

***Psathyrella panaeoloides* (Maire) Svrček ex Arnolds 1982** in *Biblioth. mycol.* 90: 433

Illustrations of several collections - Daniel Deschuyteneer

Basionym: *Psathyra panaeoloides* Maire, 1937 - *Publications Inst. Bot. Barcelona* 3 (no.4): 117

Important synonyms:

Drosophila panaeoloides (Maire) Kühner & Romagn., 1953 - *Fl. anal. Champ. sup.*, 361 (inval.)

Psathyrella panaeoloides (Maire) M.M. Moser, 1967 - *Gams, Kl. Krypt.fl. Edn 3 (Stuttgart)* 2b/2: 222 (inval.)

Psathyrella panaeoloides (Maire) Svrček 1961 - *Ceská Mykol.* 15(4): 204 (inval.)

Psathyrella ovatispora A. H. Sm., 1971 - *Mem. N. Y. bot. Gdn.*: 347

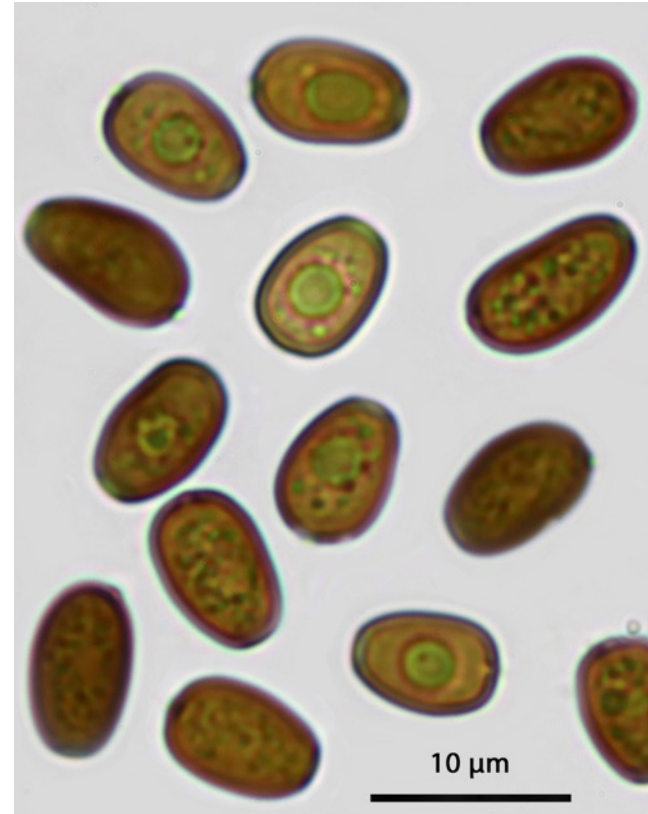


Photo in situ : **Giulliano Ferisin** 30-10-2019 / 23

Basidia: 4spored, clavate

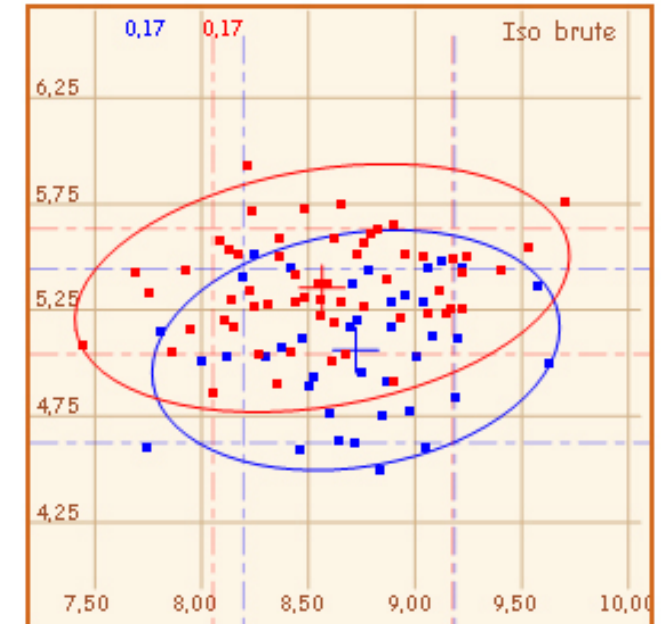
Spores: smooth, dark brown, not opaque, mitriform or also subtriangular when the basis is strongly truncate in face view, assymetric in profile, simply flattened, or slightly amygdaliform, or infrequently slightly phaseoliform, sometimes with an irregular outline, germ pore large, central, rarely slightly eccentrical.

1



Piximètre specimen 1 : (N = 63)
 (7,1) 7,7 - 9,3 (10,4) × (4,2) 5 - 5,7 (6,1) µm
Me = 8,6 × 5,3 µm ;
 Q = (1,3) 1,4 - 1,8 (2) ; Qe = 1,6;

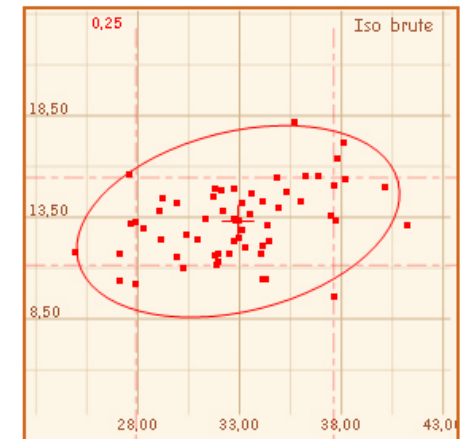
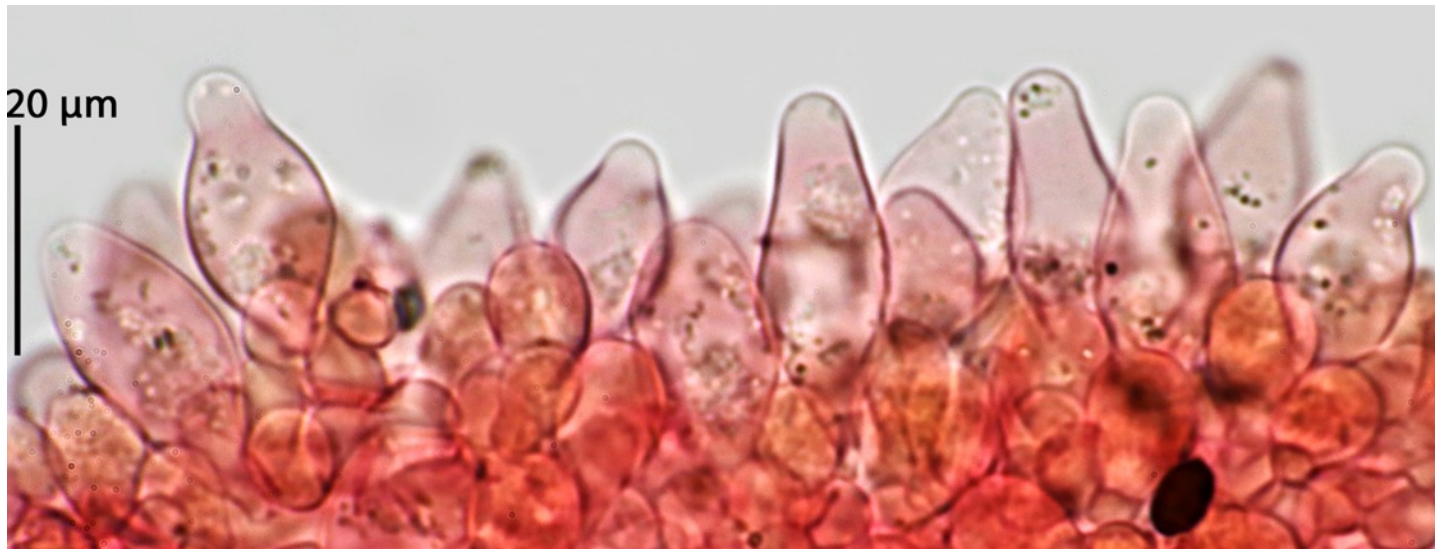
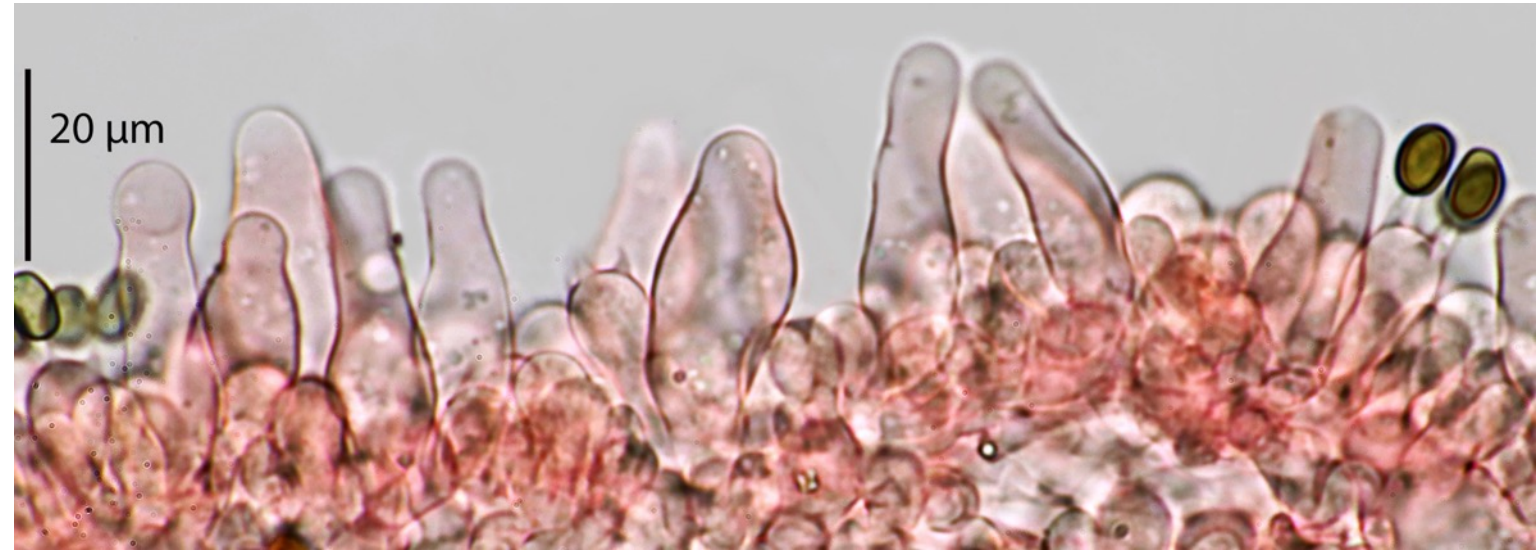
2



