

Mycena cyanorrhiza
Blaufüssiger Helmling

**Die Helmlinge (*Mycena*):
Klein, hübsch, farbig,
liebenswert....**

Die Gattung *Mycena*
Gattung meist gut
erkennbar, ähnliche
Gattungen können
mikroskopisch gut
abgetrennt werden.
Die Mikromerkmale s
meist sehr fein und s
sichtbar, sind dafür a
am Exsikka (Herbar)
sichtbar! Präparate s
man meist mit Konge
anfärben.

Vorkommen:
In Gruppen bis einz
saprotroph auf Holz
(Stämmen bis Ästche
Blättern, Nadeln, Rin
Erde (bei Gräsern)
Weltweite Verbreitun
über 2200 Arten (Ind
fungorum)

Agarics

The gilled mushrooms comprise a very large group of macrofungi, with more than 3,000 species in temperate Europe. They are characterized by having gills under a cap, always held in the vertical position. Most species also have a stem. In the pleurotoid agarics the stem is reduced or absent.

Spore colour

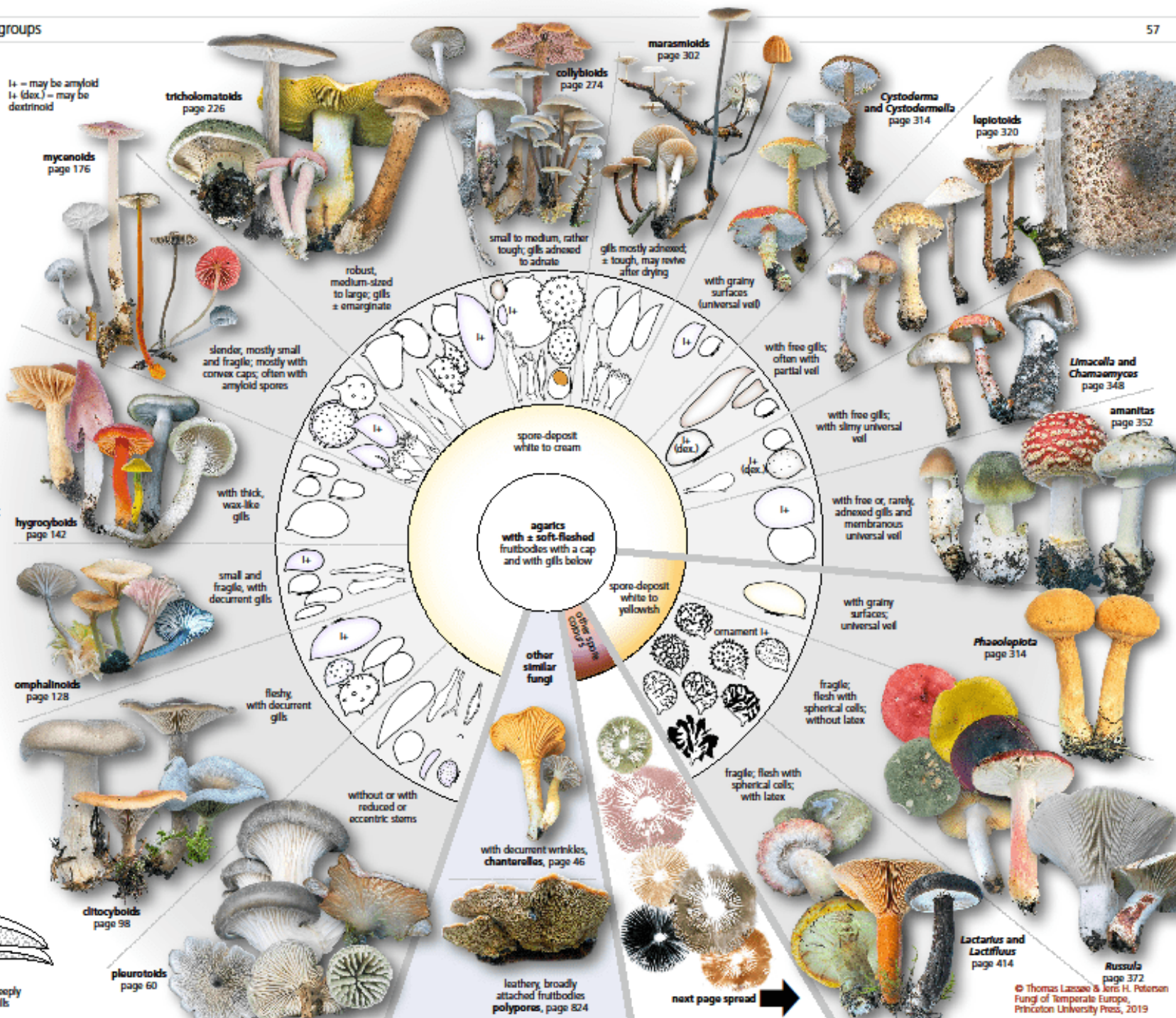
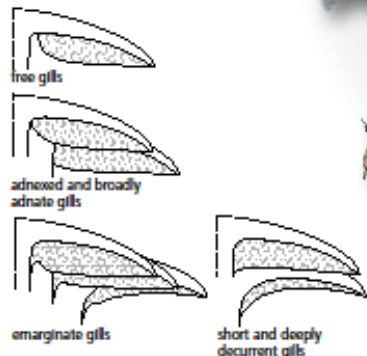
The colour of spore-deposits is a key character for dividing the gilled mushrooms into manageable groups: white, cream to yellow (this page spread) or brownish, rose-brown to black (next page spread). In addition, a few species have green or lilac spore-deposits (also next page spread).

Veil

In some agarics the gills develop freely – a naked development. Others have a protecting tissue over the young gills – a partial veil. Some have the entire fruitbody covered in an universal veil. E.g. *Amanita phalloides* has a membranous version of both veil types: the partial veil is seen as a ring on the stem at maturity, while the universal veil is seen as a volva at the stem base. In *Cortinarius* the two veil types can be thread-like and in others, e.g. *Gomphidius*, they are present as slimy layers.

Gill attachment

The way the gills attach to the stem is an important character for separating species and genera. The gills may be free (not touching the stem), adnexed, emarginate or decurrent.



1+ = may be amyloid
1+ (dex.) = may be dextrinoid

tricholomatoids page 226

collybioids page 274

marasmioids page 302

Cystoderma and Cystoderma-like page 314

lepiotoids page 320

mycenoids page 176

robust, medium-sized to large; gills ± emarginate

small to medium, rather tough; gills adnexed to adnate

gills mostly adnexed; ± tough, may revive after drying

with grainy surfaces (universal veil)

slender, mostly small and fragile; mostly with convex caps; often with amyloid spores

with free gills; often with partial veil

Limacella and Chamaeomycus page 348

amanitas page 352

with free gills; with slimy universal veil

with free or, rarely, adnexed gills and membranous universal veil

hygrocyboids page 142

with thick, wax-like gills

spore-deposit white to cream

agarics with ± soft-fleshed fruitbodies with a cap and with gills below

spore-deposit white to yellowish

small and fragile, with decurrent gills

with grainy surfaces; universal veil

Phaeoleptota page 314

omphalinooids page 128

fleshy with decurrent gills

other similar fungi

fragile; flesh with spherical cells; without latex

fragile; flesh with spherical cells; with latex

with decurrent wrinkles, chanterelles, page 46

without or with reduced or eccentric stems

ditocyboids page 98

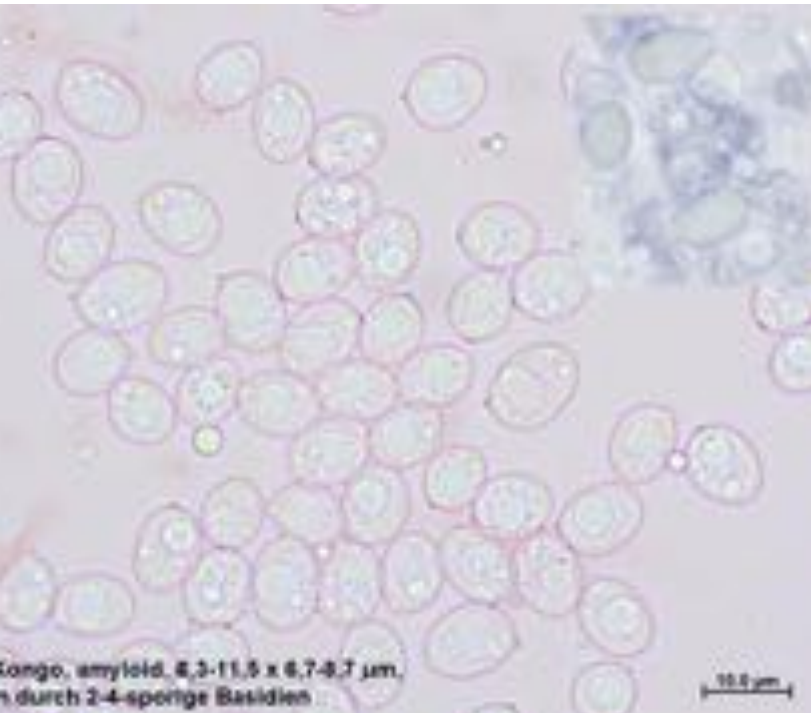
leathery, broadly attached fruitbodies polypores, page 824

