

Study of not identified *Psathyrella* sp. 04-03-2022 = **indet 161**

= ***Psathyrella senex* - group A**

Deschuyteneer & Lothar Krieglsteiner



Small (young) specimens among woody and deciduous debris

Portugal – Algarve – Foia N – 04/03/2022

..... ??? , *Castanea*

Veil ++ at the cap margin of the young specimen – gill edge white

Photo in situ L. Krieglsteiner

Psathyrella
4-3-22 Indet 161
Po - Algarve Foia - IV
Shrub v. *Castanea*
Cual
Sp- 7-8 / 4-4,5
Pleuro ♂ Charles Elaphid

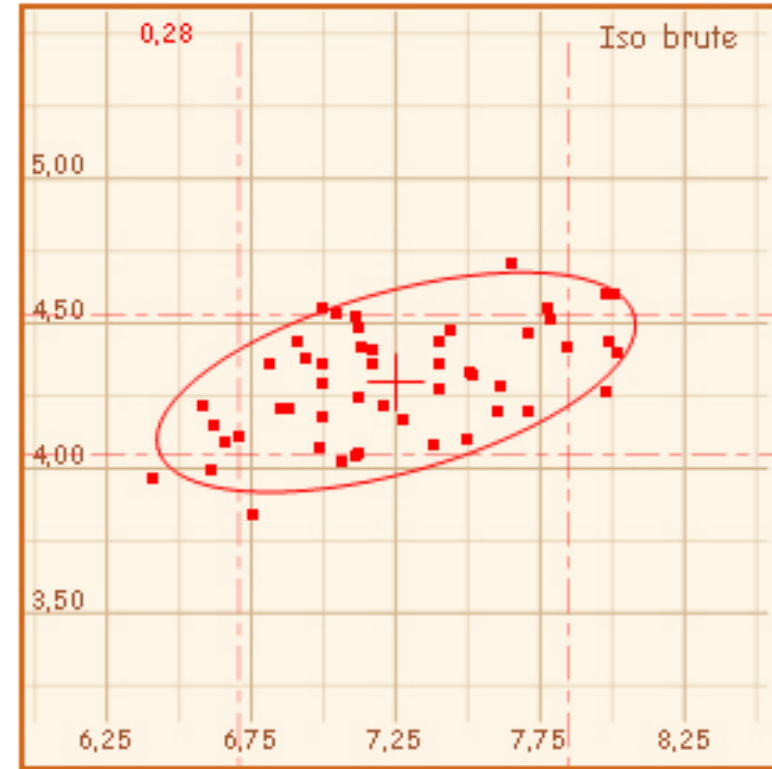
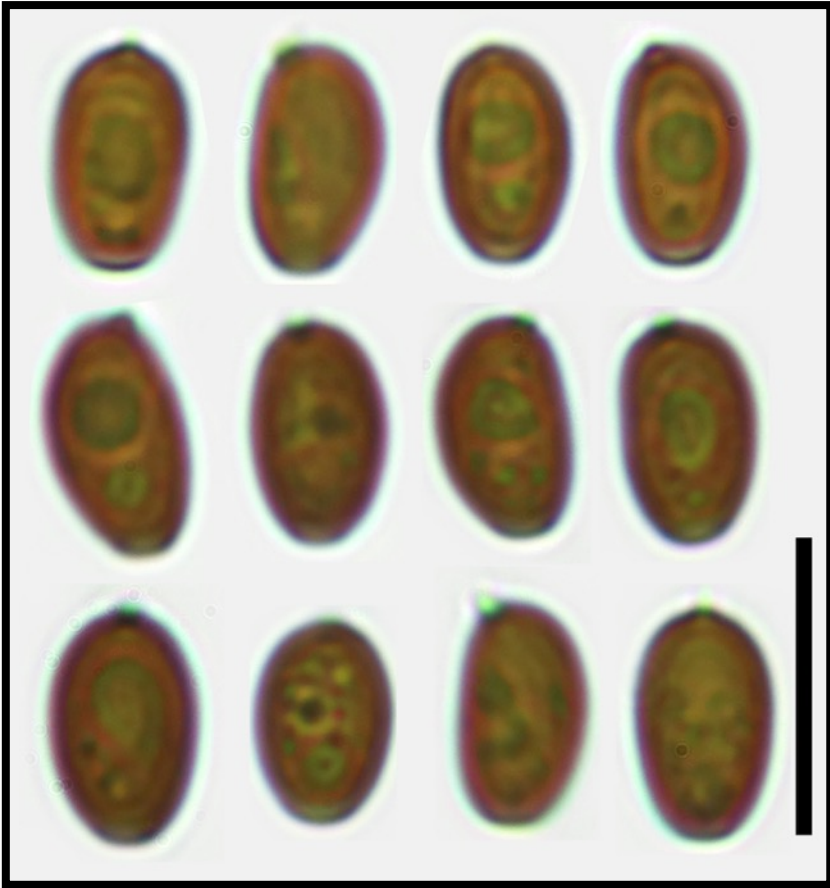
Basidia: 4-spored, clavate.

Clamps: present.

Pileipellis: usual globose and ob-pyriform cells.



