

NEW NAMES IN MYCOSPHAERELLA (*M. ARACHIDIS* AND
M. PRUNI-PERSICI) AND VALIDATION OF *M. ROSICOLA****Mycosphaerella arachidis*** Deighton, nom.nov.

≡ *Mycosphaerella arachidicola* W. A. Jenkins, *J. agric. Res.* **56**, 324, 1938.
Non *M. arachidicola* Chochrjakov [Khokhryakov], *Bolezni i vrediteli maslichnykh kul'tur* [Diseases and pests of oil-yielding plants], **1** (2), 29, 1934.

Conidial state:

Cercospora arachidicola Hori, *Ann. Rep. Nishigahara agric. Exp. Sta., Tokyo* 1917, 26, 1917.

It is unfortunately necessary to provide a new name for this fungus, well known in its conidial state and the cause of one of the two common and widespread leaf-spots of groundnut (*Arachis hypogaea*). The earlier-named *Mycosphaerella arachidicola* is a quite different fungus, of apparently limited distribution on *A. hypogaea* in the Caucasus region, U.S.S.R., and causes a different leaf-spot; its conidial state has been shown by Schoschiaschvili (*Izv. graz. opyt. Sta. Zashch. Rast.* [Bull. Georgian Exp. Sta. Pl. Prot.], Ser. A, Fitopat, No. 2, 281, 1940) to be *Ascochyta adzamethica* Schoschiaschvili.

Mycosphaerella pruni-persicae Deighton, nom.nov.

≡ *Mycosphaerella persica* Higgins & Wolf, *Phytopathology* **27**, 695, 1937.
Non *M. persica* H. & P. Sydow, *Annls mycol.* **6**, 529, 1908.

Conidial state:

Miuraea persica (Sacc.) Hara, *Byogaichu-Hoten* [Manual of pests and diseases], p. 224, 1948.

≡ *Cercospora persica* Saccardo, *Nuovo G. bot. ital.* **8** (2), 189, 1876.

≡ *Cercosporella persica* (Sacc.) Saccardo, *Michelia* **2**, 20, 1880.

≡ *Fusarium persicum* (Sacc.) Atkinson, *J. Elisha Mitchell scient. Soc.* **8** (2), 41, 1892.

≡ *Clasterosporium persicum* (Sacc.) Tsugi, *Ann. phytopath. Soc. Japan* **1** (2), 33, 1919.

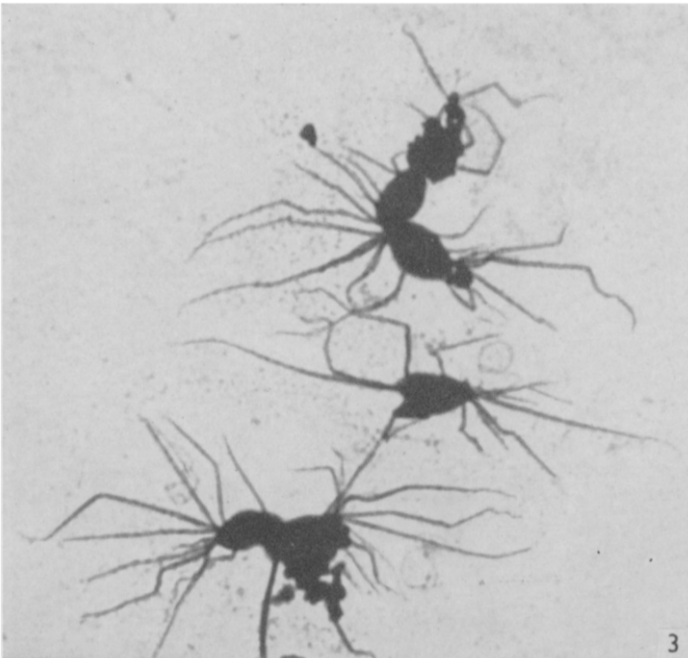
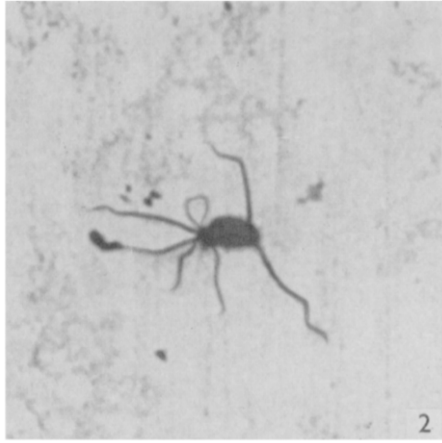
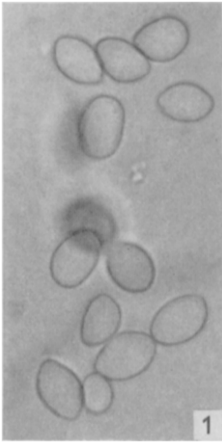
The cause of 'frosty mildew' of peach (*Prunus persica*) in America, Europe and Asia.

