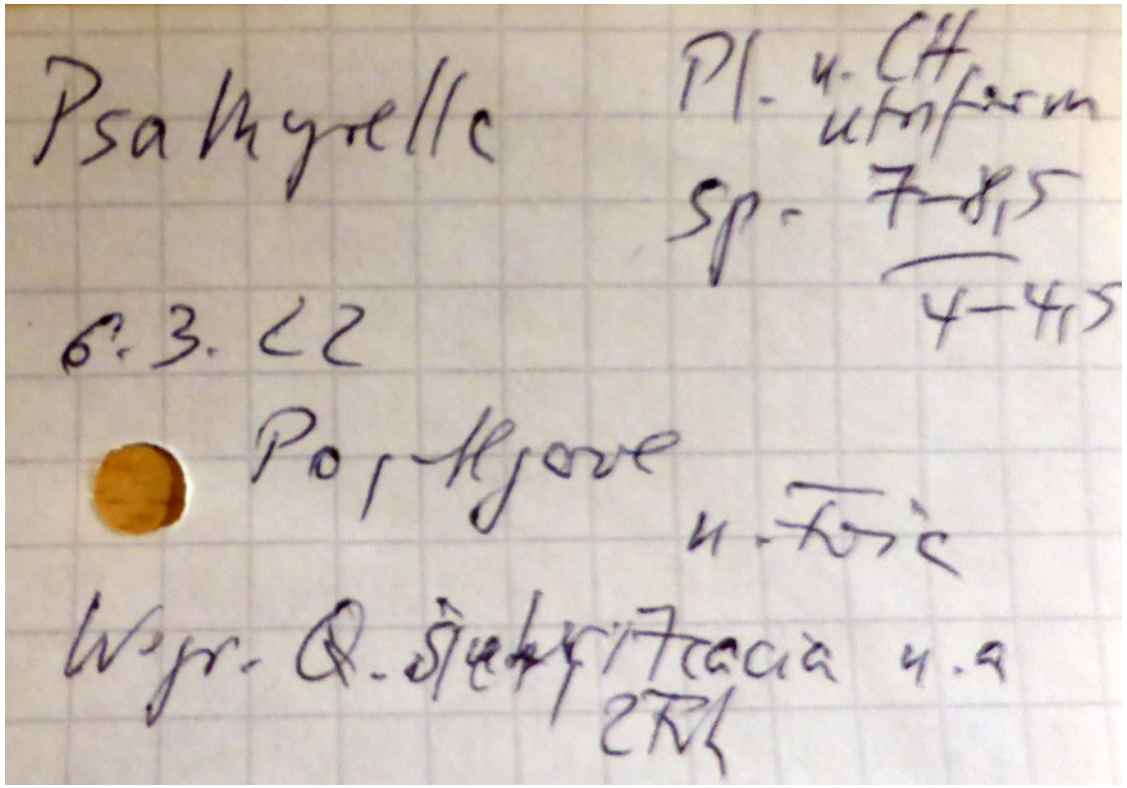
Psathyrella senex – group B
Daniel Deschuyteneer – Lothar Krieglsteiner

