

A list of fungi in Tartu City (Estonia): Agaricales, Boletales, and Russulales

Kuulo Kalamees¹, Kadri Pärtel^{1,2}, Triin Varvas¹

¹Estonian University of Life Sciences, Institute of Agriculture and Environmental Sciences, Mycological Collections,
Kreutzwaldi St. 5, 51006, Tartu, Estonia

²Institute of Ecology and Earth Sciences, University of Tartu, J. Liivi St. 2, 50409, Tartu, Estonia
E-mail: kadri.partel@ut.ee

Abstract: Altogether, here are listed 172 fungal species from Tartu based on the field notebooks of the first author and dried fruit bodies in the fungarium of the Estonian University of Life Sciences (acronym TAAM). The list mostly includes common Estonian species, among which two are nature-protected species (*Caloboletus radicans* and *Leucocoprinus nymphaeum*) and three are deadly poisonous species (*Amanita phalloides*, *Inosperma erubescens*, and *Lepiota brunneoincarnata*).

Keywords: fungi, taxon occurrences, species list, urban biodiversity

INTRODUCTION

In every city, there are “green areas” such as city parks, gardens, alleys, cemeteries, lawn areas, and grasslands, all of which can serve as habitats for mushrooms (Newbound et al. 2010). Still, fungi are often overlooked in studies of urban biodiversity. The state of biodiversity in Tartu is currently being mapped as part of the international project urbanLIFEcircles (2025); however, fungi are not included as a target group in the monitoring.

This study presents a dataset of fungi in Tartu, primarily based on the first author’s (and his colleagues’) lifelong investigations of agarics and boletes fruitbodies. The first author of the current paper has registered fungal occurrence records from Tartu since 1955: the first description in the field notebook is from Raadi cemetery on May 11th, 1955. During these 70 years, 58 notebooks have documented fungal species growing in the town. In that period, Tartu has expanded, with some new city districts being built, which has had an impact on the fungal habitats.

The earliest record of fungal occurrence in the city of Tartu is dated in April 1848, when Gustav Karl Girgensohn, a bryologist and mushroom enthusiast, collected a specimen at the Raadi manor (then Ratshof). The first author recently identified the specimen as *Tapinella atrotomentosa* (Batsch) Šutara. Kalamees also confirmed

similar identifications from Girgensohn’s other dried specimens dating back to the 1850s (Pärtel et al., 2021). At the beginning of the 20th century, plant parasitic fungi, including those from the Tartu area, were collected by Feodor Bucholtz and Gustav Avajev, and from the 1920s by Elmar Emil Leppik (Leppik 1926, see his biography in Parmasto 1998) and his colleagues. Their collections are digitized, and their information is available in PlutoF biodiversity platform (Abarenkov 2010). Many plant parasitic samples from the Tartu area are included in the exsiccatae “Taimahaiguste kogu Eestis” (50 specimens) compiled by Ants Käsebieer in 1924 and “Fungi Estonici exsiccati” (6 fascicles, 300 specimens) by Leppik 1931–1942.

The first publication about the non-parasitic macrofungi in the vicinity of Tartu was issued by Nikolai Witkowski (1868–1948) (Witkowski, 1934). He was the assistant of the fungal collection (now with the acronym EAA, also known as Leppik’s collection based on its founder) established by the Phytopathological Experimental Station of the University of Tartu. This paper was based on his investigations spanning from 1926 to 1933. After that, Witkowski compiled short reviews from the mushrooms sold at local markets in Tartu (five articles in a local journal *Eesti Loodus*); however, the mushrooms on sale there were not exclusively collected from Tartu,

but from the vicinity, even transported by trains from Petseri County. Witkowski painted many of his findings, many of which are preserved in the Natural History Museum of the University of Tartu.

The aim of publishing the present list is to compile the existing data to support future investigations.

MATERIALS AND METHODS

The following list of the fungal species in Tartu has been compiled based on 58 field notebooks of Kuulo Kalamees (KK) from 1955 to 2025. The data from the biodiversity inventory project of the Estonian University of Life Science (EULS) campus, held in 2023, are added to the list of fungi. According to the first author's main interest, the focus is on fungal records from basidiomycete orders Agaricales, Boletales, and Russulales. The observers and collectors of the fungi have been, in addition to himself and his family members, all mycologists, colleagues of the former Institute of Zoology and Botany (later the EULS), as well as a few external researchers of fungi. Mall Vaasma (1945–2009) was responsible for sorting and arranging the main part of the collected vouchers. Of the species collected by others in Tartu, we have only included those that we have seen ourselves and confirmed their identification. Abbreviations of persons: AK – Anu Kollom, AR – Ain Raitviir, AM – Anne-Liia Maidu, BK – Bellis Kullman, EP – Erast Parmasto, IP – Ilmi Parmasto, IS – Irja Saar, KP – Kadri Pärtel, LT – Leho Teder-soo, MK – Milvi Kalamees, MV – Mall Vaasma, NW – Nikolai Witkowski, TV – Triin Varvas, and UK – Urve Kalamees. If the observer or collector is the same as the person who determined the species, *obs* or *det* are used accordingly.

The fungal occurrences from Tartu documented by Nikolai Witkowski were included in this study to introduce them to the public. Taxa in his paper (Witkowski 1934) are cited with publication page number and/or fungarium voucher number from the period 1934–1947; the information is based on preserved vouchers.

The observations (in total 300) and specimens (253) were databased with georeferences using the PlutoF biodiversity platform, with each species record referring to the original KK

field notebook numbers and pages (Pärtel et al., 2025). The data are publicly available in the eElurikkus data portal (<https://elurikkus.ee>). „Lohkva liivik“ (= Lohkva sandy plain) is a locality in the present Ihaste area between Kiigemäe and Kasesalu Streets, which was a study area for Viktor Masing (Professor in the University of Tartu) in the 1950s and 1960s.

Taxa were identified based on macroscopy and light microscopy. Thirty-three specimens have been barcoded (rDNA ITS), marked in the following text with the UNITE (Abarenkov et al. 2023) code (UDB), and the generated DNA sequences are publicly available in the PlutoF workbench. DNA was extracted with High Pure PCR template preparation kit (Roche Diagnostics GmbH, Mannheim, Germany). The PCR amplification was performed with the primers ITSOF and ITS4 (Voitk et al. 2020). The taxonomy of the fungi corresponds to the online Index Fungorum (2025).

The findings are listed by city districts (see the map, Fig. 1). The records from the previous Tähtvere Commune, which was included in Tartu municipality in 2017, were excluded. The referred vouchers are kept in TAAM and EAA fungariums, in EULS.

RESULTS AND DISCUSSION

AGARICALES (82 genera, 135 species)

AGARICUS ARVENSIS Schaeff.

- Annelinn, Anne 51, on lawn under *Betula*, 25. VIII 2013, leg KK, TAAM204183.

AGARICUS AUGUSTUS Fr.

- Ihaste, Uus-Ihaste, E. Kitse 8, 11. IX 2013, leg Külli Kalamees-Pani & KK, TAAM204196 (UDB07677571).

AGARICUS BITORQUIS (Quél.) Sacc.

In Tartu, throughout green areas, avenues, parks, 13. VIII 2007, obs KK; idem, 3. VI 2013; in Tartu in June 2014.

- Annelinn, corner of Pikk and Raatuse Streets, on the lawn, 14. VIII 2006, leg EP, TAAM177529; Uus 1, in front of the building, 30. V 2012, obs Ilmi Parmasto; Uus 1, 3. VI 2014, obs KK; in front of Anne 44, under *Tilia*, 2. VII 2014, obs KK; next to Anne 44, under *Tilia*, 7. IX 2014, obs KK; idem, 4. X 2014; Sõpruse Ave. 8, 4. IX 2016, obs KK; idem, behind the house, in the

park, during August and September, 2023, 4. X 2023, obs KK; Kalda tee 2, 25. IX 2020, obs KK; Sõpruse Ave. 8, in the park on the lawn under *Betula*, 5. IX 2023, obs KK; Sõpruse Ave. 8, 22. VI 2024, obs KK; Sõpruse Ave. 8, behind the house, in the park, 12. VIII 2024, leg KK, TAAM204496, TAAM204497; idem, 17.VIII 2024, obs KK; Anne 51, behind the house, 27. VI 2015, obs KK; idem, 20. VII 2015; idem, 29.VI 2020, leg KK, TAAM204445; between Anne 51 and Anne 44, under *Tilia*, 22. V 2016,

obs KK; Anne 51 and Sõpruse Ave. 8, 18. VII 2016, obs KK, under *Betula*; Anne 51, 14.VIII 2020, leg KK, TAAM204451; idem 28. VI 2022, obs KK; Anne 9, 12. VI 2022, obs KK.

- Kesklinn, Toomemägi, in front of Lossi 25, on the slope, under *Tilia*, *Quercus robur* and *Acer platanoides*, 12. VII 2004, leg KK, TAAM176770; in front of Lossi 17, on the roadside under *Tilia*, 3. VII 2008, leg KK, TAAM177899; In front of Lossi 25, in a mowed area, 5. VII 2011, leg KK, TAAM204027; in front of W. Struwe 1, under

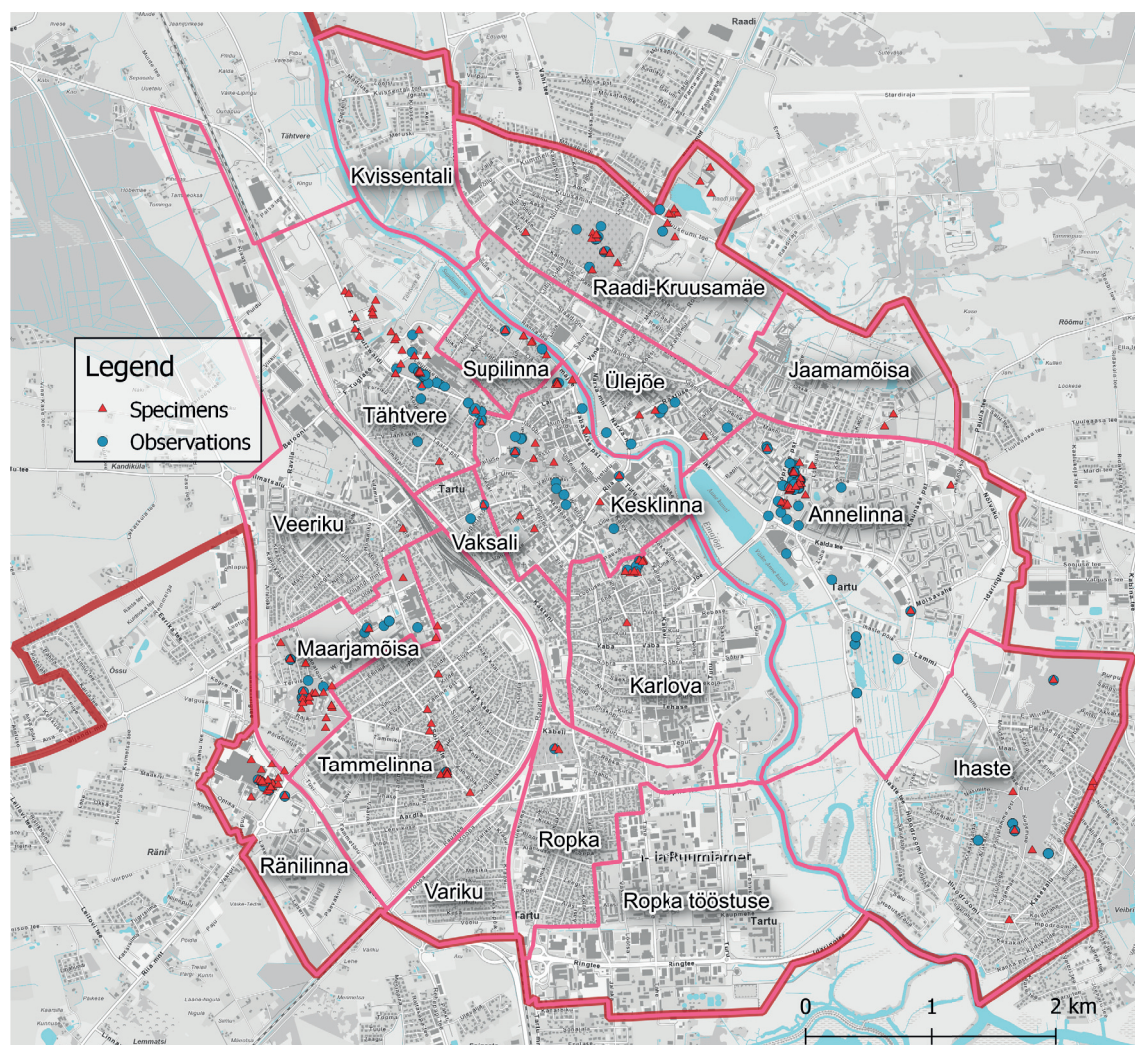


Fig. 1. Map of localities of Agaricales, Boletales, and Russulales mentioned in the current list in Tartu City (Estonia): triangular red marks – specimens; round blue marks – observations.

