

Caporale, S. & Ravera, S.: Lichen diversity on Trees Outside Forest in Molise (Central Italy). — Borziana 1: 67-75. 2020.

Electronic Supplementary File1. <https://doi.org/10.7320/Borz.001.067.001>

Version of Record published online on 3 December 2020

## List of lichens on the TOF of Molise

Taxa are listed in alphabetical order. Species included in the red list of epiphytic lichens of Italy (Nascimbene & al. 2013) are indicated with the symbol \* followed by the category of threat in brackets. New species for the lichen flora of Molise are indicated with the symbol #.

Plot number and the host tree species (for abbreviations see Table 2) are reported. For each species the value of poleotolerance (PT) is indicated according with Nimis (2016): 0 - species which exclusively occur on old trees in ancient, undisturbed forests; 1 - species mostly occurring in natural or semi-natural habitats; 2 - species occurring also in moderately disturbed areas (agricultural areas, small settlements etc.); 3 - species occurring also in heavily disturbed areas, incl. large towns.

### List of taxa

- Acrocordia gemmata* (Ach.) A. Massal. var. *gemmata*, 6: on Qr. PT 1.
- # \* (LC) *Agonimia opuntiella* (Buschardt & Poelt) Vězda, 5: on Qc. PT 1.
- Alyxoria varia* (Pers.) Ertz & Tehler, 1, 3, 9, 14, 18, 22, 28, 29, 30: on Aa, Fe, Pa, Po, Qc, Qp, Sa. PT 1-2.
- Amandinea punctata* (Hoffm.) Coppins & Scheid., 13, 14: on Jr, Sa. PT 1-3.
- Anaptychia ciliaris* (L.) A. Massal., 3, 4, 8, 10, 11, 13, 17, 20, 23, 27: on Ac, Fe, Jr, Po, Qc, Qp, Rp, Um. PT 1-2.
- Arthonia atra* (Pers.) A. Schneid., 7: on Qc, Qp. PT 1-2.
- # \* (VU) *Arthonia excipienda* (Nyl.) Leight. 16: on Pa. PT 1.
- Arthonia punctiformis* Ach., 7, 11: on Ac, Qc, Qp. PT 1-2.
- Arthonia radiata* (Pers.) Ach., 3, 7, 9, 12, 14: on Ac, Ag, Fe, Pa, Qc, Qp. PT 1-3.
- # *Arthopyrenia analepta* (Ach.) A. Massal., 4, 5: on Qc, Qp. PT 1.
- \* (NT) *Arthopyrenia salicis* A. Massal., 9, 10, 12, 13, 14: on Ag, Jr, Pa, Qp, Sa. PT 1.
- Athallia cerinella* (Nyl.) Arup, Frödén & Söchting, 1, 4, 5, 9, 10, 11, 14, 16, 17, 19, 20, 22, 25, 26, 27, 29, 30: on Aa, Ag, Fe, Pa, Po, Pt, Qc, Qp, Rp, Sa, Um. PT 1-2.
- Athallia cerinelloides* (Erichsen) Arup, Frödén & Söchting, 13: on Jr. PT 1-2.
- Athallia pyracea* (Ach.) Arup, Frödén & Söchting, 6, 8, 10, 14, 17, 24, 25: on Pa, Po, Qc, Qp, Qr, Sa. PT 1-2.
- Bacidia arceutina* (Ach.) Rehm & Arnold, 2, 3: on Fe, Pt. PT 1.
- Bacidia fraxinea* Lönnr., 1, 2, 3, 4, 8, 10, 14, 17, 18, 27, 28: on Ac, Fe, Po, Qc, Qp, Sa, Um. PT 0.
- \* (NT) *Bacidia rosella* (Pers.) De Not., 27: on Po. PT 0.
- Bacidia rubella* (Hoffm.) A. Massal., 1, 2, 6, 17: on Ac, Fe, Qp, Qr. PT 1-2.
- Blastenia ferruginea* (Huds.) A. Massal. 28: on Qp. PT 1-2.
- \* (NT) *Buellia disciformis* (Fr.) Mudd, 1, 17: on Ac, Fe. PT 1.
- Caloplaca cerina* (Hedw.) Th. Fr. s.lat., 1, 4, 6, 8, 10, 13, 14, 17, 19, 20, 21, 22, 23, 25, 26, 29: on Ac, Fe, Jr, Pa, Po, Pt, Qc, Qp, Qr, Sa. PT 1-3.
- Caloplaca haematites* (Chaub.) Zwackh, 1, 5, 8, 10, 14, 19, 20, 21, 22, 23, 26: on Ac, Fe, Jr, Pa, Pt, Qc, Qp, Sa, Um. PT 1-2.
- Caloplaca obscurella* (J. Lahm) Th. Fr., 8: on Ac, Qc, Qp. PT 1-2.
- Candelaria concolor* (Dicks.) Stein, 4, 5, 6, 8, 9, 10, 11, 13, 14, 17, 21, 22, 23, 25, 27, 30: on Ag, Jr, Pa, Pr, Qc, Qp, Qr, Rp, Sa, Um. PT 1-3.
- Candelariella reflexa* (Nyl.) Lettau, 5, 6, 10, 17, 30: on Pr, Qp, Qr. PT 1-3.
- \* (NT) *Candelariella subdeflexa* (Nyl.) Lettau, 8, 16: on Ac, Qp. PT 1-2.
- Candelariella xanthostigma* (Ach.) Lettau, 1, 2, 3, 4, 5, 6, 8, 10, 11, 14, 15, 17, 19, 20, 21, 23, 24, 25, 27, 30: on Aa, Ac, Fe, Pa, Pd, Po, Pr, Qc, Qp, Qr, Rp, Sa, Um. PT 1-3.
- \* (NT) *Catapyrenium psoromoides* (Borrer) R. Sant., 17: on Qp. PT 1.
- Catillaria nigroclavata* (Nyl.) J. Steiner, 1, 6, 8, 9, 10, 11, 14, 16, 17, 28: on Ac, Ag, Fe, Pa, Po, Qr, Qp, Qc, Rp, Sa. PT 1-2.
- Coenogonium pineti* (Ach.) Lücking & Lumbsch, 3, 7: on Qc. PT 1-2.