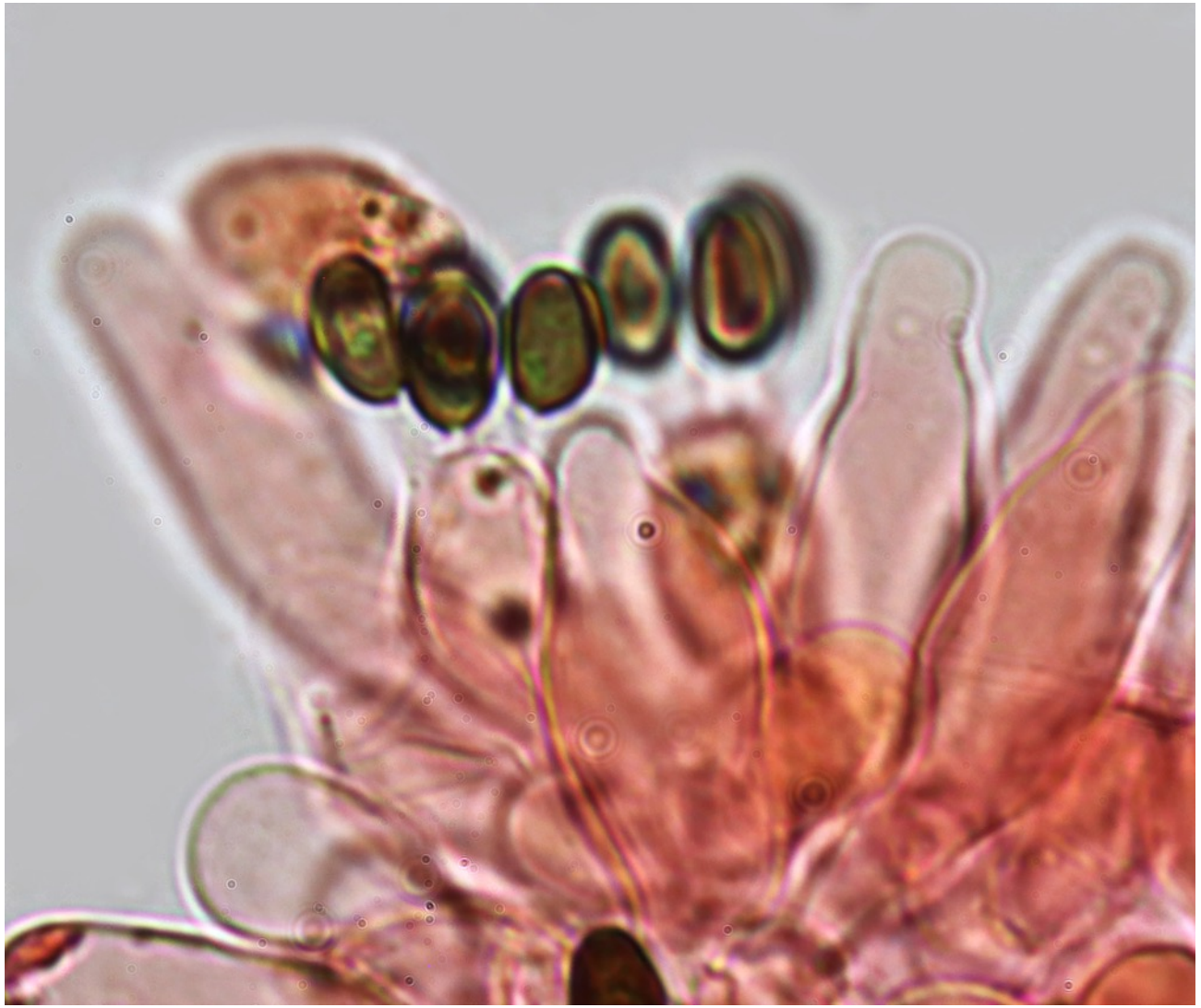


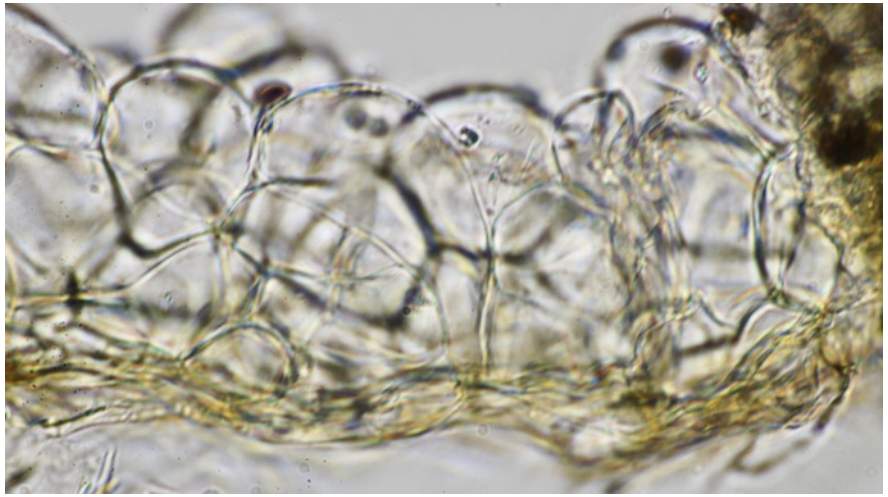
Small Psathyrella in wet to moist soil – not associated to woody material – Acacia and …..
Portugal , Algarve , Monchique-N ; 03/06/2022
Photo in situ L. Krieglsteiner

Cap striate in wet weather, small remnants of flocculose veil still adhering on the cap , gill edge white, apex of stipe pruinose.

