

MACROMYCETES FROM THE FORESTS IN THE SOUTHERN PART OF THE CÂNDEȘTI PIEDMONT

Boruz Violeta^{1*}, Simion Ioana¹, Bărbuceanu Daniela²

¹University of Craiova, "Al. Buia" Botanical Garden, Craiova

² National University of Science and Technology Politehnica Bucharest – Pitești University Center

* Correspondence author. E-mail: violetaboruz@yahoo.com

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ABSTRACT

Observations carried out between May and November 2024 in the protected area "The forests in the Southern part of the Cârdești Piedmont" (Dâmbovița County, Romania) led to the identification of 78 macromycete species. Approximately 90 % of the forests in this area are state-owned, while the remaining forests and non-forestier lands belong to the inhabitants of the nearby communities, namely from the localities of Cobia, Crângurile, Gura Foi, Hulubești, Lucieni, Dudești, Mânești, Răciu and Tătărani (Dâmbovița County). For each taxon listed, information is provided on its substrate, the community-interest habitat in which it was identified, altitude, collection date, locality, and practical importance (edibility, toxicity, etc.). Several pressures identified in the area highlight the need for rational management of this protected site.

INTRODUCTION

The protected natural area ROSCI0344 "The forests in the Southern part of the Cârdești Piedmont" is located in Region 3 South-Muntenia, within Dâmbovița County, and belongs to the Continental Biogeographical Region. The site is bounded by the Potop Valley stream in the west and the Dâmbovița River in the east. The Potop stream and its tributaries, Strâmbu and Butoiu, are located within the territory of Hulubești commune. The site boundaries are: Argeș Valley to the west, Dâmbovița Valley to the east, and the Argeș floodplain to the south.

The altitude gradually decreases, ranging from 600 m in the north to 200 m in the south.

The lithological substrate consists of clay-illuvial soils in varying proportions, providing favorable conditions for the forest vegetation in this region. The forests are mainly state-owned and administratively belong to the forest districts of Hulubești, Găești, Târgoviște, and Sturzeni.

The site lies within the administrative territory of the following communes: northern forest section – Mânești, Ludești, and Hulubești; central forest section – Lucieni and Cobia; southern forest section – Crângurile, Gura Foi, and Cobia (https://anmap.gov.ro/documents/3050355/3600075/PM_Candesti_decembrie%202015.pdf).

The protected natural area includes seven types of community-interest habitats, five of which are forest habitats. The best represented is habitat 91Y0 – "Dacian oak-hornbeam forests". Other forest habitat types, in order of

representation, are: 9170 – “*Galio-Carpinetum* oak-hornbeam forests”, 91M0 – “Pannonian-Balkan turkey oak - sessile oak forests”, 9130 – “*Asperulo-Fagetum* beech forests” and 91E0* – “Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*)”.

The forests in this area provide optimal living conditions for the macromycete species identified in our study. The main objective of our research was to inventory macromycete species within the forest habitats of this site. No previous mycological studies are known from this protected area. There are only a few references concerning macromycetes from Dâmbovița County, referring to species collected from forest ecosystems without specifying exact localities (Busuioc et al. 2009, Busuioc et al. 2010, Busuioc et al. 2011). Almost all the species identified by us represent new contributions, due to the absence of published mycological data from the analysed area.

MATERIAL AND METHOD

Observations were made in the forests within the site during different periods, from May to November. The site is divided into three zones: Zone 1 – located in the southern part of the county, with the following shares across the localities: Cobia (Gherghițești) (6 %) – Gura Foi (19 %) – Crângurile (10 %); Zone 2 – located in the northwestern part of the county, within the localities of Hulubești (2 %) – Ludești (19 %) – Mănești (12 %) – Tătărani (<1 %) (the Hulubești–Ludești road passes through the site); Zone 3 – located in the central part of the county, represented by the Olteni Forest, within the localities of Lucieni (19 %) and Răciu (<1 %) (the site can be accessed from the area between Șuța Seacă and Olteni, or from the opposite side, from Frasin Vale toward Ludești).

