

FIRST REPORT OF *Agrocybe retigera* (SPEG.) SINGER (BOLBITIACEAE, AGARICALES) FROM BRAZIL

In 1922, the Italian mycologist and botanist Carlos Spegazzini described the fungus *Naucoria retigera* Speg., which was collected by himself in Paraguay (SPEGAZZINI, 1922). Years later, Dr. Rolf Singer, during his studies on type materials described by Spegazzini (SINGER, 1950) studied this species and transferred the mushroom to the genus *Agrocybe* Fayod (family Bolbitiaceae Singer). In the same work, Singer established that *Naucoria semiorbicularis* var. *lacunosa* Murrill from Florida (USA) is a taxonomic synonym of *A. retigera*. Since then, a few records of this species are known: it was reported from Argentina (SINGER; DIGILIO, 1951), Venezuela (DELGADO; URDANETA, 2002), Hawaiian Islands (DESJARDIN et al., 2005), and Mexico (GUZMÁN, 2003).

The genus *Agrocybe* has received little attention in Brazil. The contribution of Watling (1992) from the state of Paraná is undoubtedly the most important account of the Brazilian Bolbitaceae, 11 species of *Agrocybe* are reported and/or described therein. In the revision of the Agaricales *s.l.* from the state of São Paulo, 6 *Agrocybe* species are keyed by Pegler (1997). In the above-cited works *A. retigera* is not reported, thus being unknown in Brazil.

Recently the authors collected and studied specimens of *Agrocybe*, which agree in all aspects with the description of *A. retigera* as presented by Singer (1950) and Singer and Digilio (1951). These materials are described and illustrated as follows:

Agrocybe retigera (Speg.) Singer, *Lilloa* 23: p. 213, 1950

Figs. 1-6

≡ *Naucoria retigera* Speg., An. Mus. Nac. Buenos Aires 31: p. 363, 1922.

= *Naucoria semiorbicularis* var. *lacunosa* Murrill, *Mycologia* 35: p. 431, 1943.

Pileus 17-41 mm in diameter, conic-convex, hemispheric or plano-convex, umbonate, yellow-cream colored to pale brownish in age, surface

sub-viscid to moist, rugose to sulcate (escrobiculate) in younger basidiomata, but disappearing the older ones, margin somewhat striate. **Gills** adnexed to sinuate, firstly cream-colored to gray, finally tobacco-brown when mature, membranous. **Stipe** 51-77 × 3-6 mm, central, cylindrical with a slightly swollen base, cream-colored, surface covered with thin fibrils, hollow. **Veil** absent. **Context** fleshy and soft, white. **Spore print** tobacco-brown.

Basidiospores 12-17 × 6.5-9 µm, ellipsoid both in side and frontal view, brownish under KOH, smooth and thick-walled, with a conspicuous and wide germ pore, apiculus present. **Basidia** 26.5-33.5 × 8-15 µm, clavate-ventricose, mainly tetrasporic, but some bear two sterigmata. **Pleurocystidia** 35-70 × 15-25 µm, mainly lageniform and ventricose, with a rounded or subcapitate apex, thin-walled, hyaline. **Cheilocystidia** 29.5-61 × 10.5-21.5 µm, utriform to ventricose, thin-walled, hyaline. **Pileipellis** cellular, composed by sphaeropedunculate, thin-walled, 30-54 × 16-30 µm, hyphae. **Gill trama** regular. **Clamp connections** present.

Habitat: growing in numerous groups on soil of gardens, between grasses.

Material examined: BRAZIL. Rio Grande do Sul: Porto Alegre, Av. Nilo Peçanha, 18.III.2005, *L.F.P. Lima* 129 (ICN); **Santa Maria,** Universidade Federal de Santa Maria, Camobi, 25.I.2002, *Cortez 003/02* (SMDB 9547); **Santa Cruz do Sul,** Centro de Radiologia, 16.II.1990, *A.B. Pereira* (HCB 15673 – as *Stropharia* sp.).

The characters used by Singer and Digilio (1951) for the delimitation of this taxon were the rugose pileus surface, absence of an annular veil, presence of large pleurocystidia and cheilocystidia, and the larger basidiospores, with a conspicuous germ-pore. All that elements are present in the collected specimens. Singer (1950) reported shorter pleurocystidia (20-45 µm) based on Murrill's materials from Florida, but did not discuss about these structures in South American collections. The synonymy is according to Singer (1950) and Watling and Gregory (1981). *Agrocybe semiorbicularis* (Bull.: St. Amans) Fayod, a European species, seems to come very close to *A. retigera*, but

the former does not possess pleurocystidia, as indicated by Singer (1950).

