annls Sci. Nat., Bot., sér. 2 4: 195 (1835)
Ref.: Decaisne 1835, Reichert 1921, Melchers 1931.
139. *Podaxis indicus* (Spreng.) Masee, J. Bot., Lond. 28: 74 (1890)
Ref.: Reichert 1921, Melchers 1931.
140. *Podaxis Squamosus* Pat. Bull. Soc. Mycol. France 13: 209 (1891)
Ref.: Sickenberger 1901, Reichert 1921, Melchers 1931.
141. *Podaxon ovatus* Rosm. Mémoires Présentés a L'Institut Égyptien 4(1): 332 (1900)
Ref.: Sickenberger 1901.
142. *Tulostoma boissieri* Kalchbr., in Roumeguère, Revue mycol., Toulouse 3: 24 (1881)
Ref.: Roumeguère 1881, Sickenberger 1901.
143. *Tulostoma brumale* Pers., Neues Mag. Bot. 1: 86 (1794)
Synonym:- *Tulostoma mammosum* P. Micheli ex Fr., Syst. mycol. (Lundae) 3(1): 42 (1829)
Ref.: Reichert 1921, Melchers 1931.
144. *Tulostoma tortuosum* Ehrenb., Horae Phys. Berol. (1820)
Ref.: Reichert 1921.

Bolbitiaceae, Agaricales

145. *Conocybe tenera* (Schaeff.) Fayod, Annls Sci. Nat., Bot., sér. 7 9: 357 (1889)
Ref.: Melchers 1931.

Cortinariaceae, Agaricales

146. *Cortinarius bolaris* (Pers.) Fr., Epicr. syst. mycol. (Upsaliae): 282 (1838)
Synonym:- *Inoloma bolare bolare* (Pers.) Wünsche, Die Pilze: 127 (1877)
Ref.: Reichert 1921.
147. *Galera teñera* (Schaeff.) P. Kumm., Führ. Pilzk. (Zerbst): 75 (1871)
Ref.: Reichert 1921.
148. *Galerina vittiformis* (Fr.) Singer, Acta Inst. bot. Komarov. Acad. Sci., Pl. Crypt, ser. 2 6: 472 (1950)
Synonym:- *Galera rubiginosa* (Pers.) Fr., Bidr. Känn. Finl. Nat. Folk 1: 440 (1879)
Ref.: Reichert 1921 - Melchers 1931.

Incertae sedis, Agaricales

149. *Panaeolus fimicola* (Pers.) Gillet, *Hyménomycètes* (Alençon): 621 (1878)
Ref.: Reichert 1921, Melchers 1931.
150. *Panaeolus papilionaceus* (Bull.) Quél., *Mém. Soc. Émul. Montbéliard*, Sér. 2 5: 152 [122 repr.] (1872)
Synonym:- *Panaeolus campanulatus* (L.) Quél., *Mém. Soc. Émul. Montbéliard*, Sér. 2 5: 151 (1872)
Ref.: Reichert 1921- Melchers 1931.
151. *Panaeolus retirugus* (Fr.) Gillet, *Hyménomycètes* (Alençon): 621 (1878)
Synonym:- *Panaeolus papilionaceus* (Bull.) Quél., *Mém. Soc. Émul. Montbéliard*, Sér. 25: 152 [122 repr.] (1872)
Ref.: Reichert 1921.
152. *Pilosace algeriensis* (Fr.) Quél., *Mém. Soc. Émul. Montbéliard*, Sér. 2 5: 360 (1873)
Ref.: Roumeguère 1887, Sickenberger 1901, Reichert 1921, Melchers 1931.

Phelloriniaceae, Agaricales

153. *Dictyocephalos attenuatus* (Peck) Long & Plunkett, *Mycologia* 32(6): 697 (1940)
Synonym:- *Battarreopsis artinii* Henn., *Hedwigia* 41(Beibl.): (212) (1902)
Ref.: Reichert 1921- Melchers 1931.
154. *Phellorinia herculeana* (Pers.) Kreisel, *Česká Mykol.* 15(4): 196 (1961)
Synonym:- *Phellorinia delestrei* (Durieu & Mont.) E. Fisch., *Nat. Pflanzenfam., Teil. I* (Leipzig) 1** : 334 (1899)
Ref.: Roumeguère 1887- Reichert 1921- Melchers 1931.

Physalacriaceae, Agaricales

155. *Armillaria mellea* (Vahl) P. Kumm., *Führ. Pilzk. (Zerbst)*: 134 (1871)
Synonym:- *Clitocybe mellea* (Vahl) Ricken, *Die Blätterpilze*: 362 (1915)
Ref.: Reichert 1921, Melchers 1931.

Pleurotaceae, Agaricales

156. *Pleurotus foliicola* Pat. & Lagerh., *Bull. Soc. mycol. Fr.* 9: 127 (1893)
Ref.: Reichert 1921, Melchers 1931.
157. *Pterophyllus bovei* Lév., *Annls Sci. Nat., Bot., sér. 3* 2: 178 (1844)
Ref.: Melchers 1931.

Pluteaceae, Agaricales

158. *Volvopluteus gloiocephalus* (DC.) Vizzini, Contu & Justo, in Justo, Vizzini, Minnis, Menolli, Capelari, Rodríguez, Malysheva, Contu, Ghignone & Hibbett, *Fungal Biology* 115(1): 15 (2011)
Synonym:- *Volvaria speciosa* (Fr.) P. Kumm., *Führ. Pilzk. (Zerbst)*: 99 (1871)
Ref.: Reichert 1921- Melchers 1931.

Psathyrellaceae, Agaricales

159. *Coprinellus disseminatus* (Pers.) J.E. Lange *Dansk bot. Ark.* 9(no. 6): 93 (1938)
Synonym:- *Agaricus disseminatus* Pers., *Syn. meth. fung. (Göttingen)* 2: 403 (1801)
- *Coprinus disseminatus* (Pers.) Gray, *Nat. Arr. Brit. Pl.* (London) 1: 634 (1821)
Ref.: Reichert 1921, Melchers 1931.
160. *Coprinellus micaceus* (Bull.) Vilgalys, Hopple & Jacq. Johnson, in Redhead, Vilgalys, Moncalvo, Johnson & Hopple, *Taxon* 50(1): 234 (2001)
Synonym:- *Coprinus micaceus* (Bull.) Fr., *Epicr. syst. mycol. (Upsaliae)*: 247 (1838) [1836-1838]
Ref.: Reichert 1921, Melchers 1931.
161. *Coprinopsis atramentaria* (Bull.) Redhead, Vilgalys & Moncalvo, in Redhead, Vilgalys, Moncalvo, Johnson & Hopple, *Taxon* 50(1): 226 (2001)
Synonym:- *Coprinus atramentarius* (Bull.) Fr., *Epicr. syst. mycol. (Upsaliae)*: 243 (1838) [1836-1838]

Ref.: Reichert 1921, Melchers 1931.

