

Metadata for specimens cited in Van Caenegem & Haelewaters (2024)

Citation: Van Caenegem W, Haelewaters D (2024) New insights into the DNA extraction and PCR amplification of minute ascomycetes in the genus *Laboulbenia* (Pezizomycotina, Laboulbeniales). IMA Fungus 15:14. <https://doi.org/10.1186/s43008-024-00146-9>

Laboulbenia anaplogenii Thaxt., *Proc. Am. Acad. Arts Sci.* 35(9): 156 (1899)

BELGIUM. OOST-VLAANDEREN: Herzele, Duivenbos, 50.8572 N 3.9176 E, 4 Feb 2023, on *Stenolophus mixtus* (Herbst, 1784) (Coleoptera, Carabidae), leg. & det. W. Van Caenegem, slide D. Haelew. 4479c (GENT:GENTFL00996) (2 juvenile and 3 adult thalli from pronotum), GenBank (isolate D. Haelew. 4479b, 3 adult thalli from right elytron): SSU = PP620867, ITS = PP626208, LSU = PP620952.

Laboulbenia argutoris Cépède & F. Picard, *Bull. Biol. Fr. Belg.* 42: 260 (1909)

BELGIUM. VLAAMS-BRABANT: Meise, Domein van Bouchout, 50.926850 N 4.321400 E, 4-18 Apr 2019, on *Pterostichus strenuus* (Panzer, 1796) (Coleoptera, Carabidae), leg. & det. A. De Kesel (coll. ADK6433), slide D. Haelew. 3035b (GENT:GENTFL00805) (6 adult thalli from pronotum), GenBank (isolate D. Haelew. 3035a, 3 adult thalli from right elytron): SSU = PP620868, ITS = PP626209, LSU = PP620953; *ibid.*, GenBank (isolate D. Haelew. 4095a, 3 adult thalli from prosternum): SSU = PP620870, ITS = PP626210, LSU = PP620954; *ibid.*, 50.927439 N 4.323925 E, 12 May 2020, on *Pterostichus strenuus*, leg. & det. A. De Kesel (coll. ADK6534), Genbank (isolate D. Haelew. 3768a, 3 adult thalli from left eye): SSU = PP620869. THE NETHERLANDS. ZUID-HOLLAND: Rijswijk, 51.9524396 N 5.3563606 E, 9-27 May 2022, on *Pterostichus strenuus*, leg. K. Van Vooren, det. W. Van Caenegem, slide D. Haelew. 4465a (GENT:GENTFL00984) (1 adult thallus from pronotum), Genbank (isolate D. Haelew. 4465b, 2 adult thalli from pronotum): ITS = PP626211, LSU = PP620955.

Laboulbenia benjaminii Balazuc ex Santam., *Fl. Mycol. Iber.* 4: 45 (1998)

BELGIUM. ANTWERPEN: Bornem, Wintam, 51.102511 N 4.310575 E, 28 May 2020, on *Badister unipustulatus* Bonelli, 1813 (Coleoptera, Carabidae), leg. & det. A. De Kesel (coll. ADK6522), slide D. Haelew. 3758b (GENT:GENTFL00830) (1 adult thallus from pronotum), Genbank (isolate D. Haelew. 3758a, 1 adult thallus from pronotum): SSU = OR680738, ITS = OR680744, LSU = OR680759, *TEF1* = OR762491.

Laboulbenia bicornis Thaxt., *Proc. Amer. Acad. Arts Sci.* 35(9): 160 (1899)

UGANDA. No locality indicated, 2008, on Gyrinidae sp. indet. (Coleoptera, Gyrinidae), leg. & det. V.I. Gusarov (coll. #37425), slides D. Haelew. 1229a (O) (10 adult thalli from lateral margin right elytron) and 1229c (GENT:GENTFL00801) (7 adult thalli from elytra), Genbank (isolate D. Haelew. 1229b, 3 adult thalli from left elytron): SSU = PP620871, LSU = PP620956; *ibid.*, slide D. Haelew. 4333b (GENT:GENTFL00896) (1 damaged and 8 adult thalli from elytra), Genbank (isolate D. Haelew. 4333a, 2 adult thalli from right elytron): SSU = OR680728, LSU = OR680748.

Laboulbenia bruchii (Speg.) Thaxt., *Proc. Am. Acad. Arts Sci.* 50(2): 23 (1914)

PANAMA. COLÓN PROVINCE: Gamboa, Kents Marsh, 9.1198833 N 79.6970333 W, 15 June 2017, on *Neolema adunata* White, 1993 (Coleoptera, Chrysomelidae), leg. A. Dorrestein, K. Silas & M. Walker, det. J.A. Bernal Vega[†] & T.A. Ríos G., slide D. Haelew. 1346a (FH) (2 adult thalli from

pronotum), Genbank (isolate D. Haelew. 1346b, 2 adult thalli from margin left elytron): SSU = MN530040, ITS = OR680724, LSU = MN394843.

Laboulbenia calathi T. Majewski, *Polish Bot. Stud.* 7: 89 (1994)

THE NETHERLANDS. NOORD-BRABANT: Tilburg, De Kaaistoep, 51.53976 N 5.00955 E, 4-11 Nov 2015, on *Calathus melanocephalus* (Linnaeus, 1758) (Coleoptera, Carabidae), leg. H. Spijkers & P.S. van Wielink, det. P.S. van Wielink, Genbank (isolate D. Haelew. 1007a, 10 adult thalli from pronotum and left elytron): SSU = MG438342, LSU = OR680755.

Laboulbenia casnoniae Thaxt., *Proc. Am. Acad. Arts Sci.* 25: 266 (1891)

UNITED STATES OF AMERICA. MARYLAND: Baltimore County, Lake Roland Park, 12 June 2019, on *Colliuris pensylvanica* (Linnaeus, 1758) (Coleoptera, Carabidae), leg. J.D. Young, det. M. Schilthuizen (coll. TXEX), slides D. Haelew. 1746b (GENT:GENTFL00620) (3 juvenile and 3 adult thalli from left elytron) and 1746c (GENT:GENTFL00621) (1 juvenile and 5 adult thalli from left elytron), Genbank (isolate D. Haelew. 1746a, 3 adult thalli from left elytron): SSU = PP620872, ITS = PP626212, LSU = PP620957, *MCM7* = PP601376, *TEF1* = PP601362.

Laboulbenia cf. disonichae (Speg.) Thaxt., *Proc. Am. Acad. Arts Sci.* 50(2): 35 (1914)

PANAMA. DARIÉN PROVINCE: Chucantí Nature Reserve, Sendero del Escalera, 8.7977667 N 78.4532 W, 5 Aug 2022, on *Acanthonycha* sp. (Coleoptera, Chrysomelidae), leg. D. Haelewaters, det. M. Schilthuizen (coll. TXEX), slide D. Haelew. 4194d (GENT:GENTFL00874) (7 juvenile and 1 adult thalli from right elytron), Genbank (isolate D. Haelew. 4194b, 1 adult thallus from right elytron): SSU = PP620873, LSU = PP620958, *TEF1* = PP601363.