*Collema furfuraceum* Du Rietz, 6, 10, 17, 28: on Qp, Qr. PT 1.  
*Collema nigrescens* (Huds.) DC. PT 1-2.  
*Collema subnigrescens* Degel., 10: on Qp. PT 1-2.  
*Diplotomma alboatrum* (Hoffm.) Flot., 13, 14, 17, 18: on Ac, Jr, Po, Sa. PT 1-2.  
*Evernia prunastri* (L.) Ach., 3, 5, 8, 11, 23, 27: on Ac, Pr, Qc, Qp. PT 1-2.  
*Flavoparmelia caperata* (L.) Hale, 3, 4, 7, 8, 10, 11, 19, 21, 22, 30: on Pd, Qc, Qp, Qr. PT 1-2.  
*Flavoparmelia soledians* (Nyl.) Hale, 5, 11, 20, 21, 22, 23, 24: on Pr, Qc, Qp. PT 1-2.  
*Fuscopannaria mediterranea* (Tav.) P.M. Jørg., 11: on Qp. PT 1.  
\* (NT) *Gyalecta carneola* (Ach.) Hellb., 10, 15, 16, 18: on Po, Qp. PT 0.  
*Gyalecta truncigena* (Ach.) Hepp, 3, 6: on Fe, Qr. PT 0.  
*Gyalolechia flavorubescens* (Huds.) Søchting, Frödén & Arup var. *flavorubescens*, 8, 10, 14, 17, 18, 27: on Ac, Po, Qp, Sa. PT 1-2.  
*Hyperphyscia adglutinata* (Flörke) H. Mayrhofer & Poelt, 1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 25, 26, 27, 28, 29, 30: on Aa, Ac, Ag, Fe, Jr, Pa, Pd, Po, Pr, Pt, Qc, Qp, Qr, Rp, Sa, Um. PT 1-3.  
*Hypogymnia physodes* (L.) Nyl., 23: on Qc, Qp. PT 1-3.  
*Lecania cyrtella* (Ach.) Th. Fr., 3, 17: on Fe, Po. PT 1-3.  
*Lecania cyrtellina* (Nyl.) Sandst., 8, 13, 14: on Ac, Jr, Pa, Qc. PT 1-3.  
*Lecania naegelii* (Hepp) Diederich & van den Boom, 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 25, 26, 28: on Ac, Ag, Fe, Jr, Pa, Po, Pt, Qc, Qp, Rp, Sa, Um. PT 1-2.  
# *Lecanora albella* (Pers.) Ach., 17: on Po. PT 1.  
*Lecanora allophana* (Ach.) Nyl. f. *allophana*, 4, 5, 10, 11, 13, 14, 18, 19, 20, 21, 22, 23, 24, 27, 28: on Ac, Jr, Po, Pd, Pr, Pt, Qc, Qp, Sa. PT 1-2.  
*Lecanora argentata* (Ach.) Malme, 13: on Jr. PT 1-2.  
*Lecanora carpineae* (L.) Vain., 1, 2, 3, 4, 5, 7, 8, 11, 13, 14, 16, 17, 18, 19, 20, 21, 22, 23, 24, 26, 27: on Ac, Fe, Jr, Pd, Po, Pr, Qc, Qp, Rp, Sa, Um. PT 1-3.  
*Lecanora chlarotera* Nyl. subsp. *chlarotera*, 1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 16, 17, 18, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30: on Aa, Ac, Fe, Jr, Pd, Po, Pr, Pt, Qc, Qp, Qr, Rp, Sa, Um. PT 1-3.  
*Lecanora expallens* Ach., 8, 11: on Qc, Qp. PT 1-2.  
