**Supplementary data 1**

**Checklist**

COLEOSPORIACEAE

***Chrysomyxa rhododendri* de Bary**, *Botanische Zeitung* 37: 809 (1879)

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; uredinia on Ericaceae (*Rhododendron ponticum* L. subsp. *baeticum* (Boiss. & Reut.) Hand.*–*Mazz.).

Monthly distribution of occurrences:

uredinial/telial stage: 0,0,0,0,0,0,0,0,1,0,0,0

Distribution: Far

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3372864

Notes: The host taxon is endemic to Iberia with two isolated and rarefied populations in Portugal, at Serra do Caramulo and Serra de Monchique. This single occurrence was registered in 1923. Several *Chrysomyxa* spp. occur on *Rhododendron*, either in telial or aecial forms, along with *Puccinia rhododendri* Fuckel. Recently several species were identified from within *Chrysomyxa rhododendri* de Bary, and new species are likely to be identified in areas where host plants are part of the native flora, as could be the case for the Portuguese populations of *R. ponticum* subsp. *baeticum*.

Reference: Gonçalves da Cunha (1934).

***Coleosporium asterum* (Dietel) Syd. & P. Syd.**, *Annales Mycologici* 12(2): 109 (1914)

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; uredinia on Asteraceae (*Solidago azorica* Hochst, *S. canadensis* L., *S. sempervirens* Michx.).

Monthly distribution of occurrences:

uredinial/telial stage: 0,0,0,0,0,0,0,0,2,2,0,0

Distribution: AZO — Fai, Gra, Pic

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2513923

Notes: The first report of this taxon for the Azores (and for Europe) dates from 1996 in Graciosa. This is the first report of this fungus on the endemic *S. azorica* Hochst.

References: Spooner & Butterfill (1999); the authors — unpublished records.

***Coleosporium tussilaginis* (Pers.) Tul.** *Annales des Sciences Naturelles Botanique*, *sér. 4*, **2**: 136 (1854)

Synonyms: *Coleosporium campanulae* (Pers.) Tul., *C. senecionis* (Pers.) Fr., *C. sonchi* (F. Strauss) Lév., *C. sonchi-arvensis* (Pers.) Wint.

Macrocyclic, heteroecious

Life stages and hosts: aecia on Pinaceae (*Pinus halepensis* Mill., *P. pinaster* Aiton); uredinia and/or telia on Campanulaceae (*Campanula erinus* L., *C. lusitanica* L.) and Asteraceae (*Delairea odorata* Lem., *Jacobaea erucifolia* subsp. *praealta* (Betol.) Greuter & B. Nord., *Pericallis aurita* (L'Hér.) B. Nord., *P. cruenta* (L'Hér.) Bolle, *Senecio gallicus* Vill., *Senecio lividus* L., *Senecio scandens* Buch.*–*Ham. ex D. Don, *Senecio sylvaticus* L., *Senecio vulgaris* L., *Sonchus arvensis* L., *Sonchus oleraceus* L.).

Monthly distribution of occurrences:

aecial stage: 0,2,1,0,0,0,0,0,0,0,0,1

uredinial/telial stage: 7,2,4,11,11,4,1,4,1,0,0,3

Distribution: Bra, Coi, Far, Gua, Lei, Lis, Ptg, Pto, Set, VRe; AZO — Fai, Gra, Mig, Ter; MAD — Mad, PSa, Sel

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=9215031

Notes: Very common (67 records) and widespread in the uredinial stage. Infrequent in the aecial stage. *Pericallis aurita* (L'Hér.) B. Nord is a Madeiran endemic.

References: Thümen (1879*–*80), Lagerheim (1890), Trelease (1897), Pestana (1903), Saccardo (1903), Torrend (1903, 1909), Câmara (1929, 1936, 1946, 1949b, 1951b, 1958), Gonçalves da Cunha (1934, 1936b), Viennot*–*Bourgin (1939), Câmara et al. (1940a, 1943), Dias & Lucas (1962, 1972), Gjaerum (1970, 1982, 1990), Gjaerum & Dennis (1976), Gjaerum & Hansen (1983*–*84), Melo & Cardoso (2008).

***Coleosporium tussilaginis* (Pers.) Lév.** **f. sp. *inulae* S. Helfer**, *Mycotaxon* 124: 87*–*99 (2013) Synonyms: *Coleosporium carpesii* Sacc., *C. inulae* Rabenh., *Uredo asterisci-aquatici* Sacc.

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; uredinia on Asteraceae (*Asteriscus maritimus* (L.) Less., *Dittrichia viscosa* (L.) Greuter, *Pallenis maritima* (L.) Greuter).

Monthly distribution of occurrences:

uredinial/telial stage: 1,0,0,3,1,2,2,1,1,3,0,0

Distribution: Ave, Bej, Coi, Far, Lis, Pto, San, Set; AZO — Mar

Notes: This is the first record of this fungus for the Azores.

References: Câmara (1929, 1946, 1947, 1948, 1949a, 1958), Gonçalves da Cunha (1936b), Câmara et al. (1940a,b); Câmara & Vasconcelos (1953), Dias et al. (1981, 1982); Gjaerum (1990), Tavares et al. (2014), the authors — unpublished records.

***Coleosporium tussilaginis* (Pers.) Lév. f. sp. *rhinanthacearum* Boerema & Verh., Boerema & Verh.**, *Netherlands Journal of Plant Pathology* 78 (suppl. 1): 8 (1972)

Synonyms: *Coleosporium euphrasiae* (Schumach.) Fuss

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; uredinia and/or telia on Orobanchaceae (*Bartsia trixago* L., *Odontites tenuifolia* (Pers.) G. Don., *Parentucellia viscosa* (L.) Caruel).

Monthly distribution of occurrences:

uredinial/telial stage: 0,0,0,1,2,4,0,2,0,0,0,0

Distribution: Bej, Far, Pto, San, Set, VRe; MAD — Mad

References: Gonçalves da Cunha (1936b), Câmara et al. (1940a,b), Santos (1965), Dias & Lucas (1972, 1980), Dias et al. (1982).

***Coleosporium tussilaginis* (Pers.) Lév. f. sp. *senecionis-silvatici* (Pers.) Berk., Boerema & Verh.**, *Netherlands Journal of Plant Pathology* 78 (suppl. 1): 9 (1972)

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; uredinia and/or telia on Asteraceae (*Delairea odorata* Lem., *Jacobaea erucifolia* subsp. *praealta* (Betol.) Greuter & B. Nord., *Senecio leucanthemifolius* Poir., *S. vulgaris* L.).

Monthly distribution of occurrences:

uredinial/telial stage: 1,1,1,2,0,1,2,0,0,1,1,0

Distribution: Lis, Ptg, Set; AZO — Mig, Fai; MAD — Mad

Notes: This rust is regarded as a potential biocontrol agent of the invasive *Delairea odorata* Lem.

References: Dias et al. (1981, 1982), the authors — unpublished records.

CRONARTIACEAE

***Cronartium flaccidum* (Alb. & Schwein.) G. Winter**, *Hedwigia* 19: 55 (1880)

Macrocyclic, heteroecious

Life stages and hosts: aecia on Pinaceae (*Pinus pinaster* Aiton); uredinia and/or telia on Apocynaceae (*Vincetoxicum hirundinaria* Medik., *V. nigrum* (L.) Moench., *V. purpurascens* C. Morren & Decne.) and Paeoniaceae (*Paeonia broteri* Boiss. & Reut., *P. lactiflora* Pall., *P. mascula* (L.) Mill., *P*. × *suffruticosa* Andrews).

Monthly distribution of occurrences:

aecial stage: 0,0,1,0,0,0,1,0,0,0,0,0

uredinial/telial stage: 0,0,1,0,1,5,3,2,2,1,0,0

Distribution: Bra, CBr, Coi, Far, Lis, Via, VRe

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2517477

References: Thümen (1881), Winter (1883, 1884), Câmara (1910, 1929, 1947, 1958), González Fragoso (1925), Gonçalves da Cunha (1936b), Câmara et al. (1940a, 1943), Santos (1956).

***Cronartium quercuum* (Berk.) Miyabe ex Shirai**, *Botanical Magazine, Tokyo*: 74 (1899)

Macrocyclic, heteroecious

Life stages and hosts: aecia on Pinaceae (*Pinus pinaster* Aiton); uredinia and/or telia on Fagaceae (*Quercus lusitanica* Lam., *Q. pubescens* Willd., *Q. robur* L.).

Monthly distribution of occurrences:

uredinial/telial stage: 0,0,0,1,1,1,0,0,1,1,0,0

Distribution: Coi, Far, Lis, Pto, Set

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2517486

Notes: There is a single report of the aecial stage, dated from 1954, while the uredinial/telial stage has not been reported since 1923.

References: Gonçalves da Cunha (1936b), Câmara (1958), Santos & Câmara (1955).

MELAMPSORACEAE

***Melampsora allii-populina* Kleb.**, *Zeitschrift für Pflanzenkranheiten, Pflanzenpathologie und Pflanzenschutz* 12: 25 (1902)

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; uredinia and telia on Salicaceae (*Populus nigra* L.).

Monthly distribution of occurrences:

uredinial/telial stage: 0,0,0,0,0,0,0,0,0,1,0,0

Distribution: Pto

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2513990

Notes: There is a single record for this taxon from 1922.

Reference: González Fragoso (1923).

***Melampsora epitea* Thüm.**, *Mittheilungen aus dem forstlichen Versuchswesen Österreichs* 2: 38 & 40 (1879)

Synonyms: *Melampsora larici-epitea* Kleb.

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; uredinia on Salicaceae (*Salix atrocinerea* Brot., *S. fragilis* L., *S. viminalis* L.).

Monthly distribution of occurrences:

uredinial/telial stage: 0,0,0,0,0,1,0,1,0,2,1,0

Distribution: Lis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3373842

Notes: Occurs on cultivated and native willows*.*

References: Câmara (1919, 1946), Gonçalves da Cunha (1936b), Câmara et al. (1940a).

***Melampsora euphorbiae* (Ficinus & C. Schub.) Castagne**, *Observations sur quelques plantes acotylédonées de la famille des Urédinées et dans les sous-tribus des Nema-sporées et des Aecidinées, recueillies dans le Dep. des Bouches-du-Rhône* 2: 18 (1843)

Synonyms: *Melampsora euphorbiae-gerardianae* W. Muell., *M. gelmi* Bres., *M. helioscopiae* (Pers.) Castagne, *M. ricini* Pass. ex E.A. Noronha, *Uredo ricini* Biv.

Macrocyclic, autoecious

Life stages and hosts: aecia, uredinia and/or telia on Euphorbiaceae (*Euphorbia amygdaloides* L., *E. baetica* Boiss., *E. characias* L., *E. exigua* L., *E. falcata* L., *E. helioscopia* L., *E. mellifera* Aiton, *E. paralias* L.*, E. peplus* L., *E. pterococca* Brot., *E. squamigera* Loisel., *Ricinus communis* L.).

Monthly distribution of occurrences: 4,2,2,13,9,4,4,2,1,3,0,1

Distribution: Ave, Bra, Coi, Far, Lei, Lis, Set; AZO — Fai, Mar, Mig, Pic, Ter; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=8193400

Notes: Widespread and very common (65 occurrences).

References: von Niessl (1883), Trelease (1897), Almeida & Câmara (1908*–*09), Torrend (1909), Gonçalves da Cunha (1933, 1936b), Câmara (1936, 1946, 1947, 1948, 1949a), Câmara et al. (1940a,b, 1943), Gjaerum & Dennis (1976), Dias & Lucas (1980), Dias et al. (1982), Gjaerum (1982), Gjaerum & Hansen (1983*–*84), Melo et al. (2010), Tavares et al. (2014).

***Melampsora hypericorum* (DC.) J. Schröt.**, *Jahresbericht der Schlesischen Gesell-schaft für Vaterländische Kultur* 49: 1 (1871)

Synonyms: *Caeoma androsaemi* J.V. Almeida & Sousa da Câmara

Macrocyclic, autoecious

Life stages and hosts: aecia and uredinia on Hypericaceae (*Hypericum androsaemum* L., *H. calycinum* L., *H. foliosum* Aiton, *H. grandifolium* Choisy, *H. humifusum* L., *H. perforatum* L.).

Monthly distribution of occurrences: 1,0,0,4,1,1,0,1,0,1,0,0

Distribution: Bra, Coi, Lis, Pto, Via, Vis; AZO — Cor, Mig, Pic; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2513996

Notes: The holotype of *Caeoma androsaemi* J.V. Almeida & Sousa da Câmara was collected at Coimbra on *Hypericum androsaemum* L.

References: von Niessl (1883), Trelease (1897), Sampaio (190?), Almeida & Câmara (1908*–*09), Torrend (1909), González Fragoso (1923), Arwidsson (1940), Câmara et al. (1940b), Câmara (1947), Lucas & Câmara (1952b), Gjaerum (1982), Tavares et al. (2014).

***Melampsora larici-populina* Kleb.**, *Zeitschrift für Pflanzenkranheiten, Pflanzen-pathologie und Pflanzenschutz* 12: 43 (1902)

Synonyms: *Melampsora populnea* Castagne

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; uredinia and/or telia on Salicaceae (*Populus alba* L., *P. deltoides* Marshall, *P. nigra* L., *P. virginiana* Foug.).

Monthly distribution of occurrences:

uredinial/telial stage: 1,0,0,2,1,1,1,3,3,7,3,4

Distribution: Ave, Coi, Lei, Lis; AZO — Gra, Flo, Gra, Jor, Mig, Pic, Ter

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=5897564

Notes: Occurs on cultivated poplars.

References: Thümen (1881), Trelease (1897), Almeida & Câmara (1903), Saccardo (1903), Câmara (1910, 1916, 1929, 1936, 1948, 1951b), Gonçalves da Cunha (1936b), Lucas & Câmara (1952a), Dias & Câmara (1953), Santos (1956), Gjaerum & Dennis (1976), Spooner & Butterfill (1999).

***Melampsora lini* (Ehrenb.) Lév.**, *Annales des Sciences Naturelles Botanique* 8: 376 (1847)

Macrocyclic, autoecious

Life stages and hosts: aecia, uredinia and/or telia on Linaceae (*Linum bienne* Mill., *L. strictum* L., *L. trigynum* L., *L. usitatissimum* L.).

Monthly distribution of occurrences: 0,0,0,2,5,8,1,0,0,0,0,1

Distribution: Bej, Bra, Brç, Coi, Lei, Lis, Ptg, San, Set; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=7691280

References: Câmara (1936, 1946, 1949a, 1951b); Gonçalves da Cunha (1936b); Câmara et al. (1940a,b, 1943); Gjaerum (1970); Dias et al. (1987).

***Melampsora magnusiana* G.H. Wagner**, *Österreichische Botanische Zeitschrift* 46(8): 273 (1896)

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; uredinia and telia on Salicaceae (*Populus tremula* L.).

Monthly distribution of occurrences:

uredinial/telial stage: 0,0,0,0,0,0,0,0,0,1,0,0

Distribution: Coi

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514066

Notes: There is a single record for this taxon, from 1879, but it is common elsewhere in Europe.

Reference: Thümen (1881).

***Melampsora pulcherrima* Maire**, *Bulletin de la Société Botanique de France* 14: 21 (1921)

Synonyms: *Caeoma pulcherrimum* Bubák

Macrocyclic, heteroecious

Life stages and hosts: spermagonia and/or aecia on Euphorbiaceae (*Mercurialis annua* L.); uredinia on Salicaceae (*Populus alba* L.).

Monthly distribution of occurrences:

aecial stage: 1,4,1,0,0,0,0,0,0,0,0,0

uredinial/telial stage: 0,0,0,0,0,1,0,0,0,0,0,0

Distribution: Coi, Gua, Lis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3373806

References: Thümen (1881), Lagerheim (1889), González Fragoso (1923), Câmara (1936), Câmara et al. (1940b), Talhinhas et al. (2015).

***Melampsora salicis-albae* Kleb.**, *Pringsheims Jahrbuch für Wissenschaftliche Botanik* 35: 679 (1901)

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; uredinia on Salicaceae (*Salix alba* L.).

Monthly distribution of occurrences:

uredinial/telial stage: 0,0,0,0,0,1,0,0,2,0,0,0

Distribution: Coi, Lis, Via

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514016

References: González Fragoso (1923), Gonçalves da Cunha (1936b).

PHAKOPSORACEAE

***Cerotelium fici* (Castagne) Arthur**, *Bulletin of the Torrey Botanical Club* 44: 509 (1917)

Synonyms: *Kuehneola fici* E.J. Butler

Hemicyclic

Life stages and hosts: uredinia on Moraceae (*Ficus carica* L., *F. macrophylla* Desf. ex Pers.).

Monthly distribution of occurrences: 2,0,0,0,0,1,0,3,1,4,1,3

Distribution: Coi, Lis, San, Set; AZO — Gra, Mig; MAD — Mad, PSa

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=9206047

Notes: Occasionally this fungus can cause severe defoliation, leading to economic losses on fig crop production.

References: Bensaúde (1926), Câmara (1929, 1951b), Gonçalves da Cunha (1936b), Câmara et al. (1939), Viennot*–*Bourgin (1939), Dias & Lucas (1965b), Gjaerum (1982), Spooner & Butterfill (1999), Caetano & Ramos (2002), the authors — unpublished records.

PHRAGMIDIACEAE

***Frommeëlla tormentillae* (Fuckel) Cummins & Y. Hirats. ex Spooner**, *Vieraea* 27: 173*–*182 (1999)

Hemicyclic

Life stages and hosts: uredinia on Rosaceae (*Potentilla* sp.).

Monthly distribution of occurrences: 0,0,0,0,1,0,0,0,0,0,0,0

Distribution: AZO — Flo

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=4911636

Notes: There is a single record for this taxon from 1995.

Reference: Spooner & Butterfill (1999).

***Kuehneola uredinis* (Link) Arth.**, *Resultats Scientifiques du Congres International de Botanique Vienne* 1905: 342 (1906)

Macrocyclic, autoecious

Life stages and hosts: uredinia and/or telia on Rosaceae (*Rubus ulmifolius* Schott).

Monthly distribution of occurrences: 0,0,1,0,1,0,0,0,0,0,2,0

Distribution: AZO — Flo, Jor

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2516636

References: Gjaerum & Hansen (1983*–*84), Spooner & Butterfill (1999).

***Phragmidium bulbosum* (Fr.) Schltdl.**, *Flora Berolinensis* (Berlin) 2: 156 (1824)

Synonyms: *Phragmidium rubi* (Pers.) Oudem.

Macrocyclic, autoecious

Life stages and hosts: uredinia and/or telia on Rosaceae (*Rubus questierii* Lefèv. et P.J. Müll., *R. ulmifolius* Schott).

Monthly distribution of occurrences: 5,0,0,0,0,1,0,0,1,0,0,1

Distribution: Bra, Coi, Far, Set, Via; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2516533

References: Sampaio (190?), Gonçalves da Cunha (1936b), Gjaerum (1982).

***Phragmidium fragariae*** (Rabenh.) Rossmann, *Rabenhorst, Klotzschii Herbarium Vivum Mycologicum, Editio Nova, Ser. Sec., Cent. 3:* no. 281 (1856)

Synonyms: *Phragmidium fragariastri* (DC.) Schröt.

Macrocyclic, autoecious

Life stages and hosts: uredinia and/or telia on Rosaceae (*Fragaria vesca* L., *Potentilla montana* Brot.).

Monthly distribution of occurrences: 0,0,1,1,0,1,0,0,0,0,0,0

Distribution: Bra, Coi, Pto

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2516576

Notes: This rust has not been reported since the 1940s.

References: Câmara et al. (1940a, 1943).

***Phragmidium mexicanum* (Mains) H.Y. Yun, Minnis & Aime**, *Mycologia* 103(6): 1452 (2011)

Synonyms: *Frommea obtusa* (Str.) Arth., *Frommeëlla mexicana* (Mains) J.W. McCain & J.F. Hennen

Hemicyclic

Life stages and hosts: uredinia and/or telia on Rosaceae (*Duchesnea indica* (Jacks.) Focke, *Potentilla anglica* Laichard., *P. erecta* (L.) Räusch.).

Monthly distribution of occurrences: 0,0,2,1,4,0,1,1,0,1,0,1

Distribution: Lis; AZO — Fai, Flo, Jor, Mig, Ter; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=7461690

Notes: Nearly all records are from the Azores and Madeira.

References: Gjaerum (1970, 1982), Gjaerum & Dennis (1976), Gjaerum & Hansen (1983*–*84), Spooner & Butterfill (1999), Tavares et al. (2014).

***Phragmidium mucronatum* (Pers.) Schltdl.**, *Magazin der Gesellschaft Naturforschenden Freunde Berlin* 8: 30 (1816)

Synonyms: *Phragmidium disciflorum* (Tode) J. James

Macrocyclic, autoecious

Life stages and hosts: uredinia and/or telia on Rosaceae (*Rosa* spp.).

Monthly distribution of occurrences: 0,0,0,2,2,4,1,1,0,2,3,0

Distribution: CBr, Coi, Far, Évo, Lis, Pto, Set; AZO — Flo, Mig; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=7789914

References: Thümen (1879*–*80), von Niessl (1883), Winter (1884), Câmara (1916, 1929), Bensaúde (1926), Gonçalves da Cunha (1934, 1936a,b), Câmara et al. (1940a, 1943), Santos (1956), Spooner & Butterfill (1999), Melo & Cardoso (2008), Tavares et al. (2014).

***Phragmidium sanguisorbae* (DC.) J. Schröt.**, *Kryptogamen-Flora von Schlesien* 3*–*1(3): 352 (1887)

Macrocyclic, autoecious

Life stages and hosts: aecia, uredinia and/or telia on Rosaceae (*Sanguisorba hybrida* (L.) Font Quer, *S. minor* Scop., *S. verrucosa* (Link ex G. Don) Ces.).

Monthly distribution of occurrences: 2,3,0,2,3,6,3,1,0,0,0,0

Distribution: Bej, Brç, CBr, Coi, Évo, Far, Gua, Lis, VRe; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2516515

Notes: The host *Sanguisorba hybrida* (L.) Font Quer is an Iberian endemic.

References: Sydow & Sydow (1903a), Câmara (1916, 1936, 1946), Gonçalves da Cunha (1933, 1936b), Câmara & Luz (1939b), Câmara et al. (1940a, 1943), Lucas (1956), Dias & Lucas (1980), Gjaerum (1982), Dias et al. (1987).

***Phragmidium tuberculatum* Jul. Müll.**, *Berichte der Deutschen Botanischen Gesellschaft* 3: 391 (1885)

Macrocyclic, autoecious

Life stages and hosts: uredinia and/or telia on Rosaceae (*Potentilla anglica* Laichard., *Rosa* spp.).

Monthly distribution of occurrences: 3,0,0,0,0,0,0,0,0,0,0,0

Distribution: Lis; AZO — Mig, Ter; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2516514

Notes: Nearly all records are from the Azores and Madeira.