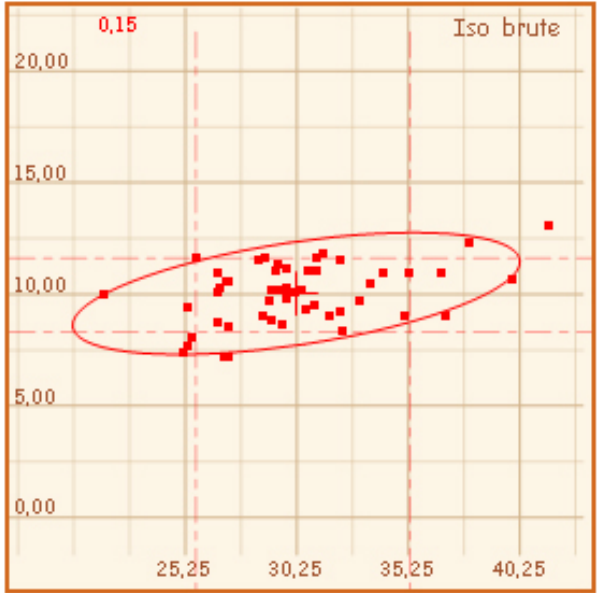
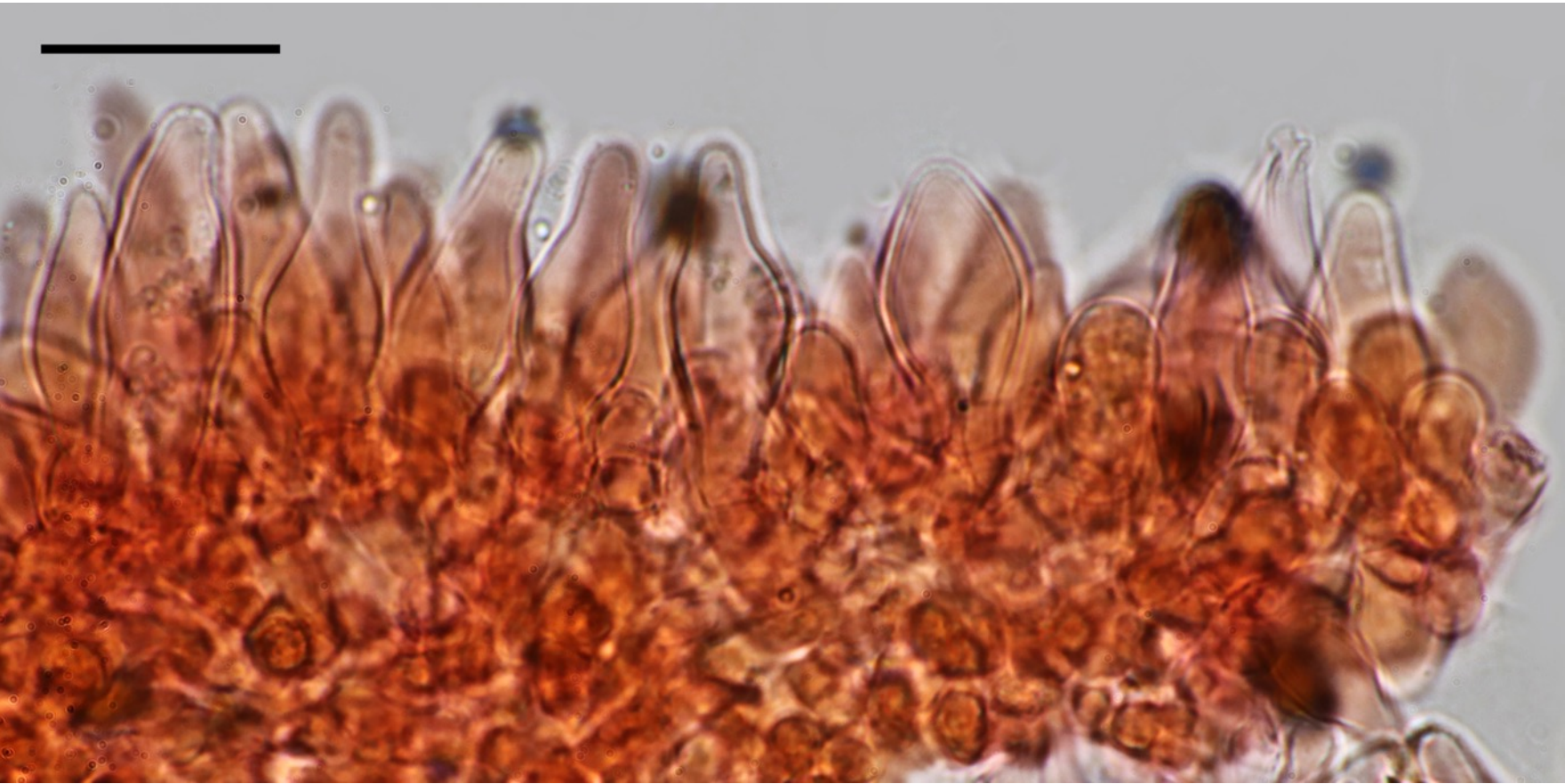
Spores: orange-brown, not opaque, ellipsoid in face view, adaxially flattened in profile, germ pore distinct, central.
 Scale bar = 10 μm .



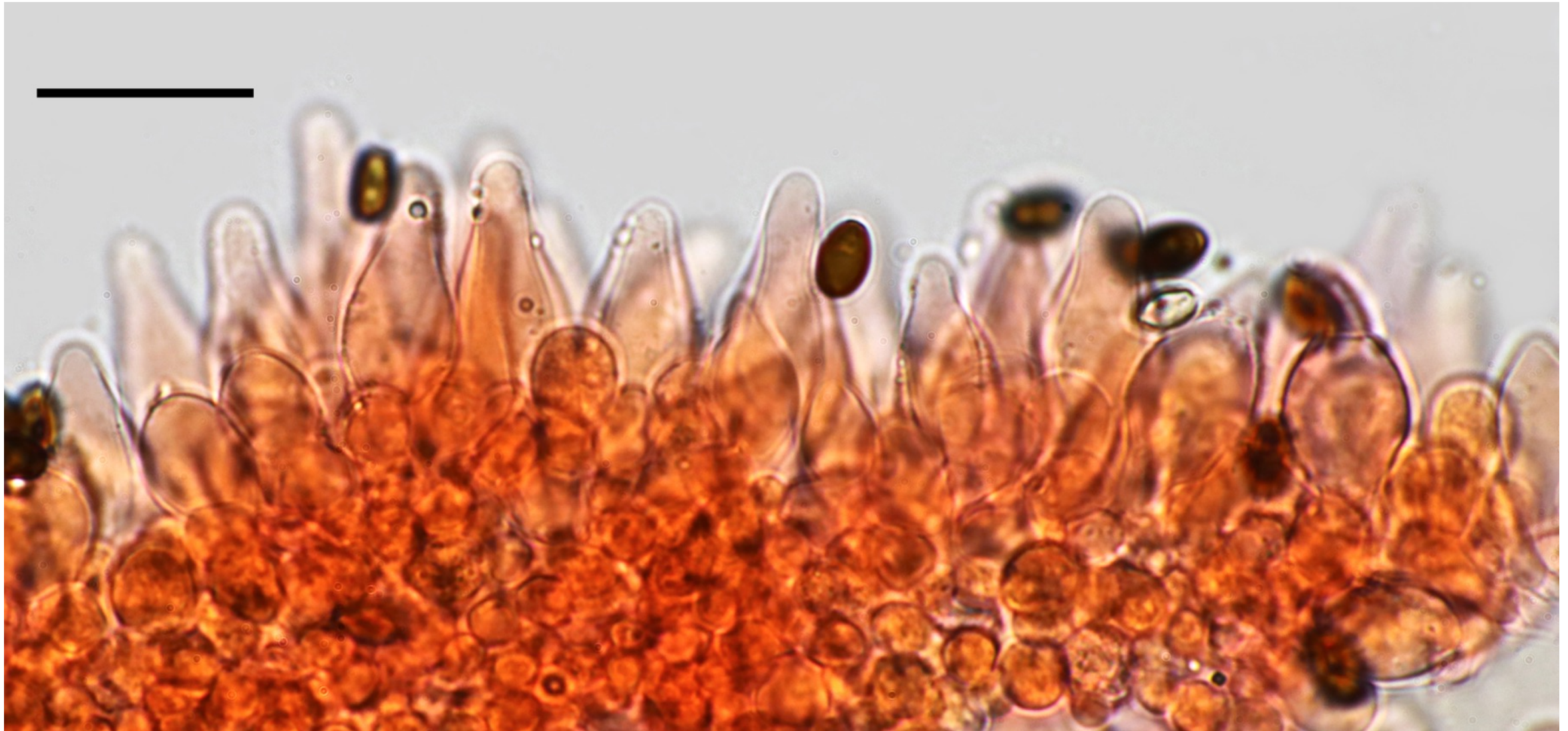
Spores measuring: N = 50
 (6,7) 7,2 - 8,1 (8,5) \times (4,1) 4,4 - 4,9 (5,2) μm
Me = 7,6 \times 4,6 μm ;
 Q = (1,5) 1,52 - 1,8 (1,9) ; Qe = 1,6