The fungal species were identified both in the field, on fresh material, and in the laboratory, where collected samples were analysed, using specialized literature (Sălăgeanu & Sălăgeanu 1985, Bon 1988a, 1988b, Courtecuisse & Duhem 1994, Tănase et al. 2009, Palazón Lozano 2006). Photographs were taken with a Nikon COOLPIX P510 camera. A list of macromycetes was compiled (personal data), presented below. Species are listed alphabetically, and for each one, the following information is provided: scientific name (follows Index Fungorum), ecology (Sălăgeanu & Sălăgeanu 1985, Bontea 1985, 1986, Ciortan & Negrean 2013), the community-interest habitat in which it was identified (Gafta & Mountford 2008), practical importance - edibility, toxicity, etc. (Sălăgeanu & Sălăgeanu 1985, Kostić et al. 2023), altitude, collection date, and locality (personal data).

RESULTS AND DISCUSSION

List of Identified Species:

Myxogastria

Stemonitis fusca Roth – on dead wood of beech and hornbeam, in habitat 91Y0, alt. 320 m, August 10, 2024, at Ludești.

Ascomycota

Daldinia concentrica (Bolton) Ces. & De Not. – on dead beech wood, in habitat 9130, properties: inedible, alt. 360 m, October 25, 2024, at Ludești.

Galactinia cerea (Sowerby) Le Gal – on soil, in habitat 91Y0, properties: inedible, alt. 291 m, July 12, 2024, Olteni Forest: Lucieni–Răciu.

Legaliana badia (Pers.) Van Vooren – on soil, in habitat 91Y0, properties: edible, alt. 300 m, July 12, 2024, Olteni Forest: Lucieni-Raciu, and Ludești.

Xylaria longipes Nitschke – on decaying *Fagus sylvatica* L. wood, in habitat 9130, properties: inedible, August 10, 2024, at Ludești.

Basidiomycota

Agaricus sylvicola (Vittad.) Peck - on soil in forest, in habitat 91Y0, alt. 287 m, October 10, 2024, Olteni forest: Lucieni-Raciu; in habitat 9170, properties: edible, in the Crângurile area.

Amanita caesarea (Scop.) Pers. - on soil, in habitat 91M0, properties: edible (with very high food value), alt. 240 m, July 12, 2024, Olteni forest: Lucieni-Raciu.

Amanita citrina Pers. - on soil, in habitat 91M0, properties: inedible (eaten raw is poisonous), alt. 310 m, August 10, 2024, Olteni forest: Lucieni-Raciu, at Crângurile, Gura Foi; in habitat 91Y0, at Ludești.

Amanita pantherina (DC.) Krombh. – on soil, in habitat 91M0, properties: inedible, poisonous, Olteni forest: Lucieni-Raciu, August 10, 2024; in habitat 9130, alt. 394 m, May 25, 2024, at Hulubești.

Amanita phalloides (Vaill. ex Fr.) Link - on soil, in habitat 91M0, properties: inedible, poisonous, alt. 280 m, August 10, 2024, Olteni forest: Lucieni-Raciu.

Amanita rubescens Pers. - on soil, in habitat 91M0, properties: edible, July 12, 2024, alt. 295 m; in habitat 91Y0, Olteni Forest: Lucieni-Raciu; in habitat 91Y0, alt. 315 m, at Ludești.

Armillaria mellea (Vahl) P. Kumm. - on the roots, in habitat 9130, properties: edible, alt. 320 m, October 25, 2024, at Ludești; in habitat 9170, at Hulubești.

Artomyces pyxidatus (Pers.) Jülich – on decaying beech wood, in habitat 9130, properties: edible, alt. 360 m, July 12, 2024, at Hulubești, Ludești.