Base map: Land and Spatial Development Board 2025, city district borders from Tartu geoHUB.

Tilia, 4. VI 2012, obs KK; idem, 11. VI 2014; Oru 3, in park, 5. VII 2011, obs KK.

- Maarjamõisa, Sanatooriumi park, 10. VIII 2015, leg KK, TAAM204334; between hospitals of N. Lunini and Puusepa Street, in parks, 31. VIII 2021, leg KK, TAAM204464.

- Raadi-Kruusamäe, Raadi park, 17. VI 2010, leg KK, TAAM197363.

- Tähtvere, Tähtvere park, 18. VI 2010, Laulupeo Street, under *Tilia* alley and next to the parking lot under *Tilia* alley, leg KK, TAAM197369; Tähtvere park, next to the parking lot, under *Tilia* alley, 5. VII 2011, leg KK, TAAM204030; Veski 3, by Catholic Church, 5. VII 2011, leg KK, TAAM204031; F. R. Kreutzwaldi 5, EULS campus, on the lawn, 11. IX 2023, obs AM & KP.

- Ülejõe, from Tartu Arch Bridge to Narva Street, under *Tilia* alley, 20. VII 2007, obs KK.

AGARICUS CAMPESTRIS L.

- Karlova, Kalevi 74, 20. VIII 1931 (Witkowski 1934: 152).

- Maarjamõisa, Sanatooriumi park, in grassland and on the roadside, 24. IX 1965, obs KK.

- Ropka, Ropka park, 15. VII 1930 (Witkowski 1934: 152).

- Tammelin, near Soinaste Street, in pasture, 3. X 1946, leg NW, TAAM114422.

- Tähtvere, F. R. Kreutzwaldi 5, N of Metsamaja, EULS campus, in park, 25. VIII 2023, obs TV & KP; in the corner of F. R. Kreutzwaldi and F. Tuglase Street, EULS campus, in park, 11. IX 2023, obs KP & AM; front of the main building of EULS, in the park, 25. IX 2023 obs TV/det KK.

AGARICUS SYLVICOLA (Vittad.) Peck

- Ihaste, „Lohkva liivik“, under *Picea abies*, 25. X 1965, obs KK.

AGARICUS XANTHODERMUS Genev.

- Annelinn, Anne 51, behind the house, 23. VIII 2015, leg KK, TAAM204338.

- Karlova, Karlova park, by Salme 1a, 12. VII 2004, leg KK, TAAM176773, TAAM176779; next to park in the garden under *Acer platanoides* and *Populus alba*, 2. VII 2008, leg KK, TAAM177898; idem, 12. VII 2011, obs KK.

- Kesklinn, Toomemägi, between Devil's Bridge and Lossi 36, 13. VI 2000, leg Andres Teder, det KK, TAAM175371; idem, in front of Lossi 25, under *Tilia*, *Quercus robur* and *Acer platanoides*, 12. VII 2004, leg KK, TAAM176772; Lille 10, by Tartu Nature House (some fruitbodies close to Kalevi 17), in park, 18. IX 2015, leg KK, TAAM204351; idem, IX 2016, obs KK.

- Tähtvere, F. R. Kreutzwaldi 1, EULS campus, in park, 11. IX 2023, obs TV/det KK; F. Tuglase 7, EULS campus, in park, 12. IX 2023 obs TV.

AGROCYBE DURA (Bolton) Singer

- Annelinn, between Anne 51 and Anne 44, 17. VIII 2010, leg KK, TAAM197383; Anne 44a, on the lawn, 18. VIII 2011, obs KK.

- Ränilinn, Riia 181, next to building, under *Pseudotsuga* on the lawn, 5. VII 2000, leg KK, TAAM175411 (UDB07677573); idem, 27. VII 2011, leg KK, TAAM204032 (UDB07677572).

- Tähtvere, by F. R. Kreutzwaldi 5, EULS Campus, on the lawns close to the parking lot, 25. VIII 2023, leg KP & TV, TAAM212941.

AGROCYBE PRAECOX (Pers.) Fayod

- Annelinn, next to Anne 44, on the lawn, 14. VII 2007, leg KK, TAAM197750.

- Maarjamõisa, Sanatooriumi park, under *Tilia* alley, on a trail covered with wood mulch, 5. VII 2011, leg KK, TAAM204024.

- Ränilinn, Riia 181, behind building, in grassland, 6. VI 2012, leg I. Zettur, det KK, TAAM204113.

AMANITA MUSCARIA (L.) Lam.

- Ihaste, in *Pinus sylvestris* forest, 2. XI 1974, obs MK & KK.

- Ränilinn, Riia 181, in front of building, under *Betula*, 2. X 2011, obs KK.

- Tähtvere, F. R. Kreutzwaldi 62, EULS campus, grassy area with *Betula*, 25. IX 2023, obs TV & AM.

AMANITA PHALLOIDES (Vaill. ex Fr.) Link.

- Tammelin, Soinaste tn 39, in the garden, 14. IX 2014, obs KK.

AMANITA RUBESCENS Pers.

- Tähtvere, Tähtvere park, under *Tilia* 18. VI 2010, obs KK.

ARMILLARIA CEPISTIPES Velen.

- Kesklinn, Toomemägi, parkway from Lossi 15b to Jakobi 4, under *Acer platanoides*, 11. X 2010, leg KK, TAAM197498.

ARMILLARIA OSTOYAE (Romagn.) Herink

- Tammelin, Soinaste tn 39, in the garden, on *Ribes nigrum* and *Quercus robur*, 14. IX 2014, obs KK.

ASPROXILLUS GIGANTEUS (Sowerby) Kühner & Maire

- Maarjamõisa, Palsami 9, in the orchard, on the lawn, 14. IX 2010, leg KK, TAAM197403.

- Tähtvere, F. R. Kreutzwaldi 5, EULS campus, under *Quercus robur* in park, 11. IX 2023, obs AM.

BAEOSPORA MYOSURA (Fr.) Singer

- Ränilinn, Riia 181, *Pseudotsuga*, on cones, 4. X 2007, leg KK, TAAM177785.

BOLBITIUS LACTEUS J. E. Lange

- Annelinn, Sõpruse Ave. 10, under *Aesculus hippocastanum*, 29. VI 2020, obs KK, TAAM204447.

BOLBITIUS TITUBANS (Bull.) Fr.

- Maarjamõisa, Sanatooriumi park, *Tilia* alley, on a trail on wood mulch, on debris and soil, 5. VII 2011, leg KK, TAAM204023.

- Tähtvere, F. R. Kreutzwaldi 1, EULS campus, on the lawn, 25. IX 2023 obs KP; idem F. R. Kreutzwaldi 3.

BONOMYCES SINOPICUS (Fr.) Vizzini

- Annelinn, on the corner of Raatuse and Põik Street, 17. VII 2000, leg EP, det KK, TAAM175416.

BOVISTA NIGRESCENS Pers.

- Tähtvere, F. R. Kreutzwaldi 5, EULS campus, on the lawn, 25. VIII 2023, obs TV.

CALOCYBE GAMBOSA (Fr.) Donk

- Annelinn, Anne 30, behind the building, on the lawn, 23. V 2012, obs Aivar Aotäht, det KK; idem, 30. VI 2013, leg KK, TAAM204172; idem 17. V 2025; Anne 51, behind house, 30. V 2014 and 3. VI 2014, obs KK; idem, 26. V 2015, leg KK, TAAM204318, 204319; idem, 23. VI 2016, obs KK; idem, 30. VI 2016, obs KK; 27. V 2020, leg KK, TAAM204443; idem, 29. VI 2020; Sõpruse Ave. 8, behind the building, 27. VI 2015, obs KK; Sõpruse Ave. 8, in park, under *Betula*, 31. V 2021, leg KK, TAAM204459; Sõpruse Ave. 8, under *Betula*, 27. V 2022, leg KK, TAAM204469; idem 9.-12. VI 2022, obs KK.

CALVATIA GIGANTEA (Batsch) Lloyd

- Tähtvere, next to Tartu Song Festival Grounds, 5. IX 1966, obs KK.

- Tammelinn, Soinaste 39, in the garden, 14. IX 2014, obs KK; idem, 4. IX 2016.

- Ülejõe, in front of Fortuuna 1, in the crossroad with Narva Street, in the traffic island, on the lawn, 10. VIII 2023, obs Aivar Aotäht, det KK.

CANDOLLEOMYCES CANDOLLEANUS (Fr.) D. Wächt. & A. Melzer

- Maarjamõisa, Palsami 9, on wood, 29. VIII 2006, leg KK, TAAM177533; idem, 6. VI 2007. CHLOROPHYLLUM BRUNNEUM (Farl. & Burt) Vellinga - from a garden in Tartu (specimen from mushroom exhibition), 3. IX 2014, TAAM204263.

CLITOCYBE DEALBATA (Sowerby) P. Kumm.

- Ränilinn, Riia 181, under *Pseudotsuga*, 4. X 2007, leg KK, TAAM177783.

CLITOCYBE FRAGRANS (With.) P. Kumm.

- Ihaste, pine underwood, 25. X 1965, obs KK.
- Ränilinn, Riia 181, front of the building, under *Pseudotsuga*, 12. X 2006, leg KK, TAAM177700 (UDB07677566); idem, 13. XI 2006, obs KK; idem, 30. I 2008, leg KK, TAAM177833 (UDB07677567); idem, in needle debris, 1. XI 2009, obs KK.

CLITOCYBE NEBULARIS (Batsch.) P. Kumm

- Ihaste, „Lohkva liivik“, under *Picea abies*, 25. X 1965, obs KK.

CLITOPILUS GEMINUS (Paulet) Noordel. & Co-David

- Tähtvere, F. R. Kreutzwaldi 5, EULS campus, in park, leg AM & KP, det KK, 11. IX 2023, TAAM210820.

CLITOPILUS PRUNULUS (Scop.) P. Kumm.