Laboulbenia cf. dorstii Balazuc, *Rev. Mycol.* 39(3): 203 (1975)

PANAMA. DARIÉN PROVINCE: Chucantí Nature Reserve, Sendero del Escalera, 8.7977667 N 78.4532 W, 5 Aug 2022, on *Acanthonycha* sp. (Coleoptera, Chrysomelidae), leg. D. Haelewaters, det. M. Schilthuizen (coll. TXEX), slide D. Haelew. 4194a (GENT:GENTFL00776) (2 adult thalli from sternites), Genbank (isolate D. Haelew. 4194c, 2 subadult thalli from sternites): SSU = PP620874, LSU = PP620959.

Laboulbenia clivinalis Thaxt., *Proc. Am. Acad. Arts Sci.* 35(9): 165 (1899)

BELGIUM. OOST-VLAANDEREN: Herzele, Duivenbos, 50.8536 N 3.9165 E, 23 Apr 2022, on *Clivina fossor* (Linnaeus, 1758) (Coleoptera, Carabidae), leg. & det. W. Van Caenegem, slide D. Haelew. 3976b (GENT:GENTFL00844) (2 adult thalli from elytra), Genbank (isolate D. Haelew. 3976a, 2 adult thalli from pronotum): SSU = PP620875, ITS = PP626213, LSU = PP620960. LATVIA, Valmiera Municipality, Valmiera, Gauja valley, 57.539153 N 25.445900 E, 5 Aug 2019, on *Clivina fossor*, leg. & det. A. De Kesel (coll. ADK6493), Genbank (isolate D. Haelew. 3037a, 2 adult thalli from left metafemur): SSU = OR680736, ITS = OR680742, LSU = OR680757. THE NETHERLANDS. LIMBURG: Geulle, Bunderbos, 23 Aug-7 Oct 2019, on *Clivina fossor*, leg. R. Felix, det. P.S. van Wielink, Genbank (isolate D. Haelew. 4252a, 4 adult thalli from elytra): SSU = PP620876.

Laboulbenia collae T. Majewski, *Polish Bot. Stud.* 7: 104 (1994)

BELGIUM. ANTWERPEN: Bornem, 51.117722 N 4.271364 E, 3 Oct 2018, on *Paranchus albipes* (Fabricius, 1796) (Coleoptera, Carabidae), leg. & det. A. De Kesel (coll. ADK6459), slide D. Haelew. 3038c (GENT:GENTFL00806) (3 adult thalli from pronotum; coinfection with *Laboulbenia flagellate* Peyr., 2 adult thalli from pronotum), Genbank (isolate D. Haelew. 3038a, 4 adult thalli

from pronotum): SSU = PP620877, LSU = PP620961, Genbank (isolate D. Haelew. 3038b, 1 adult thallus from right elytron): SSU = OR680732, ITS = OR680739, LSU = OR680752; *ibid.*, Genbank (isolate D. Haelew. 4101b, 2 adult thalli from right elytron): SSU = PP620878, ITS = PP626214, LSU = PP620962. PORTUGAL. AUTONOMOUS REGION OF THE AZORES: São Miguel Island, Centro Ambiental do Priolo, 37.7990990 N 25.1679095 W, 29 Jul 2022, on *Paranchus albipes*, leg. F. Heyman, det. W. Van Caenegem, slide D. Haelew. 4308a (GENT:GENTFL00795) (2 adult thalli from pronotum), Genbank (isolate D. Haelew. 4308b, 2 subadult and 2 adult thalli from pronotum): SSU = PP620879, ITS = PP626215, LSU = PP620963, *TEF1* = PP601364.

Laboulbenia coneglianensis Speg., *Redia* 10: 47 (1914)

BELGIUM. ANTWERPEN: Bornem, Wintam, 51.102511 N 4.310575 E, 10 Jun 2020, on *Harpalus griseus* (Panzer, 1796) (Coleoptera, Carabidae), leg. & det. A. De Kesel (coll. ADK6524), slide D. Haelew. 3759b (GENT:GENTFL00831) (4 juvenile and 4 adult thalli from right elytron), Genbank (isolate D. Haelew. 3759a, 4 juvenile thalli from right elytron): SSU = OR680734, ITS = OR680741, LSU = OR680754.

Laboulbenia cristata Thaxt., *Proc. Am. Acad. Arts Sci.* 29: 174 (1893)

BELGIUM. OOST-VLAANDEREN: Zottegem, Steenbergse Bossen, 50.8459 N 3.8016 E, 12 Apr 2022, on *Paederus littoralis* Gravenhorst, 1802 (Coleoptera, Staphylinidae), leg. W. Van Caenegem, det. M. Schilthuizen (coll. TXEX), slide D. Haelew. 3970e (7 juvenile and 12 adult thalli from abdomen), Genbank (isolate D. Haelew. 3970a (1 adult thallus from abdomen): SSU = OR680735, LSU = OR680756, Genbank (isolate D. Haelew. 3970b (1 adult thallus from abdomen): SSU = PP620880, LSU = PP620964, Genbank (isolate D. Haelew. 3970c (5 adult thalli from abdomen): SSU = PP620881, Genbank (isolate D. Haelew. 3970d (5 adult thalli from abdomen): SSU = PP620882, LSU = PP620965; VLAAMS-BRABANT: Meise, Domein van Bouchout, 50.927439 N 4.323925 E, 2020, on *Paederus riparius* (Linnaeus, 1758), leg. C. Gerstmans (coll. CG519), det. A. De Kesel, Genbank (isolate D. Haelew. 3770a, 4 adult thalli from tergites): SSU = PP620883, LSU = PP620966.

Laboulbenia elaphricola Siemaszko, *Polisk. Pism. Entomol.* 6: 200 (1928)

LATVIA. VALMIERA MUNICIPALITY: Valmiera, Gauja valley, 57.530681 N 25.446781 E, 5 Aug 2019, on *Elaphrus aureus* P. Müller, 1821 (Coleoptera, Carabidae), leg. & det. A. De Kesel (coll. ADK6498), slide D. Haelew. 4103b (GENT:GENTFL00854) (11 adult thalli from right elytron), Genbank (isolate D. Haelew. 4103a, 4 juvenile and 4 adult thalli from metasternum): SSU = PP620884, ITS = PP626216, LSU = PP620968.

Laboulbenia elongata Thaxt., *Proc. Am. Acad. Arts Sci.* 25: 10 (1892)

UNITED STATES OF AMERICA. NORTH CAROLINA: Buncombe County, Asheville, Pisgah National Forest, Rockhouse Creek, adjacent to Roseboro Road, camping pullover, 36.011428 N 81.780613 W, 14 Jun 2022, on *Agonum extensicolle* (Say, 1823) (Coleoptera, Carabidae), leg. C.W. Dick, H. Law, C.A. Quandt & A.M. Willis, det. W. Van Caenegem, slide D. Haelew. 4179b (GENT:GENTFL00866) (6 juvenile thalli from pronotum), Genbank (isolate D. Haelew. 4179a, 2 adult thalli from pronotum): SSU = PP620885, ITS = PP626217, LSU = PP620969; *ibid.*, 36.012637 N 81.780487 W, slide D. Haelew. 4183b (GENT:GENTFL00867) (3 juvenile and 1 adult thalli from pronotum), Genbank (isolate D. Haelew. 4183a, 3 juvenile thalli from pronotum): ITS = PP626218, LSU = PP620970; *ibid.*, slide D. Haelew. 4184b (GENT:GENTFL00868) (1 juvenile thallus from pronotum), Genbank (isolate D. Haelew. 4184a, 1 adult thallus from pronotum): SSU = PP620886,

ITS = PP626219, LSU = PP620971; *ibid.*, slide D. Haelew. 4187a (GENT:GENTFL00773) (2 juvenile and 2 adult thalli from left elytron), Genbank (isolate D. Haelew. 4187b, 2 adult thalli from pronotum): SSU = PP620887, ITS = PP626220, LSU = PP620972.