pleurotoids page 60

Lactarius and Lactifluus page 414

Russula page 372

next page spread



Sporen

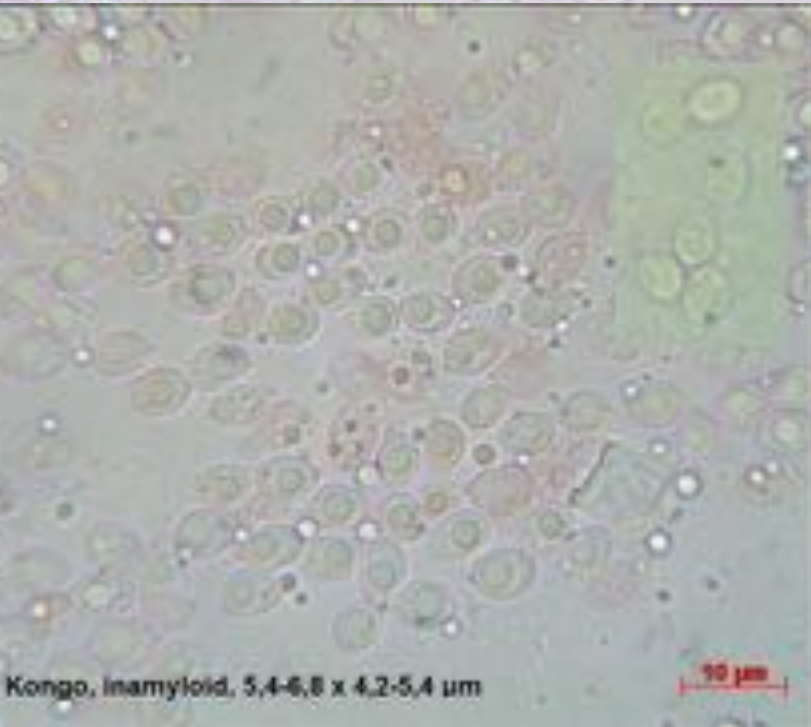
*Mycena
niveipes*

oval,
schwach
amyloid

*Mycena
cupressipes*

Globos, stark
amyloid

Sporenabwurf wichtig! Meist
wird nur das Perispore
(Sporenhaut) amyloid, lösen
sich und bilden blaue
Häufchen, die Sporen
scheinen dann inamyloid!

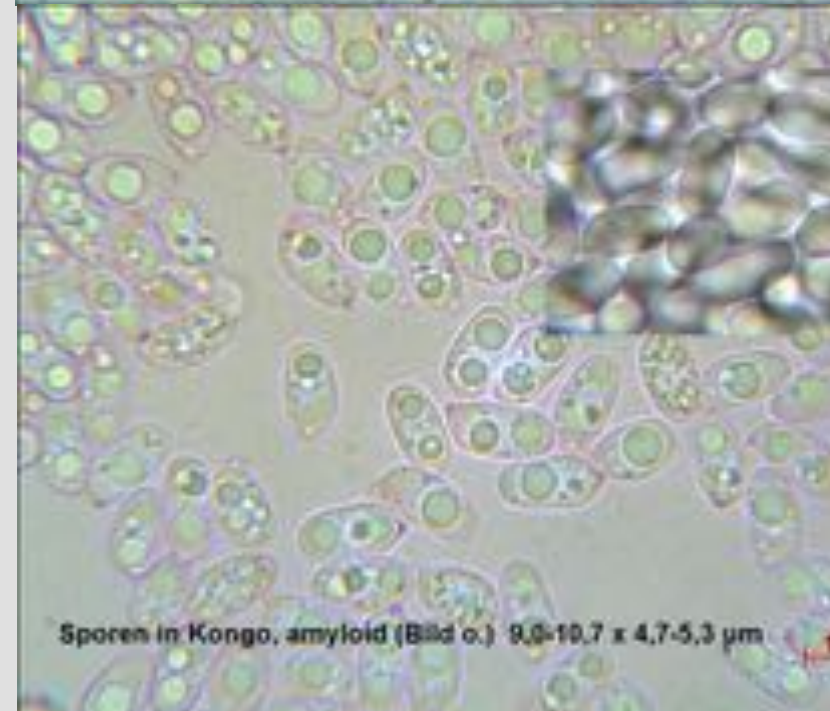
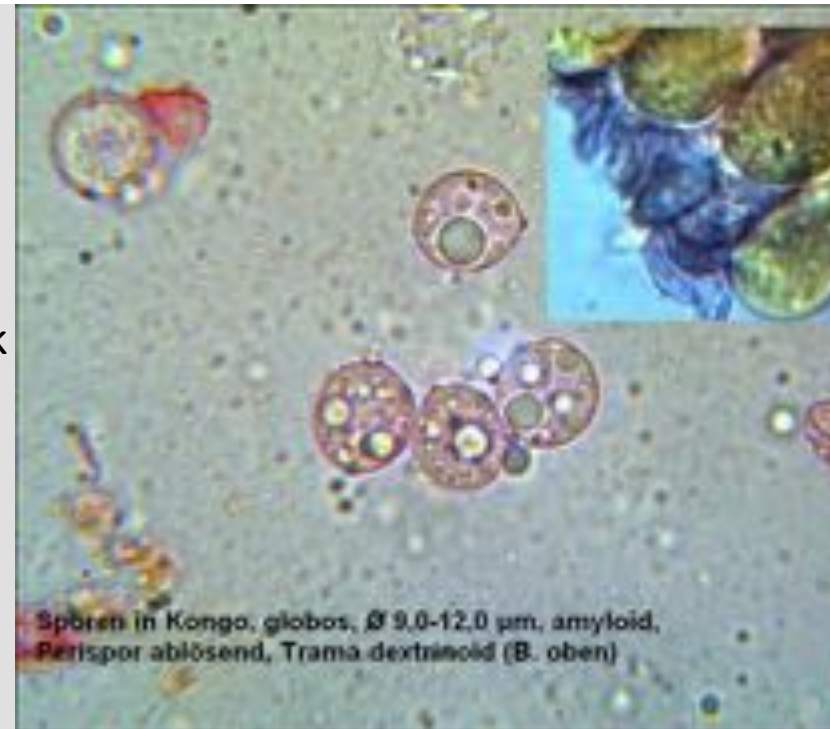