162. *Coprinus barbeyi* Kalchbr., Revue mycol., Toulouse 3: 24 (1881)
Ref.: Roumeguère 1881, Sickenberger 1901, Reichert 1921, Melchers 1931.
163. *Coprinus clavatus* Fr., Epicr. syst. mycol. (Upsaliae): 242 (1838)
Ref.: Roumeguère 1887, Reichert 1921, Melchers 1931.
164. *Coprinus clavatus* f. *arenosa* Roum., Revue mycol., Toulouse 9 (no. 36): 206 (1887)
Ref.: Reichert 1921.
165. *Coprinus comatus* (O.F. Müll.) Pers., Tent. disp. meth. fung. (Lipsiae): 62 (1797)
Ref.: Roumeguère 1887, Reichert 1921, Melchers 1931.
166. *Coprinus comatus* f. *barbeyi* Roum., Revue mycol., Toulouse 9(no. 36): 206 (1887)
Ref.: Reichert 1921.
167. *Coprinus jasmundianus* Kalchbr., Aschers. Beitr. Flora Aeg.: 73 (1879)
Ref.: Ascherson 1879, Thüemen 1879, Reichert 1921, Melchers 1931.
168. *Coprinus sterquilinus* (Fr.) Fr., Epicr. syst. mycol. (Upsaliae): 242 (1838)
Ref.: Reichert 1921, Melchers 1931.
169. *Corynespora torulosa* (Syd.) Crous, Persoonia, Mol. Phyl. Evol. Fungi 31: 211 (2013)
Synonym:- *Cercospora musarum* S.F. Ashby, Bull. Dept. Agric. (Kingston) 2: 109 (1913)
Ref.: Melchers 1931.
170. *Psathyrella candolleana* (Fr.) Maire, in Maire & Werner, Mém. Soc. Sci. Nat. Maroc. 45: 112 (1937)
Synonym:- *Hypholoma appendiculatum* (Bull.) Quél., Mém. Soc. Émul. Montbéliard, Sér. 2 5: 146 (1872)
Ref.: Roumeguère 1887, Sickenberger 1901, Melchers 1931.
171. *Psathyrella schweinfurthii* Roum., Revue mycol., Toulouse 9: 205 (1887)
Ref.: Roumeguère 1887, Sickenberger 1901, Reichert 1921, Melchers 1931.

Schizophyllaceae, Agaricales

172. *Schizophyllum commune* Fr. Observ. mycol. (Havniae) 1: 103 (1815)
Ref.: Reichert 1921, Melchers 1931.

Strophariaceae, Agaricales

173. *Agrocybe pediades* (Fr.) Fayod, Annl. Sci. Nat., Bot., sér. 7 9: 358 (1889)
Synonym:- *Naucoria pediades* (Fr.) P. Kumm., Führ. Pilzk. (Zerbst): 78 (1871)
Ref.: Reichert 1921, Melchers 1931.
174. *Agrocybe vervacti* (Fr.) Singer, Beih. Botan. Centralbl., Abt. B 56: 167 (1936)
Synonym:- *Naucoria vervacti* (Fr.) Quél., Mém. Soc. Émul. Montbéliard, Sér. 2 5: 132 (1872)
Ref.: Roumeguère 1881, Melchers 1931.
175. *Flammula acuminatospora* Reichert, Bot. Jb. 56: 703 (1921)
Ref.: Reichert 1921, Melchers 1931.
176. *Flammula schweinfurthii* Reichert, Bot. Jb. 56: 703 (1921)
Ref.: Reichert 1921, Melchers 1931.
177. *Pholiota alexandrina* Reichert, Bot. Jb. 56: 703 (1921)
Ref.: Reichert 1921, Melchers 1931.

Tricholomataceae, Agaricales

178. *Clitocybe mairei* Reichert, Bot. Jb. 56: 707 (1921)
Ref.: Reichert 1921, Melchers 1931.
179. *Melanoleuca melaleuca* (Pers.) Murrill, Mycologia 3(3): 167 (1911)
Synonym:- *Tricholoma melaleucum* (Pers.) P. Kumm., Führ. Pilzk. (Zerbst): 133 (1871)
Ref.: Reichert 1921, Melchers 1931.

Atheliaceae, Atheliales

180. *Athelia rolfsii* (Curzi) C.C. Tu & Kimbr., Bot. Gaz. 139(4): 460 (1978)
Synonym:- *Sclerotium rolfsii* Sacc., Annls mycol. 9(3): 257 (1911)
Ref.: Melchers 1931.
181. *Byssoporia terrestris* (DC.) M.J. Larsen & Zak, Can. J. Bot. 56: 1123 (1978)
Synonym:- *Poria terrestris* Pers., Icon. Desc. Fung. Min. Cognit. (Leipzig) 3: 35 (1805)
Ref.: Reichert 1921.

Boletaceae, Boletales

182. *Boletus subtomentosus* L., Sp. pl. 2: 1178 (1753)
Ref.: Reichert 1921, Melchers 1931.

Coniophoraceae, Boletales

183. *Gyrodontium sacchari* (Spreng.) Hjortstam, Mycotaxon 54: 186 (1995)
Synonym:- *Hydnum boveanum* Mont., in Decaisne, Annls Sci. Nat., Bot., sér. 24: 194 (1835)
Ref.: Decaisne 1835, Reichert 1921, Melchers 1931.

Suillaceae, Boletales

184. *Suillus bovinus* (L.) Roussel, F. Calvados: 34 (1796)
Synonym:- *Boletus bovinus* L., Sp. pl. 2: 1177 (1753)
Ref.: Reichert 1921, Melchers 1931.

Botryobasidiaceae, Cantharellales

185. *Botryobasidium vagum* (Berk. & M.A. Curtis) D.P. Rogers, Univ. Iowa Stud. nat. Hist. 17(1): 17 (1935)
Synonym:- *Corticium vagum* Berk. & M.A. Curtis, Grevillea 1(no. 12): 179 (1873)
Ref.: Melchers 1931.

Fomitopsidaceae, Polyporales

186. *Ceriumyces fici* (Pat.) Sacc., Syll. fung. (Abellini) 14(1): 194 (1899)
Ref.: Reichert 1921, Melchers 1931.
187. *Ptychogaster fici* Pat., Expl. sci. Tunisie 4: 4 (1892)
Ref.: Sickenberger 1901.

Ganodermataceae, Polyporales

188. *Ganoderma lucidum* (Curtis) P. Karst., Revue mycol., Toulouse 3(no. 9): 17 (1881)
Synonym:- *Fomes lucidus* (Curtis) Sacc., Syll. fung. (Abellini) 6: 157 (1888)
Ref.: Reichert 1921, Melchers 1931.

Gloeophyllaceae, Gloeophyllales

189. *Gloeophyllum odoratum* (Wulfen) Imazeki, Bull. Tokyo Sci. Mus. 6: 75 (1943)
Synonym:- *Trametes odorata* (Wulfen) Fr., Epicr. syst. mycol. (Upsaliae): 489 (1838) [1836-1838]
Ref.: Reichert 1921, Melchers 1931.