Laboulbenia eubradycelli Huldén, *Karstenia* 25(1): 4 (1985)

BELGIUM. OOST-VLAANDEREN: Herzele, 50.8555 N 3.8873 E, 30 Jul 2022, on *Bradycellus verbasci* (Duftschmid, 1812) (Coleoptera, Carabidae), leg. & det. W. Van Caenegem, Genbank (isolate D. Haelew. 4093a, 2 adult thalli from pronotum): SSU = PP620888, ITS = PP626221, LSU = PP620973; *ibid.*, 2 Sep 2022, on *Bradycellus verbasci*, leg. & det. W. Van Caenegem, slide D. Haelew. 4196c (GENT:GENTFL00875) (3 adult thalli from elytra), Genbank (isolate D. Haelew. 4196b, 6 adult thalli from left metafemur): SSU = PP620889, ITS = PP626222, LSU = PP620974, *TEF1* = PP601365. FRANCE. PAS-DE-CALAIS: Audinghen, Framezelle, 50.8659 N 1.5911 E, 10 Sep 2022, on *Bradycellus verbasci*, leg. & det. W. Van Caenegem, slide D. Haelew. 4208b (GENT:GENTFL00883) (1 adult thallus from right elytron), Genbank (isolate D. Haelew. 4208a, 2 adult thalli from sternites): SSU = PP620890.

Laboulbenia expectata Van Caenegem & Haelew., *Nova Hedwig*. (2024)

BELGIUM. LIMBURG: Sint-Truiden, 50.8511159 N 5.2137570 E, 27 Jun-15 Jul 2022, on *Pterostichus vernalis* (Panzer, 1796) (Coleoptera, Carabidae), leg. K. Van Vooren, det. W. Van Caenegem, slide D. Haelew. 4363b (GENT:GENTFL00909) (2 subadult thalli from left elytron), Genbank (isolate D. Haelew. 4363a, 1 adult thallus from left elytron): SSU = OR723991, ITS = OR752334, LSU = OR752347; OOST-VLAANDEREN: Herzele, Duivenbos, 50.8485 N 3.9142 E, on *Pterostichus vernalis*, leg. & det. W. Van Caenegem, slide D. Haelew. 4483b (1 subadult and 3 adult thalli from left elytron), Genbank (isolate D. Haelew. 4483a, 1 adult thallus from right elytron): SSU = OR723993, ITS = OR752337, LSU = OR752345.

Laboulbenia fasciculata Peyr., *Sitzungsber. Kaiserl. Akad. Wiss. Math.-Naturwiss. Cl.* 68: 248 (1873)

BELGIUM. VLAAMS-BRABANT: Meise, Domein van Bouchout, 50.926850 N 4.321400 E, 23 Sep 2019, on *Patrobus atrorufus* (Ström, 1768) (Coleoptera, Carabidae), leg. & det. A. De Kesel (coll. ADK6487), slides D. Haelew. 3044b (GENT:GENTFL00809) (8 damaged and 2 adult thalli from prosternum), D. Haelew. 3044c (GENT:GENTFL00810) (2 adult thalli from left metafemur), D. Haelew. 3044d (GENT:GENTFL00811) (1 adult thallus from pronotum), D. Haelew. 3044e (GENT:GENTFL00812) (5 juvenile and 1 adult thalli from elytra), and D. Haelew. 3044f (GENT:GENTFL00813) (2 damaged and 5 juvenile thalli from mesosternum), Genbank (isolate D. Haelew. 3044a, 4 adult thalli from head): SSU = OR680729, ITS = OR680723, LSU = OR680749. LATVIA. VALMIERA MUNICIPALITY: Valmiera, Gauja valley, 57.541458 N 25.455394 E, 8 Aug 2019, on *Omophron limbatum* (Fabricius, 1777), leg. & det. A. De Kesel (coll. ADK6495), slides D. Haelew. 3045b (GENT:GENTFL00814) (1 juvenile, 2 subadult, and 6 adult thalli from labial palps), D. Haelew. 3045c (GENT:GENTFL00815) (1 subadult thallus from left antenna), and D. Haelew. 3045d (GENT:GENTFL00816) (2 adult thalli from right protarsi), Genbank (isolate D. Haelew. 3045a, 3 adult thalli from labial palps): SSU = PP620891, ITS = PP626223, LSU = PP620975, *TEF1* = PP601366.

Laboulbenia flagellata Peyr., *Sitzungsber. Kaiserl. Akad. Wiss. Math.-Naturwiss. Cl.* 68: 247 (1873)

BELGIUM. ANTWERPEN: Bornem, 51.117722 N 4.271364 E, 5 Apr 2018, on *Agonum micans* Nicolai, 1822 (Coleoptera, Carabidae), leg. & det. A. De Kesel (coll. ADK6337), slide D. Haelew. 1457d (GENT:GENTFL00804) (2 subadult thalli from left profemur), Genbank (isolate D. Haelew. 1457a, 1 adult thallus from left elytron): LSU = MN394851, *TEF1* = OR762495, Genbank (isolate D. Haelew. 1457b, 2 subadult and 1 adult thalli from pronotum): ITS = MN397134, LSU = MN394852, *TEF1* = OR762496; *ibid.*, on *Platynus assimilis* (Paykull, 1790) (Coleoptera, Carabidae), leg. & det. A. De Kesel (coll. ADK6329), slides D. Haelew. 1454c (GENT:GENTFL00802) (2 subadult and 10 adult thalli from prosternum) and D. Haelew. 1454d (GENT:GENTFL00803) (4 juvenile and 2 adult thalli from elytra), Genbank (isolate D. Haelew. 1454a, 3 adult thalli from right elytron): ITS = MN397132, LSU = MN394849, *TEF1* = OR762493, Genbank (isolate D. Haelew. 1454b, 1 juvenile and 5 adult thalli from right elytron): ITS = MN397133, LSU = MN394850, *TEF1* = OR762494; *ibid.*, 3 Oct 2018, on *Paranchus albipes* (Fabricius, 1796) (Coleoptera, Carabidae), leg. & det. A. De Kesel (coll. ADK6459), slide D. Haelew. 4099d (GENT:GENTFL00852) (1 adult thallus from right elytron), Genbank (isolate D. Haelew. 4099a, 1 adult thallus from left elytron): SSU = OR723988, ITS = OR752332, LSU = OR752340; *ibid.*, Genbank (isolate D. Haelew. 4101a, 1 adult thallus from pronotum): SSU = OR723989, ITS = OR752333, LSU = OR752341; OOST-VLAANDEREN: Deinze, Nevele, 51.0918513 N 3.5922661 E, 27 Jun-15 Jul 2022, on *Oxypselaphus obscurus* (Herbst, 1784) (Coleoptera, Carabidae), leg. K. Van Vooren, det. W. Van Caenegem, slides D. Haelew. 4538b (GENT:GENTFL01048) (1 damaged, 1 juvenile, and 3 adult thalli from left elytron) and D. Haelew. 4538c (GENT:GENTFL01049) (2 adult thalli from proepisternum), Genbank (isolate D. Haelew. 4538a, 2 adult thalli from left elytron): SSU = OR723992, ITS = OR752336, LSU = OR752344; *ibid.*, 4-22 Apr 2022, on *Platynus assimilis*, leg. K. Van Vooren, det. W. Van Caenegem, slide D. Haelew. 4600b (GENT:GENTFL01120) (3 adult thalli from right elytron), Genbank (isolate D. Haelew. 4600a, 3 adult thalli from prosternum): SSU = PP620892; Herzele, Duivenbos, 50.8572 N 3.9176 E, 4 Feb 2023, on *Agonum emarginatum* (Gyllenhal, 1827) (Coleoptera, Carabidae), leg. & det. W. Van Caenegem, slide D. Haelew. 4480b (GENT:GENTFL00997) (1 juvenile and 5 adult thalli from pronotum), Genbank (isolate D. Haelew. 4480a, 2 adult thalli from head): SSU = OR723995, ITS = OR752335, LSU = OR752343; Zottegem, Steenbergse Bossen, 50.8482 N 3.8009 E, 4 Mar 2023, on *Agonum fuliginosum* (Panzer, 1809) (Coleoptera, Carabidae), leg. & det. W. Van Caenegem, slide D. Haelew. 4733b (GENT:GENTFL01256) (4 adult thalli from left elytron), Genbank (isolate D. Haelew. 4733a, 2 adult thalli from left elytron): SSU = OR723994, ITS = OR752338, LSU = OR752346; *ibid.*, Steenbergse Bossen, Steenbergse Boselken, 50.8614 N 3.7934 E, 5 Mar 2022, on *Platynus assimilis*, leg. & det. W. Van Caenegem, Genbank (isolate D. Haelew. 3966a, 5 adult thalli from right elytron): SSU = OR723987, ITS = OR752331, LSU = OR752339; VLAAMS-BRABANT: Meise, Domein van Bouchout, 50.927439 N 4.323925 E, 12 May 2020, on *Agonum muelleri* (Herbst, 1784) (Coleoptera, Carabidae), leg. & det. A. De Kesel (coll. ADK6535), Genbank (isolate D. Haelew. 3769a, 4 adult thalli from abdomen): SSU = OR723990, LSU = OR752342, *TEF1* = OR762492;