Auricularia auricula-judae (Bull.) Quél. - on bark of deciduous branches, on ash wood, in habitat 91Y0, properties: edible, medicinal, alt. 295 m, July 12, 2024, Olteni forest: Lucieni-Raciu; in habitat 9170, at Ludești, Hulubești.

Bjerkandera fumosa (Pers.) P. Karst. - on beech wood, in habitat 9130, properties: inedible, alt. 360 m, October 25, 2024, at Ludești.

Boletus aereus Bull. - on soil, in habitat 9170, properties: edible, alt. 430 m, August 10, 2024, at Ludești, Scheiu, Crângurile.

Boletus reticulatus Schaeff. - on soil under oaks, in habitat 9170, properties: edible, alt. 394 m, August 10, 2024, at Hulubești, Ludești, Scheiu, Crângurile.

Bovistella utriformis (Bull.) Demoulin & Rebriev – on soil, under beech trees, in habitat 9130, properties: edible, medicinal, alt. 394 m, August 10, 2024, at Hulubești, Ludești.

Cantharellus cibarius Fr. – on the ground, in habitat 91M0, properties: edible (with very high food value), alt. 290 m, August 10, 2024, grove area at Gura Foi.

Clavariadelphus pistillaris (L.) Donk – on the ground, in deciduous forests, properties: edible, August 10, 2024, at Ludești.

Clitocybe infundibuliformis (Schaeff.) Quél. – on the ground, through deciduous forests, properties: edible (with little food value), August, October 2024, at Ludești.

Collybia nuda (Bull.) Z. M. He & Zhu L. Yang – on soil, in habitat 9170, properties: edible, alt. 260 m, October 25, 2024, at Ludești, Crângurile.

Coprinopsis cinerea (Schaeff.) Redhead, Vilgalys & Moncalvo – on decaying stumps, in habitat 9170, properties: inedible, medicinal as antibiotic, alt. 320 m, August 10, 2024, at Ludești, Hulubești, Crângurile.

Coprinopsis picacea (Bull.) Redhead, Vilgalys & Moncalvo – on soil, in habitats 9130, 9170, properties: inedible, August, October 2024, at Ludești, Hulubești, Telești, Crângurile.

Craterellus cornucopioides (L.) Pers. – on soil, in habitat 91Y0, properties: edible, alt. 310 m, July 12, 2024, Olteni Forest near the forestry canton, Lucieni–Raciu; at Gura Foi, Ludești.

Cyathus striatus Willd. – on decomposing oak (*Quercus robur* L.) wood, in habitat 91Y0, properties: inedible, alt. 314 m, July 12, 2024, Olteni Forest near the forestry canton, Lucieni–Raciu, and Ludești; in habitat 91M0, at Cobia.

Daedaleopsis confragosa (Bolton) J. Schröt. – on *Salix alba* L., in habitat 91E0*, properties: inedible, medicinal, alt. 320 m, May 25, 2024, at Butoiu.

Daedalea quercina (L.) Pers. – on oak trunks, in habitat 9170, properties: inedible, medicinal as anti-inflammatory, alt. 280 m, October, 25, 2024, at Butoiu, Ludești.

Desarmillaria tabescens (Scop.) R. A. Koch & Aime. – on roots, in habitat 9130, properties: edible (but toxic when too young or old), October 25, 2024, at Hulubești, Ludești, Telești.

Exidia glandulosa (Bull.) Fr. – on dry oak branches, in habitat 9170, properties: inedible, alt. 290 m, October 10, 2024, at Șuța Seacă.

Fistulina hepatica (Schaeff.) With. – on oak trunks (*Quercus robur* L.), in habitat 91Y0, properties: edible only when young, alt. 264 m, October 25, 2024, at Crângurile, Gura Foi, Cobia, Ludești.

Fomes fomentarius (L.) Fr. – on *Quercus cerris* L. trunks, in habitat 91Y0, properties: inedible, medicinal, alt. 315 m, July 12, 2024, Olteni Forest: Lucieni–Raciu, and Gura Foi; on *Fagus sylvatica* L. trunks, in habitat 9130, alt. 360 m, at Hulubești, Ludești; on *Populus alba* L., in habitat 91E0*, alt. 320 m, August 10, 2024, at Butoiu, Valea cu Urzici.

