

New records of Gnomoniaceae (Diaporthales) in Romania

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Abstract. Three species of the Gnomoniaceae, *Gnomonia betulina*, *Hypospilina pustula*, and *Plagiostoma arnstadiense*, are reported as new to Romania. *Gnomonia setacea* is found on a new substratum.

Key words: ascomycetes, Diaporthales, Gnomoniaceae, new records, Romania

Introduction

The present paper is a contribution to the gnomoniaceous fungi of Romania. The specimens were collected during two mycological field trips. The first trip was organized by the Committee of the XI Mycological Symposium in Nemira Mts. The second field trip was in the Băneasa forest in the surroundings of Bucharest. As a result, three species new for Romania and one new substratum of already known species were established. The new species for the Romanian mycota are asterisked in the text.

In Romania only three species of Gnomoniaceae have been reported on *Carpinus betulus* L.: *Gnomonia nervisequa* (Wallr.) Sacc. (Bontea 1985), *Mamiania fimbriata* (Pers. : Fr.) Ces. & De Not. (Sandu-Ville 1971), and *Sphaerognomonia carpinea* Potebnia (Sandu-Ville 1971). *Gnomonia setacea* (Pers. : Fr.) Ces. & De Not. is known until now in Romania on leaves of *Castanea sativa* Mill. (Bontea 1985) and *Quercus petraea* (Matt.) Liebl. (Bontea 1985), while *Apiognomonia er-rabunda* (Roberge) Höhn. is reported on *Quercus pubescens* Willd. (Bontea 1985). More detailed information on the distribution of these fungi in Romania can be found in the studies of Sandu-Ville (1971), Bontea (1985, 1986), and Manoliu *et al.* (1998).

Materials and Methods

The materials have been deposited in the Mycological Collection of the Institute of Botany, Bulgarian Academy of Sciences (SOMF). For the identification of the fungi semipermanent slides have been made with lactophenol and cotton

blue (Hawksworth 1974). For the determination of the fungi of Gnomoniaceae the taxonomic studies and monographs of Munk (1957), Barr (1978), Monod (1983), and Merezhko & Smyk (1991) have been used. The drawings (Figs 1-3) have been done with a drawing apparatus on an Amplival microscope.

New records

**Gnomonia betulina* Vleugel, Svensk Bot. Tidskr. 11: 305, 1917. (Fig. 1)

Perithecia 350–450 × 500 µm in diam, black, globose or depressed globose, immersed in the host tissue of the primal vein of the leaf blade. **Beak** 630–840 × 45–70 µm, black, straight or little curved, eccentric to lateral, slightly wider at the base, erumpent from either leaf surface. **Asci** 30–55 (–62) × 8–13 µm, oblong ellipsoidal, 8-spored, with apical ring 2.5 µm. **Ascospores** (12–) 13–16.5 × 2–2.5 µm ($n = 50$), ellipsoidal, hyaline, straight or little curved, with a single median septum and terminal appendages at both ends; overlapping biserially or sometimes parallel at different height in the ascus. Mature ascospores usually with two globules per cell.

On overwintered leaves of *Betula pendula* Roth. The Carpathians, distr. Bacău, Nemira Mts, above Slănic Moldova, alt. ca 1500 m, 27 Aug 1999, D. Stoykov (SOMF 25 362).

Gnomonia setacea (Pers. : Fr.) Ces. & De Not., Comment. Soc. Crittog. Ital. 1(4): 232, 1863.