Spores measuring on another specimen : N = 50
 (6,4) 6,7 - 7,8 (8) \times (3,8) 4 - 4,5 (4,7) μm
Me = 7,3 \times 4,3 μm ;
 Q = (1,5) 1,6 - 1,8 (1,9) ; Qe = 1,7

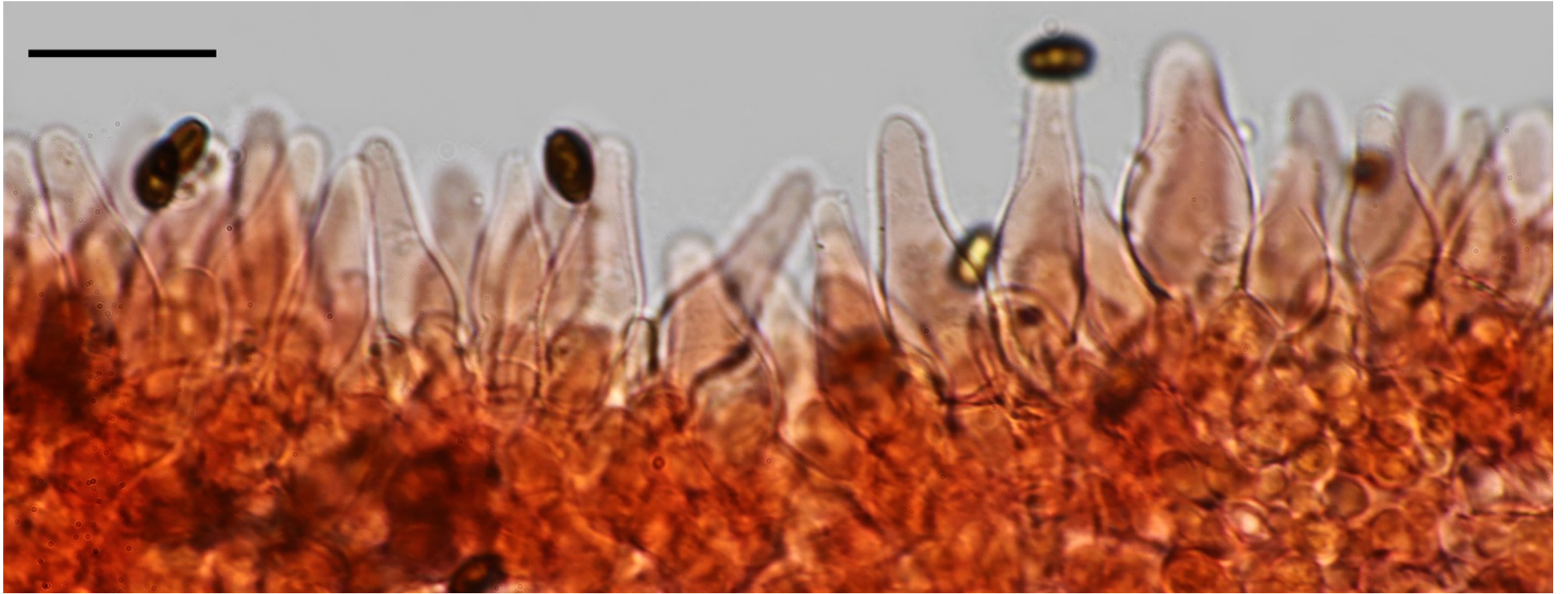
Cheilocystidia: N = 50; measuring (21,6) 25,7 - 35,3 (41,6) × (7,2) 8,3 - 11,6 (13,1) μm ; Me = **30,2 × 10 μm** ;thin walled, densely packed, lageniform and sub-utriform with an obtuse apex. Paracystidia clavate, few in number, scattered.