References: Arwidsson (1940), Gjaerum & Dennis (1976), Dias et al. (1982), Gjaerum (1982).

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

Macrocyclic, autoecious

Life stages and hosts: uredinia and/or telia on Rosaceae (*Rubus bifrons* Vest, *R. bollei* Focke, *R. idaeus* L., *R. sampaioanus* Sudre ex Samp., *R. ulmifolius* Schott, *R. vulgaris* Weihe & Nees, *Rubus* sp.).

Monthly distribution of occurrences: 7,0,1,2,4,7,3,5,6,2,0,2

Distribution: Bra, CBr, Coi, Gua, Lis, Set, Via, VRe, Vis; AZO — Cor, Fai, Flo, Mig, Pic, Ter; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2516604

Notes: Common and widespread.

References: Thümen (1881), Winter (1884), Trelease (1897), Sydow & Sydow (1903a), Torrend (1909), González Fragoso (1924), Câmara (1936, 1947, 1948, 1949b), Gonçalves da Cunha (1936b), Câmara et al. (1940a,b), Dias & Câmara (1952), Lucas & Câmara (1952a), Gjaerum & Dennis (1976), Gjaerum (1982), Gjaerum & Hansen (1983*–*84).

PILEOLARIACEAE

***Pileolaria terebinthi* (DC.) Castagne**, *Observations sur quelques plantes acotylédonées de la famille des Urédinées et dans les sous-tribus des Nemasporées et des Aecidinées, recueillies dans le Dep. des Bouches-du-Rhône* 1: 22 (1842)

Synonyms: *Uromyces terebinthi* (DC.) G. Winter

Hemicyclic

Life stages and hosts: uredinia and/or telia on Anacardiaceae (*Pistacia terebinthus* L.).

Monthly distribution of occurrences: 0,1,0,0,1,2,0,1,0,0,0,0

Distribution: Coi, Gua, Set, VRe

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=5237294

References: Thümen (1879*–*80), Pestana (1903), González Fragoso (1923), Câmara & Luz (1939b), Câmara et al. (1939); the authors — unpublished records.

PUCCINIACEAE

***Endophyllum centranthi-rubri* Poir.**, *Bulletin trimestriel de la Société mycologique de France* 18: xxxxii (1902)

Microcyclic

Life stages and hosts: telia on Valerianaceae (*Centranthus calcitrapae* (L.) Duf.).

Monthly distribution of occurrences: 0,0,1,0,0,0,0,0,0,0,0,0

Distribution: San

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=5237053

Notes: There is a single record for this taxon from 1955.

Reference: Dias (1956).

***Gymnosporangium amelanchieris* E. Fisch. ex F. Kern**, *Zeitschrift für Botanik* 1*:* 711 (1909)

Macrocyclic, heteroecious

Life stages and hosts: spermagonia and aecia on Rosaceae (*Amelanchier ovalis* Medik.); telial stage not recorded.

Monthly distribution of occurrences:

aecial stage: 0,0,0,0,0,0,1,1,0,0,0,0

Distribution: VRe

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=8573230

Notes: This rust was recorded twice from the same location and it has not been reported since 1938.

References: Winter (1883), Câmara et al. (1939).

***Gymnosporangium clavariiforme* (Wulfen) DC.**, *Flore Française* 2: 217 (1805)

Synonyms: *Gymnosporangium juniperinum* (L.) Fr.

Macrocyclic, heteroecious

Life stages and hosts: aecia on Rosaceae (*Amelanchier ovalis* Medik., *Crataegus monogyna* Jacq., *C. rhipidophylla* Gand., *Sorbus aucuparia* L.); uredinia on Cupressaceae (*Juniperus oxycedrus* L.).

Monthly distribution of occurrences:

aecial stage: 0,0,1,0,0,1,0,4,1,1,1,0

uredinial/telial stage: no date recorded

Distribution: Bra, Gua, Lis, Set, VRe

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=8564813

References: Winter (1883), Lagerheim (1889), Almeida & Câmara (1903), Sydow & Sydow (1903a), Torrend (1903), Câmara (1916, 1936), Gonçalves da Cunha (1936b), Santos (1956).

***Gymnosporangium clavipes* Cooke & Peck**, *Annual Report on the New York State Museum of Natural History* 25: 89 (1873)

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; uredinia on Cupressaceae (*Juniperus phoenicea* L.).

Monthly distribution of occurrences: no date recorded

Distribution: central Portugal

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2516108

Notes: There is a single record for this taxon.

Reference: Gonçalves da Cunha (1936b).

***Gymnosporangium confusum* Plowr.**, *A Monograph of the British Uredineae and Ustilagineae*: 232 (1889)

Synonyms: *Gymnosporangium oxycedri* Bres.

Macrocyclic, heteroecious

Life stages and hosts: spermagonia and/or aecia on Rosaceae (*Crataegus monogyna* Jacq., *Crataegus rhipidophylla* Gand., *Cydonia oblonga* Mill.); telia on Cupressaceae (*Juniperus oxycedrus* L.).

Monthly distribution of occurrences:

aecial stage: 0,0,0,1,2,0,1,1,0,0,0,0

uredinial/telial stage: 0,1,0,0,0,0,0,0,0,0,0,0

Distribution: Lis, Set

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2516117

Notes: The holotype of *Gymnosporangium oxycedri* Bres. was collected at Setúbal on *Juniperus oxycedrus* L.

References: Bresadola (1903), Câmara (1958), Tavares et al. (2014), the authors — unpublished records.

***Gymnosporangium cornutum* Arthur ex F. Kern**, *Bulletin of the New York Botanical Garden* 7: 444 (1911)

Synonyms: *Gymnosporangium juniperi* Lk.

Macrocyclic, heteroecious

Life stages and hosts: spermagonia and/or aecia on Rosaceae (*Sorbus aucuparia* L.); telia on Cupressaceae (*Juniperus phoenicea* L.).

Monthly distribution of occurrences:

aecial stage: 0,0,0,0,0,0,5,1,0,1,0,0

uredinial/telial stage: no date recorded

Distribution: CBr, Gua, Set

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2516126

Notes: The aecial stage was identified in Serra da Estrela whereas the telial stage was reported in the Setúbal Peninsula.

References: Câmara et al. (1939, 1943), Dias & Lucas (1980), Lopes & Martins (2007).

***Gymnosporangium sabinae* (Dicks.) G. Winter**, *Rabenhorst's Kryptogamen-Flora, Pilze* — *Schizomyceten, Saccharomyceten und Basidiomyceten* 1(1): 232 (1881)

Macrocyclic, heteroecious

Life stages and hosts: spermagonia and aecia on Rosaceae (*Pyrus communis* L.); telia on Cupressaceae (*Juniperus phoenicea* L.).

Monthly distribution of occurrences:

uredinial/telial stage: 0,0,2,0,2,0,0,0,0,0,0,0

aecial stage: 0,0,0,0,2,0,0,0,0,0,0,0

Distribution: Set

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2516137

Notes: Both the aecial and telial stages are reported from the Setúbal/Sesimbra area.

References: Câmara et al. (1939), Câmara (1946), Costa (1962).

***Miyagia pseudosphaeria* (Mont.) Jørst.**, *Nytt Magasin for Botanik* 9: 78 (1962)

Hemicyclic

Life stages and hosts: uredinia on Asteraceae (*Sonchus arvensis* L., *S. maritimus* L., *S. oleraceus* L., *S. tenerrimus* L.).

Monthly distribution of occurrences: 0,0,0,0,1,2,1,2,2,0,0,1

Distribution: Ave, Coi, Lis, Pto, Set, Via; AZO — Cor, Fai, Jor, Mar, Mig, Pic, Ter; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2516261

References: von Niessl (1883), Almeida (1903), Câmara (1916), González Fragoso (1923, 1925), Gonçalves da Cunha (1936b), Câmara et al. (1940a), Dias & Câmara (1953), Gjaerum & Dennis (1976), Gjaerum & Hansen (1983*–*84), Spooner & Butterfill (1999), Melo & Cardoso (2008).

***Puccinia acetosae* (Schumach.) Körn.**, *Hedwigia* 15: 184 (1876)

Hemicyclic

Life stages and hosts: uredinia and telia on Polygonaceae (*Rumex acetosa* L., *R. acetosella* L.).

Monthly distribution of occurrences: 0,0,0,0,1,0,0,1,1,1,0,0

Distribution: San, Set; AZO — Jor; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=7814020

References: Viennot*–*Bourgin (1939), Câmara et al. (1940b), Câmara (1946), Spooner & Butterfill (1999).

***Puccinia addita* Syd.**, *Annales Mycologici* 35(3/4): 245 (1937)

Synonyms: *Rostrupia addita* (Syd.) Vienn.*–*Bourg.

Hemicyclic

Life stages and hosts: uredinia and/or telia on Poaceae (*Phalaris brachystachys* Link).

Monthly distribution of occurrences:

uredinial/telial stage: 0,0,0,0,0,0,0,1,0,0,0,0

Distribution: MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3379070

Notes: There is a single record for the taxon, the species holotype, collected at Funchal. The species is likely endemic to Madeira.

Reference: Viennot*–*Bourgin (1939).

***Puccinia andryalae* (Syd. & P. Syd.) Maire**, *Bulletin de la Société d'histoire naturelle de l'Afrique du nord* 8: 253 (1917)

Hemicyclic

Life stages and hosts: uredinia and/or telia on Asteraceae (*Andryala arenaria* (Guss. ex DC.) Boiss. & Reut., *A. glandulosa* Lam. subsp. *cheiranthifolia* Greuter, *A. integrifolia* L.).

Monthly distribution of occurrences: 0,0,0,1,0,4,0,1,1,0,0,0

Distribution: Bra, Far, Lis, Pto, San; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3379635

Notes: Not reported since the 1950s.

References: Viennot*–*Bourgin (1939), Câmara et al. (1940b, 1943), Câmara & Vasconcelos (1953), Câmara (1958).

***Puccinia angelicae* (Schumach.) Fuckel**, *Jahrbücher des Nassauischen Vereins für Naturkunde* 23*–*24: 52 (1870)

Synonyms: *Puccinia bullata* (Pers.) Wint.

Macrocyclic, autoecious

Life stages and hosts: uredinia and telia on Apiaceae (*Peucedanum lancifolium* Hoffmanns. & Link ex Lange, *Seseli tortuosum* L.).

Monthly distribution of occurrences: 0,0,0,0,0,0,2,1,1,0,0,0

Distribution: Ave, Bra, Lei

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515476

Notes: Not recorded since the 1940s, but common elsewhere in the world. Not recorded on endemics such as *Angelica lignescens* J.*–*P. Reduron & Danton, *A. major* Lag., *A. pachycarpa* Lange, *Laserpitium eliasii* subsp. *thalictrifolium* (Samp.) P. Monts. or *Peucedanum lowei* (Coss.) Menezes.

References: Câmara et al. (1939, 1940b).

***Puccinia annularis* (F. Strauss) G. Winter**, *Rabenhorst's Kryptogamen-Flora, Pilze* — *Schizomyceten, Saccharomyceten und Basidiomyceten* 1(1): 165 (1881)

Microcyclic

Life stages and hosts: telia on Lamiaceae (*Teucrium scorodonia* L.).

Monthly distribution of occurrences: 0,0,0,0,2,1,2,0,1,0,0,0

Distribution: CBr, Coi, Lis, Via, Vis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515225

References: von Niessl (1883), Lagerheim (1890), Sydow & Sydow (1903a), Gonçalves da Cunha (1936b), Câmara et al. (1939), Dias et al. (1982, 1987).

***Puccinia antirrhini* Dietel & Holw.**, *Hedwigia* 36: 298 (1897)

Hemicyclic

Life stages and hosts: uredinia and/or telia on Plantaginaceae (*Antirrhinum graniticum* Rothm., *A. linkianum* Boiss. & Reut., *A. majus* L., *A. meonanthum* Hoffg. & Lk.).

Monthly distribution of occurrences: 0,0,1,0,6,2,2,2,1,0,0,0

Distribution: Bra, Coi, Lis; AZO — Fai, Ter; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515236

Notes: Reported from the 1930s onwards, concomitantly with the spread of this pathogen throughout Europe. Occurs both on cultivated common snapdragon and on wild *Antirrhinum* spp., namely on Iberian endemics. It is unsure whether it occurs on other Iberian or Portuguese endemics, such as *A. cirrhigerum* (Welw. ex Ficalho) Rothm., *A. lopesianum* Rothm., *A. onubense* (Fern. Casas) Fern. Casas, *A. rothmaleri* (Pinto da Silva) Amich, Bernardos & García*–*Barrius.

References: Câmara et al. (1939, 1940b, 1943), Viennot*–*Bourgin (1939), Câmara (1947, 1948, 1949b, 1951b), Dias & Câmara (1954), Gjaerum & Dennis (1976), Spooner & Butterfill (1999).

***Puccinia apii* Desm.**, *Catalogue des Plantes Ommises dans la Botanographie Belgique et dans les Flores du Nord de la France*: 25 (1823)

Macrocyclic, autoecious

Life stages and hosts: aecia on Apiaceae (*Apium nodiflorum* (L.) Lag.); telial stage not recorded.

Monthly distribution of occurrences: 0,1,0,0,0,0,0,0,0,0,0,0

Distribution: Lis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514922

Notes: There is a single record for this taxon from 1953, but it is common elsewhere in Europe.

Reference: Câmara & Vasconcelos (1955).

***Puccinia arenariae* (Schumach.) J. Schröt.**, *Hedwigia* 19: 38 (1880)

Synonyms: *Puccinia spergulae* DC.

Microcyclic

Life stages and hosts: telia on Caryophyllaceae (*Arenaria montana* L., *Cerastium glomeratum* Thuill., *Gypsophila elegans* M. Bieb., *Petrorhagia prolifera* (L.) P.W.Ball & Heywood, *Sagina apetala* Ard., *Sagina procumbens* L., *Silene dioica* (L.) Clairv., *Silene latifolia* Poir., *Spergula arvensis* L., *Spergularia purpurea* (Pers.) G.Don, *Stellaria graminea* L., *Stellaria holostea* L., *Stellaria media* (L.) Vill.).

Monthly distribution of occurrences: 2,1,2,3,8,6,1,5,3,0,2,1

Distribution: Bej, Brç, Bra, CBr, Coi, Far, Gua, Lis, Set, Vis, VRe; AZO — Ter; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=8091991

Notes: Occurs on multiple Caryophyllaceae hosts (13 species from 9 genera) including cultivated *Gypsophila elegans* M. Bieb. It is unsure whether it occurs on endemic *Arenaria* spp. and *Silene* spp.

References: Sydow & Sydow (1903a), Almeida & Câmara (1905), Câmara (1936, 1947, 1948, 1949a, 1951b), Gonçalves da Cunha (1936b), Câmara & Luz (1939a), Câmara et al. (1939, 1940b, 1943), Viennot*–*Bourgin (1939), Dias & Câmara (1953), Gjaerum (1982), Gjaerum & Hansen (1983*–*84), Dias et al. (1987).

***Puccinia aristolochiae* (DC.) Winter**, *Rabenhorst's Kryptogamen-Flora, Pilze* — *Schizomyceten, Saccharomyceten und Basidiomyceten* 1(1): 201 (1881)

Macrocyclic, autoecious

Life stages and hosts: aecia, uredinia and/or telia on Aristolochiaceae (*Aristolochia fontanesii* Boiss. & Reut.).

Monthly distribution of occurrences: 0,0,0,1,1,1,0,0,0,0,0,0

Distribution: Bgç, Évo

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515242

References: Lucas & Câmara (1955), Dias et al. (1981, 1987).

***Puccinia arnoseridis* Sousa da Câmara**, *Agronomia Lusitana* 11(1): 41 (1949)

Hemicyclic

Life stages and hosts: uredinia and telia on Asteraceae (*Arnoseris minima* (L.) Schwgg. & Körte).

Monthly distribution of occurrences: 0,0,0,0,0,0,0,1,0,0,0,0

Distribution: Vis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3378702

Notes: This record from Serra de Montemuro in 1948 is the single occurrence of the species worldwide and thus the species holotype. The species is likely endemic. *Arnoseris* in a monotypic genus.

Reference: Câmara (1949a).

***Puccinia asparagi* DC.**, *Flore Française* 2: 595 (1805)

Macrocyclic, autoecious

Life stages and hosts: aecial stage not recorded; telia on Asparagaceae (*Asparagus officinalis* L.).

Monthly distribution of occurrences: 0,0,0,0,0,0,0,0,0,1,0,0

Distribution: San

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515284

Notes: There is a single record for this taxon from 1940, but is is common elsewhere in the world.

Reference: Câmara et al. (1940b).

***Puccinia asphodeli* Moug.**, *Botanicon Gallicum* 2: 891 (1830)

Macrocyclic, autoecious

Life stages and hosts: spermagonia, aecia and/or telia on Xanthorrhoeaceae (*Asphodelus lusitanicus* P. Cout., *A. ramosus* L.).

Monthly distribution of occurrences: 0,0,0,4,7,2,1,0,1,0,0,0

Distribution: CBr, Coi, Évo, Far, Lis, San, Set

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514482

Notes: Occurs on the endemic *Asphodelus lusitanicus* P. Cout. It is unsure whether it occurs on other endemic *Asphodelus* spp.

References: Almeida & Câmara (1908*–*09), Câmara (1932, 1946), Gonçalves da Cunha (1933, 1936b), Câmara et al. (1939, 1940b, 1943), Dias & Câmara (1953), Lucas & Câmara (1954).

***Puccinia avenae-barbatae* Gonz. Frag.**, *Boletim da Sociedade Broteriana,* Coimbra, sér. 2, 2: 7 (1924)

Presumably macrocyclic, heteroecious (aecial stage unknown)

Life stages and hosts: uredinia and telia on Poaceae (*Avena barbata* Pott ex Link).

Monthly distribution of occurrences: 0,0,0,0,0,1,1,0,0,0,0,0

Distribution: Coi, Vis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3379382

Notes: The species holotype was collected in 1922 at Tabuaço. The species is likely endemic.

References: González Fragoso (1924), Câmara (1958).

***Puccinia balsamitae* (F. Strauss) Rabenh.**, *Deutschlands Kryptogamenflora* 1: 24 (1844)

Macrocyclic, autoecious

Life stages and hosts: uredinia and telia on Asteraceae (*Tanacetum balsamita* L.).

Monthly distribution of occurrences: 0,0,0,0,0,0,0,0,1,0,0,0

Distribution: VRe

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3379682

Notes: There is a single record for this taxon from 1946, but it is recorded elsewhere in Europe.

Reference: Câmara (1947).

***Puccinia barbeyi* (Roum.) Magnus**, *Botanische Zeitung* 41: column 115 (1883)

Demicyclic, autoecious

Life stages and hosts: aecia and/or telia on Xanthorrhoeaceae (*Asphodelus fistulosus* L.).

Monthly distribution of occurrences: 0,0,0,1,1,0,1,0,0,0,0,0

Distribution: Far, Set

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3376989

References: Câmara et al. (1943), Câmara (1946), Dias & Câmara (1953).

***Puccinia biformis* Lagerh.** *Boletim da Sociedade Broteriana*, Coimbra, sér. 1, 8: 137 (1890)

Hemicyclic

Life stages and hosts: uredinia and telia on Polygonaceae (*Rumex bucephalophorus* L.).

Monthly distribution of occurrences: 0,0,0,0,0,0,1,0,0,0,0,0

Distribution: Set

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3377413

Notes: There is a single record for this taxon in Portugal, the species holotype collected in 1899 at Trafaria (Almada), and just another two occurrences in Morocco.

Reference: Lagerheim (1890).

***Puccinia brachypodii* G.H. Otth**, *Mitteilungen der Naturforschenden Gesellschaft Bern* 1861: 81 (1861)

Synonyms: *Puccinia baryi* (Berk. & Broome) G. Winter, *Puccinia poae-nemoralis* Otth

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not reported; uredinia on Poaceae (*Brachypodium rupestre* (Host) Roem. & Schult., *B. sylvaticum* (Huds.) P. Beauv., *Hordeum bulbosum* L., *Poa annua* L.).

Monthly distribution of occurrences:

uredinial/telial stage: 5,0,1,0,1,0,0,1,0,0,0,1

Distribution: Bra, San; AZO — Mig, Ter; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3376178

Notes: Most occurrences are from the Azores and Madeira.

References: Câmara (1958), Gjaerum & Dennis (1976), Dias & Lucas (1980), Gjaerum (1982).

***Puccinia bupleuri* (Opiz) F. Rudolphi**, *Linnaea* 4: 514 (1829)

Synonyms: *Puccinia bupleuri-falcati* (DC.) G. Winter

Macrocyclic, autoecious

Life stages and hosts: life stages not recorded, on Apiaceae (*Bupleurum protractum* Hoffmanns.).

Monthly distribution of occurrences: 0,0,1,0,0,0,0,0,0,0,0,0

Distribution: Lis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514909

Notes: There is a single record for this taxon, from 1849, but it is common elsewhere in Europe.

Reference: Lagerheim (1889).

***Puccinia buxi* Sowerby**, *Coloured Figures of English Fungi* 4: 206, t. 439 (1809)

Microcyclic

Life stages and hosts: telia on Buxaceae (*Buxus sempervirens* L.).

Monthly distribution of occurrences: 2,1,7,1,3,1,1,2,4,3,0,2

Distribution: Bra, CBr, Coi, Gua, Lei, Lis, Pto, Via, Vis; AZO — Flo, Jor, Mig, Ter; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514498

Notes: Very common (46 records) and widespread on cultivated boxwood, frequently causing losses of the ornamental value of the plant and requiring chemical control. It is not clear whether the fungus also infects spontaneous plants, occurring in the NE of Portugal.

References: Thümen (1881), Winter (1884), Lagerheim (1889), Trelease (1897), Saccardo (1893), Sydow & Sydow (1903a), Torrend (1909), Câmara (1916, 1929), Bensaúde (1926), Gonçalves da Cunha (1936b), Câmara et al. (1940b, 1943), Lucas & Câmara (1952b), Santos & Câmara (1955), Costa (1962), Gjaerum & Dennis (1976), Gjaerum (1982), Spooner & Butterfill (1999), Tavares et al. (2014), the authors — unpublished records.

***Puccinia calcitrapae* DC.**, *Flore Française* 2: 221 (1805)

Synonyms: *Puccinia cardui-pycnocephali* P. Syd. & Syd., *P. carduorum* Jacky, *P. cirsii* Lasch

Hemicyclic

Life stages and hosts: uredinia and/or telia on Asteraceae (*Carduus pycnocephalus* L., *Carduus tenuiflorus* Curt., *Carlina salicifolia* (L.f.) Cav., *Centaurea melitensis* L., *Cirsium arvense* (L.) Scop., *Cirsium latifolium* Lowe, *Cirsium palustre* (L.) Scop., *Cirsium tuberosum* (L.) All., *Cirsium vulgare* (Savi) Ten., *Silybum marianum* (L.) Gaertn.).