Ganoderma applanatum (Pers.) Pat. – on cut trunks of *Fagus sylvatica* L., in habitat 9130, properties: inedible, alt. 315 m, August 10, 2024, at Hulubești, Ludești.

Ganoderma lucidum (Curtis) P. Karst. – on roots of *Quercus robur* L., and on decaying hornbeam trunks, in habitat 91Y0, properties: inedible, medicinal, alt. 300 m, July 12, 2024, Olteni Forest: Lucieni–Raciu; Crângurile area near Gura Foi.

Geastrum triplex Jungh. – on soil, in leaf litter and well-decayed stumps, in habitat 9130, properties: inedible, medicinal, alt. 400 m, August 10, 2024, at Ludești.

Gymnopus fusipes (Bull.) Gray – on decaying oak trunks, in habitat 9170, properties: inedible, alt. 310 m, August 10, 2024, at Hulubești, Ludești; in habitat 91M0, at Cobia.

Hebeloma crustuliniforme (Bull.) Quél. – on soil, in habitat 9170, properties: poisonous, October 25, 2024, at Ludești.

Hymenopellis radicata (Relhan) R. H. Petersen – on beech trunks and decaying woody debris, in habitat 9130, properties: edible (with little food value), August 10, 2024, at Hulubești, Ludești.

Hypholoma fasciculare (Huds.) P. Kumm. – on decayed oak wood, in habitat 91Y0, properties: poisonous, alt. 290 m, October 25, 2024, Olteni Forest: Lucieni–Raciu, and Ludești.

Hypholoma lateritium (Schaeff.) P. Kumm. – on oak stumps, in habitat 91Y0, properties: poisonous, alt. 315 m, October 25, 2024, Olteni Forest: Lucieni–Raciu, and Crângurile, Ludești.

Lactifluus piperatus (L.) Roussel – on soil under oaks, in habitat 91Y0, properties: edible, spice and medicinal as diuretic, alt. 295 m, in habitat 91M0, alt. 310 m, July 12, 2024, Olteni Forest: Lucieni–Raciu, and Cobia; under beech trees, in habitat 9130, alt. 380 m, June 20, 2024, at Hulubești, Ludești.

Lactifluus volemus (Fr.) Kuntze – on soil, in habitat 91Y0, properties: edible, medicinal as antibiotic (Kostić et al. 2023), alt. 295 m, July 12, 2024, Olteni Forest: Lucieni–Raciu, and Ludești.

Laetiporus sulphureus (Bull.) Murrill – on *Alnus glutinosa* (L.) Gaertner, in habitat 91E0*, and on oak trunks, properties: edible (with little food value), October 25, 2024, at Butoiu.

Leccinum scabrum (Bull.) Gray – on soil, in habitat 9170, properties: edible, alt. 315 m, August 10, 2024, at Ludești, Crângurile, Cobia.

Lycoperdon excipuliforme (Scop.) Pers. – on soil under oaks, in habitat 91Y0, properties: edible, medicinal as antihemorrhagic and antiseptic, alt. 315 m, July 12, 2024, Olteni Forest: Lucieni–Raciu; Gura Foi.

Lycoperdon perlatum Pers. – on soil, in habitat 9170, properties: edible when young, medicinal as antihemorrhagic and antiseptic, alt. 406 m, June 20, 2024, at Hulubești, Ludești.

Lyophyllum crassifolium (Sacc.) Singer – on soil, in habitat 9170, properties: inedible, alt. 300 m, June 20, 2024, at Hulubești, Ludești.

Macrolepiota procera (Scop.) Singer – on soil, in habitat 91Y0, properties: edible (with very high food value), alt. 275 m, August 10, 2024, Olteni Forest: Lucieni–Raciu, and Crângurile; in habitat 9170, at Butoiu–Ludești, Hulubești.

