

## *Fungi from the Canary Islands and Madeira*

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### Resumen

*Hongos parasíticos de Canarias y de Madera*: Enumeración de algunas especies microscópicas, de las cuales *Puccinia lagenophorae*, *Uromyces tingitanus* y *Phyllachora paspalicola* resultan nuevas para Canarias, y *Frommea obtusa* y *Melampsora lini* se publica por primera vez para Madera. Se menciona, además, varias nuevas especies huéspedes y patrones para ambos archipiélagos.

The material from the Canary Islands has been collected by First Curator Mr. J. Lid and Garden Curator Mr. P. Sunding, Botanical Museum and Botanical Garden of the University of Oslo, respectively, while that from Madeira has been collected solely by Mr. Lid. All specimens are preserved in Herb. Oslo.

### Fungi from the Canary Islands

*Coleosporium tussilaginis* (Pers.) Berk. Outl. Brit. Fung. p. 333, 1860.

On *Senecio tussilaginis* (L'Hér.) DC. II+III.

Tenerife: El Socorro, W of Realejo Bajo, 30 m above sea level. 9. II. 1968. Leg. J. Lid.

The fungus has been collected several times on the same host at Tenerife (Jørstad 1958), but not at this locality.

*Puccinia lagenophorae* Cooke. Grevillea 13:16, 1884.

On *Senecio rhombifolius* Bolle. I.

Fuerteventura: Jandía, Pico de la Zarza, 600 m above sea level. 6. III. 1969. Leg. P. Sunding.

*S. rhombifolius* seems to be a new host to this originally Australian rust which is new to the flora of the Canary Islands. Since 1960 *P. lagenophorae* has spread rapidly, especially in western Europe.

*Puccinia purpurea* Cooke. Grevillea 8:15, 1876.

On *Sorghum halepense* (L.) Pers. II.

Tenerife: Puerto Cruz, at the road SE of the Botanical Garden. 13. IV. 1969. Leg. J. Lid.

This rust has previously been reported from Gran Canaria by Bornmüller (1903) and from Palma by Jørstad (1958).

The uredosori were parasitized by *Dariuca filum* ([Biv.] Fr.) Cast.

*Puccinia schismi* Bub. Annln K. K. Naturh. Hofmus. Wien 28: 193, 1914.

On *Trisetum cristatum* (L.) Potztlal (syn. *Koeleria phleoides* (Vill.) Pers.). III.

Lanzarote: Montaña Famara, 550 m above sea level. 18. V. 1969. Leg. P. Sunding.

The fungus has previously been collected near Haría at Lanzarote (Jørstad op. cit.).

*Uromyces tingitanus* P. Henn. Annu. Conserv. Jard. bot. Genève 1903—04:243, 1904.

On *Rumex bipinnatus* L. fil. II+III.

Lanzarote: Montaña Mina (Zonzamas), at the summit, 475 m above sea level. 9. IX. 1954. Leg. J. Lid.

This rust which is new to the flora of the Canary Islands, is a western Mediterranean species, occurring on a few *Rumex* species from Morocco to Tunisia and in Spain and the southeastern part of France.

*Phyllachora paspalicola* P. Henn. Hedwigia 48: 106, 1908.

On *Cenchrus ciliaris* L.

Gran Canaria: Bco. de Calabozo, just S of San Felipe. 27. II. 1967. Leg. P. Sunding.

Ascospores ellipsoid to ovoid, 10-12.5  $\times$  5.5-7  $\mu$ m.

*Ph. paspalicola* occurs on a large number of species in seven graminicolous genera and has a wide distribution in tropical and subtropical areas (Parbery 1967), but it is new to the flora of the Canary Islands.

*Cenchrus* is a new host genus to this fungus.

The American species *Ph. sphaerosperma* Wint. on *C. echinatus* L., has nearly spherical ascospores, measuring  $8-11 \times 7-9$   $\mu$  (Parbery op. cit.).

*Erysiphe cichoracearum* (DC.) Mérat. Nouv. fl. env. Paris, ed. 2, 1: 132, 1821.

On *Nicotiana paniculata* L.

Tenerife: Montaña Las Arenas, S of Puerto Cruz. 30. I. 1968. Leg. J. Lid.

The conidial stage was present only. Jørstad (1962) recorded the fungus at and near Puerto Cruz.

*Erysiphe communis* (Wallr.) Fr. Syst. Mycol. 3:239, 1829.

On *Lepidium bonariense* L.

