



## *Stamnaria* Fuckel: A New Discomycete Genus Record for Turkish Mycobiota

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### ABSTRACT

The parasitic discomycete genus, *Stamnaria* Fuckel, was reported for the first time from Turkey based on the collection of *Stamnaria americana* Masee & Morgan on living stems of *Equisetum hyemale* L. Short description of the newly recorded species and the photographs related to its macro and micromorphologies were provided.

### Research Article

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## *Stamnaria* Fuckel: Türkiye Mikobiyotası için Yeni Bir Diskomiset Cins Kaydı

### ÖZET

Parazitik bir diskomiset cinsi olan *Stamnaria* Fuckel, *Stamnaria americana* Masee & Morgan.'nın canlı *Equisetum hyemale* L. gövdeleri üzerinden toplanmasına bağlı olarak Türkiye'den ilk kez rapor edilmiştir. Yeni kayıt türün kısa betimlemesi ve makro ve mikromorfolojilerine ilişkin fotoğrafları verilmiştir.

### Araştırma Makalesi

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### INTRODUCTION

*Stamnaria* Fuckel is a parasitic discomycete genus within the order Helotiales. The genus was founded by Fuckel (Seaver, 1932) and mainly characterized by an apothecia erumpent through epidermis, a strongly gelatinized ectal excipulum with cells containing yellow-orange carotenoids, and members growing on *Equisetum* spp. (Hosoya et al., 2013; Haelewaters et al., 2018). Kirk et al. (2008) gives the existing number of *Stamnaria* as 3, but Index Fungorum ([www.indexfungorum.org](http://www.indexfungorum.org); accessed 1 January 2021) lists 8 confirmed taxa. By the end of the December 2020, 87 members of Helotiales belonging to 17 families and 37 genera have been reported from Turkey. But the checklists (Sesli et al., 2020; Uzun and Kaya, 2020a) on macromycota of Turkey and the contributory studies (Doğan et al., 2018; Işık and Türkekul, 2018; Allı et al., 2019; Uzun and Kaya, 2019, 2020b; Acar et al., 2019; Keleş, 2020; Sesli, 2020)

presented after the checklists indicate that any member of the genus *Stamnaria* has been recorded from Turkey. The work aims to make a contribution to the mycobiota of Turkey.

### MATERIALS and METHOD

*Stamnaria americana* samples were collected in 2019 during routine field trips in Karaman and Mersin provinces. Using a Sony HX-400V, the fruiting bodies were photographed at their natural habitats, and notes were taken related to its ecology, morphology and geographic position etc. After collection, the samples were placed in paper boxes and transferred to the fungarium. Due to the size of the fruit bodies, an Olympus SZ2-ILST stereomicroscope and E-330 camera were used for additional macroscopic photographs. Microscopic investigations were conducted in fungarium on dry materials. A Nikon Eclipse Ci-S trinocular microscope was used for

studying micromorphological features, and a DS-Fi2 digital camera was used to obtain microstructural photographs. The samples were identified according to Morgan (1902), Seaver (1932, 1951), Moingeon and Page (2003), Künkele et al. (2005) and Hosoya et al. (2013). The systematic of the taxon is given in accordance with Index Fungorum. The samples were kept at Karamanoğlu Mehmetbey University, Kamil Özdağ Science Faculty, Department of Biology.

## RESULTS

*Fungi* Bartling

*Ascomycota* Caval.-Sm.

*Pezizomycotina* O.E. Erikss. & Winka

*Leotiomyces* O.E. Erikss. & Winka

*Leotiomycetidae* P.M. Kirk, P. Cannon, Minter & Stalpers

*Helotiales* Nannf.

*Incertae sedis*

*Stamnaria americana* Masee & Morgan, J. Mycol. 8(4): 183 (1902)

### Macroscopic and microscopic features

Apothecia about 0.5-0.6 mm across and high, erumpent, generally crowded in clusters of three to four or more, sessile or with a short stipe-like base, at first rounded and surrounded by a gelatinous

excipulum, expands at maturity, pale orange to somewhat yellowish, hymenial surface plane, slightly concave, scarious at the margin (Fig. 1). Asci 130-170 × 17-23 µm, cylindrical to clavate, rounded at the apex, 8-spored, spores 1 or 2 seriate or partially so. Paraphyses cylindrical to filiform, some branched, enlarged at the apex. Ascospores 24-29 × 7.5-8.5 µm, ellipsoid to elliptic-fusiform, slightly inequilateral, straight or curved, surface smooth, usually with two large oil-drops, some with only one oil drop, content granular outside the oil drops (Fig. 2).

### Ecology

*Stamnaria americana* grows on dead or living stems of *Equisetum* species, especially *Equisetum robustum* A.Br. and *Equisetum hyemale* L. (Morgan, 1902; Seaver, 1951; Künkele et al., 2005; Hosoya et al., 2013).

