The combination of purplish exterior, strong pungent odor, small spores, sterile base, rudimentary columella and lack of any appreciable number of sphaerocyst-like cells in the peridial context are distinctive. It is very closely related to *Hymenogaster subolivaceus* also with a strong odor, but the fresh basidiocarps of the latter were pale olive-buff.

Hymenogaster sublilacinus A. H. Smith, sp. nov.

Fructificationes 2–5.6 cm crassae, globosae vel lobato-subglobosae, siccae, fibrillosae, sordide lilacae tactu subochraceae, demum subcinnamomeae. Gleba fulva. Columella inconspicua. Odor subpungens. Sporae 11–13 × 6.5–8 μ, ellipsoidae, fulvae, verruculosae. Fibulae adsunt. Typus: Smith 58890 (MICH).

Basidiocarp 2–5.6 cm diam, globular to irregular and variously lobed, with a thickened sterile area at the point of attachment which gives off short branches into the gleba as a branched columella; attached by a rhizomorph to mycelium; peridium thin, about 0.5 mm thick when fresh, separable from gleba, 2 layered at first, outer later dull lilac and mycelioid to matted like felt, inner layer dingy buffy pallid, in age dingy ochraceous whenever handled. Gleba cinnamon-brown when mature, rich tawny when dried, of minute chambers, the tramal tissue hyaline-cartilaginous, central part of gleba often hollowed as in a hollow potato; columella absent or present as a few rudimentary projections from the sterile base. Odor mild to sweetly fragrant (as in *Cortinarius subfoetidus*). Taste mild.

Spores 11–13 × 6.5–8 μ, ellipsoid with a prominent sterigmal appendage, rich tawny in KOH, tawny red in Melzer's sol., ornamentation in the form of minute flattened to rounded tawny verruculose projections on a thick (1–1.5 μ) inner rusty brown wall, ornamentation often more prominent around the apex of the spore. No apical pore visible.

Basidia 4-spored, 26–37 × 6–8 μ, subcylindric when sporulating, typically hyaline in KOH (some discolored orange-ochraceous), thin-walled, readily collapsing. Brachybasidioles 12–20 μ diam, forming the frame-work of the hymenium and basidia projecting beyond them when sporulating, hyaline and readily collapsing. Cystidia none. Tramal plates with a cellular subhymenium of cells almost as large or even larger than the brachybasidioles, hyaline, thin-walled; mediostratum of a few strands of hyaline to yellowish hyphae 5–9 μ diam, and the cells uninflated and subparallel to interwoven in arrangement, no incrusting pigment seen. Peridium divided into a thick (about 100 hyphae deep) layer of appressed interwoven filaments 4–10 μ in diam, and with smooth hyaline walls and an interior layer of ochraceous fulvous, (in KOH) hyphae of about the same size (the two layers not always distinguishable), the colored hyphae with very slight pigment incrustations or smooth. Clamp connections present.

Cespitose about 4 inches deep in duff of *Picea engelmannii,* Brundage Mt., McCall, Idaho, July 1958. A. H. Smith 58890.

In sectioned fresh basidiocarps the tramal plates and sterile base appeared cartilaginous as in *Gautieria* but tissues revived in KOH showed no sign of gelatinization. No inflated cells were found in good clear sections of the context though they do get scattered about after being torn out of the subhymenium. The outstanding features are the lilac tone to the outer layer of the pedidium when young and fresh, the odor, slight sterile base and rudimentary columella, the ornamentation pattern of the spore, and presence of clamps. The spore ornamentation is not the type found in many Hymenogasters but more closely resembles that of *Cortinarius.*

Hymenogaster areolatus (Cribb) A. H. Smith, comb. nov. (type studied).

Gymnoglossum areolatum Cribb, Pap. Dep. Bot. Univ. Queensland (1957) 158. 1958.

Spores 9–13 × 7–8.5 μ, dark rusty brown in KOH, dark yellow-brown in Melzer's sol., broadly ovate, with a warty-rugulose outer layer and a thick inner wall, apex subacute but lacking a pore, sterigmal appendage inconspicuous. Basidia mostly 4-spored, rusty yellow in KOH. Peridium with an epicutis of pseudoparenchyma the cells 12–20 μ in diam, and with yellow-brown walls in KOH. Context of filamentous interwoven hyphae dingy ochraceous in KOH. Clamp connections present at base of basidium.

In the ovate spores with the suggestion of a beak this species shows a tendency toward the spore type characteristic of the subgenus *Hymenogaster.* The cellular epicutis of the peridium and the rusty yellow basidia (in KOH) are an unusual combination of characters.

Hymenogaster subolivaceus A. H. Smith, sp. nov.

Fructificationes 2–5 cm crassae, globosae, subgloboso-depressae, vel depresso-lobatae, siccae impolitae, pallide griseo-olivaceae demum subochraceae. Odor pungens. Gleba fulva. Columella subnulla. Sporae 8–11 × 5.5–6.6 μ, ellipsoideae, verrucoso-rugulosae. Basidia tetra-spora. Fibulae adsunt. Typus: A. H. Smith 34677 (MICH).

Basidiocarp 2–5 cm broad, irregular, lobed or flattened from a basically globose form, surface dry and unpolished, pallid olive-buff when fresh, when dried more yellowish and drying more ochraceous on the areas where handled; odor of pine pitch very strong and characteristic (no pitch near place where specimens were collected). Gleba