Monthly distribution of occurrences: 2,0,2,3,8,6,4,5,5,0,2,1

Distribution: Bra, CBr, Coi, Far, Gua, Lei, Lis, Pto, San, Set, Via, Vis; AZO — Gra, Mar; MAD — Des, Mad, Sel

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=9301097

Notes: Very common (42 records) and widespread, with numerous host species and genera (10 and five respectively). One of the two rust species recorded in the Selvagens islands.

References: Mesnier (1877), Câmara (1916, 1929, 1932, 1947, 1948, 1951b), González Fragoso (1923, 1925), Gonçalves da Cunha (1934, 1936b), Câmara & Luz (1939b), Câmara et al. (1940a,b, 1943), Costa & Câmara (1952), Dias & Câmara (1952), Lucas & Câmara (1952a), Câmara & Vasconcelos (1955), Dias & Lucas (1965b, 1978, 1980), Gjaerum (1975, 1982), Gjaerum & Hansen (1983*–*84), Melo & Cardoso (2008).

***Puccinia campanulae-herminii* Gonz. Frag**., *Trabajos del Museo Nacional de Ciencias Naturales. Serie Botánica.* (extr.) 3: 16 (1914)

Microcyclic

Life stages and hosts: telia on Campanulaceae (*Campanula herminii* Hoffmanns. & Link).

Monthly distribution of occurrences: 0,0,0,0,0,0,1,0,0,0,0,0

Distribution: CBr/Gua

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3376665

Notes: There is a single record for this taxon, from 1916. The host plant is endemic to Iberia and the fungus is also likely endemic.

Reference: González Fragoso (1923).

***Puccinia cancellata* (Durieu & Mont.) Sacc. & Roum.**, *Revue Mycologique Toulouse* 3(9): 26 (1881)

Hemicyclic

Life stages and hosts: uredinia on Juncaceae (*Juncus acutus* L.).

Monthly distribution of occurrences: 0,0,0,0,0,0,2,0,0,0,0,0

Distribution: AZO — Mar, Ter

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515448

Notes: Recorded in the Azores only. It is recorded elsewhere in Europe and North Africa.

References: Gjaerum & Dennis (1976), Gjaerum & Hansen (1983*–*84), the authors — unpublished records.

***Puccinia caricina* DC.**, *Flore Française* 6: 60 (1815)

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; uredinia on Cyperaceae (*Carex punctata* Gaud.).

Monthly distribution of occurrences: no date recorded

Distribution: AZO — Fai

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3376246

Notes: Recorded only in the Faial Island, but common in higher latitudes (North and South hemispheres).

Reference: Gjaerum & Dennis (1976).

***Puccinia carthami* Corda**, *Icones Fungorum* (Prague) 4: 15 (1840)

Synonyms: *Puccinia calcitrapae* DC. var. *centaureae* (DC.) Cummins, *P.* *carthami* Corda f. *longipes* S. Câm., Oliv. et Luz, *P. centaureae* DC.

Macrocyclic, autoecious

Life stages and hosts: uredinia and/or telia on Asteraceae (*Carthamus caeruleus* L., *Carthamus tinctorius* L., *Centaurea calcitrapa* L., *Centaurea melitensis* L., *Centaurea micrantha* Hoffmanns. & Link, *Centaurea nigra* subsp. *rivularis* (Brot.) Cout., *Centaurea paniculata* L., *Centaurea sphaerocephala* L. subsp. *lusitanica* (Boiss. & Reut.) Nyman).

Monthly distribution of occurrences: 0,0,0,3,1,4,4,7,2,0,0,1

Distribution: Ave, Bej, Bra, CBr, Coi, Évo, Far, Gua, Lis, Pto, San, Set

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515170

Notes: The fungus occurs on some endemic *Centaurea* spp., namely *C. paniculata* L. and *C. sphaerocephala* L. subsp. *lusitanica* (Boiss. & Reut.) Nyman. It is unsure whether it occurs on the remaining endemic *Centaurea* spp.

References: Thümen (1881), Sydow & Sydow (1903a), González Fragoso (1923, 1924, 1925), Gonçalves da Cunha (1936b), Câmara et al. (1940a,b, 1943), Lucas & Câmara (1952a), Dias & Teixeira (1962), Dias & Lucas (1978).

***Puccinia castellana* Gonz. Frag.**, *Trabajos del Museo Nacional de Ciencias Naturales, Serie Botánica* 9: 98 (1916)

Microcyclic

Life stages and hosts: telia on Apiaceae (*Pimpinella anisum* L., P*. villosa* Schousb.).

Monthly distribution of occurrences: 0,0,0,0,1,2,1,1,0,0,0,0

Distribution: Bej, Coi, Évo, Far, Set

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3378700

References: Lagerheim (1889), Gonçalves da Cunha (1936b), Câmara (1946).

***Puccinia cesatii* J. Schröt.**, *Beiträge zur Biologie der Pflanzen* 3: 70 (1879)

Hemicyclic

Life stages and hosts: unrecorded life stage on Poaceae (*Hyparrhenia hirta* (L.) Stapf).

Monthly distribution of occurrences: 0,0,0,0,0,0,0,1,0,0,0,0

Distribution: Coi

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=6017053

Notes: There are two records for this taxon, from 1878, but it is reported elsewhere in Europe.

Reference: Gonçalves da Cunha (1936b).

***Puccinia chamaecyparidis* Trott.**, *Sylloge Fungorum* 21: 644 (1912)

Microcyclic

Life stages and hosts: telia on Asteraceae (*Santolina rosmarinifolia* L.).

Monthly distribution of occurrences: 0,0,0,0,1,0,0,0,0,0,0,0

Distribution: Set

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3377244

Notes: Recorded only once in 1945, on the Iberian endemic *Santolina rosmarinifolia* L. The species has been reported infrequently elsewhere.

Reference: Câmara (1946).

***Puccinia chondrillina* Bubák & Syd.**, *Österreichische Botanische Zeitschrift* 51(1): 7 (1901)

Hemicyclic

Life stages and hosts: uredinia and/or telia on Asteraceae (*Chondrilla juncea* L.).

Monthly distribution of occurrences: 0,0,0,0,0,1,5,1,1,2,0,0

Distribution: CBr, Coi, Évo, Gua, Lis, Set, VRe

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3377161

References: Sydow & Sydow (1903a), Almeida & Câmara (1905, 1908*–*09), Câmara et al. (1940a, 1943), Câmara (1949a), Dias (1956), Dias & Lucas (1975), Dias et al. (1981).

***Puccinia chrysanthemi* Roze**, *Bulletin trimestriel de la Société mycologique de France* 16:92 (1900)

Synonyms: *Puccinia absinthii* DC.

Hemicyclic

Life stages and hosts: uredinia on Asteraceae (*Artemisia arborescens* L., *Chrysanthemum indicum* L., *Ch. morifolium* Ramat., *Chrysanthemum* sp., *Dendrathema* sp., *Tanacetum aucherianum* Sch. Bip.).

Monthly distribution of occurrences: 0,0,0,0,2,4,1,0,0,3,9,2

Distribution: Bra, Évo, Coi, Lis, Pto, San, Vis; AZO — Mig; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515453

References: Torrend (1913b), González Fragoso (1923), Câmara (1929, 1947, 1949b, 1951b), Gonçalves da Cunha (1936b), Câmara & Luz (1939b), Câmara et al. (1940b), Dias & Câmara (1952), Lucas & Câmara (1952a), Lucas (1956), Dias et al. (1981), Melo et al. (2010), Tavares et al. (2014).

***Puccinia chrysanthemicola* Sousa da Câmara, Oliveira & Luz**, *Agronomia Lusitana* 2: 348 (1940)

Hemicyclic

Life stages and hosts: uredinia and/or telia on Asteraceae (*Argyranthemum frutescens* (L.) Sch.Bip., *Chrysanthemum coronarium* L., *Ch. frutescens* L., *Chrysanthemum* sp.).

Monthly distribution of occurrences: 0,0,3,0,2,1,0,0,0,0,0,1

Distribution: Bra, Coi, Far, Lis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3377654

Notes: Unlike *P. chrysanthemi*, which has a global distribution, *P. chrysanthemicola* is only reported from Portugal and, recently, in multiple occurrences in New Zealand. In Portugal, *P. chrysanthemicola* has not been reported since 1951.

References: Câmara et al. (1940b, 1943), Câmara (1947, 1949a, 1951b), Lucas & Câmara (1952a).

***Puccinia circaeae* Pers.**, *Neues Magazin für die Botanik* 1: 119, t.3:4 (1794)

Microcyclic

Life stages and hosts: telia on Onagraceae (*Circaea lutetiana* L.).

Monthly distribution of occurrences: no date recorded

Distribution: Pto

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514872

Notes: There is a single record for this taxon, from 1901. Common elsewhere in the world.

Reference: González Fragoso (1923).

***Puccinia claytoniata* (Schwein.) P. Syd. & Syd.** *Monographia Uredinearum* (Lipsiae) 1(3): 561 (1903) [1904]

Demicyclic, autoecious

Life stages and hosts: aecia on Portulacaceae (*Portulaca oleracea* L.).

Monthly distribution of occurrences: 0,0,0,0,0,0,0,1,0,0,0,0

Distribution: Lis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3379445

Notes: There is a single record for this taxon from 1950. It is also infrequent elsewhere in the world.

Reference: Câmara (1951b).

***Puccinia cnici* H. Mart.**, *Prodromus florae mosquensis*, edn. 2: 227 (1817)

Synonyms: *Puccinia cirsii-lanceolati* J. Schröt.

Macrocyclic, autoecious

Life stages and hosts: unrecorded life stage on Asteraceae (*Cirsium vulgare* (Savi) Ten.).

Monthly distribution of occurrences: 0,0,0,0,0,0,0,1,0,0,0,0

Distribution: Pto

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515256

Notes: There is a single record for this taxon, from 1922. Common elsewhere in the world.

Reference: González Fragoso (1923).

***Puccinia cnici-oleracei* Pers.**, *Catalogue des Plantes Ommises dans la Botanographie Belgique et dans les Flores du Nord de la France*: 24 (1823)

Synonyms: *Puccinia le-monneriana* Maire

Microcyclic

Life stages and hosts: telia on Asteraceae (*Cirsium palustre* (L.) Scop., *Cnicus* sp., *Galactites tomentosa* Moench).

Monthly distribution of occurrences: 1,0,0,0,0,1,0,2,0,1,0,0

Distribution: CBr, Gua, VRe; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514802

References: Sydow & Sydow (1903a), Almeida & Câmara (1905), Câmara et al. (1943), Dias et al. (1981), Gjaerum (1982).

***Puccinia conclusa* Thüm.**, *Jornal de Sciencias Mathematicas Physicas e Naturales* 6 (24): 237 (1878)

Microcyclic

Life stages and hosts: telia on Cyperaceae (*Cyperus longus* L.).

Monthly distribution of occurrences: no date recorded

Distribution: Coi

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514402

Notes: There is a single record for this taxon, the species holotype collected at Coimbra in 1878, although it has been reported elsewhere in the world.

References: Thümen (1878), Sydow & Sydow (1923*–*24).

***Puccinia conii* (F. Strauss) Fuckel**, *Jahrbücher des Nassauischen Vereins für Naturkunde* 23*–*24: 53 (1870)

Hemicyclic

Life stages and hosts: uredinia and telia on Apiaceae (*Conium maculatum* L.).

Monthly distribution of occurrences: 0,0,0,0,0,0,1,0,0,0,0,0

Distribution: Lis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514997

Notes: There is a single record for this taxon, from 1939. Common elsewhere in the world.

Reference: Câmara et al. (1940a).

***Puccinia convolvuli* (Pers.) Castagne**, *Observations sur quelques plantes acotylédonées de la famille des Urédinées et dans les sous-tribus des Nemasporées et des Aecidinées, recueillies dans le Dep. des Bouches-du-Rhône* 1: 16 (1842)

Macrocyclic, autoecious

Life stages and hosts: spermagonia, aecia and/or uredinia on Convolvulaceae (*Calystegia sepium* (L.) R. Br.).

Monthly distribution of occurrences: 0,0,1,0,2,3,0,0,0,0,0,0

Distribution: Bra, Coi, Évo, Lis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3379368

Notes: Never reported from the autochthonous *Calistegia soldanella* (L.) R. Br. in Portugal.

References: Winter (1884), Gonçalves da Cunha (1936b), Câmara et al. (1940a,b).

***Puccinia coronata* Corda**, *Icones fungorum hucusque cognitorum* 1: 6, t. 2: 96 (1837)

Synonyms: *Puccinia lolii* E. Nielsen

Macrocyclic, heteroecious

Life stages and hosts: spermagonia and/or aecia on Rhamnaceae (*Frangula alnus* Mill., *Rhamnus alaternus* L.); uredinia and/or telia on Poaceae (*Agrostis castellana* Boiss. & Reut., *Arrhenatherum elatius* (L.) P. Beauv. ex J. Presl & C. Presl. subsp. *bulbosum* (Willd.) Hyl., *Arrhenatherum longifolium* (Thore) Dulac, *Avena barbata* Pott ex Link, *Avena fatua* L., *Avena sativa* L., *Avena sterilis* L., *Bromus diandrus* Roth., *Festuca* sp., *Holcus lanatus* L., *Holcus mollis* L., *Hordeum vulgare* L., *Lolium multiflorum* Lam., *L. rigidum* Gaudin, *Poa alopecurus* (Gaudich.) Kunth, *Setaria verticillata* (L.) P. Beauv., *Vulpia* sp.).

Monthly distribution of occurrences:

aecial stage: 0,0,0,0,2,0,0,0,0,0,0,0

uredinial/telial stage: 5,0,2,1,5,6,6,5,1,0,0,0

Distribution: Coi, Évo, Gua, Lis, Ptg, Pto, San, Set, Via, Vis; AZO — Fai, Jor, Mig, Pic, Ter; MAD — Mad, PSa

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514774

Notes: Very common (51 records) and widespread, with 17 uredinial host species from 11 genera, including cultivated oats and barley, along with pasture grasses.

References: Thümen (1881), Câmara (1929, 1936, 1947, 1949b), Gonçalves da Cunha (1936b), Câmara et al. (1940a,b, 1943), Câmara & Vasconcelos (1952, 1953), Gjaerum (1970, 1982), Gjaerum & Dennis (1976), Gjaerum & Hansen (1983*–*84), Melo et al. (2010), Tavares et al. (2014).

***Puccinia coronata* Corda var. *alopecuri* P. Syd. & Syd.**, *Monographia Uredinearum* 1: 705 (1903)

Macrocyclic, heteroecious

Life stages and hosts: uredinia and telia on Poaceae (*Alopecurus myosuroides* Huds.).

Monthly distribution of occurrences:

uredinial/telial stage: 0,0,0,0,1,0,0,0,0,0,0,0

Distribution: Lis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=6322613

Notes: There is a single record for this taxon from 1939.

Reference: Câmara et al. (1940b).

***Puccinia coronata* Corda f. sp. *phalaridis* Kleb.**

Macrocyclic, heteroecious

Life stages and hosts: uredinia and telia on Poaceae (*Phalaris aquatica* L.).

Monthly distribution of occurrences:

uredinial/telial stage: 0,0,0,0,0,0,0,1,0,0,1,0

Distribution: Lis, MAD — Mad

References: Viennot*–*Bourgin (1939), Câmara et al. (1940b).

Note: In the context of this work it could not be determined whether this forma specialis is nomenclaturally valid.

***Puccinia corrigiolae* Chevall.**, *Flore Générale des Environs de Paris* 1: 420 (1826)

Microcyclic

Life stages and hosts: telia on Caryophyllaceae (*Corrigiola littoralis* L., *C. telephiifolia* Pourr.).

Monthly distribution of occurrences: 0,0,0,0,1,3,0,1,2,0,0,0

Distribution: Bej, CBr, Gua, San, Set, Vis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3376861

References: Sydow & Sydow (1903a), Câmara et al. (1940a,b, 1943), Câmara (1948).

***Puccinia crepidicola* Syd. & P. Syd.**, *Österreichische Botanische Zeitschrift* 51: 17 (1901)

Hemicyclic

Life stages and hosts: uredinia and telia on Asteraceae (*Crepis vesicaria* L. subsp. *taraxacifolia* (Thuill.) Thell.).

Monthly distribution of occurrences: 0,0,0,1,0,1,1,0,0,0,0,0

Distribution: Bra, Lis; AZO — Jor, Ter; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515209

References: Lagerheim (1890), Câmara et al. (1943), Melo & Cardoso (2008), Melo et al. (2010).

***Puccinia crepidis* J. Schröt.**, *Kryptogamen-Flora von Schlesien* 3(3): 319 (1887)

Macrocyclic, autoecious

Life stages and hosts: aecia, uredinia and/or telia on Asteraceae (*Crepis capillaris* (L.) Wallr., *C. lampsanoides* (Gouan) Tausch).

Monthly distribution of occurrences: 0,1,1,2,1,4,2,0,0,0,0,0

Distribution: Bra, Coi, Gua, Lis, Ptg, Set, Via; AZO — Ter

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514429

References: Lagerheim (1889), Câmara et al. (1940a,b, 1943), Câmara (1949b), Lucas & Câmara (1952b), Dias et al. (1981), Gjaerum & Hansen (1983*–*84).

***Puccinia crepidis-blattarioidis* Hasler**, *Zentralblatt für Bakteriologie und Parasitenkunde,* Abt. 2, 21: 510 (1908)

Macrocyclic, autoecious

Life stages and hosts: telia on Asteraceae (*Crepis capillaris* (L.) Wallr.).

Monthly distribution of occurrences: 0,0,0,0,0,1,0,0,0,1,0,0

Distribution: Bgç, Gua

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=7239304

References: Dias et al. (1981, 1987).

***Puccinia crucianellae* Desm.**, *Annales des Sciences Naturelles Botanique* 8: 12 (1847)

Hemicyclic

Life stages and hosts: telia on Rubiaceae (*Crucianella angustifolia* L., *C. maritima* L.).

Monthly distribution of occurrences: 0,0,0,0,0,1,1,0,0,0,0,0

Distribution: CBr, Set

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=6017011

Notes: This rust has not been reported since 1948.

References: Lagerheim (1890), Câmara (1949b).

***Puccinia cymbopogonis* Massee**, *Bulletin of Miscellaneous Informations of the Royal Botanical Gardens Kew* 1911: 224 (1911)

Hemicyclic

Life stages and hosts: uredinia on Poaceae (*Cymbopogon citratus* (DC) Stapf.).

Monthly distribution of occurrences: 0,0,0,0,1,0,1,1,0,0,0,0

Distribution: Lis; AZO — Mig

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3377540

Notes: Infections often of high severity, causing yield losses of the host plant, lemon grass. All three records are from the current decade.

References: Tavares et al. (2014), the authors — unpublished records.

***Puccinia cynodontis* Lacroix ex Desm.**, *Plantes Cryptogamiques de France*: no. 655 (1859)

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; telia on Poaceae (*Cynodon dactylon* (L.) Pers.).

Monthly distribution of occurrences:

uredinial/telial stage: 0,0,0,0,0,1,0,1,1,0,0,0

Distribution: Coi, Lis, Vis; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515004

References: Gonçalves da Cunha (1936b), Viennot*–*Bourgin (1939), Câmara et al. (1943), Dias & Lucas (1978).

***Puccinia difformis* Kunze**, *Mykologische Hefte* 1: 71 (1817)

Synonyms: *Puccinia ambigua* (Alb. & Schw.) Lagerh.)

Demicyclic, autoecious

Life stages and hosts: aecia and/or telia on Rubiaceae (*Galium aparine* L.).

Monthly distribution of occurrences: 0,0,0,0,1,2,0,0,0,0,0,0

Distribution: Ave, Lis; AZO — Fai, Mar, Mig

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514942

References: Câmara et al. (1943), Gjaerum & Dennis (1976), Dias & Lucas (1978), Gjaerum & Hansen (1983*–*84).

***Puccinia dioicae* Magnus**, *Tageblatt der Versammlung Deutscher Naturforscher und Aerzte* 50: 199 (1877)

Synonyms: *Puccinia caricis* Rebent., *P. silvatica* J. Schröt.

Macrocyclic, heteroecious

Life stages and hosts: spermagonia and aecia on Asteraceae (*Leontodon tuberosus* L.); uredinia and/or telia on Cyperaceae (*Carex elata* All., *C. flava* L., *C. hispida* Willd., *C. laevigata* Sm., *C. paniculata* L., *C. pendula* Huds., *C. reuteriana* Boiss., *C. spicata* Huds., C. *viridula* subsp. *oedocarpa* (Andersson) B.Schmid, *C. vulcani* Hochst. ex Seub.).

Monthly distribution of occurrences:

aecial stage: 0,0,0,0,0,0,0,0,0,1,0,0

uredinial/telial stage: 0,0,0,5,1,1,3,2,3,0,0,0

Distribution: Ave, Bra, Coi, Far, Gua, Lei, Lis, Via, VRe; AZO — Fai, Mig, Ter; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=7520329

Notes: Widespread, occurring also in the Azorean endemic *Carex* *vulcani* Hochst. ex Seub.

References: Lagerheim (1890), González Fragoso (1923, 1924), Gonçalves da Cunha (1936b), Arwidsson (1940), Câmara et al. (1940a, 1943), Câmara (1947), Gjaerum (1982), Gjaerum & Hansen (1983*–*84), Melo et al. (2010), the authors — unpublished records.

***Puccinia diotidis* Pat. & Roum.** *Revue de Mycologie*, Toulouse 8 (no. 30): 88 (1886) Hemicyclic

Life stages and hosts: uredinia on Asteraceae (*Achillea maritima* (L.) Ehrend. & Y.P. Guo).

Monthly distribution of occurrences: 0,0,1,0,0,0,0,0,0,0,1,0

Distribution: Lis, Pto

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3380080

Notes: Scarcely reported (Portugal, Spain and France).

References: Câmara et al. (1940a), Câmara (1951b).

***Puccinia diplachnis* Arthur**, *Bulletin of the Torrey botanical Club* 31: 4 (1904)

Synonyms: *Puccinia extensicola* Plowr.

Macrocyclic, heteroecious

Life stages and hosts: spermagonia and aecia on Asteraceae (*Inula crithmoides* L.); telial stage not reported.

Monthly distribution of occurrences:

aecial stage: 0,0,0,0,0,1,0,0,0,0,0,0

Distribution: Set

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3377341

Notes: There is a single record for this taxon from 1938.

Reference: Câmara et al. (1940a).

***Puccinia epilobii* DC.**, *Flore Française* 6: 61 (1815)

Microcyclic

Life stages and hosts: telia on Onagraceae (*Epilobium obscurum* Schreb., *E. tetragonum* L.).

Monthly distribution of occurrences: 0,0,0,0,0,1,0,0,0,0,0,0

Distribution: Gua; AZO — Pic; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515012

References: Câmara et al. (1940a), Gjaerum (1982), Melo et al. (2010).