- Maarjamõisa, Sanatooriumi park, 17. VII 1996, leg KK, TAAM146920; idem, 11. VII 2000, obs KK; next to *Tilia* alley 5. VII 2011, obs KK; idem, under *Larix*, 12. VIII 2015, obs KK.
- Tähtvere, F. R. Kreutzwaldi 1a, EULS campus, 11. IX 2023, obs AM; idem, 25. IX 2023, obs TV; F. R. Kreutzwaldi 5, EULS campus, 25. IX 2023, obs AM; F. R. Kreutzwaldi 56, EULS campus, 25. IX 2023, obs AM; F. Tuglase 7, EULS campus, on the lawn, 5. IX 2023, obs Thea Kull, det KP.
- Raadi, in Raadi manor park, 29 VII 1936, leg NW, TAAM142544.

COLLYBIA PHYLLOPHILA (PERS.) Z.M. He & Zhu L. Yang

- Ihaste, „Lohkva liivik“, pine underwood, 25. X 1965, obs KK; Ihaste, young birch mixed forest, 11. XI 1973, obs KK.

COLLYBIOPSIS PERONATA (Bolton) R.H. Petersen

Tähtvere, F. R. Kreutzwaldi 5, EULS campus, on the lawn under trees, 11. IX 2023, obs AM & KP.

COPRINELLUS DISSEMINATUS (Pers.) J.E. Lange

- Annelinn, Uus 37A, on the root base of *Syringa vulgaris*, 11. VII 2015, leg Lo Järvekülg, det KK, TAAM204327; Anne 51, behind house

under *Quercus robur*, 28. V 2021, leg KK, TAAM204458.

- Karlova, Karlova park, 11. VI 2014, obs KK.
- Kesklinn, Oru 3, in park, 11. VI 2014, obs KK.
- Tähtvere, F. R. Kreutzwaldi 3, EULS campus, close to Tähtvere Stream, *Salix*, on rotten stump, 25. VIII 2023, obs TV & KP; F. Tuglase 7, EULS campus, 12. IX 2023, obs TV.

COPRINELLUS MICACEUS (Bull.) Vilgalys, Hopple & Jacq. Johnson

- Maarjamõisa, Ravila 19, in wood on soil, 13. IX 2013, obs KK.
- Raadi-Kruusamäe, Raadi cemetery P42, at the Kalamees' family gravesite, on *Acer platanoides* roots, 6. VI 2007, obs KK; Pauluse cemetery, on a stump of a deciduous tree, 18. VIII 2011, obs KK.
- Tähtvere, Tähtvere park, 19. X 1958, obs KK.

COPRINOPSIS ATRAMENTARIA (Bull.) Redhead, Vilgalys & Moncalvo

- Kesklinn, Toomemägi, 27. X 1958, obs KK.
- Ränilinn, Riia 181, in front of building, under pines, 25. X 1989, leg KK, TAAM144429.
- Ropka, Ropka park, 18. IX 1930 (Witkowski 1934: 171).
- Tähtvere, close to Emajõgi, at a former garbage dump, 9. X 1958, det KK, TAAM071164; Kreutzwaldi 16, 13. VI 1991, obs KK; F. Tuglase 7, EULS campus, on buried wood, 25. IX 2023, obs TV.

COPRINUS COMATUS (O.F. Müll.) Pers.

- Annelinn, 26. X 1974 very abundant, also frequent in the whole city of Tartu on the lawns in late autumn, obs MK & KK; between Anne 51 and Anne 44, on the lawn, 10. X 2011, obs KK; in front of Anne 44, on the lawn, 17. IX 2012, obs KK; Anne 44, on the lawn, 13. IX 2013, obs KK; Anne 44, next to *Tilia*, 17. IX 2014, obs KK; between Anne 44 building and street, on the lawn, 2. VII 2014, obs KK; by Anne 44, on the lawn, 29. IX 2014, obs KK; Anne Street, on the lawn, 4. VII 2014, obs KK; behind Anne 51, on the lawn under *Quercus robur*, 3. X 2015, obs KK; near Anne 44, 31. VIII 2016, obs KK; 4. IX 2016, Anne 44 obs KK; between Sõpruse Ave. 10 and Kalda tee 2, 25. IX 2020, obs KK; Anne 51, in the park behind the house, IX 2023, between Anne 51 and Sõpruse Ave. 12, in the wasteland between the grass, 4. X 2023, obs KK; between Ihaste tee 3 and 7, 8. X 2023, obs

A. Aotäht; in the roundabout at the end of the Sõpruse Bridge, 2. XI 2024, obs A. Aotäht.

- Raadi, in Maarja cemetery, 8. VII 1931 (Witkowski 1934: 170).
- Tammelinn, Soinaste Street, 1. X 1946, leg NW, TAAM142368.
- Tähtvere, close to Emajõgi, at a former garbage dump, 9. X and 26. X 1958, leg KK, TAAM071163; F. R. Kreutzwaldi 3, by the bus stop, 20. IX 2023 obs TV; idem 4. X 2023; F. R. Kreutzwaldi 5, on the lawn, 25. IX 2023, obs TV, AM, KP; F. R. Kreutzwaldi 54, on the lawn, 25. IX 2023, obs TV.

CORTINARIUS INFRACTUS (Pers.) Fr.

- Tähtvere, F. R. Kreutzwaldi 5, EULS campus, under *Tilia*, 11. IX 2023–25. IX 2023, obs KP & AM, det AK.

CREPIDOTUS CALOLEPIS (Fr.) P. Karst.

- Kesklinn, Botanical Garden, 17. XI 2000, leg LT, TAAM175703.
- Maarjamõisa, Sanatooriumi park, *Tilia*, on living trunk and fallen branches, 17. VII 1996, leg KK, TAAM146921; idem, on a deciduous fallen branch, 5. VII 2011, leg KK, TAAM204026.

CRUCIBULUM LAEVE (Huds.) Kambly

- Tähtvere, between Veski and K. A. Hermann Street, on wooden fence, 28. X 1958, obs KK.

CUPHOPHYLLUS VIRGINEUS (Wulfen) Kovalenko coll.

- Tähtvere, F. R. Kreutzwaldi 5, EULS campus, on the lawn, 11. IX 2023, obs KP & AM, det KK.
- CYCLOCYBE EREBIA (Fr.) Vizzini & Matheny
- Raadi-Kruusamäe, Raadi cemetery, at the Kalamees' family gravesite, 19. VII 2000, leg KK, TAAM175417; idem, 29. IX 2008, TAAM197146; idem, 14. IX 2010, TAAM197400; idem, 31. VII 2013; idem, 2. X 2015, leg KK, TAAM204352.

CYSTODERMA AMANTHINUM (Scop.) Fayod coll.

- Ihaste, „Lohkva liivik“, pine underwood, 25. X 1965, obs KK; Ihaste, pine forest, 2. XI 1974, obs MK & det KK; Ihaste, pine forest with spruce aftergrowth, 11. XI 1973, obs KK; Ihaste, pine forest, 30. XI 1976, obs KK; Ihaste, mixed forest of pine and spruce, 30. X 1982, obs KK.
- Maarjamõisa, Sanatooriumi park, *Larix*, 24. IX 1965, obs KK.

CYSTODERMA CARCHARIAS (Pers.) Fayod

- Ihaste, „Lohkva liivik“, pine underwood, 25. X 1965, obs KK; Ihaste, pine forest with spruce aftergrowth, 11. XI 1973, obs KK; pine forest,

2. XI 1974, obs MK & KK det KK; idem, 30. XI 1976; idem, 30. X 1980.

- Maarjamõisa, Sanatooriumi park, under *Larix*, 24. IX 1965, obs KK.

ECHINODERMA ASPERUM (Pers.) Bon

- Tammelinn, Soinaste 39, in the greenhouse, 27. VIII 2006, leg Ülle Kukkk, det KK, TAAM177532; idem, in the greenhouse and on composted soil, 4. IX 2016, leg KK, TAAM204394; Soinaste 39, in the garden, 14. IX 2014, obs KK; idem, albinotic fruitbodies under *Picea glauca* and *Prunus cerasifera*, TAAM204270; Soinaste 39, in the garden, 8. IX 2016, leg Ü. Kukkk, TAAM204398; - Tähtvere, F. R. Kreutzwaldi 5, EULS campus, 25. IX 2023, obs KP, TV & AM; F. R. Kreutzwaldi 1a, EULS campus, in park, 25. IX 2023, obs TV.

ENTOLOMA APRILE (Britzelm.) Sacc

- Maarjamõisa, Palsami 9, on the lawn under *Corylus avellana*, 28. V 1991, leg KK, TAAM144986.

ENTOLOMA CLYPEATUM (L.) P. Kumm.

- Maarjamõisa, Palsami 9, under apple trees and redcurrant with nettles, 11. VI 1991, leg KK, TAAM144996; Palsami 9, under drupes, 24. V 2000, leg KK, TAAM175400, TAAM175401; idem, 6. VI 2000, leg KK, TAAM175405, 175406; 9. VI 2000, leg KK, TAAM175407; idem, 10. VI 2006, leg KK, TAAM177521; idem, throughout the garden, 23. V 2007, obs KK; - Tähtvere, Kreutzwaldi 16, in the garden in the lawn under apple trees, idem, 13. VI 1991, leg KK, TAAM144997.

ENTOLOMA SINUATUM (Bull.) P. Kumm.

- Tähtvere, F. R. Kreutzwaldi 5, EULS campus, on the lawn, 11. IX 2023, leg AM & KP, det KK, TAAM210819.

FLAMMULA ALNICOLA (Fr.) P. Kumm.

- Tähtvere, Tähtvere park, on a stump, 19. X 1958, obs KK; idem, on a stump, 25 X 1965, obs KK.

FLAMMULINA VELUTIPES (Curtis) Singer (coll.)

- Annelinn, Annemõisa, on still attached branches of *Salix*, some on living trunks, 16. XI 1976, leg Lauri Kalamees & KK, TAAM081327; at the end of Kalda tee, in willow coppices, 30. XI 1976, obs KK.

- Ihaste, Ihaste, young mixed birch forest, in *Alnus* branches, 11. XI 1973, obs KK; *Alnus* forest, on lying branches, 11. XI 1973, obs

KK; idem, *Alnus incana* & *Salix* coppice, on *A. incana* branches, 30. XI 1976, obs KK; everywhere in the thickets of Ihaste, on fallen branches, 30. X 1982, obs KK.

- Kesklinn, Toomemägi, on *Ulmus glabra* and others living trees, obs KK, 26. X 1955; idem 27. X 1958; Toomemägi, 25. X 1965, det KK; 1. XI – 1. XII 1992 obs KK; Vabaduse park, 21. XI 1996, obs students of University of Tartu, det KK; Emajõe Street (on the Kroonuaia Street end), on the riverbank, on old trunks of *Salix caprea*, 20. XII 2014, leg KK, TAAM204305, 204306, 204307, 204308; idem on *Salix*, 3. XII 2015, leg KK, TAAM204374, 204375; Botanical Garden, fallen trunk of *Populus simonii*, 27. X 1982, leg AR, det KK, TAAM122626; idem, I-II 2020, obs KK; in front of Vanemuise 19, on trunk, 9. III 1994, obs KK.

- Maarjamõisa, Palsami 9, on apple tree, 9. III 1994, obs KK.

- Raadi, in manor park, 6. II 1936, NW, EAA13381.