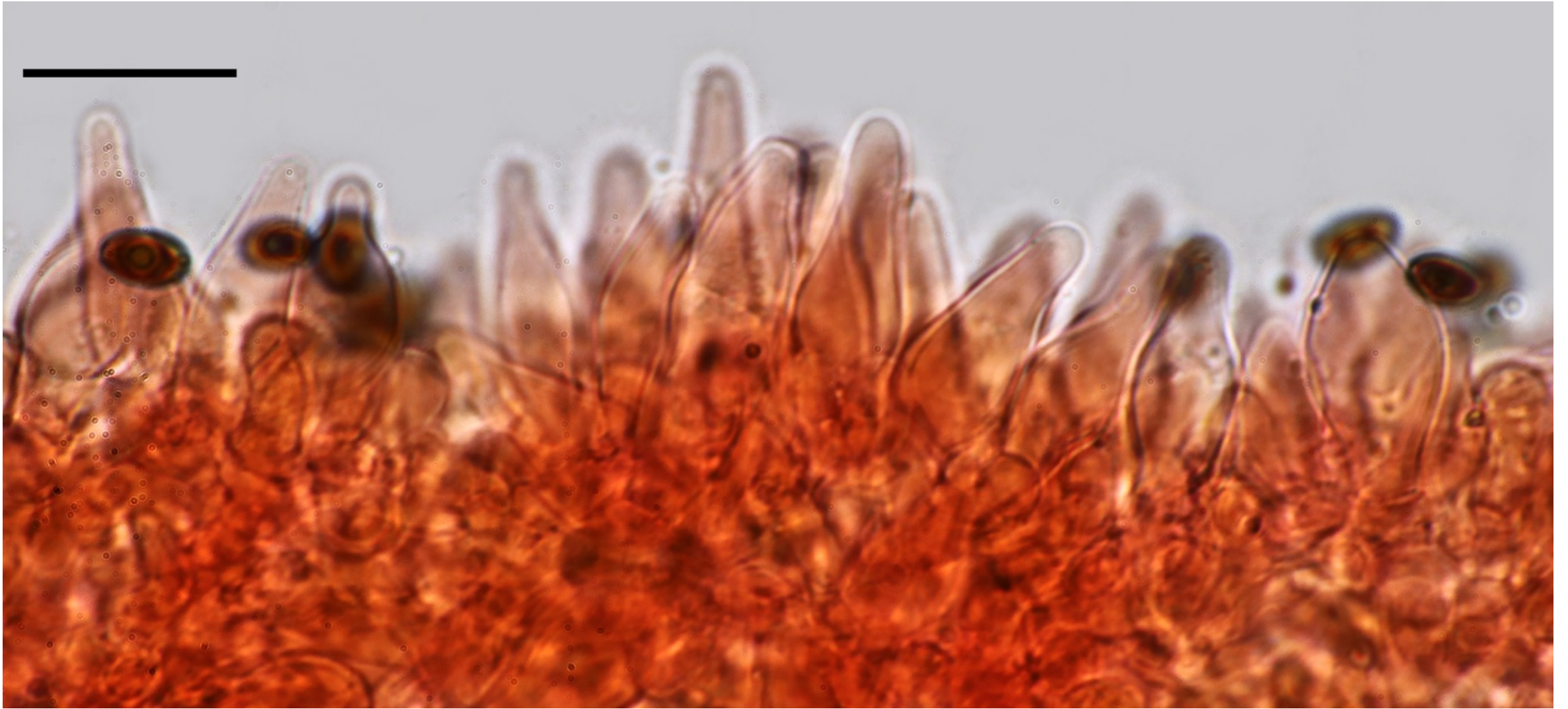
Cheilocystidia: scale bar = 20 μm



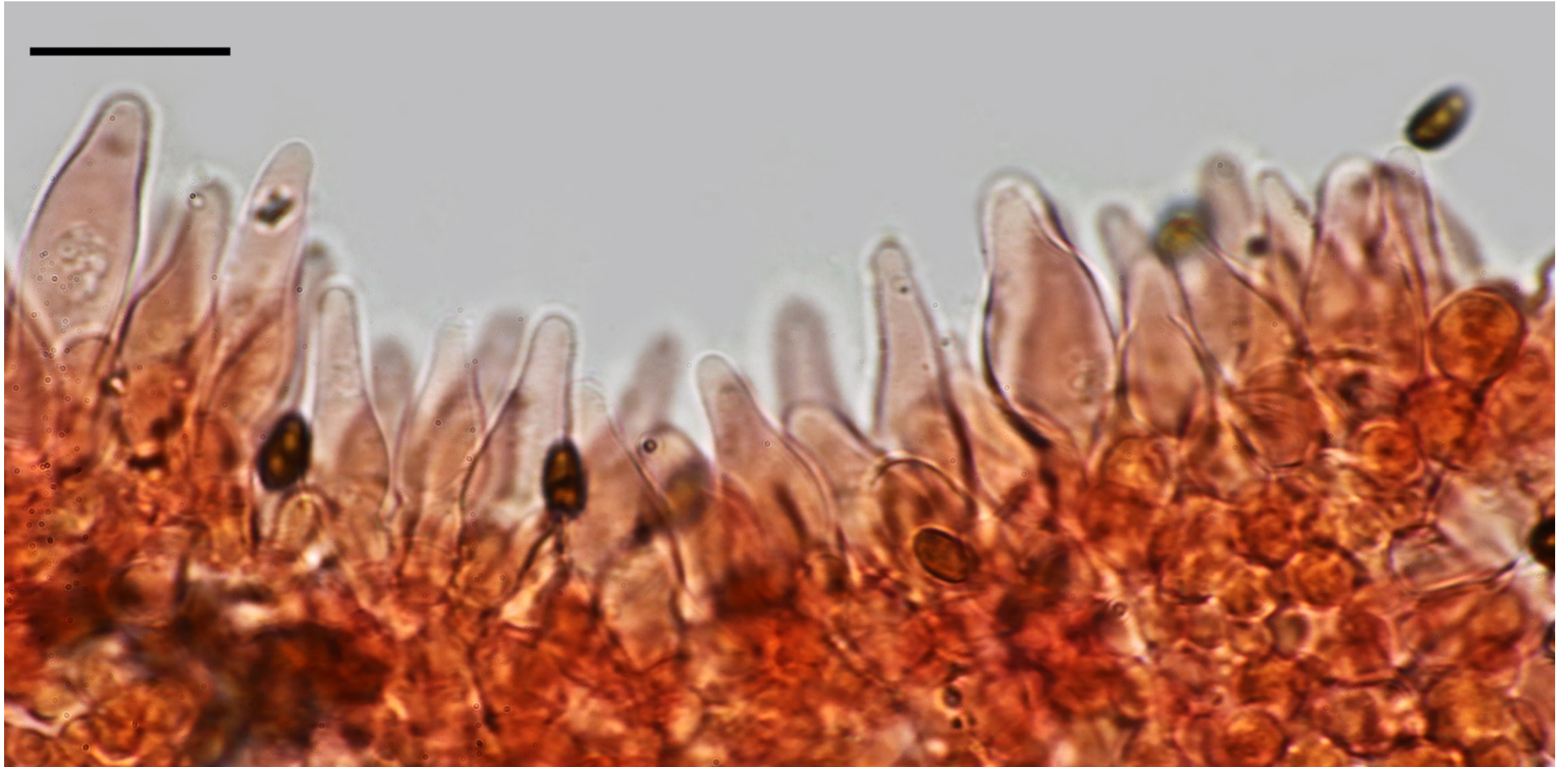
Cheilocystidia: scale bar = 20 μm



Cheilocystidia: scale bar = 20 μm



Cheilocystidia: scale bar = 20 μm



Cheilocystidia: scale bar = 20 μ m



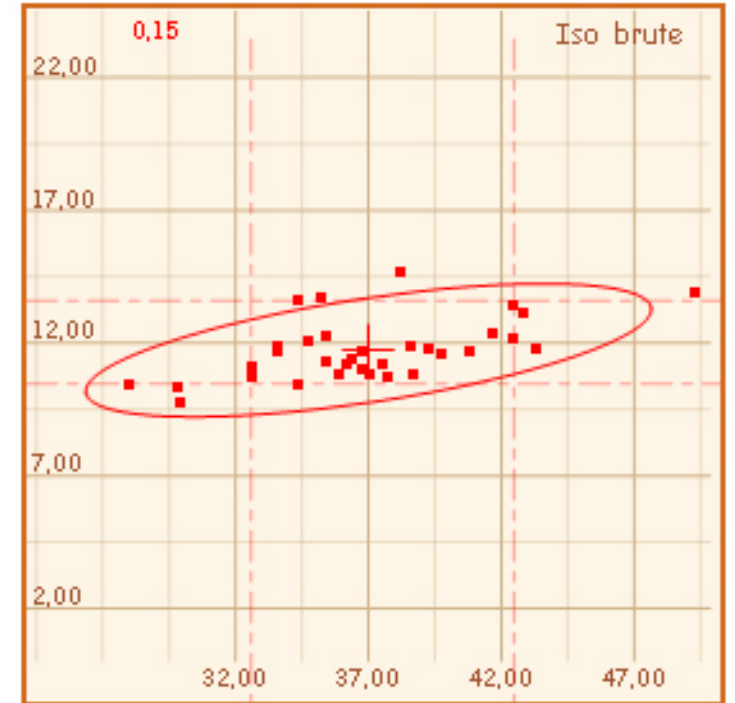
