WOOD-INHABITING AGARICS ID WITH LIGHT MICROSCOPY

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Agarics – what are they?

• Agarics are non-taxonomical group of fleshy pileate-stipitate fungi with gilled hymenophore or one with tubes.

• Non-taxonomical groups as agarics, aphyllophoroid, gasteroid, cyphelloid, etc are based predominantly on macromorhology of basidiomata and somewhat reflect traditional taxonomy.
Diversity of wood-inhabiting agarics
Galerina marginata
Rhodotus palmatus
Pluteus sp.
Armillaria sp.
Pholiota sp.
Frequently it’s quite easy to ID genera of agaric, species ID is much more complicated process

• macromorphology (size, colour, odour, gills attachment, shape of pileus and stipe, etc)

• microscopical features (spores, basidia, cystidia, pileipellis, terminal cells, etc)

• ecological preferences (substrate, phenology, etc)
Reagents and equipment

- Slides and glasses
- Needles
- Razor blades
- Filter paper (or some soft paper)
- 5% KOH
- Kongo red
- Melzer’s reagent (J)
Diagnostic structures

1 - pileipellis and pileocystidia
2 - trama
3 - pleurocystidia
4 - cheilocystidia
5,6 - stipitipellis and caulocystidia
7 - trama of the stipe and velum

Kutafjeva, 2009
Hymenophore diversity
Gill edge 20x
Gill edge 100x
Basidia with basidiospores 100x
Basidiospores vary in their size, shape, colour, surface character and presence/absence of polysaccharides in spore wall.
Cystidia

Shape, size, locality and morphology of cystidia are useful diagnostic features.
Pileipellis and related structures
Stipitpellis and related structures
Thank you for your attention!