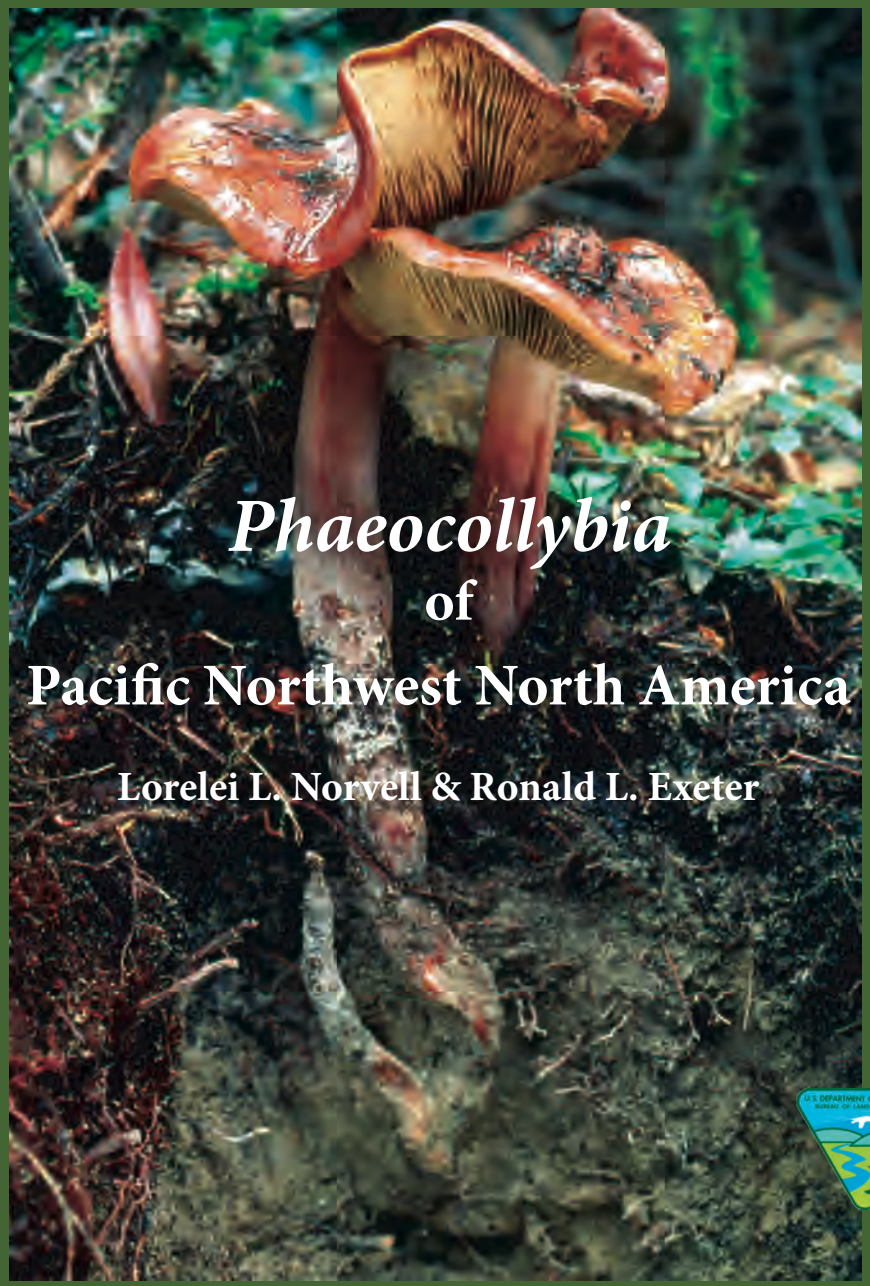
NEW! *Phaeocollybia* of Pacific Northwest North America

A new mushroom identification guide by Lorelei Norvell and Ron Exeter will be released in May 2009. The publication offers full-color photos, line drawings, and descriptions of the 25 *Phaeocollybia* species of Oregon, Washington, Idaho, California, and British Columbia. The 228-page book covers the ecology and biology in depth and provides identification keys and over 500 color photos showing these elusive mushrooms in the field, on the lab bench, and under the microscope.