Piximètre specimen 2 **in profile – blue diagram** : N = 39
 (7,7) 8,2 - 9,2 (9,6) × (4,5) 4,6 - 5,4 (5,5) µm
Me = 8,7 × 5,1 µm ;
 Q = (1,5) 1,6 - 1,9 (2) ; Qe = 1,7

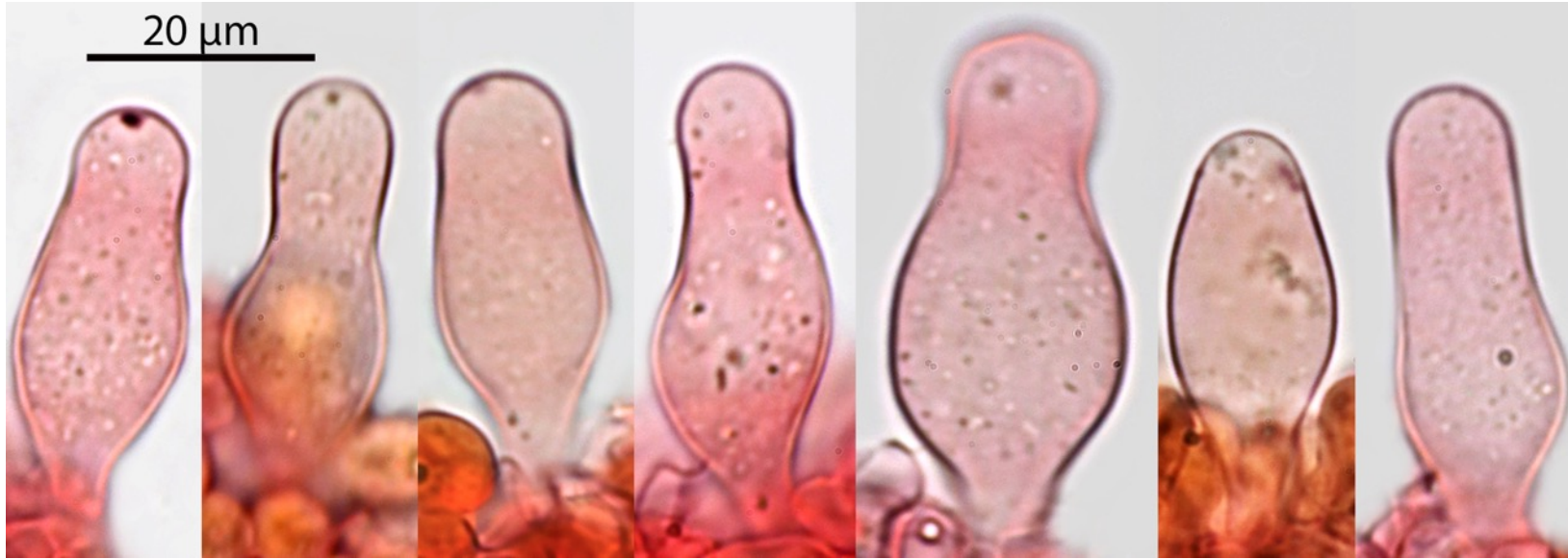
Piximètre specimen 2 **in face view – red diagram** : (N = 60)
 (7,4) 8,1 - 9,2 (9,7) × (4,9) 5 - 5,6 (5,9) µm
Me = 8,6 × 5,4 µm ;
 Q = (1,4) 1,5 - 1,7 (1,8) ; Qe = 1,6

Cheilocystidia : hyaline, thin-walled, densely packed, in small clusters or scattered, essentially utriform but also lageniform, cylindrical or clavate, with usually a short and wide neck and obtuse apex, often subcapitate, mixed with few or numerous small thin walled clavate paracystidia.

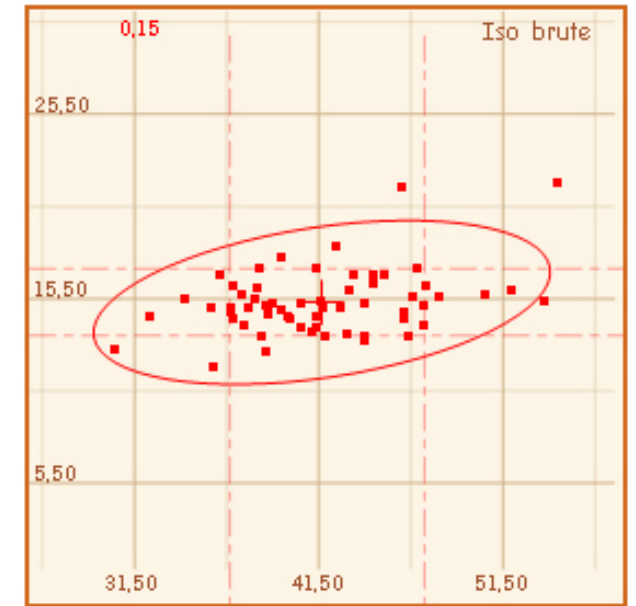


Piximètre: (N = 60)
(24,9) 27,9 - 37,6 (41,3) × (9,6) 11,1 - 15,5 (18,2) µm
Me = 32,9 × 13,3 µm

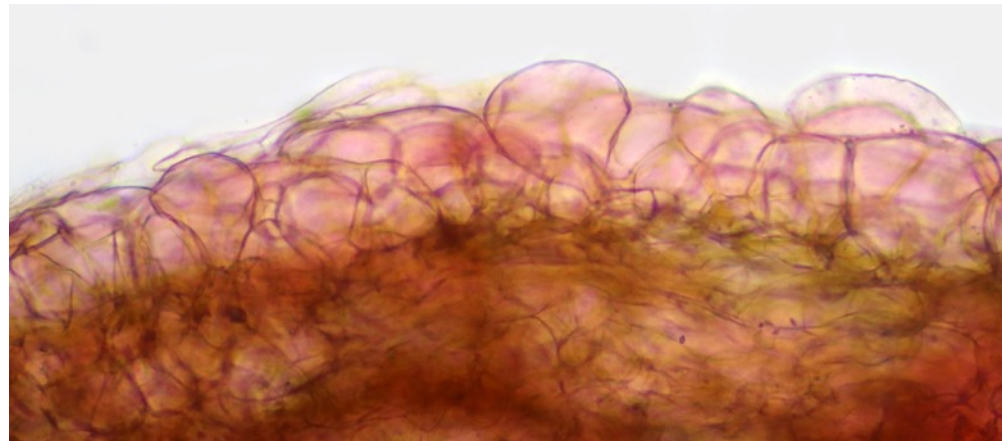
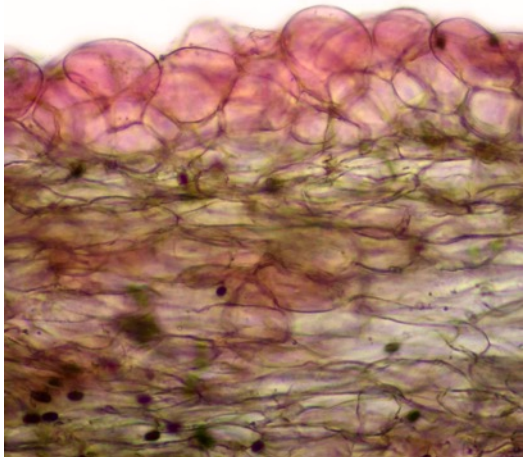
Pleurocystidia, numerous, similar to cheilocystidia, hyaline, thin-walled, mostly utriform, with a short and broad neck and obtuse apex. Few deposits visible at the top in exsiccata, a feature that should be examined on fresh specimen



Pleurocystidia measurements - Piximètre : (N = 60)
 (30,5) 36,7 - 47,2 (54,4) × (11,8) 13,5 - 17,1 (21,7) μm
 Me = 41,7 × 15,3 μm



Clamps: present. **Caulocystidia:** (not illustrated) very numerous, most often in thick bunches, polymorphic, sometimes with forked apex.