Agrocybe retigera is a ruderal and probably very common species. It has been seen growing in gardens, parks and meadows between the months of January and March. It is surprising that this species was overlooked for so many times. *Agrocybe retigera* is here reported for the first time in Brazil, and represents an extension of its distribution. As previously discussed, the species is known from Florida to Argentina, but unnoticed in several Central and South American countries where it probably occurs.

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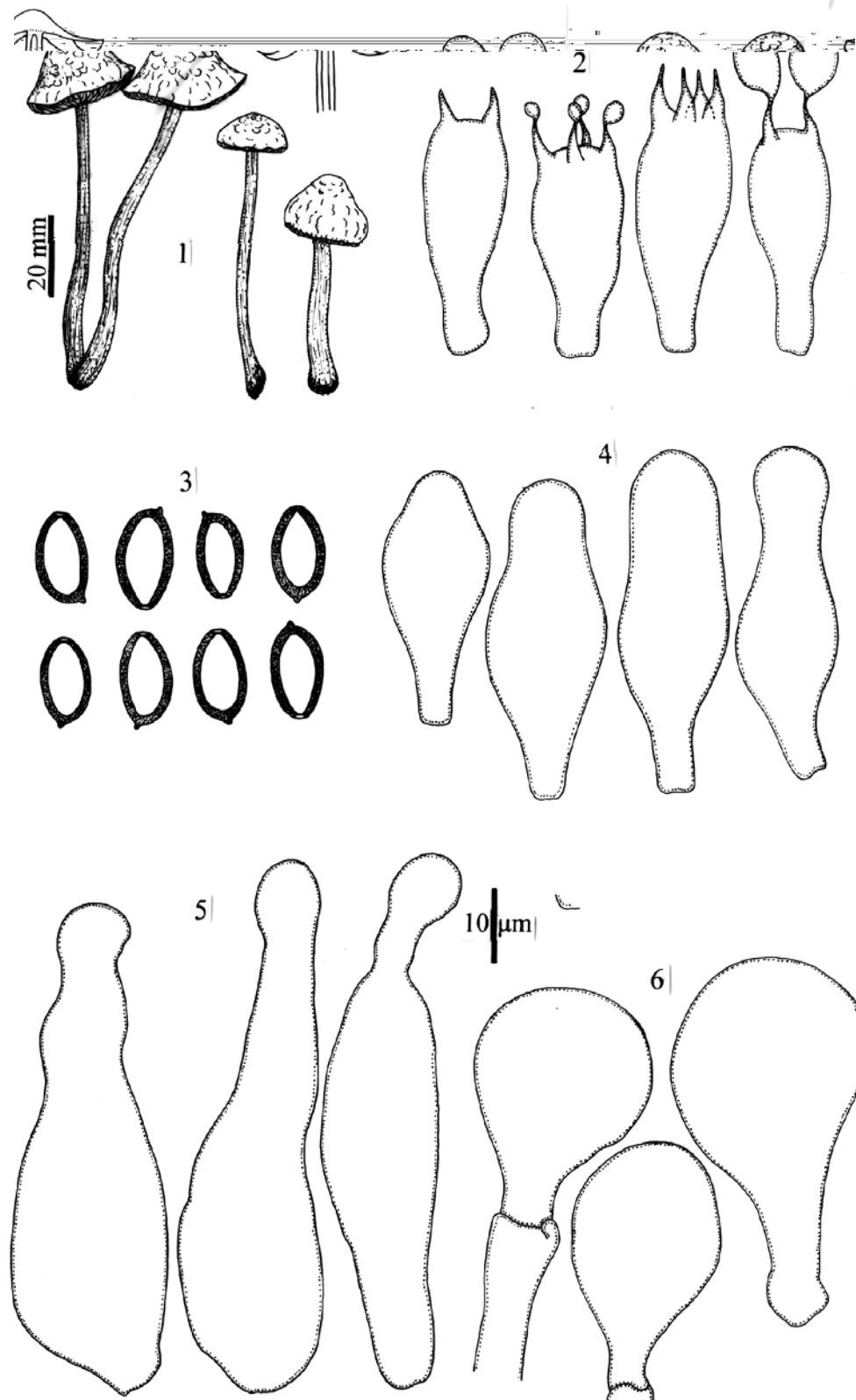
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Figs. 1-6. *Agrocybe retigera* (Speg.) Singer: **1.** Basidiomata and pileus section. **2.** Basidia. **3.** Basidiospores. **4.** Cheilocystidia. **5.** Pleurocystidia. **6.** Pileipellis hyphae.