

P E R S O O N I A

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NOTES ON HYGROPHORUS—IV

New species and new combinations in Hygrophoraceae

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Six new taxa of *Hygrocybe* are described and twelve new combinations are made in *Hygrocybe*, *Hygrophorus* and *Hygrotrama*.

In the scope of a revision of Hygrophoraceae for the Flora agaricina neerlandica (see Bas, 1983) some new taxa have to be described and some new combinations have to be made. In this paper only the latin diagnoses and new combinations are published. Descriptions and discussions will be published in the next volume of Persoonia.

Hygrocybe acutoconica (F. Clem.) Sing. var. *cuspidata* (Peck) Arnolds, *comb. nov.*

Basionym: *Hygrophorus cuspidatus* Peck in Torrey bot. Club Bull. 24: 141. 1897.

Hygrocybe calciphila Arnolds, *spec. nov.*

Pileus 10–32 mm, semiglobatus vel convexus, dein plano-convexus vel applanatus, disco depressus, hygrophanus, miniatus vel aurantio-ruber, dein aurantio-flavus, striatus, siccus, disco squamulis parvis pilosis aurantiis vel luteis obtectus. Lamellae (L = 14–23, l = 1–3) late adnatae vel subdecurrentes, distantes, pallide luteae vel aurantiae, raro pro parte roseae vel miniatae. Stipes 20–50 × 1.5–5 mm, deorsum aequalis vel attenuatus, aurantiacus vel aurantio-flavus, interdum apice aurantiaco-miniatus, glaber, siccus. Caro concolor. Odor et sapor nulli. Sporae 6–9(–10.5) × (4–)4.5–7(–7.5) μm , Q = (1.05–)1.1–1.5(–1.7), late ellipsoideae vel ovoideae, haud lentiformae, haud strangulatae. Basidia 30–52 × 7.5–9.5(–11) μm , clavata, 4-sporigera. Lamellarum acies fertiles. Lamellarum trama subregularis, cellulis brevis, 30–150(–200) × 4–19 μm . Pileipellis trichodermiformis, hyphis ad septa strangulatis, cellulis exterioris subcylindraceutis vel clavatis, 20–90 × 7–14 μm . Stipitepellis cutiformis, hyphis 2.5–6 μm latis, apices pro parte minoris erectis, ad 50 μm longis. Fibulae frequentes. Inter graminosis ad terram calcaream. — Holotypus: 'Vleuten, Bijleveld, 14 Oct. 1976, C. Bas 7101' (L).

Hygrocybe coccineocrenata (P. D. Orton) Moser var. *sphagnophila* (Peck) Arnolds, *comb. nov.*

Basionym: *Hygrophorus miniatus* var. *sphagnophilus* Peck in N.Y. State Mus. Rep. 53: 856. 1901.

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Hygrocybe conica (Scop.: Fr.) Kumm. var. **chloroides** (Malençon) Arnolds, *comb. nov.*

Basionym: *Hygrophus conicus* var. *chloroides* Malençon in Malençon & Bertault, Champ. Maroc 2: 496. 1975.

Hygrocybe conica (Scop.: Fr.) Kumm. forma **pseudoconica** (J. Lange) Arnolds, *comb. nov.*

Basionym: *Hygrocybe pseudoconica* J. Lange in Dansk bot. Ark. 4(4): 24. 1923.