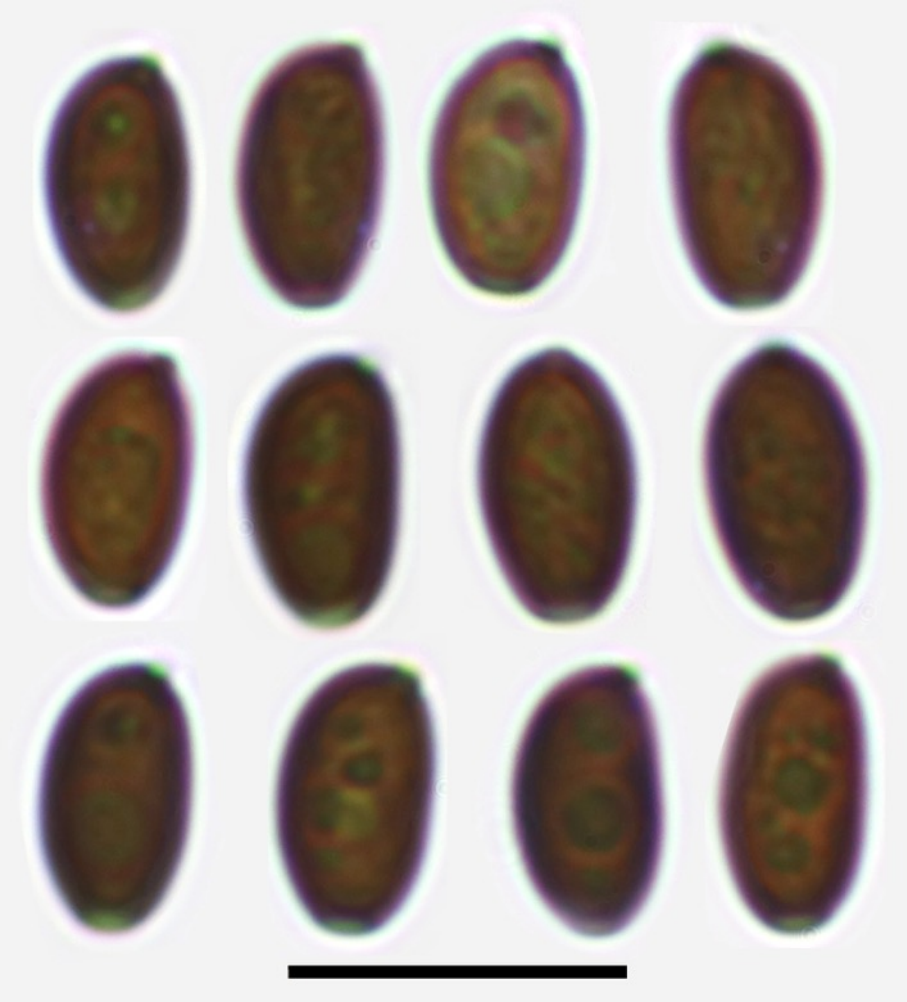
Microscopy D. Deschuyteneer

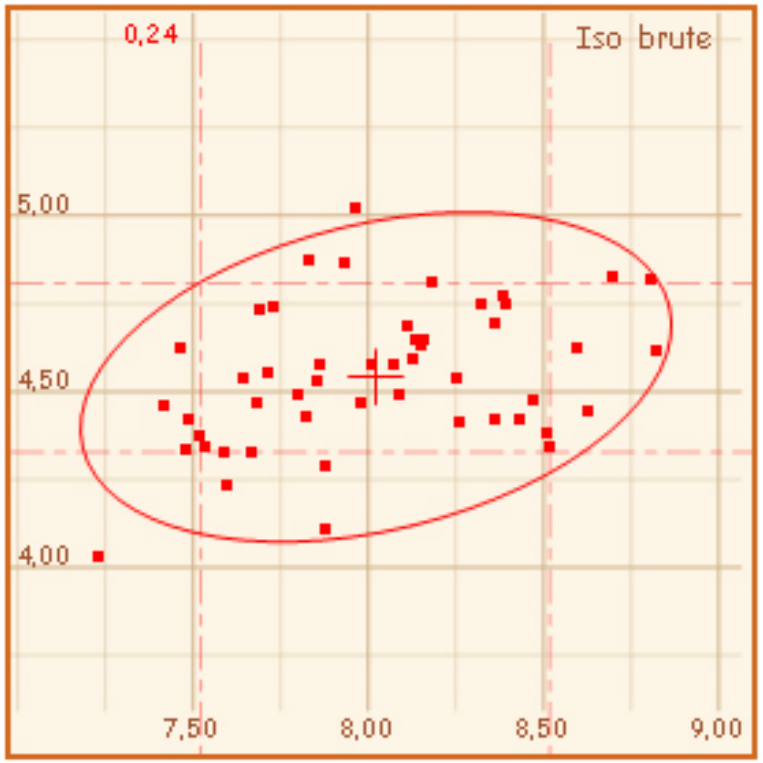
Basidia: 4 spored; clavate
Clamps: present
Pileipellis: one or two layers of usual obpyriform cells





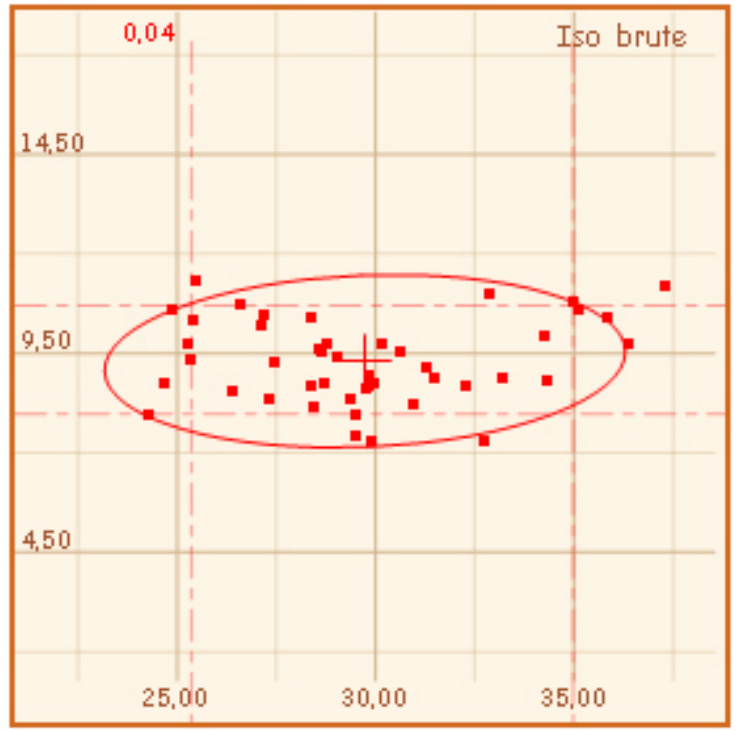
Spores red-brown in NH4OH 10%, not opaque, ellipsoïd in face view, flattened on one side and slightly amygdaliform in profile; germ pore distinct, central.