Laboulbenia galeritae Thaxt., *Proc. Am. Acad. Arts Sci.* 27: 39 (1892)

UNITED STATES OF AMERICA. NORTH CAROLINA: Buncombe County, Asheville, Pisgah National Forest, 36.011428 N 81.780613 W, 14 Jun 2022, on *Galerita bicolor* (Drury, 1773) (Coleoptera, Carabidae), leg. C.W. Dick, H. Law, C.A. Quandt & A.M. Willis, det. W. Van Caenegem, Genbank (isolate D. Haelew. 4181a, 4 adult thalli from pronotum): SSU = PP620893, LSU = PP620976, *TEF1* = PP601367; Caldwell County, Mortimer, Pisgah National Forest, 35.995881 N 81.760259 W, on *Galerita bicolor*, leg. C.W. Dick, H. Law, C.A. Quandt & A.M. Willis, det. M. Schilthuizen (coll. TXEX), slides D. Haelew. 4182a (GENT:GENTFL00768) (6 adult thalli from left elytron), D. Haelew. 4182c (GENT:GENTFL00769) (1 adult thallus from pronotum), D. Haelew. 4182d

(GENT:GENTFL00770) (4 juvenile and 3 adult thalli from left elytron), and D. Haelew. 4182e (GENT:GENTFL00771) (5 juvenile and 8 adult thalli from right elytron), Genbank (isolates D. Haelew. 4182b, 6 juvenile and 2 adult thalli from left elytron): SSU = PP620894, LSU = PP620977, *TEF1* = PP601368.

Laboulbenia giardii Cépède & F. Picard, *Bull. Sci. Fr. Belg.* 42: 258 (1908)

BELGIUM. WEST-VLAANDEREN: Knokke-Heist, 51.364647 N 3.3697381 E, 23 Aug 2022, on *Dicheirotichus gustavii* Crotch, 1871 (Coleoptera, Carabidae), leg. A. Blondelle, A. De Kesel, D. Haelewaters, F. Heyman & W. Van Caenegem, det. W. Van Caenegem, slide D. Haelew. 4154b (GENT:GENTFL00863) (4 adult thalli from right elytron), Genbank (isolate D. Haelew. 4154a, 6 juvenile thalli from left elytron): SSU = OR680726, LSU = OR680746; *ibid.*, 51.361669 N 3.359897 E, 25 Sep 2019, on *Dicheirotichus gustavii*, leg. & det. A. De Kesel (coll. ADK6491), Genbank (isolate D. Haelew. 3052a, 2 adult thalli from prosternum): SSU = OR680727, LSU = OR680747; *ibid.*, 51.3639211 N, 3.3702045 E, 23 Aug 2022, on *Dicheirotichus obsoletus* (Dejean, 1829) (Coleoptera, Carabidae), leg. A. Blondelle, A. De Kesel, D. Haelewaters, F. Heyman & W. Van Caenegem, det. W. Van Caenegem, slide D. Haelew. 4170b (GENT:GENTFL00865) (1 adult thallus from left elytron), Genbank (isolate D. Haelew. 4170a, 3 adult thalli from left elytron): SSU = PP620895, ITS = PP626224, LSU = PP620978.

Laboulbenia gyrinicola Speg., *Redia* 10: 34 (1914)

THE NETHERLANDS. NOORD-BRABANT: Heeze, Groote Aa, 51.36550 N 5.57485 E, 13 Sep 2021, on *Gyrinus substriatus* Stephens, 1829 (Coleoptera, Gyrinidae), leg. AQUON, det. A.J. Dees, slides D. Haelew. 4489c (GENT:GENTFL00999) (2 adult thalli from margin of right elytron) and D. Haelew. 4489d (GENT:GENTFL01000) (4 subadult thalli from margin of left elytron), Genbank (isolate D. Haelew. 4489a, 2 adult thalli from margin of right elytron): SSU = PP620896, LSU = PP620979, Genbank (isolate D. Haelew. 4489b, 1 adult thallus from margin of left elytron): SSU = PP620897, LSU = PP620980; *ibid.*, slide D. Haelew. 4490b (GENT:GENTFL01001) (1 subadult thallus from left margin of pronotum), Genbank (isolate D. Haelew. 4490a, 1 subadult thallus from left margin of pronotum): SSU = PP620898.

Laboulbenia hyalopoda De Kesel, *Sterbeeckia* 18: 17 (1998)

BELGIUM. ANTWERPEN: Bornem, Wintam, 51.102511 N 4.310575 E, 1 Mar 2020, on *Paradromius linearis* (Olivier, 1795) (Coleoptera, Carabidae), leg. & det. A. De Kesel (coll. ADK6519), Genbank (isolate D. Haelew. 3755a, 3 adult thalli from last sternite): SSU = PP620899, ITS = PP626225, LSU = PP620981, *TEF1* = PP601369.

Laboulbenia insigninoda nom. prov.