Hygrocybe constrictospora Arnolds, *spec. nov.*

Pileus 8–32 mm latus, convexus vel applanato-conicus, dein plano-convexus, interdum centro depressus, hygrophanus, miniatus vel aurantio-miniatus, dein aurantio-flavus, ad marginem angustissime flavus, jove pluvio ad marginem striatus, siccus, glaber vel tomentosus, haud squamulosus. Lamellae (L = 17–23, l = 1–3(–5) late adnatae vel subdecurrentes, subdistantes, pallide flavae vel pallide aurantiaceae, dein rosaceo-aurantiaceae vel aurantio-rubrae. Stipes (15–)25–70 × 1.5–4 mm, deorsum aequalis vel attenuatus, aurantio-miniatus vel aurantius, dein aurantio-flavus vel flavus, glaber, siccus. Caro concolor. Sporae 6.5–10(–11.5) × 3.5–5(–5.5) μm , Q = 1.6–2.2(–2.4), ellipsoideae-oblongae, obovoideae-oblongae vel cylindraceae, haud lentiformae, pro parte majoris strangulatae. Basidia 35–58 × (5.5–)6–8 μm , 4-sporigera vel 4-, 3- et 2-sporigera intermixta. Lamellarum acies fertilibus. Lamellarum trama subregularis, cellulis brevis, cylindraceis vel inflatis, 32–88 × 6–18 μm . Pileipellis cutiformis, 20–40(–60) μm latus, hyphis 3.5–6 μm latis, cylindraceis, interdum pro parte minoris erectis. Stipitepellis cutiformis, hyphis 2.5–5 μm latis. Fibulae frequentes. Inter graminosis ad terram. — Holotypus: 'Drunen, Drongelens Kanaal, 26 Oct. 1975, E. Arnolds 3486' (in herb. Biol. Stat. Dr. W. Beijerinck, Wijster = WBS).

Hygrocybe fornicata (Fr.) Sing. var. **streptopus** (Fr.) Arnolds, *comb. nov.*

Basionym: *Hygrophorus streptopus* Fr., Epicr.: 327. 1838.

Hygrocybe griseopallida Arnolds, *spec. nov.*

Pileus 7–20 mm latus, convexus, dein plano-convexus centro depressus, haud hygrophanus, pallide griseus, siccus, margine leviter sulcatus. Lamellae (L = 12–20, l = 1–3) decurrentes, distantes, intervenosae, pallide griseae, acie albiae. Stipes 14–25 × 1.5–3 mm, deorsum attenuatus, fistulosus, albus, siccus. Caro tenuis, alba. Odor et sapor nulli. Sporae (5.5–)6–9.5 × (3–)3.5–5 μm , ellipsoideo-oblongae, obovoideo-oblongae vel obpyriformae, hyalinae. Basidia 27–34 × 6–8 μm , clavata, vulgo 4-sporigera, raro pro parte minoris 2-sporigera. Lamellarum trama subirregularis, hyphis cylindricis vel inflatis, 54–150 × 10–31 μm . Pileipellis cutiformis, c. 25 μm latus, hyphis 1.5–4(–6) μm latis, pro parte erectis, filamentosis. Stipitepellis cutiformis, hyphis 3–6 μm latis, cellulis exterioris pro parte erectis, clavatis, 20–38 × 5–7 μm . Fibulae frequentes. Inter graminosis ad terram. — Holotypus: 'Amsterdam, Amsterdamse Bos, 6 Nov. 1971, E. Kits van Waveren' (L).

Hygrocybe konradii (R. Haller) P. D. Orton forma **pseudopersistens** (M. Bon) Arnolds, *comb. nov.*

Basionym: *Hygrocybe konradii* var. *pseudopersistens* M. Bon in Doc. mycol. 8 (30): 69. 1978.

Hygrocybe luteolaeta* Arnolds, *spec. nov.

Pileus 5–14(–17) mm, semiglobatus, dein plano-convexus vel applanatus, disco depressus, hygrophanus, vitellinus, dein cremeus, jove pluvio viscidissimus et striatus, jove sicco cremeus vel albidus. Lamellae (L = 18–22, l = 0–1) decurrentes, subdistantes, haud ventricosae, vitellinae, posterior pallescentes, ad aciem hyalinae, gelatinosae. Stipes 13–28 × 1.2–2.5 mm, aequalis, vitellinus, posterior pallescens, viscidissimus. Caro concolor, fragilis. Odor debilis vel fortis, foetidus, odore *Hygrocybe laeta* similis. Sporae 6.5–8.5(–9.5) × 5–6.5(–7.5) μm , Q = 1.15–1.5(–1.16), late ellipsoideae, pro parte minoris ellipsoideae vel ovoideae. Basidia 25–39 × 5–8.5 μm , 4-sporigera vel 4-, 3- et 2-sporigera intermixta. Lamellarum acies sterilis, ixotrichodermiformis, hyphis erectis, ramosis, gelatinosis, ad 200 μm longis, cellulis exterioris cylindraceis vel clavatis, 17.5–44 × 2–4(–5) μm . Subhymenium tenue, haud gelatinosum. Lamellarum trama subregularis, cellulis brevis, inflatis, 30–125 × 14–35 μm . Pileipellis ixotrichodermiformis, 70–200 μm latus, hyphis erectis, ramosis, filamentosis, 1.5–4 μm latis. Stipitepellis ixotrichodermiformis, 30–100 μm latus. Fibulae frequentes. — Holotypus: 'Schiermonnikoog, Westerplas, 2 Nov. 1975, E. Arnolds 3509' (in herb. Biol. Stat. Dr. W. Beijerinck, Wijster = WBS; isotypus in L).