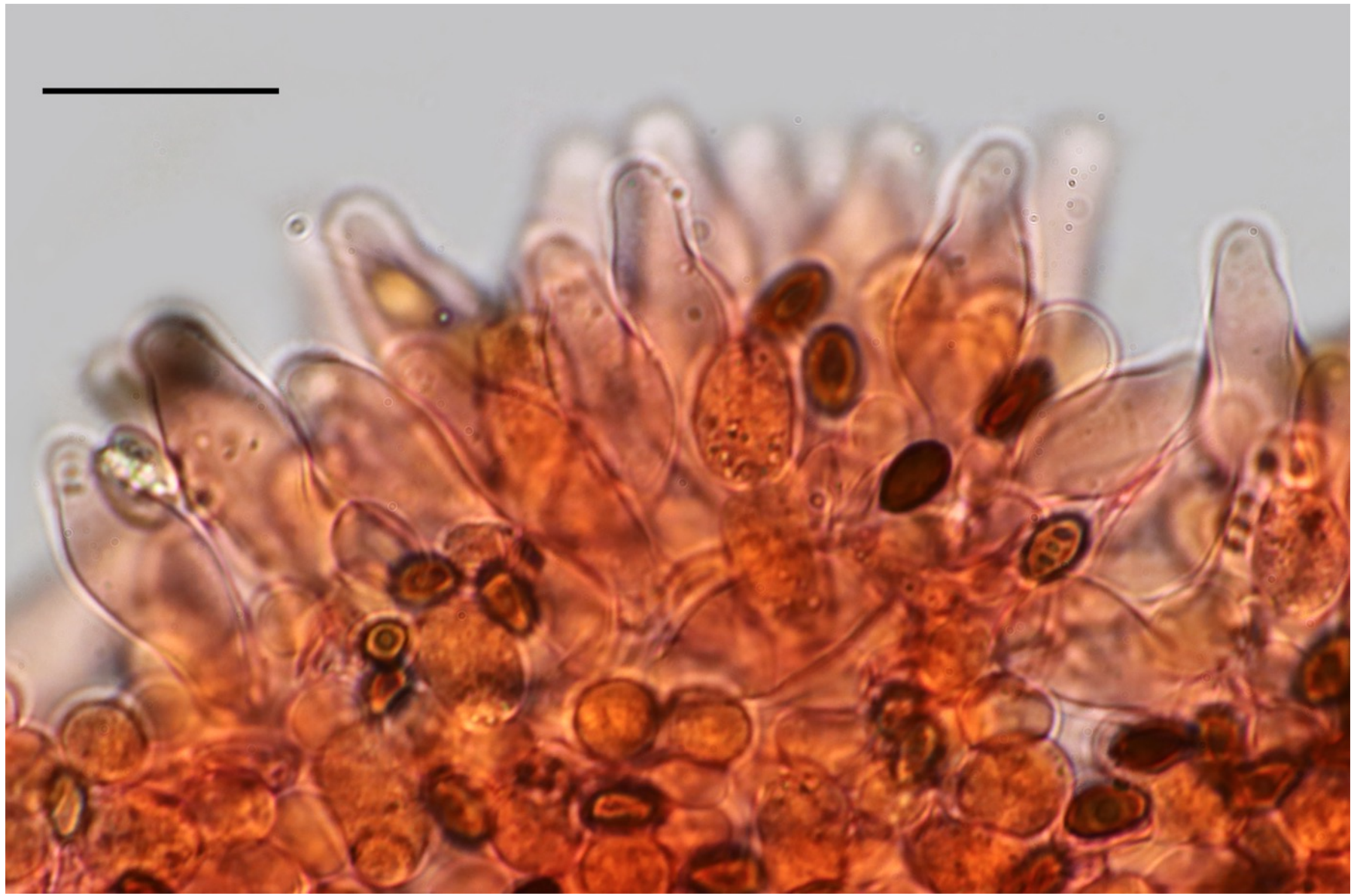


Spores measuring: N = 50
(7,2) **7,5 - 8,5** (8,8) × (4) **4,3 - 4,8** (5) µm
Me = 8 × 4,5 µm ;
Q = (1,6) 1,63 - 1,9 (2) ; Qe = 1,8

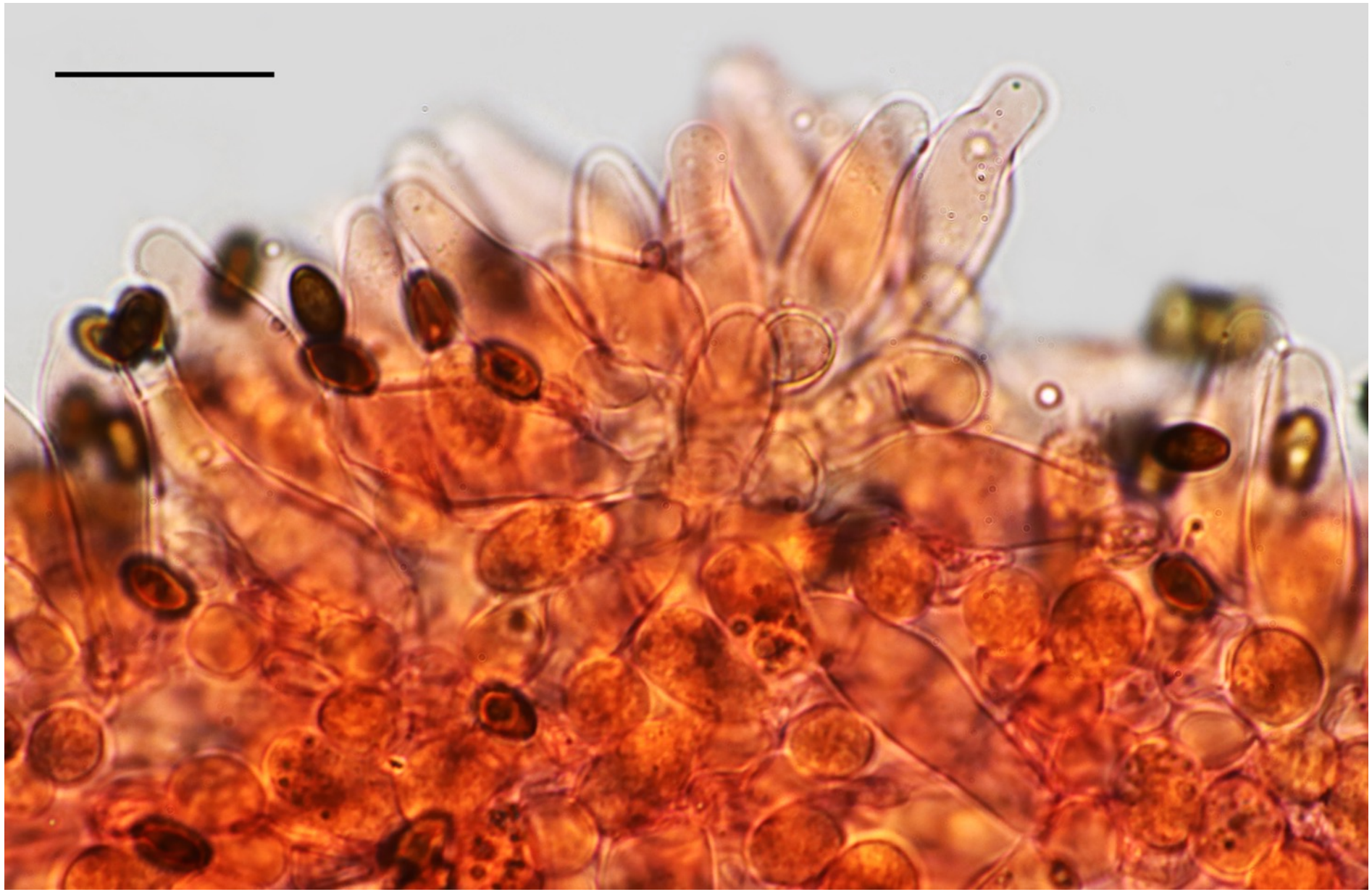
Cheilocystidia N = 45 ; 24,3) 25,4 - 35 (37,3) × (7,3) 8 - 10,7 (11,3) µm ; Me = 29,7 × 9,3 µm ; densely packed, mixed with few scattered basidia and thin walled clavate paracystidia.
Cheilocystidia thin walled, mostly utriform but also often lageniform, with an obtuse to mainly round apex, not rostrate or forked.