UNITED STATES OF AMERICA. NORTH CAROLINA: Buncombe County, Asheville, Pisgah National Forest, 35.48765 N 82.62415 W, 12 June 2022, on *Pallodes pallidus* (Palisot de Beauvois, 1817) (Coleoptera, Nitidulidae), leg. C.W. Dick, H. Law, C.A. Quandt & A.M. Willis, det. M. Schilthuizen (coll. TXEX.COL.1488), slide D. Haelew. 4202a (GENT:GENTFL00786) (3 juvenile, 2 subadult, and 3 adult thalli from left elytron), Genbank (isolate D. Haelew. 4202b, 1 adult thallus from left elytron): SSU = PP620900, ITS = PP626226, LSU = PP620982, *TEF1* = PP601370; *ibid.*, on *Pallodes pallidus*, leg. C.W. Dick, H. Law, C.A. Quandt & A.M. Willis, det. M. Schilthuizen (coll. TXEX.COL.1489), slides D. Haelew. 4203b (GENT:GENTFL00879) (1 juvenile thallus from second sternite) and D. Haelew. 4203c (GENT:GENTFL00880) (2 juvenile thalli from left elytron), Genbank

(isolate D. Haelew. 4203a, 2 adult thalli from right elytron): SSU = PP620901, ITS = PP626227, LSU = PP620983, *TEF1* = PP601371.

Laboulbenia mairei Van Caenegem & Haelew., in Van Caenegem et al., *Mycol. Prog.* 22(12, article no. 81): 5 (2023)

BELGIUM. OOST-VLAANDEREN: Herzele, 50.8554 N 3.8873 E, 2 Sep 2022, on *Heterocerus fenestratus* (Thunberg, 1784) (Coleoptera, Heteroceridae), leg. W. Van Caenegem, det. M. Schilthuizen (coll. TXEX), slides D. Haelew. 4197a (GENT:GENTFL00780) (1 aberrant thallus from right elytron) and D. Haelew. 4197c (GENT:GENTFL00781) (5 aberrant thalli from right elytron), Genbank (isolate D. Haelew. 4197b, 2 aberrant thalli from right elytron): SSU = OR680725, ITS = OR680722, LSU = OR680745.

Laboulbenia metableti Scheloske, *Parasitol. Schriftenr.* 19: 124 (1969)

THE NETHERLANDS. FRIESLAND: Achtkarspelen, 53.1558496 N 6.1584215 E, 27 Jun-15 Jul 2022, on *Syntomus foveatus* (Geoffroy, 1785) (Coleoptera, Carabidae), leg. K. Van Vooren, det. W. Van Caenegem, slides D. Haelew. 4573b (GENT:GENTFL01094) (7 adult thalli from elytra) and D. Haelew. 4573c (GENT:GENTFL01095) (4 juvenile, 1 subadult, and 4 adult thalli from left metafemur), Genbank (isolate D. Haelew. 4573a, 1 subadult and 1 adult thalli from right metatibia): SSU = PP620902, ITS = PP626228, LSU = PP620984.

Laboulbenia murmanica Huldén, *Karstenia* 23(2): 57 (1983)

CANADA. SASKACHEWAN PROVINCE: Prince Albert National Park, 53.9576500 N 106.2490167 W, 6 Aug 2014, *Bembidion* sp. (Coleoptera, Carabidae), leg. V.I. Gusarov & M. Mavrikidi, slide D. Haelew. 4334b (GENT:GENTFL00796) (2 adult thalli from right elytron), Genbank (isolate D. Haelew. 4334a, 3 adult thalli from right elytron): SSU = PP620903, ITS = PP626229, LSU = PP620985.

Laboulbenia notiophili Cépède & F. Picard, *Bull. Biol. Fr. Belg.* 42: 259 (1909)

BELGIUM. OOST-VLAANDEREN: Lierde, Parkbos, 50.8383 N 3.8432 E, 5 Feb 2023, on *Paradromius linearis* (Olivier, 1795) (Coleoptera, Carabidae), leg. & det. W. Van Caenegem, Genbank (isolate D. Haelew. 4476a, 2 adult thalli from right elytron): SSU = PP620906, ITS = PP626232, LSU = PP620967; Lievegem, Vinderhoutse Bossen, 51.0717 N 3.6537 E, 24 Sep 2022, on *Notiophilus biguttatus* (Fabricius, 1779) (Coleoptera, Carabidae), leg. & det. W. Van Caenegem, slide D. Haelew. 4235b (GENT:GENTFL00791) (2 adult thalli from pronotum), Genbank (isolate D. Haelew. 4235a, 4 juvenile thalli from left elytron): SSU = PP620905, ITS = PP626231, LSU = PP620987, *TEF1* = PP601372. THE NETHERLANDS. NOORD HOLLAND: Wijdmeren, nature reserve Kortenhoefse Plassen, 52.2266 N 5.1001 E, 16 May 2022, on *Demetrias monostigma* Samouelle, 1819 (Coleoptera, Carabidae), leg. B. de Boer, det. P.S. van Wielink, slide D. Haelew. 4193b (GENT:GENTFL00775) (3 adult thalli from pronotum), Genbank (isolate D. Haelew. 4193a, 2 adult thalli from 6th tergite): SSU = PP620904, ITS = PP626230, LSU = PP620986; ZEELAND: Terneuzen, 25 Apr 2013, on *Paradromius linearis*, leg. & det. A. De Kesel (coll. ADK6574), Genbank (isolate D. Haelew. 4728a, 2 adult thalli from right elytron): SSU = PP620907, ITS = PP626233, LSU = PP620988.

Laboulbenia ophoni Thaxt., *Proc. Am. Acad. Arts Sci.* 35(9): 190 (1899)

BELGIUM. ANTWERPEN: Boom, 51.102448 N 4.363678 E, 26 Apr 2022, on *Ophonus rufibarbis*, leg. & det. A. De Kesel (coll. ADK6546), Genbank (isolate D. Haelew. 4714a, 5 adult thalli from right

elytron): SSU = PP620909, LSU = PP620990; OOST-VLAANDEREN: Herzele, 50.8554 N 3.8873 E, 13 Jul 2022, on *Ophonus rufibarbis* (Fabricius, 1792) (Coleoptera, Carabidae), leg. & det. W. Van Caenegem, slide D. Haelew. 4083b (GENT:GENTFL00850) (4 juvenile and 10 adult thalli from right elytron), Genbank (isolate D. Haelew. 4083a, 4 adult thalli from left elytron): SSU = PP620908, ITS = PP626234, LSU = PP620989.