***Puccinia eryngii* DC.**, *Encyclopédie Méthodique, Botanique* 8: 249 (1808)

Macrocyclic, autoecious

Life stages and hosts: spermagonia, aecia, uredinia and/or telia on Apiaceae (*Eryngium campestre* L.).

Monthly distribution of occurrences: 0,0,1,0,0,0,1,0,1,0,0,0

Distribution: Lis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=8266525

Notes: This rust has not been reported since 1942.

References: Câmara (1929), Câmara et al. (1940a, 1943).

***Puccinia falcariae* Fuckel**, *Jahrbücher des Nassauischen Vereins für Naturkunde* 23*–*24: 52 (1870)

Demicyclic, autoecious

Life stages and hosts: aecia on Apiaceae (*Bupleurum subovatum* Link ex Spreng.).

Monthly distribution of occurrences: 0,0,1,0,0,0,0,0,0,0,0,0

Distribution: Lis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515008

Notes: There is a single record for this taxon from 1849, but it has been reported elsewhere in Europe.

Reference: Gonçalves da Cunha (1936b).

***Puccinia ficalhoana* Lagerh.** *Boletim da Sociedade Broteriana*, Coimbra, sér. 1, 8: 137 (1890)

Unknown life cycle

Life stages and hosts: telia on Asparagaceae (*Hyacinthoides hispanica* (Mill.) Rothm.).

Monthly distribution of occurrences: no date recorded

Distribution: no information

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3380001

Notes: There is a single record for this taxon, the species holotype, described from herbarium material examined at Faculdade de Ciências, Universidade de Lisboa. The species is likely endemic.

Reference: Lagerheim (1890).

***Puccinia frankeniae* Link**, *Magazin der Gesellschaft Naturforschenden Freunde Berlin* 8: 30 (1816)

Hemicyclic

Life stages and hosts: uredinia and telia on Frankeniaceae (*Frankenia hirsuta* L., *F. laevis* L., *F. pulverulenta* L.).

Monthly distribution of occurrences: 0,0,0,0,0,0,2,1,0,0,0,0

Distribution: Lis, Set; AZO — Mig; MAD — Mad, PSa

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3377875

References: Viennot*–*Bourgin (1939), Lagerheim (1890), Arwidsson (1940), Melo & Cardoso (2008).

***Puccinia galactitis* P. Syd. & Syd.**, *Monographia Uredinearum* 1: 86 (1902)

Microcyclic

Life stages and hosts: telia on Asteraceae (*Galactites tomentosa* Moench).

Monthly distribution of occurrences: 0,1,0,1,2,0,0,0,0,0,0,1

Distribution: Coi, Lis, Pto, San

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3380022

Notes: The species holotype was collected at Coimbra.

References: Sydow & Sydow (1902), Câmara (1916, 1929), González Fragoso (1923), Gonçalves da Cunha (1936b), Dias & Lucas (1980).

***Puccinia gladioli* Castagne**, *Observations sur quelques plantes acotylédonées de la famille des Urédinées et dans les sous-tribus des Nemasporées et des Aecidinées, recueillies dans le Dep. des Bouches-du-Rhône* 2: 17 (1843)

Synonyms: *Aecidium valerianellae* Biv.

Demicyclic, heteroecious

Life stages and hosts: aecia on Valerianaceae (*Valeriana* sp.); telia on Iridaceae (*Gladiolus illyricus* W.D.J. Koch subsp. *reuteri* (Boiss.) Cout., *G. italicus* Mill.).

Monthly distribution of occurrences:

aecial stage: 0,0,0,1,0,0,0,0,0,0,0,0

uredinial/telial stage: 0,0,1,3,4,0,9,0,0,0,0,0

Distribution: Bej, CBr, Coi, Far, Lei, Lis, San, Set

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514797

Notes: The host *Gladiolus illyricus* W.D.J. Koch subsp. *reuteri* (Boiss.) Cout. is endemic to Iberia.

References: Lagerheim (1889, 1890), Câmara (1936, 1946), Gonçalves da Cunha (1936b), Câmara et al. (1940a, 1943), Dias & Lucas (1962, 1965b).

***Puccinia glechomatis* DC.**, *Encyclopédie Méthodique, Botanique* 8: 245 (1808)

Microcyclic

Life stages and hosts: telia on Lamiaceae (*Glechoma hederacea* L.).

Monthly distribution of occurrences: 0,0,0,0,0,0,0,0,0,1,0,0

Distribution: Vis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514660

Notes: There is a single record for this taxon from 1938, which is frequent elsewhere in Europe.

Reference: Câmara et al. (1940a).

***Puccinia graminis* Pers.**, *Neues Magazin für die Botanik* 1: 119, t.3:3 (1794)

Synonyms: *Puccinia anthoxanthi* Fuckel

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; uredinia and/or telia on Poaceae (*Agropyron* sp., *Anthoxanthum amarum* Brot., *Anthoxanthum odoratum* L., *Avena barbata* Pott ex Link, *Avena sativa* L., *Bromus* sp., *Dactylis glomerata* L., *Deschampsia foliosa* Hack., *Lolium multiflorum* Lam., *Poa nemoralis* L., *P. trivialis* L., *Triticum aestivum* L., *T. durum* Desf.).

Monthly distribution of occurrences:

uredinial/telial stage: 0,0,0,4,43,4,5,3,0,0,0,1

Distribution: Ave, Bra, Coi, Évo, Lei, Lis, Pto, San, Vis; AZO — Gra, Mig, Ter; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514501

Notes: Very common (67 records). This is the causal agent of wheat stem rust, occurring also on spontaneous grasses. At Madeira, the fungus was reported on *Deschampsia foliosa* Hack. Which may in fact be the endemic *Deschampsia argentea* (Lowe) Lowe.

References: Câmara (1916, 1929, 1936), Bensaúde (1929*–*30), Gonçalves da Cunha (1936b), Viennot*–*Bourgin (1939), Câmara et al. (1940b, 1943), Câmara & Vasconcelos (1952, 1953), Gjaerum & Dennis (1976), Dias et al. (1981, 1982), Gjaerum & Hansen (1983*–*84).

***Puccinia helianthi* Schwein.**, *Schriften der Naturforschenden Gesellschaft zu Leipzig* 1: 73 (1822)

Macrocyclic, autoecious

Life stages and hosts: uredinia on Asteraceae (*Helianthus annuus* L., *H. debilis* Nutt.).

Monthly distribution of occurrences: 0,0,0,0,0,0,1,0,0,1,1,0

Distribution: Lis, San

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514687

References: Câmara et al. (1943), Dias & Câmara (1952), Dias & Lucas (1978).

***Puccinia hemerocallidis* Thüm.**, *Bulletin de la Société impériale des naturalistes de Moscou* 55(1): 81 (Beiträge zur Pilzflora Sibiriens III no. 512) (1880)

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; uredinia and/or telia on Xanthorrhoeaceae (*Hemerocallis lilioasphodelus* L.).

Monthly distribution of occurrences:

uredinial/telial stage: 1,1,1,0,0,1,0,0,0,0,1,1

Distribution: Far, Lis, Set; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514664

Notes: This species was reported for the first time in Europe simultaneously at several locations in Portugal in 2015.

Reference: Silva et al. (2016).

***Puccinia heraclei* Grev.**, *Scottish Cryptogamic Flora* 1: pl. 42 (1823)

Macrocyclic, autoecious

Life stages and hosts: unrecorded life stage on Apiaceae (*Heracleum sphondylium* L.).

Monthly distribution of occurrences: 0,0,0,0,0,1,0,0,0,0,0,0

Distribution: Coi

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515032

Notes: There is a single record for this taxon from 1903, which is frequent elsewhere in Europe.

Reference: Câmara (1916).

***Puccinia hieracii* (Röhl.) H. Mart.**, *Prodromus florae mosquensis*: 227 (1817)

Synonyms: *Puccinia cichorii* (DC.) Bellynck, *P.* *cichorii* (DC.) Bellynck f. *longipes* S. Câm., Oliv. et Luz, *P. endiviae* Passer., *P. hypochaeridis* Oudem., *P. hypochaeridis* Oudem. f. *longipes* S. Câm., Oliv. et Luz, *P. leontodontis* Jacky, *P. picridis* Hazsl., *P. piloselloidearum* Probst, *P. taraxaci* Plowr., *P. tinctoriicola* P. Magn.

Macrocyclic, autoecious

Life stages and hosts: uredinia and/or telia on Asteraceae (*Cichorium endivia* L., *Cichorium intybus* L., *Crepis capillaris* (L.) Wallr., *Hedypnois cretica* (L.) Dum.*–*Courset, *Hieracium sabaudum* subsp. *boreale* (Fr.) Hayek, *Hypochaeris glabra* L., *Hypochaeris radicata* L., *Leontodon hirtus* L., *L. hispidus* L., *L. saxatilis* subsp. *rothii* Maire, *L. taraxacoides* (Vill.) Mérat subsp. *longirostris* Finch & P.D. Sell, *L. tuberosus* L., *Picris echioides* L., *Picris hieracioides* L., *Pilosella officinarum* Vaill., *Scorzoneroides carpetana* (Lange) Greuter, *Serratula tinctoria* subsp. *seoanei* (Willk.) M.Laínz, *Taraxacum campylodes* G.E. Haglund, *Tolpis barbata* (L.) Gaertn.).

Monthly distribution of occurrences: 1,1,0,6,9,10,8,8,6,1,0,0

Distribution: Ave, Bej, Bra, Bgç, CBr, Coi, Far, Gua, Lei, Lis, Ptg, Pto, San, Set, Via, Vis; AZO — Fai, Flo, Gra, Jor, Mig, Pic, Ter; MAD — Des, Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3376341

Notes: Very common (65 occurrences) and widespread, with a vast array of host and synonyms.

References: von Niessl (1883), Winter (1884), Trelease (1897), Almeida & Câmara (1903), Torrend (1903, 1913a), Câmara (1916, 1929, 1936, 1948, 1949a,b, 1951b), González Fragoso (1923, 1924), Gonçalves da Cunha (1936b), Viennot*–*Bourgin (1939), Câmara et al. (1940a,b, 1943), Câmara & Vasconcelos (1952, 1953), Lucas & Câmara (1952a), Dias & Lucas (1978), Gjaerum (1982), Spooner & Butterfill (1999), Melo et al. (2010), Talhinhas et al. (2015).

***Puccinia hieracii* (Röhl.) H. Mart. var. *chlorocrepidis* (Jacky) Jørst.**, *Skrifter Norske Videnskaps Akademi i Oslo* 2: 63 (1958)

Macrocyclic, autoecious

Life stages and hosts: uredinia and/or telia on Asteraceae (*Andryala glandulosa* Lam., *Tolpis barbata* (L.) Gaertn.).

Monthly distribution of occurrences: 2,0,0,0,1,0,0,0,0,0,0,1

Distribution: MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=8915193

Notes: Reported only from Madeira.

Reference: Gjaerum (1982).

***Puccinia hieracii* (Röhl.) H. Mart. var. *hypochoeridis* (Oudem.) Jørst.**, *Kunglige Norske Videnskabers Selskab Skrifter* 38: 27 (1936)

Macrocyclic, autoecious

Life stages and hosts: uredinia and/or telia on Asteraceae (*Hypochaeris glabra* L., *H. radicata* L.).

Monthly distribution of occurrences: 0,0,0,0,0,0,1,0,0,0,0,0

Distribution: Gua; AZO — Fai, Ter

References: Câmara (1947), Gjaerum & Dennis (1976).

***Puccinia hordei* G.H. Otth**, *Mitteilungen der Naturforschenden Gesellschaft Bern* 1870: 114 (1871)

Synonyms: *Puccinia fragosoi* Bubak, *P. simplex* Willd., *P. triseti* Erikss.

Macrocyclic, heteroecious

Life stages and hosts: spermagonia and aecia on Asparagaceae (*Ornithogalum umbellatum* L.); uredinia and/or telia on Poaceae (*Hordeum murinum* subsp. *leporinum* (Link) Arcang., *H. vulgare* L., *Lolium multiflorum* Lam., *Rostraria cristata* (L.) Tzvelev, *Trisetaria panicea* (Lam.) Paunero).

Monthly distribution of occurrences:

aecial stage: 0,1,0,0,0,0,0,0,0,0,0,0

uredinial/telial stage: 0,0,0,2,2,3,1,1,0,0,0,0

Distribution: Bej, Lis, Ptg, San; AZO — Flo, Mig, Pic; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515318

References: Lagerheim (1889), Almeida (1903), Câmara (1929), Viennot*–*Bourgin (1939), Câmara et al. (1940a,b), Gjaerum & Dennis (1976), Dias & Lucas (1980), Dias et al. (1981), Gjaerum & Hansen (1983*–*84), Melo et al. (2010).

***Puccinia horiana* Henn.**, *Hedwigia Beiblätter* 40: 25 (1901)

Microcyclic

Life stages and hosts: telia on Asteraceae (*Chrysanthemum* sp.).

Monthly distribution of occurrences: 0,0,0,1,0,0,0,0,0,0,0,0

Distribution: Set

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514411

Notes: This rust was first reported in Portugal in 2001.

Reference: Gomes et al. (2001).

***Puccinia hyparrheniicola* Jørst. & Cummins**, *Bulletin of the Torrey Botanical Club* 83(3): 227 (1956)

Demicyclic, autoecious

Life stages and hosts: uredinia on Poaceae (*Hyparrhenia hirta* (L.) Stapf).

Monthly distribution of occurrences: 4,0,0,0,0,0,0,0,0,0,0,3

Distribution: MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3377591

Notes: Reported only from Madeira.

Reference: Gjaerum (1982).

***Puccinia hysterium* (F. Strauss) Röhl.**, *Deutschlands Flora*, edn. 2: 131 (1813)

Synonyms: *Puccinia tragopogi* (Pers.) Crd.

Demicyclic, autoecious

Life stages and hosts: spermagonia and aecia on Asteraceae (*Tragopogon hybridus* L.).

Monthly distribution of occurrences: 0,0,0,0,1,0,0,0,0,0,0,0

Distribution: Lis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=8210269

Notes: There is a single record for this taxon from 1938, which is frequent elsewhere in Europe.

Reference: Câmara et al. (1940a).

***Puccinia iridis* Wallr.**, *Deutschlands Kryptogamenflora* 1: 23 (1844)

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not reported; uredinia and telia on Iridaceae (*Iris foetidissima* L.).

Monthly distribution of occurrences:

uredinial/telial stage: 1,0,0,1,1,0,0,2,0,1,0,0

Distribution: Far, Lis; AZO — Gra, Mar; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514832

References: González Fragoso (1924), Gonçalves da Cunha (1934), Viennot*–*Bourgin (1939), Câmara et al. (1940a), Gjaerum & Hansen (1983*–*84), Spooner & Butterfill (1999).

***Puccinia jasmini* DC.**, *Flore Française* 2: 219 (1805)

Microcyclic

Life stages and hosts: telia on Oleaceae (*Jasminum fruticans* L., *J. odoratissimum* L.).

Monthly distribution of occurrences: 0,0,0,1,1,1,1,1,0,1,0,0

Distribution: Far, Set, Vis; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3376311

Notes: This taxon occurs on the Madeiran endemic *Jasminum odoratissimum* L., where it presents a sori distribution pattern differing from the classic description for the species. It is unsure whether this fungus infects the endangered *Jasminum azoricum* L.

References: Lagerheim (1889), Torrend (1909, 1913a), Câmara & Luz (1939a), Câmara et al. (1940a), Dias & Lucas (1975), Dias et al. (1982), Gjaerum (1982).

***Puccinia lagenophorae* Cooke**, *Grevillea* 13(65): 6 (1884)

Demicyclic, autoecious

Life stages and hosts: aecia and telia on Asteraceae (*Senecio lividus* L.).

Monthly distribution of occurrences: no date recorded

Distribution: Far

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515050

Notes: There is a single record for this taxon of Australasian origin.

Reference: Gjaerum (1990).

***Puccinia laguri-chamaemoly* Maire**, *Bulletin de la Société d´Histoire Naturelle de l'Afrique du Nord* 10: 139 (1919)

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not reported; uredinia and telia on Poaceae (*Lagurus ovatus* L.).

Monthly distribution of occurrences:

uredinial/telial stage: 0,0,0,1,0,1,0,0,1,0,0,0

Distribution: Lis, Set, Via

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3376502

Notes: This rust has not been reported since 1940.

References: González Fragoso (1925), Câmara et al. (1940b).

***Puccinia lapsanae* Fuckel**, *Jahrbücher des Nassauischen Vereins für Naturkunde* 15: 13 (1860)

Synonyms: *Aecidium compositarum* Mart.

Macrocyclic, autoecious

Life stages and hosts: aecia, uredinia and telia on Asteraceae (*Lapsana communis* L., *Leontodon tuberosus* L.).

Monthly distribution of occurrences: 0,0,0,0,1,2,0,1,2,0,0,0

Distribution: Ave, Far, Lis, Set, Vis; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514839

References: Gonçalves da Cunha (1936b), Viennot*–*Bourgin (1939), Câmara et al. (1943), Câmara (1947), Câmara & Vasconcelos (1955), Dias et al. (1981).

***Puccinia liliacearum* Duby**, *Botanicon Gallicum* 2: 891 (1830)

Microcyclic

Life stages and hosts: no information.

Monthly distribution of occurrences: no date recorded

Distribution: no information

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514907

Notes: There is a single record for this taxon, with no information on host or location. The taxon has been reported elsewhere in Europe.

Reference: Gonçalves da Cunha (1936b).

***Puccinia lithospermi* Ellis & Kellerm.**, *Journal of Mycology* 1(1): 2 (1885)

Hemicyclic

Life stages and hosts: uredinia and telia on Boraginaceae (*Glandora diffusa* (Lag.) D.C. Thomas).

Monthly distribution of occurrences: 0,0,1,0,0,0,0,0,0,0,0,0

Distribution: Set

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515076

Notes: There is a single record for this taxon from 1952. Reports from other countries are also rare.

Reference: Dias & Câmara (1953).

***Puccinia maculosa* Schwein.**, *Transactions of the American Philosophical Society* 4(2): 295 (1832)

Synonyms: *Puccinia chondrillae* Corda

Macrocyclic, autoecious

Life stages and hosts: uredinia and telia on Asteraceae (*Lactuca viminea* (L.) J. Presl & C. Presl).

Monthly distribution of occurrences: 0,0,0,0,0,0,0,0,1,0,0,0

Distribution: Gua

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=7627546

Notes: There is a single record for this taxon from 1941, but it is reported elsewhere in Europe.

Reference: Câmara et al. (1943).

***Puccinia magnusiana* Körn.**, *Hedwigia* 15: 179 (1876)

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; uredinia on Poaceae (*Arundo donax* L., *Phragmites australis* (Cav.) Trin. ex Steud.).

Monthly distribution of occurrences:

uredinial/telial stage: 0,0,0,0,0,1,1,2,1,0,0,0

Distribution: Lis, Pto, Set; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=8104704

References: Lagerheim (1890), Viennot*–*Bourgin (1939), Câmara et al. (1940b), Câmara & Vasconcelos (1952), the authors — unpublished records.

***Puccinia magydaridis* Pat. & Trab.**, *Bulletin de la Société Mycologique de France* 13: 205 (1897)

Hemicyclic

Life stages and hosts: unrecorded life stage on Apiaceae (*Magydaris panacifolia* (Vahl) Lange).

Monthly distribution of occurrences: 0,0,0,1,0,0,0,0,0,0,0,0

Distribution: Far

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3377235

Notes: There is a single record for this taxon from 1961. Reports from elsewhere (Spain, Morocco, Algeria and Tunisia) are also scarce and old.

Reference: Dias & Lucas (1966).

***Puccinia malvacearum* Bertero ex Mont.**, *Historia Física y Política de Chile, Botánica, Flora Chilena* 8: 43 (1852)

Microcyclic

Life stages and hosts: telia on Malvaceae (*Alcea rosea* L., *Althaea armeniaca* Ten., *Althaea officinalis* L., *Lavatera cretica* L., *L. mauritanica* Durieu, *L. olbia* L., *L. trimestris* L., *Malva alcea* L., *M. nicaeensis* All., *M. parviflora* L., *M. sylvestris* L.).

Monthly distribution of occurrences: 3,1,5,10,11,7,4,0,0,2,1,1

Distribution: Bej, Coi, Évo, Far, Lei, Lis, San, Set, Vis; AZO — Cor, Fai, Flo, Gra, Jor, Mig, Pic, Ter; MAD — Mad, PSa

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514679

Notes: Very common (66 records) and widespread.

References: Thümen (1879*–*80), von Niessl (1883), Lagerheim (1890), Trelease (1897), Torrend (1909, 1912), Câmara (1916, 1946, 1947, 1951b), González Fragoso (1925), Gonçalves da Cunha (1933, 1934, 1936a,b), Câmara & Luz (1939b), Viennot*–*Bourgin (1939), Câmara et al. (1940a, 1943), Lucas & Câmara (1952a, 1955), Costa (1962), Gjaerum (1970, 1982), Gjaerum & Dennis (1976), Gjaerum & Hansen (1983*–*84), Spooner & Butterfill (1999), Tavares et al. (2014).

***Puccinia melanopsis* P. Syd. & Syd.**, *Monographia Uredinearum* 1: 600 (1903)

Microcyclic

Life stages and hosts: telia on Iridaceae (*Moraea sisyrinchium* (L.) Ker Gawl.).

Monthly distribution of occurrences: 0,1,0,0,0,0,0,0,0,0,0,0

Distribution: Lis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3378113

Notes: There is a single record for this taxon from 1936. Reports from elsewhere (North Africa and Eastern Mediterranean — the natural distribution are of the host species) are also scarce and old.

Reference: Câmara et al. (1940a).

***Puccinia menthae* Pers.**, *Synopsis Methodica Fungorum*: 227 (1801)

Macrocyclic, autoecious

Life stages and hosts: uredinia and telia on Lamiaceae (*Bystropogon canariensis* (L.) L’Hér., *B. maderensis* Webb & Berthel., *Calamintha nepeta* (L.) Savi, *Calamintha nepeta* subsp. *sylvatica* (Bromf.) R. Morales, *Clinopodium nepeta* subsp. *glandulosum* (Req.) Govaerts, *Clinopodium vulgare* L., *Mentha aquatica* L., *M. spicata* L., *M. suaveolens* Ehrh., *M.* *suaveolens* x *aquatica* L., *M.* x *rotundifolia* (L.) Huds., *Nepeta* sp., *Origanum vulgare* L.).

Monthly distribution of occurrences: 2,0,2,1,6,2,3,2,1,0,3,2

Distribution: Ave, Bra, CBr, Coi, Lis, Set, Via; AZO — Fai, Jor, Mar, Ter; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514887

Notes: Common in several Lamiaceae hosts, including cultivated mints and oregano, but also in autochthonous species, including the Madeiran endemic *Bystropogon maderensis* Webb & Berthel.