Hymenochaetaceae, Hymenochaetales

190. *Inonotus hispidus* (Bull.) P. Karst., Meddn Soc. Fauna Flora fenn. 5: 39 (1879)
Synonym:- *Polyporus hispidus* (Bull.) Fr., Observ. mycol. (Havniae) 2: 260 (1818)
Ref.: Reichert 1921, Melchers 1931.

Phallaceae, Phallales

191. *Dictyophora phalloidea* Desv., J. Bot. (Desvaux) 2: 88 (1809)
Ref.: Reichert 1921, Melchers 1931.
192. *Itajahya rosea* (Delile) E. Fisch., Ber. dt. bot. Ges. 47(5): 294 (1929)
Synonym:- *Phallus roseus* Delile, Descript. de l'Égypte: 300 (1813)
Ref.: Delile 1813.
193. *Phallus impudicus* L., Sp. pl. 2: 1178 (1753)
Synonym:- *Ithyphallus impudicus* (L.) Fr., Syst. mycol. (Lundae) 2(2): 283 (1823)
Ref.: Reichert 1921, Melchers 1931.

Polyporaceae, Polyporales

194. *Fomes fomentarius* (L.) Fr., Summa veg. Scand., Section Post. (Stockholm): 321 (1849)
Ref.: Reichert 1921, Melchers 1931.
195. *Lentinus integrus* Reichert, Bot. Jb. 56: 702 (1921)
Ref.: Reichert 1921, Melchers 1931.
196. *Lentinus omphalopsis* Reichert, Bot. Jb. 56: 702 (1921)
Ref.: Reichert 1921, Melchers 1931.
197. *Neolentinus lepideus* (Fr.) Redhead & Ginns, Trans. Mycol. Soc. Japan 26(3): 357 (1985)
Synonym:- *Lentinus lepideus* (Fr.) Fr., *Epicr. syst. mycol.* (Upsaliae): 390 (1838) [1836-1838]
Ref.: Reichert 1921, Melchers 1931.

Stereaceae, Russulales

198. *Stereum hirsutum* (Willd.) Pers., Observ. mycol. (Lipsiae) 2: 90 (1800)
Ref.: Reichert 1921, Melchers 1931.

Basidiomycota, Exobasidiomycetes

Entylomataceae, Entylomatales

199. *Entyloma schweinfurthii* Henn., Hedw.: 210 (1902)
Ref.: Reichert 1921, Melchers 1931.

Graphiolaceae, Exobasidiales

200. *Graphiola phoenicis* (Moug. ex Fr.) Poit., Anns Sci. Nat., Bot., sér. 1 3: 473 (1824)
Ref.: Sickenberger 1901, Magnus 1910, Reichert 1921, Melchers 1931.

Georgefischeriaceae, Georgefischeriales

201. *Jamesdicksonia linearis* (Berk. & Broome) Vánky, Mycotaxon 91: 259 (2005)
Synonym:- *Uromyces linearis* Berk. & Broome, *J. Linn. Soc., Bot.* 14(no. 74): 92 (1873) [1875]
Ref.: Reichert 1921, Melchers 1931.

Basidiomycota, Microbotryomycetes

Microbotryaceae, Microbotryales

202. *Sphacelotheca danthoniae* (Kalchbr.) Reichert, Bot. Jb. 56: 681 (1921)
Ref.: Reichert 1921.
203. *Sphacelotheca ischaemi* (Fuckel) G.P. Clinton, J. Mycol. 8(3): 140 (1902)
Synonym:- *Ustilago ischaemi* Fuckel, Jb. nassau. Ver. Naturk. 15: 22 (1860)
Ref.: Thüemen 1880, Magnus 1910, Reichert 1921, Melchers 1931.
204. *Sphacelotheca reiliana* (J.G. Kühn) G.P. Clinton, J. Mycol. 8(3): 141 (1902)
Ref.: Reichert 1921, Melchers 1931.
205. *Sphacelotheca schweinfurthiana* (Thüm.) Sacc., Anns mycol. 6(6): 554 (1908)
Synonym:- *Ustilago schweinfurthiana* Thüm., *Mycoth. Univ.*, cent. 8: no. 726 (1877)
Ref.: Thüemen 1878, Ascherson 1879, Sickenberger 1901, Magnus 1910.

Tilletiaceae, Tilletiales

206. *Tilletia caries* (DC.) Tul. & C. Tul., Anns Sci. Nat., Bot., sér. 3 7: 113 (1847)
Synonym:- *Tilletia tritici* (Bjerk.) G. Winter, Die Brand des Getreide: 13 (1874)
Ref.: Reichert 1921, Melchers 1931.
207. *Tilletia laevis* J.G. Kühn, in Rabenhorst, Rabenhorst's Fungi europ. exsicc.: no. 1697 (1873)
Ref.: Melchers 1931.

Basidiomycota, Pucciniomycetes

Uncertain sedis, Pucciniales

208. *Aecidium cressae* DC., in de Candolle & Lamarck, Fl. franç., Edn 3 (Paris) 6: 89 (1815)
Ref.: Thüemen 1878, Roumeguère 1881.

209. *Aecidium suaedae* Thüm., Flora, Regensburg 63: 478 (1880)
Ref.: Thüemen 1880.
210. *Uredo aviculariae* Alb. & Schwein. ex Thüm., Flora, Regensburg 63: 478 (1880)
Ref.: Thüemen 1880.
211. *Uredo coloni* Reichert, Bot. Jb. 56: 696 (1921)
Ref.: Reichert 1921, Melchers 1931.
212. *Uredo cyperi-alopecuroidis* Reichert, Bot. Jb. 56: 697 (1921)
Ref.: Reichert 1921, Melchers 1931.
213. *Uredo cypericola* Henn., in Engler, Pflanzenw. Ost-Afrikas Nachbarg., Teil C: 52 (1895)
Ref.: Melchers 1931.
214. *Uredo danthoniae* Henn., Hedwigia 41: 211 (1902)
Ref.: Reichert 1921, Melchers 1931.
215. *Uredo reaumuriicola* Henn., Hedwigia 39: (154) (1900)
Ref. Reichert 1921.
216. *Uredo euphorbiae-prunifoliae* Reichert, Bot. It. 56: 697 (1921)
Ref.: Reichert 1921, Melchers 1931.
217. *Uredo ficus* Ravenel, F. Am. Exs., n. 485, Hoffm. Ind. P. 146
Ref. Thüemen 1880.
218. *Uredo frankeniae* Mont., in Webb & Berthelot, Hist. nat. Iles Canar. (Paris) 3(2): 90 (1840)
Ref. Thüemen 1879.
219. *Uredo linearis f. hordei-vulgaris* Thüm., Grevillea 6(no. 39): 104 (1878)
Ref. Thüemen 1878.
220. *Uredo reaumuriicola* Henn., Hedwigia 39: 154 (1900)
Ref.: Melchers 1931.
221. *Uredo schanginiae* Thüm., Grevillea 6(no. 39): 103 (1878)
Ref.: Thüemen 1878, Thüemen 1880.
222. *Uredo zygophylli* Henn., Bull. Herb. Boissier 1: 113 (1893)
Ref: Reichert 1921, Melchers 1931.