Laboulbenia pedicellata Thaxt., *Proc. Am. Acad. Arts Sci.* 27: 44 (1892)

BELGIUM. WEST-VLAANDEREN: Knokke-Heist, 51.3639211 N 3.3702045 E, 23 Aug 2022, on *Bembidion minimum* (Fabricius, 1792) (Coleoptera, Carabidae), leg. A. Blondelle, A. De Kesel, D. Haelewaters, F. Heyman & W. Van Caenegem, det. W. Van Caenegem, slide D. Haelew. 4173c (GENT:GENTFL00766) (3 adult thalli from prosternum), Genbank (isolate D. Haelew. 4173a, 3 adult thalli from prosternum): SSU = PP620914, ITS = PP626238, LSU = PP620995, *TEF1* = PP601373, Genbank (isolate D. Haelew. 4173b, 3 adult thalli from prosternum): SSU = PP620915, ITS = PP626239, LSU = PP620996, *TEF1* = PP601374. LATVIA. VALMIERA MUNICIPALITY: Valmiera, Gauja valley, 57.537656 N 25.446564 E, 2 Aug 2019, on *Bembidion tenellum* Erichson, 1837 (Coleoptera, Carabidae), leg. & det. A. De Kesel (coll. ADK6500), slides D. Haelew. 3061b (GENT:GENTFL00821) (2 adult thalli from elytra) and D. Haelew. 3061c (GENT:GENTFL01173) (2 adult thalli from elytra), Genbank (isolate D. Haelew. 3061a, 4 adult thalli from pronotum): SSU = PP620916, LSU = PP620997; *ibid.*, on *Bembidion striatum* (Fabricius, 1792) (Coleoptera, Carabidae), leg. & det. A. De Kesel (coll. ADK6503), Genbank (isolate D. Haelew. 3062a, 1 adult thallus from right elytron): SSU = PP620910, ITS = PP626235, LSU = PP620991; *ibid.*, 57.5414583 N, 25.4553944 E, 8 Aug 2019, on *Dyschirius angustatus* (Ahrens, 1830) (Coleoptera, Carabidae), leg. & det. A. De Kesel (coll. ADK6494), slide D. Haelew. 3230c (GENT:GENTFL00824) (2 adult thalli from right mesotibia), Genbank (isolate D. Haelew. 3230b, 1 adult thallus from right mesotibia): SSU = PP620911, LSU = PP620992. THE NETHERLANDS. UTRECHT: Stichtse Vecht, Maarssen, 52.129821 N 5.064754 E, 27 Jun-15 Jul 2022, on *Bembidion guttula* (Fabricius, 1792) (Coleoptera, Carabidae), leg. K. Van Vooren, det. W. Van Caenegem, slide D. Haelew. 4383b (GENT:GENTFL00917) (3 juvenile thalli from left elytron), Genbank (isolate D. Haelew. 4383a, 1 adult thallus from right elytron): SSU = PP620912, ITS = PP626236, LSU = PP620993; *ibid.*, slide D. Haelew. 4392b (GENT:GENTFL00925) (1 subadult thallus from left elytron), Genbank (isolate D. Haelew. 4392a, 1 adult thallus from pronotum): SSU = PP620913, ITS = PP626237, LSU = PP620994.

Laboulbenia perplexa Thaxt., *Proc. Am. Acad. Arts Sci.* 38(2): 49 (1902)

HONDURAS. DEPARTAMENTO DE CORTÉS, San Pedro Sula, Cusuco National Park, 15.48961 N 88.23538 W, 25 Jun 2022, on *Galerita championi* Bates, 1884 (Coleoptera, Carabidae), leg. D. Haelewaters, det. M. Schilthuizen (coll. TXEX), slides D. Haelew. 4195a (GENT:GENTFL00777) (2 juvenile and 4 adult thalli from left elytron), D. Haelew. 4195d (GENT:GENTFL00778) (11 juvenile and 8 adult thalli from pronotum), and D. Haelew. 4195e (GENT:GENTFL00779) (17 juvenile and 4 adult thalli from right elytron), Genbank (isolate D. Haelew. 4195c, 5 juvenile and 2 adult thalli from pronotum): SSU = PP620917, LSU = PP620998.

Laboulbenia pheropsophi Thaxt., *Proc. Am. Acad. Arts Sci.* 28: 170 (1893)

SIERRA LEONE. WESTERN AREA: Banga Farm, near Sussex, 16 Nov 2016, on *Pheropsophus* sp. (Coleoptera, Carabidae), leg. W. Rossi, Genbank (isolate D. Haelew. 1009a, 2 juvenile, 4 subadult, and 4 adult thalli from elytra): LSU = PP620999, Genbank (isolate D. Haelew. 1009b, 5 juvenile and 5 adult thalli from mouthparts): SSU = MG438344, LSU = OR680760.

Laboulbenia pseudomasei Thaxt., *Proc. Am. Acad. Arts Sci.* 35(9): 196 (1899)

BELGIUM. WEST-VLAANDEREN: Houthulst, 50.9786489 N 2.8733255 E, 12-30 Sep 2022, on *Pterostichus niger* (Schaller, 1783) (Coleoptera, Carabidae), leg. K. Van Vooren, det. W. Van Caenegem, slides D. Haelew. 4581b (GENT:GENTFL01101) (1 damaged, 1 subadult, and 1 adult thalli from left elytron) and D. Haelew. 4581c (GENT:GENTFL01102) (4 juvenile and 1 adult thalli from pronotum), Genbank (isolate D. Haelew. 4581a, 2 adult thalli from left elytron): SSU = PP620918, LSU = PP621000.

Laboulbenia pterostichi Thaxt., *Proc. Am. Acad. Arts Sci.* 28: 166 (1893)

UNITED STATES OF AMERICA. NORTH CAROLINA: Buncombe County, Asheville, Pisgah National Forest, 36.012637 N 81.780487 W, 14 Jun 2022, on *Pterostichus* cf. *coracinus* (Newman, 1838) (Coleoptera, Carabidae), leg. C.W. Dick, H. Law, C.A. Quandt & A.M. Willis, det. M. Schilthuizen (coll. TXEX), slides D. Haelew. 4678a (GENT:GENTFL01229) (8 adult thalli from abdomen), D. Haelew. 4678c (GENT:GENTFL01230) (1 juvenile thallus from left elytron), and D. Haelew. 4678d (GENT:GENTFL01231) (2 juvenile and 1 adult thalli from pronotum), Genbank (isolate D. Haelew. 4678b, 3 adult thalli from abdomen): SSU = PP620919, ITS = PP626240, LSU = PP621001.

Laboulbenia rougetii Mont. & C.P. Robin, in Robin, *Histoire Naturelle des Végétaux Parasites qui croissant sur l'homme et sur les animaux vivants*: 622 (1853)

BELGIUM. NAMUR: Philippeville, Carrière et pelouse du Tienne de Merlemont, 50.1735 N 4.6143 E, 23 Mar 2023, *Brachinus explodens* Duftschmid, 1812 (Coleoptera, Carabidae), leg. S. Vandepitte, M. Soenen, W. Lauwereys & W. Van Caenegem, det. W. Van Caenegem, slides D. Haelew. 4772a (GENT:GENTFL01264) (1 subadult thallus from right elytron) and D. Haelew. 4772c (GENT:GENTFL01265) (1 adult thallus from right elytron), Genbank (isolate D. Haelew. 4772b, 1 adult thallus from right elytron): SSU = PP620920, ITS = PP626241, LSU = PP621002.

Laboulbenia slackensis Cépède & F. Picard, *Compt. Rend. Assoc. Franç. Avancem. Sci.* 35: 775 (1907)

BELGIUM. WEST-VLAANDEREN: Knokke-Heist, 51.361669 N 3.359897 E, 25 Sep 2019, on *Pogonus chalceus* (Marshall, 1802) (Coleoptera, Carabidae), leg. & det. A. De Kesel (coll. ADK6288), Genbank (isolate D. Haelew. 4128a, 3 adult thalli from right metacoxa): SSU = PP620921, ITS = PP626242, LSU = PP621003; *ibid.*, Genbank (isolate D. Haelew. 4131a, 4 juvenile and 1 adult thalli from right metatibia): SSU = OR680737, ITS = OR680743, LSU = OR680758; *ibid.*, 51.364647 N, 3.3697381 E, 23 Aug 2022, on *Pogonus chalceus*, leg. A. Blondelle, A. De Kesel, D. Haelewaters, F. Heyman & W. Van Caenegem, det. W. Van Caenegem, slide D. Haelew. 4155b (1 subadult and 3 adult thalli from pronotum), Genbank (isolate D. Haelew. 4155a, 3 adult thalli from pronotum): SSU = PP620922, ITS = PP626243, LSU = PP621004.