*Lecidella elaeochroma* (Ach.) M. Choisy var. *elaeochroma* f. *elaeochroma*, 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30: on Aa, Ac, Ag, Fe, Jr, Pa, Pd, Po, Pr, Pt, Qc, Qp, Rp, Sa, Um. PT 1-3.  
*Lepra albescens* (Huds.) Hafellner, 13, 28: on Jr, Qp. PT 1-2.  
*Lepra amara* (Ach.) Hafellner, 6, 8, 11, 15, 16, 20, 23: on Ac, Qc, Qp, Qr. PT 1-3.  
*Lepraria* sp., 1, 3, 4, 5, 6, 7, 8, 10, 11, 14, 19, 20, 21, 22, 23, 24: on Ac, Pa, Pd, Pr, Qc, Qp, Qr.  
*Leptogium cyanescens* (Ach.) Körb., 28: on Qp. PT 0.  
*Megaspora verrucosa* var. *mutabilis* (Ach.) Nimis & Cl. Roux, 10: on Qp. PT 1.  
*Melanelixia glabra* (Schaer.) O. Blanco, A. Crespo, Divakar, Essl., D. Hawksw. & Lumbsch, 1, 4, 5, 6, 8, 10, 11, 17, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28: on Ac, Fe, Pd, Po, Pr, Qc, Qp, Qr, Rp. PT 1-2.  
*Melanelixia glabrata* (Lamy) Sandler & Arup, 5, 11: on Pr, Qc. PT 1-3.  
*Melanelixia subaurifera* (Nyl.) O. Blanco, A. Crespo, Divakar, Essl., D. Hawksw. & Lumbsch, 1, 3, 4, 8, 11, 20, 23, 24: on Qc, Qp. PT 1-2.  
*Melanohalea elegantula* (Zahlbr.) O. Blanco, A. Crespo, Divakar, Essl., D. Hawksw. & Lumbsch, 3, 8: on Qc, Qp. PT 1.  
*Melanohalea exasperata* (De Not.) O. Blanco, A. Crespo, Divakar, Essl., D. Hawksw. & Lumbsch, 5, 11: on Qc. PT 1-2.  
*Micarea prasina* Fr., 8: on Ac. PT 1.  
# *Mycomicrothelia confusa* D. Hawksw., 9: on Ac. PT 1.  
*Myriolecis hagenii* (Ach.) Sliwa, Zhao Xin & Lumbsch, 5, 6, 7, 8, 9, 11, 13, 14, 17, 18, 19, 21, 27: on Ac, Jr, Pa, Po, Pt, Qc, Qr, Rp, Sa. PT 1-3.  
*Naetrocymbe punctiformis* (Pers.) R.C. Harris, 11, 15, 18: on Qc, Qp, Rp, Sa. PT 1-2.  
*Normandina pulchella* (Borrer) Nyl., 4, 10: on Qc, Qp. PT 1-2.  
*Ochrolechia arborea* (Kreyer) Almb., 10, 11, 42: on Qc, Qp. PT 1-2.  
*Parmelia sulcata* Taylor, 1, 2, 3, 4, 5, 8, 10, 11, 21, 22, 23, 24: on Ac, Pd, Pr, Qc, Qp. PT 1-3.  
*Parmelina quercina* (Willd.) Hale, 4, 5, 8, 10, 11, 24: on Qc, Qp. PT 1-2.  
*Parmelina tiliacea* (Hoffm.) Hale, 1, 3, 4, 5, 6, 8, 10, 11, 15, 17, 20, 21, 23, 24, 26, 28: on Ac, Pd, Po, Pr, Qc, Qp, Qr, Um. PT 1-3.  
*Parmotrema perlatum* (Huds.) M. Choisy, 5, 10, 11, 20, 22, 23, 24: on Pr, Qc, Qp. PT 1-2.