Melampsoraceae, Pucciniales

223. *Melampsora euphorbiae* (Ficinus & C. Schub.) Castagne, Observ. Uréd. 2: 18 (1843)
Synonym:- *Melampsora euphorbiae-gerardiana* W. Muell., Centbl. Bakt. ParasitKde, Abt. I 2: 548 (1907)
- *Melampsora euphorbiae f. euphorbiae-peplidis* Thüm., Grevillea 8(no. 46): 51 (1879)
- *Melampsora euphorbiae* Cast. *f. euphorbice prunifolice* Thüm., Grevillea 8(no. 46): 51 (1879).
- *Melampsora helioscopiae* (Pers.) G. Winter, Rabenh. Krypt.-Fl., Edn 2 (Leipzig) 1.1: 240 (1881) [1884].
- *Melampsora ricini* Pass. ex E.A. Noronha, Agron. lusit. 14: 229, 242 (1952)
Ref.: Thüemen 1879, Roumeguère 1881, Reichert 1921, Melchers 1931.
224. *Melampsora lini-usitatissimi* Kuprev., in Kuprevicz & Tranzschel, Flora Plant. Crypt. URSS, 4, Fungi (1), 374 (1957)
Synonym: - *Melampsora lini*. Tul. *f. lini-usitatissimi* Thüm., Grevillea 6(no. 39): 104 (1878)
Ref.: Thüemen 1878.
225. *Melampsora lini* (Ehrenb.) Lév., Anns Sci. Nat., Bot., sér. 3 8: 376 (1847)
Ref.: Thüemen 1879, Reichert 1921, Melchers 1931.

226. *Melampsora salicis-albae* Kleb., Pringsheims Jb. Wissenschaftl. Botanik 35: 679 (1901)

Ref.: Melchers 1931.

Phakopsoraceae, Pucciniale

227. *Cerotelium fici* (Castagne) Arthur, Bull. Torrey bot. Club 44: 509 (1917)

Synonym:- *Kueneola fici* E.J. Butler, *Annls mycol.* 12(2): 79 (1914)

Ref.: Reichert 1921, Melchers 1931.

Phragmidiaceae, Pucciniales

228. *Phragmidium mucronatum* (Pers.) Schldtl., Fl. berol. (Berlin) 2: 156 (1824)

Synonym:- *Phragmidium disciflorum* (Tode) J. James, Contr. U.S. natnl. Herb. 3(4): 276 (1895)

- *Phragmidium subcorticium* (Schrank) G. Winter, Rabenh. Krypt.-Fl., Edn 2 (Leipzig) 1.1: 228 (1881) [1884]

- *Phragmidium rosarum* Fuckel, Jb. Nassau. Ver. Naturk. 23-24: 47 (1870) [1869-70]

Ref.: Thüemen 1878, Reichert 1921, Melchers 1931.

229. *Phragmidium violaceum* (Schultz) G. Winter, Hedwigia 19: 54 (1880)

Ref.: Melchers 1931.

Pucciniaceae, Pucciniales

230. *Puccinia aristidae* Tracy, J. Mycol. 7(3): 281 (1893)

Ref.: Reichert 1921, Melchers 1931.

231. *Puccinia aristidicola* Henn., Hedwigia 35(5): 243 (1896)

Ref.: Reichert 1921.

232. *Puccinia asphodeli* Moug., in Duby, Bot. Gall., Edn 2 (Paris) 2: 891 (1830)

Ref.: Reichert 1921, Melchers 1931.

233. *Puccinia barbeyi* (Roum.) Magnus, Bot. Ztg. 41: 115 (1883)

Ref.: Roumeguère 1881, Melchers 1931.

234. *Puccinia calcitrapae* DC., in Lamarck & de Candolle, Fl. franç., Edn 3 (Paris) 2: 221 (1805)

Ref.: Reichert 1921, Melchers 1931.

235. *Puccinia caricina* DC., in de Candolle & Lamarck, Fl. franç., Edn 3 (Paris) 5/6: 60 (1815)

Ref. Melchers 1931.

236. *Puccinia carthami* Corda, Icon. fung. (Prague) 4: 15 (1840)

Ref. Sickenberger 1901, Reichert 1921, Melchers 1931.

237. *Puccinia carthami* f. *carthami* Corda, Icon. fung. (Prague) 4: 15 (1840)

Ref. Melchers 1931.

238. *Puccinia centaureae* Mart., Fl. franç., Edn 3 (Paris) 6: 59 (1815)

Ref. Reichert 1921.

239. *Puccinia cesatii* J. Schröt., in Cohn, Beitr. Biol. Pfl. 3: 70 (1879)

Ref. Magnus 1910, Reichert 1921, Melchers 1931.

240. *Puccinia chrysanthemi* Roze, Bull. Soc. mycol. Fr. 16: 92 (1900)

Synonym:- *Puccinia absinthii* DC., *Encycl. Méth. Bot.* 8: 245 (1808)

Ref.: Reichert 1921, Melchers 1931.

241. *Puccinia coronifera* Kleb., Z. PflKrankh. PflSchutz 4: 135 (1894)

Ref. Reichert 1921, Melchers 1931.

242. *Puccinia cressae* Lagerh., Bolm Soc. broteriana, Coimbra, sér. 1 7: 131 (1889)

Ref. Reichert 1921, Melchers 1931.

243. *Puccinia cynosuroides* (Henn.) Syd., *Annls mycol.* 5(6): 494 (1907)

Ref. Reichert 1921, Melchers 1931.