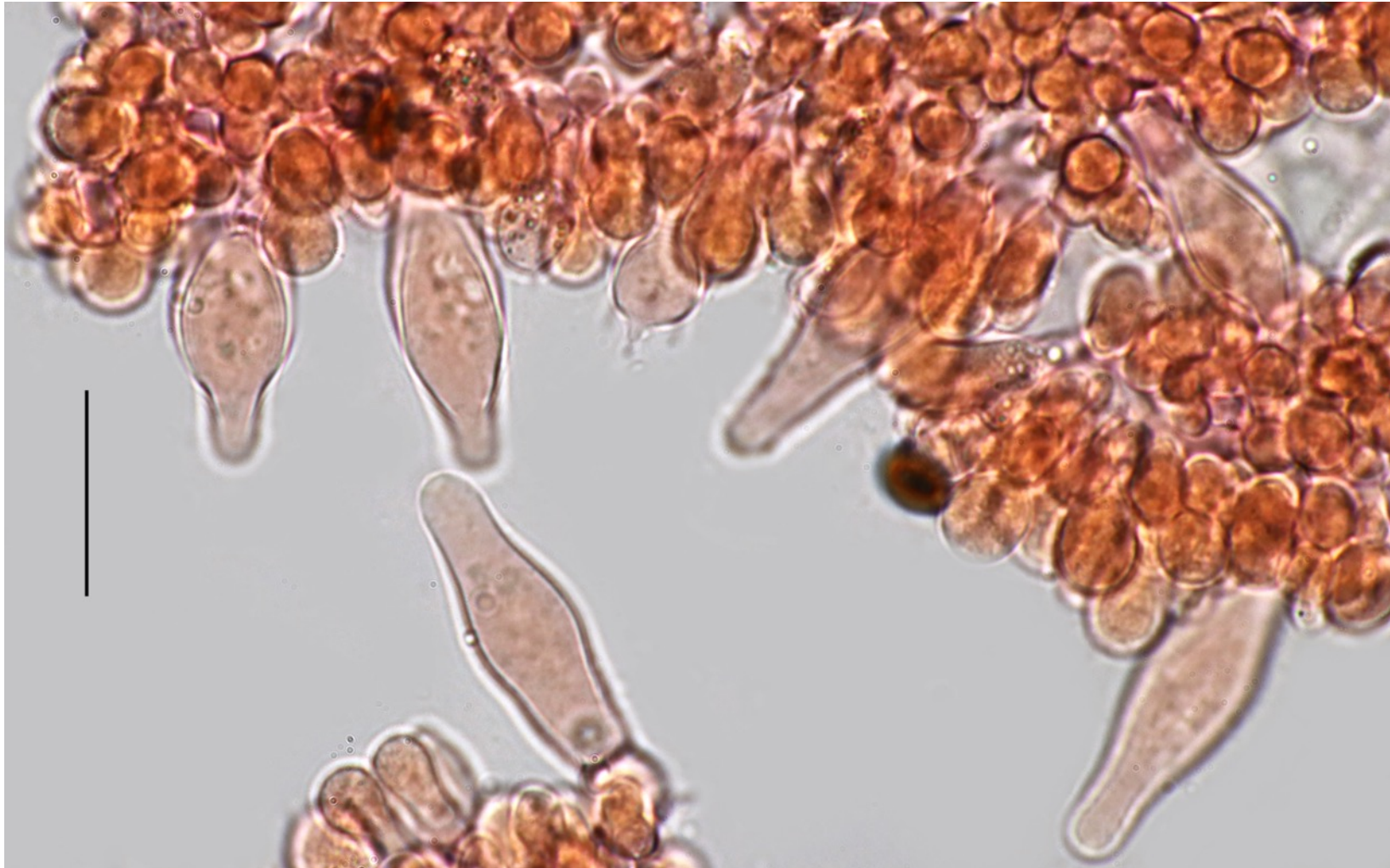


Cheilocystidia: scale bar = 20 μm



Pleurocystidia measuring N = 33; (28) 32,6 - 42,5 (49,2) × (9,7) 10,5 - 13,6 (14,7) μm ; **Me = 37 × 11,7 μm** ; numerous, thin walled, mostly lageniform, nearly similar to the cheilocystidia.