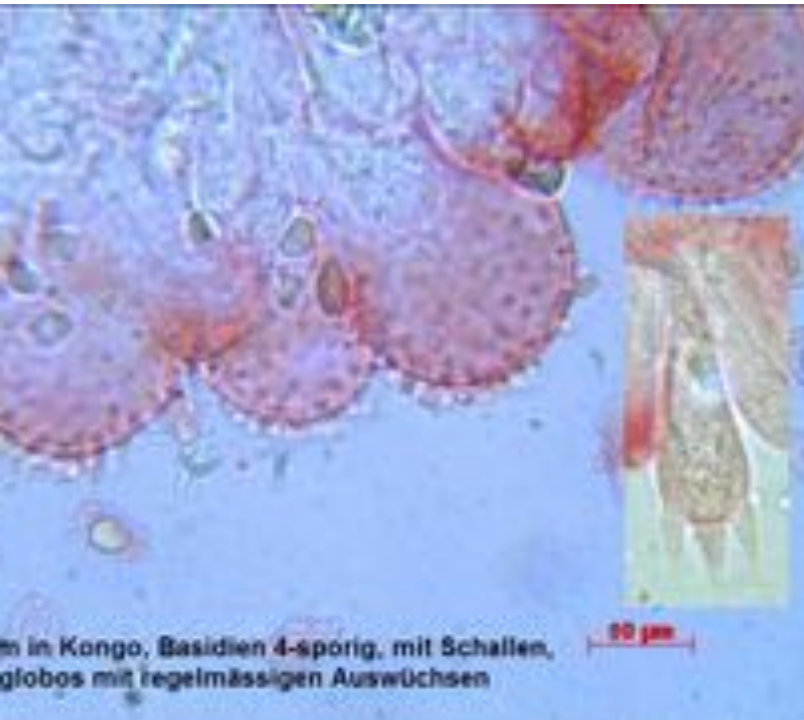
*Mycena
olida*

oval,
inamyloid

*Mycena
abramsii*

zylindrisch,
amyloid





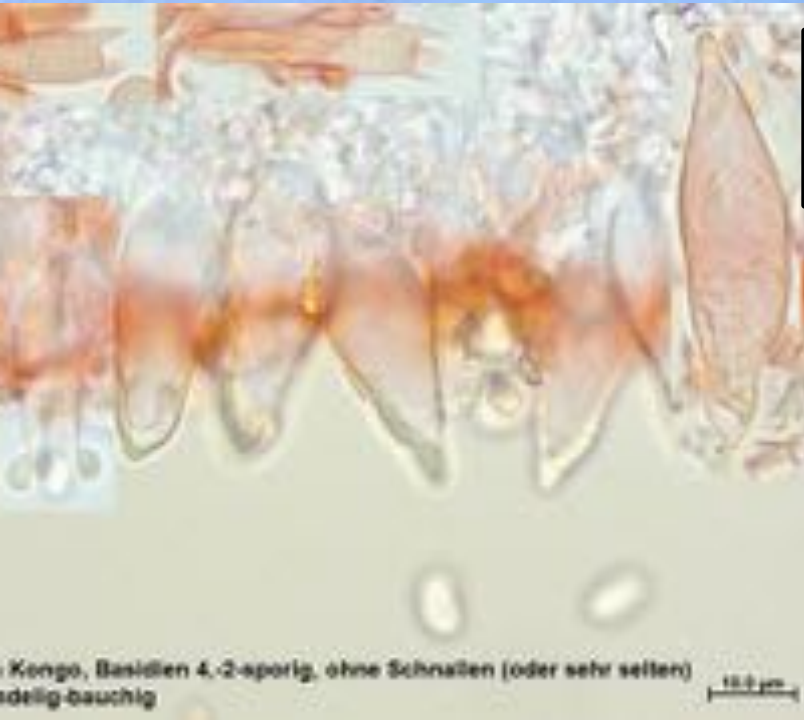
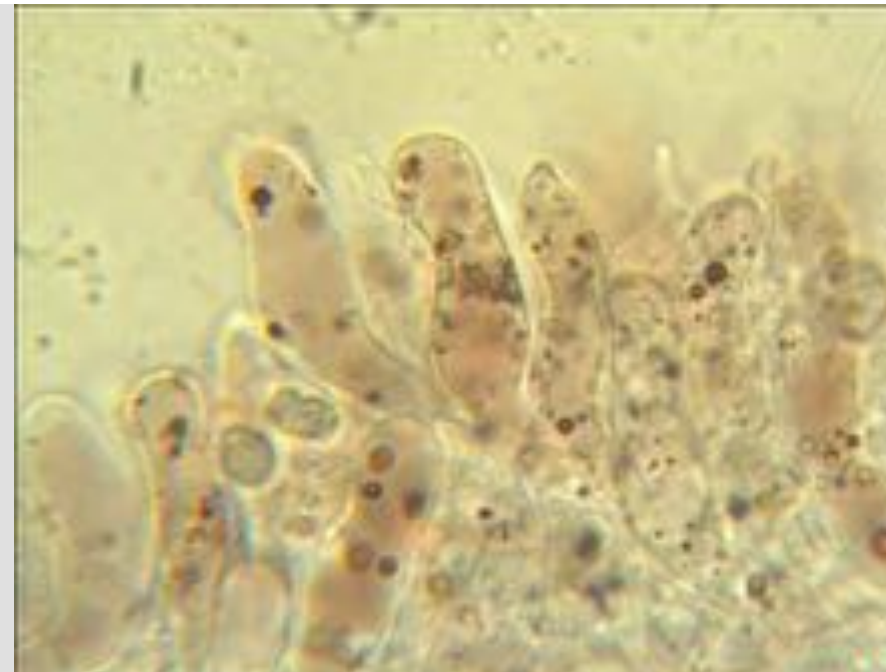
Hymenium

Mycena rebaudengi

Zyst. mit vielen kurzen Auswüchsen (genoppt)

Mycena seynii

Zyst. glatt, pigmentiert



Es gibt einige Arten mit 2-sporigen Basidien, nicht immer konstant!

Mycena strobilicola

Zyst. glatt spindelig

Mycena (Phloeomana) speirea

Zyst. glatt, unscheinbar



Zystiden

Mycena cyanorrhiza

Zyst.
gefinger

Mycena adscendens

Zyst. nur in
der Mitte
genoppt

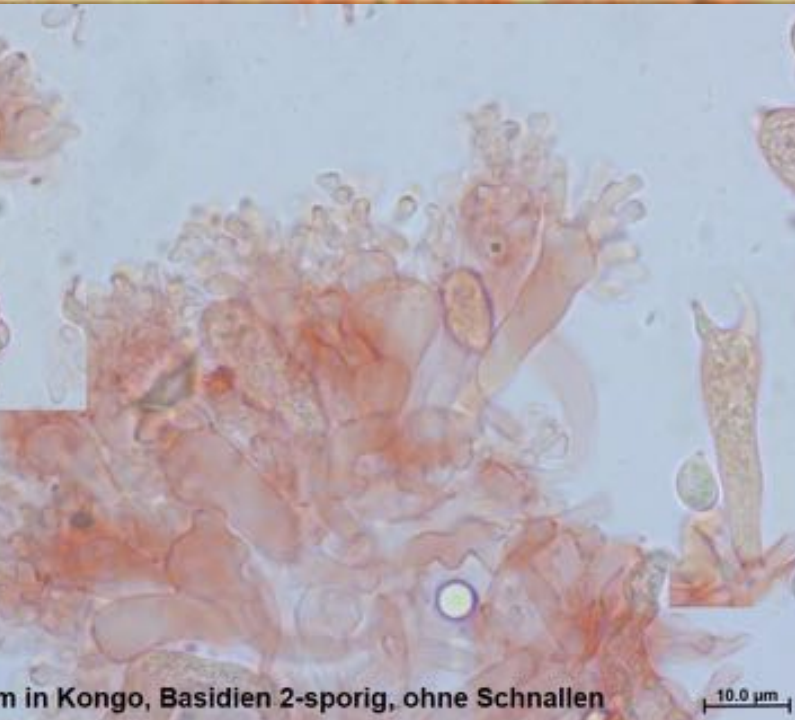
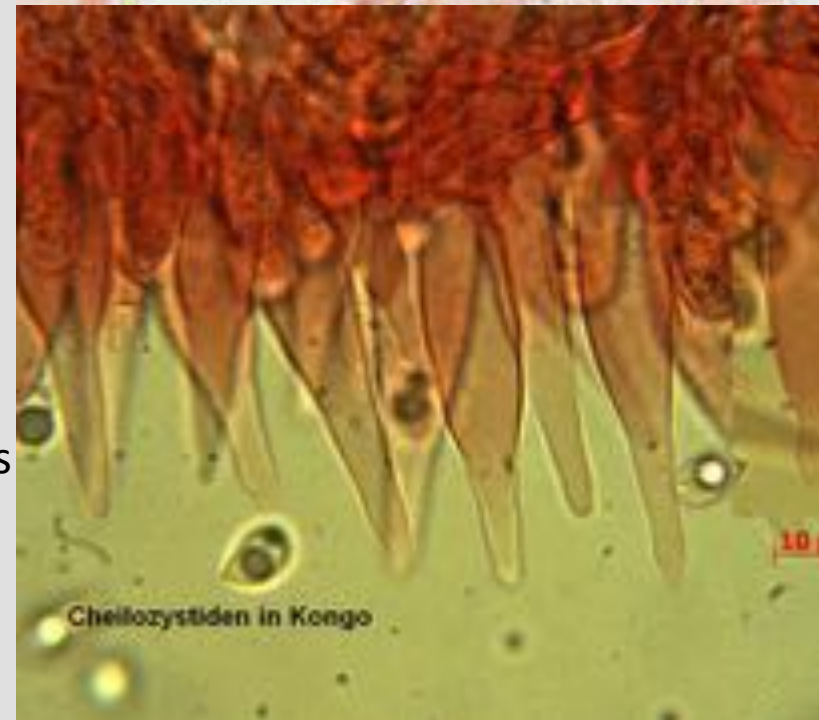


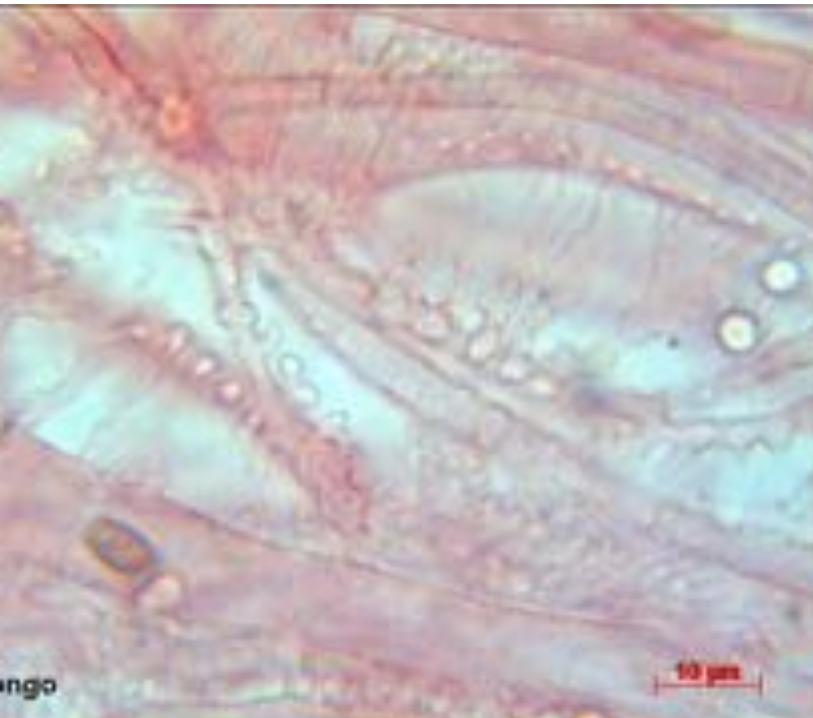
Mycena pseudopicta

Zyst.
Baumartig

Mycena galopus

Zyst.
sehr gross
(wenn keine
Milch mehr
sichtbar, gutes
Merkmal!)