Pileipellis: An hymenoderm consisting of two to three layers of globular or obpyriform cells.

Pileitrama: made up of wide cylindrical hyphae tinted brown and encrusted mixed with narrower brown and also encrusted hyphae.

Psathyrella panaeoloides (Maire) Svrček ex Arnolds 1982 in Biblioth. mycol. 90: 433

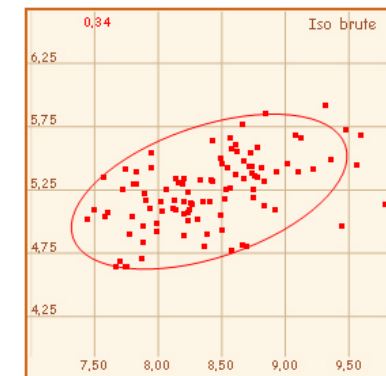
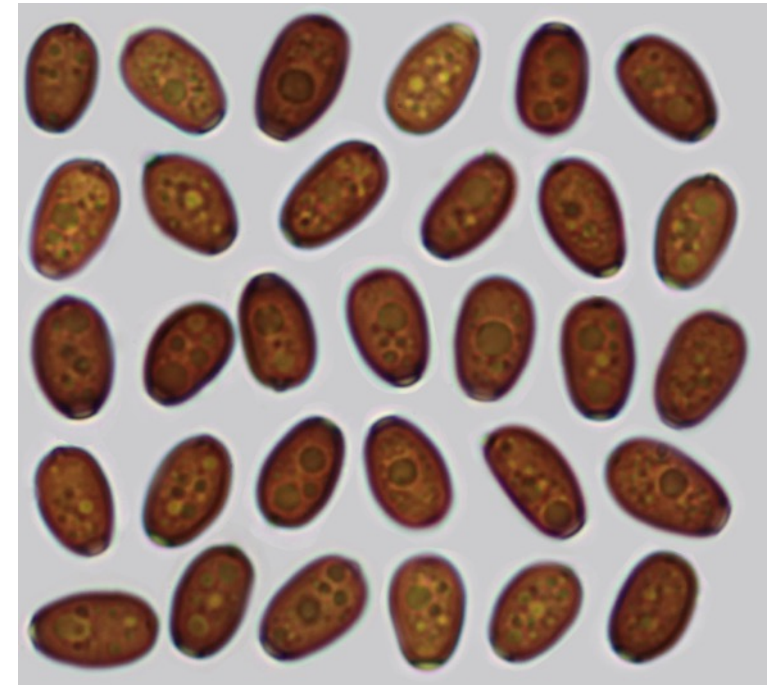


Photo in situ Giuliano Ferisin (réf: 28-10-20/96) - **Sequenced specimens.**

2019-1463-ALV22423 Voucher DDFE-0001 = double peaks, 370bp ok, 99.42% *Psathyrella panaeoloides* (FM878022)

Basidia: 4spored, clavate

Spores: smooth, dark brown, not opaque, mitriform or also subtriangular when the basis is strongly truncate in face view, assymetric in profile, simply flattened, or slightly amygdaliform, or less often slightly phaseoliform, sometimes with an irregular outline, germ pore large, central, rarely slightly eccentrical.



Piximètre : N = 100

(7,4) 7,8 - 9,1 (9,8) × (4,6) 4,9 - 5,6 (5,9) µm

Me = 8,4 × 5,2 µm ;

Q = (1,4) 1,5 - 1,7 (1,9) ; Qe = 1,6

Photo in situ Pieranna Alfani. Leg Massimo Panchetti



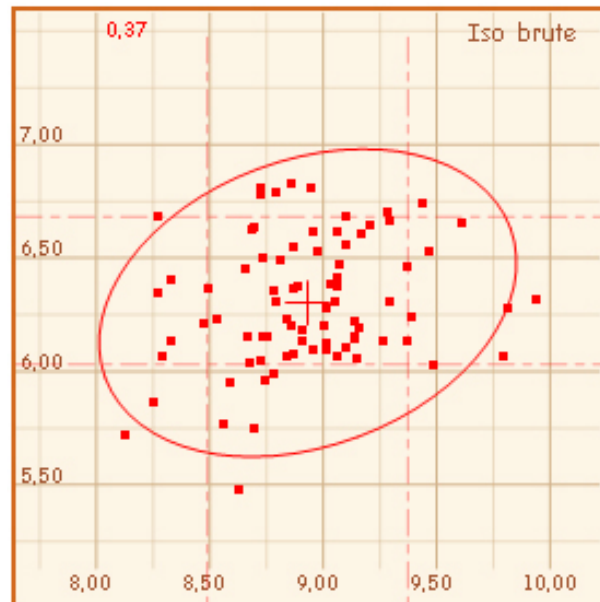
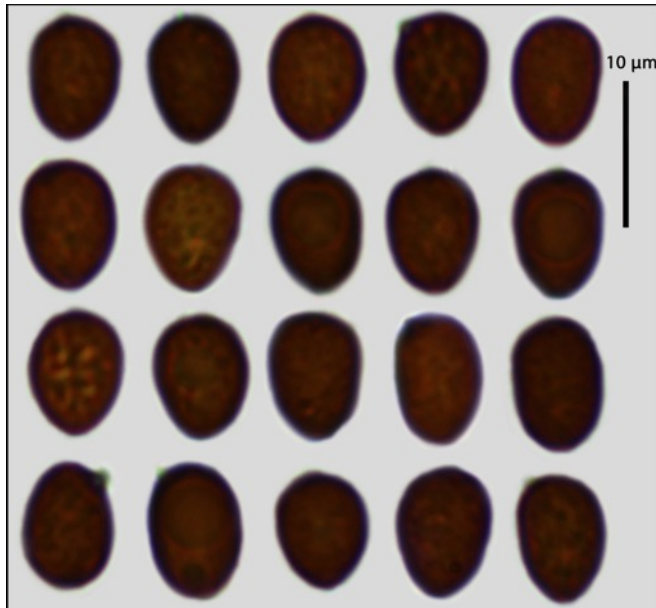
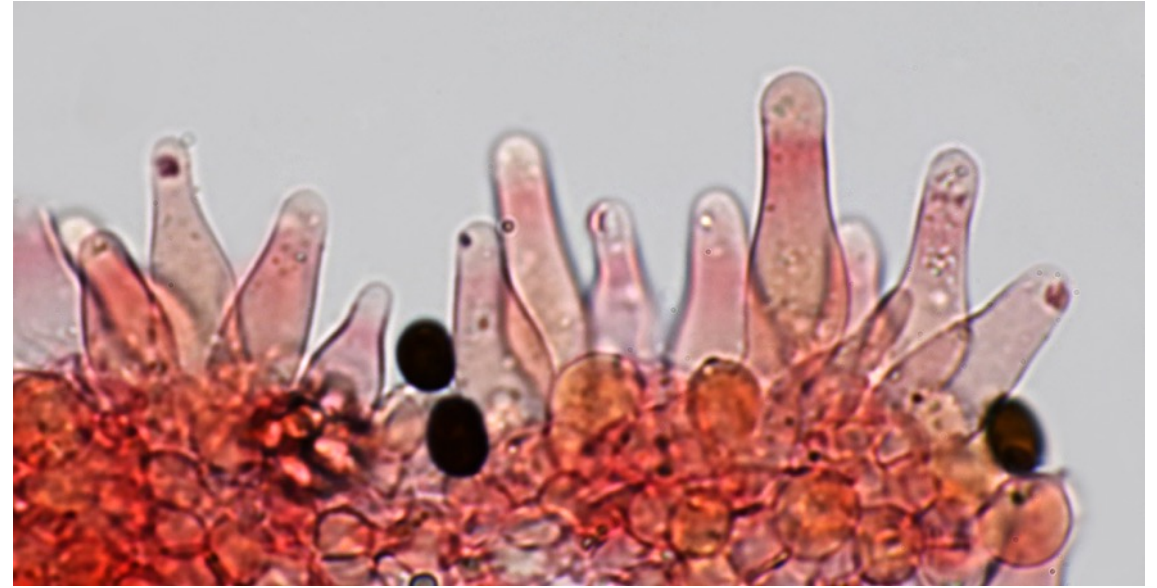
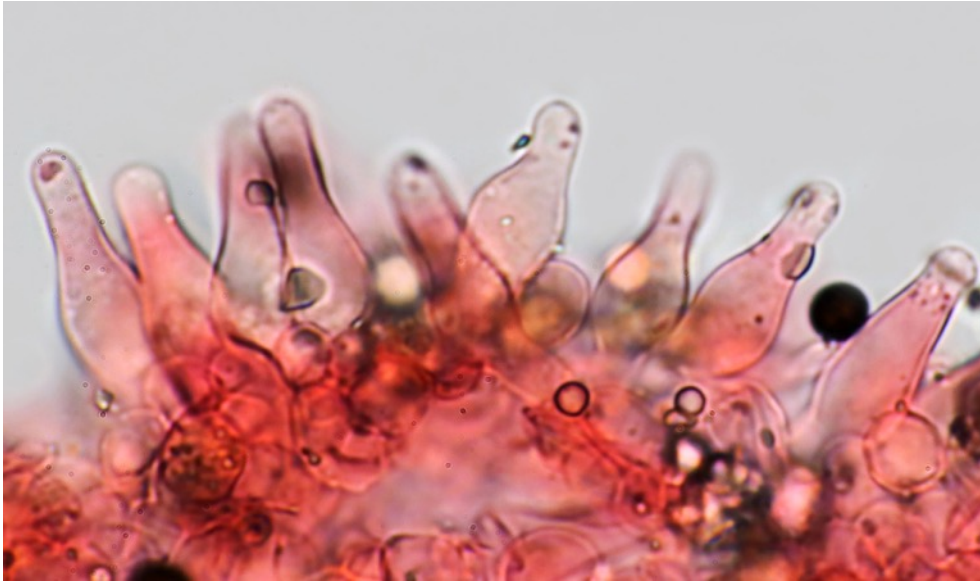
Collected on 22.12.2019 - Nibbiaia (municipality of Rosignano Marittimo, in the province of Livorno, in Toscana, Italy) ; in a meadow stabilized by Mediterranean scrubs.