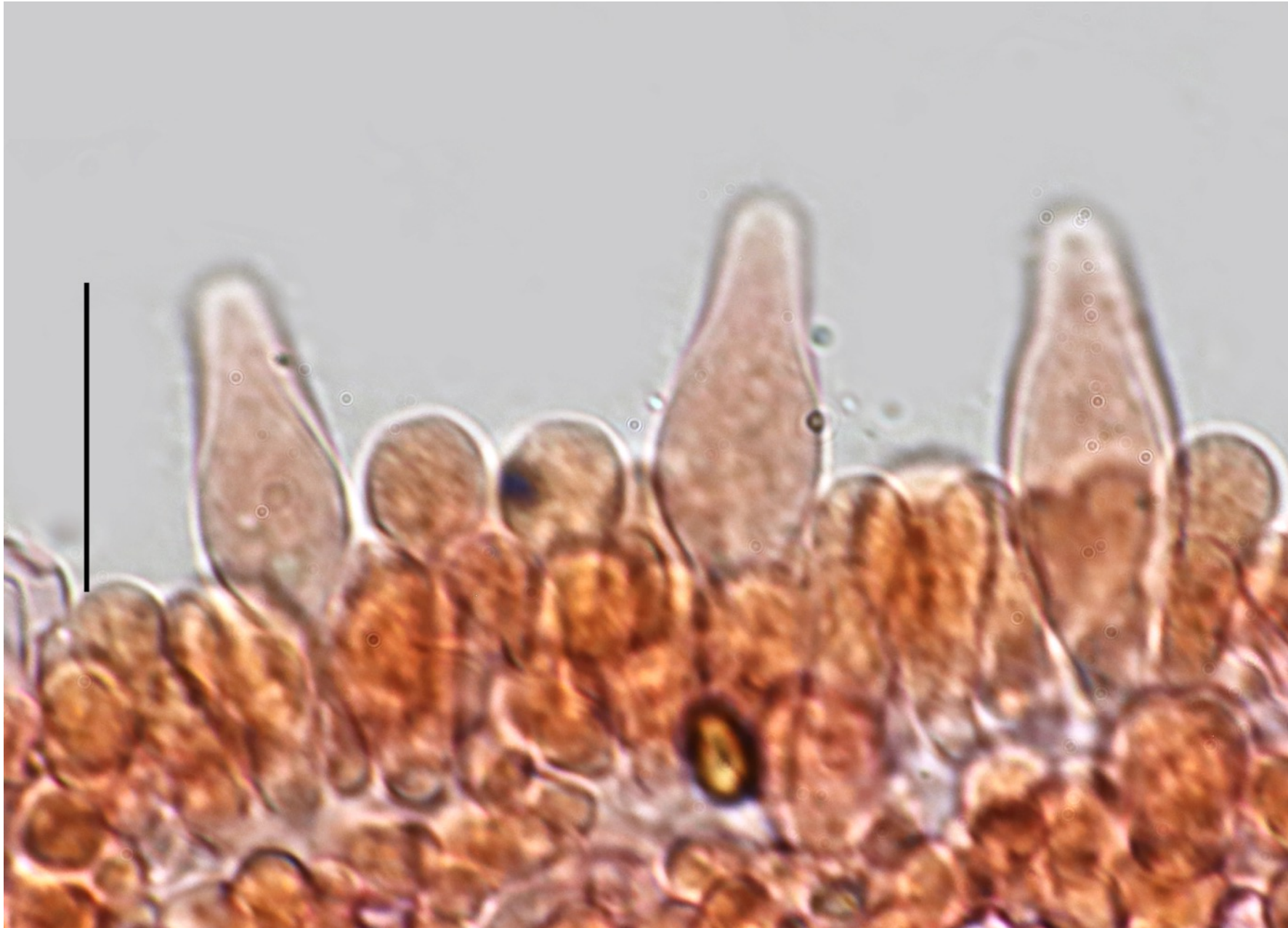
Scale bar = 20 μm



Pleurocystidia numerous, lageniform and sub-utriform. Scale bar = 20 μm



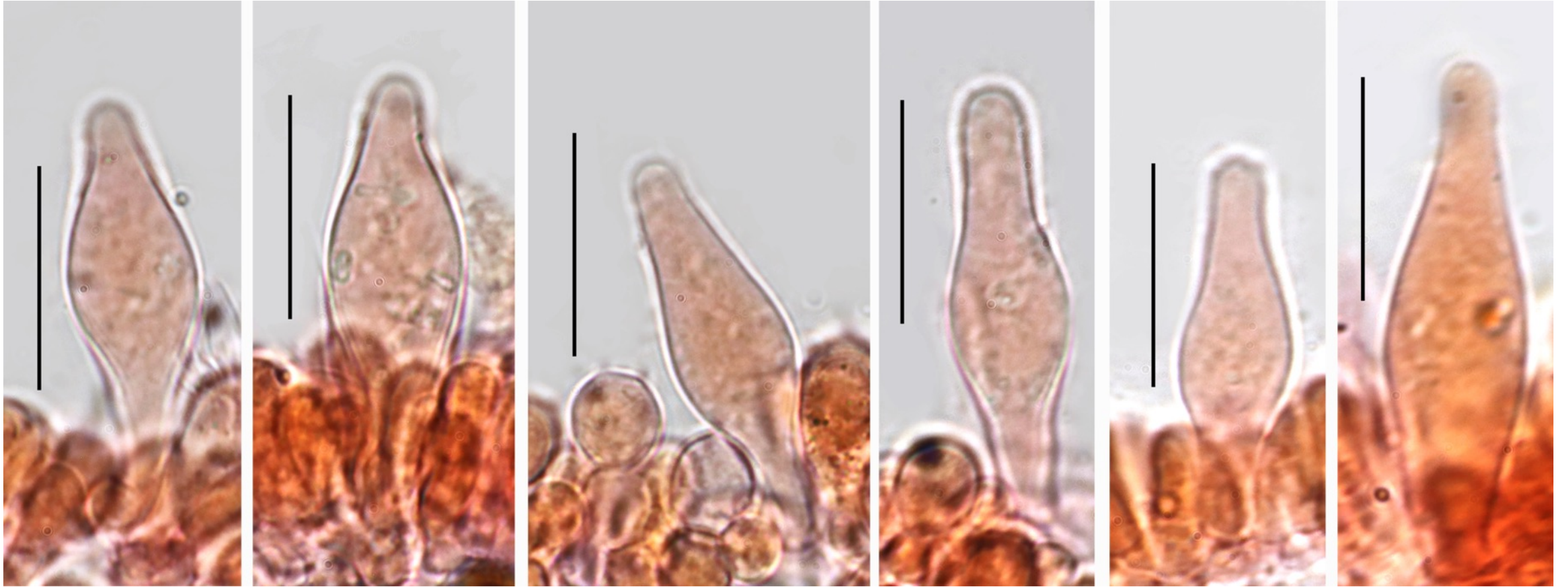
Pleurocystidia numerous, lageniform and sub-utriform. Scale bar = 20 μm