GALERINA MARGINATA (Batsch) Kühner

- Maarjamõisa, Palsami 9, in wooden shed, 26. XI 2006, leg KK, TAAM177726; idem, 6. X 2010, leg KK, TAAM197496.

GYMNOPUS DRYOPHILUS (Bull.) Murrill

- Maarjamõisa, Sanatooriumi park, in *Tilia* parkway, 7. VI 2004 TAAM176762, leg KK; idem, under *Tilia* and *Picea abies*, 5. II 2008, obs KK.

HEBELOMA CRUSTULIFORME (Bull.) Quél.

- Annelinn, between houses Anne 51 and Sõpruse Ave. 8, on the lawn under *Betula*, 29. VIII 2016, obs KK; Sõpruse Ave. 10, on the lawn, 4. IX 2016, obs KK.

- Ihaste, in *Betula* forest, 2. XI 1974, obs. MK & KK, det KK.

- Raadi-Kruusamäe, Raadi cemetery, 21. VIII 2008, obs IP, det MV.

- Ränilinn, Riia 142, along *Tilia-Pinus cembra* alley, ca 0.5 km, 21. VIII 2008, leg KK, TAAM177925.

- Tähtvere, Vikerkaare 13, in the garden, on the lawn, 26. X 1958, obs KK; F. R. Kreutzwaldi 5, EULS campus, on the lawn, 11. IX 2023, obs AM & KP; idem 25. IX 2023 and 4. X 2023, obs TV.

HEBELOMA MESOPHAEUM (Pers.) Quél.

- Ihaste, pine forest, 2. XI 1974, obs MK & KK, det KK.

- Ränilinn, Riia 181, in front of building, under pines, 25. X 1989, leg KK, TAAM144431.

- Tammelinn, Sanatooriumi park, under *Larix*, 24. IX 1965, obs KK; Soinaste 39, in the garden, 14. IX 2014, obs KK.

HEMIMYCENA LACTEA (Pers.) Singer

- Ränilinn, Riia St. 181, front of building; under *Pseudotsuga*, on cones and needle debris, 18. XI 2006, leg KK, TAAM177719; idem, 25. XI 2006, leg KK, TAAM177720; idem, 13. XI 2006, obs KK; idem; 1. XI 2009, TAAM197355; idem, 1. I 2010, and 6. X 2010, obs KK.

HOMOPHRON CERNUUM (Vahl) Örstadius & E. Larss.

- Kesklinn, Toomemägi, by Vallikraavi 10, on deciduous stumps, 27. X 1958, obs KK; Botanical Garden, on fallen trunk of *Populus simonii*, 27. X 1982, leg AR, det KK, TAAM122625.
- Tähtvere, Tähtvere park, on deciduous trees, 11. X 2010, leg KK, TAAM197499.

HYGROCYPE CONICA (Schaeff.) P. Kumm.

- Annelinn, Uus 1, in front of the building, on the lawn, 15. IX 2010, obs KK.

HYGROPHORUS AGATHOSMUS (Fr.) Fr.

- Ihaste, Lohkva liivik, pine underwood, 25. X 1965, obs KK; pine forest, 2. XI 1974, obs MK & KK, det KK.

HYGROPHORUS HYPOTHEJUS (Fr.) Fr.

- Ihaste, „Lohkva liivik“, pine underwood, 25. X 1965, obs KK; Ihaste pine forest, 2. XI 1974, obs MK. & KK, det KK; idem, 30. XI 1976, obs KK; 30. X 1982, obs KK.

HYGROPHORUS NEMOREUS (Pers.) Fr.

- Kesklinn, Botanical Garden, 17. XI 2000, leg LT, TAAM175706.

HYPHOLOMA CAPNOIDES (Fr.) P. Kummer

- Ihaste, pine forest, 2. XI 1974, obs MK & KK.

HYPHOLOMA FASCICULARE (Huds.) P. Kumm.

- Tammelinn, Soinaste 39, on stump of *Picea pungens* var. *argentea*, 14. IX 2014, obs KK.

HYPsizYGUS ULMARIUS (Bull.) Redhead

- Karlova, Salme 1a, in park, on *Acer platanoides* stump, 12. VII 2011, obs KK.
- Raadi-Kruusamäe, Raadi cemetery, P 42, at the Kalamees' family gravesite, on *Acer platanoides* trunk, 23. X 1989, leg KK, TAAM144428.

INFUNDIBULICYBE GEOTROPA (Bull.) Harmaja

- Annelinn, Annemõisa park, under *Quercus robur*, 16. XI 1976, leg L. Kalamees & KK, TAAM081331.

INOCYBE CALOSPORA Quél.

- Annelinn, Sõpruse Ave. 8, behind house, under trees, 28. VI 2015, leg KK, TAAM204320.

INOCYBE GEOPHYLLA P. Kumm. coll.

- Annelinn, Anne 51, behind the building, 16. IX 2020, obs KK.
- Maarjamõisa, Aroonia 7, under drupes, 10. VII 2004, leg MK, det KK, TAAM176769.
- Tammelinn, Sanatooriumi park, under *Larix*, 24. IX 1965, leg KK, TAAM075937.

INOCYBE MIXTILIS (Britzelm.) Sacc.

- Annelinn, Sõpruse Ave. 8, behind the building, under *Quercus robur*, 13. VII 2015, leg KK, TAAM204326.

INOCYBE TYRII Bandini, B. Oertel & U. Eberh.

- Tähtvere, F. R. Kreutzwaldi 1a, EULS campus, in park, leg TV, TAAM212942, UDB07684326.

INOSPERMA ERUBESCENS (A. Blytt) Matheny & Esteve-Rav

- Annelinn, Sõpruse Ave. 8, behind house, under *Quercus robur*, 27. VI 2015, obs KK; idem, 27. VI 2019, leg KK, TAAM206975; idem, 29. VI 2020, leg KK, TAAM204446; idem, 3. VII 2020, obs KK; idem, 26. VI, 2021, leg KK TAAM204463; idem 23. VI 2024.

- Karlova, Karlova park, under *Tilia*, 29. VI 2009, leg KK, TAAM197179; behind Salme 1 a building, under *Tilia*, 17. VI 2010, leg KK, TAAM197365; under *Betula* TAAM197366a; behind Salme 1a, 11. VI 2014; by stadium, under *Tilia*, leg KK, TAAM197364.

- Kesklinn, the vicinity of Oru 3, under *Tilia* alley and *Quercus robur*, 8. VI 2010, leg KK TAAM197370, TAAM197371; by W. Struwe 1, under *Tilia*, VI 1975, obs KK; Toomemägi, in front of Lossi 25, under *Quercus robur*, 12. VII 2004, leg KK, TAAM176771; idem, under *Tilia* 27. VI 2009, leg KK, TAAM197176; idem, next to the stairs, under *Tilia*, 17. VI 2010, leg KK, TAAM197362; idem, under *Tilia*, 22. VI 2012, obs KK; idem 11. VI 2014; Toomemägi, 30. VI 2008, obs EP.

- Raadi-Kruusamäe, Raadi cemetery, left from the main entrance, at a gravesite, 30. VI 1993, leg KK, TAAM145750; idem, by cemetery main walkway, close to the well, 11. VII 2008, obs KK; Raadi cemetery, 16. VII 2007, obs BK; Raadi cemetery, route P42, 17. VI 2010, obs KK; Raadi park, on both sides of Vahi Street, under *Tilia*, 2. VII 2009, leg KK, TAAM197183; on the shore of the Raadi lake, under *Quercus*

robur, leg KK, TAAM197184; idem, 15. VII 2009, obs KK; idem, under *Tilia*, 17. VI 2010, obs KK.

- Tammelinn, Sanatooriumi park, under *Tilia* alley, 7 VII 1996, obs KK; idem, 5. VII 2000; idem, 11. VII 2000; idem, 7. VII 2004, leg KK, TAAM176760; idem, close to Nooruse 9, under *Tilia* alley, 18. VI 2010, obs KK; idem, under *Tilia*, 5. VII 2011, leg KK, TAAM204021; idem, toward Raja 31, under *Tilia* alley, 10. VI 2014, obs KK & MK.

- Tähtvere, Tähtvere park, under *Betula*, 20.VII 1958, obs KK; idem, by kiosk, 20. VI 1961, 22. VI 1961, leg UK & KK, TAAM072154; in park, 3. VII 1967, obs KK; idem, 9. VI 1989, leg KK, confirmed by Jukka Vauras TAAM144301; in park, 29.VI 2009, leg KK, TAAM197177; in park, edge of parking place, 18. VI 2010, leg KK, TAAM197368; Tähtvere park, towards the city center, under *Quercus robur* and *Tilia*, 18. VI 2010, obs KK; in the central part of Tähtvere park, by F. R. Kreutzwaldi St, under *Tilia*, 14. VI 2013, obs KK; Tähtvere park, close to the parking lot, on the left, under *Quercus robur* and *Tilia*, 11. VI 2014, obs TV; between Tartu Song Festival Grounds and Lauupeo 15 building, under *Quercus robur*, 18. VI 2012, leg TV, TAAM203483; by Metsamaja bus stop under *Quercus robur*, 21. VI 2013, obs KK; along parkway from Catholic Church on Hermann Street to Jakobsoni Street, under *Quercus robur*, 18. VI 2010 obs KK; idem, 11. VI 2014, obs KK; by Catholic Church, under *Quercus robur* alley, 27. VI 2015, obs KK; idem, 21. VI 2016; idem, by Oru Street, under *Quercus robur* alley, 19 VI 2025, obs KK & Martti Kalamees; along Jakobi Street to Hurda bus stop, 18. VI 2010, obs KK.

- Vaksali, in the park area from the railway station to J. Tõnissoni 1 and along Vaksali Street, under *Tilia*, 18. VI 2010, leg KK, TAAM197367.

KUEHNEROMYCES MUTABILIS (Schaeff.) Singer & A.H. Sm.

- Annelinn, Sõpruse Ave. 10, on wood on the lawn, 25. IX 2020, leg KK, TAAM204456.

- Raadi-Kruusamäe, Raadi park, 2. VII 2009, obs KK; idem, 15. VII 2009, on deciduous stump, obs KK.

- Tammelinn, Elva Street, 8. IX 1946, leg NW, TAAM142546.

LACCARIA LACCATA (Scop.) Cooke

- Ihaste, Ihaste, pine forest with spruce under-wood, 11. XI 1973, obs KK; pine forest, 2. XI 1974, obs MK & KK det KK.

- Maarjamõisa, Sanatooriumi park, 24. IX 1965, obs KK; idem, 11. VII 2000.

- Tammelinn, Soinaste 39, in the garden, 14. IX 2014, obs KK; idem, 4. IX 2016.

- Tähtvere, Hermann 18, in the garden, 28. X 2006, leg Ann Marvet, det KK, TAAM177716.

LACCARIA PROXIMA (Boud.) Pat.

- Tähtvere, F. R. Kreutzwaldi 62, EULS campus, under *Quercus robur*, 25. IX 2023, obs KP; F. Tuglase 2c, on the lawn, 25. IX 2023, obs KP.

LACRYMARIA LACRYMABUNDA (Bull.) Pat.

- Ränilinn, Riia 181, 6. X 1995, leg KK, TAAM142817.

- Tähtvere, F. R. Kreutzwaldi 3, EULS campus, next to the sports court, on slope in debris, 25. IX 2023, obs KP, det KK.

LACRYMARIA SUBCINNAMOMEA (A.H. Sm.) Watling
Annelinn, Sõpruse Ave. 8, behind the building, under *Betula*, 14. V 2021, leg KK, TAAM204457 (UDB07677575).