*Pertusaria flavida* (DC.) J.R. Laundon, 23: on Qc. PT 1.  
*Pertusaria leioplaca* (Ach.) DC., 1, 2, 3, 7, 11, 12: on Fe, Pt, Qc, Qp. PT 1.  
*Pertusaria pertusa* (L.) Tuck. var. *pertusa*, 20, 23: on Qc, Um. PT 1-2.  
*Phaeophyscia ciliata* (Hoffm.) Moberg, 1, 4, 8, 10, 13, 17, 21, 27, 28: on Ac, Fe, Jr, Po, Qp. PT 1-2.  
*Phaeophyscia hirsuta* (Mereschk.) Essl., 1, 2, 3, 4, 5, 8, 10, 11, 14, 15, 16, 17, 18, 20, 21, 23, 24, 25, 26, 27, 28, 29, 30:  
on Ac, Fe, Pa, Pd, Po, Pr, Pt, Qc, Qp, Rp, Sa, Um. PT 1-2.  
*Phaeophyscia orbicularis* (Neck.) Moberg, 1, 2, 3, 4, 5, 6, 8, 10, 11, 13, 14, 15, 17, 18, 21, 25, 28, 29, 30: on Ac, Fe, Jr,  
Po, Pr, Qc, Qp, Qr, Rp, Sa, Um. PT 1-3.  
*Phlyctis agelaea* (Ach.) Flot., 3: on Qc. PT 1-2.  
*Phlyctis argena* (Spreng.) Flot., 1, 3, 8, 10, 11: on Fe, Qc, Qp. PT 1-2.  
*Physcia adscendens* H. Olivier, 1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27,  
28, 29, 30: on Aa, Ac, Ag, Fe, Jr, Pa, Pd, Po, Pr, Pt, Qc, Qp, Qr, Rp, Sa, Um. PT 1-3.  
*Physcia aipolia* (Humb.) Fürnr., 1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 15, 16, 17, 18, 20, 21, 23, 24, 25, 26, 27, 28, 29: on  
Ac, Fe, Jr, Pd, Po, Pr, Qc, Qp, Qr, Rp, Um. PT 1-3.  
*Physcia biziana* (A. Massal.) Zahlbr. var. *biziana*, 1, 2, 3, 4, 5, 6, 8, 10, 11, 12, 13, 15, 16, 17, 18, 20, 21, 24, 25, 26, 27,  
28, 29, 30: on Aa, Ac, Fe, Jr, Pd, Po, Pr, Pt, Qc, Qp, Qr, Rp, Sa, Um. PT 1-3.  
*Physcia leptalea* (Ach.) DC., 1, 3, 4, 5, 7, 8, 10, 11, 13, 14, 16, 17, 20, 21, 23, 24, 28: on Ac, Fe, Jr, Pr, Qc, Qp, Rp, Sa. PT 1-2.  
*Physcia tenella* (Scop.) DC., 4, 8, 10, 14, 17: on Qc, Qp, Sa. PT 1-2.  
*Physciella chloantha* (Ach.) Essl., 4, 28: on Um, Qp. PT 1-2.  
*Physconia distorta* (With.) J.R. Laundon, 1, 3, 4, 5, 6, 7, 8, 10, 11, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24, 25, 26, 27, 28,  
29, 30: on Aa, Ac, Fe, Pd, Po, Qc, Qp, Qr, Rp, Sa, Um. PT 1-3.  
*Physconia enteroxantha* (Nyl.) Poelt, 5, 11: on Pr, Qc, Qp. PT 1-2.  