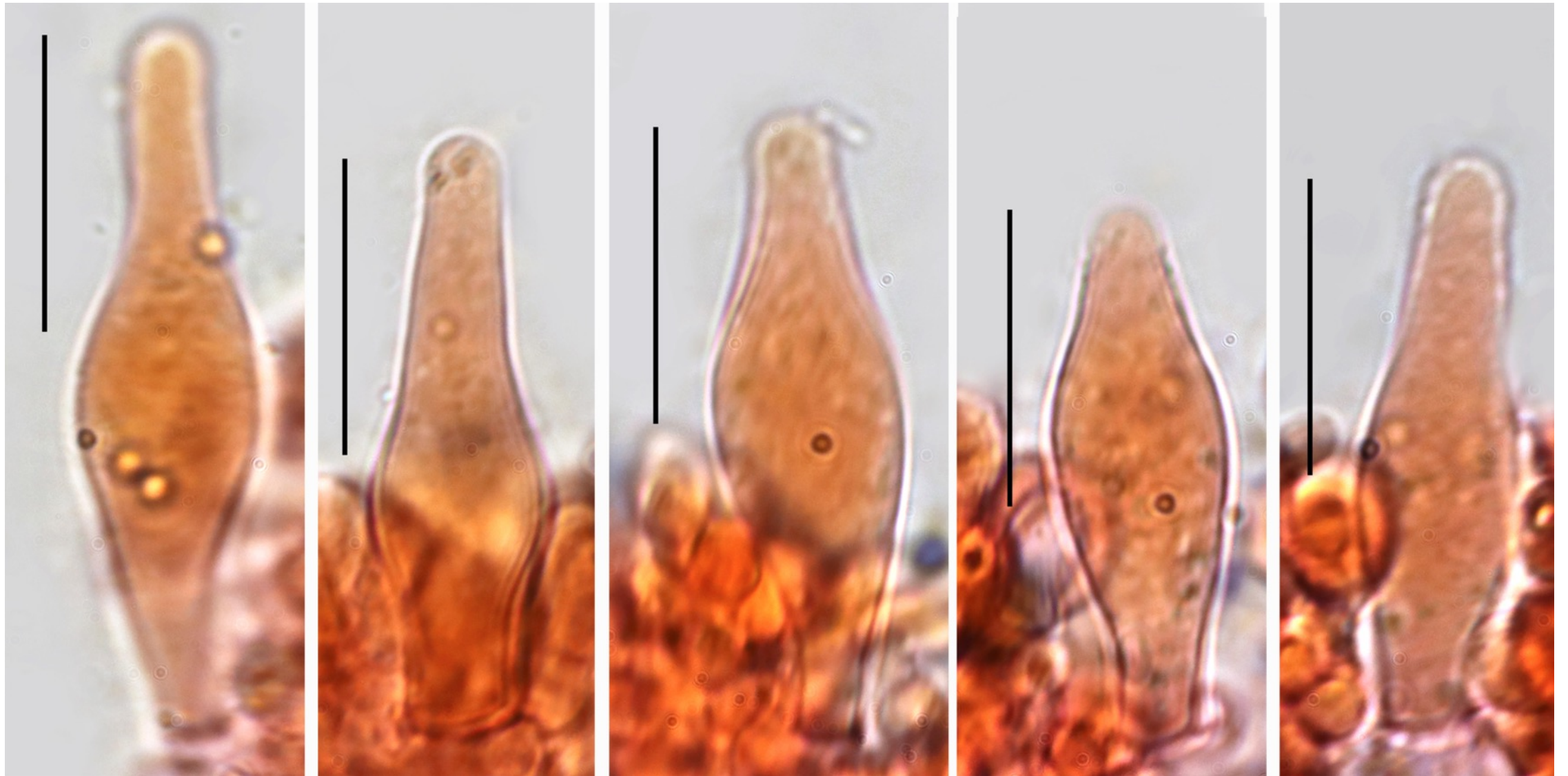
Pleurocystidia numerous, lageniform and sub-utriform. Scale bar = 20 μm



Pleurocystidia numerous, lageniform and sub-utriform. Scale bar = 20 μ m



Pleurocystidia numerous, lageniform and sub-utriform. Scale bar = 20 μ m



2022-2329-ALV35383 DD-KRIEG-030422= indet 161

ITS = ok, 99.53% *Psathyrella* sp. MN017259, 99.38% *P. borealis* NR_175197, ***P. senex* MG734732 = *Psathyrella senex* HMJAU 4450**

TEF1 = ok, 97.80% *Psathyrella amygdalinospora* MW410999, 97.28% *P. fagetophila* FM897222

ITS

NNNNNNNNNNNNNACCTNATTTGAGGTCAATTGTCAAAAAT
TGTCTTTGCAGACGGTTAGAAGCAAGTCTAAGCTCCATCC
ACGGCGTAGATAATTATCACACCAATAGACGGAGCTCAGT
TTGAACTCGCTAATCCATTTGAGAGGAGCAGTCAGCAGTT
AAGCGTTCTGCACAACCCCCACATCCAAGCTTCACGCAGT
TTCATAACAAAACCTGATGAAGTTGAGAATTTAATGACACT
CAAACAGGCATGCTCCTCGGAATACCAAGGAGCGCAAGGT
GCGTTCAAAGATTGATGATTCACTGAATTCTGCAATTCA
CATTACTTATCGCATTTCGCTGCGTTCTTCATCGATGCGA
GAGCCAAGAGATCCGTTGCTGAAAGTTGTATTTTGTTTTA
TAGGCTAAAAGCCCATTGACTACATTCTTCATTATACAAT
TGGGGTTTGTAAAGATACATAGACCTGAAAATTCAAAGAG
AGCTGGCCTTGCGACCCAGCAATCCTTGCATCCGCTCAA
AGAACGAGAGTTATCCAGGCCTACATTAAGTGCACAGGTG
GAAAGATAAAAATGACGGGTGTGCACATGCTCCTAGAAGC
CAGCTACAACCAACGCCATAAGTATTCATTAATGATCCTT
CCGCAGGTTACCTACGGAAACCTTGTTACGACTTTTACT
TCCTCTAATGGAACCAAGAAAA

Sequences producing significant alignments									
Download Select columns Show 100									
select all 100 sequences selected									
Description	Scientific Name	Max Score	Total Score	Query Cover	E value	Per. Ident	Acc. Len	Accession	
Psathyrella senex voucher HMJAU 4450 small subunit ribosomal RNA gene, partial sequence: internal transcribed spa...	Psathyrella senex	1225	1225	97%	0.0	98.84%	717	MG734732.1	
Psathyrella borealis MICH:Smith 43743 ITS region: from TYPE material	Psathyrella borealis	1186	1186	92%	0.0	99.39%	652	NR_175197.1	
Psathyrella borealis voucher MICH:Smith 43743 small subunit ribosomal RNA gene, partial sequence: internal transcri...	Psathyrella borealis	1186	1186	92%	0.0	99.39%	652	MZ895470.1	
Psathyrella limicola var. subpectinata voucher MICH11965 small subunit ribosomal RNA gene, partial sequence: intern...	Psathyrella limico...	1184	1184	98%	0.0	97.68%	721	MF325980.1	
Psathyrella seminuda voucher Smith34091 internal transcribed spacer 1, partial sequence: 5.8S ribosomal RNA gene ...	Psathyrella semin...	1184	1184	95%	0.0	98.37%	1596	KC992907.1	
Psathyrella sp. voucher JLF2657 small subunit ribosomal RNA gene, partial sequence: internal transcribed spacer 1 a...	Psathyrella sp.	1182	1182	92%	0.0	99.39%	653	MN017259.1	

