

***Ramariopsis subumbrinella* (S. Imai) Olariaga, comb. nov.**

MYCOBANK 516726

- *Clavaria subumbrinella* S. Imai, Trans. Sapporo Nat. Hist. Soc. 13(4): 386. 1934.
- *Clavulinopsis subumbrinella* (S. Imai) Corner, Ann. Bot. Mem. 1: 392. 1950.

The type material could not be located. The original description by Imai (1934) noting small spores, small basidia, and branched basidiomata suggests a species of *Ramariopsis*. The Iberian material that matches in several aspects the original description shows a very low ornamentation in some spores through the light microscope, also typical of many *Ramariopsis* species.

SPECIMENS EXAMINED—SPAIN. CÁDIZ: Parque Natural de los Alcornocales, Arroyo Carlos el Tiradero, 30SF61, 150 m, under *Pistacia lentiscus*, *Olea europaea* and *Quercus suber*, 26/XI/2003, Pérez-Daniëls & Olariaga, BIO-Fungi 10015. CÓRDOBA: Córdoba, Arroyo Pedroches, 30SUG4398, 200 m, on bare soil under *Myrtus communis*, 5/XII/2003, Pérez Daniëls & Olariaga, BIO-Fungi 10224. SEGOVIA: Prádena, El Nido del Cuervo, 30TVL4351, 1350 m, bajo *Ilex aquifolium*, 20/XI/1997, Pérez Daniëls, MA-Fungi 40223 [as *Clavulinopsis subtilis*], MA-Fungi 40225 [as *Clavulinopsis* sp.].

***Typhula contorta* (Holmsk. : Fr.) Olariaga, comb. nov.**

MYCOBANK 516730

- *Clavaria contorta* Holmsk., Beata Ruris 1: 29. 1790 : Fr., Syst. Mycol. 1: 478. 1821.
- *Clavaria fistulosa* var. *contorta* (Holmsk.) Höhn., Öst. Bot. Z. 54: 425. 1904.
- *Clavaria fistulosa* f. *contorta* (Holmsk.) Bourdot & Galzin, Hyménomyc. France: 121. 1928 ["1927"].
- *Clavariadelphus fistulosus* var. *contortus* (Holmsk.) Corner, Ann. Bot. Mem. 1: 273. 1950.
- *Macrotyphula fistulosa* var. *contorta* (Holmsk.) Nannf. & L. Holm, Publ. Herb. Univ. Uppsala 17: 8. 1985.
- *Macrotyphula contorta* (Holmsk. : Fr.) Rauschert, Feddes Repert. Spec. Nov. Regni Veg. 98: 660. 1987.

LECTOTYPE (designated here): Holmsk., Beata Ruris 1: pl. 12. 1790.

The epithet *contorta* has traditionally been used for specimens with irregular, wrinkled, or brain-like basidiomata. It has often been synonymized with *Typhula fistulosa* (Jülich 1984, Rauschert 1987, Berthier 1976) or considered a variety of it (Knudsen 1997), due to high morphological plasticity (Holmskjöld 1790, Bourdot & Galzin 1928). However, some authors have noted that *T. contorta*-like basidiomata have larger basidiospores (Harper 1918, Corner 1950, Maas Geesteranus 1976, Breitenbach & Kränzlin 1986). Comparison of the examined *T. contorta* material with typical *T. fistulosa* collections supports this view. Accordingly, *T. contorta* is treated as an independent species in the Iberian revision of the group (Olariaga 2009), although further focused studies are desirable to confirm its identity. The reasons for accommodating this taxon in *Typhula* (Pers. : Fr.) Fr. are given under *T. fistulosa*.

SPECIMENS EXAMINED—FRANCE. LANDES (40): Tartas, bois mort, 16/11/1987, G 110719, Gilles, [LY-CI 349, as *Macrotyphula fistulosa* f. *contorta*]. SPAIN. ARABA:

Gillerna, 30TQH1881, 750 m, *Alnus glutinosa* twigs, 7/XII/1985, Martínez-Irigoyen, BIO-Fungi 12614, BIO-Fungi 12615, *Alnus glutinosa* twigs, 18/I/1986, BIO-Fungi 12616, *Alnus glutinosa* twigs, 6/12/1986, BIO-Fungi 12617, *Corylus avellana* twigs, 30/XI/1985, BIO-Fungi 12613; Oleta, Aramaio, 30TWN3189, 600 m, *Corylus* or *Alnus glutinosa* twigs, 15/X/2004, Salcedo, BIO-Fungi 10516. ÁVILA: Barquillo, El Loscar, 29TOF8776, 970 m, *Alnus glutinosa* twig, 8/XI/2004, Sarrionandia & Olariaga, BIO-Fungi 10608. BIZKAIA: Getxo, Martiartu, 30TWN0298, 100 m, *Alnus glutinosa* twigs, 22/XI/2003, Olariaga, BIO-Fungi 10107, BIO-Fungi 10105. CÁCERES: Hervás, La Garganta, 30TTK5963, 790 m, *Alnus glutinosa* wood, 9/XI/2004, Sarrionandia & Olariaga, BIO-Fungi 10620. ASTURIAS: Pigüeces, 30TQH1881, 750 m, *Alnus* stump, 6/X/2005, Olariaga, BIO-Fungi 11191. SALAMANCA: Candelario, 30TTK6571, 100 m, *Corylus avellana* twig, 8/XI/2004, Sarrionandia & Olariaga, BIO-Fungi 10641. SWEDEN. BLEKINGE: Karlskrona, Västra Mark, strandsnåret, på murkna algrenar, 10/XI/1946, Wikland 243, UPS F-124250 [as *Clavaria contorta*]. VÄSTERGÖTLAND: Hisingen, Göteborg, Rya skog, på *Alnus glutinosa*, 26/XI & 9/XII/1999, Nordin, UPS F-124213 [as *Macrotyphula fistulosa* var. *contorta*].

***Typhula fistulosa* (Holmsk. : Fr.) Olariaga, comb. nov.**

MYCOBANK 516731

- ≡ *Clavaria fistulosa* Holmsk., Beata Ruris 1: 15. 1790 : Fr., Syst. Mycol. 1: 479. 1821 [non Tode 1783].
- ≡ *Eriocladus fistulosus* (Holmsk. : Fr.) Lév., Ann. Sci. Nat., Bot., Sér. 3, 5: 159. 1846.
- ≡ *Clavariella fistulosa* (Holmsk. : Fr.) P. Karst., Rev. Mycol. (Toulouse) 3(9): 21. 1881.
- ≡ *Clavariadelphus fistulosus* (Holmsk. : Fr.) Corner, Ann. Bot. Mem. 1: 272. 1950.
- ≡ *Macrotyphula fistulosa* (Holmsk. : Fr.) R.H. Petersen, Mycologia 64: 140. 1972.

LECTOTYPE (designated here): Holmsk., Beata Ruris 1: pl. 6. 1790.

This species was proposed as the type of *Macrotyphula* R.H. Petersen (Petersen 1972), a currently used generic name. Morphological comparison between *Macrotyphula fistulosa* and *Typhula phacorrhiza* [selected type species of *Typhula* (Donk 1933)] revealed the following morphological similarities:

1. Basidiomata with similar appearance, ochre brown-coloured, pubescent at the base.
2. Stipe surface formed by thin hyphae, slightly gelatinized, and with similar caulotrichomes.
3. Basal tomentum formed by scarcely septate, thick-walled hyphae
4. A slight hyaline zebra-like striped encrustation on the medulla hyphae.

Based on these similarities, *Macrotyphula fistulosa* and *T. phacorrhiza* appear to be closely allied species, as molecular phylogenetic inference also suggests (Pine et al. 1999, Dentinger & McLaughlin 2006, Hibbett 2007). Therefore, we reduce *Macrotyphula* to synonymy under *Typhula* to which we transfer several *Macrotyphula* species.

SPECIMENS EXAMINED—ANDORRA. Pal, 31TCH7511, under *Pinus*, *Populus*, *Betula pendula*, and *Corylus avellana*, 15/X/2002, Olariaga, BIO-Fungi 12772. FINLAND. ETELÄ-HAME: Mustiala, X/1867, P.A. Karsten, UPS F-124239 [as *Clavaria fistulosa*]. LATVIA. BALDONE: Kekava, Birzuli, ad terram, in alnetum glutinosae, 30/X/1955, A. Abolina, UPS F-552624 [as *Clavaria fistulosa*]. SPAIN. LEÓN: Puerto del Pontón, Riaño, 30TUN3677, 1000 m, branches of *Fagus sylvatica*, 01/X/2003, Olariaga, BIO-Fungi