Macrolepiota excoriata (Schaeff.) Wasser – on soil, in habitat 9170, properties: edible (with high food value), alt. 325 m, October 25, 2024, at Ludești, Hulubești.

Marasmius oreades (Bolton) Fr. – on soil at forest edge, in habitat 9170, properties: edible (with very high nutritional value), alt. 330 m, August 30, 2024, at Hulubești, Ludești.

Marasmius rotula (Scop.) Fr. – on decaying branches, in habitat 91Y0, properties: inedible, alt. 295 m, July 12, 2024, Olteni Forest: Lucieni–Raciu.

Mucidula mucida (Schrader) Pat. – on dead beech trunks, in habitat 9130, properties: inedible, alt. 390 m, October 25, 2024, at Ludești.

Omphalotus olearius (DC.) Singer – on stumps or dry hornbeam branches, in habitat 9170, properties: poisonous, June 20, 2024, at Ludești.

Panus rudis Fr. – on oak wood, in habitat 9170, properties: inedible, alt. 320, October 25, 2024, at Hulubești, Ludești.

Paxillus involutus (Batsch) Fr. – on soil, in habitat 9170, properties: poisonous, alt. 290 m, August 25, 2024, at Hulubești, Ludești.

Phellinus igniarius (L.) Quél. – on wood of *Salix alba* L., *Fraxinus excelsior* L., and *Alnus glutinosa* (L.) Gaertner, in habitat 91E0*, August 10, 2024, at Valea cu Urzici, Butoiu, Ludești.

Phellinus pomaceus (Pers.) Maire – on wood, in habitat 91E0*, properties: inedible, August 10, 2024, at Butoiu.

Pleurotus cornucopiae (Paulet) Quél. – on dead wood of *Populus alba* L., in habitat 91E0*, properties: edible, alt. 290 m, August 10, 2024, at Butoiu.

Pluteus cervinus (Schaeff.) P. Kumm. – on decaying beech trunks and branches, in habitat 9130, properties: edible (with little food value), alt. 340 m, August 10, 2024, at Ludești.

Ramaria formosa (Pers.) Quél. – on soil, in habitat 9130, properties: poisonous, alt. 415 m, August 10, 2024, at Hulubești, Ludești; in habitat 91Y0, alt. 295 m, July 12, 2024, Olteni Forest: Lucieni–Raciu.

Ramariopsis kunzei (Fr.) Corner – on soil, in habitat 9170, properties: inedible, alt. 325 m, October 25, 2024, at Ludești.

Russula cyanoxantha (Schaeff.) Fr. – on soil, in habitat 91Y0, properties: edible, alt. 315 m, July 12, 2024, Olteni Forest: Lucieni–Raciu, and Crângurile, Ludești.

Russula foetens Pers. – on soil, in habitat 9170, properties: inedible, alt. 345 m, August 10, 2024, at Ludești, Crângurile.

Russula heterophylla (Fr.) Fr. – on soil, in habitat 91Y0, properties: edible, alt. 320 m, July 12, 2024, Olteni Forest near the forestry canton, at Lucieni–Raciu.

Russula rosea Pers. – on soil, in habitat 91Y0, properties: edible, alt. 314 m, July 12, 2024, Olteni Forest near the forestry canton, Lucieni–Raciu, and Ludești.

Russula virescens (Schaeff.) Fr. – on soil, in habitat 9170, properties: edible (with very high food value), August 10, 2024, alt. 290 m, at Hulubești.

Schizophyllum commune Fr. – on decaying beech trunks and fallen branches, in habitat 9130, alt. 376 m, June 20, 2024, at Hulubești; on fallen branches, in habitat 91M0, alt. 310 m, May 24, 2024, Olteni Forest: Lucieni–Raciu.