Cap diameter about 15 mm, weakly striated, paraboloid, conical, with a slight dull dark brown umbo, scarce remains of fibrillous white veil near the margin of the cap ; Gills large, adnate, ventricose, edge white ; Stipe 28 X 4 mm, cylindrical, whitish.

Pieranna Alfani exsiccata - Leg Massimo Panchetti

Cheilocystidia: hyaline, thin-walled, numerous and densely packed, essentially lageniform and sub-utriform, with usually a long and wide neck and obtuse apex, often subcapitate, sometimes with few deposits visible at the top; mixed with few or numerous small thin walled clavate paracystidia.

Pleurocystidia: similar to cheilocystidia not illustrated.



Spores measurements with Piximètre: N = 80

(8,1) 8,5 - 9,4 (9,9) × (5,5) 6 - 6,7 (6,8) µm

Me = 8,9 × 6,3 µm ;

Q = (1,2) 1,3 - 1,5 (1,6) ; Qe = 1,4

Other spores measurements Massimo Panchetti Spores 1: N = 24

(8,06) 8,66 - 9,78 (9,86) × (5,29) 5,80 - 6,71 (6,84) µm; Q = (1,29) 1,41 - 1,58 (1,68) ;

Spores 2: N = 21

(8,13) 8,53 - 9,30 (9,67) × (5,84) 6,08 - 6,80 (7,33) µm; Q = (1,28) 1,32 - 1,48 (1,53) ; N = 21;

Me: 9,08 X 6,33, Qe = 1,44;

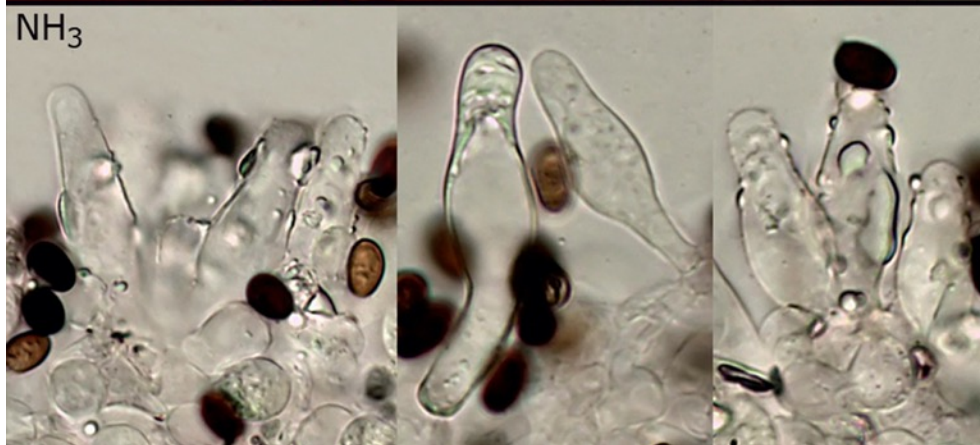
Leandro Sanchez – leg of Manuel Pacheco - Voucher 1437



Voucher 1437 – Leandro Sanchez – leg of Manuel Pacheco – **sequenced ALV24702** 100% *P. panaeoloides* (KC992894).
Collected on 18-12-19 among wood fragments in the Bóbila Municipal Park, BARCELONA, Badalona, La Morera, 36 msnm.
Cap diameter 28mm, dark reddish brown in young specimen with darker center fading to pale brown.
Stipe 25-45 x 2-4mm, cylindric, whitish to pale brownish, longitudinally fibrillose
Veil white, volatile, as fibrills and flocci disseminated on the cap surface – Gills adnate, edge white.

Microscopy : Leandro Sanchez - Voucher 1437

Cheilocystidia with some golden yellow deposits : 28-38 x 7-16 μm
Pleurocystidia not shown similar to cheilocystidia 27-35 x 11-13 μm



Spores and caulocystidia

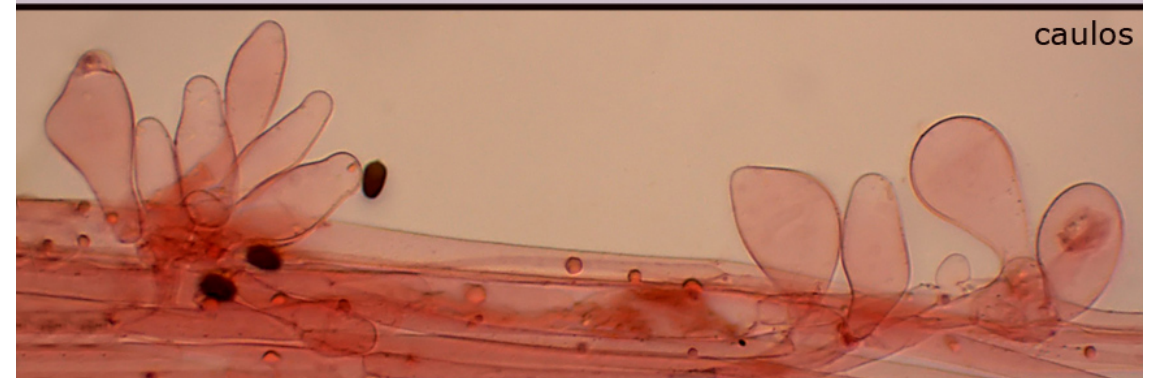


8,30 - 8,80 / 4,75 - 5,50

ME= 8,55 x 5,15

Q= 1,55 - 1,85

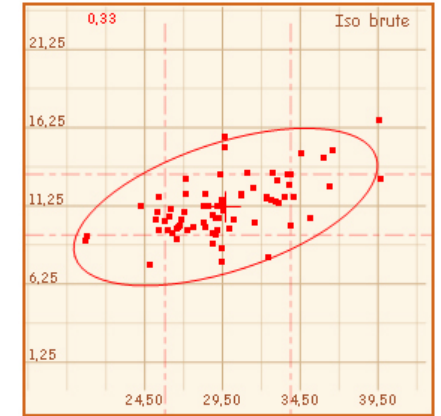
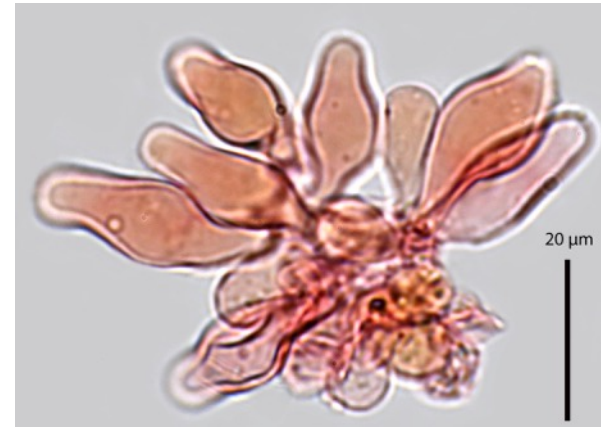
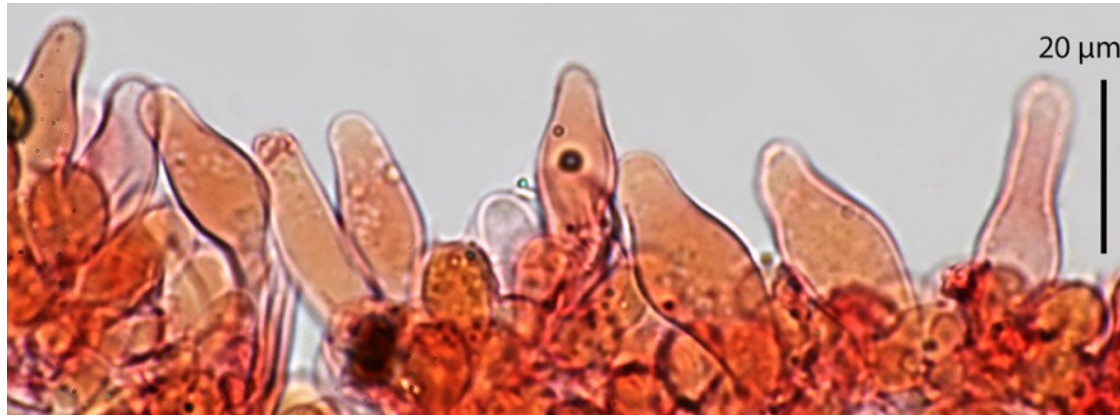
QM= 1,65



Voucher 1437- Leandro Sanchez - Microscopy : D. Deschuyteneer

Cheilocystidia : hyaline, thin-walled, densely packed, in small clusters or scattered, essentially utriform but also lageniform, cylindrical or clavate, with usually a short and wide neck and obtuse apex, often subcapitate, mixed with few or numerous small thin walled clavate paracystidia.