*Physconia grisea* (Lam.) Poelt subsp. *grisea*, 1, 2, 4, 5, 6, 8: on Ac, Fe, Pr, Qc, Qp, Qr. PT 1-3.  
*Physconia perisidiosa* (Erichsen) Moberg, 1, 3, 8, 10, 11, 14, 15, 16, 17, 18, 20, 21, 24, 25, 26, 27, 28: on Ac, Fe, Pd, Po,  
Pr, Qc, Qp, Rp, Sa. PT 1-2.  
*Physconia servitii* (Nádv.) Poelt, 1, 5, 6, 8, 10, 11, 15, 16, 17, 28: on Ac, Fe, Pr, Qc, Qp, Qr, Rp. PT 1.  
*Physconia venusta* (Ach.) Poelt, 10, 11: on Qc, Qp. PT 1.  
\* (LC) *Piccolia ochrophora* (Nyl.) Hafellner, 8, 10, 14, 16, 20, 21, 26, 28: on Pd, Qp, Sa. PT 1-2.  
*Pleurosticta acetabulum* (Neck.) Elix & Lumbsch, 1, 3, 4, 5, 6, 8, 10, 11, 15, 16, 17, 19, 20, 21, 23, 24, 25, 26, 27: on Ac,  
Fe, Jr, Pd, Po, Pr, Qc, Qp, Qr, Rp, Um. PT 1-2.  
*Porina aenea* (Wallr.) Zahlbr., 12: on Qp. PT 1.  
*Pseudoschismatomma rufescens* (Pers.) Ertz & Tehler, 3: on Fe. PT 1.  
*Punctelia borreri* (Sm.) Krog, 1, 4, 6, 10, 16, 17, 22, 28: on Qc, Qp, Qr. PT 1-2.  
*Punctelia jeckeri* (Roum.) Kalb, 10: on Qp. PT 1-3.  
*Ramalina farinacea* (L.) Ach., 3, 11, 23: on Qc, Qp. PT 1-2.  
*Ramalina fastigiata* (Pers.) Ach., 1, 3, 4, 5, 8, 11, 17, 19, 20, 21, 23, 24, 26, 27: on Ac, Fe, Po, Pr, Qc, Qp, Rp, Um. PT 1-2.  
*Ramalina fraxinea* (L.) Ach., 1, 3, 5, 8, 10, 11: on Fe, Pr, Qc, Qp. PT 1.  
*Rinodina exigua* (Ach.) Gray, 4: on Ac. PT 1-2.  
*Rinodina pyrina* (Ach.) Arnold, 5: on Qc. PT 1-2.  
*Rinodina sophodes* (Ach.) A. Massal., 11: on Qc. PT 1-2.  
*Strigula affinis* (A. Massal.) R.C. Harris, 17: on Qp. PT 1-2.  
# *Scytinium subtile* (Schrad.) Otálora, P.M. Jørg. & Wedin, 12: on Qp. PT 1-2.  
*Scytinium teretiusculum* (Wallr.) Otálora, P.M. Jørg. & Wedin, 17, 28: on Qp. PT 1-2.  
*Staurolemma omphalarioides* (Anzi) P.M. Jørg. & Henssen, 6, 10, 26: on Qp, Qr. PT 1.  
\* (NT) *Thelenella modesta* (Nyl.) Nyl., 4: on Ac, Qc, Qp. PT 1.  
*Xanthoria parietina* (L.) Th. Fr., 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26,  
27, 28, 29, 30: on Aa, Ac, Ag, Fe, Jr, Pa, Pd, Po, Pr, Pt, Qc, Qp, Qr, Rp, Sa, Um. PT 1-3.