Hygrocybe nivea* (Fr.) Murril var. *fuscescens* (Bres.) Arnolds, *comb. nov.

Basionym: *Hygrophorus niveus* var. *fuscescens* Bres., Iconogr. mycol. 7: pl. 330. 1928.

Hygrocybe perplexa* (A. H. Smith & Hesl.) Arnolds, *comb. nov.

Basionym: *Hygrophorus perplexus* A. H. Smith & Hesl. in Sydowia 8: 328. 1954.

Hygrocybe phaeococcinea* (Arnolds) Arnolds, *comb. nov.

Basionym: *Hygrophorus phaeococcineus* Arnolds in Persoonia 9: 247. 1977.

Hygrocybe pratensis* (Pers.: Fr.) Murril var. *pallida* (Cooke) Arnolds, *comb. nov.

Basionym: *Hygrophorus pratensis* var. *pallidus* Cooke in Grevillea 2: 118. 1874.

***Hygrocybe subglobispora* (P. D. Orton) Moser forma *aurantiorubra* Arnolds, *forma nova*.**

A typo differt pileo primo miniata vel aurantio-rubro, stipiteque aurantio-rubro pro parte. — Holotypus: 'Drunen, Drongelens Kanaal, 26 Oct. 1975, E. Arnolds 3479' (in herb. Biol. Stat. Dr. W. Beijerinck, Wijster = WBS).

Hygrophorus eburneus* (Bull.: Fr.) Fr. var. *quercorum* (P. D. Orton) Arnolds, *comb. nov.

Basionym: *Hygrophorus quercorum* P. D. Orton in Notes R. bot. Gdn. Edinb. 41: 585. 1984.

Hygrotrama phaeophyllum* (Romagn.) Arnolds, *comb. nov.

Basionym: *Hygrophorus rugulosus* var. *phaeophyllum* Romagn. in Bull. trimest. Soc. mycol. Fr. 86: 871. 1971.

Hygrocybe viola Geesink & Bas, *spec. nov.*

Pileus 4–7 mm, semiglobatus vel plano-convexus, disco applanatus vel subumbilicatus, margine subcrenulatus, subsulcatus, pallide purpureus, centro purpureus, glaber, siccus. Lamellae (L = 12–14, l = 0–1) late adnatae vel subdecurrentes, subdistantes interdum furcatae, pallide lilaceoviola-ceae, interdum albae, acie concolor. Stipes 7–9 × 0.8–1.1 mm, deorsum subattenuatus, purpureus vel pallide purpureus, interdum ad basium leviter ochraceus, glaber, siccus. Caro purpurea. Odor nullus. Sporae 6.5–10.5(–11) × 5–7(–7.5) μm , Q = 1.15–1.6, \bar{Q} = 1.25–1.45, late ellipsoideae, late ovoideae, ellipsoideae, obovoideae vel sublacrimiformae, raro leviter strangulatae. Basidia 36–61 × 8–11(–13) μm , clavata, 4–(2–)sporigera. Lamellarum acies fertiles. Lamellarum trama irregularis, cellulis brevis, cylindricis vel inflatis, (15–)25–125 × 6–20 μm . Pileipellis cutiformis, 20–25 μm latus, hyphis 3–8(–15) μm latis, cylindricis, apices pro parte minor erectis. Pigmentis inconspicuis, intracellulosis vel minutissime incrustatis. Stipitepellis cutiformis, hyphis 2–5 μm latis. Fibulae frequentes. Inter muscos ad terram prope *Fagus*. — Holotypus: 'Belgium, Vencimont, Vallée d'Houille, 3 Oct. 1977, J. Geesink (Bas 7225) (L).

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