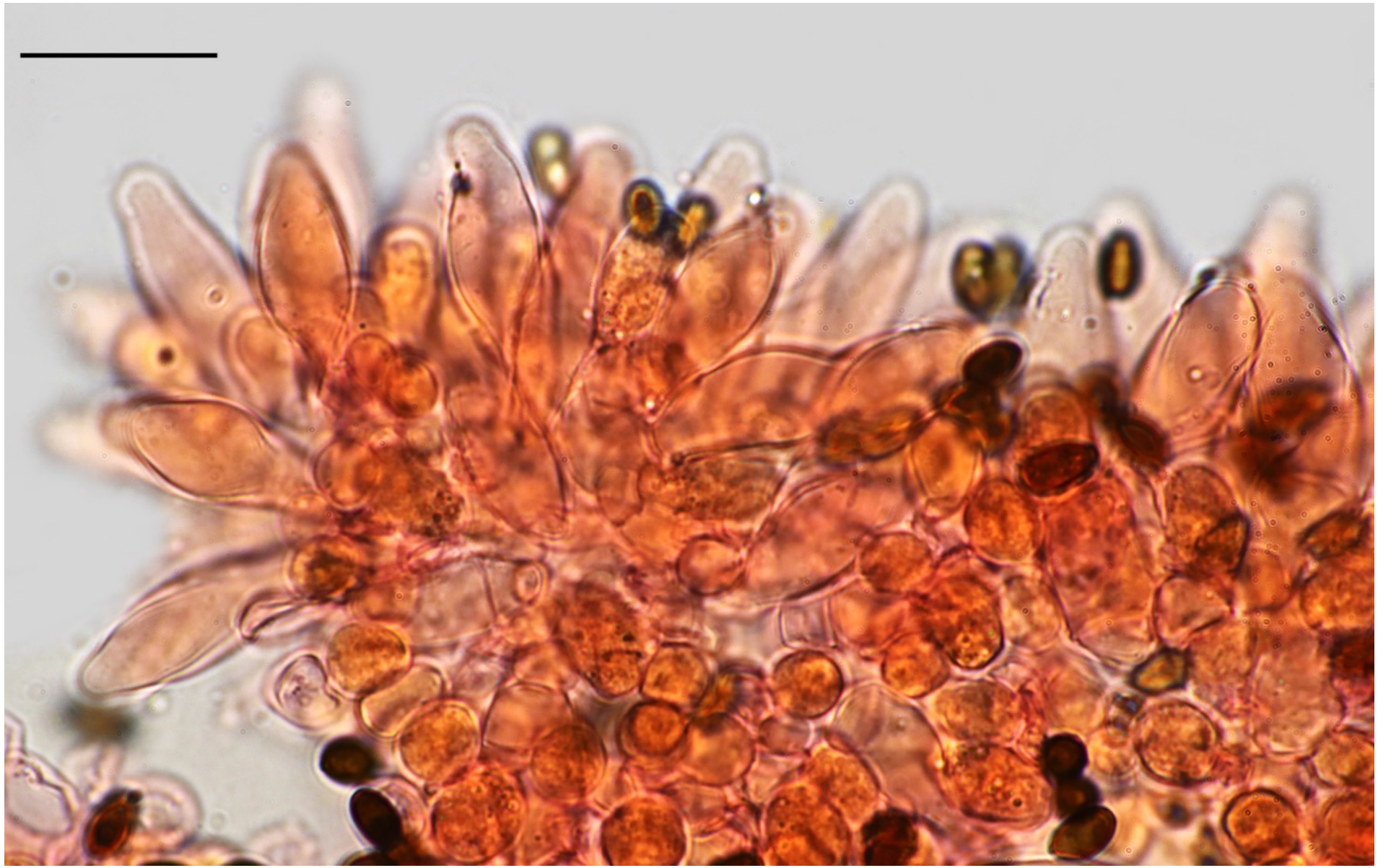
Cheilocystidia



Cheilocystidia



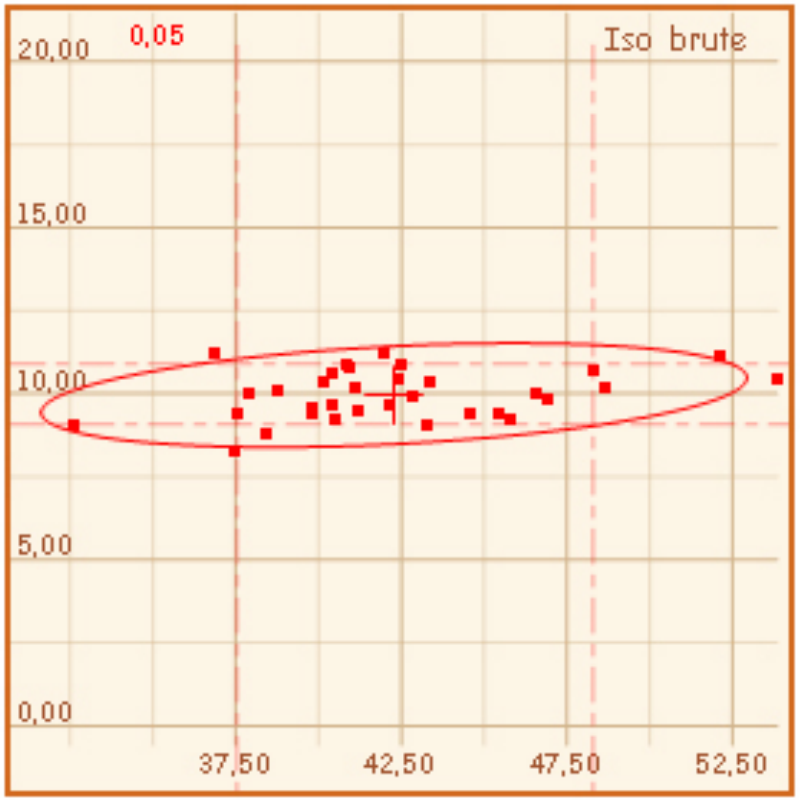
Cheilocystidia



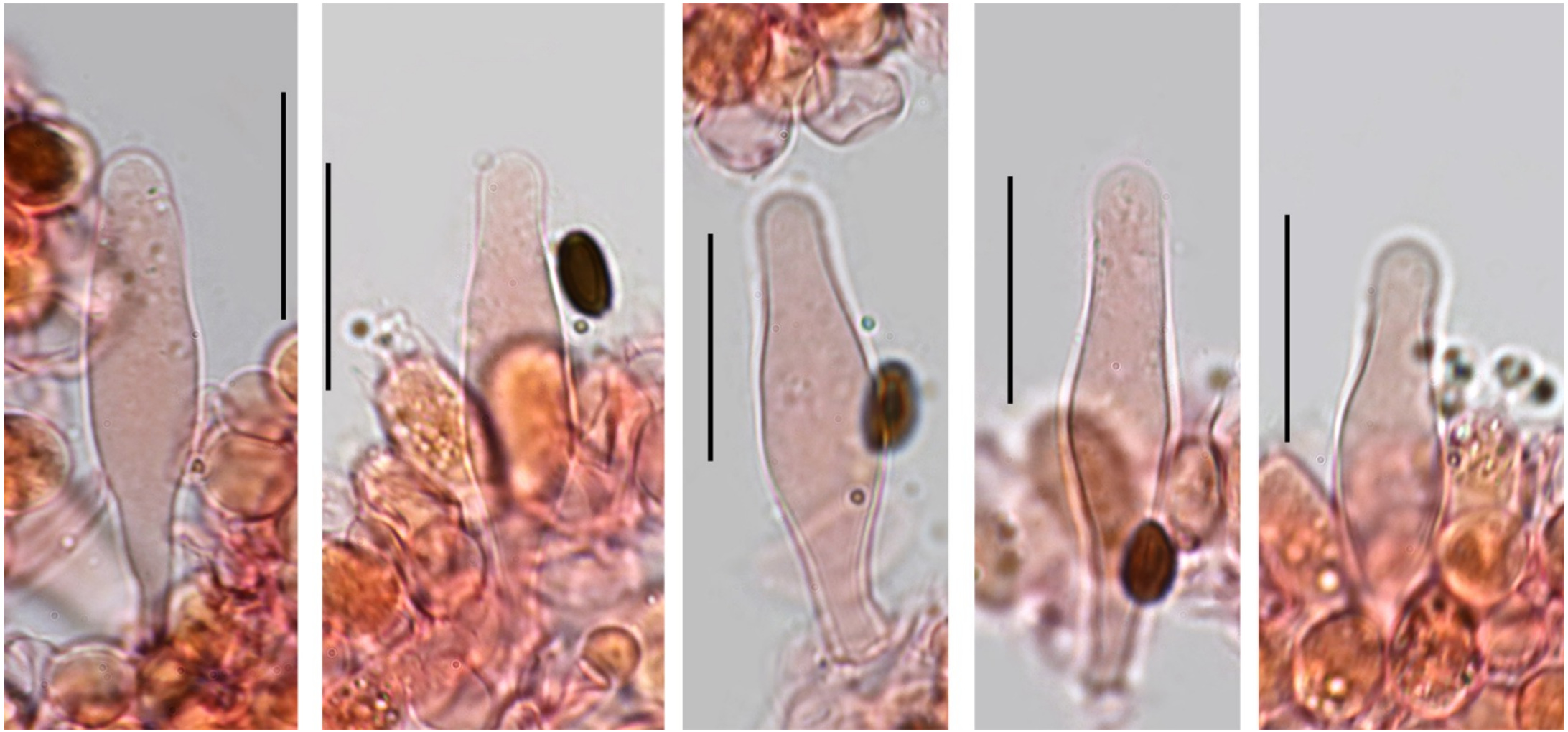
Cheilocystidia

Cheilocystidia

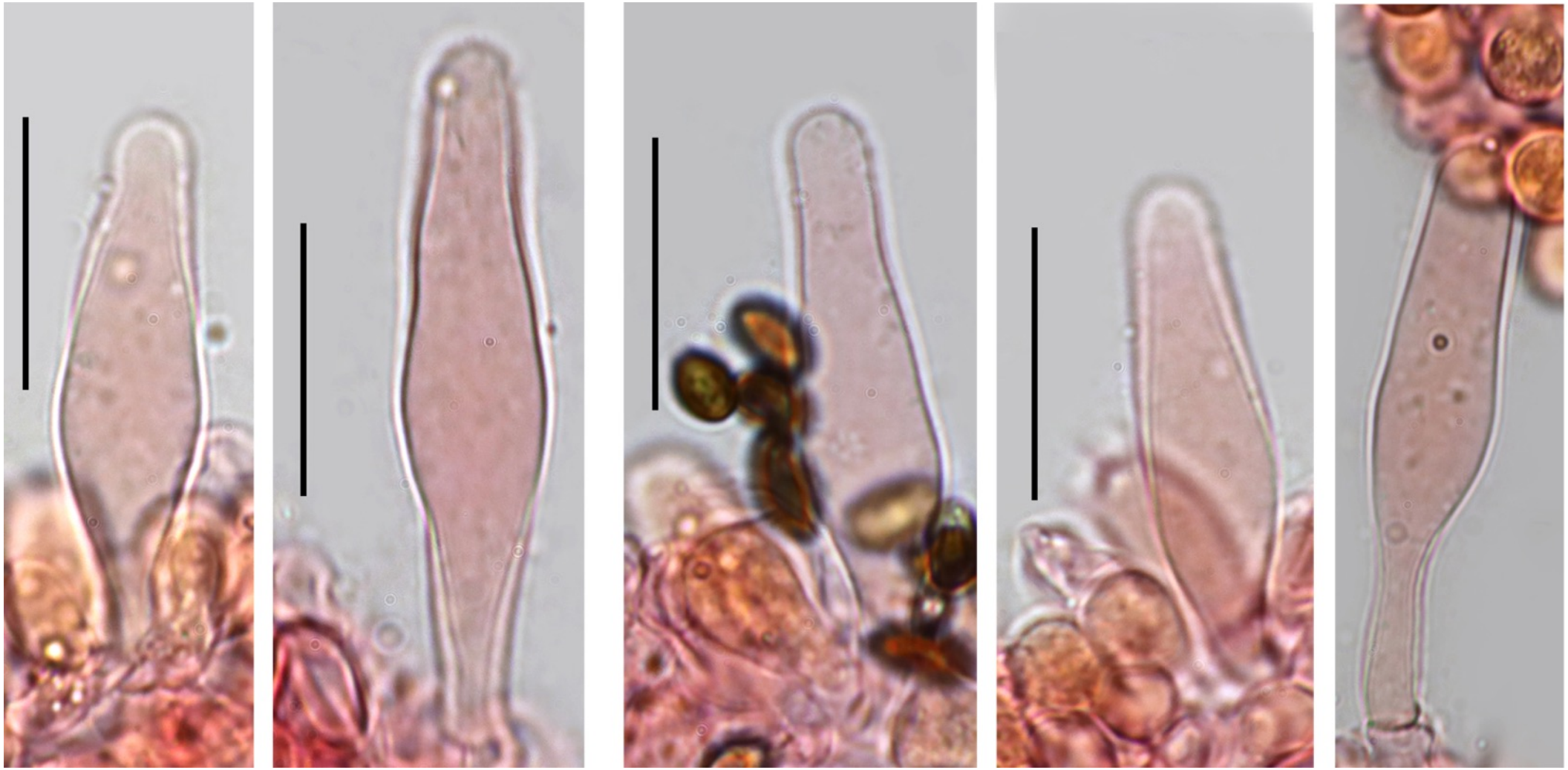
Pleurocystidia measuring N = 33 ; (32,6) 37,5 - 48,3 (53,9) × (8,3) 9,1 - 10,9 (11,2) µm; Me = 42,3 × 10 µm; very numerous, thin walled, mostly lageniform with an obtuse apex, very often pedicellated.



Pleurocystidia



Pleurocystidia



2022-2329-ALV35384 DD-KRIEG-030622

ITS = ok, 100% **Psathyrella senex MN657231 = voucher PT150619 of Daniel Deschuyteneer and Patrice Tanchaud** ,
99.23% P. seminuda KC992907, P. warrenensis KC992906

TEF1 = ok, 97.64% Psathyrella amygdalinospora MW410999, 96.72% P. fagetophila FM897222

ITS

NNNNNNNNNCNNCCTGATTTGAGGTCAAATTGTCAAAAAT
TGTCTTTGCAGACGGTTAGAAGCAAGTCTAAGTTCCTTCC
ACGGCGTAGATAATTATCACACCAATAGACGGAGCTCAGT
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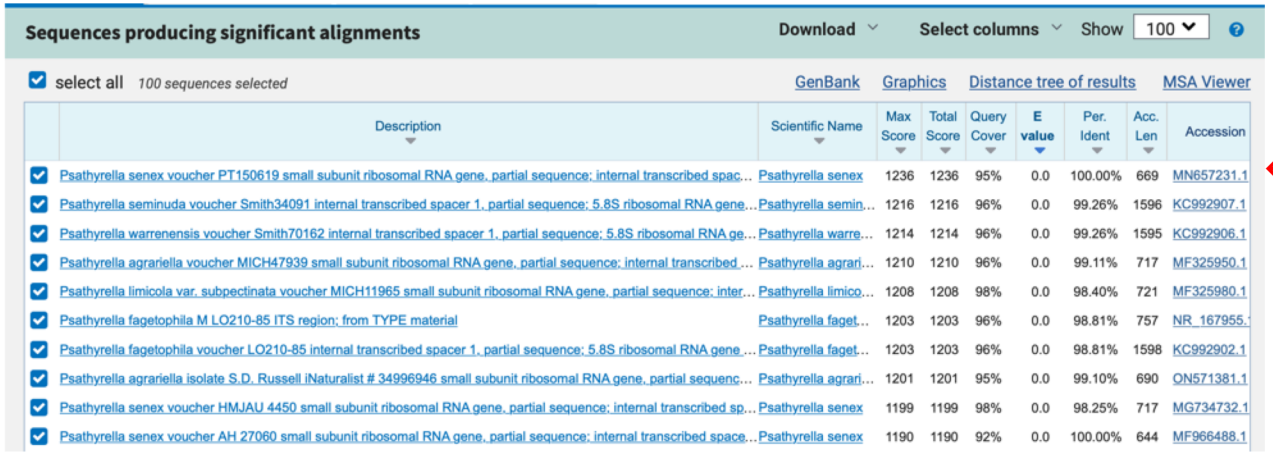

