

A CHECKLIST OF LATVIAN MYXOMYCETES

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Abstract

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The paper presents a list of myxomycete species recorded so far in Latvia. The list is based on literature records and includes 108 species.

Keywords: Latvia, myxomycetes, slime molds.

INTRODUCTION

Myxomycetes, or slime molds, are a group of unicellular heterotrophic eukaryotes usually inhabiting terrestrial ecosystems and feeding on bacteria and other microorganisms in decaying plant material. Their life cycle includes several developmental stages: trophic stages (myxamoebae, swarm cells, and plasmodia), resting or dormant stages (spores, microcysts and sclerotia), and developing fruiting bodies with internally formed spores (EVERHART & KELLER, 2008). Approximately 1000 morphological species are known throughout the world, but the level of knowledge about the diversity of myxomycete species differs among regions and countries. Only a few publications devoted to this group of organisms in Latvia are available, the earliest of these, ROTHERT (1890), with the quite impressive list of 40 species collected near Rīga. Later, BUCHOLTZ' (1908) paper followed, which was a compilation of myxomycete data presented by several authors from “Russland Ostseeprovinzen”, and with Latvian records represented mostly by Rothert. Further on, KUPFFER (1931) listed 22 species of myxomycetes in his geobotanical study of the Moricsala Nature Reserve, in the north-western part of Latvia. After a long gap in myxomycete investigations in Latvia, 40 species were recorded from Slītere National Park, Talsi distr. (RUSKULE &

VIMBA, 1987). A few papers exclusively dealing with Latvian myxomycetes appeared in the early 2000s (ADAMONYTĖ & VIMBA, 2003; etc.). The present paper aims to summarize the so-far available records of myxomycetes from the territory of Latvia.

MATERIALS AND METHODS

The species list, including also the genus *Ceratiomyxa* J. Schröt. with externally formed spores, is based on published sources listed in References. The herbarium material was not revised. In the list, the currently accepted species name is followed by the name under which it was published for the first time (if different) and by the first published reference. The nomenclature was updated following LADO (2005–2020). The names of authors were abbreviated according to BRUMMIT & POWELL (1992).

LIST OF MYXOMYCETE SPECIES

- Amaurochaete atra* (Alb. et Schwein.) Rostaf. – ROTHERT, 1890.
Arcyodes incarnata (Alb. et Schwein.) O.F.Cook as *Lachnobolus incarnatus* Alb. et Schw. – RUSKULE & VIMBA, 1987.
Arcyria affinis Rostaf. – ADAMONYTĖ & VIMBA, 2005.