***Laboulbenia* spp.**

BELGIUM. ANTWERPEN: Boom, 51.102448 N 4.363678 E, 26 Apr 2022, on *Parophonus maculicornis* (Duftschmid, 1812) (Coleoptera, Carabidae), leg. & det. A. De Kesel (coll. ADK6547), Genbank (isolate D. Haelew. 4715a, 1 adult thallus from 5th tergite): SSU = PP620928, ITS = PP626245, LSU = PP621008; LIMBURG: Dilsen-Stokkem, Molenveld, Negenoord-Kerkeweerd, 51.0151592 N 5.7692180 E, 6 May 2022, on *Bembidion atrocaeruleum* (Stephens, 1828) (Coleoptera, Carabidae), leg. & det. F. Heyman, slides D. Haelew. 4090a (GENT:GENTFL00762) (2 adult thalli from left elytron) and D. Haelew. 4090d (GENT:GENTFL00763) (2 adult thalli from abdomen), Genbank (isolate D. Haelew. 4090c, 7 juvenile thalli from mesosternum): SSU =

PP620926; VLAAMS-BRABANT: Meise, Domein van Bouchout, 50.927444 N 4.323917 E, 6 Apr 2020, on *Amara aenea* (De Geer, 1774) (Coleoptera, Carabidae), leg. & det. A. De Kesel (coll. ADK6520a), slide D. Haelew. 3756b (GENT:GENTFL00826) (4 juvenile and 2 adult thalli from left elytron), Genbank (isolate D. Haelew. 3756a, 2 adult thalli from left elytron): SSU = PP620924, ITS = PP626244, LSU = PP621006. PANAMA. CHIRIQUÍ PROVINCE: Boquete, Parque Internacional La Amistad, Cerro Punta, Cabaña de ANAM, 21 Jun 2016, on *Alagoasa* sp. (Coleoptera, Chrysomelidae), leg. & det. T.A. Ríos G., Genbank (isolate D. Haelew. 1113d, 11 adult thalli from right elytron): LSU = PP621005; *ibid.*, Sendero Los Quetzales, 13 Dec 2015, on Chrysomelidae sp. *indet.* (Coleoptera, Chrysomelidae), leg. K.N. Castillo S., det. T.A. Ríos G., Genbank (isolate D. Haelew. 967a, 9 adult thalli from elytra): SSU = PP620927, LSU = MN394855. THE NETHERLANDS. NOORD-BRABANT: Tilburg, De Kaaistoep, 51.53976 N 5.00955 E, 26 Jul 2021, on *Amara apricaria* (Paykull, 1790) (Coleoptera, Carabidae), leg. H. Spijkers & P.S. van Wielink, det. P.S. van Wielink, slides D. Haelew. 4256b (GENT:GENTFL00792) (1 subadult and 2 adult thalli from right elytron) and D. Haelew. 4256c (GENT:GENTFL00889) (9 juvenile and 4 adult thalli from pronotum), Genbank (isolate D. Haelew. 4256a, 1 subadult and 1 adult thalli from right elytron): SSU = PP620925, ITS = PP626255, LSU = PP621007. UNITED STATES OF AMERICA. NORTH CAROLINA: Avery County, Pisgah National Forest, Rockhouse Creek, adjacent to Roseboro Road, camping pullover, 36.012637 N 81.780487 W, 13 Jun 2022, on *Platynus tenuicollis* (LeConte, 1848) (Coleoptera, Carabidae), leg. C.W. Dick, H. Law, C.A. Quandt & A.M. Willis, det. M. Schilthuizen (coll. TXEX), slides D. Haelew. 4645a (GENT:GENTFL01202) (1 juvenile, 1 subadult, and 2 adult thalli from elytra), D. Haelew. 4645d (GENT:GENTFL01203) (3 juvenile, 2 subadult, and 2 adult thalli from elytra), D. Haelew. 4645e (GENT:GENTFL01204) (4 juvenile thalli from elytra), and D. Haelew. 4645f (GENT:GENTFL01205) (7 juvenile thalli from left epipleuron; coinfection with *Peyritschia curvata* Thaxt., 10 thalli from left epipleuron), Genbank (isolate D. Haelew. 4645b, 3 subadult thalli from right elytron): SSU = PP620929, ITS = PP626246, LSU = PP621009, Genbank (isolate D. Haelew. 4645c, 1 adult thallus from pronotum): SSU = PP620930; Buncombe County, Asheville, Pisgah National Forest, 36.012637 N 81.780487 W, 13 Jun 2022, on *Agonum extensicolle* (Say, 1823) (Coleoptera, Carabidae), leg. C.W. Dick, H. Law, C.A. Quandt & A.M. Willis, det. W. Van Caenegem, slide D. Haelew. 4190b (GENT:GENTFL00871) (1 juvenile and 1 adult thalli from right elytron), Genbank (isolate D. Haelew. 4190a, 2 adult thalli from pronotum): SSU = PP620923.

Laboulbenia spissa nom. prov.

UNITED STATES OF AMERICA. NORTH CAROLINA: Transylvania County, Brevard, Pisgah National Forest, Art Loeb Trailhead, vicinity of Davidson River Campground, 35.281733 N 82.7213 W, 12 Jun 2022, on *Cyparium concolor* (Fabricius, 1801) (Coleoptera, Staphylinidae), leg. C.W. Dick, H. Law, C.A. Quandt & A.M. Willis, det. M. Schilthuizen (coll. TXEX), slides D. Haelew. 4199a (GENT:GENTFL00782) (2 adult thalli from right elytron), D. Haelew. 4199f (GENT:GENTFL00876) (1 juvenile and 1 subadult thalli from left metatarsi), D. Haelew. 4199g (GENT:GENTFL00877) (2 subadult thalli from sternites), and D. Haelew. 4199h (1 juvenile thallus from left elytron), Genbank (isolate D. Haelew. 4199b, 2 adult thalli from left procoxa): SSU = PP620931, Genbank (isolate D. Haelew. 4199c, 1 subadult thallus from sternites): SSU = OR680730, LSU = OR680751, Genbank (isolate D. Haelew. 4199d, 1 subadult thallus from prosternum): SSU = OR680731, LSU = OR680750, Genbank (isolate D. Haelew. 4199e, 1 subadult thallus from left mesofemur): SSU = PP620932, LSU = PP621010.

Laboulbenia stillicicola Speg., *Redia* 10: 41 (1914)

BELGIUM. OOST-VLAANDEREN: Zottegem, Steenbergse Bossen, Steenbergse Boselken, 50.8613 N 3.7931 E, 28 May 2022, on *Rugilus* sp. (Coleoptera, Staphylinidae), leg. & det. W. Van Caenegem, slide D. Haelew. 4057d (GENT:GENTFL00846) (3 adult thalli from metasternum), Genbank (isolate D. Haelew. 4057a, 2 adult thalli from mesosternum): SSU = PP620933, ITS = PP626247, LSU = PP621011, Genbank (isolate D. Haelew. 4057c, 5 juvenile thalli from left metafemur): SSU = PP620934, ITS = PP626248, LSU = PP621012.