244. *Puccinia dioicae* Magnus, Amt. Ber. 50 Versammt. D. Naturf. Ärzte München: 199 (1877)

- Synonym:- *Puccinia caricis* Rebert., Prodr. fl. neomarch. (Berolini): 356 (1804)
Ref. Magnus 1910, Reichert 1921, Melchers 1931.
245. *Puccinia eryngii* DC., Encycl. Méth. Bot. 8: 249 (1808)
Ref. Reichert 1921, Melchers 1931.
246. *Puccinia frankeniae* Link, Mag. Gesell. naturf. Freunde, Berlin 8: 30 (1816)
Ref. Reichert 1921, Melchers 1931.
247. *Puccinia glumarum* J.C. Schmidt, Mykologische Hefte (Leipzig) 1: 72 (1817)
Ref. Reichert 1921.
248. *Puccinia graminis* Pers., Neues Mag. Bot. 1: 119 (1794)
Ref. Reichert 1921, Melchers 1931.
249. *Puccinia helianthi* Schwein., Schr. naturf. Ges. Leipzig 1: 73 (1822)
Ref. Melchers 1931.
250. *Puccinia hordei* G.H. Otth, Mitt. naturf. Ges. Bern 711-744: 114 (1871) [1870]
Synonym: *Puccinia simplex* (Körn.) Erikss. & Henning, Z. PflKrankh. PflSchutz 4: 260 (1894)
Ref. Reichert 1921, Melchers 1931.
251. *Puccinia isiacae* (Thüm.) G. Winter, in Kunze, Plantae orient-ross.: 127 (1887)
Synonym:- *Uredo isiacae* Thüm., in Schweinfurth & Thümen, *Grevillea* 8(no. 46): 50 (1879)
Ref.: Thüemen 1879, Reichert 1921, Melchers 1931.
252. *Puccinia launaeae* Maire, Bull. Soc. bot. Fr. 54: CCIII (1907)
Ref. Magnus 1910, Reichert 1921, Melchers 1931.
253. *Puccinia longissima* J. Schröt., in Cohn, Beitr. Biol. Pfl. 3: 70 (1879)
Ref. Reichert 1921, Melchers 1931.
254. *Puccinia magnusiana* Körn., Hedwigia 15: 179 (1876)
Ref. Reichert 1921, Melchers 1931.
255. *Puccinia menthae* Pers., Syn. meth. fung. (Göttingen) 1: 227 (1801)
Ref: Melchers 1931.
256. *Puccinia paraphysaria* Bagnis, Atti R. Acad. Lincei, Mem. Cl. Sci. Fis., Ser. Sec. 3(2): 713 (1877)
Ref: Roumeguère 1881.
257. *Puccinia paraphysata* Reichert, Bot. Jb. 56: 96 (1921)
Ref. Reichert 1921, Melchers 1931.
258. *Puccinia pimpinellae* (F. Strauss) Link, in Willdenow, Sp. pl., Edn 4 6(1): 77 (1824)
Ref. Sickenberger 1901.
259. *Puccinia porri* (Sowerby) G. Winter, Rabenh. Krypt.-Fl., Edn 2 (Leipzig) 1.1: 200 (1881)
Ref. Melchers 1931.
260. *Puccinia pulvinata* Rabenh., Hedwigia 10: 20 (1871)
Ref. Magnus 1910, Reichert 1921, Melchers 1931.
261. *Puccinia purpurea* Cooke, Grevillea 5(no. 33): 15 (1876)
Ref. Reichert 1921, Melchers 1931.
262. *Puccinia recondita* Dietel & Holw., Bull. Soc. bot. Fr. 4: 798 (1857)
Synonym:- *Puccinia bromina* Erikss., Annl. Sci. Nat., Bot., sér. 8 9: 271 (1899)
- *Puccinia dispersa* Erikss. & Henning, Bull. Inst. bot. Univ. Belgrade 12: 315 (1894)
- *Puccinia triticina* Erikss., Annl. Sci. Nat., Bot., sér. 8 9: 270 (1899)
Ref.: Sickenberger 1901, Magnus 1910, Reichert 1921, Melchers 1931.
263. *Puccinia rimosa* (Link) G. Winter, Hedwigia 19: 28 (1880)
Ref. Reichert 1921, Melchers 1931.
264. *Puccinia rottboelliae* P. Syd. & Syd., Monogr. Uredin. (Lipsiae) 1(5): 800 (1904)
Ref. Reichert 1921, Melchers 1931.

265. *Puccinia rufipes* Dietel, Bot. Jb. 32: 48 (1903)
Ref. Magnus 1910, Melchers 1931.
266. *Puccinia santolinae* Magnus, Hedwigia 49: 97 (1908)
Ref. Magnus 1910, Reichert 1921, Melchers 1931.
267. *Puccinia scirpi* DC., in Lamarck & de Candolle, Fl. franç., Edn 3 (Paris) 2: 223 (1805)
Ref. Reichert 1921, Melchers 1931.
268. *Puccinia sorghi* Schwein., Trans. Am. phil. Soc., New Series 4(2): 295 (1832)
Ref.: Melchers 1931.
269. *Puccinia striiformis* Westend., Bull. Acad. R. Sci. Belg., Cl. Sci. 21(2): 235 (1854)
Ref.: Melchers 1931.
270. *Puccinia turgida* P. Syd. & Syd., Monogr. Uredin. (Lipsiae) 1(2): 266 (1902)
Ref.: Melchers 1931.
271. *Puccinia verruca* Thüm., Revue mycol., Toulouse 1: 9 (1879)
Ref.: Thüemen 1879, Reichert 1921, Melchers 1931.
272. *Uromyces anthyllidis* (Grev.) J. Schröt., Hedwigia 14: 162 (1875)
Ref.: Reichert 1921, Melchers 1931.
273. *Uromyces appendiculatus* F. Strauss, Exanth. Pflanzen. (Wien): 277 (1833)
Ref.: Melchers 1931.
274. *Uromyces chenopodii* (Duby) J. Schröt., in Kunze, Fung. sel. exs., cent. 3: no. 214 (1880)
Ref.: Reichert 1921, Melchers 1931.
275. *Uromyces lineolatus* (Desm.) J. Schröt., in Rabenhorst, Fungi europ. exsicc.: no. 2077 (1876)
Synonym:- *Uromyces scirpi* Burrill, Bot. Gaz. 9: 188 (1884)
Ref.: Reichert 1921, Melchers 1931.
276. *Uromyces muscari* Lév., Annl. Sci. Nat., Bot., sér. 3 8: 376 (1847)
Synonym:- *Uromyces scillarum* (Grev.) G. Winter, Pilze Deutschl.: 142 (1884)
Ref.: Roumeguère 1881, Reichert 1921, Melchers 1931.
277. *Uromyces pisi-sativi* (Pers.) Liro, Bidr. Känn. Finl. Nat. Folk 65: 100 (1908)
Synonym:- *Aecidium euphorbiae* Pers., in Gmelin, Systema Naturae, Edn 13 2(2): 1472 (1792)
- *Uromyces astragali* (Opiz) Sacc., Mycotheca veneti: no. 208 (1873)
Ref.: Roumeguère 1881, Reichert 1921, Melchers 1931.
278. *Uromyces polygoni-avicularis* (Pers.) G.H. Oth, Mitt. naturf. Ges. Bern 531-552: 87 (1864)
Synonym:- *Uromyces polygoni* (Pers.) Fuckel, Jb. nassau. Ver. Naturk. 23-24: 64 (1870) [1869-70]
Ref.: Magnus 1910, Reichert 1921, Melchers 1931.
279. *Uromyces proëminens* (DC.) Lév., Annl. Sci. Nat., Bot., sér. 3 8: 371 (1847)
Ref.: Melchers 1931.
280. *Uromyces renovatus* P. Syd. & Syd., Monogr. Uredin. (Lipsiae) 2(1): 113 (1909)
Ref.: Reichert 1921, Melchers 1931.
281. *Uromyces rumicis* (Schumach.) G. Winter, Pilze Deutschl.: 145 (1884)
Ref.: Reichert 1921, Melchers 1931.
282. *Uromyces rumicum* Lév., Annl. Sci. Nat., Bot., sér. 3 8: 371 (1847)
Ref.: Thüemen 1880.
283. *Uromyces schanginiae* Thüm., Grevillea 6(no. 39): 103 (1878)
Ref.: Thüemen 1878, Reichert 1921, Melchers 1931.
284. *Uromyces setariae-italicae* Yoshino, Bot. Mag., Tokyo 20: 247 (1906)
Ref.: Melchers 1931.