Scleroderma citrinum Pers. – on soil, in habitat 91Y0, properties: poisonous, alt. 300 m, July 12, 2024, Olteni Forest: Lucieni–Raciu, and Ludești; in habitat 91M0, at Cobia.

Stereum hirsutum (Willd.) Pers. – on beech trunks, in habitat 9130, properties: inedible, alt. 394 m, August 10, 2024, at Hulubești; in habitat 9170, at Butoiu–Ludești, Telești.

Suillellus luridus (Schaeff.) Murrill – on forest soil, in habitat 9170, properties: edible (with little food value, not suitable raw), alt. 500 m, August 10, 2024, at Ludești, Hulubești, Crângurile.

Trametes cinnabarina (Jacq.) Fr. – on dead wood and beech stumps, in habitat 9130, properties: inedible, alt. 270 m, October 25, 2024, at Ludești.

Trametes gibbosa (Pers.) Fr. – on dead *Salix alba* L. wood, in habitat 91E0*, at Butoiu; on beech stumps, in habitat 9130, October 25, 2024, at Ludești.

Trametes hirsuta (Wulfen) Lloyd – on beech stumps and decaying trunks, in habitat 9130, properties: inedible, alt. 340 m, August 10, 2024, at Ludești.

Trametes ochracea (Pers.) Gilb. & Ryvarden – on beech wood and stumps, decaying trunks, in habitat 9130, properties: inedible, October 25, 2024, at Ludești.

Trametes versicolor (L.) Lloyd – on beech stumps and decaying trunks, in habitats 9130, 9170, at Hulubești, Ludești; on oak stumps (*Quercus robur* L.), in habitat 91Y0, properties: inedible, alt. 325 m, July 12, 2024, Olteni Forest: Lucieni–Raciu.

Tremella mesenterica (Schaeff.) Pers. – on dead hardwood branches, in habitat 91Y0, properties: inedible, medicinal, alt. 320 m, July 12, 2024, Olteni Forest: Lucieni–Raciu.

Tyromyces lacteus (Fr.) Murrill – on dead beech wood, in habitat 9130, properties: inedible, alt. 375 m, October 25, 2024, at Ludești.

Xerocomus subtomentosus (L.) Quél. – on soil, in habitat 91M0, properties: edible (with little food value), alt. 335 m, August 10, 2024, Olteni Forest: Lucieni–Raciu, and Ludești, Cobia, Gura Foi.

In total, 78 species of macromycetes were identified, belonging to three classes within the kingdom Fungi: one species of Myxomycetes, four species of Ascomycetes, and 73 species of Basidiomycetes. From an ecological perspective, 44 species were

identified as lignicolous, and 34 species as soil fungi. Many of the identified species are edible and are commonly collected by inhabitants living near the protected area (for example, *Amanita caesarea*, *Armillaria mellea*, *Pleurotus cornucopiae*, *Cantharellus cibarius*, *Macrolepiota procera*, *Russula virescens*, and others).

In recent years, studies have been conducted on certain macromycete species collected from Dâmbovița County (Busuioc et al. 2009, Busuioc et al. 2010, Busuioc et al. 2011), focusing on their capacity to bioaccumulate heavy metals in the fruiting body (for example, *Stereum hirsutum*, *Trametes versicolor*, *Geastrum triplex*, *Bovistella utriformis*, *Coprinopsis picacea*, *Coprinopsis cinerea*, *Pseudotrametes gibbosa*, *Lyophyllum crassifolium*, *Paxillus involutus*, *Phellinus tremula*, *Boletus edulis*, *Lactifluus piperatus*, *Russula foetens*, *Cantharellus cibarius*). The species *Geastrum triplex* (commonly known as "earth star") may have ornamental value. Both *Geastrum triplex* and *Bovistella utriformis* typically grow as isolated specimens, whereas other species (*Stereum hirsutum*, *Trametes versicolor*) are widely distributed throughout the forest ecosystems of Dâmbovița County (Busuioc et al. 2009).