Tenerife: Montañeta Realejo. 12. II. 1968. Leg. J. Lid.

The conidial stage was present only. For this fungus *Lepidium* is a new host genus in the Canary Islands, and *L. bonariense* might be a new host species as it is not recorded by Hirata (1966) in his world list.

#### F u n g i f r o m M a d e i r a

*Coleosporium tussilaginis* (Pers.) Berk. Outl. Brit. Fung. p. 333, 1860.

On *Senecio mikanoides* Otto II.

Above Monte, 600 m above sea level, at the trace of the old railway. 11. V. 1968. Leg. J. Lid.

On *S. silvaticus* L. II.

Eira do Serrado, 1025 m above sea level, S of Curral das Freiras. 9. V. 1968. Leg. J. Lid.

On *S. vulgaris* L. II.

Funchal, in the street along the river E of Hotel Monte Carlo. 18. V. 1968. Leg. J. Lid.

The last mentioned host is new to this rust in Madeira while it was recorded sub *C. senecionis* (Pers.) Fr. on *S. mikanoides* by Viennot-Bourgin (1939) and on *S. silvaticus* by Petrak (1929).

*Frommea obtusa* (Str.) Arth. Bull. Torrey bot. Club 44: 503, 1917.

On *Duchesnea indica* (Andr.) Foche. II.

N of Funchal, at the old railway above Monte, 600 m above sea level. 11. V. 1968. Leg. J. Lid.

On *D. indica* the rust in question has previously been known from the eastern and southeastern parts of the United States only. Arthur (1934) recognized it as a "less robust form" of the main species, and recorded it as "*F. obtusa duchesneae* (Arth.) n. comb."

*Melampsora lini* (Ehrenb.) Desm. Pl. Crypt. No. 2049, 1850.

On *Linum bienne* Mill. (= *L. angustifolium* Huds.). II.

Pico dos Barcelos, 340 m above sea level. 13.V. 1968. Leg. J. Lid.

This rust is new to the flora of Madeira. Jørstad (1958) recorded it from several localities in the Canary Islands.

*Puccinia coronata* Cda. Icon. Fung. 1:6, 1837.

On *Agrostis ad canina* L. II.

Above Monte, in the trace of the old railway, 650 m above sea level. 11. V. 1968. Leg. J. Lid.

The host is new to this rust in Madeira. Viennot-Bourgin (1939) recorded it on *Agropyrum repens* PB., *Phalaris altissima* Mnzs and (sub *P. coronifera* Kleb.) on *Avena barbata* Brot.

*Puccinia malvacearum* Mont. Hist. Fis. Polit. Chili 8:43, 1852.

On *Lavatera cretica* L. III.

Funchal, street above Hotel Monte Carlo. 18. V. 1968. Leg. J. Lid.

On *Malva nicaeënsis* All. III.

Figueirinhas, 350 m above sea level (grass land W. of Canico). 13. V. 1968. Leg. J. Lid.

*M. nicaeënsis* is a new host for this rust in Madeira. Viennot-Bourgin (1939) recorded it on *L. cretica* above Funchal.

*Uromyces ervi* West. Bull. Acad. Roy. Belg. 21(2):234, 1854.

On *Vicia disperma* DC. I+II.—Figueirinhas (grassland W of Canico), 350 m. 13.V.1968. Leg. J. Lid.

This rust has been recorded from Madeira by Schroeter (1884) sub *U. viciae-fabae* (Pers.) Schroet. on *Ervum parviflorum* (Loissl.) Bert. (= *V. disperma*) and by Viennot-Bourgin (op. cit.) on *V. hirsuta* Koch.

## Summary

From the Canary Islands are recorded nine fungus species of which *Puccinia lagenophorae*, *Uromyces tingitanus*, and *Phyllachora paspalicola* are new to the Canarian flora. *Senecio rhombifolius* is reported as a new host to *P. lagenophorae* and *Cenchrus* as a new host genus to *Ph. paspalicola*. *Lepidium* is a new host genus to *Erysiphe communis* in the Canary Islands, and *L. bonariense* is a new host species for the same fungus.

From Madeira are recorded six rust species of which *Frommea obtusa* and *Melampsora lini* are new to the Madeiran flora .

*Duchesnea indica* is recorded as a host to *F. obtusa* for the first time outside N. America. *Agrostis* and *Malva* are recorded as new host genera for *Puccinia coronata* and *P. malvacearum*, respectively, in Madeira.

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