LEPIOTA BRUNNEOINCARNATA Chodat & C. Martin

- Tartu, 9. V 1983, obs Mavzhuda Khalikova.

LEPIOTA CRISTATA (Bolton) P. Kumm.

- Kesklinn, Tiigi Street, 3. X 1946, leg NW, TAAM142339.

- Ränilinn, Riia 181, under *Pseudotsuga*, 12 X 2006, Riia 181, leg KK, TAAM177701; idem, 19. VIII 2008, obs KK, 15. IX 2010; 1. X 2010, 6. X 2010; Riia 142, under *Tilia-Pinus cembra* alley, 21. VIII 2008, obs KK.

- Supilinn, by Emajõe Street, on the river shore, on the lawn, 9. XI 1967, obs KK.

LEPISTA IRINA (Fr.) H.E. Bigelow

- Tammelinn, crossroad of Pirni and Soinaste Street, 23. IX 1993, leg Erich Kukkk, det KK, TAAM146070a.

LEPISTA SORDIDA (Schumach.) Singer

- Raadi-Kruusamäe, Aru 9, in the garden, 17. IX 1973, leg. Guara Muuga, det KK, TAAM080553.

LEUCOCOPRINUS NYMPHARUM (Kalchbr.) M. Asif, Saba & Vellinga

- Ränilinn, 11. IX 2000, leg AR, det KK, TAAM175635. This species belongs to the second category of protected species in Estonia.

LEUCOCOPRINUS LEUCOTHITES (Vittad.) Redhead
In Tartu, 9. V 1983, obs M. Khalikova.

- Annelinn, in front of Anne 44 building, under a hedge on the lawn, 18. VIII 2024, leg KK, TAAM204498.

- Ihaste, Vana-Ihaste, in the garden, 11. IX 2020, det KK, TAAM204452 (UDB07677569).

- Jaamamõisa, Rõõmu 1, in plant nursery, 3. IX 1990, leg Märt Hanso, det KK, TAAM144717.

- Karlova, Tähe Street, 19. VII 1935, leg NW, EAA13998.

- Ränilinn, Riia 181, under *Pseudotsuga*, 15. IX 2010, leg KK, TAAM197404.

- Tammelinn, Tamme Ave., 1. X 1946, leg NW, TAAM142343.

LEUCOCYBE CONNATA (Schumach.) Vizzini, P. Alvarado, G. Moreno & Consiglio

- Kesklinn, Toomemägi, at the observatory, on the lawn, 8. VII 1995, leg KK, TAAM146522;

- Ränilinn, Riia 181, 11. IX 2000, by back door of building, leg AR, det KK, TAAM175636; idem, 27. IX 2000, leg KK TAAM175682; idem, 29 IX 2001, leg KK, TAAM182742; idem, 6. X 2010, obs KK.

- Tähtvere, F. R. Kreutzwaldi 1, EULS campus, in park, 11. IX 2023, obs KP; F. R. Kreutzwaldi 3, EULS campus, in park, 25. IX 2023, obs AM; F. R. Kreutzwaldi 5, EULS campus, on the lawn, 25. VIII 2023, obs TV; idem 11. IX 2023, obs AM, idem 25. IX 2023, obs AM; F. R. Kreutzwaldi 56, EULS campus, on the lawn and next to the street, 7. IX 2023, obs KP; idem 25. IX 2023, obs KP & TV; F. Tuglase 5, 12. IX 2023, obs TV.

LYCOPERDON EXCIPULIFORME (Scop.) Pers.

- Tähtvere, next to Song Festival Grounds, 5. IX 1966, obs KK.

LYCOPERDON PERLATUM Pers.

- Tähtvere, F. R. Kreutzwaldi 5, EULS campus, on woodchips mixed in grass, 25. VIII 2023, obs TV & KP; F. R. Kreutzwaldi 56, EULS campus, on the lawn, 7. IX 2023, obs KP.

LYCOPERDON PRATENSE Pers.

- Tähtvere, F. R. Kreutzwaldi 5, next to the parking lot, on the lawn with remnants of wood, 11. IX 2023, leg AM & KP & TV, det KK & AM, TAAM210822, UDB07684330.

LYOPHYLLUM DECASTES (Fr.) Singer

- Kesklinn, by Vabaduse Ave., 7. X 1947, leg NW, TAAM142601.

- Ränilinn, Riia 181, front of building, on the lawn, 25. X 2006, leg KK TAAM177709.

- Tähtvere, close to Emajõgi, at a former garbage dump, on a stump, 26. X 1958, obs KK; F. R. Kreutzwaldi 5, EULS campus, in park on decaying wood, 25. VIII 2023, obs KP & TV.

LYOPHYLLUM LORICATUM (Fr.) Kühner

- Annelinn, Anne 44, on the lawn, 7. X. 2001, leg KK, TAAM176160; idem, 29. IX 2012, TAAM204160.

MARASMIUS OREADES (Bolton) Fr.

- Annelinn, Sõpruse Ave. 8, 3. VII 2016, leg KK, TAAM204386; idem, 6. VIII 2016, TAAM204388; idem, 19. VI 2024, obs KK; Sõpruse Ave. 10, 10 VIII 2023, leg KK, TAAM204489; behind houses Anne 51 and Sõpruse Ave. 8, on the lawn under *Betula*, 29. VIII 2016, obs KK; idem, 18. VIII 2016, leg KK, TAAM204391.

- Raadi-Kruusamäe, Raadi cemetery, under *Larix*, on the lawn, 13. VII 1956, obs KK; idem, 15. VII 2009, obs KK.

- Tammelinn, Soinaste 39, in the garden, 14. IX 2014, obs KK; Soinaste Street, 1. IX 1946, leg NW, TAAM142595.

- Tähtvere, F. R. Kreutzwaldi 3, EULS campus, 11. IX 2023, obs AM & KP; F. R. Kreutzwaldi 5, EULS campus, on the lawn, 25. VIII 2023, obs KP & TV; idem 25. IX 2023, obs KP & AM; F. R. Kreutzwaldi 56, EULS campus, 5. IX 2023, obs Thea Kull; F. R. Kreutzwaldi 62, EULS campus, 25. IX 2023, obs AM & KP.

MELANOLEUCA BREVIPES (Bull.) Pat.

- Kesklinn, Botanical Garden, from the shore of the pond, 8. V 1967, obs Külli Kalamees-Pani & Vallo Kalamees, det KK.

- Maarjamõisa, park of hospital, 25. XI 2000, leg KK, TAAM175708.

- Tähtvere, F. R. Kreutzwaldi 1a, EULS campus, 25. IX 2023, obs TV, det KK.

MYCENA EPIPTERYGIA (Scop.) Gray

- Annelinn, at the end of Kalda Street, Lammi, 30. XI 1976, obs KK.

- Ihaste, pine forest, 30. XI 1976, leg KK, TAAM081407.

MYCENA GALERICULATA (Scop.) Gray

- Ihaste, alder forest, 11. XI 1973, obs KK.

- Kesklinn, Emajõe park, leg students of the University of Tartu, det KK, 21. XI 1996.

- Tähtvere, Tähtvere park, on a deciduous stump, 19. X 1958, obs KK; idem, 25. X 1965.

- Tammelinn, Soinaste 39, in the garden, *Pyrus communis*, on a stump, 14. IX 2014, obs KK.

MYCENA PURA (Pers.) P. Kumm.

- Annelinn, Anne 51, behind the building, 16. IX 2020, obs KK.

- Ihaste, pine forest, 2. XI 1974, obs. MK & KK, det KK; pine-spruce mixed forest, 30. X 1982, obs KK.

MYCENA ROSELLA (Fr.) P. Kumm.

- Ihaste, pine forest, 2. XI 1974, obs. MK & KK, det KK.

MYCETINIS SCORODONIUS (Fr.) A.W. Wilson & Desjardin

- Ihaste, Ihaste, pine forest, in grassy forest edge, 30. XI 1976, leg KK, TAAM081406.

- Raadi, Park, 29. VII 1946, NW, TAAM142591; idem, 6. IX. 1947.

- Tähtvere, Tähtvere park, 30. VII 1958, obs KK.

PANELLUS MITIS (Pers.) Singer

-Annelinn, at the end of Kalda Street, Lammi, a pile of pine branches, 30. XI 1976, leg KK, TAAM 081396.

- Ihaste, pine forest, on a pine branch, 2. XI 1974, obs MK & KK, det KK.

PANELLUS RINGENS (Fr.) Romagn.

- Ihaste, alder forest, 11. XI 1973, obs KK.

PARAGYMNOPUS PERFORANS (Hoffm.) J.S. Oliveira

- Annelinn, at the end of Kalda Street, Lammi, *Oxalis* type spruce forest, 30. XI 1976, obs KK.
- Ihaste, „Lohkva liivik“, under *Picea abies*, 25. X 1965, obs KK.

PARALEPISTA GILVA (Pers.) Raithel.

- Ihaste, „Lohkva liivik“, under *Picea abies*, 25. X 1965, obs KK; Ihaste, young spruce mixed forest, 11. XI 1973, obs KK.

PARASOLA PLICATILIS (Curtis) Redhead, Vilgalys & Hopple

- Tähtvere, F. R. Kreutzwaldi 5, EULS campus, on the lawn, 25. IX 2023, obs KP, det KK.

PHAEOLEPIOTA AUREA (Bull.) R. Maire ex Konrad & Maubl.

- Ihaste, „Lohkva liivik“, pine underwood, 25. X 1965, obs KK.

- Ränilinn, 18 IX 1984, behind Riia 181, on the lawn, leg BK, det MV, TAAM141529.

- Tähtvere, near Lauulupeo Ave. 27, 5. IX 1958, obs AR, det KK.

PHLEGMACIUM TRIUMPHANS (Fr.) A. Blytt

- Tähtvere, F. R. Kreutzwaldi 62, EULS campus, under *Betula*, 25. IX 2023, obs KP, det AK.

PHOLIOTA FLAMMANS (Batsch) P. Kumm.

- Ihaste, on a pine stump, 2. XI 1974, obs MK & KK, det KK, TAAM080895.

PHOLIOTA LIMONELLA (Peck) Sacc.

- Maarjamõisa, Palsami 9, on a living trunk of *Malus domestica*, 27. IX 2000, leg KK, TAAM175681.

PHOLIOTA POPULNEA (Pers.) Kuyper & Tjall.-Beuk.

- Kesklinn, in the crossroad of Veski Street with Kuperjanovi Street, on *Populus tremula* branches, 25. X 2006, obs. KK.

- Supilinn, Emajõe Street, 17. IX 1973, on *Populus tremula* wood, leg KK, TAAM082032.

- Ropka, Ropka cemetery, on *Populus*, 8. X 2002, leg LT, det KK, TAAM182713.

PHOLIOTA SQUARROSA (Vahl) P. Kumm.

- Maarjamõisa, Palsami 9, in orchard, on base of a living trunk of *Malus domestica*, 6. X 2010, leg KK, TAAM197495.

PHYLOTOPSIS NIDULANS (Pers.) Singer

- Raadi-Kruusamäe, Raadi park, 7. IX 1930 (Witkowski 1934: 156).

PLEUROCIBELLA PORRIGENS (Pers.) Singer

- Maarjamõisa, Sanatooriumi park, on roots of *Larix*, 12. VIII 2015, leg KK, TAAM204336.

PLEUROTUS OSTREATUS (Jacq.) P. Kumm.