285. *Uromyces striatus* J. Schröt., Abh. Schles. Ges. Vaterl. Kult. Abth. Naturwiss. 48: 11 (1870)
Ref.: Thüemen 1880, Reichert 1921, Melchers 1931.
286. *Uromyces trigonellae* Pass., in Thüemen, Herb. myc. oeconom. 3: no. 118 (1873)
Ref.: Thüemen 1879.
287. *Uromyces viciae-fabae* (Pers.) J. Schröt., Hedwigia 14: 98 (1875)
Synonym:- *Uromyces fabae* (Pers.) de Bary, Grevillea 7(no. 44): 135 (1879)
Ref.: Reichert 1921, Melchers 1931.
288. *Uromyces vignae* Barclay, J. Asiat. Soc. Bengal, Pt. 2, Nat. Sci. 60(2): 211 (1891)
Ref.: Melchers 1931.
289. *Uromyces lupini* Berk. & M.A. Curtis, Proc. Amer. Acad. Arts & Sci. 4: 126 (1860) [1858]
Synonym:- *Uromyces lupini* Sacc., *Nuovo G. bot. ital.* 5: 274 (1873)
Ref.: Thüemen 1879.

Uropyxidaceae, Pucciniales

290. *Tranzschelia discolor* (Fuckel) Tranzschel & M.A. Litv., J. Bot., Paris 24(3): 248 (1939)
Synonym:- *Puccinia pruni-spinosae* f. *discolor* (Fuckel) J.C. Fisch., (1904)
Ref.: Melchers 1931.
291. *Tranzschelia pruni-spinosae* (Pers.) Dietel, *Annl's mycol.* 20(1/2): 31 (1922)
Synonym:- *Puccinia pruni-spinosae* f. *discolor* (Fuckel) J.C. Fisch., (1904)
- *Puccinia pruni-spinosae* Pers., *Syn. meth. fung.* (Göttingen) 1: 226 (1801)
Ref. Reichert 1921, Melchers 1931.

Basidiomycota, Ustilaginomycetes

Floromycetaceae, Urocystidales

292. *Antherospora tourneuxii* (A.A. Fisch. Waldh.) R. Bauer, M. Lutz, Begerow, Piątek & Vánky, *Mycol. Res.* 112(11): 1302 (2008)
Synonym:- *Ustilago vaillantii* var. *tourneuxii* A.A. Fisch. Waldh., *Verh. bot. Ver. Prov. Brandenb.* 22: 65 (1880)
Ref.: Reichert 1921, Melchers 1931.
293. *Antherospora vaillantii* (Tul. & C. Tul.) R. Bauer, M. Lutz, Begerow, Piątek & Vánky, *Mycotaxon* 110: 293 (2009)
Synonym:- *Ustilago vaillantii* Tul. & C. Tul., *Annl's Sci. Nat., Bot., sér. 3 7*: 90 (1847)
Ref.: Thüemen 1880, Roumeguère 1881, Reichert 1921, Melchers 1931.

Urocystidaceae, Urocystidales

294. *Urocystis tritici* Körn., Hedwigia 16: 33 (1877)
Ref.: Melchers 1931.

Ustilaginaceae, Ustilaginales

295. *Anthracoystis ehrenbergii* (J.G. Kühn) McTaggart & R.G. Shivas, in McTaggart, Shivas, Geering, Vánky & Scharaschkin, *Persoonia, Mol. Phyl. Evol. Fungi* 29: 121 (2012)
Synonym:- *Sorosporium ehrenbergii* J.G. Kühn, *Aperçu Syst. Ustil.*: 87 (1877)
Ref.: Melchers 1931.
296. *Anthracoystis penniseti* (Rabenh.) McTaggart & R.G. Shivas, in McTaggart, Shivas, Geering, Vánky & Scharaschkin, *Persoonia, Mol. Phyl. Evol. Fungi* 29: 126 (2012)
Synonym:- *Sphacelotheca penniseti* (Rabenh.) Reichert, *Bot. Jb.* 56: 85 (1921)
- *Ustilago penniseti* Rabenh., Hedwigia 10: 18 (1871)
Ref.: Thüemen 1879, Reichert 1921, Melchers 1931.
297. *Sporisorium algeriense* (Pat.) Vánky, *Mycotaxon* 65: 174 (1997)
Synonym:- *Cintractia algeriensis* Pat., *Bull. Soc. mycol. Fr.* 18: 48 (1902)
Ref.: Reichert 1921.