References: Thümen (1879*–*80), Lagerheim (1890), Sydow & Sydow (1903a), Torrend (1912), González Fragoso (1923), Gonçalves da Cunha (1936b), Câmara & Luz (1939a), Viennot*–*Bourgin (1939), Câmara (1948), Câmara et al. (1940a,b, 1943), Câmara & Vasconcelos (1952), Dias & Lucas (1975), Gjaerum & Dennis (1976), Gjaerum (1982), Gjaerum & Hansen (1983*–*84), Spooner & Butterfill (1999).

***Puccinia mesnieriana* Thüm.**, *Jornal de sciencias mathematica, physicas e naturaes, Lisbon,* 1 Ser. 6(no. 21–24): 238 (1878)

Synonyms: *Coronotelium mesnierianum* (Thüm.) Syd.

Microcyclic

Life stages and hosts: telia on Rhamnaceae(*Rhamnus alaternus* L.).

Monthly distribution of occurrences: 0,0,0,2,2,5,1,0,1,1,0,0

Distribution: Ave, Bra, Coi, Far, Lis, Set

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3273597

Notes: The holotype of *Puccinia mesnieriana* Thüm. was collected by Möller in Coimbra.

References: Mesnier (1877), Lagerheim (1890), Bresadola (1891), Torrend (1903), Câmara (1916), Gonçalves da Cunha (1936a,b), Câmara et al. (1940b, 1943), Dias & Lucas (1965b).

***Puccinia moliniae* Tul. & C. Tul.**, *Annales des Sciences Naturelles Botanique* 2: 141 (1854)

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; uredinia and telia on Poaceae (*Molinia caerulea* (L.) Moench).

Monthly distribution of occurrences:

uredinial/telial stage: 0,0,0,0,0,0,0,0,1,0,0,0

Distribution: Coi

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515200

Notes: There is a single record for this taxon from 1939, but it is reported elsewhere in Europe.

Reference: Câmara et al. (1940a).

***Puccinia montagnei* De-Toni**, *Sylloge Fungorum* 7: 722 (1888)

Microcyclic

Life stages and hosts: telia on Caryophyllaceae (*Herniaria glabra* L.).

Monthly distribution of occurrences: no date recorded

Distribution: Lis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3376393

Notes: There is a single record for this taxon from 1892. Reports from elsewhere (Spain and France) are also very scarce and old. The fungus is restricted to *Herniaria* hosts. It is not known whether this fungus infects the endemics *Herniaria algarvica* Chaudhri, *H. lusitanica* Chaudhri and *H. maritima* Link.

Reference: Almeida (1903).

***Puccinia obscura* J. Schröt.**, in Passerini 1877, *Nuovo Giornale Botanico Italiano* 9: 256 (1877)

Macrocyclic, heteroecious

Life stages and hosts: spermagonia and/or aecia on Asteraceae (*Bellis annua* L., *Bellis perennis* L., *Bellis sylvestris* Cirillo); uredinia and telia on Juncaceae (*Luzula elegans* Lowe*, L. forsteri* (Sm.) DC., *L. lactea* (Link) E. Meyer, *L. multiflora* (Ehrh.) Lej.).

Monthly distribution of occurrences:

aecial stage: 0,1,0,1,1,0,1,0,0,0,3,1

uredinial/telial stage: 0,0,0,0,1,4,1,1,0,0,0,0

Distribution: Bej, Bra, CBr, Gua, Lis, Pto, San, Via; AZO — Mig; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515488

Notes: The telial stage occurs, among other hosts, on the Iberian endemic *Luzula* *lactea* (Link) E. Meyer.

References: Lagerheim (1889, 1890), Sampaio (190?), Torrend (1913a), González Fragoso (1923, 1925), Gonçalves da Cunha (1936b), Viennot*–*Bourgin (1939), Arwidsson (1940), Câmara et al. (1940a, 1943), Câmara (1947), Lucas & Câmara (1954), the authors — unpublished records.

***Puccinia oxalidis* Dietel & Ellis**, *Hedwigia* 34: 291 (1895)

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; uredinia and/or telia on Oxalidaceae (*Oxalis articulata* Savigny, *O. debilis* var. *corymbosa* (DC.) Lourteig, *O. latifolia* Kunth).

Monthly distribution of occurrences:

uredinial/telial stage: 0,0,2,0,1,0,0,0,0,0,1,0

Distribution: Lis; AZO — Fai, Flo, Mig, Pic, Ter; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515351

Notes: Fungus not reported on autochthonous species, nor on *Oxalis pes-caprae* L. Reports from the Azores and Madeira are from the 1970s onwards, while those in the Lisbon area are from the 2010s.

References: Gjaerum & Dennis (1976), Gjaerum (1982), Gjaerum & Hansen (1983*–*84), Spooner & Butterfill (1999), Tavares et al. (2014), the authors — unpublished records.

***Puccinia panici* Diet.**, *Erythea* 3: 80 (1895)

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; unrecorded life stage on Poaceae (*Panicum repens* L.).

Monthly distribution of occurrences:

uredinial/telial stage: 0,0,0,0,0,0,0,0,0,1,0,0

Distribution: Lis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3378614

Notes: There is a single record for this taxon, from 1935. Reports from elsewhere in the world are also scarce.

Reference: Câmara et al. (1939).

***Puccinia pelargonii-zonalis* Doidge**, *Bothalia* 2: 98 (1926)

Hemicyclic

Life stages and hosts: uredinia on Geraninaceae (*Pelargonium* x *hortorum* L.H. Bailey, *P. zonale* (L.) L’Hér. ex Aiton).

Monthly distribution of occurrences: 3,0,3,2,1,1,1,0,0,1,0,3

Distribution: Évo, Lis, Set; AZO — Fai, Flo, Gra, Jor, Mar, Mig, Ter; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514924

Notes: All reports are from the 1970s onwards, following the introduction of the pathogen in Europe in the 1960s.

References: Gjaerum & Dennis (1976), Dias et al. (1982), Gjaerum (1982), Gjaerum & Hansen (1983*–*84), Spooner & Butterfill (1999), Melo et al. (2010), Tavares et al. (2014), the authors — unpublished records.

***Puccinia peradeniyae* Demers & Castl.**, *Mycologia* 109(1): 14 (2017)

Synonyms: *Uromyces linearis* Berk. & Br.

Hemicyclic

Life stages and hosts: uredinia on Poaceae (*Panicum repens* L.).

Monthly distribution of occurrences: 0,0,0,0,0,0,0,0,0,0,0,1

Distribution: MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=9703802

Notes: There is a single record for this taxon from 1969.

Reference: Gjaerum (1982).

***Puccinia phragmitis* Tul.**, *Hedwigia* 15: 179 (1876)

Macrocyclic, heteroecious

Life stages and hosts: spermagonia and aecia on Polygonaceae (*Rumex crispus* L.); uredinia and telia on Poaceae (*Arundo donax* L., *Phragmites australis* (Cav.) Trin. ex Steud.).

Monthly distribution of occurrences:

aecial stage: 1,0,0,0,0,0,0,0,0,0,0,0

uredinial/telial stage: 1,1,0,0,0,0,1,0,1,0,0,1

Distribution: CBr, Lis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=8083523

Notes: This is the first record of this fungus (aecial stage) on *R. crispus* L. in Portugal.

References: Câmara (1916, 1949a,b), Câmara et al. (1940b, 1943), the authors — unpublished records.

***Puccinia pimpinellae* (F. Strauss) Link**, *Deutschlands Flora*, edn. 2: 131 (1824)

Macrocyclic, autoecious

Life stages and hosts: telia on Apiaceae (*Pimpinella villosa* Schousb.).

Monthly distribution of occurrences: 0,0,0,1,0,1,0,0,1,0,0,0

Distribution: Lis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514980

References: Câmara et al. (1940b), Talhinhas et al. (2015).

***Puccinia poarum* Nielsen**, *Botanisk Tidsskrift* 3(2): 34 (1877)

Macrocyclic, heteroecious

Life stages and hosts: spermagonia and aecia on Asteraceae (*Tussilago farfara* L.); uredinia and/or telia on Poaceae (*Poa annua* L., *P. nemoralis* L.).

Monthly distribution of occurrences:

aecial stage: 0,0,0,0,1,0,0,0,0,0,0,0

uredinial/telial stage: 0,0,0,0,1,1,0,0,0,0,0,0

Distribution: Bra, Lis, Set

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514368

References: Câmara et al. (1940a,b), Costa (1962).

***Puccinia polygoni-amphibii* Pers.**, *Synopsis Methodica Fungorum* 1: 227 (1801)

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; uredinia and/or telia on Polygonaceae (*Fallopia convolvulus* (L.) Á. Löve., *F. dumetorum* (L.) Holub, *Persicaria maculosa* Gray, *Polygonum amphibium* L.).

Monthly distribution of occurrences:

uredinial/telial stage: 0,0,1,0,0,0,0,2,2,0,1,0

Distribution: CBr, Coi, Gua, Via; AZO — Fai; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3378398

References: Thümen (1879*–*80), Torrend (1913a), González Fragoso (1923), Viennot*–*Bourgin (1939), Câmara et al. (1940b, 1943), Spooner & Butterfill (1999).

***Puccinia porri* (Sowerby) G. Winter**, *Dr. L. Rabenhorst's Kryptogamen-Flora von Deutschland, Oesterreich und der Schweiz.,* edn. 2 (Leipzig) 1,1: 200 (1881)

Synomyms: *Puccinia allii* (DC.) F. Rudolphi, *P. blasdalei* Diet. et Holw.

Macrocyclic, autoecious

Life stages and hosts: uredinia and/or telia on Amaryllidaceae (*Allium ampeloprasum* L., *A. guttatum* subsp. *sardoum* (Moris) Stearn, *A. nigrum* L., *A. paniculatum* L., *A. pruinatum* Lk., *A. roseum* L., *A. sativum* L., *A. sphaerocephalum* L., *A. subvillosum* Salzm., *A. vineale* L.).

Monthly distribution of occurrences: 0,0,9,10,8,11,27,3,1,0,0,0

Distribution: Bej, CBr, Coi, Évo, Far, Lei, Lis, Pto, San, Set, Via, Vis; AZO — Fai, Flo, Mar, Pic; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515274

Notes: Very common (90 occurrences) and widespread. This rust is an important pathogen on leek and garlic cultivation (but not on onion), occurring also on wild *Allium* spp.

References: Berkeley (1853), Winter (1883), Lagerheim (1889, 1890), Trelease (1897), Almeida (1903), Torrend (1903, 1909, 1912, 1913b), Almeida & Câmara (1908*–*09), Câmara (1916, 1929, 1932, 1936, 1947, 1948, 1949a, 1951b), González Fragoso (1923), Gonçalves da Cunha (1936b), Câmara et al. (1939, 1940b, 1943), Costa & Câmara (1955), Costa (1962), Dias & Lucas (1978), Gjaerum & Hansen (1983*–*84), Gjaerum (1990), Melo et al. (2010), Tavares et al. (2014).

***Puccinia pulverulenta* Grev.**, *Flora Edinensis*: 432 (1824)

Synonyms: *Puccinia epilobii-tetragoni* (DC.) Wint.

Macrocyclic, autoecious

Life stages and hosts: uredinia and telia on Onagraceae (*Epilobium obscurum* Schreb.).

Monthly distribution of occurrences: 0,0,0,0,0,0,0,1,0,0,0,0

Distribution: Gua

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514570

Notes: There is a single record for this taxon from 1938, although it is common in other parts of the world.

Reference: Câmara et al. (1940b).

***Puccinia punctata* Link**, *Magazin der Gesellschaft Naturforschenden Freunde Berlin* 8: 30 (1816)

Macrocyclic, autoecious

Life stages and hosts: aecia, uredinia and/or telia on Rubiaceae (*Galium album* Mill., *G. aparine* L., *G. mollugo* L., *G. papillosum* subsp. *helodes* (Hoffmanns. & Link) Malag. ex Ortega Oliv. & Devesa, *G. productum* Lowe.).

Monthly distribution of occurrences: 2,0,0,0,0,0,2,0,4,0,0,0

Distribution: Ave, Bra, CBr, Coi, Gua, Lis, Vis; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514876

References: Thümen (1878), Sydow & Sydow (1903a), Torrend (1913a), Câmara et al. (1940a,b), Câmara (1946, 1948), Gjaerum (1982), the authors — unpublished records.

***Puccinia punctiformis* (F. Strauss) Röhl.**, *Deutschlands Flora*, edn. 2: 132 (1813)

Synonyms: *Puccinia obtegens* (Link) Tul. & C. Tul.

Macrocyclic, autoecious

Life stages and hosts: unrecorded life stage on Asteraceae (*Cirsium arvense* (L.) Scop.).

Monthly distribution of occurrences: 0,0,0,0,0,1,0,0,0,0,0,0

Distribution: Coi

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514973

Notes: There is a single record for this taxon from 1890, although it is common in other parts of the world.

Reference: Bresadola (1891).

***Puccinia purpurea* Cooke**, *Grevillea* 5(33): 15 (1876)

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; uredinia and telia on Poaceae (*Sorghum halepense* (L.) Pers.).

Monthly distribution of occurrences:

uredinial/telial stage: 1,0,0,0,1,0,0,1,0,0,0,0

Distribution: Lis; AZO — Fai; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514632

References: Almeida (1903), Gjaerum (1982), Spooner & Butterfill (1999).

***Puccinia recondita* Roberge ex Desm.**, *Bulletin de la Société Botanique de France* 4: 798 (1857)

Synonyms: *Aecidium asperifolii* Pers., *Puccinia agropyri* Ellis & Everh., *P. agrostidis* Plowr., *P. dispersa* Erikss. & Henn., *P. piptatheri* Lagerh., *P. rubigo-vera* (DC.) Wint., *P. rubigo-vera* (DC.) Wint. f. *bromi* (Erikss.) Mains, *P. rubigo-vera* (DC.) Wint. f. *holcina* (Erikss.) Mains, *P. symphyti-bromorum* Fr. Müll., *P. triticina* Erikss.

Macrocyclic, heteroecious

Life stages and hosts: spermagonia and aecia on Ranunculaceae (*Aquilegia vulgaris* L., *Clematis campaniflora* Brot., *C. flammula* L., *C. recta* L.) and Boraginaceae (*Anchusa italica* Retz., *A. undalata* L., *Echium boissieri* Steud., *E. lusitanicum* L.); uredinia and/or telia on Poaceae (*Aegilops neglecta* Req. ex Bertol., *Aegilops triuncialis* L., *Agrostis castellana* Boiss. & Reut., *Agrostis delicatula* Pourr. ex Lapeyr., *Agrostis rupestris* All., *Bromus diandrus* Roth., *B. hordeaceus* L., *B. madritensis* L., *B. scoparius* L., *Elymus repens* (L.) Gould, *Gaudinia fragilis* (L.) P. Beauv., *Holcus lanatus* L., *Hordeum murinum* L., *Lagurus ovatus* L., *Lolium perenne* L., *Lolium remotum* Schrank, *Lolium rigidum* Gaudin, *Lolium temulentum* L., *Micropyrum patens* (Brot.) Rothm. ex Pilg., *M. tenellum* (L.) Link, *Piptatherum miliaceum* (L.) Coss., *Polypogon viridis* (Gouan) Breistr., *Secale cereale* L., *Triticum aestivum* L., *T. turgidum* L., *Vulpia geniculata* (L.) Link, *Vulpia myuros* (L.) C.C.Gmel., *Vulpiella stipoides* (L.) Maire).

Monthly distribution of occurrences:

aecial stage: 1,1,1,0,2,2,0,0,1,0,1,0

uredinial/telial stage: 0,0,5,8,9,26,10,2,0,0,0,0

Distribution: Ave, Bej, Bra, CBr, Coi, Far, Gua, Lei, Lis, Ptg, San, Set, Vis, VRe; AZO — Fai, Flo, Ter; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514697

Notes: Very common (81 records) and widespread, with numerous synonyms and host species (aecidial and telial), including cereals and pasture grasses, along with endemics such as *Anchusa undalata* L. and *Echium lusitanicum* L. The holotype of *Puccinia piptatheri* Lagerh. was collected in 1889 at Ribamar (Mafra) on *Piptatherum miliaceum* (L.) Coss. (synonym *Piptatherum multiflorum* (Cav.) P. Beauv.).

References: Lagerheim (1890), Trelease (1897), Sydow & Sydow (1903a), Almeida & Câmara (1905), Torrend (1909, 1912), Câmara (1910, 1929, 1946, 1947, 1949a,b, 1958), Bensaúde (1929*–*30), Gonçalves da Cunha (1936b), Câmara et al. (1939, 1940a,b, 1943, 1955), Câmara & Vasconcelos (1953), Lucas & Câmara (1955), Gjaerum (1982, 1990), Gjaerum & Hansen (1983*–*84).

***Puccinia rhagadioli* (Pass.) P. Syd. & Syd.**, *Monographia Uredinearum* 1: 139 (1904)

Macrocyclic, autoecious

Life stages and hosts: uredinia and/or telia on Asteraceae (*Reichardia picroides* (L.) Roth, *Rhagadiolus edulis* Gaertn., *Rhagadiolus stellatus* (L.) Gaertn.).

Monthly distribution of occurrences: 0,0,1,1,1,1,0,0,0,0,0,0

Distribution: Lis, Set

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3377802

Notes: Not recorded since the 1940s, but common elsewhere in the world.

References: Lagerheim (1889), Câmara et al. (1940a, 1943).

***Puccinia rimosa* (Link) G. Winter**, *Hedwigia* 19: 28 (1880)

Hemicyclic

Life stages and hosts: uredinia and telia on Juncaceae (*Juncus maritimus* Lam.).

Monthly distribution of occurrences: 0,0,0,0,0,1,0,0,0,0,0,0

Distribution: Set

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514965

Notes: Not recorded since the 1940s, but recently recorded in Spain.

Reference: Câmara et al. (1940a).

***Puccinia romagnoliana* Maire & Sacc.**, *Annales Mycologici* 1(3): 220 (1903)

Hemicyclic

Life stages and hosts: uredinia and telia on Cyperaceae (*Cyperus longus* L.).

Monthly distribution of occurrences: 0,0,0,0,0,0,0,5,0,1,0,0

Distribution: Coi, Lei, Lis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515177

Notes: Not recorded since the 1940s, but with records in other parts of the world.

References: Thümen (1878), Câmara (1919, 1929, 1936), Câmara et al. (1940a, 1943).

***Puccinia rumicis-scutati* (DC.) G. Winter**, *Dr. L. Rabenhorst's Kryptogamen-Flora von Deutschland, Oesterreich und der Schweiz,* edn. 2 (Leipzig) 1.1: 187 (1881)

Hemicyclic

Life stages and hosts: uredinia and/or telia on Polygonaceae (*Rumex maderensis* Lowe*, R. scutatus* L.).

Monthly distribution of occurrences: 0,0,0,1,0,0,0,2,0,0,0,0

Distribution: Bej, CBr, Évo; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514581

References: Sydow & Sydow (1903a), González Fragoso (1925), Viennot*–*Bourgin (1939), Câmara et al. (1943).

***Puccinia saniculae* Grev.**, *Flora Edinensis:* 431 (1824)

Macrocyclic, autoecious

Life stages and hosts: spermagonia, aecia, uredinia and telia on Apiaceae (*Sanicula azorica* Gunthnick ex Seub.).

Monthly distribution of occurrences: 0,0,0,0,1,0,1,0,1,0,1,0

Distribution: AZO — Fai, Mar

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515017

Notes: The host plant is endemic to the Azores.

References: Gjaerum & Hansen (1983*–*84), Spooner & Butterfill (1999).

***Puccinia saxifragae* Schltdl.**, *Flora Berolinensis* (Berlin) 2: 134 (1824)

Microcyclic

Life stages and hosts: telia on Saxifragaceae (*Saxifraga granulata* L., *S. umbrosa* L.).

Monthly distribution of occurrences: 0,0,0,0,0,1,0,0,0,0,0,0

Distribution: CBr

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514536

Notes: It is unsure whether this fungus infects the endemic *Saxifraga cintrana* Kuzinsky ex Willk.

References: Sydow & Sydow (1903a), Câmara et al. (1940b).

***Puccinia scirpi* DC.**, *Flore Fran*çaise, edn. 3 (Paris) 2: 223

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; uredinia on Cyperaceae (*Schoenoplectus lacustris* (L.) Palla, *S. tabernaemontani* (C.C.Gmel.) Palla).

Monthly distribution of occurrences:

uredinial/telial stage: 0,0,0,0,0,0,0,2,1,0,0,0

Distribution: Far, Lis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515166

Notes: Not recorded since the 1940s, but with recent records elsewhere in Europe.

References: Câmara (1936), Câmara et al. (1940a,b).

***Puccinia scolymi* P. Syd. & Syd.**, *Monographia Uredinearum* (Lipsiae) 1(1): 141 (1902)

Hemicyclic

Life stages and hosts: uredinia and telia on Asteraceae (*Scolymus hispanicus* L.).

Monthly distribution of occurrences: 0,0,0,0,0,1,0,0,0,0,0,0

Distribution: Bra

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3380212

Notes: There is a single record for this taxon from 1940. Records from elsewhere in the world (Mediterranean basin) are also very scarce.

Reference: Câmara et al. (1940b).

***Puccinia scorzonerae* (Schumach.) Juel**, *Öfversigt af Kongl. Vetenskaps-Akademiens förhandlingar* 53: 222 („1896“, 1897)

Macrocyclic, autoecious

Life stages and hosts: uredinia and telia on Asteraceae (*Scorzonera laciniata* L.).

Monthly distribution of occurrences: 0,0,0,0,1,0,0,0,0,0,0,0

Distribution: Ptg

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515221

Notes: There is a single record for this taxon from 1953, but the fungus is common elsewhere in the world.

Reference: Dias & Câmara (1955).

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***Puccinia sedi* Körn.**, *Dr. L. Rabenhorst's Kryptogamen-Flora von Deutschland, Oesterreich und der Schweiz*, edn. 2 (Leipzig) 1,1: 175 (1881)

Microcyclic

Life stages and hosts: telia on Crassulaceae (*Sedum sediforme* (Jacq.) Pau).

Monthly distribution of occurrences: 0,0,0,1,0,0,0,0,0,0,0,0

Distribution: Set

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=8371767

Notes: There is a single record for this taxon from 1939. Records from elsewhere in Europe are also very scarce and old.

Reference: Câmara et al. (1940a).

***Puccinia sherardiana* Körn.**, *Hedwigia* 16: 19 (1877)

Microcyclic

Life stages and hosts: telia on Malvaceae (*Phymosia umbellata* (Cav.) Kearney).

Monthly distribution of occurrences: no date recorded

Distribution: Bra

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515042

Notes: There is a single record for this taxon from 1941 on the exotic ornamental *Phymosia umbellata* (Cav.) Kearney. Elsewhere in Europe, it was reported only in Austria on *Sphaeralcea coccinea* (Nutt.) Rydb. (synonym *Malvastrum coccineum* (Nutt.) A. Gray). The fungus is native from (and common in) North America.

Reference: Câmara et al. (1943).