CONCLUSIONS

A significant proportion of the taxa listed represent new records for the analysed protected area. Out of the 78 identified macromycete species, 44 are lignicolous species. Among the pressures affecting natural habitats is the collection of various edible macromycete species.

The study of macromycetes within the Natura 2000 site "The forests in the Southern part of the Căndești Piedmont" provides new contributions to understanding the biodiversity of this protected area.

The importance of this research lies in offering new data from a region that has been very little investigated from a mycological standpoint, thereby opening perspectives for broader studies on the forests surrounding the city of Târgoviște, with the aim of understanding, protecting, and conserving their biodiversity.

REFERENCES

- Bon M. 1988a. Monographic key for European Russulae. Documents mycologiques, 18(71-72), 1-125.
- Bon M. 1988b. Champignons de France et de l'Europe Occidentale. Arthaud Edit., Paris, 368 pp.
- Bontea V. 1985, 1986. Ciuperci parazite și saprofite din R.P.R., vol. 1, 2. Edit. Academiei Române, București, 586 pp. (vol. I), 469 pp. (vol. II).
- Busuioc G., Elekes C.C., Radulescu C., Petrescu N., Gheboianu A., Sardin B. 2010. The Influence of Some Heavy Metals Content of Substrate and pH on Bioabsorption Level at Six Macromycetes Species Common in Southern Forest of Romania. Bulletin UASVM Agriculture, 67(2)/2010 Print ISSN 1843-5246; Electronic ISSN 1843-5386.
- Busuioc G., Elekes C.C., Stihl C., Toma L.G. 2011. Copper Bioabsorption in Some Macromycetes Species Grew in Laboratory Conditions. Annals. Food Science and Technology, Valahia University Press.
- Busuioc G., Stihl C., Elekes C.C., Ciulei S. 2009. Researches about the Evaluation of Storage Level for Heavy Metals in Some Macromycetes Species Harvested from Forestry Ecosystems of Dâmbovița County. Lucrări Științifice – vol. 52, seria Agronomie, Universitatea de Științe Agricole și Medicină Veterinară Iași.

Ciortan I., Negrean G. 2013, Macromycetes from the Geopark Platoul Mehedinți (Oltenia, Romania) (1st NOTE). Muzeul Olteniei Craiova, Oltenia. Studii și comunicări. Științele Naturii, Tom. 29, No. 1/2013.

Courtecuisse R., Duhem B. 1994. Guide des Champignons de France et d'Europe. Edit. Delachaux & Niestlé, Lausanne, 480 pp., col plates.

Gafta D., Mountford J.O. 2008. Manual de interpretare a habitatelor Natura 2000 din România, Edit. Risoprint, Cluj-Napoca, 102 pp.

Kostić M., Ivanov M., Fernandes Â., Calhelha R. C, Glamočlija J., Barros L., Soković M., Ćirić A. 2023. A Comparative Study of *Lactarius* Mushrooms: Chemical Characterization, Antibacterial, Antibiofilm, Antioxidant and Cytotoxic Activity. J Fungi, Basel, 9(1), 70.

Palazón Lozano F. 2006. Setas para todos. Guía práctica de identificación. Editorial Pirineo, 653 pp.

Sălăgeanu G., Sălăgeanu A. 1985. Determinator pentru recunoașterea ciupercilor comestibile și otrăvitoare din România. Edit. Ceres, București, 330 pp., 145 fig., 28 pl. color.

Tănase C., Bîrsan C., Chinan V. & Cojocariu A. 2009. Macromicete din România. Edit. Univ. „Alexandru Ioan Cuza” Iași, 563 pp.

***<http://www.indexfungorum.org/Index.htm>. (Accesat 20.10.2025).

***https://anmap.gov.ro/documents/3050355/3600075/PM_Candesti_decembrie%202015.pdf (PLAN DE MANAGEMENT ARIA NATURALĂ PROTEJATĂ ROSCI 0344 – Pădurile din sudul Piemontului Căndești).