USDI-BLM

Phaeocollybia of PNW North America

Norvell & Exeter



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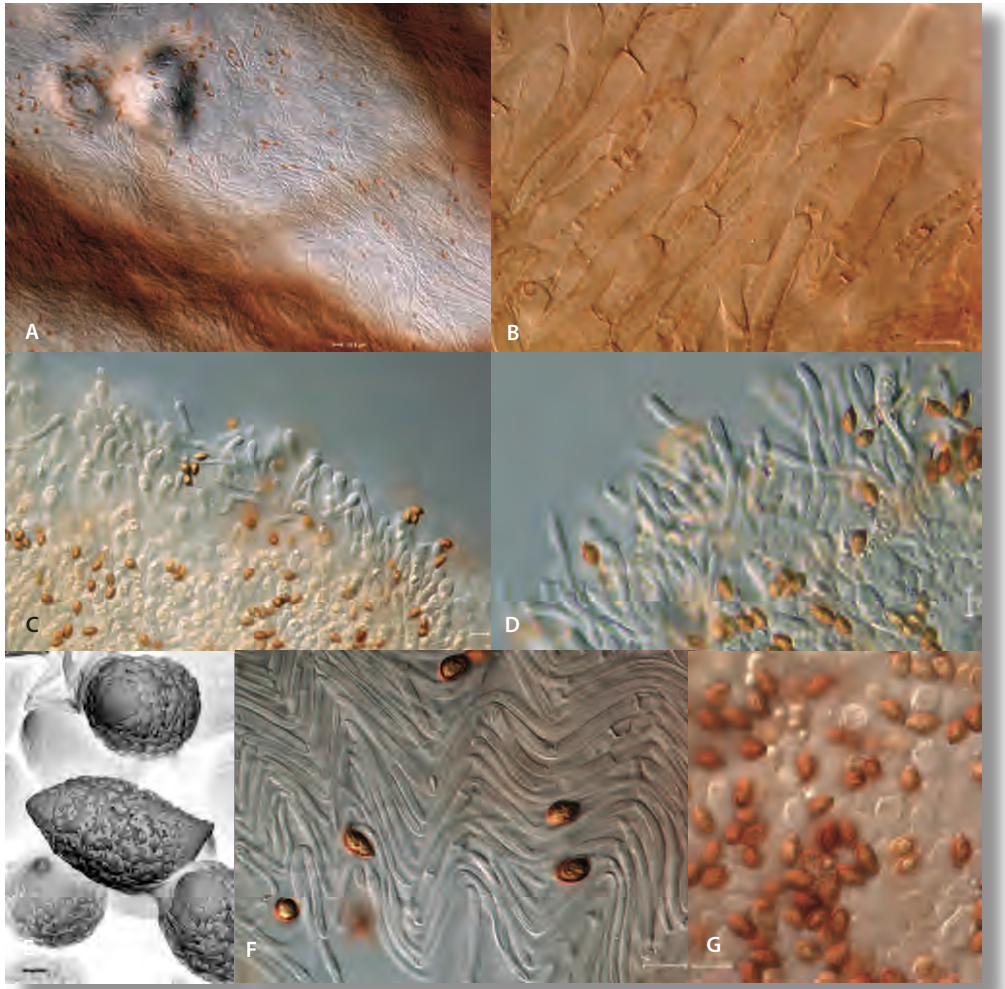
Salem District

Call 503-375-5646 for additional information or to order by phone using Visa or Mastercard.

To order by mail, send a $71 (USD) check or money order to: Salem Bureau of Land Management, c/o *Phaeocollybia* publication, 1717 Fabry Road SE, Salem, Oregon 97306 USA.