***Puccinia silenicola* Sousa da Câmara, Oliveira & Luz**, *Agronomia Lusitana* 2: 362 (1940)

Hemicyclic

Life stages and hosts: uredinia and telia on Caryophyllaceae (*Silene portensis* L.).

Monthly distribution of occurrences: 0,0,0,1,1,1,2,0,0,0,0,0

Distribution: Bra, Pto, San, Set, Vis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3380137

Notes: Not recorded since the 1940s, when it was described. The species holotype was collected at Granjal (Santa Comba Dão). No reports from other countries. The species is likely endemic.

References: Câmara et al. (1940b, 1943).

***Puccinia smyrnii* Biv.**, *Stirpium rariorum minusque cognitorum in Sicilia* 4: 30 (1816)

Synonyms: *Puccinia smyrnii-olusatri* Lindr.

Demicyclic, autoecious

Life stages and hosts: aecia and telia on Apiaceae (*Smyrnium olusatrum* L.).

Monthly distribution of occurrences: 1,0,3,7,1,0,2,0,0,0,1,0

Distribution: CBr, Coi, Far, Lis, Ptg, Set

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514552

References: Almeida (1903), Almeida & Câmara (1908*–*09), Torrend (1913a), Câmara (1916, 1929, 1936, 1948), González Fragoso (1925), Câmara et al. (1940a), Lucas (1957), Dias & Lucas (1965b, 1980), Tavares et al. (2014).

***Puccinia sonchina* P. Syd. & Syd.**, *Revista Agronomica* 1: 330 (1903)

Hemicyclic

Life stages and hosts: uredinia and telia on Asteraceae (*Sonchus oleraceus* L.).

Monthly distribution of occurrences: 0,0,0,2,0,0,0,1,0,0,0,0

Distribution: Bej, CBr, Far, Lis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3376122

Notes: Not reported since the 1940s. Reports from elsewhere are also very scarce and old. The species holotype was collected at Beja.

References: Sydow & Sydow (1903b), Câmara (1936), Gonçalves da Cunha (1936b), Câmara et al. (1943).

***Puccinia sorghi* Schwein.**, *Transactions of the American Philosophical Society*, n. s. 4(2): 295 (1832)

Synonyms: *Puccinia maydis* Berenger

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not reported; uredinia and telia on Poaceae (*Zea mays* L.).

Monthly distribution of occurrences:

uredinial/telial stage: 0,0,0,0,0,0,1,6,2,1,1,0

Distribution: Ave, Bra, CBr, Coi, Far, Lei, Lis, Pto, Via; AZO — Cor, Flo, Mig; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514966

Notes: There is no occurrence data for maize rust since the 1950s.

References: Thümen (1881), Winter (1884), Lagerheim (1889), Trelease (1897), Câmara (1916, 1929), Bensaúde (1926), Gonçalves da Cunha (1936b), Viennot*–*Bourgin (1939), Câmara et al. (1940b, 1943), Costa & Câmara (1952), Dennis et al. (1977).

***Puccinia stenotaphricola* J. Walker**, *Mycotaxon* 32(1): 118 (1988)

Synonyms: *Puccinia stenotaphri* Cumm.

Hemicyclic

Life stages and hosts: uredinia and telia on Poaceae (*Stenotaphrum secundatum* (Walter) Kuntze).

Monthly distribution of occurrences: 0,0,0,0,0,0,0,0,0,1,0,0

Distribution: AZO — Gra; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514605

Notes: Recorded in Graciosa and Madeira only. This fungus does not seem to be present in mainland Europe. The host plant, St. Augustine grass, is considered an aggressive invasive weed.

References: Gjaerum (1982), Spooner & Butterfill (1999).

***Puccinia striiformis* Westend.**, *Bulletins de l'Academie Royale des Sciences, des Lettres et des Beaux Arts de Belgique. Classe des Sciences* 21(2): 235 (1854)

Synonyms: *Puccinia glumarum* J.C. Schmidt

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; uredinia and/or telia on Poaceae (*Bromus madritensis* L., *B. rigidus* Roth., *Hordeum vulgare* L., *Rostraria cristata* (L.) Tzvelev, *Triticum aestivum* L., *T. durum* Desf., *Vulpia geniculata* (L.) Link, *Vulpia myuros* (L.) C.C. Gmel., *Vulpiella stipoides* (L.) Maire).

Monthly distribution of occurrences:

uredinial/telial stage: 0,0,0,0,6,42,2,0,0,0,0,0

Distribution: Ave, Bej, Bra, CBr, Coi, Évr, Far, Gua, Lei, Lis, Ptg, Pto, San, Set, Vis; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3377675

Notes: The causal agent of wheat stripe rust, occurring also on other grasses.

References: von Niessl (1883), Câmara (1929, 1936, 1949a,b), Bensaúde (1929*–*30), Gonçalves da Cunha (1936b), Câmara et al. (1940b, 1943), Melo & Cardoso (2008).

***Puccinia tanaceti* DC.**, *Flore F*rançaise, edn. 3 (Paris) 2: 222 (1805)

Synonyms: *Puccinia pyrethri* Rabenh.

Hemicyclic

Life stages and hosts: uredinia and/or telia on Asteraceae (*Argyranthemum pinnatifidum* (L. f.) Lowe, *A. pinnatifidum* (L. f.) Lowe subsp. *succulentum* (Lowe) Humphries, *Chrysanthemum coronarium* L., *Tanacetum corymbosum* (L.) Sch.Bip.).

Monthly distribution of occurrences:

uredinial/telial stage: 2,0,0,0,6,1,2,0,0,0,1,0

Distribution: CBr, Set; AZO —Ter; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=9802104

Notes: At Madeira, this species occurs on one of the several *Argyranthemum* endemics, whereas at Azores and mainland the fungus occurs on *Chrysanthemum/Tanacetum*.

References: Lagerheim (1890), Câmara et al. (1940a), Gjaerum (1982), Gjaerum & Hansen (1983*–*84), Melo et al. (2010).

***Puccinia teucrii* Biv.**, *Stirpium rariorum minusque cognitorum in Sicilia* 3: 17 (1815)

Microcyclic

Life stages and hosts: telia on Lamiaceae (*Teucrium fruticans* L. var. *latifolia* (L.) Rouy.).

Monthly distribution of occurrences: 0,0,0,0,0,0,0,1,0,0,0,0

Distribution: Évo

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3377810

Notes: There is a single record for this taxon from 1942, although it occurs elsewhere in the Mediterranean basin.

Reference: Câmara et al. (1943).

***Puccinia thaliae* Dietel**, *Hedwigia* 38: 250 (1899)

Hemicyclic

Life stages and hosts: uredinia on Cannaceae (*Canna indica* L.).

Monthly distribution of occurrences: 0,0,0,0,0,0,0,3,2,0,0,0

Distribution: AZO — Fai, Mig; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514359

Notes: Reported in the Azores and Madeira only recently. This taxon has not been reported in mainland Europe, although the host is a common garden plant.

References: Talhinhas et al. (2016), the authors — unpublished records.

***Puccinia thesii* (Desv.) Chaillet**, *Botanicon Gallicum*, edn. 2 (Paris) 2: 889 (1830)

Macrocyclic, autoecious

Life stages and hosts: uredinia and/or telia on Santalaceae (*Thesium divaricatum* Jan ex Mert. & W.D.J. Koch).

Monthly distribution of occurrences: 0,0,0,0,0,0,1,0,0,0,0,0

Distribution: CBr

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514598

Notes: Not reported since the 1940s.

References: Sydow & Sydow (1903a), Câmara (1948).

***Puccinia tuyutensis* Speg.**, *Anales de la Sociedad Cientifica Argentina* 12(2): 70 (1881)

Synonyms: *Puccinia cressae* Lagerh.

Macrocyclic, autoecious

Life stages and hosts: aecia, uredinia and/or telia on Convolvulaceae (*Cressa cretica* L., *C. villosa* Hoffgg. et Lk.).

Monthly distribution of occurrences: 0,0,0,0,0,0,1,1,0,1,0,0

Distribution: Far, Lis, VRe

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515049

Notes: Not reported since the 1940s.

References: Lagerheim (1889), Câmara et al. (1940a, 1943).

***Puccinia umbilici* Guépin**, *Botanicon Gallicum*, edn. 2 (Paris) 2: 890 (1830)

Microcyclic

Life stages and hosts: telia on Crassulaceae (*Umbilicus rupestris* (Salisb.) Dandy).

Monthly distribution of occurrences: 0,0,1,0,0,0,0,0,0,0,0,0

Distribution: Bra, CBr, Far

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2514415

Notes: Not reported since the 1940s, but common elshwere in Europe.

References: Sydow & Sydow (1903a), González Fragoso (1924), Câmara et al. (1940b), Dias et al. (1987).

***Puccinia verruca* Thüm.**, *Revue de Mycologie*, Toulouse 1(1): 9 (1879)

Microcyclic

Life stages and hosts: telia on Asteraceae (*Centaurea pullata* L.).

Monthly distribution of occurrences: 0,0,1,0,1,0,0,0,0,0,0,0

Distribution: Far

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=8069324

References: Câmara et al. (1943), the authors — unpublished records.

***Puccinia vincae* (DC.) Berk.**, *The* *English Flora*, Fungi, edn. 2 (London) 5(2): 364 (1836)

Macrocyclic, autoecious

Life stages and hosts: spermagonia, uredinia and/or telia on Apocynaceae (*Vinca difformis* Pourr., *V. major* L.).

Monthly distribution of occurrences: 2,0,2,0,3,0,0,0,1,2,0,2

Distribution: Coi, Far, Lis, Vis; AZO — Mar, Mig; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515245

References: Thümen (1879*–*80), Almeida & Câmara (1903), Câmara (1936, 1948, 1949a), Gonçalves da Cunha (1936b), Câmara et al. (1943), Dias & Lucas (1966), Dias et al. (1981), Gjaerum (1982), Gjaerum & Hansen (1983*–*84), Spooner & Butterfill (1999), Talhinhas et al. (2015).

***Puccinia violae* (Schumach.) DC.**, *Flore Française*, edn. 3 (Paris) 5/6: 62 (1815)

Macrocyclic, autoecious

Life stages and hosts: spermagonia, uredinia and/or telia on Violaceae (*Viola odorata* L., *V. paradoxa* Lowe, *V. riviniana* Rchb., *V. silvatica* Fr. ex C. Hartm.).

Monthly distribution of occurrences: 1,0,1,0,4,3,2,1,4,1,0,0

Distribution: Ave, Bra, CBr, Coi, Far, Gua, Lis, Pto, Via, VRe; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515392

Notes: Among other hosts, this fungus occurs on the Madeiran endemic *Viola paradoxa* Lowe.

References: Mesnier (1877), Winter (1884), Lagerheim (1890), Almeida & Câmara (1903, 1905, 1908*–*09), Sampaio (190?), Torrend (1909, 1913a), González Fragoso (1923), Gonçalves da Cunha (1936b), Câmara et al. (1940a, 1943), Câmara (1947), Gjaerum (1982), the authors — unpublished records.

***Uromyces acetosae* J. Schröt.**, *Fungi Europaei Exsiccati, Klotzschii Herbarii Vivi Mycologici Continuatio. Editio Nova,* no. 2080 (1876)

Macrocyclic, autoecious

Life stages and hosts: unrecorded life stage on Polygonaceae (*Rumex acetosa* L., *R. scutatus* L.).

Monthly distribution of occurrences: 0,0,0,0,1,0,0,0,0,0,0,0

Distribution: CBr, Lis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515827

Notes: This rust has not been reported since 1903.

References: Almeida (1903), Sydow & Sydow (1903a), Sampaio (190?), Almeida & Câmara (1908*–*09).

***Uromyces acutatus* Fuckel**, *Jahrbücher des Nassauischen Vereins für Naturkunde* 23*–*24: 64 (1870)

Synonyms: *Uromyces ornithogali* (J.C. Schmidt & Kunze) Lév.

Microcyclic

Life stages and hosts: telia on Asparagaceae (*Ornithogalum broteroi* M. Laínz).

Monthly distribution of occurrences: 0,0,0,0,1,0,0,0,0,0,0,0

Distribution: Coi

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3380738

Notes: There is a single record for this taxon from 1879.

Reference: Thümen (1881).

***Uromyces aecidiiformis* (F. Strauss) C.C. Rees**, *American Journal of Botany* 4: 369 (1917)

Synonyms: *Uromyces lilii* (Lk.) Fck.

Demicyclic, autoecious

Life stages and hosts: spermagonia, aecia and telia on Liliaceae (*Fritillaria lusitanica* Wickstr.).

Monthly distribution of occurrences: 0,0,1,0,0,0,0,0,0,0,0,0

Distribution: Lis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2516053

Notes: There is a single record for this taxon from 1939.

Reference: Câmara et al. (1939).

***Uromyces ambiguus* (DC.) Fuckel**, *Jahrbücher des Nassauischen Vereins für Naturkunde* 23*–*24: 64 (1870)

Macrocyclic, autoecious

Life stages and hosts: telia on Amaryllidaceae (*Allium* sp.).

Monthly distribution of occurrences: 0,0,1,0,0,0,0,0,0,0,0,0

Distribution: Far

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=7350676

Notes: There is a single record for this taxon from 1948.

Reference: Câmara (1949a).

***Uromyces anthyllidis* (Grev.) J. Schröt.**, *Hedwigia* 14: 162 (1875)

Synonyms: *Uredo dorycnopsidis* Thuem., *Uromyces gurkeanus* P. Henn., *Uromyces hippocrepidis* Mayor

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; uredinia and/or telia on Fabaceae (*Anthyllis vulneraria* L., *A. vulneraria* L. var. *litorea*, *A. vulneraria* subsp. *lusitanica* (Cullen & P. Silva) Franco, *A. vulneraria* subsp. *maura* (Beck) Maire, *Dorycnopsis gerardii* (L.) Boiss., *Hippocrepis unisiliquosa* L., *Lotus angustissimus* L., *Lotus creticus* L., *Lotus edulis* L., *Lotus hispidus* Desf. ex DC., *Lotus ornithopodioides* L., *Lupinus albus* L., *Lupinus angustifolius* L., *Lupinus consentini* Guss., *Lupinus hispanicus* Boiss. & Reut., *Lupinus luteus* L., *Trigonella foenum-graecum* L., *Tripodion tetraphyllum* (L.) Fourr.).

Monthly distribution of occurrences:

uredinial/telial stage: 0,0,1,8,5,4,5,1,0,0,0,0

Distribution: Ave, Bej, Bgç, CBr, Far, Gua, Lei, Lis, Pto, San, VRe; AZO — Fai, Mig, Pic, Ter; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=8375625

Notes: Common (33 records) and widespread. Hosts from 15 species in seven Fabaceae genera, including Iberian endemics such as *Anthyllis vulneraria* subsp. *lusitanica* (Cullen & P. Silva) Franco and *Lupinus hispanicus* Boiss. & Reut, but not reported on the Azorean endemic *Lotus azoricus* P.W. Ball. The holotype of *Uredo dorycnopsidis* Thüm. was collected at Buçaco (Mealhada) by Mesnier.

References: Sydow & Sydow (1903a, 1923*–*24), Câmara (1929), Gonçalves da Cunha (1936b), Câmara et al. (1939, 1943), Viennot*–*Bourgin (1939), Dias & Câmara (1954), Dias & Lucas (1965a, 1974), Gjaerum & Dennis (1976), Dias et al. (1982, 1987), Gjaerum (1982, 1990), Gjaerum & Hansen (1983*–*84).

***Uromyces appendiculatus* (Pers.) Link**, *Magazin für die neuesten Entdeckungen in der gesammten Naturkunde, Gesellschaft Naturforschender Freunde zu Berlin*, Berlin 8: 30 (1816)

Macrocyclic, autoecious

Life stages and hosts: uredinia and/or telia on Fabaceae (*Phaseolus vulgaris* L., *Vigna unguiculata* (L.) Walp.).

Monthly distribution of occurrences: 0,0,0,0,0,0,0,1,5,2,0,0

Distribution: Ave, CBr, Coi, Lis, San, Set, Via, Vis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=8101103

Notes: The common bean rust is not recorded since the 1940s.

References: Thümen (1881), Almeida & Câmara (1908*–*09), Gonçalves da Cunha (1936b), Câmara & Luz (1939b), Câmara et al. (1943).

***Uromyces armeriicola* Speg.**, *Boletín de Academia Nacional de Ciencias Córdoba* 27(4): 350 (1924)

Synonyms: *Uromyces armeriae* (Schlechtd.) Lév.

Macrocyclic, autoecious

Life stages and hosts: uredinia and telia on Plumbaginaceae (*Armeria gaditana* Boiss., *A. pubigera* (Desf.) Boiss.).

Monthly distribution of occurrences: 1,0,0,1,0,0,0,0,0,0,0,0

Distribution: Far, Via; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515869

Notes: Both hosts recorded are endemic. It is unclear whether the fungus occurs on the other many *Armeria* endemics.

References: Câmara et al. (1939), Dias et al. (1982), Melo & Cardoso (2008).

***Uromyces baeumlerianus* Bubák**, *Hedwigia* 47: 363 (1908)

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; uredinia and/or telia on Fabaceae (*Melilotus indicus* (L.) All.).

Monthly distribution of occurrences:

uredinial/telial stage: 0,0,0,0,0,3,0,0,0,0,0,0

Distribution: Ave, Lei, Lis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3381087

Notes: Not recorded since the 1940s.

References: Câmara et al. (1939, 1940b).

***Uromyces behenis* (DC.) Unger**, *Über den Einfluss des Bodens auf die Vertheilung der Gewächse*: 216 (1836)

Synonyms: *Puccinia behenis* J. Schröt., *P. silenes* Schröt.

Macrocyclic, autoecious

Life stages and hosts: aecia, uredinia and/or telia on Caryophyllaceae (*Silene latifolia* Poir., *S. scabriflora* Brot., *S. vulgaris* (Moench) Garcke).

Monthly distribution of occurrences: 0,2,0,6,2,3,3,0,0,0,0,0

Distribution: Bra, Coi, Far, Gua, Lei, Lis, Pto, San, Set

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515821

Notes: It is unsure whether this fungus occurs on endemic *Silene* spp.

References: Winter (1884), Lagerheim (1890), González Fragoso (1925), Câmara (1932, 1936, 1946, 1947, 1958), Gonçalves da Cunha (1936b), Câmara et al. (1940a, 1943), Dias & Lucas (1978), Talhinhas et al. (2015).

***Uromyces beticola* (Bellynck) Boerema, Loer. & Hamers**, *Netherlands Journal of Plant Pathology* 93(suppl.): 17 (1987)

Synonyms: *Uromyces betae* (Pers.) Lév.

Macrocyclic, autoecious

Life stages and hosts: uredinia and/or telia on Amaranthaceae (*Beta maritima* L., *B. vulgaris* L.).

Monthly distribution of occurrences: 0,1,1,0,1,1,1,0,0,0,0,0

Distribution: Lis, Set; AZO — Mig; MAD — Mad, PSa

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515857

References: Lagerheim (1890), Torrend (1909), Câmara (1910), Bensaúde (1926), Gonçalves da Cunha (1936b), Câmara et al. (1939, 1943), Gjaerum (1982).

***Uromyces bidenticola* Arthur**, *Mycologia* 9(2): 71 (1917)

Macrocyclic, autoecious

Life stages and hosts: uredinia on Asteraceae (*Bidens pilosa* L.).

Monthly distribution of occurrences: 1,0,0,0,0,0,0,0,0,0,0,0

Distribution: AZO — Mig; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515974

References: Gjaerum & Dennis (1976), Gjaerum (1982).

***Uromyces bidentis* Lagerh.**, *Bulletin trimestriel de la Société mycologique de France* 11(4): 213 (1895)

Macrocyclic, autoecious

Life stages and hosts: uredinia on Asteraceae (*Bidens pilosa* L.).

Monthly distribution of occurrences: 0,0,0,0,0,1,0,0,0,0,0,0

Distribution: Lis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515975

Reference: Ramos et al. (2015).

***Uromyces caraganae* (Thüm.) Magnus**, *Flora der Gefürsteten Grafschaft Tirol, des Landes Vorarlberg und des Fürstentumes Liechtenstein. IV. Band. Die Flechten von Tirol, Vorarlberg und Liechtenstein* 3: 51 (1905)

Synonyms: *Uredo caraganae* Thüm.

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; uredinia on Fabaceae (*Caragana arborescens* Lam.).

Monthly distribution of occurrences:

uredinial/telial stage: 0,0,0,0,0,0,0,1,0,0,0,0

Distribution: Coi

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2516022

Notes: Recorded once, in 1879, the holotype for *Uredo caraganae* Thüm., and more recently in 1998 in Austria.

Reference: Thümen (1881).

***Uromyces chenopodii* (Duby) J. Schröt.**, *Fungi selecti exsiccate,* cent. 3: no. 214 (1880)

Macrocyclic, autoecious

Life stages and hosts: aecia, uredinia and/or telia on Amaranthaceae (*Suaeda vera* Forssk. ex J.F. Gmel., *S. vermiculata* Forssk. ex J.F. Gmel.).

Monthly distribution of occurrences: 0,0,0,0,1,1,2,0,1,0,0,0

Distribution: Far, Lei, Set; MAD — Sel

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2516027

Notes: One of the two rust species recorded in the Selvagens islands.

References: Lagerheim (1890), Câmara et al. (1939), Câmara & Vasconcelos (1952), Gjaerum (1975), Dias & Lucas (1978).

***Uromyces ciceris-arietini* (Grognot) Jacz. & G. Boyer**, *Annales de l'École Nationale d'Agriculture de Montpellier* 1894*:* 19 (1894)

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; uredinia and/or telia on Fabaceae (*Cicer arietinum* L.).

Monthly distribution of occurrences:

uredinial/telial stage: 0,0,0,0,1,1,0,0,1,0,0,0

Distribution: Lei, Lis, Set

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515763

Notes: The causal agent of rust on chickpea.

References: Gonçalves da Cunha (1936b), Câmara et al. (1939), Câmara (1948), the authors — unpublished records.

***Uromyces cristatus* J. Schröt. & Niessl**, *Rabenhorst's Fungi Europaei Exsiccati, Klotzschii Herbarii Vivi Mycologici Continuatio. Editio Nova,* no. 2366 (1877)

Demicyclic, autoecious

Life stages and hosts: unrecorded life stage on Caryophyllaceae (*Dianthus caryophyllus* L.).

Monthly distribution of occurrences: 0,0,0,0,0,1,0,0,0,0,1,0

Distribution: Far, Lis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3380672

Notes: Not reported since 1902.

References: Gonçalves da Cunha (1936b), Câmara (1958).

***Uromyces dactylidis* G.H. Otth**, *Mitteilungen der Naturforschenden Gesellschaft Bern* 469*–*496: 85 (1861)

Synonyms: *Uromyces poae* Rabh.

Macrocyclic, heteroecious

Life stages and hosts: spermagonia and/or aecia on Ranunculaceae (*Ranunculus ficaria* L.); telia on Poaceae (*Dactylis glomerata* L.).