MYCOSPHAERELLA ROSICOLA B. H. Davis, *Mycologia* **30**, 296, 1938, sine diagnosi latina.

Unfortunately, Dr B. H. Davis provided no latin diagnosis and the name (published as '*Mycosphaerella rosicola* (Pass.) comb.nov.')

 for this widespread leaf-spotting fungus on *Rosa* was therefore not validly published. In order to rectify this, a latin translation of the original description is now supplied.***Mycosphaerella rosicola*** B. H. Davis

Perithecia amphigena, praecipue hypophylla, erumpentia, atra, singulariter sed dense disposita, 65–105 μ diam. (plerumque 75–80 μ diam.). Asci astipitati, clavati, versus apicem parietibus leniter incrassatis, 36–57 \times 9–11 μ (plerumque 45 \times 9 μ), aparaphysati. Ascosporae biseriatae vel sub-biseriatae, inaequaliter 2-cellulatae, cellula supera minora,



non constrictae, altero latere leniter curvato altero complanato, utrinque rotundatae, olivaceae, $13-17 \times 4-5.3 \mu$.

Hab. in foliis vetustis *Rosae woodsii* var. *fendleri*, Herb. CUP 23392 typus.

Conidial state:

Cercospora rosicola Passerini, *Just's bot. Jber.* **3** (1875), 276, 1877 ('*rosaecola*').

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SILVER NITRATE STAIN FOR SPORANGIOSPORE APPENDAGES OF MUCORACEOUS MOULDS

Sporangiospore appendages are common characters in the two mucoraceous genera *Choanephora* and *Gilbertella*. Difficulties have been experienced in staining these using standard methods. In addition to Leifson's (1951) method used by Hesseltnine (1960) on *Gilbertella*, I have also tried Gray's (1926) and Rhodes's (1958) techniques. The latter, a modification of Fontana's method for staining Spirochaetes (Mackie & McCartney, 1948, p. 108) and for cytological studies of *Pseudomonas* spp. gave the best separation of individual appendages with less artifacts, when used on different strains of *Gilbertella persicaria* and its variety (Pl. 14). It is also a good stain for the sporangiospores of *Choanephora*.

I am grateful to Dr J. F. Bradbury and Mr D. W. Fry for their help and also to the C.M.I. staff for helping me in various ways during the course of the studies.

REFERENCES

- GRAY, P. H. H. (1926). A method of staining bacterial flagella. *J. Bact.* **12**, 273-274.
 HESSELTINE, C. W. (1960). *Gilbertella* gen. nov. Mucorales. *Bull. Torrey bot. Club* **87**, 21-30.
 LEIFSON, E. (1951). Staining, shape and arrangement of bacterial flagella. *J. Bact.* **62**, 377-389.
 MACKIE, T. J. & MCCARTNEY, J. E. (1948). *Handbook of Practical Bacteriology*, 8th ed. Edinburgh: E. and S. Livingstone Ltd.
 RHODES, M. E. (1958). The cytology of *Pseudomonas* spp. as revealed by a silver-plating staining method. *J. gen. Microbiol.* **18**, 639-648.

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EXPLANATION OF PLATE 14

Gilbertella persicaria

Fig. 1. Unstained sporangiospores in water. $\times 2000$.

Fig. 2-3. Sporangiospores stained in ammoniacal silver nitrate. Fig. 2. Sporangiospore showing appendages. $\times 1000$. Fig. 3. Sporangiospores of var. *indica* showing appendages. $\times 1000$.

A TECHNIQUE FOR OBTAINING ZOOSPORES IN *PYTHIUM MIDDLETONII*

A culture of *Pythium middletonii* Sparrow (= *P. proliferum* de Bary non Schenk, **IMI** 42098) has been maintained in stock on cornmeal agar for some years in this laboratory and used to demonstrate zoosporangia by the hemp seed method (Goldie-Smith, 1950; Emerson, 1958).