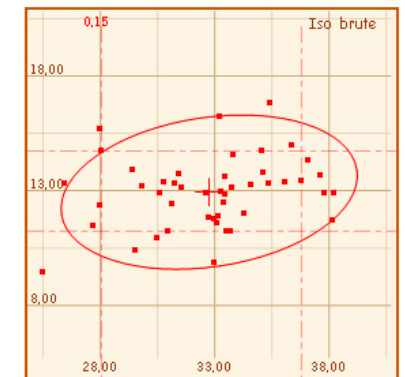
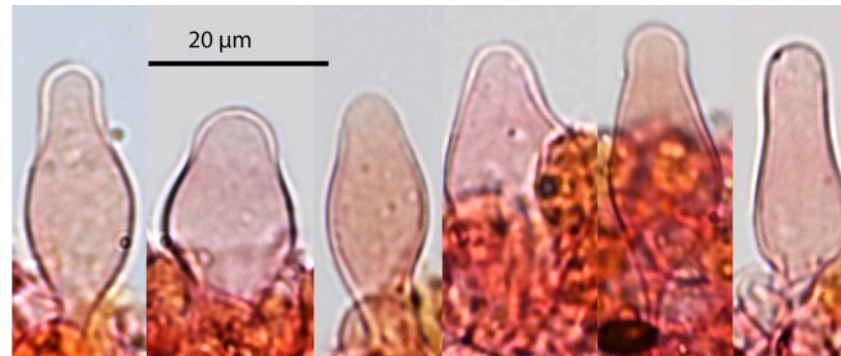
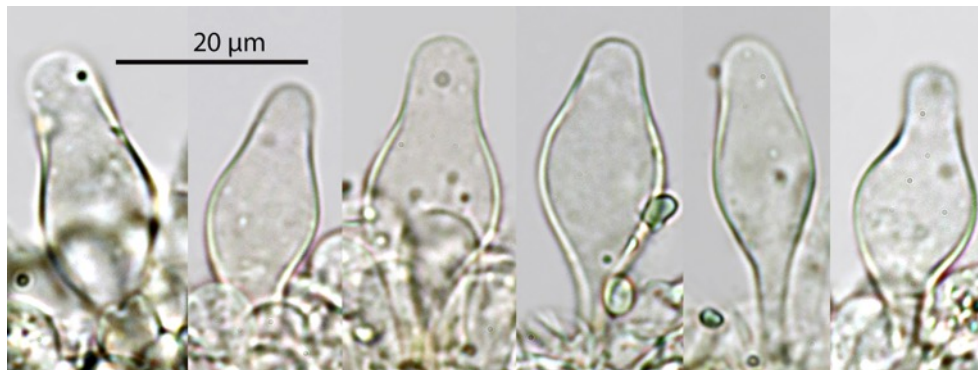
Cheilocystidia measurements with Piximètre : (20,7) 25,8 - 33,9 (39,6) × (7,5) 9,4 - 13,3 (16,7) μm ; Me = 29,7 × 11,2 μm



Pleurocystidia : (25,5) 28 - 36,8 (38,2) × (9,4) 11,2 - 14,7 (16,8) μm; Me = 32,8 × 12,9 μm ;

numerous, similar to cheilocystidia, hyaline, thin-walled, mostly utriform, with a short and broad neck and obtuse apex.

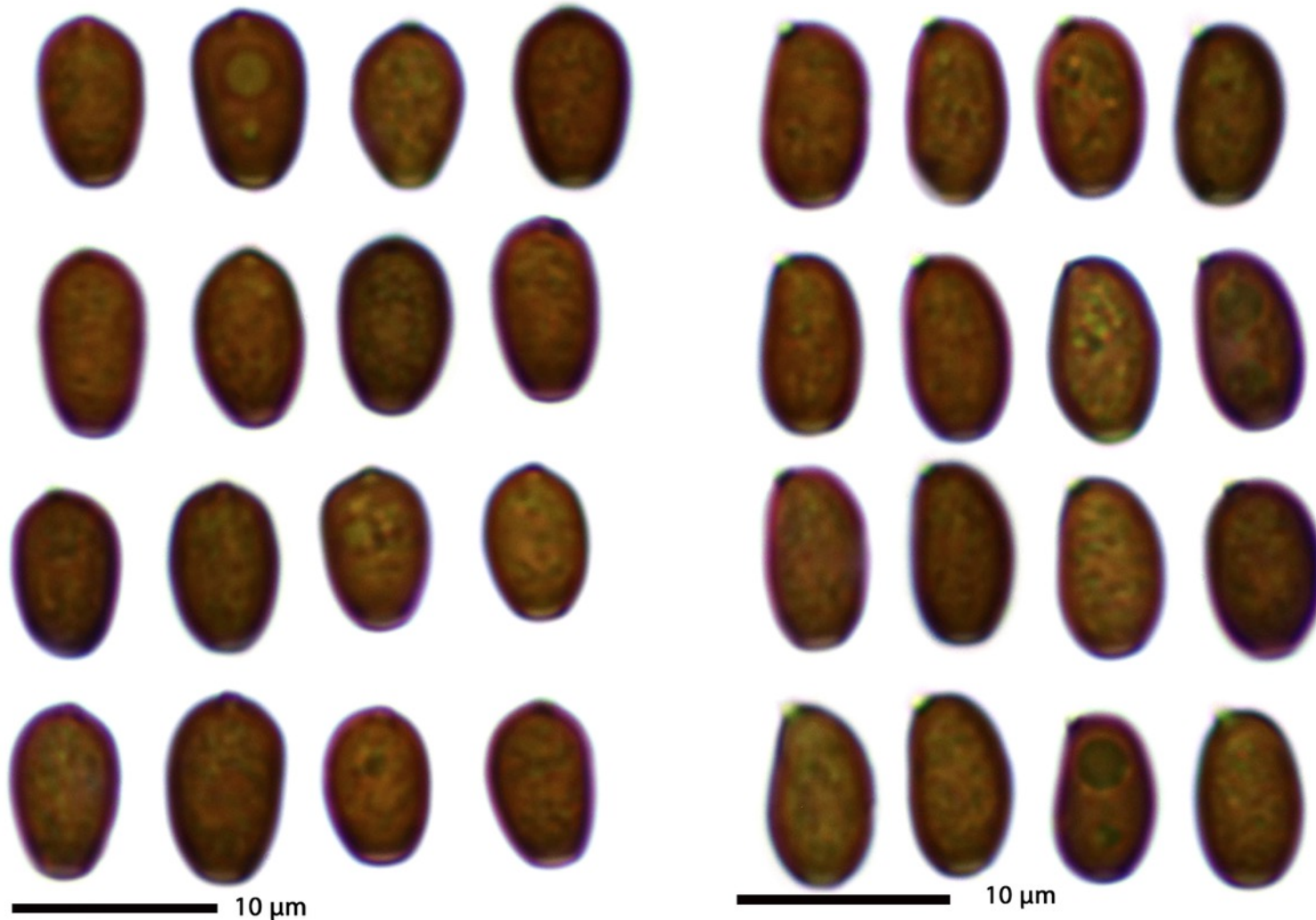
Few deposits visible at the top in exsiccata, a feature that should be examined on fresh specimen.



Voucher 1437 – Leandro Sanchez - Microscopy : D. Deschuyteneer

Basidia: 4spored, clavate.

Spores: smooth, dark brown, not opaque, mitriform in face view, assymetric in profile, simply flattened or slightly amygdaliform, germ pore large, central, rarely slightly eccentrical.



