

VALIDATION OF SYMBIOTAPHRINA
(IMPERFECT YEASTS)

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Symbiotaphrina Kühlwein & Jurzitza *ex* W. Gams & v. Arx, *gen. nov.*

Symbiotaphrina Kühlwein & Jurzitza *in* Arch. Mikrobiol. **40**: 258. 1961 (nom. inval., Art. 36).

Crescit in mycetomatibus intestinalibus coleopterorum Anobiidarum. Coloniae zymoideae, restrictae, cremeae vel luteae vel rubrae, mucidae; cellulae dacryoideae vel clavatae vel pyriformes, apicem attenuatum versus enteroblastice successione basipetali gemmantes.

Species typica: *Symbiotaphrina buchneri* Graebner *ex* W. Gams & v. Arx

Isolated from intestinal mycetomata of Anobiid beetles. Colonies yeast-like, growing restrictedly, cream, yellow to red, mucoid; cells dacryoid, clavate or pyriform, budding enteroblastically in basipetal succession at the attenuated end. The colonies resemble *Rhodotorula*. A full description with physiological data is given in the papers by Kühlwein & Jurzitza (1961) and Jurzitza (1964). *Symbiotaphrina* was placed there in the family Taphrinaceae but differs from *Taphrina* by its symbiotic mode of life.

***Symbiotaphrina buchneri* Graebner ex W. Gams & v. Arx, spec. nov.**

Torulopsis buchneri Graebner in Z. Morphol. Oekol. Tiere 42: 513. 1954 (nom. inval., Art. 36) — *Symbiotaphrina buchneri* (Graebner) Kühlwein & Jurzitza in Arch. Mikrobiol 40: 258. 1961 (nom. inval., Art. 43).

Crescit in mycetomatibus intestinalibus *Sitodrepae paniceae* L. (Coleoptera, Anobiidae). Coloniae sub luce vel obscuritate rubidae, mucidae, leves, nitentes. In musto cerevisiae cellulae dacryoideae ad clavatae, 5–8 × 2–6 μm, haud aggregatae, in parte angustata gemmantes. Biotinum et aneurinum et acidum asparaginicum et glutaminicum necessaria.

Typus: CBS 420.63, isolatus e mycetomate *Sitodrepa paniceae* in pulvere fructus *Capsici* in Instituto botanico Karlsruhe in Germania, a G. Jurzitza.

Observed in and isolated from intestinal mycetomata of *Sitodrepa paniceae* L. (Anobiidae). Colonies in light and in darkness reddish, mucoid, smooth, shiny. In beer wort cells dacryoid to clavate, 5–8 × 2–6 μm, not forming aggregations, budding from the attenuated pole. Biotin and aneurin are necessary for growth, aspartic and glutamic acids are partially required.

***Symbiotaphrina kochii* Jurzitza ex W. Gams & v. Arx, spec. nov.**

Symbiotaphrina kochii Jurzitza in Arch. Mikrobiol. 49: 338. 1964 (nom. inval., Art. 36, 43).

Crescit in mycetomatibus intestinalibus *Lasiodermatis serricornis* F. (Coleoptera, Anobiidae). Coloniae sub luce rubrae, obscuritate albae, mucidae, leves, nitentes. Cellulae in musto cerevisiae rotundatae ad ovaes, raro pyriformes, 9–11 × 4–7 μm, haud aggregatae; nonnumquam ad 18–42 × 6.5–13 μm inflatae et uni- ad triseptatae. Vitamina haud necessaria.

Typus: CBS 250.77, isolatus ex mycetomate *Lasiodermatis serricornis* cigarros infestantis in Germania a G. Jurzitza.

Observed in and isolated from intestinal mycetomata of *Lasioderma serricorne* F. (Anobiidae). Colonies in light red, in darkness white, mucoid, smooth, shiny. Cells in beer wort rounded to oval, rarely pyriform, 9–11 × 4–7 μm, not forming aggregations; sometimes swollen to 18–42 × 6.5–13 μm and one-to three-septate. Vitamines are not required for growth.

REFERENCES

- JURZITZA, G. (1964). Studien an der Symbiose der Anobiiden. II. Physiologische Studien am Symbionten von *Lasioderma serricorne* F. In Arch. Mikrobiol. 49: 331–340.
- KÜHLWEIN, H. & JURZITZA, G. (1961). Studien an der Symbiose der Anobiiden. I. Die Kultur des Symbionten von *Sitodrepa panicea* L. In Arch. Mikrobiol. 40: 247–260.