

## Notes on the Boleti in Korea (I), Genus *Tylophilus*

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### 한국산 그물버섯과의 기록 (I) , 쓴맛그물버섯속

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**ABSTRACT:** The species of genus *Tylophilus* were collected from the areas around Kwangrung, Kapyung, and Mt. Backyang in Korea from 1988 to 1991. Description and illustrations of noteworthy three taxa of Genus *Tylophilus* were made during this period. *T. ballouii*, *T. ferrugineus* and *T. castaneiceps* are newly described in Korea.

**KEYWORDS:** *Tylophilus ballouii*, *T. ferrugineus* and *T. castaneiceps*.

#### *Tylophilus ballouii* Singer 황소쓴맛그물버섯(신칭)

Singer, Am. Midl. Nat. 37: 105, 1947. *Boletus ballouii* Pk., Bull. N. Y. Stat. Mus. 22: 157, 1912. Teng. Sinen-sia 8: 423, 1937.

Pileus 65-98 mm, convex to flat, minutely sub-tomentose, subvicid when fresh, at first rufous brown then bright ochraceous orange, sometimes almost reddish, often fulvous in the center. Tube 3-5 mm, adnate, slightly sinuate, often with a decurrent tooth, white then often slightly pinkish. Pores 0.8-2 mm, angular with short internal dissepiments, radially elongate near the stem 3-7x0.5-1.5 mm, white. Stipe 50-180x20-150 mm strongly attenuate downwards, wholly minutely scurfy pruinose, paler concolorous with the pileus, apex clear light yellow, varying wholly yellow then quickly change to rufous brown, base pallid and slightly villous with the white mycelium. Context flesh rather thick, firm, white, but yellow-orange at the middle of the stem. Spore print light brown. Spores 7-10x3-5  $\mu$ m. elliptic, flattened in profile, smooth. Basidia 30-40x8-10  $\mu$ m, 4-spored, sterigma 4-5  $\mu$ m long. Cheilocystidia 40-80x8-16  $\mu$ m, clavate

to ventricose, obtuse, not appended with oil-drops. Pleurocystidia 70x20  $\mu$ m, more or less ventricose, similar to the cheilocystidia and multigluttulate. Habitat solitary or scattered on soil under hardwoods (oak and beech), frequent in roadsides, early to September.

Specimens examined Mt. Backyang, Jangsung. Chunlanam-do, 1991, 8. 20. (SMUM: 183, 185)

Remark: This is easily recognized by its color, color changes, its small pores, and its association with oak and beech trees. *T. chromapes* has a more purplish pink, not bitter sweet orange cap, and a distinctive chrome yellow stipe base that is not found in *T. ballouii*. We have never found the stipe or pore surface truly white, as it is sometimes described. In our collections it is always pale to creamy yellow, quickly staining rufous brown.

갓은 중형이고, 반반구형이며, 처음에는 붉은 옐렌지색을 띠나 건조해지면 갈색으로 변하고, 표면은 짧은 섬유상을 이루며, 습할 때 점성을 띤다. 관공은 바른주름살이다. 대는 기부쪽으로 갈수록 좁아지고, 초기에는 밝은 황색을 띠나 성숙하면 갈색으로 변

하며, 기부는 흰색 균사로 이루어져 있다. 포자는 타원형이며, 측시스티디아와 날시스티디아가 있다. 여름에서 가을에 걸쳐 단생 또는 산생한다.

***Tylopilus ferrugineus* (Frost) Singer 회갈색대맛그물버섯(신칭)**

Singer, Amer. Midl. Nat. 37: 106, 1947.