- Arcyria cinerea* (Bull.) Pers. – ROTHERT, 1890.
Arcyria denudata (L.) Wettst. as *Arcyria punicea* Pers. – ROTHERT, 1890.
Arcyria glauca Lister – RUSKULE & VIMBA, 1987.
Arcyria incarnata (Pers. ex J.F. Gmel.) Pers. – ROTHERT, 1890.
Arcyria insignis Kalchbr. & Cooke – RUSKULE & VIMBA, 1987.
Arcyria minuta Buchet – ADAMONYTÉ, 2006.
Arcyria obvelata (Oeder) Onsberg as *Arcyria nutans* Greville – ROTHERT, 1890.
Arcyria oerstedii Rostaf. – VIMBA & ADAMONYTÉ, 2003.
Arcyria pomiformis (Leers) Rostaf. – ROTHERT, 1890.
Arcyria stipata (Schwein.) Lister – ADAMONYTÉ, 2006.
Badhamia macrocarpa (Ces.) Rostaf. – VIMBA & ADAMONYTÉ, 2003.
Badhamia panicea (Fr.) Rostaf. – ADAMONYTÉ, 2006.
Badhamia utricularis (Bull.) Berk. – ADAMONYTÉ & VIMBA, 2005.
Barbeyella minutissima Meyl. – ADAMONYTÉ, 2006.
Calomyxa metallica (Berk.) Nieuwl. – ADAMONYTÉ, 2006.
Ceratiomyxa fruticulosa (O.F. Müll.) T. Macbr. as *Ceratiomyxa mucida* Schröter and *Ceratiomyxa porioides* Schröter – ROTHERT, 1890; as *Ceratiomyxa pyxidata* (Alb. et Schw.) Schrt. – KUPFFER, 1931.
Clastoderma debaryanum A. Blytt – ADAMONYTÉ, 2006.
Collaria arcyrionema (Rostaf.) Nann.-Bremek. ex Lado as *Lamproderma arcyrionema* Rostaf. – ROTHERT, 1890.
Colloderma oculatum (C. Lippert) G. Lister – ADAMONYTÉ, 2006.
Comatricha elegans (Racib.) G. Lister as *Collaria elegans* (Racib.) Dhillon et Nann.-Bremek. ex Ing – VIMBA & ADAMONYTÉ, 2003.
Craterium leucocephalum (Pers. ex J.F. Gmel.) Ditmar – ROTHERT, 1890.
Cribraria argillacea (Pers. ex J.F. Gmel.) Pers. – ROTHERT, 1890.
Cribraria aurantiaca Schrad. – ROTHERT, 1890.
Cribraria cancellata (Batsch) Nann.-Bremek. as *Dictydium cancellatum* Macbr. – ROTHERT, 1890.
Cribraria ferruginea Meyl. – RUSKULE & VIMBA, 1987.
Cribraria macrocarpa Schrad. – ROTHERT, 1890.
Cribraria purpurea Schrad. – RUSKULE & VIMBA, 1987.
Cribraria rufa (Roth.) Rostaf. – ROTHERT, 1890.
Cribraria violacea Rex – ADAMONYTÉ, 2006.
Cribraria vulgaris Schrad. – ADAMONYTÉ & VIMBA, 2005.
Dianema corticatum Lister – ADAMONYTÉ, 2006.
Diderma cinereum Morgan – RUSKULE & VIMBA, 1987.
Diderma floriforme (Bull.) Pers. – ADAMONYTÉ & VIMBA, 2005.
Diderma radiatum (L.) Morgan as *Chondrioderma radiatum* Rostafinski – ROTHERT, 1890.
Diderma spumarioides (Fr. et Palmquist) Fr. as *Chondrioderma spumarioides* Rostafinski – ROTHERT, 1890.
Didymium bahiense Gottsb. – ADAMONYTÉ & VIMBA, 2003.
Didymium difforme (Pers.) Gray. – ADAMONYTÉ & VIMBA, 2003.
Didymium iridis (Ditmar) Fr. – VIMBA & ADAMONYTÉ, 2003.
Didymium melanospermum (Pers.) T. Macbr. as *Didymium farinaceum* Schrad. – ROTHERT, 1890.
Didymium minus (Lister) Morgan – VIMBA & ADAMONYTÉ, 2003.
Didymium nigripes (Link) Fr. – ROTHERT, 1890.
Didymium squamulosum (Alb. et Schwein.) Fr. et Palmquist – RUSKULE & VIMBA, 1987.
Echinostelium apitectum K.D. Whitney – ADAMONYTÉ, 2006.
Echinostelium brooksii K.D. Whitney – ADAMONYTÉ, 2006.
Echinostelium minutum de Bary – ADAMONYTÉ, 2006.
Enerthenema papillatum (Pers.) Rostaf. – ROTHERT, 1890.
Fuligo leviderma H. Neubert, Nowotny et K. Baumann – ADAMONYTÉ, 2006.
Fuligo muscorum Alb. et Schwein. – RUSKULE & VIMBA, 1987.
Fuligo septica (L.) F.H. Wigg. as *Fuligo septica* Gmelin. – ROTHERT, 1890, as *Fuligo candida* Pers. – VIMBA & ADAMONYTÉ, 2003.