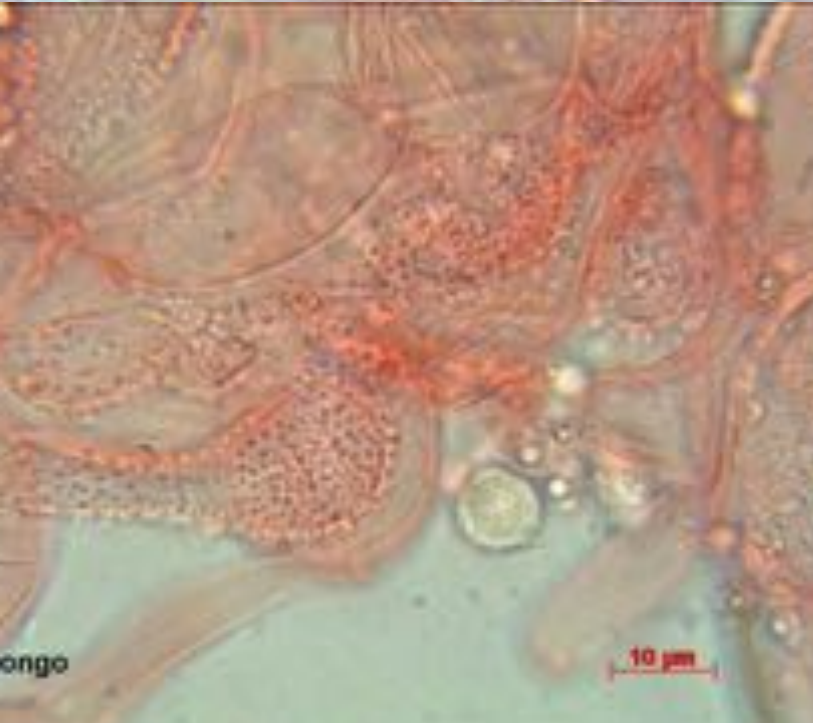
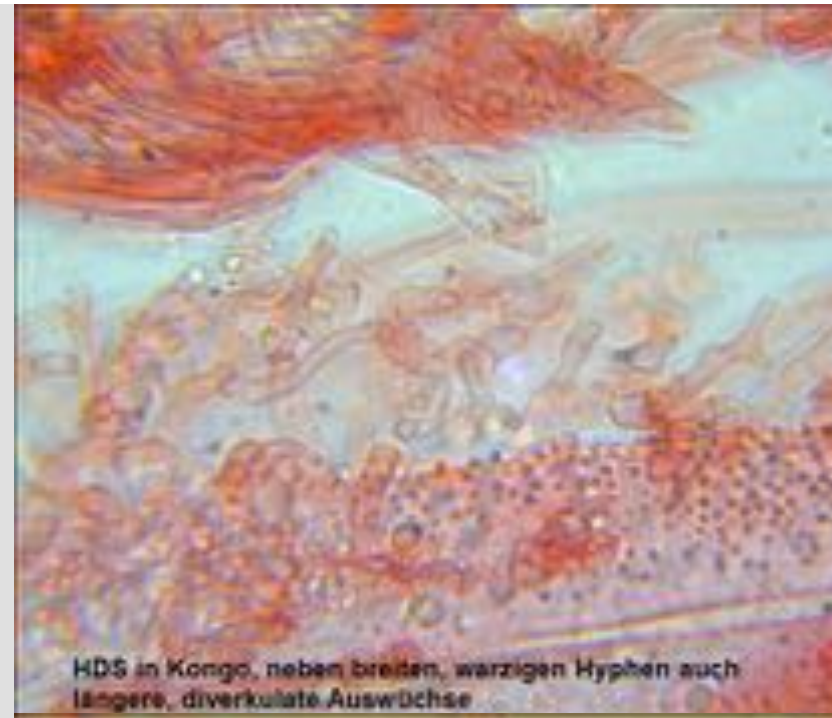
HDS (HutDeckSchicht)

*Mycena
aethites*

Typische HDS
mit feinen
Auswüchsen

*Mycena
rebaudengii*

Gemischte
HDS

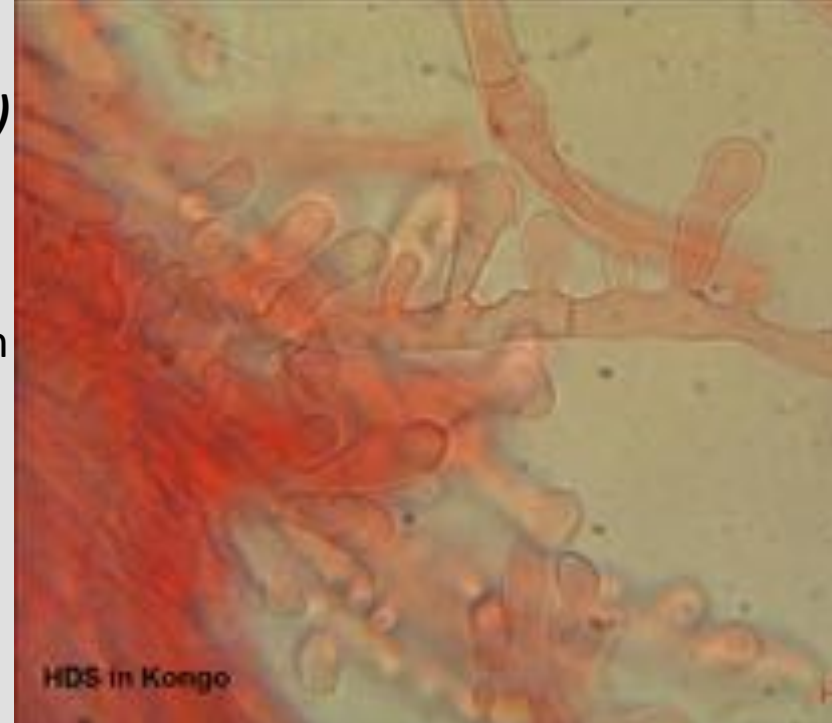


*Mycena
smithiana*

Mit grossen,
kurznoppigen
Zellen

*Mycena
(Phloeomana)
alba*

Mit starken,
gut sichtbaren
Auswüchsen



Stielbereifung (Kaulozystiden)