Spores measurements in face view = **red diagram** : (N = 60)

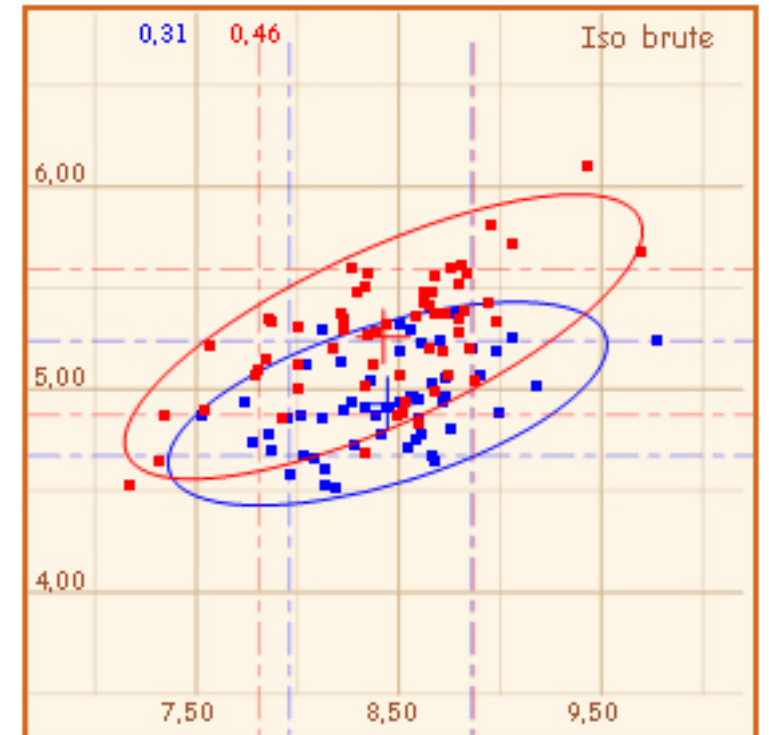
(7,2) 7,8 - 8,9 (9,7) × (4,5) 4,9 - 5,6 (6,1) μm

Me = 8,4 × 5,3 μm ; Q = (1,5) 1,51 - 1,7 (1,8) ; Qe = 1,6

Spores measurements in profile = **blue diagram** : (N = 55)

(7,5) 8 - 8,9 (9,8) × (4,5) 4,7 - 5,2 (5,4) μm

Me = 8,4 × 4,9 μm ; Q = (1,5) 1,6 - 1,8 (1,9) ; Qe = 1,7



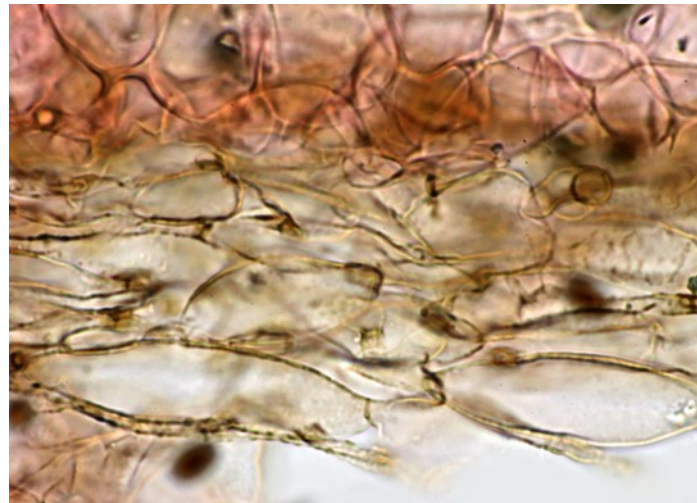
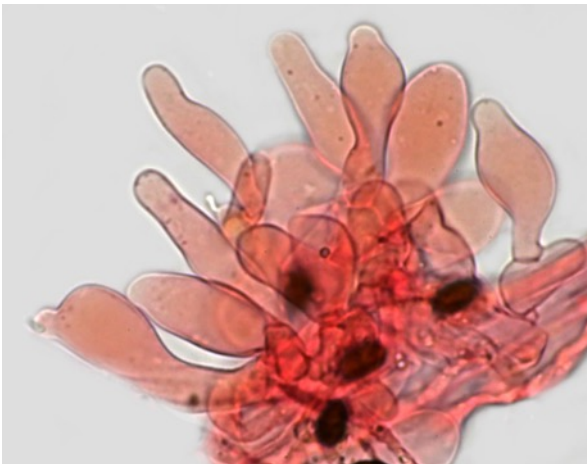
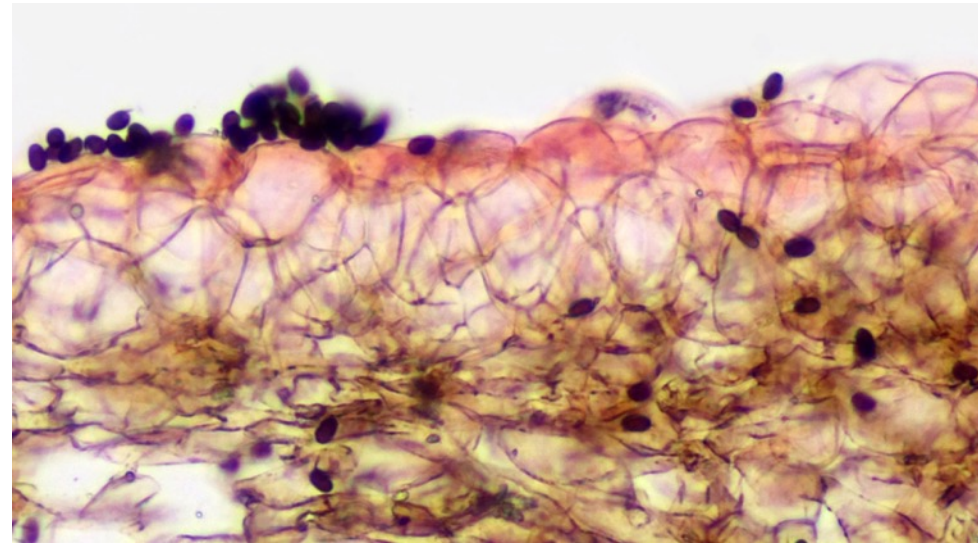
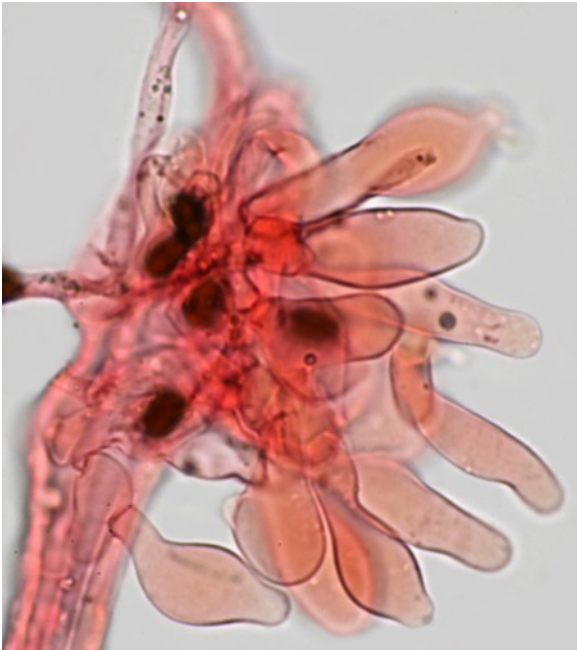
Voucher 1437 - Microscopy : D. Deschuyteneer

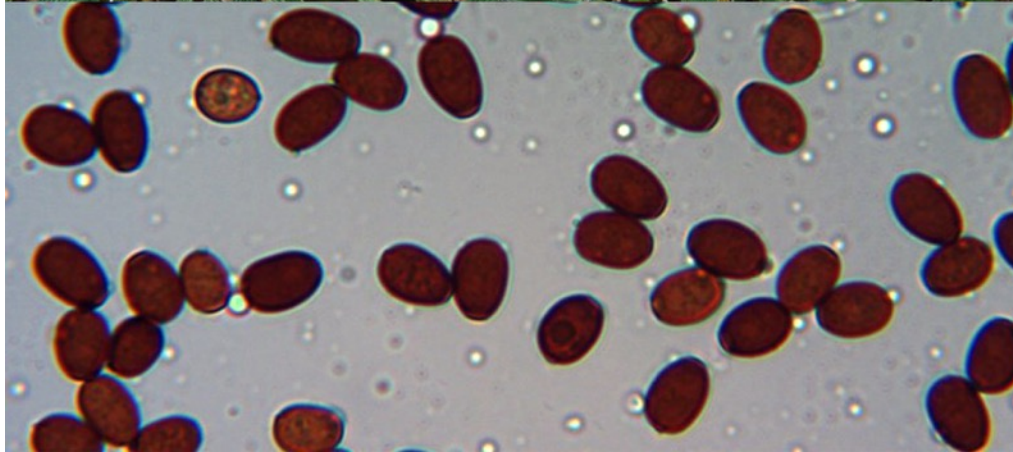
Clamps : present

Caulocystidia : very numerous, most often in thick bunches, polymorphic, sometimes with forked apex.

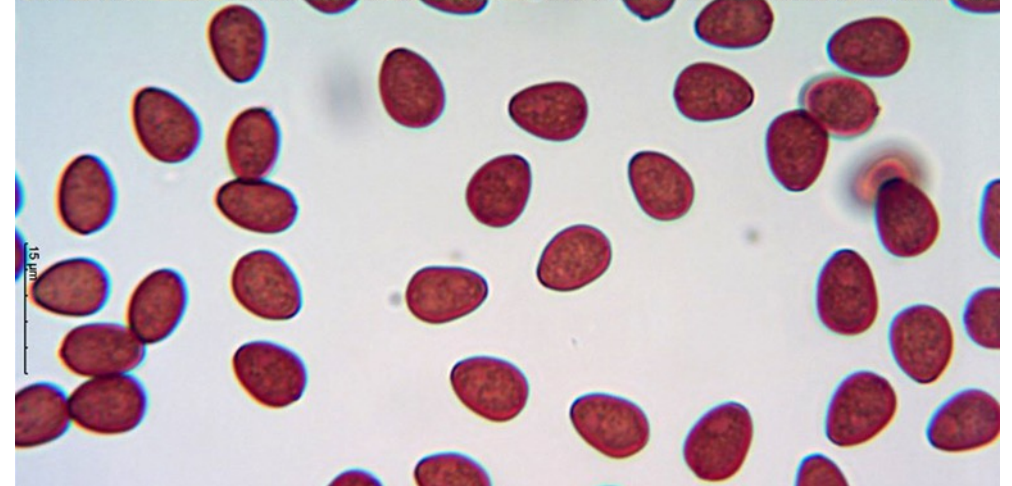
Pileipellis : An hymenoderm consisting of two to three layers of globular or obpyriform cells.