Pileus 45-100 mm. convex and often irregular with wavy or somewhat lobed margin, dry subglabrous or tomentose, non-viscid, reddish brown, not much changing color in drying. Tube 7-11 mm, rarely longer, adante to depressed, pores concolorous with the tube, staining brown on pressure, small, rounded-angular. Context flesh whitish when quite young, light flesh color becoming brown when bruised. Stipe 35-80x 15-33 mm, tapering upward or downwards, or subequal, cream buff, smooth or reticulation of very irregular and incostant extent and density at apex of stipe, compressed longitudinally, solid. Spore print wood brown. Spores 8.3-13x3-5  $\mu$ m. hyaline, smooth ellipsoid-subfusoid, somewhat clavate, basidia 22-29x 7-10  $\mu$ m, 4-spored. Pleurocystidia 35-62x7-13  $\mu$ m, ventricose rostrate to obclavate with granula oily content. Cheilocystidia 25-35x7-10  $\mu$ m, subclavate or subcylindric with tapered apex, yellowish brown walls in KOH. Caulocystidia 53-65x12-15.6  $\mu$ m ventricose or ventricose-rostrate. Pileus surface a trichodermium 4.6-12.8  $\mu$ m broad, not forming a palisade, subsodiametric. Habitat solitary in woods, usually under oak trees, July to September.

Specimens examined Kapyung, Kyunggi-do. (SMUM: 575)

Remark: Spores of *T. ferrugineus* are slightly smaller than those of *T. indecisus*, the hyphae in the pileus surface of *T. indecisus* are narrower and more cylindric than those of *T. ferrugineus*.

갓은 대형, 반반구형이고, 표면은 섬유상이며, 점성은 없고, 회갈색을 띤다. 관공은 바른주름살이며, 관공구는 작다. 대는 윗부분이 불규칙한 망목상을

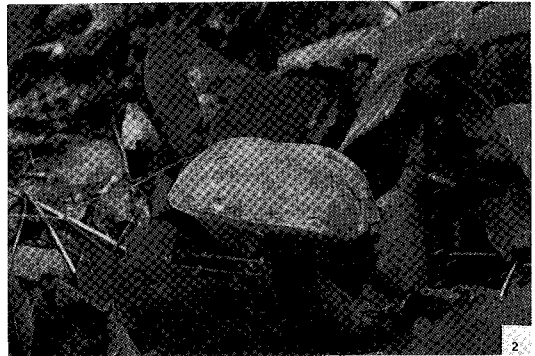
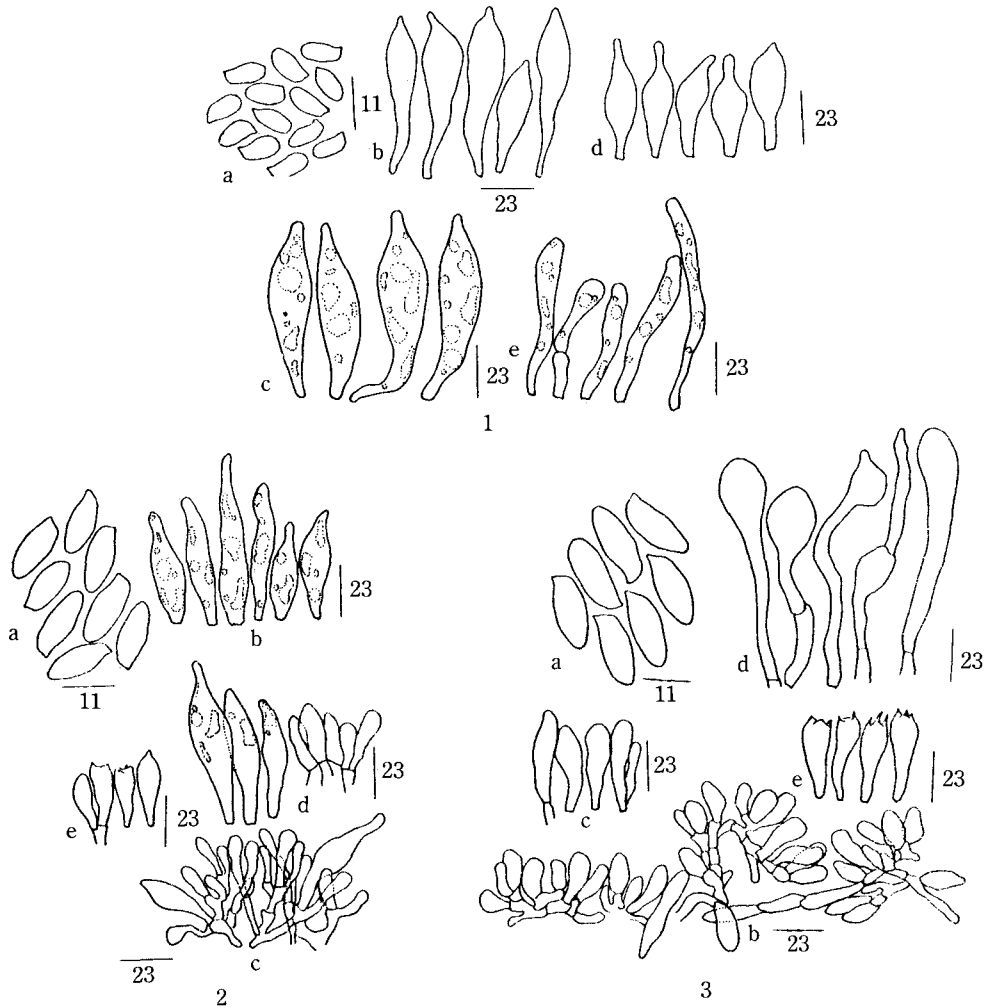