*Mycena
adscendens*

Zyst. gross,
mit
Auswüchsen

*Mycena
corynephora*

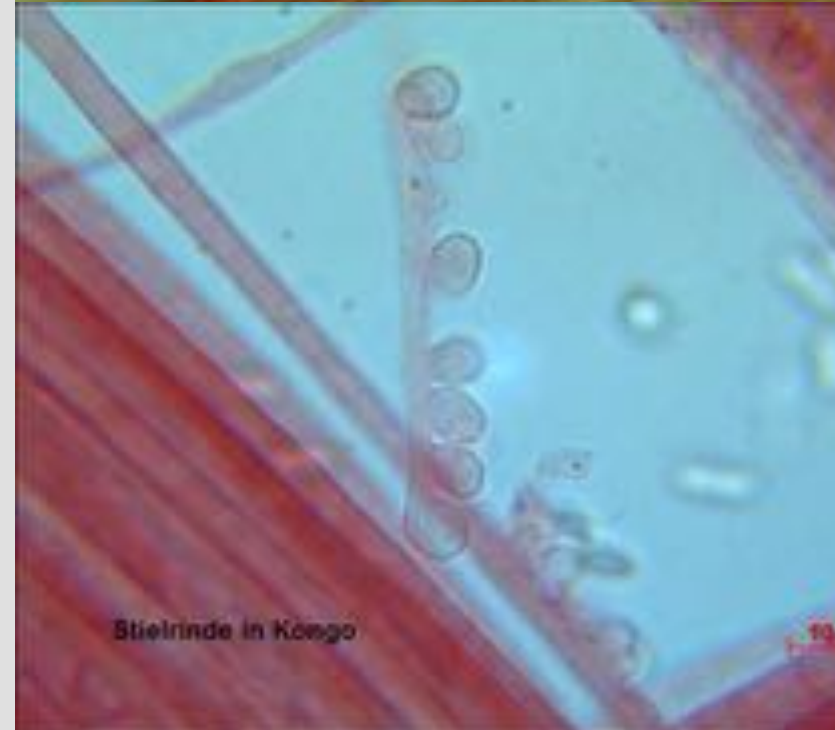
Zyst. genoppt

Fast glatt,
oder feinst
genoppt

Oft nur
einzelne
abstehende
Hyphen mit
Auswüchsen

*Mycena
renati*

Typische
kugelige
Auswüchse





***Mycena* Scheinhelmling**



weiss, Sporen meist
kugelförmig, Zystiden
glatt, zylindrisch,
wie *Mycena*

Kongo, 5,2-6,5 x 4,7-5,2 µm



***Hydropus* Wasserfuss**

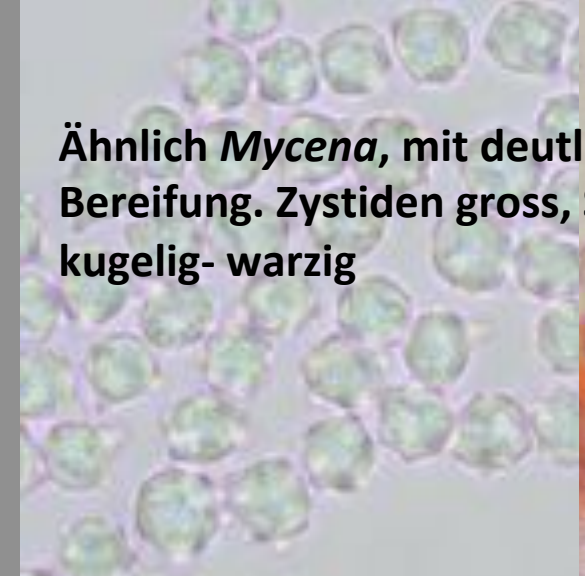


Ähnlich *Mycena*, Sporen wie
Mycena, Zystiden und HDS immer
keulig, glatt

Chesiozyaden in Kongo



***Mycenella* Reifhelmling**



Ähnlich *Mycena*, mit deutl.
Bereifung. Zystiden gross,
kugelig- warzig

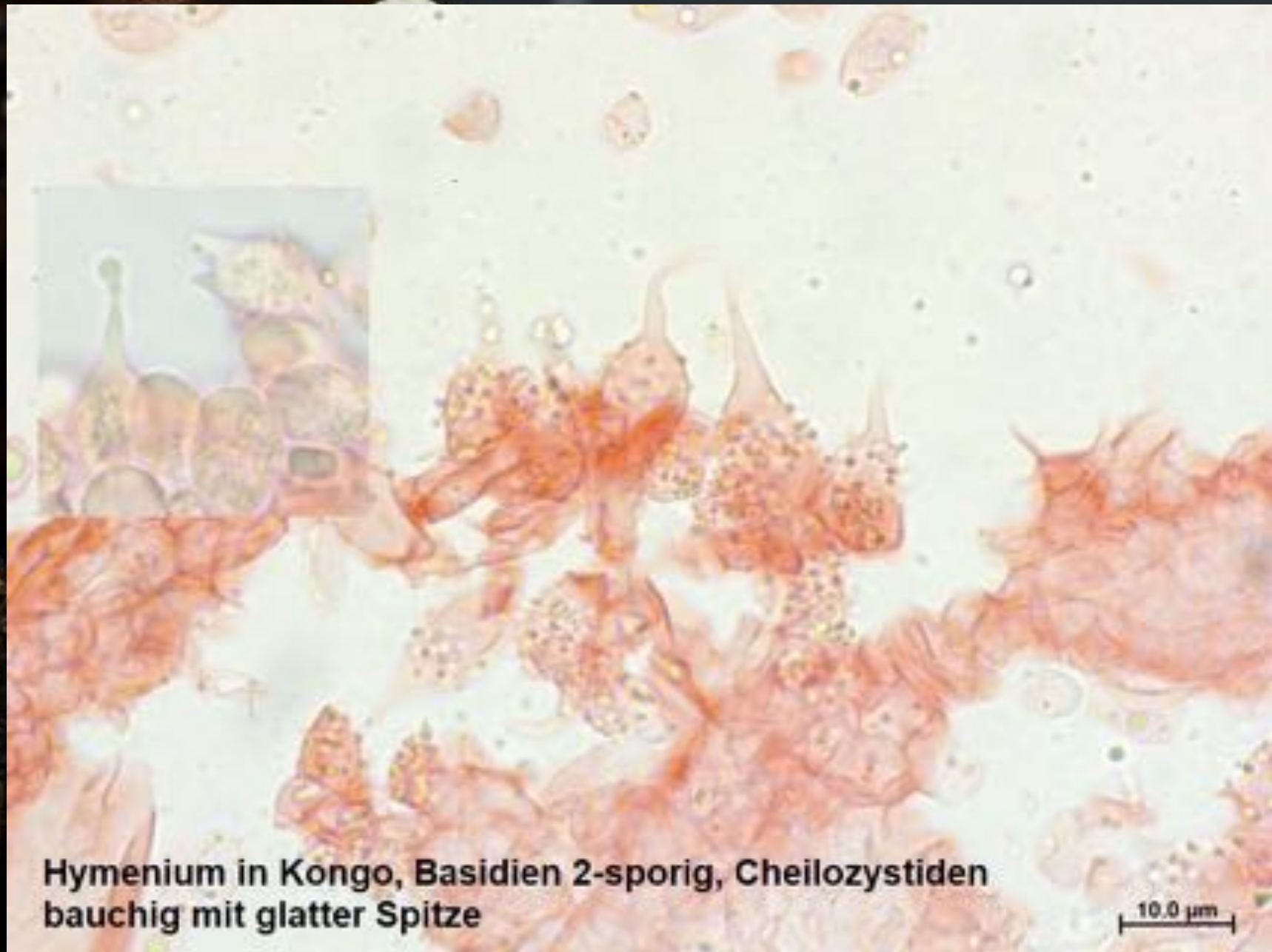


Mycena inclinata Buntstieliger Helmling