Monthly distribution of occurrences:

aecial stage: 0,1,0,1,0,0,0,0,0,0,0,0

uredinial/telial stage: 0,0,0,0,0,3,2,0,0,0,0,0

Distribution: Ave, CBr, Coi, Gua, Lis, Set; AZO — Mig

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=8208889

Notes: Not reported since the 1940s.

References: Lagerheim (1890), Almeida (1903), Sydow & Sydow (1903a), Câmara (1936, 1947), Gonçalves da Cunha (1936b), Câmara et al. (1939, 1940b, 1943), Ardwisson (1940).

***Uromyces dianthi* (Pers.) Niessl**, *Verhandlungen des Naturforschenden Vereines in Brünn* 10: 162 (1872)

Synonyms: *Uromyces caryophyllinus* (Schrank) Wint.

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; uredinia and/or telia on Caryophyllaceae (*Dianthus caryophyllus* L.).

Monthly distribution of occurrences:

uredinial/telial stage: 0,1,1,0,1,0,1,0,2,1,0,0

Distribution: Coi, Lis; AZO — Gra, Jor; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515591

References: Câmara (1910, 1936), Gonçalves da Cunha (1936b), Câmara & Luz (1939a), Lucas & Câmara (1952a), Dias & Lucas (1980), Spooner & Butterfill (1999), Melo & Cardoso (2008), Melo et al. (2010), Talhinhas et al. (2015).

***Uromyces ervi* (Wallr.) Westend.**, *Bulletins de l'Academie Royale des Sciences, des Lettres et des Beaux Arts de Belgique, Classe des Sciences* 21(2): 246 (1854)

Macrocyclic, autoecious

Life stages and hosts: aecia, uredinia and/or telia on Fabaceae (*Vicia disperma* DC., *V. hirsuta* (L.) Gray).

Monthly distribution of occurrences: 1,0,0,0,1,0,1,0,0,0,0,0

Distribution: AZO — Pic; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515738

Notes: Recorded from Pico and Madeira islands only.

References: Gjaerum (1970, 1982), Gjaerum & Hansen (1983*–*84).

***Uromyces erythronii* (DC.) Pass.**, *Commentario della Società Crittogamologica Italiana* 2(fasc. 3): 452 (1867)

Hemicyclic

Life stages and hosts: aecia, uredinia and/or telia on Liliaceae (*Erythronium dens-canis* L.).

Monthly distribution of occurrences: 0,0,0,0,0,1,0,0,0,0,0,0

Distribution: Bgç

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515775

Notes: There is a single record for this taxon from 1939, but it is common elsewhere in Europe.

Reference: Câmara et al. (1939).

***Uromyces ferulae* Juel**, *Bulletin trimestriel de la Société mycologique de France* 17(4): 259 (1901)

Demicyclic, autoecious

Life stages and hosts: telia on Apiaceae (*Ferula communis* L.).

Monthly distribution of occurrences: 0,0,0,0,1,0,0,0,0,0,0,0

Distribution: Lis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3380747

Notes: There is a single record for this taxon from 1950. Records from elsewhere (in the Mediterranean basin) are also scarce.

Reference: Câmara (1951a).

***Uromyces fischeri-eduardi* Magnus**, *Berichte der Deutschen Botanischen Gesellschaft* 25: 340 (1907)

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; uredinia and telia on Fabaceae (*Vicia* sp.).

Monthly distribution of occurrences:

uredinial/telial stage: 0,0,0,0,0,1,0,0,0,0,0,0

Distribution: Lei

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3381328

Notes: There is a single record for this taxon from 1938.

Reference: Câmara et al. (1940b).

***Uromyces geranii* (DC.) Fr.**, *Annales des Sciences Naturelles, Botanique,* sér. 3, 8: 371 (1847)

Hemicyclic

Life stages and hosts: uredinia and/or telia on Geraniaceae (*Geranium molle* L., *G. rotundifolium* L.).

Monthly distribution of occurrences: 0,0,0,1,0,3,0,0,0,0,0,0

Distribution: Bgç, Vis; AZO — Mig

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=9718616

References: Trelease (1897), Gjaerum & Dennis (1976), Dias et al. (1982, 1987), Gjaerum & Hansen (1983*–*84).

***Uromyces glycyrrhizae* (Rabh.) Magnus**, *Berichte der Deutschen Botanischen Gesellschaft* 8: 383 (1890)

Hemicyclic

Life stages and hosts: uredinia and/or telia on Fabaceae (*Glycyrrhiza glabra* L.).

Monthly distribution of occurrences: 0,0,0,0,1,0,1,0,0,0,0,0

Distribution: Set

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3380345

References: Câmara et al. (1943), Dias & Teixeira (1962).

***Uromyces graminis* (Niessl) Dietel**, *Mittheilungen der Thüringischen Botanischen Vereins Neue Folge* 2: 18 (1892)

Synonyms: *Aecidium foeniculi* Castagne

Macrocyclic, heteroecious

Life stages and hosts: aecia on Apiaceae (*Foeniculum vulgare* L., *Thapsia* sp.); uredinia and/or telia on Poaceae (*Melica ciliata* L., *M. ciliata* L. subsp. *magnolii* (Gren. & Godr.) Husn.).

Monthly distribution of occurrences:

aecial stage: 0,0,2,0,0,0,0,0,0,3,0,0

uredinial/telial stage: 0,0,0,0,0,1,1,1,0,0,0,0

Distribution: Bej, CBr, Lis, Set; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515648

Notes: Not recorded since the 1940s. Sporadic occurrences elsewhere in the world.

References: Câmara (1936), Câmara et al. (1939, 1940b, 1943), Gonçalves da Cunha (1936b), Viennot*–*Bourgin (1939), Câmara (1949b).

***Uromyces hippomarathricola* Sousa da Câmara**, *Boletin de Agricultura* 2(1): 10 (1936)

Demicyclic, autoecious

Life stages and hosts: spermagonia, aecia and telia on Apiaceae (*Cachrys sicula* L.).

Monthly distribution of occurrences: 0,0,1,0,0,0,1,0,0,1,0,0

Distribution: Lis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3381073

Notes: There are only three records for this taxon in Portugal and in the world, including the species holotype (collected at Cascais). The species is likely endemic. The fungus has not been reported since 1951. The host plant is restricted to Southern Iberia, Sicily and Morocco.

References: Câmara (1936), Câmara et al. (1939), Lucas & Câmara (1952a).

***Uromyces inaequialtus* Lasch.**, *Fungi Europaei Exsiccati, Klotzschii Herbarii Vivi Mycologici Continuatio* 1: no. 94 (1859)

Macrocyclic, autoecious

Life stages and hosts: aecia, uredinia and/or telia on Caryophyllaceae (*Silene longicilia* (Brot.) Otth., *S. vulgaris* (Moench) Garcke).

Monthly distribution of occurrences: 0,0,0,0,1,0,2,1,1,0,0,0

Distribution: Gua, Lis, Vis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2516051

Notes: Occurs on the Portuguese endemic *Silene longicilia* (Brot.) Otth.

References: Câmara et al. (1943), Câmara (1951a), Dias & Câmara (1952), Câmara & Vasconcelos (1953).

***Uromyces junci* Tul.***, Annales des Sciences Naturelles Botanique,* sér. 4, 2: 146 (1854)

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; uredinia and/or telia on Juncaceae (*Juncus articulatus* L.).

Monthly distribution of occurrences:

uredinial/telial stage: 0,0,1,0,0,0,0,0,0,0,1,0

Distribution: CBr; AZO — Fai; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=8404436

References: Torrend (1913a), Viennot*–*Bourgin (1939), Spooner & Butterfill (1999).

***Uromyces limonii* (DC.) Lév.**, *Dictionnaire universel d'histoire naturelle* 12: 786 (1849)

Macrocyclic, autoecious

Life stages and hosts: uredinia and/or telia on Plumbaginaceae (*Armeria maderensis* Lowe, *Limonium ovalifolium* (Poir.) Kuntze, *L. sinuatum* (L.) Mill., *L. vulgare* Mill.).

Monthly distribution of occurrences: 0,0,0,0,1,3,0,2,0,1,0,0

Distribution: Bra, Lis, San, Set; AZO — Mig; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515871

Notes: This taxon was reported in the Madeiran endemic *Armeria maderensis* Lowe only once, in 1908.

References: Trelease (1897), Torrend (1913b), Câmara (1936), Câmara et al. (1939, 1940b, 1943), Costa & Câmara (1952), Dias & Lucas (1978).

***Uromyces lineolatus* (Desm.) J. Schröt.**, *Fungi Europaei Exsiccati, Klotzschii Herbarii Vivi Mycologici Continuatio. Editio Nova,* no. 2077 (1876)

Macrocyclic, heteroecious

Life stages and hosts: aecia on Apiaceae (*Oenanthe crocata* L.); uredinia and/or telia on Cyperaceae (*Bolboschoenus maritimus* (L.) Palla).

Monthly distribution of occurrences:

aecial stage: 0,0,0,2,0,0,0,0,0,0,0,0

uredinial/telial stage: 1,0,0,0,0,0,2,2,2,0,0,0

Distribution: Ave, Coi, Lis, Pto, San, Set, Via

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515790

References: Lagerheim (1890), González Fragoso (1925), Câmara et al. (1940b, 1943), Câmara (1951b), Lucas & Câmara (1952b), Dias & Câmara (1953).

***Uromyces minor* J. Schröt.**, in Cohn, *Kryptogamen-Flora Schlesien* (Breslau) 3.1(17*–*24): 310 (1887)

Macrocyclic, autoecious

Life stages and hosts: aecia, uredinia and/or telia on Fabaceae (*Trifolium* sp.).

Monthly distribution of occurrences: 0,0,0,1,0,0,0,0,0,0,0,0

Distribution: AZO — Mig

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515802

Notes: There is a single record for this taxon from 1995.

Reference: Spooner & Butterfill (1999).

***Uromyces monspessulanus* Tranzschel**, *Annales Mycologici 8*(1): 20 (1910)

Microcyclic

Life stages and hosts: telia on Euphorbiaceae (*Euphorbia serrata* L.).

Monthly distribution of occurrences: no date recorded

Distribution: Gua

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3380844

Notes: There is a single record for this taxon from 1922.

Reference: Câmara (1958).

***Uromyces muscari* (Duby) Lév.**, *Annales des Sciences Naturelles Botanique* 8: 371, 376 (1847)

Synonyms: *Uromyces scillarum* (Grev.) G. Winter

Hemicyclic

Life stages and hosts: uredinia and/or telia on Asparagaceae (*Dipcadi serotinum* (L.) Medic., *Hyacinthoides hispanica* (Mill.) Rothm., *H. italica* (L.) Rothm., *H. non-scripta* (L.) Chouard ex Rothm., *Muscari comosum* (L.) Mill., *Scilla bifolia* L., *S. monophyllos* Link, *S. ramburei* Boiss., *Urginea maritima* (L.) Baker).

Monthly distribution of occurrences: 1,3,7,6,5,3,6,0,1,0,0,0

Distribution: Bej, Bra, CBr, Évo, Far, Lis, Ptg, Set, Vis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515887

Notes: Common (31 records).

References: Lagerheim (1889, 1890), Sydow & Sydow (1903a), Torrend (1903), Câmara (1916, 1929, 1936, 1949a, 1951b), González Fragoso (1923, 1925), Gonçalves da Cunha (1933, 1936b), Câmara et al. (1939, 1943), Lucas & Câmara (1952a, 1954), Câmara & Vasconcelos (1953), Lucas (1957), Dias et al. (1981).

***Uromyces ononidis* Pass.**, *Fungi Europaei Exsiccati*: no. 1792 (1874)

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; uredinia and telia on Fabaceae (*Ononis spinosa* L., *Ononis spinosa* L. subsp. *antiquorum* (L.) Briq.).

Monthly distribution of occurrences:

uredinial/telial stage: 0,0,0,0,0,0,0,1,1,0,0,0

Distribution: Bgç, Lis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3381089

References: Gonçalves da Cunha (1934), Dias & Câmara (1953).

***Uromyces ornithopodioides* Gonz. Frag.**, *Boletín de la Sociedad Española de Historia Natural, Madrid,* 13: 471 (1913)

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; uredinia on Fabaceae (*Ornithopus compressus* L., *O. sativus* Brot.).

Monthly distribution of occurrences:

uredinial/telial stage: 0,0,0,0,0,1,0,1,1,0,0,0

Distribution: Ave, San; AZO — Ter

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3380348

References: Câmara et al. (1939, 1940b), Gjaerum & Hansen (1983*–*84).

***Uromyces pisi-sativi* (Pers.) Liro**, *Bidrag till Kännedom av Finlands Natur och Folk* 65: 100 (1908)

Synonyms: *Aecidium euphorbiae* Pers. ex J.F. Gmel., *Uromyces euphorbiae-corniculati* Jordi, *U. genistae-tinctoriae* (Pers.) Fuckel ex G. Winter, *U. laburni* DC., *U. loti* A. Blytt, *U. onobrychidis* (Desm.) Lév., *U.* *pisi* (DC.) G.H. Otth.

Macrocyclic, heteroecious

Life stages and hosts: aecia on Euphorbiaceae (*Euphorbia characias* L.*, E. peplus* L.); uredinia and/or telia on Fabaceae (*Colutea arborescens* L., *Cytisus scoparius* L., *Genista tenera* (Murray) Kuntze, *Lathyrus clymenum* L., *Lathyrus latifolius* L., *Lathyrus latifolius L.* var. *angustifolius* Godr., *Lathyrus linifolius* (Reichard) Bässler*, Lathyrus sativus* L., *Lotus corniculatus* L., *Lotus creticus* L*.*, *Lotus pedunculatus* Cav.*, Lotus subbiflorus* Lag., *Onobrychis humilis* (L.) G.Lopez, *O. viciifolia* Scop.).

Monthly distribution of occurrences:

aecial stage: 0,0,1,0,0,0,0,1,0,0,0,0

uredinial/telial stage: 1,0,1,4,0,4,8,4,7,0,0,0

Distribution: Bej, Bra, Coi, Far, Lei, Lis, Ptg, Pto, San, Via; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515938

Notes: Common (35 records) and widespread. *Genista tenera* (Murray) Kuntze is endemic to Madeira.

References: Winter (1883), Almeida & Câmara (1903), González Fragoso (1923), Câmara (1931, 1947, 1949b, 1958), Gonçalves da Cunha (1934, 1936b), Câmara et al. (1940 a,b, 1943), Câmara & Vasconcelos (1952, 1953, 1955), Dias & Câmara (1952), Lucas & Câmara (1952a,b), Dias et al. (1982), Gjaerum (1982).

***Uromyces polygoni-avicularis* (Pers.) G.H. Otth**, *Mitteilungen der Naturforschenden Gesellschaft Bern* 1863: 87 (1864)

Synonyms: *Uromyces polygoni* (Pers.) Fuckel

Macrocyclic, autoecious

Life stages and hosts: aecia, uredinia and/or telia on Polygonaceae (*Polygonum aviculare* L., *Rumex acetosa* L.).

Monthly distribution of occurrences: 0,0,0,1,1,1,3,3,1,1,0,0

Distribution: Ave, Bra, Gua, Lis, Ptg, San; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=7548725

References: Lagerheim (1890), Câmara (1936, 1949b), Câmara et al. (1939, 1940b, 1943), Viennot*–*Bourgin (1939), Câmara & Vasconcelos (1952), Dias & Lucas (1978).

***Uromyces proeminens* (DC.) Lév.**, *Annales des Sciences Naturelles Botanique* 8: 371 (1847)

Macrocyclic, autoecious

Life stages and hosts: uredinia and telia on Euphorbiaceae (*Euphorbia chamaesyce* L., *E. chamaesyce* L. var. *canescens* (L.) Boiss.).

Monthly distribution of occurrences: 0,0,0,0,0,0,0,3,0,0,0,0

Distribution: Lis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=7239389

Notes: This rust has not been reported since the 1940s.

References: Lagerheim (1889), Gonçalves da Cunha (1936b), Câmara et al. (1939).

***Uromyces renovatus* P. Syd. & Syd.**, *Monographia Uredinearum* 3: 113 (1909)

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; uredinia and/or telia on Fabaceae (*Lupinus albus* L., *L.* *angustifolius* L., *L.* *consentini* Guss., *L. luteus* L.).

Monthly distribution of occurrences:

uredinial/telial stage: 0,0,2,5,4,7,1,0,0,0,0,0

Distribution: Bej, CBr, Coi, Évo, Far, Lei, Lis, San, Set, Via

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515805

Notes: This rust has not been reported since the 1950s. It occurs on wild and cultivated lupins.

References: Almeida (1903), Câmara (1910, 1916, 1932, 1946, 1949b), Torrend (1913a), González Fragoso (1923), Gonçalves da Cunha (1933, 1936b), Câmara et al. (1939, 1940b), Dias & Câmara (1954, 1955).

***Uromyces reticulatus* (Thüm.) Bubák**, *Sitzungsberichte der Königlichen Böhmischen Gesellschaft der Wissenschaften* 1902: 22 (1902)

Macrocyclic, autoecious

Life stages and hosts: uredinia and telia on Amaryllidaceae (*Allium pruinatum* Lk., *A. victorialis* L.).

Monthly distribution of occurrences: 0,0,1,0,0,0,0,1,0,0,0,0

Distribution: CBr/Gua, Lei

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=7527697

Notes: This rust has not been reported since 1950.

References: Câmara (1951b, 1958).

***Uromyces rumicis* (Schumach.) G. Winter**, *Rabenhorst's Kryptogamen-Flora, Pilze* — *Schizomyceten, Saccharomyceten und Basidiomyceten* 1(1): 145 (1881)

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; uredinia and/or telia on Polygonaceae (*Emex spinosa* (L.) Campd., *Rumex acetosa* L., *R. acetosella* subsp. *angiocarpus* (Murb.) Murb, *R. alpestris* Jacq., *R. conglomeratus* Murr., *R. crispus* L., *R. obtusifolius* L., *R. pulcher* L., *R. thyrsoides* Desf.).

Monthly distribution of occurrences:

uredinial/telial stage: 0,0,4,0,7,3,1,5,0,4,3,0

Distribution: Bra, CBr, Coi, Gua, Lei, Lis, Ptg, Pto, Set, Via, Vis; AZO — Fai, Flo, Jor, Gra, Mar, Mig, Pic; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515881

Notes: Common (35 records).

References: Berlese et al. (1889), Sydow & Sydow (1903a), Sampaio (190?), Câmara (1910, 1948, 1949a, 1951b), González Fragoso (1923, 1924), Gonçalves da Cunha (1936b), Câmara et al. (1939), Viennot*–*Bourgin (1939), Lucas & Câmara (1952a), Dias & Câmara (1954), Câmara & Vasconcelos (1955), Gjaerum & Dennis (1976), Dias & Lucas (1980), Dias et al. (1981, 1982), Gjaerum & Hansen (1983*–*84), Spooner & Butterfill (1999), Tavares et al. (2014).

***Uromyces salicorniae* (DC.) de Bary**, *Rabenhorst's Fungi Europaei*: no. 1386 (1870)

Macrocyclic, autoecious

Life stages and hosts: uredinia on Amaranthaceae (*Arthrocnemum macrostachyum* (Moric.) K. Koch).

Monthly distribution of occurrences: 0,0,0,0,0,0,1,0,0,0,0,0

Distribution: Far

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515848

Notes: There is a single record for this taxon from 1980.

Reference: Dias et al. (1982).

***Uromyces salsolae* Rabenh.**, *Hedwigia* 10: 19 (1871)

Macrocyclic, autoecious

Life stages and hosts: telia on Amaranthaceae (*Salsola soda* L.).

Monthly distribution of occurrences: no date recorded

Distribution: Set

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515875

Notes: There is a single record for this taxon from 1932.

Reference: Câmara (1936).

***Uromyces scrophulariae* (DC.) Berk. & Broome ex J. Schröt.**, *Jahrbücher des Nassauischen Vereins für Naturkunde* 23*–*24: 63 (1869)

Demicyclic, autoecious

Life stages and hosts: aecia and/or telia on Scrophulariaceae (*Scrophularia grandiflora* DC., *S. hermini* Hoffmanns. & Link, *S. sambucifolia* L., *S. scorodonia* L., *S. sublyrata* Brot.).

Monthly distribution of occurrences: 0,0,1,1,1,2,1,2,0,1,0,0

Distribution: CBr, Coi, Lei, Lis, Pto, Via; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515708

Notes: Hosts include one Iberian and two Portuguese endemics (*S. hermini* Hoffmanns. & Link and *S. grandiflora* DC. and *S. sublyrata* Brot., respectively).

References: Lagerheim (1890), Torrend (1913a), Câmara (1916), González Fragoso (1923), Gonçalves da Cunha (1933), Câmara et al. (1939, 1940b), Dias & Lucas (1978), Melo and Cardoso (2008).

***Uromyces scutellatus* (Schrank) Lév.**, *Annales des Sciences Naturelles Botanique* 8: 371 & 375 (1847)

Macrocyclic, autoecious

Life stages and hosts: uredinia and telia on Euphorbiaceae (*Euphorbia nicaeensis* All., *E. segetalis* L.).

Monthly distribution of occurrences: 0,0,0,0,2,0,1,0,0,0,0,0

Distribution: Évo, Set

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=8571893

Notes: This rust has not been reported since 1947.

References: Torrend (1903), Câmara (1949a).

***Uromyces seselis* Sousa da Câmara**, *Agronomia Lusitana* 11(1): 40 (1949)

Microcyclic

Life stages and hosts: telia on Apiaceae (*Seseli tortuosum* L.).

Monthly distribution of occurrences: 0,0,0,0,0,0,0,1,0,0,0,0

Distribution: Ave

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3380519

Notes: This is the single record for this taxon worldwide. It was collected in 1948 at Praia do Forte (Ílhavo). The species is likely endemic.

Reference: Câmara (1949a).

***Uromyces setariae-italicae* Yoshino**, *Botanical Magazine, Tokyo* 20: 247 (1906)

Hemicyclic

Life stages and hosts: uredinia and/or telia on Poaceae (*Pennisetum glaucum* (L.) R. Br., *Setaria adhaerens* (Forssk.) Chiov., *S. pumila* (Poir.) Roem. & Schult., *S. verticillata* (L.) P. Beauv., *S. viridis* (L.) P. Beauv.).

Monthly distribution of occurrences: 1,0,0,1,0,0,0,1,0,2,1,0

Distribution: AZO — Fai, Gra, Jor, Mar, Mig; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515914

Notes: All records from the Azores and Madeira.

References: Viennot*–*Bourgin (1939), Gjaerum (1982), Gjaerum & Hansen (1983*–*84), Spooner & Butterfill (1999), Melo et al. (2010).

***Uromyces silenes* (Schltdl.) Fuckel**, *Jahrbücher des Nassauischen Vereins für Naturkunde* 23*–*24: 61 (1870)

Hemicyclic

Life stages and hosts: unrecorded life stage on Caryophyllaceae (*Silene niceensis* All.).