- Ihaste, young mixed birch forest, 11. XI 1973, obs KK.

- Maarjamõisa, Sanatooriumi park, 7. I 2007, obs Tõnu Pani, det KK.

- Tähtvere, Tähtvere park, on living *Aesculus hippocastanum*, 19. X 1930 (Witkowski 1934: 156); idem, 19. X 1958; idem, on stump 25. X 1965, obs KK.

- Veeriku, Leholä Street (between streets Näituse and Tervishoiu), *Populus*, on fresh stump, 5. I 2007, leg Maret Saar, det KK, TAAM197763.

PLEUROTUS PULMONARIUS (Fr.) Quél.

- Maarjamõisa, by present Saialille Street, in brush, on *Sorbus aucuparia*, 30. VI 1996, leg KK, TAAM146902.

PLUTEUS CERVINUS (Schaeff.) P. Kumm.

- Maarjamõisa, Palsami 9, on old hardwood logs, 7. VIII 2007, obs KK.

- Tammelinn, Soinaste 39, in the garden, on a stump, 4. IX 2016, obs KK.

- Tähtvere, Tähtvere park, next to a stump in the grass, 20. VII 1958, obs KK; close to

River Emajõgi, at a former garbage dump, on a stump, 26. X 1958, obs KK.

PLUTEUS PODOSPILUS Sacc. & Cub.

- Ränilinn, Palsami 9, in the garden, in the potato field, 26. VIII 2000, leg MK, det KK, TAAM175631a.

PROTOSTROPHARIA SEMIGLOBATA (Batsch) Redhead, Moncalvo & Vilgalys

- Tähtvere, F. R. Kreutzwaldi 5, EULS campus, on the lawn, 25. VIII 2023, obs KP & TV.

PSATHYRELLA PRONA (Fr.) Gillet

- Ränilinn, Riia 181, behind the house, in a crop field, 27. IX 2000, leg KK, TAAM175680.

PSEUDOLYOPHYLLUM METACHROUM (Fr.) Raithel. ex Z. M. He & Zhu L. Yang

- Ihaste, under *Pinus sylvestris*, 30. X 1982, obs KK.

- Ränilinn, Riia 181, under *Pseudotsuga*, 18. XI 2006, leg KK, TAAM177718; idem, 25. XI 2006; 13. XII 2006, obs KK.

RHIZOCYBE PRUINOSA (P. Kumm.) Vizzini, P. Alvarado & G. Moreno

- Ränilinn, Riia 181, under *Pseudotsuga*, 1. X 2010, leg KK, TAAM197493; front of Riia 181, 6. X 2010, leg KK, TAAM197494.

RHODOCOLLYBIA BUTYRACEA (Bull.) Lennox

- Ihaste, pine forest with spruce undergrowth, 11. XI 1973, obs KK; pine forest, 2. XI 1974, obs MK & KK, det KK; idem, 30. XI 1976, obs KK; spruce-pine mixed forest 30. X 1982, obs KK.

RUGOSOMYCES CARNEUS (Bull.) Bon

- Tammelin, Soinaste 39, in the garden, 4. IX 2016, leg Ü. Kukk, det KK TAAM204395;

- Tähtvere, F. R. Kreutzwaldi 56, on the lawn, 11. IX 2023, leg AM, det KK, TAAM210817, UDB07684329.

SARCOMYXA SEROTINA (Pers.) V. Papp

- Kesklinn, Toomemägi, on a stump, 27. X 1958, obs KK.

SCLERODERMA AREOLATUM Ehrenb.

- Tähtvere, F. R. Kreutzwaldi 5, EULS campus, *Quercus robur*, on the base of trunk, 11. IX 2023, obs AM.

SCLERODERMA BOVISTA Fr.

- Raadi-Kruusamäe, Raadi cemetery, gravesite of family Maastiku (P42) on soil, 30. VII 2011, leg KK, TAAM204033.

- Tähtvere, F. R. Kreutzwaldi 56, EULS campus, near *Quercus robur* trees, on the lawn, 25. IX 2023, obs AM.

SCLERODERMA CITRINUM Pers.

- Raadi, by Manorhouse, 3. IX 1935, leg NW, EAA14042; Manor Park, 29. VII 1936, leg NW, TAAM132235; Maarja cemetery, 17. VIII 1936, leg NW, TAAM132237; idem, 29. VIII 1946, TAAM132236.

- Tammelin, Peetri cemetery, 17 VIII 1935, leg NW, EAA14045.

- Tähtvere, Tähtvere park 3 X 1928 (Witkowski 1934: 171).

SIMOCYBE REDUCTA (Fr.) P. Karst.

- Annelinn, Anne 44a, on the lawn, under *Tilia*, 4. XI 2013, leg KK, TAAM204211.

STROBILURUS ESCULENTUS (Wulfen) Singer

- Annelinn, at the end of Kalda Street, Lammi, *Oxalis* type spruce forest, 30. XI 1976, obs KK.

- Ihaste, young mixed birch forest, 11. XI 1973, obs KK.

- Ränilinn, Riia 181, on *Pseudotsuga* cones, 25. XI 2006, leg KK, TAAM177721.

STROBILURUS STEPHANOCYSTIS (Kühner & Romagn. ex Hora) Singer

- Ihaste, sandy spruce forest, 8. V 1967, leg Külli & Vallo Kalamees, det KK, TAAM076672.

STROPHARIA AERUGINOSA (Curtis) Quél.

- Ihaste, pine forest, 2. XI 1974, obs MK & KK, det KK.

STROPHARIA CORONILLA (Bull.) Quél.

- Annelinn, next to Anne 44, on the lawn, 17. X 2013, leg KK, TAAM204210.

- Tähtvere, F. R. Kreutzwaldi 1, EULS campus, on the lawn, 11. IX 2023, obs KP.

- Tammelin, near Soinaste Street, 1. X 1946, leg NW, TAAM142555.

STROPHARIA MELANOSPERMA (Bull.) Gillet

- Ränilinn, from Riia 181 to Raja 31, in clover field, 9. VI 2000, leg KK TAAM175408.

TRICHOLOMA ARGYRACEUM (Bull.) Gillet (*T. alboconicum* (J.E. Lange) Cléménçon, *T. inocybeoides* A. Pearson)

- Annelinn, Uus 1, under *Betula*, on the lawn, 15. IX 2010, leg KK, det IS, TAAM197405 (UDB019479); Anne 51, 16. VI 2020, leg KK, TAAM204444; idem, 16. IX 2020, TAAM204455; 2. VIII 2022, TAAM204473; Anne 51, behind the building, under *Betula*, leg KK, TAAM204444;

idem, 16. IX 2020, TAAM204455; in parks of the Annelinn area, 22.-25. IX 2020, until 1 X 2020, obs KK; Anne 51, leg KK, TAAM204473.

- Karlova, Karlova park, 3. VII 2008, leg KK, det IS, *T. inocybeoides*, TAAM177900 (UDB019470); Stadium in Salme Street, under *Tilia* alley, 17. VI 2010, leg KK, det IS, TAAM197366 (UDB011545).

- Ropka, Pauluse cemetery (Ropka-Tamme), 30. V 2000, leg LT, det IS, TAAM182740 (UDB019474).

- Ränilinn, Riia 142, *Tilia-Pinus cembra* alley, 22. VIII 2008, leg KK, det IS, TAAM177926 (UDB019420); Riia 181, 16. VI 2003, leg MV, det IS, TAAM182820 (UDB019423); idem, under *Betula*, 11. VII 2008, leg KK, det IS, TAAM177903, (UDB011546); idem, TAAM177906 (UDB019471); Riia 181, 22. VIII 2008, leg KK, det IS, TAAM177924 (UDB019422); idem, 23. IX 2011, leg KK, det IS, TAAM204071 (UDB019483); Riia 181, in garden, 6. VI 2012, leg I. Zettur, det IS, TAAM204112 (UDB016607).

- Tammelinn, Sanatooriumi park, 5. VII 2002, leg KK, det IS, TAAM176195.

- Tähtvere, by Tartu Song Festival Grounds, 1. VI 2012, leg AK, det IS, TAAM203478; F. R. Kreutzwaldi 5, EULS campus, 25. VIII 2023, leg AM, det KK, TAAM210823 (UDB07684331).

TRICHOLOMA CINGULATUM (Almfelt ex Fr.)

- Ihaste, pine forest, 2. XI 1974, leg MK & KK, det KK, TAAM080888.

TRICHOLOMA EQUESTRE (L.) P. Kumm.

- Ihaste, pine forest, 2. XI 1974, obs. MK & KK, det KK.

TRICHOLOMA IMBRICATUM (Fr.) P. Kumm.

- Ihaste, „Lohkva liivik“, pine sapling, 25. X 1965, obs KK.

TRICHOLOMA PORTENTOSUM (Fr.) Quél.

- Ihaste, pine forest with spruce aftergrowth, 11. XI 1973, obs KK; pine forest, 2. XI 1974, obs MK & KK, det KK.

TRICHOLOMA PESSUNDATUM (Fr.) Quél

- Maarjamõisa, Sanatooriumi 11, 10. XI 2012, obs KK.

TRICHOLOMA SAPONACEUM (Fr.) P. Kumm.

- Ihaste, pine forest with spruce aftergrowth, 11. XI 1973, obs KK; pine forest, 2. XI 1974, obs MK & KK, det KK.

TRICHOLOMA SCALPTURATUM (Fr.) Quél

- Maarjamõisa, Sanatooriumi park, on *Tilia* alley, 5. VII 1996, leg KK, TAAM146906.

TRICHOLOMA TERREUM (Schaeff.) P. Kumm.

- Ihaste, „Lohkva liivik“, pine underwood, 25. X 1965, obs KK; Ihaste pine forest, 2. XI 1974, obs MK & KK, det KK.

- Maarjamõisa, by Lung Clinic, under *Picea abies* alley, 21. XI 2013 leg KK, TAAM204212.

- Ränilinn, in front of Riia 181, under *Pinus sylvestris*, 25. X 1989, leg KK, TAAM144433; idem, 30. X 1991, obs KK.

- Tähtvere, Tähtvere park, 30. VII 1958, obs KK.

TRICHOLOMOPSIS RUTILANS (Schaeff.) Singer

- Ihaste, pine forest, 2. XI 1974, obs MK & KK, det KK.

TUBARIA FURFURACEA (Pers.) Gillet

- Kesklinn, Botanical Garden of the University of Tartu, I - II 2020, obs KK.

- Tähtvere, F. R. Kreutzwaldi 3, EULS campus, on the lawn, 17. X 2023, leg TV, TAAM212944, UDB07684327.

VOLVOPLUTEUS GLOIOCEPHALUS (DC.) Vizzini, Contu & Justo

- Annelinn, Anne Street, in garage, 10. VII 1980, leg KK, TAAM121396.

- Raadi, Maarja cemetery, 22. VII 1946, leg. NW, TAAM142321.

BOLETALES (12 genera, 20 species)

CALOBOLETUS RADICANS (Pers.) Vizzini

Tähtvere, EULS campus, under *Quercus robur*, 25. IX 2023, leg KP & AM, det KK, TAAM210818.

This species belongs to the second category of protected species in Estonia.

CHALCIPORUS PIPERATUS (Bull.) Bataille

- Tähtvere, Tähtvere park, 30. VII 1958, obs KK.