Mycena niveipes Frühlings- Helmling

Mycena adscendens Zarter Helmling

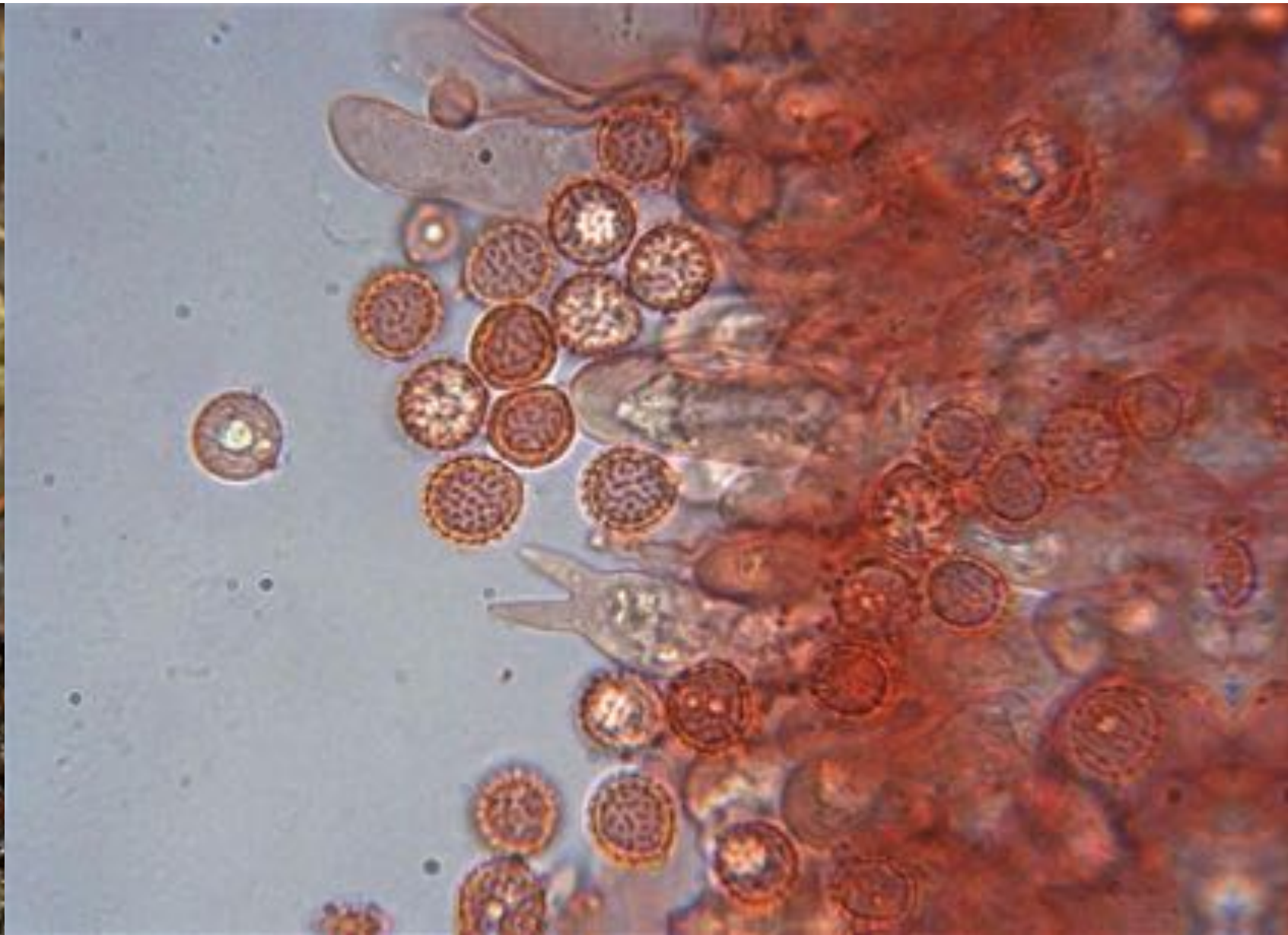


Hymenium in Kongo, Basidien 2-sporig, Cheilozystiden bauchig mit glatter Spitze

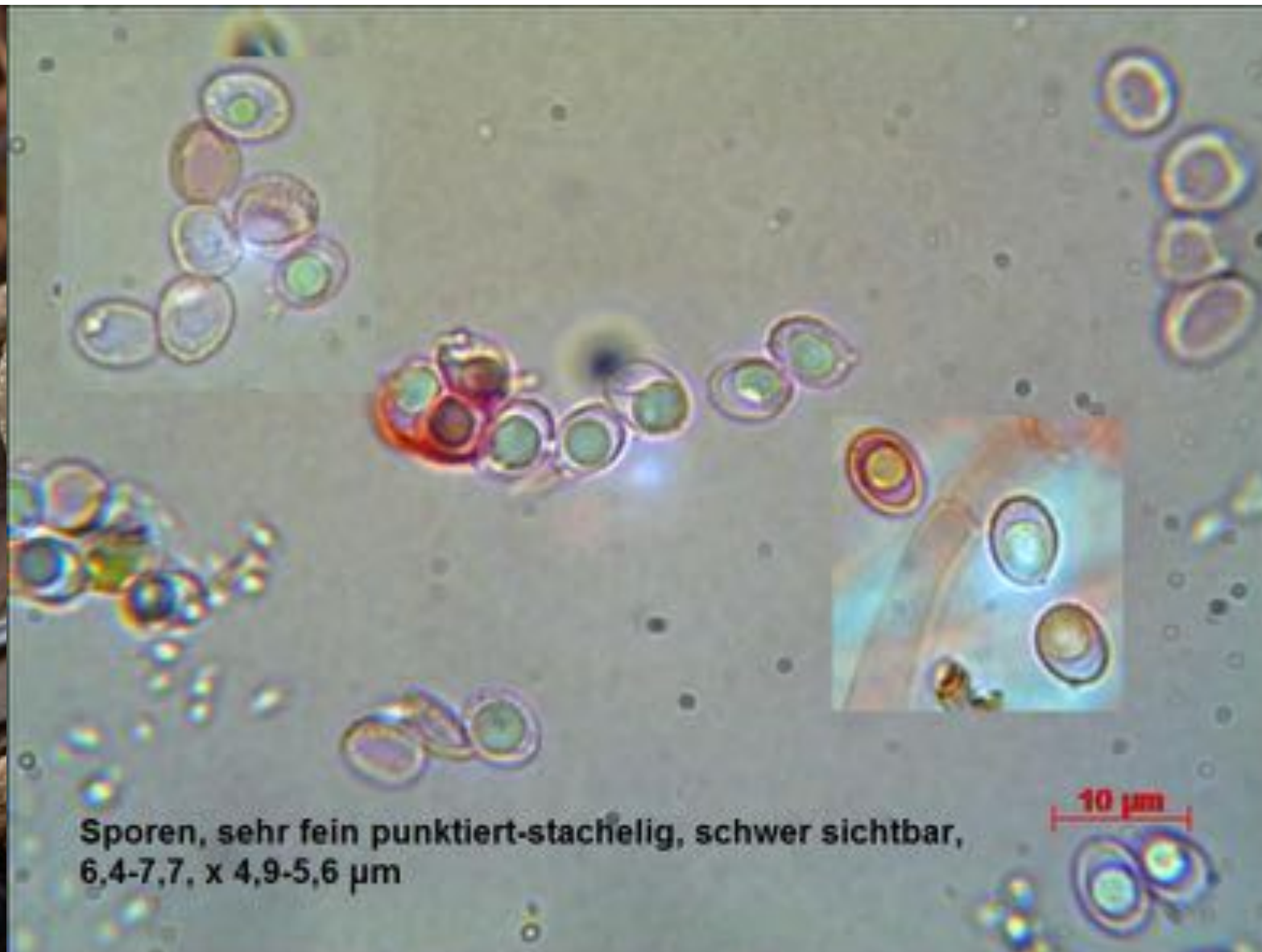
10.0 μm

Mycena cyanorrhiza Blaufüssiger Helmling





***Fayodia bisphaerigia* Abgeflachter Russhelmling**



***Gamundia striatula* Winter- Stachelnabeling**

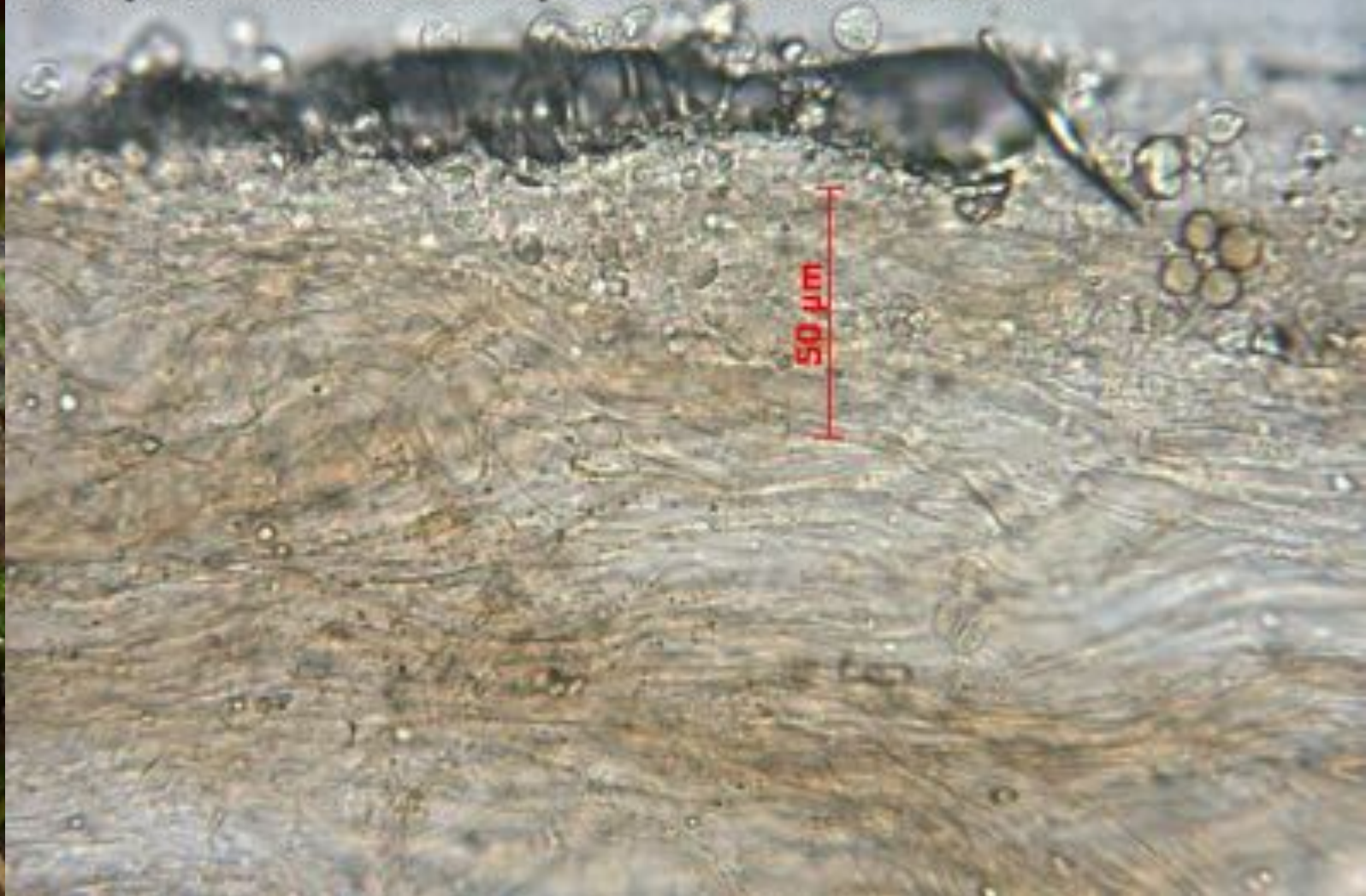


***Mycena aurantiomarginata* Orangeschneidiger Helmling**



Mycena pterigena Farn- Helmling

HDS in Wasser über der pigmentierten Subkutis eine Schicht mit Pileozysten, wie die Cheilozysten mit Halo aus Exsudat



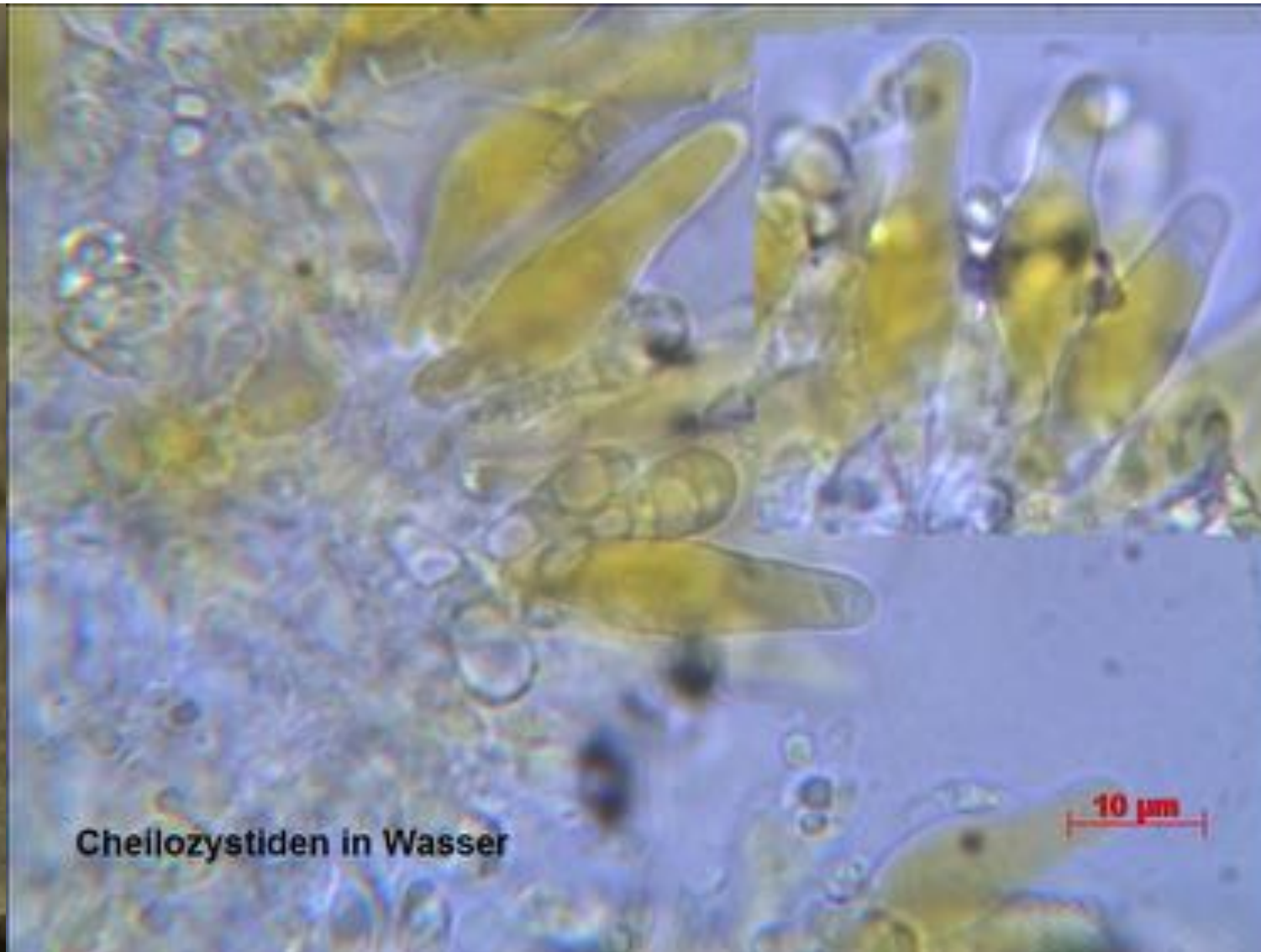
Mycena (Phloeomana) clavata Tubariaähnlicher Helmling