TEF1#

NNNNNNNNGNNNTACTTCCCAGNGCTGNNNTGTGCCATCC
TCATCATCGCTGCTGGTACTGGTGAATCAAAGCTGGTAT
CTCCAAGGATGGTCAAACCCGTGAACACGCCTTGCTCGCC
TTCACCCTCGGTGTGCGTCAGCTCATCGTCGCCGTCACA
AGATGGACACCACCAAGGTATAACGGTTAGCTTCCACTTA
ATAATGTAACACTTTCTCAACTTTCCTTTTATTCAAGTGA
GCGAAGATCGTTTCAATGAAATCATTAAAGGAGACTTCCAG
CTTTATCAAGAAGGTGCGTTACAACCCCAAGGCTGTCGCC
TTCGTCCCCATCTCCGGATGGCACGGAGACAACATGTTGG
AGGAGTCCAAGAAGTAAGCGCCTGGCTTTTTTACTCGTC
AACTTTTCTCACATCTCTAGCATGACCTGGTTCAAGGG
TTGGTCCC CGAAGGCAAGACCGGTACCCTCAAGGGCAAG
ACCTTGTTGGATGCTATCGATGCTATCGAGCCCCCTGTCC
GTCCCTCCGACAAGCCCCTCCGTCTCCCCCTCCAGGACGT
CTACAAGATTGGTGGTATCGGAACTGTGCCCGTCGGTCGT
GTTGAGACTGGTATCATCAAGGCCGGTATGGTCGTCAACT
TCGCTCCCTCCAACGTCACCACCGAAGTCAAGTCCGTCGA
AATGCATCACGAGCAGCTCGAGCAGGGTAACCCCGGTGAC
AACGTCGGCTTCAACGTCAAGAACGTTTCCGTCAAGGATA
TCCGTGTCGGAAACGTCGCCTCCGACTCCAAGAACGACCC
TGCCAAGGAAGCCGCCTTTTCAACGCACAGGTCATCGTC
CTCAACCACCCTGGACAGATCGGTGCCGGCTACGCACCCG
TCCTCGATTGCCACACTGCTCACATTGCTTGCAAGTTGCG
TGAGCTCATCGAGAAGATCGATCGCCGAACTGGTAAATCC
CTCGAAGACGCACCCAAGTTCGTCAAGTCTGGTGACGCCG
CCATCGTCAAGCTTATCCCCAGCAAGCCCATGGTACGTTA
AGAGGCCGCTTACTCCCAAACCTATACTAACTATATGTCT
AGTGTGTCGAGTCTACAACGAGTACCCCTCTGGTCGTT
TCGCTGTCGGTACATGAAACAAACGTCCCCCTTTGGGG
TAAAAA

Sequences producing significant alignments

Download Select columns Show 100

select all 100 sequences selected

GenBank Graphics Distance tree of results MSA Viewer

Description	Scientific Name	Max Score	Total Score	Query Cover	E value	Per. Ident	Acc. Len	Accession
<input checked="" type="checkbox"/> Psathyrella amygdalinospora voucher HMJAU37952 translation elongation factor 1-alpha gene, partial cds	Psathyrella amyg...	1807	1807	90%	0.0	97.63%	1053	MW410999.1
<input checked="" type="checkbox"/> Psathyrella romagnesii isolate 4324 translation elongation factor 1-alpha gene, partial cds	Psathyrella roma...	1520	1520	85%	0.0	94.04%	1006	KJ732802.1
<input checked="" type="checkbox"/> Psathyrella fennoscandica voucher HMJAU37918 translation elongation factor 1-alpha gene, partial cds	Psathyrella fenno...	1513	1513	89%	0.0	92.68%	1055	MW411000.1
<input checked="" type="checkbox"/> Psathyrella sp. 1 EL-2013 isolate 9201 translation elongation factor 1-alpha gene, partial cds	Psathyrella sp. 1...	1491	1491	85%	0.0	93.53%	1004	KJ732790.1
<input checked="" type="checkbox"/> Psathyrella pseudocorrugis isolate 9198 translation elongation factor 1-alpha gene, partial cds	Psathyrella pseu...	1323	1323	85%	0.0	90.58%	1001	KJ732801.1
<input checked="" type="checkbox"/> Psathyrella microrhiza isolate 4217 translation elongation factor 1-alpha gene, partial cds	Psathyrella micro...	1238	1238	85%	0.0	89.03%	1006	KJ732765.1
<input checked="" type="checkbox"/> Psathyrella hirta isolate 4319 translation elongation factor 1-alpha gene, partial cds	Psathyrella hirta	1236	1236	85%	0.0	89.10%	998	KJ732800.1
<input checked="" type="checkbox"/> Psathyrella pennata isolate 5190 translation elongation factor 1-alpha gene, partial cds	Psathyrella pennata	1234	1234	85%	0.0	88.94%	1008	KJ732813.1
<input checked="" type="checkbox"/> Psathyrella micr...	Psathyrella micro...	1208	1208	85%	0.0	88.47%	1009	KJ732764.1
<input checked="" type="checkbox"/> Psathyrella sp. 9...	Psathyrella sp. 9...	1199	1199	85%	0.0	88.33%	1003	KJ732792.1
<input checked="" type="checkbox"/> Psathyrella faetophila tef1 gene region, strain SZMC-NL-2530	Psathyrella faet...	1197	1197	61%	0.0	96.54%	740	FM897222.1

Genbank accession code
ITS 35383 = OP006264
TEF 35383 = OP021858

It seems well that this species is well *Psathyrella senex* from the group A

To see the two groups, A & B read my publication which is online :

<http://www.amfb.eu/Myco/Psathyrelles/Pdf/Psathyrella-senex.pdf>

The identification of this species was not easy and several propositions were made by specialists of this genre :

P. senex, *P. rubiginosa*, *P. arenosa* and *P. ichnusae*.