CHROOGOMPHUS RUTILUS (Schaeff.) O. K. Miller

- Annelinn, in front of Uus 1, on the lawn under the pine, 14. IX 2010, obs KK;

- Tähtvere, between F. R. Kreutzwaldi 1a and F. Tuglase 1, EULS campus, in park under pine trees, 25. IX 2023, leg TV, TAAM212940.

BOLETUS EDULIS Bull.

- Tähtvere, F. R. Kreutzwaldi 5, EULS campus, under *Betula* and conifers, 9. IX 2023, obs AM.

GOMPHIDIUS MACULATUS (Scop.) Fr.

- Maarjamõisa, Sanatooriumi park, under *Larix*, 24. IX 1965, leg KK, TAAM075932; between Ravila 19 and Puusepa 8, under *Larix*, 14. X 2014, obs Alan Altraja.

HYGROPHOROPSIS AURANTIACA (Wulfen) Maire

Maarjamõisa, Sanatooriumi park, under *Larix*, 24. IX 1965, obs KK.

LECCINUM SCABRUM (Bull.) Gray

- Ränilinn, Riia 181, under *Betula*, 2. X 2011, obs KK; idem, 29. IX 2012, leg KK, TAAM204168;
- Tähtvere, F. R. Kreutzwaldi 5, EULS campus, under *Betula*, 25. VIII 2023, obs TV; idem 11. IX 2023, obs KP; idem 25. IX 2023, obs KP;
F. R. Kreutzwaldi 62, EULS campus, under *Betula*, 7. IX 2023, obs KP; idem, 25. IX 2023, obs AM; F. Tuglase 7, EULS campus, under *Betula*, 12. IX 2023, obs TV.

LECCINUM VARIICOLOR Watling

- Annelinn, behind Sõpruse Ave. 8, under *Quercus robur*, 27.-28. VI 2015, obs KK.

LECCINUM VERSIPELLE (Fr.) Snell

- Ränilinn, Riia 181, under *Betula*, 29 IX 2012, leg KK, TAAM204168.

PAXILLUS AMMONIAVIRESCENS Contu & Dessi

- Annelinn, Anne 51, on the lawn under *Betula*, 25. VIII 2013, leg KK, det AM, TAAM204181.
- Maarjamõisa, Sanatooriumi park, 5. VII 2011, leg KK, det AM, TAAM204022.
- Ränilinn, Riia 181, under *Betula*, 23. VIII 2011, obs KK, det AM.

PAXILLUS INVOLUTUS (Batsch) Fr. coll.

- Annelinn, Anne 51, behind building, on the lawn, 27. VI 2016, obs KK; idem, 20. VIII 2016, Anne 51, in park, 8.-9 VIII 2020, obs KK; Anne 51, behind building, 16. IX 2020, obs KK.
- Ihaste, in *Pinus sylvestris* forest, 2. XI 1974, obs. MK & KK, det KK.
- Maarjamõisa, Sanatooriumi park, 24. IX 1965, obs KK, Sanatooriumi park, 24. VI 2000 - 11. VII 2000, obs KK; Palsami 9, on the lawn under *Betula*, 22. VI 1993 - 30. VI 1993, obs KK; idem, VII 2000; idem 11. VII 2008, obs KK; Ravila 14a, in front of Chemicum, under *Betula*, 7. VI 2011, obs KK.
- Raadi-Kruusamäe, Raadi cemetery, 21. VIII 2008, leg IP.
- Ränilinn, Riia 181, under *Betula*, 15. VIII 2007, obs KK; 30.VI 2008, in front of Riia 181, under *Betula*, obs EP; 11. VII 2008, obs KK,

under *Betula*; idem, under *Betula*, 19. VIII 2008; 3. IX 2008; 14. IX 2010; in front of Riia 181, on the lawn, between the concrete edge of the house and the asphalt road, obs KK; idem under *Betula*, 2. X 2011, obs KK; by Riia 142, under *Tilia-Pinus cembra* alley, 21. VIII 2008, obs KK.

- Tammelin, Soinaste Street, 6. IX 1936, leg NW, TAAM142529; Soinaste 39, in the garden, 14. IX 2014, obs KK.

- Tähtvere, Tähtvere at the end of the park on the city side, 18. VI 2010, obs KK.

SUILLELLUS LURIDUS (Schaeff.) Murrill

Reports everywhere in the city of Tartu, 13. VIII 2007 and in the first half of July 2008.

- Annelinn, Sõpruse Ave. 8, in front of building, under *Betula*, 18. VII 2016, obs KK; Sõpruse Ave. 10, in front of building, under *Tilia*, 18. VIII 2016, obs KK; Sõpruse Ave. 10, 4. IX 2016, obs KK; Anne 53, under *Betula*, 11.VIII 2020, leg KK, TAAM204450; Sõpruse Ave. 8, behind the building, in park, under *Quercus robur*, 19. VI 2024, obs KK.

- Karlova, Karlova park, Salme 1a, in grove, 21. VII 2004, leg KK, TAAM176780; idem, behind Salme 1a building, under *Tilia*, 11. VI 2014.

- Raadi-Kruusamäe, Raadi cemetery, close to the old red chapel, under *Betula*, 8. VI 1995, leg KK, TAAM146516; Raadi cemetery, 16. VI 2007, obs BK; idem, 21. VIII 2008, obs IP.

- Maarjamõisa, Sanatooriumi park, *Tilia* alley, 11. VI 1995, leg MK, det KK, TAAM146517; Sanatooriumi park, 13. VI 2000, leg KK, TAAM175372; 13. VI 2000; Sanatooriumi park, 11. VII 2000, obs KK; idem, under rearward lime alley, 5. VII 2011, obs KK; in parks of N. Lunini and Puusepa Streets, 15. VIII 2021-31. VIII 2021, obs KK.

- Tammelin, Soinaste 39, in the garden, 14. IX 2014, obs KK.

- Tähtvere, Tähtvere park, 30. VII 2009, obs KK; idem 22. - 23. IX.2020, obs KK; idem, 1. X 2020; by Catholic Church, under *Syringa vulgaris*, 5. VII 2011, obs KK; F. R. Kreutzwaldi 5, EULS campus, in park under *Tilia*, 25. VIII 2023, obs KP; F. R. Kreutzwaldi 62, EULS campus, under *Tilia*, 11. IX 2023, obs KP; idem, under *Quercus robur*, under *Betula*, obs KP; F. R. Kreutzwaldi 1, EULS campus, under *Quercus robur* and *Betula*, 11. IX 2023, obs KP; idem under *Tilia*, 25. IX 2023, obs TV; F. R. Kreutzwaldi 54, under *Quercus robur* 13. IX 2023, obs TV; F. R. Kreutzwaldi

62, EULS campus, under *Betula pendula*, 11. IX 2023, obs AM; F. Tuglase 7, EULS campus, under *Tilia*, 12. IX 2023, obs TV.

SUILLUS GRANULATUS (L.) Roussel

- Annelinn, Sõpruse Ave. 8, behind building, under *Pinus sylvestris*, 20. VII 2015, obs KK; idem, 12. VII 2024, obs KK.

- Maarjamõisa, Sanatooriumi park, under pine, 12. VIII 2015, obs KK.

- Ränilinn, Riia 142, *Tilia-Pinus cembra* alley, 21. VIII 2008, obs KK.

- Tähtvere, F. R. Kreutzwaldi 3, EULS campus, 11. IX 2023, obs AM; idem, F. R. Kreutzwaldi 3, obs KP.

SUILLUS GREVILLEI (Klotzsch) Singer

- Maarjamõisa, Sanatooriumi park, under *Larix*, 24. IX 1965, obs KK; idem, under pines 12. VIII 2015, obs KK; between Ravila 19 and Puusepa 8, under *Larix*, 14. X 2014, obs Alan Altraja, idem, 14.-18. IX 2015, obs KK.

- Raadi-Kruusamäe, Peetri cemetery, under *Larix*, 13. VII 1956, leg KK, TAAM070281.

- Tammelin, Soinaste 21 (now Soinaste 39), 8. IX 1946, leg NW, TAAM155955; Soinaste 39, in the garden, under *Larix*, 14. IX 2014, obs KK.

- Tähtvere, Tähtvere park, 27. VIII 1933 (Witkowski 1934: 136); idem, 1.VIII 1960, leg UK, TAAM071676; F. R. Kreutzwaldi 5, EULS campus, under *Larix*, 11. IX 2023, obs AM & KP; in F. R. Kreutzwaldi 1, idem, 25. IX 2023, obs TV & KP.

SUILLUS LUTEUS (L.) Roussel

- Ränilinn, 11. IX 2000, leg AR, det KK, TAAM175634.

- Tähtvere, F. R. Kreutzwaldi 5, EULS campus, under pines, 11. IX 2023, obs KP.

SUILLUS VISCIDUS (L.) Roussel

- Ihaste, Mugasto 7. IX 2003, leg AK, TAAM128421; A. Laigo Street, 24.VIII 2005, leg AK, TAAM128549.

- Jaamamõisa, Rõõmu tee 1, 31.VIII 1993 leg Märt Hanso, det MV, TAAM142193.

- Kesklinn, Lai 33, 7. IX 2017, obs IS; Toomemägi, obs IS, 31.VIII 2023.

- Maarjamõisa, Sanatooriumi park, under *Larix*, 24. IX 1965, leg KK, TAAM075935; between Ravila 19 and Puusepa 8, under *Larix*, 14. X 2014, obs Alan Altraja, idem, 14.-18. IX 2015, obs KK; idem, 14.VI 2021, leg KK, TAAM204462; next to Raja 31, under *Larix*, 16.VI 2014, leg KK, TAAM204246.

- Raadi-Kruusamäe, Raadi cemetery P 41, under *Larix*, 24. VI 2016, obs KK.

- Tähtvere, Jakobsoni 26, 17.VIII 1979, obs Andres Koppel; in the corner of F. Tuglase and F. R. Kreutzwaldi Street, under *Larix*, 17. IX 2023, obs TV; F. R. Kreutzwaldi 5, EULS campus, 11. IX 2023, obs AM; F. R. Kreutzwaldi 56, EULS campus, 25. IX 2023, obs AM.

TAPINELLA PANUOIDES (Fr.) E.-J. Gilbert

- Tammelin, Soinaste 21 (now 39), 9. XI 1946, leg NW, TAAM142534.

XEROCOMELLUS CHRYSENTERON (Bull.) Šutara

- Tähtvere, F. R. Kreutzwaldi 62, EULS campus, 11. IX 2023, obs T. Kull & Marika Kose, det KP.

XEROCOMELLUS CISALPINUS (Simonini, H. Ladurner & Peintner) Klofac

- Raadi-Kruusamäe, Raadi cemetery, P42, at the Kalamees family gravesite, 17. VII 1996, leg KK, TAAM146922; idem, 19. VII 2000, TAAM175419A, B; idem, 30. VII 2009, obs KK; 31. VII 2013, leg KK, TAAM204179; idem, 28. VII 2022, TAAM204471.

XEROCOMELLUS RIPARIELLUS (Redeuilh) Šutara

- Tähtvere, F. R. Kreutzwaldi 5D, EULS campus, in the park in front of the building, under *Tilia*, 25. VIII 2023, leg KP & TV, TAAM210813 (UDB07684328).

RUSSULALES (3 genera, 17 species).

HERICIUM CORALLOIDES (Scop.) Pers.

- Tähtvere, F. R. Kreutzwaldi 1, in park forest close to Tähtvere stream, on a fallen trunk, 2. X 2023, obs T. Kull, det KP.

LACTARIUS AURANTIACUS (Pers.) Gray

- Ihaste, pine forest, 2. XI 1974, obs MK & KK, det KK.