Monthly distribution of occurrences: 0,0,0,0,0,0,1,0,0,0,0,0

Distribution: Set

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3381091

Notes: There is a single record for this taxon from 1889.

Reference: Lagerheim (1890).

***Uromyces silenes-ponticae* Const.**, *Annales Mycologici* 14(3*–*4): 249 (1916)

Hemicyclic

Life stages and hosts: uredinia and telia on Caryophyllaceae (*Silene niceensis* All.).

Monthly distribution of occurrences: 0,0,0,1,0,0,0,0,0,0,0,0

Distribution: Far

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3380838

Notes: There is a single record for this taxon from 1965.

Reference: Dias & Lucas (1980).

***Uromyces sparsus* (Kunze & J.C. Schmidt) Lév.**, *Annales des Sciences Naturelles Botanique* 8: 371 (1847)

Macrocyclic, autoecious

Life stages and hosts: uredinia and telia on Caryophyllaceae (*Spergularia marina* (L.) Besser Griseb).

Monthly distribution of occurrences: 0,0,0,0,0,1,0,0,0,0,0,0

Distribution: Set

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515643

Notes: There is a single record for this taxon from 1938.

Reference: Câmara et al. (1939).

***Uromyces spartii-juncei* P. Syd. & Syd.**,*Monographia Uredinearum* (Lipsiae) 2(1): 130 (1909)

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; unrecorded life stage on Fabaceae (*Spartium junceum* L.).

Monthly distribution of occurrences:

uredinial/telial stage: 0,0,0,0,0,0,1,0,0,0,0,0

Distribution: Lis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=7788345

Notes: There is a single record for this taxon from 1889.

Reference: Lagerheim (1890).

***Uromyces striatus* J. Schröt.**, *Die Brand- und Rostpilze Schlesiens*: 11 (1870)

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; uredinia and/or telia on Fabaceae (*Lotus creticus* L., *L. hispidus* Desf. Ex DC., *L. pedunculatus* Cav., *Medicago arabica* (L.) Huds., *M. littoralis* Rhode ex Loisel., *M. lupulina* L., *M. polymorpha* L., *M. sativa* L.).

Monthly distribution of occurrences:

uredinial/telial stage: 1,0,0,1,0,2,3,1,1,1,0,0

Distribution: Ave, CBr, Far, Lis, Set; AZO — Cor, Ter

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=7986377

References: Lagerheim (1890), Trelease (1897), Sydow & Sydow (1903a), Almeida & Câmara (1908*–*09), Câmara et al. (1939), Câmara (1949b), Lucas & Câmara (1952a), Dias & Câmara (1953), Lucas (1956), Dias & Lucas (1980), Gjaerum & Hansen (1983*–*84).

***Uromyces tinctoriicola* Magnus**, *Verhandlungen der Zoologisch-Botanischen Gesellschaft Wien* 46: 429 (1896)

Synonyms: *Uromyces sublaevis* Tranzschel

Demicyclic, autoecious

Life stages and hosts: telia on Euphorbiaceae (*Euphorbia baetica* Bois., *E. nicaeensis* All.).

Monthly distribution of occurrences: 0,0,0,0,1,1,0,0,0,0,0,0

Distribution: Far, Set

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515932

Notes: This rust has not been reported since 1938.

References: Lagerheim (1889), Câmara et al. (1939).

***Uromyces transversalis* (Thüm.) G. Winter**, *Flora* 68: 263 (1884)

Hemicyclic

Life stages and hosts: uredinia on Iridaceae (*Crocosmia* sp., *Gladiolus* sp.).

Monthly distribution of occurrences: 0,0,0,1,0,0,0,1,0,0,1,0

Distribution: Lis, AZO — Jor, Mig

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515743

Notes: Occurs on cultivated gladioli and crocosmia. Recorded since 1975.

References: Costa (1975), Spooner & Butterfill (1999), Caetano & Ramos (2002), Tavares et al. (2014), the authors — unpublished records.

***Uromyces trifolii* (R. Hedw.) Lév.**, *Annales des Sciences Naturelles Botanique* 8: 371 (1847)

Hemicyclic

Life stages and hosts: uredinia and/or telia on Fabaceae (*Trifolium alexandrinum* L., *T.* *aureum* Pollich, *T. incarnatum* L., *T. pratense* L., *T. repens* L., *T. stellatum* L.).

Monthly distribution of occurrences: 0,0,0,0,0,2,2,0,0,0,0,0

Distribution: CBr, Far, Lis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=9560774

References: Lagerheim (1890), Sydow & Sydow (1903a), González Fragoso (1923), Câmara (1929, 1949b), Gonçalves da Cunha (1936b), Câmara et al. (1939).

***Uromyces trifolii-repentis* Liro**, *Acta Societatis pro Fauna et Flora Fennica* 29(no. 6): 15 (1906)

Macrocyclic, autoecious

Life stages and hosts: spermagonia, aecia, uredinia and/or telia on Fabaceae (*Trifolium incarnatum* L., *T. repens* L., *T. resupinatum* L.).

Monthly distribution of occurrences: 1,0,0,2,1,0,0,1,1,1,0,1

Distribution: Lis, Pto, VRe; AZO — Mig, Pic; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515896

References: González Fragoso (1923), Câmara et al. (1939, 1943), Gjaerum (1982), Gjaerum & Hansen (1983*–*84), Spooner & Butterfill (1999).

***Uromyces tuberculatus* Fuckel**, *Jahrbücher des Nassauischen Vereins für Naturkunde* 23*–*24: 64 (1870)

Macrocyclic, autoecious

Life stages and hosts: uredinia and telia on Euphorbiaceae (*Euphorbia exigua* L.).

Monthly distribution of occurrences: 0,0,0,1,0,0,0,0,0,0,0,0

Distribution: Lis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515636

Notes: There is a single record for this taxon from 1977.

Reference: Dias & Lucas (1980).

***Uromyces verruculosus* Berk. & Broome**, *The Journal of the Linnean Society, Botany,* 11(no. 56): 92 (1871)

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not reported; uredinia and/or telia on Caryophyllaceae (*Silene latifolia* Poir., *S. latifolia* subsp. *alba* (Mill.) Greuter & Burdet, *S. vulgaris* (Moench) Garcke).

Monthly distribution of occurrences:

uredinial/telial stage: 0,0,0,0,0,1,0,1,0,1,0,0

Distribution: Bra, San

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515705

References: González Fragoso (1923), Câmara et al. (1943), Câmara & Vasconcelos (1953).

***Uromyces viciae-fabae* (Pers.) J. Schröt.**, *Hedwigia* 14: 161 (1875)

Synonyms: *Uromyces fabae* (Pers.) De Bary

Macrocyclic, autoecious

Life stages and hosts: aecia, uredinia and/or telia on Fabaceae (*Lathyrus cicera* L., *Lathyrus latifolius* L., *Lathyrus linifolius* (Reichard) Bässler, *Lens culinaris* Medik., *Pisum sativum* L., *Vicia angustifolia* L., *V. benghalensis* L., *V. bithynica* L., *V. disperma* DC., *V. faba* L., *V. hirsuta* (L.) Gray, *V. lutea* L., *V. sativa* L., *V.* *sativa* L. subsp. *nigra* (L.) Ehrh.).

Monthly distribution of occurrences: 0,0,3,2,7,7,5,2,0,1,0,0

Distribution: Bej, Bra, Brç, CBr, Coi, Évo, Far, Lis, Ptg, Pto, Set, Via; AZO — Fai, Jor, Mar, Mig, Pic, Ter; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3381094

Notes: Very common (43 records) and widespread. Occurs both on cultivated and wild legumes, notably on faba bean.

References: Winter (1884), Câmara (1916, 1929, 1949b), Gonçalves da Cunha (1936b), Câmara et al. (1939, 1940b, 1943), Costa (1959, 1962), Gjaerum & Dennis (1976), Gjaerum & Hansen (1983*–*84), Dias et al. (1987), Spooner & Butterfill (1999), Melo & Cardoso (2008), Melo et al. (2010), Tavares et al. (2014).

***Uromyces vignae* Barclay**, *Journal of the Asiatic Society of Bengal* 60(3): 211 (1891)

Synonyms: *Uromyces phaseoli-vignae* (Barcl.) Arth.

Macrocyclic, autoecious

Life stages and hosts: spermagonia, aecia and telia on Fabaceae (*Vigna sinensis* (L.) Endl.).

Monthly distribution of occurrences: 0,0,0,0,0,0,0,0,5,1,0,1

Distribution: Coi, Lis, San, Set, Via, Vis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2516036

References: Gonçalves da Cunha (1936b), Câmara et al. (1939, 1940b, 1943), Dias & Lucas (1978).

***Uromyces vulpiae* Sousa da Câmara**, *Agronomia Lusitana* 11(3): 166 (1949)

Hemicyclic

Life stages and hosts: telia on Poaceae (*Vulpia muralis* (Kunth) Nees).

Monthly distribution of occurrences: 0,0,0,0,1,0,0,0,0,0,0,1

Distribution: Brç, Set

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3380526

Notes: This rust has not been reported since the 1960s, neither has it been reported elsewhere in the world. The species holotype was collected at Vilarelhos da Vilariça (Alfândega da Fé). The species is likely endemic. Some authors consider it a synonym of *U. dactylidis* G.H. Otth.

References: Câmara (1949b), Dias & Lucas (1962).

***Zaghouania phillyreae* Pat.**, *Bulletin de la Société Mycologique de France* 17: 187 (1901)

Macrocyclic, autoecious

Life stages and hosts: aecia and/or uredinia on Oleaceae (*Phillyrea angustifolia* L., *P*. *latifolia* L.).

Monthly distribution of occurrences: 0,0,0,2,0,1,1,0,1,0,0,1

Distribution: Bra, CBr, Far, Lis, Set, Vis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2516246

Notes: This rust has not been reported since the 1940s.

References: Torrend (1903, 1913a), Gonçalves da Cunha (1936b), Câmara et al. (1940b, 1943), Câmara (1948).

RAVENELIACEAE

***Dicheirinia maderensis* Gjaerum**, *Boletim do Museu Municipal do Funchal* 34(Art. 143): 7 (1982)

Hemicyclic

Life stages and hosts: uredinia and telia on Fabaceae (*Teline maderensis* Webb and Berthel.).

Monthly distribution of occurrences: 0,0,0,0,4,0,0,0,1,0,0,0

Distribution: MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2517255

Notes: *Dicheirinia maderensis* Gjaerum is most likely endemic to the Madeira archipelago, since it is only described on *Teline maderensis*, which in turn is endemic to Madeira. Other species of *Teline* host distinct species of *Dicheirinia*; e.g., *D. canariensis* Urries infects *T. canariensis* (L.) Webb & Berthel. in the Canary Islands.

References: Gjaerum (1982), the authors — unpublished records.

PUCCINIASTRACEAE

***Hyalopsora adianti-capilli-veneris* (DC.) Syd. & P. Syd.**, *Annales Mycologici* 1(3): 249 (1903)

Hemicyclic

Life stages and hosts: uredinia on Pteridaceae (*Adiantum capillus-veneris* L.).

Monthly distribution of occurrences: 0,0,0,0,0,1,0,0,0,0,0,0

Distribution: Lis; AZO — Mig

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2516977

Notes: This rust has not been reported since the1940s.

References: Câmara & Luz (1939a), Câmara et al. (1940b), Arwidsson (1940).

***Melampsorella caryophyllacearum* (DC.) J. Schröt.**, *Hedwigia*: 85 (1874)

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; unrecorded life stage on Caryophyllaceae (*Cerastium glomeratum* Thuill.).

Monthly distribution of occurrences:

uredinial/telial stage: 0,0,0,0,1,0,0,0,0,0,0,0

Distribution: CBr

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2516840

Notes: There is a single record for this taxon, although it is common in other parts of the world.

Reference: Torrend (1913a).

***Melampsoridium betulinum* (Pers.) Kleb.**, *Zeitschrift für Pflanzenkranheiten, Pflanzenpathologie und Pflanzenschutz* 9: 21 (1899)

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; uredinia on Betulaceae (*Betula pendula* Roth., *B. pubescens* Ehrh.).

Monthly distribution of occurrences:

uredinial/telial stage: 0,0,0,0,1,1,0,0,0,0,0,0

Distribution: Pto, VRe

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2516809

References: Câmara et al. (1940a), Lucas & Câmara (1952a).

***Milesina blechni* (Syd. & P. Syd.) Arthur ex Faull**, *Annales Mycologici* 8(5): 491 (1910)

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; uredinia on Blechnaceae (*Blechnum spicant* (L.) Roth.).

Monthly distribution of occurrences:

uredinial/telial stage: 0,0,0,0,0,0,0,1,0,0,0,0

Distribution: AZO — Ter; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2516867

Notes: Recorded only from Terceira and Madeira.

References: Viennot*–*Bourgin (1939), Gjaerum & Dennis (1976).

***Milesina kriegeriana* (Magnus) Magnus**, *Bulletin de l'Institute et du Jardin Botaniques de l'université de Beograd* 27: 325 (1909)

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; uredinia on Dryopteridaceae (*Dryopteris azorica* (Christ) Alston).

Monthly distribution of occurrences:

uredinial/telial stage: no date recorded

Distribution: AZO — Ter

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2516861

Notes: There is a single record for this taxon, although it is common in other parts of Europe. The host species in endemic to the Azores.

Reference: Gjaerum & Dennis (1976).

***Naohidemyces vaccinii*****(Jørst.)S. Sato, Katsuya & Y. Hirats. ex Vanderweyen & Fraiture**, *Lejeunia* 183: 14 (2007)

Synonyms: *Naohidemyces vacciniorum* (J. Schröt.) Spooner, *Pucciniastrum vaccinii* Jørst

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; uredinia on Ericaceae (*Vaccinium cylindraceum* Sm., *V. padifolium* Sm.).

Monthly distribution of occurrences:

uredinial/telial stage: 2,0,0,0,2,0,0,0,0,0,0,0

Distribution: AZO — Fai, Flo; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=8344013

Notes: The host species, *Vaccinium cylindraceum* Sm. and *V. padifolium* Sm. are endemic from the Azores and Madeira respectively.

References: Gjaerum (1982), Spooner & Butterfill (1999).

***Pucciniastrum agrimoniae* (Dietel) Tranzschel**, *Scripta Botanica Horti Universitatis Petropolis* 4: 301 (1895)

Hemicyclic

Life stages and hosts: uredinia on Rosaceae (*Agrimonia eupatoria* L.).

Monthly distribution of occurrences: 0,0,0,0,0,1,0,0,0,0,0,0

Distribution: Coi, Far

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2516908

References: Gonçalves da Cunha (1936b), Câmara et al. (1943).

***Pucciniastrum epilobii* G.H. Otth**, *Mitteilungen der Naturforschenden Gesellschaft Bern* 1861: 72 (1861)

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; uredinia on Onagraceae (*Fuchsia* sp., *Epilobium* sp.).

Monthly distribution of occurrences:

uredinial/telial stage: 1,0,0,1,0,0,0,0,0,0,0,0

Distribution: Lis; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2516897

Notes: Records are from 1980 onwards.

References: Gjaerum (1982), Tavares et al. (2014), the authors — unpublished records.

***Pucciniastrum guttatum* (Schroet.) Hyl., Jörstad & Nannf.**, *Opera Botanica* 1: 81 (1953)

Hemicyclic

Life stages and hosts: uredinia on Rubiaceae (*Galium aparine* L.).

Monthly distribution of occurrences: 0,0,0,0,0,1,0,0,0,0,0,0

Distribution: AZO — Mig; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2516956

Notes: Recorded only from São Miguel and Madeira.

References: Gjaerum & Dennis (1976), Melo & Cardoso (2008).

***Pucciniastrum sparsum* (G. Winter) E. Fisch.**, *Beiträge zur Kryptogamenflora der Schweiz* 2 (2): 469 (1904)

Synonyms: *Thekopsora sparsa* (G. Winter) Magnus

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; unrecorded life stage on Ericaceae (*Arbutus unedo* L.).

Monthly distribution of occurrences:

uredinial/telial stage: 0,0,0,0,0,1,0,0,0,0,0,0

Distribution: Far

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2516937

Notes: There is a single record for this taxon.

Reference: Gonçalves da Cunha (1936b).

SPHAEROPHRAGMIACEAE

***Triphragmium ulmariae* (DC.) Link**, *Caroli a Linné Species Plantarum exhibentes Plantas Rite Cognitas ad Genera Relatas* 6(2): 84 (1825)

Macrocyclic, autoecious

Life stages and hosts: telia on Rosaceae (*Filipendula ulmaria* (L.) Maxim.).

Monthly distribution of occurrences: 0,0,0,0,0,0,2,0,0,0,0,0

Distribution: Brç

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2517107

Notes: This rust has not been reported since the 1940s.

Reference: Câmara et al. (1940a).

UROPYXIDACEAE

***Leucotelium cerasi* (Bérenger) Tranzschel**, *Rivista di Patologia Vegetale* 25(5): 177 (1935)

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; unrecorded stage on Rosaceae (*Prunus persica* L.).

Monthly distribution of occurrences:

uredinial/telial stage: 0,0,0,0,0,0,0,0,0,0,1,0

Distribution: Coi

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2516451

Notes: There is a single record for this taxon from 1901, although it is common in other parts of Europe.

Reference: Gonçalves da Cunha (1936b).

***Tranzschelia discolor* (Fuckel) Tranzschel & M.A. Litv.**, *Journal de Botanique (Morot)* 24(3): 248 (1939)

Macrocyclic, heteroecious

Life stages and hosts: aecial stage not recorded; uredinia and/or telia on Rosaceae (*Prunus dulcis* (Mill.) D.A. Webb, *P. persica* L.).

Monthly distribution of occurrences:

uredinial/telial stage: 1,0,0,1,0,0,0,0,0,1,0,0

Distribution: Lis; AZO — Gra, Mig; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2516419

Notes: Occurs on cultivated *Prunus* spp. Recorded from 1980 onwards.

References: Gjaerum (1982), Spooner & Butterfill (1999), Melo et al. (2010), Tavares et al. (2014).

***Tranzschelia pruni-spinosae* (Pers.) Dietel**, *Annales Mycologici* 20: 31 (1922)

Synonyms: *Puccinia pruni-spinosae* Pers.

Macrocyclic, heteroecious

Life stages and hosts: spermagonia and aecia on Ranunculaceae (*Anemone coronaria* L.); uredinia and/or telia on Rosaceae (*Prunus armeniaca* L., *P. domestica* L., *P*. *dulcis* (Mill.) D.A. Webb, *P. persica* L.).

Monthly distribution of occurrences:

aecial stage: 0,0,0,3,0,0,0,0,0,0,0,0

uredinial/telial stage: 0,0,0,0,0,0,0,4,6,5,6,0

Distribution: Bra, Brç, CBr, Coi, Évo, Lis, San, Via, VRe; AZO — Mig; MAD — Mad

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2516430

Notes: Occurs on cultivated *Prunus* spp.

References: Thümen (1878, 1879*–*80), Almeida (1903), Saccardo (1903), Torrend (1909, 1913a), Câmara (1916, 1929, 1936, 1946, 1947), González Fragoso (1923), Bensaúde (1926), Gonçalves da Cunha (1936b), Câmara & Luz (1939b), Câmara et al. (1940a,b, 1943), Câmara & Vasconcelos (1953), Dias & Câmara (1953), Costa & Câmara (1954).

INCERTAE SEDIS

***Aecidium dubiosum* Syd. & P. Syd.**, *Hedwigia Beiblätter* 40: 1 (1901)

Life stages and hosts: aecia on Asteraceae (*Delairea odorata* Lem.).

Monthly distribution of occurrences: 0,0,1,0,0,0,1,0,0,0,0,0

Distribution: Lis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3374539

Notes: This taxon was recorded twice from the same host and area (Serra de Sintra) in the first and last quarter of the 20th century.

References: Câmara (1929), Dias & Lucas (1980).

***Aecidium punicum* Juel**, *Bulletin trimestriel de la Société mycologique de France*: 268 (1901)

Life stages and hosts: aecia on Apiaceae (*Thapsia villosa* L. var. *minor* Hoffgg. et Lk.).

Monthly distribution of occurrences: 0,0,0,0,0,1,0,0,0,0,0,0

Distribution: Brç

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3375186

Notes: There is a single record for this taxon from 1939. Other occurrences in Spain, Algeria and Tunisia are even older.

Reference: Câmara et al. (1940a).

***Aecidium ranunculi-acris* Pers.**, *Observationes mycologicae* 2: 22 (1800)

Synonyms: *Aecidium ranunculacearum* DC.

Life stages and hosts: aecia on Ranunculaceae (*Ranunculus* sp.).

Monthly distribution of occurrences: no date recorded

Distribution: CBr

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=2515515

Notes: There is a single record for this taxon, although it is common in other parts of Europe.

Reference: Gonçalves da Cunha (1936b).

***Aecidium rutae* Har.**, *Journal de Botanique (Morot)* 14: 116 (1900)

Life stages and hosts: aecia on Rutaceae (*Ruta chalepensis* L.).

Monthly distribution of occurrences: 1,0,0,0,0,0,0,0,0,0,0,0

Distribution: Lis

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3375205

Notes: There is a single record for this taxon from 1939. Records from elsewhere in the world are also very scarce.

Reference: Câmara et al. (1940a).

***Aecidium umbilici* Trotter**, *Bullettino della Società Botanica Italiana* 8: 143 (1901)

Life stages and hosts: aecia on Crassulaceae (*Umbilicus luteus* (Huds.) Webb & Berthel., *U. rupestris* (Salisb.) Dandy).

Monthly distribution of occurrences: no date recorded

Distribution: CBr

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3374645

Notes: This taxon occurs on species of *Umbilicus* and *Kalanchoe*. On *Umbilicus*, it has only been described from Portugal, three times, earlier then 1936, including the species holotype collected at São Fiel (Fundão). The microcyclic species *Puccinia umbilici* Guépin also occurs on this host, forming telia. A new species, *Aecidium kalanchoe*, has been described on *Kalanchoe* sp. Although *Umbilicus* spp. occur throughout Europe, Africa and the Middle East, the geographically limited and temporally ancient records of *A. umbilici* on *Umbilicus* spp. raises concern on the current status of this taxon.

References: Sydow & Sydow (1903a), Gonçalves da Cunha (1936b).

***Uredo pallens* Sacc.**, *Boletim da Sociedade Broteriana,* Coimbra, 11: 14 (1893)

Life stages and hosts: uredinia on Caricaceae (*Vasconcellea quercifolia* A. St.*–*Hil).

Monthly distribution of occurrences: 0,0,0,0,0,0,0,0,0,0,0,1

Distribution: Coi

Occurrences URL: https://www.gbif.org/occurrence/search?dataset\_key=651c0bec-bd78-4300-bbb0-5ed172fc82af&taxon\_key=3382385

Notes: This single record, from the 19th century at the Jardim Botânico de Coimbra, is the species holotype, and it has not been recorded ever since there or elsewhere in the world. The species is likely endemic.

Reference: Saccardo (1893).