298. *Sporisorium desertorum* (Thüm.) Vánky, Mycotaxon 74(1): 169 (2000)
 Synonym:- *Sorosporium desertorum* Thüm., in Schweinfurth & Thümen, Grevillea 8 (no. 46): 50 (1879)
 Ref.: Thüemen 1879, Reichert 1921, Melchers 1931.
299. *Sporisorium egyptiacum* (A.A. Fisch. Waldh.) Vánky [as 'aegypticum'], Mycotaxon 33: 371 (1988)
 Synonym:- *Ustilago egyptiaca* A.A. Fisch. Waldh. [as 'aegyptiaca'], Hedwigia 18: 100 (1879)
 Ref.: Magnus 1910, Reichert 1921, Melchers 1931.
300. *Sporisorium lepturi* (Thüm.) Vánky, Mycotaxon 40: 163 (1991)
 Synonym:- *Ustilago carbo* var. *lepturi* Thüm., in Fischer von Waldheim, Annls Sci. Nat., Bot., sér. 6 4: 200 (1877)
 Ref.: Thüemen 1878.
301. *Sporisorium sorghi* Ehrenb. ex Link, in Willdenow, Sp. pl., Edn 4 6(2): 86 (1825)
 Synonym:- *Sphacelotheca sorghi* (Ehrenb. ex Link) G.P. Clinton, *J. Mycol.* 8(3): 140 (1902)
 Ref.: Thüemen 1879, Reichert 1921, Melchers 1931.
302. *Sporisorium tricholaenae* (Henn.) Vánky, Mycotaxon 33: 367 (1988)
 Synonym:- *Ustilago tricholaenae* Henn., Bot. Jb. 17: 3 (1893)
 Ref.: Reichert 1921, Melchers 1931.
303. *Tranzscheliella hypodytes* (Schltdl.) Vánky & McKenzie, *Fungal Diversity Res. Ser.* 8: 156 (2002)
 Synonym:- *Ustilago hypodytes* (Schltdl.) Fr., Syst. mycol. (Lundae) 3(2): 518 (1832)
 Ref.: Thüemen 1880, Reichert 1921, Melchers 1931.
304. *Ustilago aschersoniana* A.A. Fisch. Waldh., Hedwigia 18(1): 12 (1879)
 Ref.: Thüemen 1879, Ascherson 1879, Magnus 1910, Reichert 1921, Melchers 1931.
305. *Ustilago avenae* (Pers.) Rostr., Overs. K. danske Vidensk. Selsk. Forh. Medlemmers Arbejder: 13 (1890)
 Synonym:- *Ustilago levis* (Kellerm. & Swingle) Magnus, Verh. bot. Ver. Prov. Brandenb. 37: 96 (1896) [1895]
 Ref.: Reichert 1921, Melchers 1931.
306. *Ustilago bullata* Berk., in Hooker, Bot. Antarct. Voy. Erebus Terror 1839-1843, II, Fl. Nov.-Zeal.: 196 (1855)
 Synonym:- *Ustilago bromivora* (Tul. & C. Tul.) A.A. Fisch. Waldh., Bull. Soc. Imp. nat. Moscou 40: 252 (1867)
 Ref.: Magnus 1910, Reichert 1921, Melchers 1931.
307. *Ustilago carbo f. hordei-vulgaris* Thüm., Grevillea 6(no. 39): 103 (1878)
 Ref: Thüemen 1878.
308. *Ustilago carbo Tul. f. tritici-vulgaris* Thüemen 1879
 Ref. Thüemen (1879).
309. *Ustilago cynodontis* (Pass.) Henn., Bull. Herb. Boissier 1: 114 (1893)
 Ref.: Reichert 1921, Melchers 1931.
310. *Ustilago digitariae* (Kunze) Rabenhorst, in Klotzsch, Herb. Myc, n. 1199 (1847) et in Flora, XXXIII, pag. 625 (1850).
 Ref.: Reichert 1921, Melchers 1931.
311. *Ustilago hordei* (Pers.) Lagerh., Mitt. bad. bot. Ver.(59): 70 (1889)
 Synonym:- *Ustilago carbo* (DC.) Tul. & C. Tul., Annls Sci. Nat., Bot., sér. 3 7: 78 (1847)
 Ref.: Thüemen 1880, Roumeguère 1881, Reichert 1921, Melchers 1931.
312. *Ustilago ischaemi* Fuckel, Jb. nassau. Ver. Naturk. 15: 22 (1860)
 Ref: Thüemen 1880.
313. *Ustilago lepturi* Woron., Izv. Kavkaz. Muz. 12: 31 (1919)
 Ref.: Reichert 1921, Melchers 1931.

314. *Ustilago lolii* Magnus, Hedwigia 49: 93 (1909)
Ref.: Magnus 1910, Reichert 1921, Melchers 1931.
315. *Ustilago maydis* (DC.) Corda, Icon. fung. (Prague) 5: 3 (1842)
Ref.: Melchers 1931.
316. *Ustilago nuda* (C.N. Jensen) Rostr., Term. Füz. 8: 745 (1889)
Ref.: Reichert 1921, Melchers 1931.
317. *Ustilago residua* G.P. Clinton, J. Mycol. 8(3): 133 (1902)
Ref.: Reichert 1921.
318. *Ustilago segetum* (Bull.) Roussel, Fl. Calvados, Edn 2: 47 (1806)
Ref.: Sickenberger 1901.
319. *Ustilago tritici* (Pers.) Rostr., Overs. K. danske Vidensk. Selsk. Forh. Medlemmers Arbejder: 15 (1890)
Synonym:- *Ustilago schumanniana* Henn., Bull. Herb. Boissier 1: 115 (1893)
- *Ustilago ehrenbergiana* A.A. Fisch. Waldh., Hedwigia 18: 100 (1879)
- *Ustilago tritici f. tritici* (Pers.) Rostr., Overs. K. danske Vidensk. Selsk. Forh. Medlemmers Arbejder (1890)
Ref.: Reichert 1921, Melchers 1931.
320. *Ustilago trichophora* (Link) Kunze, Flora, Regensburg 13: 369 (1830)
Ref.: Thüemen 1880, Reichert 1921, Melchers 1931.

Zygomycota, Incertae sedis

Rhizopodaceae, Mucorales

321. *Rhizopus stolonifer* (Ehrenb.) Vuill., Revue mycol., Toulouse 24: 54 (1902)
Ref.: Melchers 1931.

Chromista

Oomycota, Peronosporae

Albuginaceae, Albuginales

322. *Albugo candida* (Pers.) Roussel, Fl. Calvados, Edn 2: 47 (1806)
Ref.: Thüemen 1878, Magnus 1910, Reichert 1921, Melchers 1931.
323. *Pustula tragopogonis* (Pers.) Thines, Mycotaxon 92: 455 (2005)
Synonym:- *Albugo tragopogonis* (Pers.) Gray, Nat. Arr. Brit. Pl. (London) 1: 540 (1821)
Ref.: Reichert 1921.
324. *Wilsoniana portulacae* (DC.) Thines, Mycotaxon 92: 456 (2005)
Synonym:- *Cystopus portulacae* (DC.) Lév., Anns Sci. Nat., Bot., sér. 3 8: 371 (1848)
Ref.: Melchers 1931.

Peronosporaceae, Peronosporales

325. *Bremia lactucae* Regel, Bot. Ztg. 1: 666 (1843)
Ref.: Reichert 1921, Melchers 1931.
326. *Hyaloperonospora parasitica* (Pers.) Constant., in Constantinescu & Fatehi, Nova Hedwigia 74(3-4): 310 (2002)
Synonym:- *Peronospora parasitica* (Pers.) Fr., Summa veg. Scand., Section Post. (Stockholm): 493 (1849)
Ref.: Melchers 1931.
327. *Peronospora alsinearum* Casp., Monatsber. Königl. Preuss. Akad. Wiss. Berlin 3: 330 (1855)
Ref.: Thüemen 1880, Reichert 1921, Melchers 1931.
328. *Peronospora arborescens* (Berk.) de Bary, Anns Sci. Nat., Bot., sér. 4 20: 119 (1863)
Ref.: Melchers 1931.
329. *Peronospora destructor* (Berk.) Casp. ex Berk., in Berkeley, Outl. Brit. Fung. (London): 349 (1860)
Ref.: Melchers 1931.