LACTARIUS CITRIOLENS Pouzar

- Tähtvere, F. R. Kreutzwaldi 3, EULS campus, under *Betula*, 25. IX 2023, obs KP, det KK.

LACTARIUS DELICIOSUS (L.) Gray

- Ihaste, „Lohkva liivik“, pine underwood, 25. X 1965, obs KK.

LACTARIUS DETERRIMUS Gröger

- Tammelin, Soinaste 21 (now 39), 22. IX 1946, leg NW, TAAM142466.

LACTARIUS GLYCIOSMUS (Fr.) Fr.

- Tammelin, Sanatooriumi park, 24. IX 1965, obs KK.

LACTARIUS PUBESCENS Fr.

- Maarjamõisa, Palsami 9, under *Betula*, 19. VIII 1988, leg KK, TAAM143908, TAAM143910; Soinaste 39, in the garden, 14. IX 2014, obs KK.
- Annelinn, Sõpruse Ave. 12, under *Populus*, 24. IX 2015, obs KK; behind houses Anne 51 and Sõpruse Ave. 8, on the lawn under *Betula*, 29. VIII 2016, KK.
- Raadi-Kruusamäe, Raadi cemetery, under *Betula*, 21. IX 2000, leg KK, TAAM175652.
- Ränilinn, front of Riia 181, under *Betula*, 2. X 2011, leg KK, TAAM204079.
- Tähtvere, F. R. Kreutzwaldi 3, EULS campus, 11. IX 2023, obs AM; idem F. R. Kreutzwaldi 1, under *Betula*, obs KP; idem F. R. Kreutzwaldi 5, obs AM; F. Tuglase 7, EULS campus, under *Betula*, 12. IX 2023, obs TV.

LACTARIUS RUFUS (Scop.) Fr.

- Ihaste, pine forest, 2. XI 1974, obs MK. & KK, det KK.

RUSSULA ACRIFOLIA Romagn.

- Tähtvere, Tähtvere park, under *Tilia* alley, 5. VII 2011, leg KK, TAAM204028.

RUSSULA AERUGINEA Fr.

- Tähtvere, F. R. Kreutzwaldi 56, EULS campus, under *Betula*, 11. IX 2023, obs KP & AM.

RUSSULA DELICA Fr.

- Tähtvere, Tähtvere park, by playground, under *Tilia*, 2. VII 1992, leg KK, TAAM145311; Tähtvere park, 30. VII 2009, obs KK; 11. VI 2014, obs TV, det KK; idem, under *Quercus robur* and *Tilia*, 14. VI 2013, obs KK.
- Raadi-Kruusamäe, Raadi park, 15. VII 2009, leg KK, TAAM197185.

RUSSULA EXALBICANS (Pers.) Melzer & Zvára

- Ränilinn, in front of Riia 181, under *Picea abies* and *Sorbus aucuparia*, 10. VII 2004, leg KK TAAM176768; idem, 19. VIII 2008, under *Betula*, obs KK; idem, 14. IX 2010, under *Betula*, obs KK; idem, under *Betula*, 2. X 2011, leg KK, TAAM204078; idem, under *Betula* 19. VI 2012, obs KK.

RUSSULA PECTINATOIDES Peck

- Raadi-Kruusamäe, Raadi cemetery, P42, at the Kalamees' family gravesite, 19. VII 2000, leg KK, TAAM175418.

RUSSULA QUELETHI Fr.

- Ihaste, pine forest with spruce undergrowth, 11. XI 1973, obs KK.

RUSSULA RECONDITA Melera & Ostellari

- Tähtvere, F. R. Kreutzwaldi 1a, EULS campus, park area with *Acer platanoides*, *Syringa vulgaris*, *Tilia*, *Aesculus*, *Fraxinus*, 25. IX 2023, leg TV, TAAM212943 (UDB07684325).

RUSSULA VESCA Fr.

- Annelinn, Kalda tee 4, under *Larix*, 25. IX 2020, obs KK.
- Ränilinn, in front of Riia 181, under *Betula*, 30. V 2007, obs KK; idem, 15. VIII 2007; idem, 30. VI 2008, obs EP; idem, 11. VII 2008, obs KK; under *Betula*, 11. VIII 2008; idem, 23. VIII 2011; idem, 2. X 2012.

RUSSULA XERAMPHELINA (Schaeff.) Fr.

- Ihaste, in pine forest, 2. XI 1974, obs MK & KK, det KK.

List of fungi includes 172 species. In years of favourable weather, from spring to late autumn, the green areas of Tartu are rich in mushroom fruitbodies. The list above shows mostly common forest or grassland fungi, as well as characteristic species of the urban environment (e.g., *Agaricus bitorquis*, *A. xanthodermus*, *Calocybe gambosa*, *Calvatia gigantea*, *Chlorophyllum brunneum*, *Coprinellus atramentarius*, *Coprinus comatus*, *Echinoderma asperum*, *Leucocoprinus leucothites*, *Phaeolepiota aurea*). Parks, avenues, alleys, home gardens, and different green areas offer habitats for diverse fungi. Cities can maintain a high diversity of fungi, especially when native trees are preserved or planted in green areas (Purahong et al. 2022). Although nowadays fungal inventories are often created using DNA methods, records based on fruitbody (spore-carp) occurrence are still necessary for discovering biodiversity.

In certain years, those green areas of Tartu can produce mass fruitings, e.g., *Agaricus bitorquis*, *Calocybe gambosa*, *Coprinus comatus*, *Flammulina velutipes*, *Inosperma erubescens*, *Paxillus involutus*, *Suillellus luridus*, *Tricholoma argyraceum*; or conspicuously large basidiomata (up to 50 cm), such as *Calvatia gigantea* and *Aspropaxillus giganteus*.

Among the species, there are three deadly poisonous mushrooms in Tartu. *Amanita phalloides* was observed by the first author in Tammelin in 2014; however, in e-Elurikkus, there are additional records from 2019 and 2023 in Maarjamõisa district, and at the beginning of September 2025, it was very abundant in the EULS campus area under oaks. The second very poisonous species, *Inosperma erubescens*, is the most common mushroom in Tartu – hundreds of basidiomata under lime trees and oaks in June in Annelinn, Karlova, Kesklinn, Maarjamõisa, Tammelin, Tähtvere, and Vaksali. This species is easily confused with the edible mushroom *Calocybe gambosa*, which is widespread in Tartu in the same habitats at the same time, especially in Annelinn. The city district of *Lepiota brunneoincarnata* is unknown; it is the third find in Estonia. A noticeably less poisonous species, *Agaricus xanthodermus* is abundantly spotted in the most frequented places in Tartu city.

Two species occurring in Tartu are protected by law in Estonia (II category). Ectomycorrhizal species *Caloboletus radicans* was at first recorded under oaks from Raadi-Kruusamäe district in 2022; in 2023, the fruitbodies appeared nearby again, as well as in Maarjamõisa district and in Tähtvere. The number of finds in Estonia has increased in recent years, reaching 37 by now. Saprotrophic *Leucocoprinus nymphaeum*, growing on spruce needle debris, is known from 14 localities in Estonia, including the Ränilinn district of Tartu, where it was noticed only once.

The sampling of this work has been occasional and does not cover the town systematically. It follows mostly daily routes between home and work, and popular parks. The most often visited districts in terms of mushroom recording are Annelinn, Ihaste, Kesklinn, Maarjamõisa, Raadi-Kruusamäe, and Tähtvere. Among the spots, some are strikingly mushroom-rich individual locations in Tartu. These are gardens, parks, or grave sites that are frequently visited for personal reasons. Such are, for example, a garden at Soinaste 39 (previously Soinaste 21 in Tammelin) that was home to forest scientist Andres Mathiesen (1890–1955), later of Nikolai Witkowski and botanist Erich Kuk (1928–2017). The surroundings of the previous building of the Institute of Zoology and Botany in

Riia 181 (Ränilinn) and the EULS campus (Tähtvere) were home to mycology teams in Tartu. Raadi Cemetery (Raadi-Kruusamäe) is a burial place for many scientists who worked in Tartu.

ACKNOWLEDGEMENTS

We thank all collectors of fungal specimens. Irma Zettur and Kristina Ivandi are thanked for curating and digitizing specimens. Irja Saar (University of Tartu) and an anonymous reviewer are acknowledged for their critical and helpful comments on the draft. We are grateful to Anne-Liia Maidu (University of Tartu) and Anu Kollom for their participation in the inventories in 2023. Mari Mür (University of Tartu) is thanked for databasing fungal observations and Jaak Pärtel for compiling the map. The financial support for KP was provided by an Estonian Research Council grant (PRG1170).

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In memoriam:
JÜRI MARTIN
(29.09.1940–21.01.2025)



Jüri Martin had a long and eventful life, lasting 84 years; lichens and their indicative properties, as well as the relationships of organisms with the environment, remained the objects of interest throughout his life. He was born on September 29, 1940 in Tallinn, into a family of actors. In 1964 he graduated from the Faculty of Mathematics and Natural Sciences of the State University of Tartu, specializing in biology. He continued to complement his education by post-graduate studies at the Institute of Plant and Animal Ecology of the Ural Branch of the USSR Academy of Sciences. In 1968, he defended his thesis for a candidate of biology (equivalent to a PhD) on the topic “Dynamics of lichen synusia on the moraines of the Polar-Ural glaciers”.

In 1969, Jüri Martin started his working career at the Tallinn Botanic Garden where he worked as a senior researcher, scientific secretary, scientific director, director (1978–1988) and head of the laboratory of bioindication. At that time his main research interest was focused on the ecology of lichens and monitoring of anthropogenic changes in the environment. During this period, Jüri Martin and his colleagues organized several all-union scientific events (e.g., the conference ‘Lichen indication of the environmental conditions’ in 1978) or even international events (e.g., ‘International school on lichen indication’ in 1982) to reach a wider audience for their work and find opportunities for collaboration.

In 1988, Jüri Martin defended the thesis “Biochemical role of lichen synusia in extreme environmental conditions” for a doctor of biology. Two years later, in 1990, he was elected a member of the Estonian Academy of Sciences. In 1991–1994, he was the director of the International Plant and Pollution Research Laboratory and in 1994–2000, the director of the International Center for Environmental Biology (ICEB). In 1997, he and his co-workers founded the private college Euroacademy of which he was the rector until its closure in 2020.

Jüri was a passionate traveler and wherever he traveled, he always collected and brought with him lichen specimens. He has participated in dozens of expeditions to the Caucasus, the Polar Urals, Western and Southern Siberia, the Russian Far East, Antarctica, Greece, Kenya, the Seychelles, Madagascar, Sri Lanka, India, Thailand, the Maldives, the USA (including Alaska and the Great Smoky Mountains National Park), etc. Originally his lichen collections were kept in the herbaria of Tallinn Botanic Garden (TALL) and in ICEB, but currently part of his collections are being transferred to the fungarium of the University of Tartu (TUF). Jüri Martin was one of the founders of the Estonian Polar Club in 1984 and the first president of the club during 1984–1991.

We have lost a close friend who much enjoyed good company and good fun. To the wider public, Jüri Martin was a renowned ecologist, science organizer and popularizer, and also a politician, serving as a member of the Parliament of the Republic of Estonia from 1991 to 1998. And last but not least – Jüri was a loving husband

to Ljudmilla Martin for 57 years, a father to their four children, and a grandfather to six grandchildren.

Tiina Randlane & Andres Saag