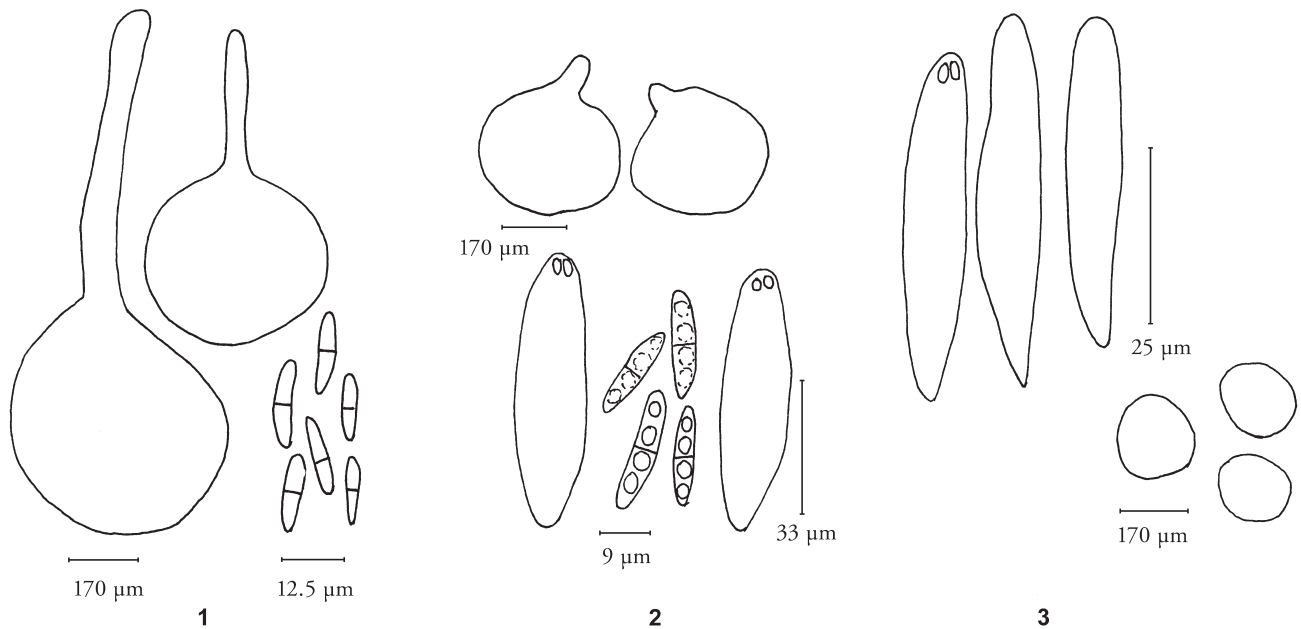


Fig. 1. Perithecia and ascospores of *Gnomonia betulina* Vleugel (SOMF 25 362). **Fig. 2.** Perithecia, asci and ascospores of *Hypospilina pustula* (Pers. : Fr.) M. Monod (SOMF 25 367). **Fig. 3.** Perithecia and asci of *Plagiostoma arnstadiense* (Auersw.) M. Monod (SOMF 25 363)

On overwintered leaves of *Quercus pedunculiflora* C. Koch. Distr. Ilfov, Bucharest, the Băneasa forest, 29 Aug 1999, D. Stoykov (SOMF 25 368).

Quercus pedunculiflora is a new substratum of *G. setacea* for Romania.

**Hypospilina pustula* (Pers. : Fr.) M. Monod, Sydowia, Beih., Ser. 2, 9: 189, 1983. (Fig. 2)

Stromatic capsules pustuliform (composed of 1, rarely 2 ascomata), often in groups of 2-3 together, brownish, forming papilliform prominents at two sides of the leaf. **Perithecia** 250-270 × 300-350 μm, scattered, subepidermal, subglobose, brownish to black, single or rarely in small groups. **Beak** 60-110 × 55-70 μm, eccentric to lateral, short, erumpent through the host epidermis from the under side of the leaf, dark-brown. **Asci** (47-) 51-65 (-70) × 9-12 μm ($n = 20$), clavate-fusiform, 8-spored, with an apical ring measured 4-4.5 μm. **Ascospores** 19-24.5 × 4-4.5 μm, ellipsoid-fusoid, straight, with a single median septum, hyaline, nonconstricted at the septum, overlapping biseriate in the ascus. Mature spores usually with two globules per cell.

On overwintered leaves of *Quercus pedunculiflora* C. Koch. Distr. Ilfov, Bucharest, the Băneasa forest, 29 Aug 1999, D. Stoykov (SOMF 25 367).

Note: The Romanian material differs from the specimen, reported on oak leaves from Bulgaria by Fakirova (1993), only with shorter and larger asci and wider ascospores.

**Plagiostoma arnstadiense* (Auersw.) M. Monod, Sydowia, Beih., Ser. 2, 9: 143, 1983. (Fig. 3)

Without stromatic tissue. **Perithecia** 105-245 × 135-215 μm, numerous, depressed globose or spheroidal, black, immersed in tissues of the leaf blade, veins and petioles, erumpent mostly from the under side of the leaf. **Ascomata** without beak, but with lateral ostiole. **Asci** 45-52 × 7-10 μm, cylindrical, with eight ascospores and conspicuous apical ring measured 4-4.5 μm. **Ascospores** (15-) 18-23 × 2.5-4 μm, ellipsoid-fusoid, hyaline, straight, septum median, nonconstricted at the septum, appendages short, pulvinate, overlapping obliquely in the ascus. Mature spores with two globules per cell.

On overwintered leaves of *Carpinus betulus* L. The Carpathians, distr. Bacău, Nemira Mts, above Slănic Moldova, alt. ca 1500 m, 27 Aug 1999, D. Stoykov (SOMF 25 363).

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