9914. MADRID: Dehesa de Somosierra, 30TVL5153, 1500 m, buried remnants of *Corylus avellana*, 2/XI/2007, J.C. Zamora, BIO-Fungi 12611. ASTURIAS: Somiedo, 29TQH3373, 1150 m, among litter in acidophilous *Fagus sylvatica* forest, 27/X/2002, Olariaga, BIO-Fungi 9711. SWEDEN. GÄSTRICKLAND: Gävle, Lövudden, on fallen decaying log of *Alnus* (?), 10/XI/1957, R. Nannfeldt, UPS F-124234 [as *Clavaria contorta*]. UPPLAND: Vänge, Fiby urskog, S. Lundell n. 581, 09/IX/1932, UPS F-124218 [as *Clavaria fistulosa*]. VÄSTERGÖTLAND: Töreboda, Gastorp, asplunden söder om Sommarhemmet, J. Lundberg 27/X/1955, UPS F-124212 [as *Clavaria fistulosa*]. SWITZERLAND. VALAIS: Mayoux, 30TVL5206, 1500 m, *Corylus avellana* branch, 31/VIII/2007, Felipe & Olariaga, BIO-Fungi 12610.

Typhula phacorrhiza (Reichard : Fr.) Fr., *Observ. Mycol.* 2: 298. 1818 : Fr., *Syst. Mycol.* 1: 495. 1821, as "*phacorrhiza*".

= *Clavaria phacorrhiza* Reichard : Fr., *Schriften Berlin. Ges. Naturf. Freunde* 1: 315. 1780.

= *Phacorrhiza filiformis* Grev., *Scott. Crypt. Fl.* 2: 93. 1824.

LECTOTYPE (designated here): Sowerby, *Col. Fig. Eng. Fung.* 2: tab. 233. 1798, as "*phacorrhiza*".

To our knowledge, the type species of *Typhula* has not previously been typified. We select a lectotype according to Articles 9.2 and 9.10 in the forthcoming "International Code of Nomenclature for algae, fungi, and plants (Melbourne Code)" (ICN 2012, in prep.). Fries (1821: 495) referred to the lectotype as "t. 253", a typographic error for t. 233. The sanctioned epithet spelling (Fries 1821) has been adopted, in agreement with the proposal by Demoulin (2010; subsequently ratified at the 18th International Botanical Congress, Melbourne, 2011).

SPECIMENS EXAMINED—Without locality, E. Coemans, [*Rabenh. Fungi Eur.* 418], UPS F-000023. FRANCE. HAUTES PYRÉNÉES ATLANTIQUES: near Candanchú, 30TYN0041, 1500 m, *Chaerophyllum aureum* leaves, 10/IX/2004, Olariaga, BIO-Fungi 10521. SCOTLAND. FIFE: Balmuto, 01/X/1822, Berkeley, E 218190 [as *Phacorrhiza filiformis*]. SWEDEN. VÄSTERGÖTLAND: Göteborg, Stora Änggården, on decaying leaves, *Sphagna* etc. in a bog, T. Nathorst-Windahl, 29/IX/1937, [Lundell & Nannfeldt, *Fungi Exs. Suec.* 550], UPS F-011279. SWITZERLAND. VALAIS: Schwartzsee, bare soil under *Petasites*, *Chaerophyllum aureum* and *Cirsium*, 5/IX/2007, Felipe & Olariaga, BIO-Fungi 12618. UNITED STATES OF AMERICA. NEW YORK: Whetzel's garden, Fores Home, on buckwheat straw, 17/IV/1937, Remsberg, UPS F-552623.

Typhula tremula (Berthier) Olariaga, *comb. nov.*

MYCOBANK 516732

= *Macrotyphula tremula* Berthier, *Bull. Mens. Soc. Linn. Lyon* 43: 187. 1974.

Typhula tremula shares with *T. phacorrhiza* the characteristics explained above, as well as slender fruitbodies that make the two species appear very similar macroscopically.

SPECIMENS EXAMINED—FRANCE. HAUTE-SAVOIE: Hte. Savoie, Samoëns, les Saix, sur rachis d'*Athyrium filix-femina*, 08/IX/1965, G 110723, [Holotype, LY-CI 14]. SPAIN. LEÓN: Soto de Sajambre. Vegabaño, 30TUN8187, 1500 m, dead remnants of *Oreopteris*