My publication about *P. senex group A & B*
http://www.amfb.eu/Myco/Psathyrelles/Pdf/Psathyrella-senex.pdf

TEF1@

NNNNNNNNNNNNNACTNNCAGGCTGANTGNGCCATCCTCA
TNATCGCTGCTGGTACTGGTGAATTCGAAGCCGGTATCTC
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G

GENBANK ACCESSION CODE
ITS 35384 = OP006265
TEF 35384 = OP021859

Discussion :
For this species, the "genus specialists" consulted proposed *P. senex, P. rubiginosa* which likes humid environments as it is the case in this collection of L. Kriegelsteiner and *P. ichnusae*.
The most probable identification based on ecology, macro and microscopical characteristics, and biomol is *P. senex group* B.
http://www.amfb.eu/Myco/Psathyrelles/Pdf/Psathyrella-senex.pdf

Concerning the proposition of *P. rubiginosa* we can discard this hypothesis despite the ecology because the spores of Krieglsteiner‘s specimen have a distinct germ pore, whereas for *P. rubiginosa* it would be absent to not very distinct according to the references I have quoted (see below).
P. ichnusae is closely related to this specimen but could be excluded from the biomol.

Se below for a short description of these two species.

***Psathyrella ichnusae* Örstadius, Contu, E. Larss. 2015**
in Mycol. Progress 14(5), Article 25: 21f.

P. ichnusae (extract from the key of Voto) https://www.ameronlus.it/chiavi_micologia.php

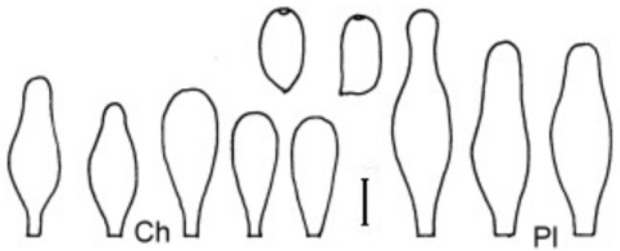
In coastal regions in temperate Europe: on sandy soil possibly moist/mossy/burned; young Cap dark (ochre-) brown, not striate, broadly convex; SP (7)7.7-9.2(10)×(4)4.4-5.5 (5.8) µm, avSP 8.1-8.3× µm, rarely subphaseoliform; Bas hyaline; PL 32-40(48)×(9)10.5-14(18) µm

P. ichnusae

P. ichnusae : description of Andreas Melzer

Macrocharacters:
Cap up to to 18 mm broad, convex, campanulat, dark ockerlich brown, with flüchtigen veilfasern.
Lamellae distant to moderately close, dark brown, edges white.
Stipe up to 32 x 2 mm, whitish.

Microcharacters:
Spores 7,8-9.2 x 4,4-5 µm, longly ellipsoid, subcylindrical, ovoid, yellowish red brown, with distinct germ pore.
Basidia 4-spored.
Cheilocystidia 25-35 x 10-16 µm, utriform, lageniform, mäßig numerous. Undermixed with numerousen, small clavate cells.
Pleurocystidia 32-48 x 10-18 µm, utriform, lageniform, sometimes with slightly thickenend walls.
Clamps present.



Bar: 5 µm (spores), 10 µm (other)
Drawing (changed) according Örstadius & al (2015).

Habitat: burnt place
Distribution: Italy

Psathyrella rubiginosa **A. H. Sm. 1972** in Mem. New York Bot. Gard. 24: 406

Description of A. Melzer of P. rubignosa from the collection of P. Welt

Macrocharacters:

Pileus 5-20 mm broad, convex to conical, young dark to red brown, fading to ochre, sometimes with a pinkish hue. Veil sparse.

Lamellae distant to moderately distant, brown, edge white.

Stipe 15-50 x 1-2,5 mm, whitish to pale brownish, near the base darker.

Microcharacters:

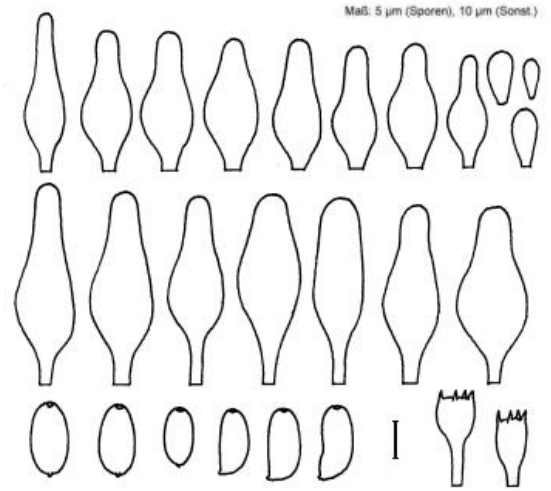
Spores 6,5-9 x 3,5-5 µm, av. 8,4 x 4,3 µm, av. Q=1,60-2,00, ellipsoid, ovoid, sometimes slightly phaseoliform, germ pore small, sometimes absent. In water reddish brown, in KOH grey brown.

Basidia 14-20,5 x 7-9 µm, 4-spored. Cheilocystidia 15-40 x 6-14 µm, utriform, rarely lageniform, close to moderately close.

Clavate and sphaeropedunculate marginal cells rare, scattered, up to 16,5 x 12,3 µm. Pleurocystidia 25-50 x 7-20 (-22) µm, utriform, sublageniform, clavat, numerous.

Clamps present.

Drawing of Melzer



See also the description of Guillermo Munoz & Caballero published in 2012 (68)

Part of a phylogram from: **A revision of the genus *Psathyrella,* with a focus on subsection *Spadiceogriseae*** P. Voto1, F. Dovana2, M. Garbelotto3