### Specimen examined

TURKEY - Karaman, Zengen (Başharman) Village, near irrigation channel, on living stems of *E. hyemale*, 37°05'N-33°22'E, 1190 m, 04.05.2019, Yuzun 7394; Mersin, Silifke, Değirmendere Village, Göksu River bank, under *Populus* L. sp. and *Salix* L. sp., on living stems of *E. hyemale*, 09.11.2019, 36°24'N-33°48'E 40 m, Der-Kap 301; 36°26'N-33°46'E, 50 m, 27.11.2019, DerKap-395.



Figure 1. Ascocarps of *Stamnaria americana*  
Şekil 1. *Stamnaria americana*'nin askokarları

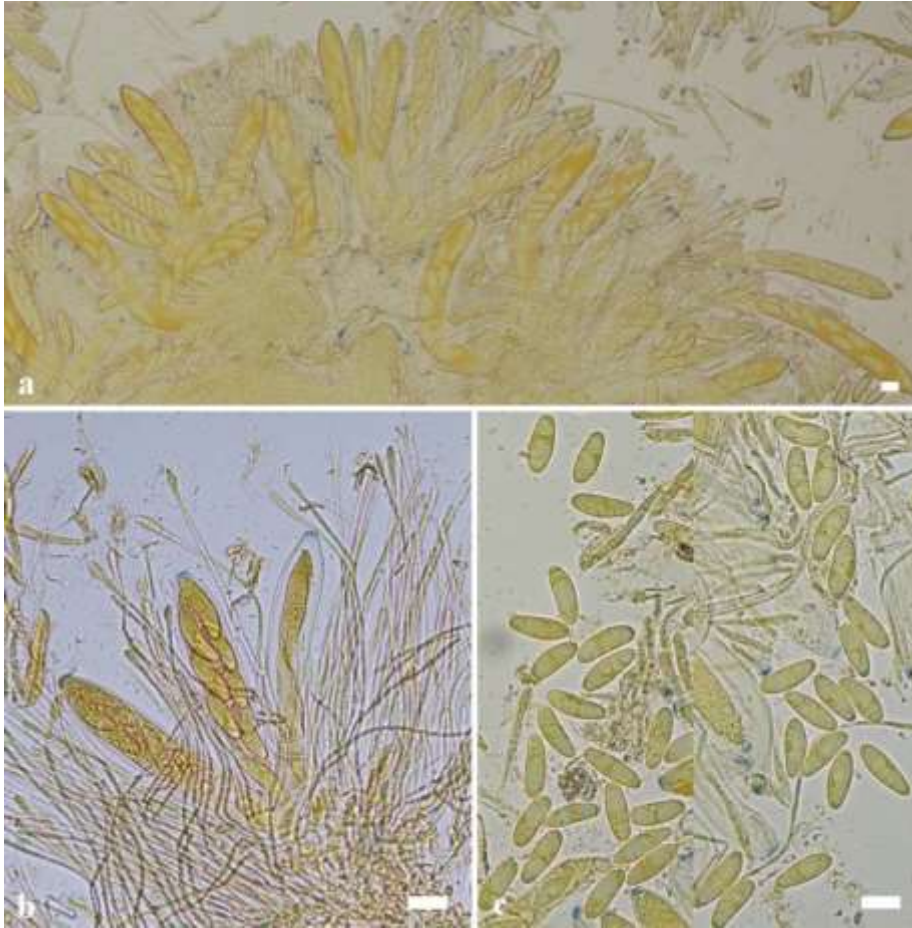


Figure 2. Asci and paraphyses (a, b) and ascospores of *Stannaria americana* (c) (bars: 15 µm)  
Şekil 2. *Stannaria americana*'nin askus ve parafizleri (a,b) ve askosporları (c) (barlar: 15 µm)

## DISCUSSION

*Stannaria americana* was added as new record for the mycobiota of Turkey. This is the first member of the genus to be reported in Turkey. *Stannaria* is regarded as a genus in Helotiaceae by Mycobank (2021), but the Index Fungorum gives its current family category as Incertae sedis (Helotiales). The ecological and morphological characteristics of the investigated collections are in agreement with Seaver (1932, 1951); Moingeon and Page (2003) and Hosoya et al. (2013).

Morgan (1902) reported *S. americana* on dead stems of *E. hyemale* L. But Turkish collections were made on living stems of *E. hyemale* as reported by Haelewaters et al. (2018). Though the members of *Stannaria* may share some morphological and ecological properties, the strongly gelatinized excipulum is a remarkable feature of this fungus (Hosoya et al., 2013). *Stannaria americana* may be confused with *S. yugrana* Filippova, Haelew. & Baral. But the latter species grows on dead or fallen branches of *E. sylvaticum* L. The solitary and distinctly stalked apothecia also differentiate it from *S. americana* morphologically (Haelewaters et al., 2018).

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## Author's Contributions

Authors declares the contribution of the authors is equal.

## Statement of Conflict of Interest

Authors have declared no conflict of interest.

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