Lorelei Norvell

Phaeocollybia kauffmanii. A–B. Pileipellis: a. [PNW-MS Exeter2007-126]— A squash mount of the cap cuticle seen under low power reveals a thick gel suprapellis with narrow colorless hyphae overlying a subpellis with wider orange hyphae. b. [OSC LNus17a15]— High power (100×) oil objective exposes orange pigments encrusting the subpellis hyphae. C–D. Cheilocystidia [c—PNW-MS Exeter2007-091; d—PNW-MS LLNorvell2071029-41]: Thin-walled narrowly clavate sterile elements crowd gill edges. E–G. Basidiospores: e. [MICH HOLOTYPE AHSmith3523]— A SEM of the gill surface displays the limoniform shape, smooth apical callus, and verruculose ornamentation found throughout the kauffmanii complex. The slightly downturned beak helps diagnose *P. kauffmanii.* (Scale = 1 µm). f. [PNW-MS Exeter2007-126]— When spore prints are lacking, measurements are taken from mature spores expelled onto the stipe apex, here 'zig-zagged' by a shifting cover slip. g. [OSC LNus8-4CHjp3-1]– Soft focus in oil immersion stresses surface ornamentation. All scales (except e) = 10 µm

Basidiospores — $|x| = 8.8 \times 5.2$ [7.5–10 × 4–6] µm, terete to slightly compressed, inequilaterally amygdaliform or limoniform in profile, fusoid-elliptical (naviculate) in face view, apiculus prominent and eccentric; surface verruculose to verrucose except on tilted 0.5–1.5 µm long beak; color in KOH medium pale to dark amber, in H_2O pale yellow-amber, in Melzer's dextrinoid. —*Basidia* (2-)4-spored, clavate, vacuolate to granular, colorless.

Cystidial elements — *cheilocystidia* abundant, arising from the lamellar trama to form a dense highly gelatinous layer; irregularly cylindrical or narrowly clavate, isolated cheilocystidia sometimes catenulate, with terminal lengths variable (≤ 50 µm) and often developing long filamentous apical outgrowths in very old or stored fresh material, septa 2–4 µm diam, in mature basidiomes these elements intermixed with (occasionally) broadly clavate or (rarely) subcapitate (< 6 µm diam) pedicellate elements; all elements thin-walled, highly gelatinized, colorless or (in older basidiomes) with pale amber or brownish oily contents. —*pleurocystidia* absent. —*tibiiform diverticula* abundant on mycelia and surfaces of primordia and

Norvell, Lorelei L., Exeter, Ronald L. '2008'.

Phaeocollybia of Pacific Northwest North America.

USDI BLM/OR/WA/GI-08/100-1792, Salem, Oregon 228p.

As a result of the 1994 presidentially mandated Record of Decision, United States Bureau of Land Management (BLM) and Forest Service planning documents specified guidelines for surveying for 'rare' and 'uncommon' fungal species in United States forests within the range of the northern spotted owl. This document listed all but one of the described *Phaeocollybia* species then known to occur in the Pacific Northwest, believed to be the most highly diverse region for the genus in the world. Later taxonomic revision of the genus by the senior author — combined with data obtained from BLM-Pacific Northwest Mycology Service cooperative research and examination of hundreds of specimens collected by Northwest Forest Plan forest surveyors — led to the naming of ten new *Phaeocollybia* species. This publication offers a key to all described 25 *Phaeocollybia* species from Pacific Northwest United States (California, Idaho, Washington, Oregon) and Canada (British Columbia). Detailed summary descriptions are accompanied by color photos depicting each species in the field, in the lab, and under the microscope. Discussions of global distribution, ecology, development, biology, taxonomy, and suspected phylogenetic relationships offer essential background information to those working within and outside the Pacfic Northwest region. A glossary and complete bibliography to the phaeocollybia literature are also provided. Sample pages 94–95 shown here.

Ron Exeter

Phaeocollybia kauffmanii in 'Oz' (Polk Co, OR) — PNW-MS Exeter2008-027