Mycena acicula Orangeroter Helmling



Mycena leptophylla Aprikosenfarbiger Helmling



Chellozystiden in Wasser

10 µm

Mycena oregonensis Oregon- Helmling



Mycena (Xeromphalina??) picta Walzenförmiger Helmling



Mycena juniperina Wacholder- Helmling



Mycena pseudocorticola Blauer Rinden-Helmling





Epipactis atrorubens



Pseudorchis albida



Erebia tyndarus



Setina irrorella Alpen-Flechtenbär



Russula pascua Dryas- Heringstäubling



Hemimycena ochrogaleata Ockerhütiger Scheinhelmling



1cm



Mycena rhododendri nom. prov.





Fritillaria pyrenaica





Mycena seynii Kiefernzapfen- Helmling



Spiranthes spiralis



Ophrys eliator



Ophrys insectifera



Mycena atropapillata Papillen- Helmling



Mycena pseudopicta Fastgeschmückter Helmling



Hymenium in Kongo, Basidien 2-sporig, ohne Schnallen

10.0 μm







Orthetrum brunneum Südlicher Blaupfeil



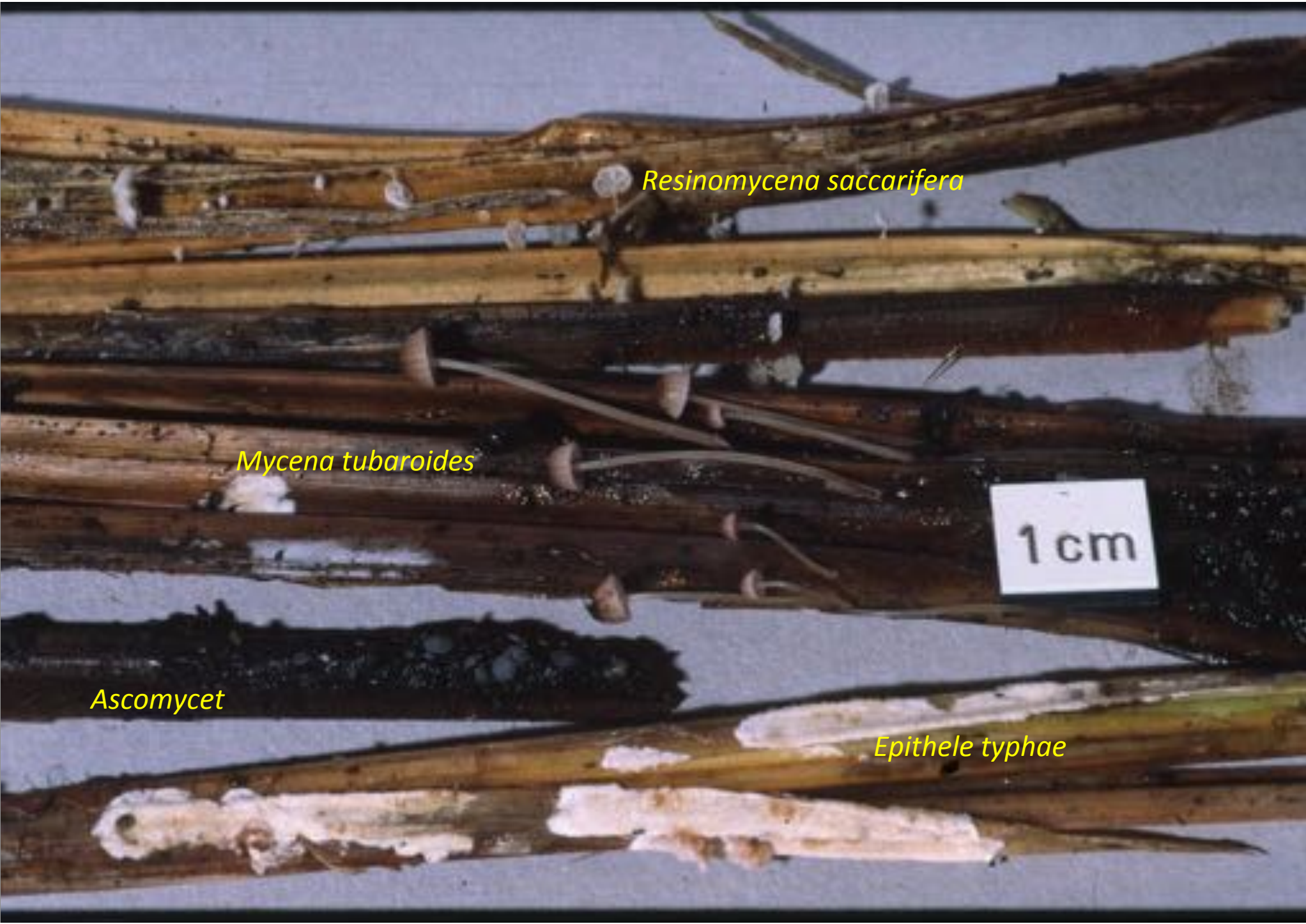
Platicnemis pennipes Blaue Federlibelle



Mycena bulbosa Knolliger Binsen-Helmling



Mycena tubarioides (=riparia??) Ufer- Helmling



Resinomyces saccarifera

Mycena tubaroides

Ascomycet

Epithele typhae

1 cm



HDS in Kongo, mit kopfigen Zystiden, oft in Exsudat eingebettet

Resinomyцена saccharifera Ölzystiden-Helmling



Mycena (Roridella / Roridomyces) rorida Schleimfuss-Helmling, Gemeiner Kugelhaut- Helmling





Mycena vulgaris Klebriger Helmling

***Mycena diosma* Duftender Rettich- Helmling**

Warum bleiben die Rettichhelmlinge als *Mycena* bestehen, obwohl alle Merkmale nicht stimmen? Heinz Cléménçon hat dafür die Gattung *Prunulus* vorgeschlagen.