330. *Peronospora farinosa* (Fr.) Fr., Summa veg. Scand., Section Post. (Stockholm): 493 (1849)
Ref.: Melchers 1931.
331. *Peronospora sparsa* Berk., Gard. Chron., London: 308 (1862)
Ref.: Melchers 1931.
332. *Peronospora trifoliorum* de Bary, Annls Sci. Nat., Bot., sér. 4 20: 117 (1863)
Ref.: Melchers 1931.
333. *Peronospora viciae* (Berk.) de Bary, Monatsber. Königl. Preuss. Akad. Wiss. Berlin 20: 122 (1863)
Ref.: Melchers 1931.
334. *Phytophthora citrophthora* (R.E. Sm. & E.H. Sm.) Leonian, Bot. Gaz. 42: 215, 221 (1906)
Ref.: Melchers 1931.
335. *Phytophthora infestans* (Mont.) de Bary, J. Roy. Agric. Soc. England, ser. 2 12: 240 (1876)
Ref.: Thüemen 1879, Reichert 1921, Melchers 1931.
336. *Plasmopara viticola* (Berk. & M.A. Curtis) Berl. & De Toni, in Berlese, De Toni & Fischer, Syll. fung. (Abellini) 7: 239 (1888)
Ref.: Melchers 1931.
337. *Pseudoperonospora cubensis* (Berk. & M.A. Curtis) Rostovzev, Annals Inst. Agron. Moscow 9: 47 (1903)
Ref.: Reichert 1921, Melchers 1931.

Pythiaceae, Peronosporales

338. *Globiosporangium debaryanum* (R. Hesse) Uzuhashi, Tojo & Kakish., Mycoscience 51(5): 361 (2010)
Synonym:- *Pythium debaryanum* R. Hesse [as 'de-baryanum'], Pythium debaryanum: ein endophytischer Schmarotzer in den Geweben der Keimlinge der Leindotter, der Rüben, der Spergels und einiger anderer landwirthschaftlichen Kulturpflanzen: 34 (1874)
Ref.: Reichert 1921, Melchers 1931.
339. *Sclerospora graminicola* (Sacc.) J. Schröt., in Cohn, Krypt.-Fl. Schlesien (Breslau) 3.1(9–16): 236 (1886)
Ref.: Melchers 1931.

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References

- Abdel-Azeem AM 2010 – The history, fungal biodiversity, conservation, and future perspectives for mycology in Egypt. IMA Fungus 1, 123–142.
- Abdel-Azeem AM, Salem Fatma M. 2013 – A checklist of Egyptian fungi: I. Protozoan fungal analogues. Mycosphere 4(4), 794–807.
- Ascherson P. 1879 – Beitrag zur Flora Aegyptens. Berlin.
- Bishara I. 1928 – Cotton insects. Ministry of Agriculture, Egypt, Monthly Report 1: 4.
- Briton-Jones HR. 1922– The smuts of millet. Ministry of Agriculture, Egypt. Technical Series Bulletin 18, 1–9.
- Briton-Jones HR. 1923 – A wound parasite of cotton bolls. Ministry of Agriculture, Egypt. Technical Series Bulletin 19, 1–8.

- Briton-Jones HR. 1925 – Mycological work in Egypt during the period 1920–1922. Ministry of Agriculture, Egypt. Technical Series Bulletin 49, 1–129.
- Decaisne, MJ. 1835 – Notice sur quelques plantes de la Flore d’Egypte. Annales des Sciences Naturelles Botanique 4, 193–208.
- Delile AR. 1813 – Flore d’Egypte. Paris.
- El-Abyad MS, Abu-Taleb A. 1993 – II-Soil Fungi. Ecology of fungal flora. In: Publication of National Biodiversity Unit. No. 1. Habitat Diversity: 237–262. Egyptian Environmental Affairs Agency, Egypt.
- El-Abyad MS. 1997 – Biodiversity of Fungal Biota in Egypt. Up-dated check-list. [Publication of National Biodiversity Unit No. 7.] Egyptian Environmental Affairs Agency.
- Fahmy T. 1923 – The production by *Fusarium solani* of a toxic excretory substance capable of causing wilting in plants. Phytopathology 13, 543.
- Fletcher F. 1902 – Notes on two diseases of cotton. Journal of Khedive Agricultural Society and School of Agriculture Giza, Egypt 4, 2.
- Hyde KD, Jones EBG, Liu J-K, Ariyawansa H, Boehm E, et al. 2013 – Families of Dothideomycetes. Fungal Diversity 63, 1–313.
- Kirk PM, Ansell AE. 1992 – Authors of Fungal Names. Kew: CAB International, 95 p.
- Kirk PM, Cannon PF, Minter DW, Stalpers JA. 2008 – Ainsworth & Bisby’s dictionary of the fungi. 10th edn, Wallingford: CAB International.
- Magnus P. 1910 – Beitrag zur Kenntnis der parasitischen Pilze Ägyptens. Hedwigia XLIX, S. 93
- Melchers LE. 1931 – A check list of plant diseases and fungi occurring in Egypt. Transactions of the Kansas Academy of Science 34, 41–106.
- Moustafa AF, Abdel-Azeem AM. 2011 – An annotated check-list of Ascomycota reported from soil and other terricolous substrates in Egypt. Journal of Basic and Applied Mycology 2, 1–27.
- Patouillard NT. 1895 – Quelques espèces nouvelles de Champignons africains. Bulletin de la Société Mycologique de France 11, 85–88.
- Reichert I. 1921 – DiePflanzflora Ägypten. Engler’s Botanischen Jahrbüchen 56, 595–727.
- Roumeguère C. 1881 – Champignon rapportés en 1880 d’une excursion botanique en Egypte et en Palestine par M. William Barbay. Revue Mycologique Toulouse 3, 23–25
- Roumeguère C. 1887 – Champignons d’Egypte. Revue Mycologique 36: 205–207.
- Shearer A. 1924 – Cotton wilt 3rd Annual Report, Cotton Research Board, Ministry of Agriculture. Egypt: 37.
- Sickenberger E. 1901 – Contribution à la Flore d’Egypte. Mémoires de l’institut Egypte 4901, p. 331–332.
- Söderström L, Hagborg A, von Konrat M, Renner MAM. 2008 – Early Land Plants Today: Liverwort checklist of checklists. Fieldiana, Botany, n.s. 47, 105–130.
- Söderström L, Urmi E, Vána J. 2007 – The distribution of Hepaticae and Anthocerotae in Europe and Macaronesia- Update 1–427. Cryptogamie, Bryologie 28, 299–350.
- Thümen F. 1878 – Fungi Egyptiaci, Ser. I. Grevillea 6 (39), 102–104.
- Thümen F. 1879 – Fungi Egyptiaci, Ser. II. Grevillea 8 (46), 49–51.
- Thümen F. 1880 – Fungi Egyptiaci, Ser. III. Flora 63 (30), 477–479.
- Wijayawardene NN, Crous PW, Kirk PM, Hawksworth DL, Boonmee S, Braun U, et al. 2014 – Naming and outline of Dothideomycetes including proposals for the protection or suppression of generic names. Fungal Divers. 2014, 1–55.
- www.indexfungorum.org- December 2015.