Laboulbenia temperei Balazuc, in Santamaría et al., *Treb. Inst. Bot. Barcelona* 14: 37 (1991)

UNITED KINGDOM. SOUTH EAST ENGLAND REGION: Hampshire County, Fursley, 50.955315 N 1.5913435 W, 13 Mar 2022, on *Chaetocnema* cf. *hortensis* (Geoffroy, 1785) (Coleoptera, Chrysomelidae), leg. & det. C. Easton, slides D. Haelew. 3962a (GENT:GENTFL00742) (5 adult thalli from sternites) and D. Haelew. 3962b (GENT:GENTFL00743) (1 adult thallus from left profemur), Genbank (isolate D. Haelew. 3962c, 2 adult thalli from left elytron): SSU = PP620935, LSU = PP621013.

Laboulbenia thaxteri Cépède & F. Picard, *Bull. Biol. Fr. Belg.* 42: 260 (1909)

BELGIUM. OOST-VLAANDEREN: Zottegem, Steenbergse Bossen, Steenbergse Boselken, 50.8610 N 3.7933 E, 1 May 2022, on *Asaphidion flavipes* (Linnaeus, 1760) (Coleoptera, Carabidae), leg. & det. W. Van Caenegem, slides D. Haelew. 3982a (GENT:GENTFL00750) (1 adult thallus from left profemur) and D. Haelew. 3982c (GENT:GENTFL00751) (1 adult thallus from left mesocoxa), Genbank (isolate D. Haelew. 3982d, 1 adult thallus from left mesocoxa): SSU = PP620936, ITS = PP626249, LSU = PP621014, *TEF1* = PP601375; *ibid.*, 28 May 2022, on *Asaphidion flavipes*, leg. & det. W. Van Caenegem, slide D. Haelew. 4062b (GENT:GENTFL00848) (2 juvenile, 2 subadult, and 3 adult thalli from prosternum), Genbank (isolate D. Haelew. 4062a, 3 adult thalli from prosternum): SSU = PP620937; *ibid.*, slide D. Haelew. 4064b (GENT:GENTFL00849) (3 subadult thalli from right procoxa), Genbank (isolate D. Haelew. 4064a, 3 subadult thalli from right procoxa): SSU = PP620938, LSU = PP621015.

Laboulbenia vulgaris Peyr., *Sitzungsber. Kaiserl. Akad. Wiss. Math.-Naturwiss. Cl.* 68: 248 (1873)

BELGIUM. ANTWERPEN: Boom, 51.101364 N 4.363314 E, 12 Jul 2019, on *Bembidion lampros* (Herbst, 1784) (Coleoptera, Chrysomelidae), leg. & det. A. De Kesel (coll. ADK6475), slide D. Haelew. 3068b (GENT:GENTFL00696) (2 subadult thalli from right profemur), Genbank (isolate D. Haelew. 3068a, 5 subadult thalli from right profemur): SSU = PP620941; *ibid.*, 26 Apr 2022, on *Bembidion lampros*, leg. & det. A. De Kesel (coll. ADK6545bis), Genbank (isolate D. Haelew. 4711a, 1 adult thallus from left mesocoxa): SSU = PP620942, LSU = PP621017; LIMBURG: Sint-Truiden, 50.8511602 N 5.2117601 E, 4-22 Apr 2022, on *Bembidion tetracolum* Say, 1823 (Coleoptera, Carabidae), leg. K. Van Vooren, det. W. Van Caenegem, slide D. Haelew. 4375b (GENT:GENTFL00910) (2 juvenile, 1 subadult, and 6 adult thalli from pronotum), Genbank (isolate D. Haelew. 4375a, 2 adult thalli from pronotum): SSU = PP620943, ITS = PP626251, LSU = PP621018; OOST-VLAANDEREN: Zottegem, Steenbergse Bossen, Steenbergse Boselken, 50.8610 N 3.7932 E, 28 May 2022, on *Bembidion dentellum* (Thunberg, 1787) (Coleoptera, Carabidae), leg. & det. W. Van Caenegem, slide D. Haelew. 4059c (GENT:GENTFL00847) (4 juvenile and 2 subadult thalli from right mesofemur), Genbank (isolate D. Haelew. 4059a, 3 adult thalli from propisternum): SSU = PP620940; VLAAMS-BRABANT: Meise, Domein van Bouchout, 50.927600 N 4.331622 E, 27 Mar 2019, on *Bembidion tibiale* (Duftschmid, 1812) (Coleoptera, Carabidae), leg. C. Gerstmans (coll. CG435), det. A. De Kesel, slides D. Haelew. 3069b (GENT:GENTFL00697) (1 damaged thallus from pronotum) and D. Haelew. 3069c (GENT:GENTFL00823) (1 adult thallus from pronotum), Genbank (isolate D. Haelew. 3069a, 4 subadult thalli from pronotum): SSU =

PP620947, LSU = PP621021. THE NETHERLANDS. GELDERLAND: Winterswijk, Woold, nature preserve Bekendelle, 51.942 N 6.699 E, 5 Aug 2021, on *Bembidion dentellum*, leg. & det. R. Ploeg (coll. 222375383), slide D. Haelew. 3777b (GENT:GENTFL00835) (7 juvenile and 1 subadult thalli from right elytron), Genbank (isolate D. Haelew. 3777a, 3 juvenile thalli from right elytron): SSU = PP620939, ITS = PP626250, LSU = PP621016; Winterswijk, Ratum, 51.971 N 6.784 E, 6 Aug 2021, on *Bembidion tetracolum*, leg. & det. R. Ploeg (coll. 222375372), slide D. Haelew. 3776c (GENT:GENTFL00834) (2 juvenile and 7 adult thalli from prosternum), Genbank (isolate D. Haelew. 3776a, 4 adult thalli from prosternum): SSU = PP620944, Genbank (isolate D. Haelew. 3776b, 4 adult thalli from right profemur): SSU = PP620945, ITS = PP626252, LSU = PP621019; LIMBURG: Epen, Geuldal, 50.758 N 5.932 E, 26 Apr 2021, on *Bembidion tibiale*, leg. & det. R. Ploeg (coll. 212164231), slide D. Haelew. 3774b (GENT:GENTFL00832) (6 adult thalli from pronotum), Genbank (isolate D. Haelew. 3774a, 1 juvenile and 3 adult thalli from pronotum): SSU = OR680733, ITS = OR680740, LSU = OR680753; *ibid.*, slide D. Haelew. 3775b (GENT:GENTFL00833) (2 subadult thalli from pronotum), Genbank (isolate D. Haelew. 3775a, 2 adult thalli from pronotum): SSU = PP620949, ITS = PP626254, LSU = PP621022; ZUID-HOLLAND: Goedereede, 51.833413 N 3.990245 E, 12-14 Sep 2022, on *Bembidion tetracolum*, leg. & det. R. Rossel, slide D. Haelew. 4231a (GENT:GENTFL00788) (1 damaged, 1 subadult, 7 adult thalli from left elytron), Genbank (isolate D. Haelew. 4231b, 5 juvenile thalli from left elytron): SSU = PP620946, ITS = PP626253, LSU = PP621020.