

FUNGAL PORTRAITS

No. 44: *Inocybe muricellata*

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Fig. 1. *Inocybe muricellata* after rain at Burnham Beeches, Bucks. 29 Sept. 2010. Photograph © P. Cullington.

I first encountered *I. muricellata* five years ago, with four collections made within the space of a month. It was first recorded in this country in 1992 (Oxon) with just 8 subsequent collections given in FRDBI, mainly from the south, though now two more to add from Gloucestershire and Bucks. As I write we appear to be in the middle of one of the best fruiting seasons for many years, especially for mycorrhizal species, so it was no great surprise but none-the-less a thrill when a collection made by Derek Schafer, whilst foraging in the Forest of Dean in late September, turned out to be this. A further collection was made a few days later on revisiting a spot in the Chilterns where I had previously found it growing along a road edge under *Fagus* in 2006.

I. muricellata Bres. is one of a group of 18 species of *Inocybe* having smooth, amygdaliform spores, metuloid cystidia and a stipe which is non-bulbous and entirely covered in caulocys-

tidia. It is of small to medium size, quite delicate in stature, and not unlike the much more common *I. hirtella*, also a member of this group and with which it may quite possibly be confused. Indeed, the collection in the photo above was growing with quantities of *I. hirtella* nearby. However, seeing both species in close proximity served to highlight firstly the differences in field characters between the two, and secondly that with this genus one should be wary of assuming that all specimens growing in close proximity will necessarily be the same species. It is common to find two or more species close together, and thus all too easy to make mixed collections.

Description

Cap 10-20(30) mm, at first with a small umbo but soon becoming \pm applanate, disc at first smooth then disrupting and roughened, and outer half soon finely squarrose, sometimes also rimose with pale flesh revealed beneath, a

warm orange ochre brown with darker disc. **Gills** unremarkable though slightly ventricose when mature, then visible below the cap surface when viewed horizontally, pale ochre with an orange tint. **Stipe** 30 x 3(4) mm, cylindrical and sometimes \pm swollen at the base but not truly bulbous, a warm pale brown though often with an orange tint near the apex and whiter towards the base, covered with a fine white pruina throughout. **Flesh** in the cap off-white, in the stipe—particularly the apex—slightly cinnamon-orange. **Smell** hardly noticeable on collection but after containment clearly spermatic but with a fleeting marzipan component. **Basidia** predominantly 4-spored though often some 2-spored present. **Spores** smooth, amygdaliform with a very small apiculus and a \pm conical apex, 10-12(12.5) x 5-6(7) μ m. **Hymenial cystidia** fusiform to lageniform with elongated tapering necks, often with yellow contents, mainly 60-68 x 12.5 μ m, but up to 75(100) x 15(20) μ m, walls strikingly bright yellow, 2-3 μ m thick, paracystidia present amongst the cheilocystidia, about half their length, clavate and thin-walled. **Caulocystidia** abundant throughout the stipe, similar in shape to hymenial cystidia though often less yellow, with thinner walls and often mis-shapen. **Cap cuticle** hyphae pale cinnamon brown and often distinctly encrusted, about 10 μ m wide. (All microscopic details best viewed in 10% Ammonia.) **Habitat**: in my experience found under broadleaved trees, especially *Fagus*, with a preference for calcareous soil.

Comparison with *I. hirtella*

In both the recent collections I noted the more orange brown cap in *I. muricellata* with distinct but fine scales in the outer half even in youngish material (almost reminiscent of *Lepiota castanea*). In *I. hirtella* the cap has paler more yellow ochre tones, and usually remains \pm smooth, sometimes becoming a little scaly when older. The distinctive field character for *I. hirtella* is its strong smell of marzipan (as in *Hebeloma radicosum*), and placing your collection in a container will usually result in making this intense and obvious. For *I. muricellata*, however, authors agree that this intense smell is absent, though some suggest there may be a faint smell of almonds. Kuyper comments however that he never detected this in his personal collections,

and therefore wonders if in collections where this smell has been noted there might possibly have been some bias due to suspecting in the field that this was *I. hirtella*. For myself, having now studied six different fresh collections, I find after containment there is indeed a fleeting hint of the almond component but dominated by the typical spermatic smell of this genus especially on cutting.

The name *I. muricellata* stems from its distinctive cystidia (a muriform cell being one with thick and dark walls), and this feature gives us the definitive way of separating it from *I. hirtella*, which has much shorter clavate cystidia with less bright yellow walls and no yellow contents. It is worth noting, however, that the stipe in *I. hirtella* can also have an orange tinge towards the apex although, like the cap colour, this is generally paler and more yellow than that of *I. muricellata*.

Acknowledgments

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Fig.2. The typical strikingly yellow cheilocystidia of *I. muricellata*. Photograph © P. Cullington

References

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