Plate. 1. *Tylopilus ballouii* (Pk.) Sing.  
2. *T. ferrugineus* (Fr.) Sing.  
3. *T. castaneiceps* Hongo.

이룬다. 포자는 갈색이고, 날시스티디아, 측시스티디아와 갓시스티디아가 있다. 여름에서 가을에 걸쳐 나무 그루터기에서 단생한다(본 시료의 상태가 좋지 않아, 갓 표면의 조직은 관찰할 수 없었음.)

***Tylopilus castaneiceps* Hongo 끈적쓴대맛그물버섯(신칭)**

Cocker & Beers, 1974. Hongo & Nagasawa, 1975. Singer, 1975.



**Figs. 1 to 3.** *Tylophilus ballouii* Sing. a. spores, b. cheilocystidia, c. pleurocystidia, d. caulocystidia, e. pileipellis  
 2. *T. ferrugineus* Sing. a. spores, b. pleurocystidia, c. cheilocystidia, d. caulocystidia, e. basidia, and  
 3. *T. castaneiceps* Hongo, a. spores, b. cheilocystidia, c. pleurocystidia, d. caulocystidia, e. basidia.

Pileus 25-87 mm wide, convex, orbicular shiny, smooth, grayish orange at disk, light yellow margin, reddish golden, brownish organe, glabrous, prominently viscid. margin entire incurved when young. Tube 5 mm, white turn to orange grey, adnate. Context flesh turned to orange white. Stipe 35-75x8-12 mm, equal or tapered downward, white to flesh turn to yellow when touched, central, rugose, cartilaginous solid, apex to base viscid. Spore print light brown. Spores 10-13x 4-5  $\mu$ m, elliptical, basidia 26x8  $\mu$ m, 4-spored. Cheilocystidia 25-30x10-11.6  $\mu$ m, clavate. Pleurocystidia 32.6x9.3

$\mu$ m, clavate, Caulocystidia 96.6-110x13-18.6  $\mu$ m, cylindro-clavate.

Specimens examined Kwangnung, Kyunggi-do. 1988, 9. 15 (SMUM: 193).

Remark: This species is characterized by its pileus surface with viscid.

갓은 중형, 반반구형이며, 중앙은 잿빛 오렌지색을 띠고, 가장자리는 밝은 노란색에서 붉은 노란색을 띠며, 점성을 가진다. 관공은 바른주름살이다. 육질은

백색에서 옐로우빛 백색으로 변한다. 대는 연골질이며, 굴곡이 깊게 파여있으며, 백색이고 상처시 노란색으로 변한다. 포자는 갈색이며, 측시스티디아, 날시스티디아와 갓시스티디아가 있다. 여름과 가을에 걸쳐 단생한다.

## 적 요

서울근교에 위치한 광릉, 가평과 전라남도 백양산에서 1988년부터 1991년까지 쓴맛그물버섯속을 채집하여 동정하였다. 그 결과 한국산 미기록종으로 확인된 것은 *Tylophilus ballouii* (황소쓴맛그물버섯), *T. ferrugineus* (회갈색대쓴맛그물버섯), *T. castaneiceps* (끈적쓴맛그물버섯)이었다.

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