Pilleitrama: made up of wide cylindrical hyphae tinted brown and encrusted mixed with narrower brown and also encrusted hyphae.





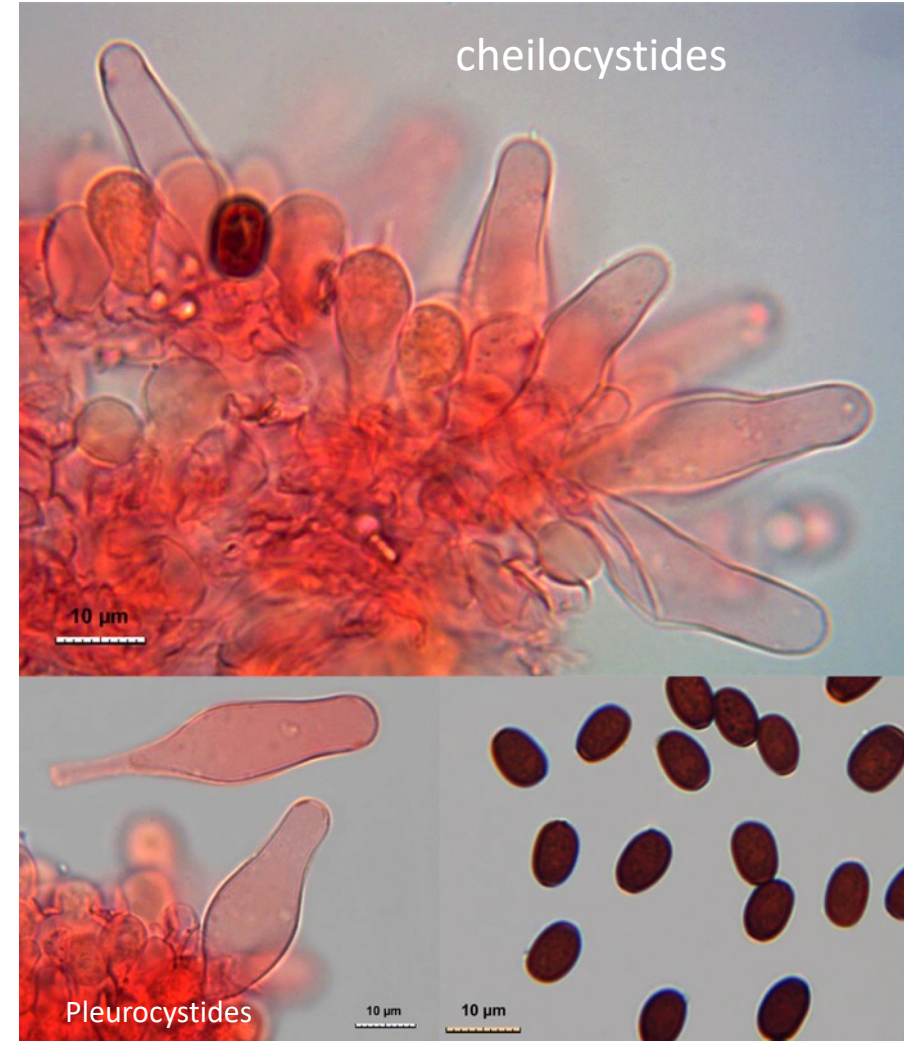
Récolte GM2784 - Guillermo Munoz
 Herbe humide, Saragosse (Parque Grande), 4 avril 2013
 Spores dimensions piximètre (N = 31):
 (7,4)7,6-8,8 (8,9) x (4,7) 4,8 -5,5 (5,7)



Récolte GM 3563 - Guillermo Munoz
 En terrain inculte au bord de la route Z40, en sol semi-aride, dans l'herbe et du bois raméal fragmenté, avec à proximité des *Cupressus* sp., des chênes verts et des pins. Saragosse (Pinares de Venecia). 21 décembre 2019.
 Spores dimensions Piximètre (N= 48) : (8,1) 8,4 – 9,3 (9,9) x (5,7) 5,9 -6,8 (6,9) μm



Récolte séquencée – Guillermo Munoz - Herb. n° GM2081.
En terrain inculte sur sol argileux, Autol (Livillos) ; le 27 mars 2011.
Spores dimensions : 7,5-9(9,5) x 5-5,5 μm .