- Hemitrichia calyculata* (Speg.) M.L. Farr – ADAMONYTĒ, 2006.
- Hemitrichia clavata* (Pers.) Rostaf. – ROTHERT, 1890.
- Hemitrichia leiotricha* (Lister) G. Lister – RUSKULE & VIMBA, 1987.
- Hemitrichia serpula* (Scop.) Rostaf. ex Lister – RUSKULE & VIMBA, 1987.
- Lamproderma arcyrroides* (Sommerf.) Rostaf. – VIMBA & ADAMONYTĒ, 2003.
- Lamproderma columbinum* (Pers.) Rostaf. – ADAMONYTĒ, 2006.
- Leocarpus fragilis* (Dicks.) Rostaf. as *Leocarpus fragilis* Rostafinski – ROTHERT, 1890.
- Licea kleistobolus* G.W. Martin – ADAMONYTĒ, 2006.
- Licea minima* Fr. – ADAMONYTĒ, 2006.
- Licea operculata* (Wingate) G.W. Martin – ADAMONYTĒ, 2006.
- Licea parasitica* (Zukal) G.W. Martin – ADAMONYTĒ, 2006.
- Licea pusilla* Schrad. – ADAMONYTĒ, 2006.
- Licea pygmaea* (Meyl.) Ing – ADAMONYTĒ, 2006.
- Licea variabilis* Schrad. as *Licea flexuosa* Pers. – ROTHERT, 1890.
- Lindbladia tubulina* Fr. as *Lindbladia effusa* (Ehrenb.) Rostaf. – ROTHERT, 1890.
- Lycogala epidendrum* (L.) Fr. – ROTHERT, 1890.
- Lycogala exiguum* Morgan – RUSKULE & VIMBA, 1987.
- Macbrideola cornea* (G. Lister et Cran) Alexop. – ADAMONYTĒ, 2006.
- Metatrichia floriformis* (Schwein.) Nann.-Bremek. – VIMBA & ADAMONYTĒ, 2003.
- Metatrichia vesparia* (Batsch) Nann.-Bremek. ex G.W. Martin et Alexop. as *Hemitrichia vesparium* Macbr. – JACZEWSKI, 1907.
- Mucilago crustacea* P. Micheli ex F.H. Wigg. as *Spumaria alba* DC – ROTHERT, 1890.
- Paradiacheopsis fimbriata* (G. Lister et Cran) Hertel ex Nann.-Bremek. – ADAMONYTĒ, 2006.
- Paradiacheopsis solitaria* (Nann.-Bremek.) Nann.-Bremek. – ADAMONYTĒ, 2006.
- Perichaena chrysosperma* (Curr.) Lister – ADAMONYTĒ, 2006.
- Perichaena corticalis* (Batsch) Rostaf. – ADAMONYTĒ & VIMBA, 2005.
- Perichaena pedata* (Lister et G. Lister) G. Lister ex E. Jahn – ADAMONYTĒ, 2006.
- Physarum album* (Bull.) Cheval. as *Physarum nutans* Pers. – ROTHERT, 1890.
- Physarum altaicum* Lavrov – RUSKULE & VIMBA, 1987.
- Physarum cinereum* (Batsch) Pers. – KUPFER, 1931.
- Physarum citrinum* Schumach. – ADAMONYTĒ & VIMBA, 2003.
- Physarum compressum* Alb. et Schwein. – RUSKULE & VIMBA, 1987.
- Physarum contextum* (Pers.) Pers. – ROTHERT, 1890.
- Physarum flavicomum* Berk. – ADAMONYTĒ & VIMBA, 2003.
- Physarum globuliferum* (Bull.) Pers. – ROTHERT, 1890.
- Physarum leucopus* Link – RUSKULE & VIMBA, 1987.
- Physarum psittacinum* Ditmar – KUPFER, 1931.
- Physarum robustum* (Lister) Nann.-Bremek. – VIMBA & ADAMONYTĒ, 2003.
- Physarum virescens* Ditmar – ROTHERT, 1890.
- Physarum viride* (Bull.) Pers. as *Physarum viride* Pers. – ROTHERT, 1890.
- Reticularia lycoperdon* Bull. – ROTHERT, 1890.
- Reticularia jurana* Meyl. as *Enteridium splendens* var. *juranum* (Meyl.) Härk. – ADAMONYTĒ & VIMBA, 2003.
- Stemonitis axifera* (Bull.) T. Macbr. as *Stemonitis ferruginea* Ehrenb. – ROTHERT, 1890, as *Stemonitis smithii* T. Macbr. – RUSKULE & VIMBA, 1987.
- Stemonitis fusca* Roth. – ROTHERT, 1890.
- Stemonitopsis hyperopta* (Meyl.) Nann.-Bremek. – ADAMONYTĒ & VIMBA, 2003.
- Stemonitopsis typhina* (F. H. Wigg.) Nann.-Bremek. as *Comatricha typhina* Rostaf. – ROTHERT, 1890.
- Symphytocarpus amaurochaetoides* Nann.-Bremek. – ADAMONYTĒ & VIMBA, 2003.
- Symphytocarpus flaccidus* (Lister) Ing et Nann.-Bremek. – ADAMONYTĒ & VIMBA, 2003.
- Thecotubifera dictyoderma* (Nann.-Bremek. & Loer.) Leontyev, Schnittler, S.L. Stephenson & Novozh. as *Tubifera dictyoderma* Nann.-Bremek. et Loer. – ADAMONYTĒ, 2006.
- Trichia botrytis* (J.F. Gmel.) Pers. – KUPFER, 1931.
- Trichia contorta* (Ditmar) Rostaf. – RUSKULE & VIMBA, 1987.
- Trichia decipiens* (Pers.) T. Macbr. – ROTHERT, 1890.

Trichia favoginea (Batsch) Pers. as *Trichia jackii* Rostaf. – KUPFFER, 1931.

Trichia persimilis P. Karst. – ROTHERT, 1890.

Trichia scabra Rostaf. – ROTHERT, 1890.

Trichia varia (Pers. ex J.F. Gmel.) Pers. – ROTHERT, 1890.

Tubifera ferruginosa (Batsch) J.F. Gmel. as *Tubulina cylindrica* (Bull.) DC – ROTHERT, 1890.

A total of 108 species were included in the list. Compared to the countries similar in size and climate to Latvia, e. g. Denmark, where the list consists of at least 221 species (GÖTZSCHE, 2005–2020) or Estonia, where 150 species of myxomycetes have recently been listed (YATSIUK et al., 2020), it is evident that greater scope of research will result in a considerable number of myxomycete species new to Latvia.

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LATVIJOS GLEIVŪŅU SĀRAŠAS

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Santrauka

Straipsnyje pateikiamas visų Latvijoje iki šiol užregistruotų gleivūnų rūšių sąrašas, sudarytas re-

miantis literatūros šaltiniais. Sąrašą sudaro 108 gleivūnų rūšys.