Anartia ananthea





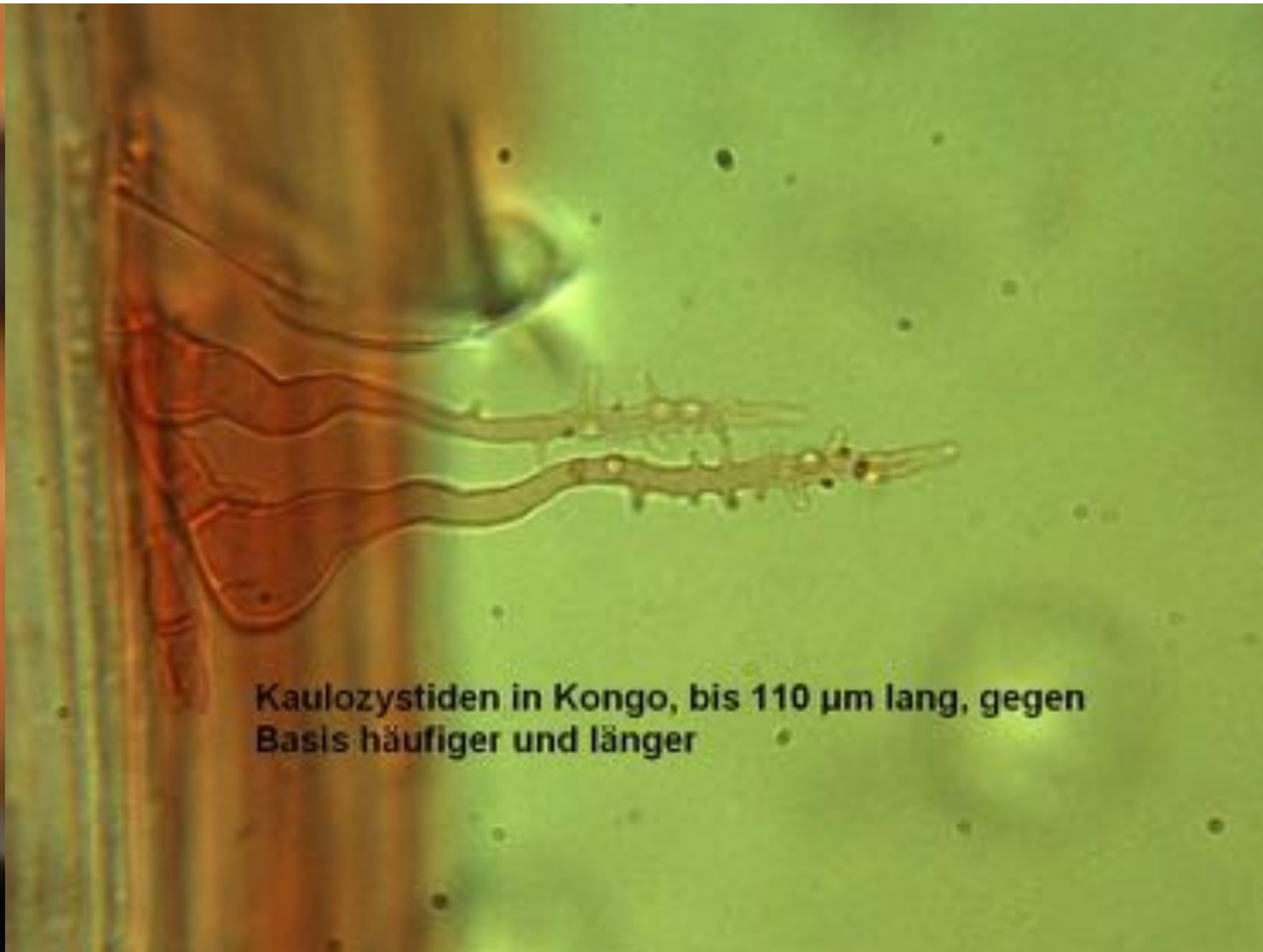
Heliconius numata silvana

Mycena chlorophos





Mycena chlorophos



Kaulozystiden in Kongo, bis 110 μm lang, gegen Basis häufiger und länger

Mycena hawaiiensis



Mycena neosetosa Miersch & Wilhelm nov. spec.

Mycena arundinarialis



Pegler 1977

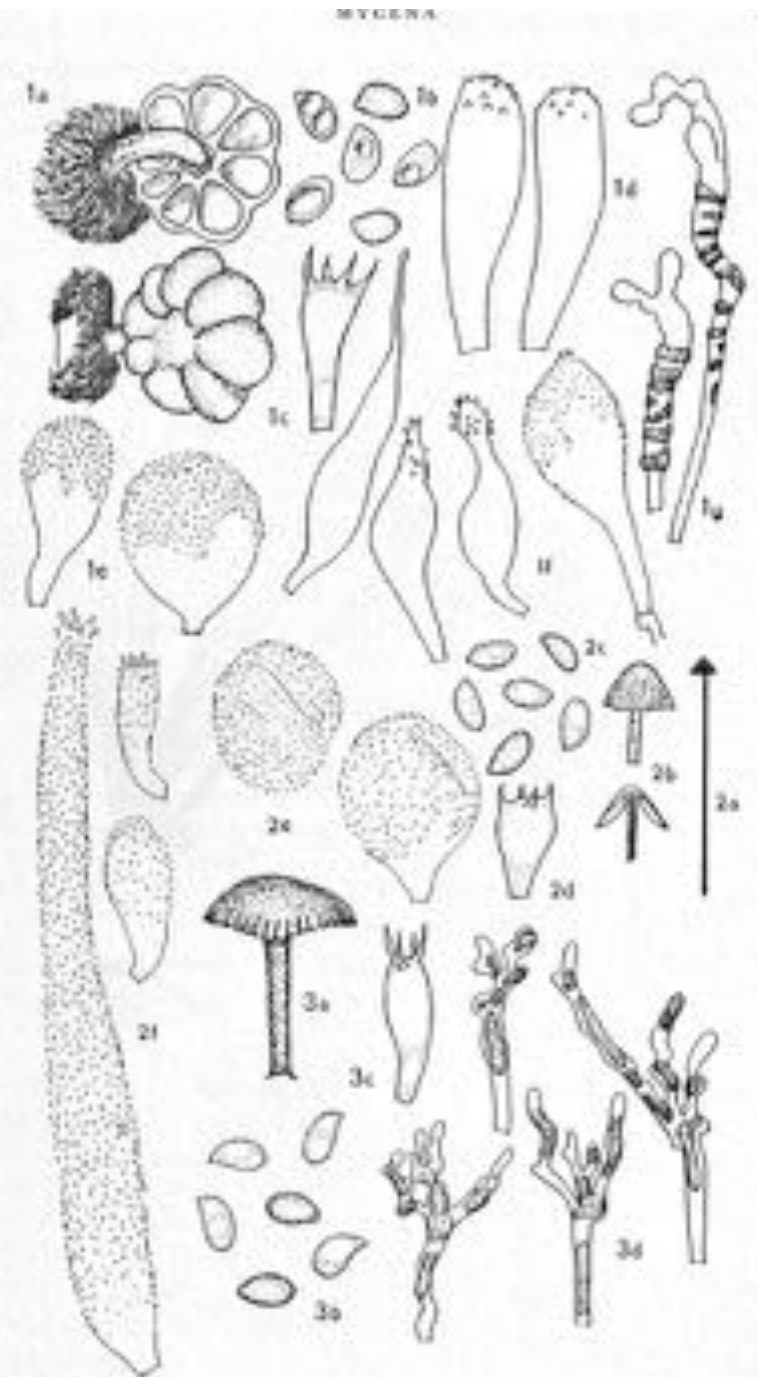
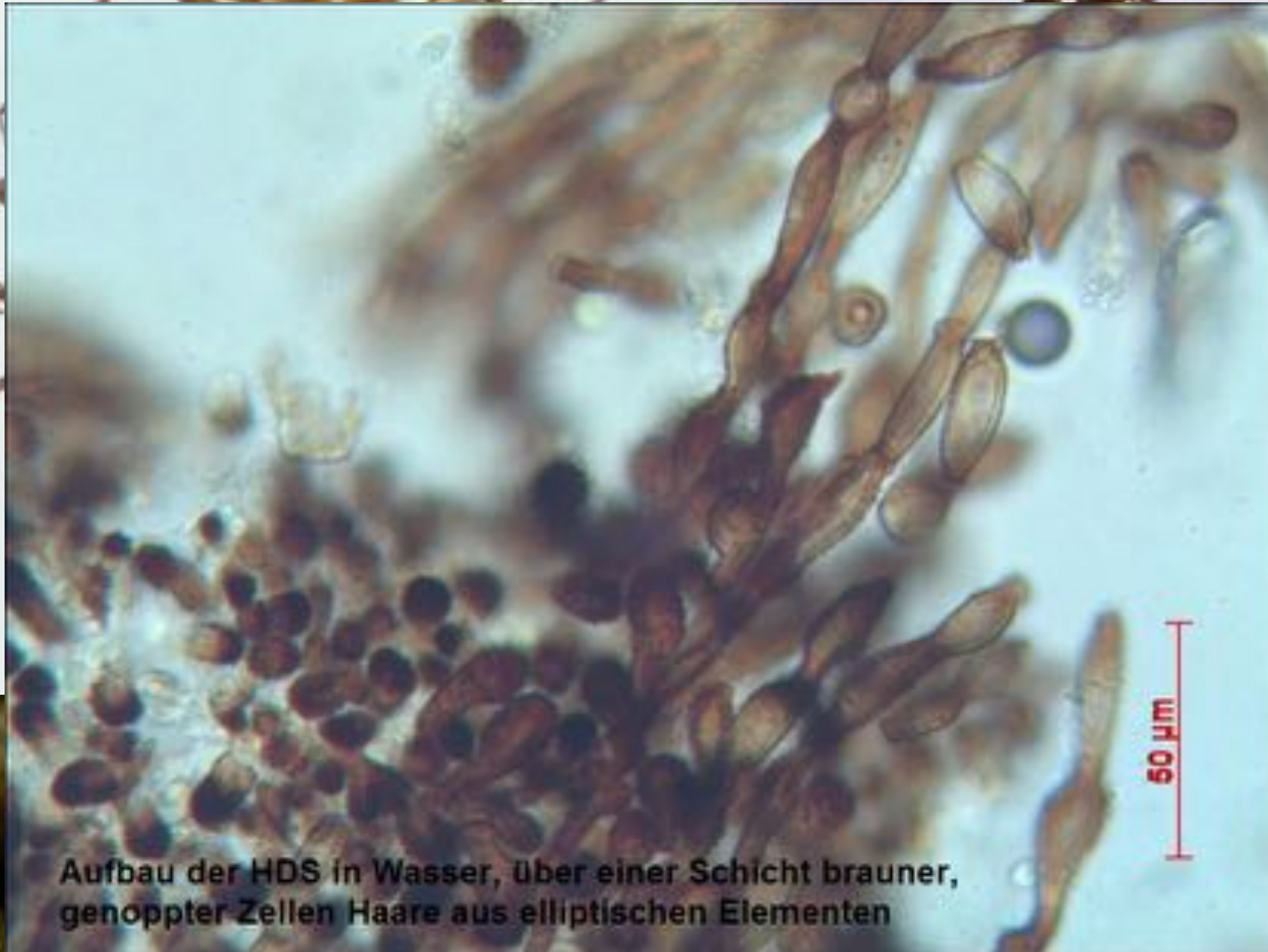


FIG. 46. Tricholomaceae. *Mycena* 1, *M. arundinarialis*. a, habit, $\times 10$; b, spores; c, basidia.



Mycena sp. (Guadeloupe)

Marasmius echinosphaerus



Aufbau der HDS in Wasser, über einer Schicht brauner, genoppter Zellen Haare aus elliptischen Elementen



**Danke für die Geduld, und:
fröhliches bestimmen!**

Mycena arcangeliana Olivgelber Helmling