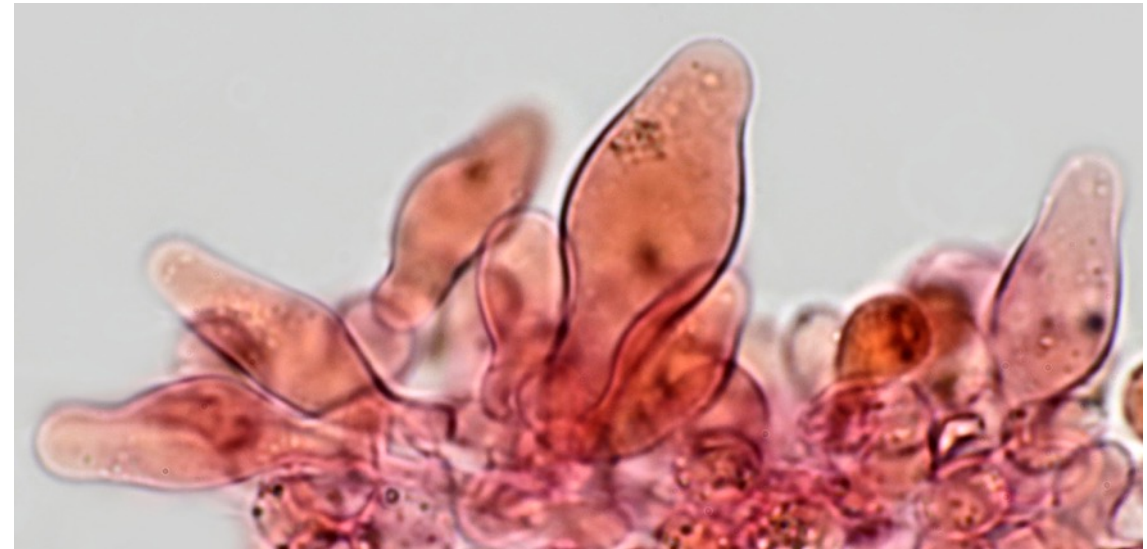
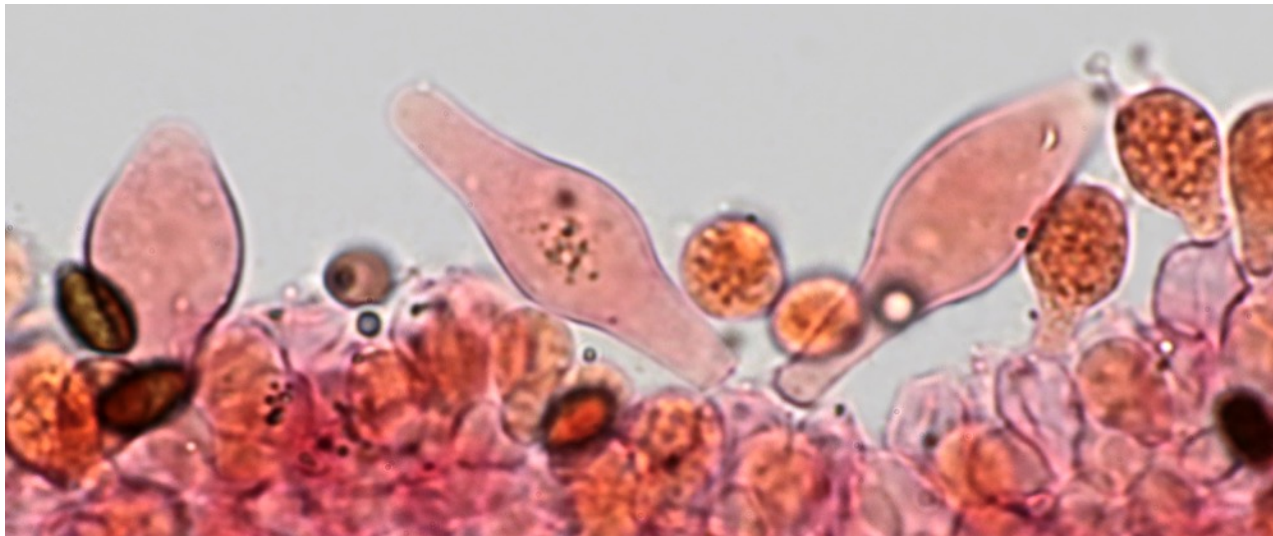
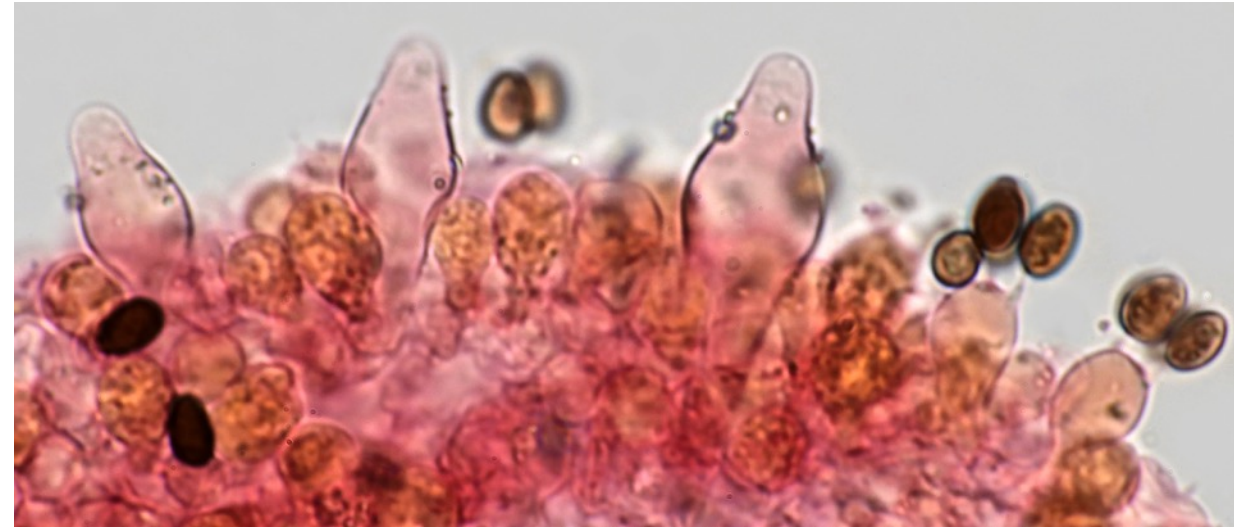
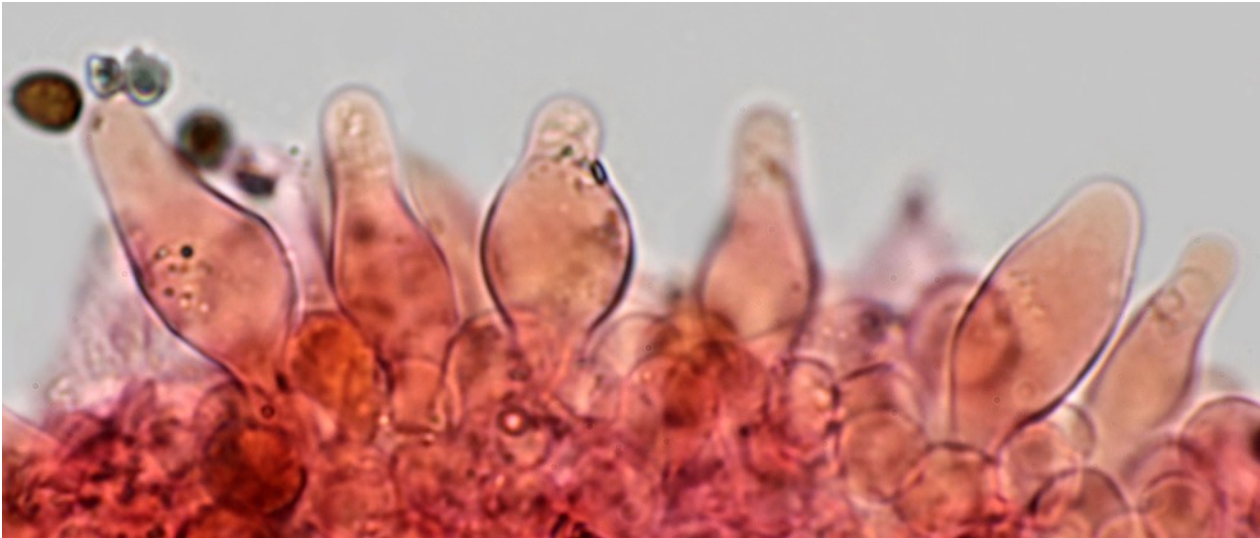


Zaventem - 15/01/2020 in leaf litter – collector D. Deschuyteneer



Cheilocystidia N = 50 : (28) 33,2 - 44,7 (49,4) × (0,4) 13,3 - 15,8 (16,2) μm ; Me = 39,2 × 14,2 μm ;

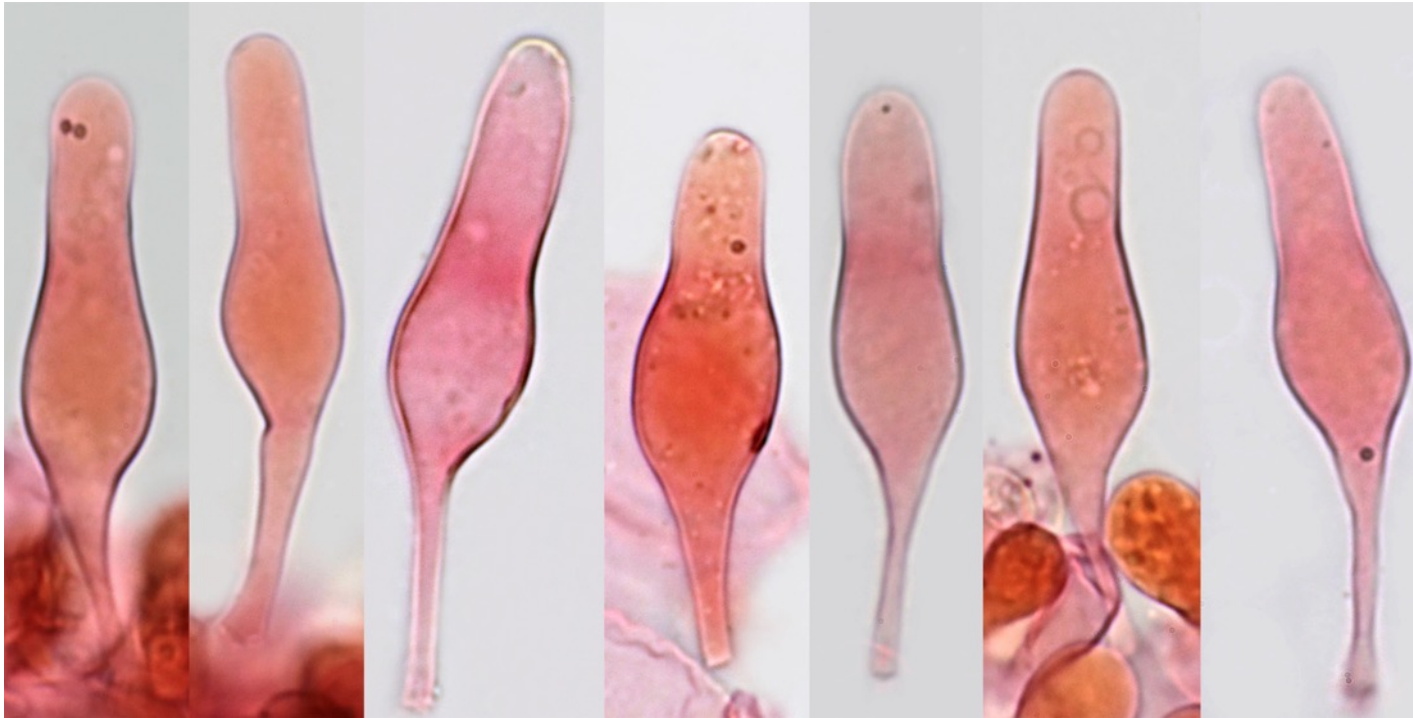
thin-walled, mostly utriform, but also lageno-utriform and sometimes subclavate, dense, in cluster or scattered depending on the gills studied.



Pleurocystidia : 47,4) 50,1 - 65,7 (68,1) × (12,6) 12,8 - 15 (15,4) μm ; Me = 57,9 × 13,9 μm ; numerous, thin-walled, mainly lageniform and sub-utriform, with a broad obtuse apex and a long, narrowly pedicellate base.

Basidia: 4 spored , clavate. Clamps : present

Spores N = 100 : (7,9) 8,7 - 9,9 (11,1) × (5,1) 5,5 - 6,2 (6,6) μm; **Me = 9,2 × 5,8 μm** ; Q = (1,4) 1,5 - 1,7 (1,8) ; Qe = 1,6 ; smooth, dark brown, not opaque, mitriform in face view, assymetric in profile, simply flattened or slightly amygdaliform, germ pore large, central, rarely slightly eccentrical.



Acknowledgements for the legacy of their, photos and exsiccata to Alfani Pieranna, Ferisin Giulliano, Pacheco Manuel, Panchetti Massimo, Guillermo Munoz & Sanchez Leandro.

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All constructive suggestion, rectification or correction of error, can be addressed to :

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