

The Mycoflora of Aphyllophorales in Cheju Island

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濟州道産 민주름버섯目(菌類相)

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ABSTRACT: About 350 samples of mushrooms were collected in Mt. Halla of Cheju Island from March to December of 1986. 45 species of Aphyllophorales were identified and included in 7 families and 26 genera. Among them, *Inonotus nodulosus* and *Daedaleopsis purpurea* were recognized as unrecorded species in Korea. Characteristics of these two species were described and Korean names were designated.

KEYWORDS: Aphyllophorales, *Inonotus nodulosus*, *Daedaleopsis purpurea*.

The Description of New Species in Korea

Genus *Inonotus* karst. em. Imaz.

Key to species of *Inonotus*

A. Spores tinged.

a. Pileal surface flocculose, concentric, hymenium with setae *I. cuticularis*

B. Spores hyaline.

a. Pileus dimidiate, conreascens, pileal surface flocculose, lucid *I. tabacinus*

b. Fruiting body formed patches several centimeters to decimeters in extent, pileus dimidiate or imbricate, knoblike, indistinctly zoned

..... *I. nodulosus*

Inonotus nodulosus(Fr.) pilāt 흑시루뽕버섯 (新稱)

Hymenochaetaceae 소나무비늘버섯科

Pila't, Bull. Soc. Myc. Fr., 53: 88, 1937.

J. Breitenbach and F. Kranzlin, Fungi of Switzerland, Vol.2 Non gilled fungi, 252, No.305, 1986.

Fruiting body formed patches several centimeters to decimeters in extent, pileus 1.5-3 cm across and projecting 0.5-3 cm from the substrate, upper surface of pileus wrinkled, undulating, indistinctly zoned, orange-brown when young, later dark brown, margin sharp and somewhat lighter to yellowish, lower surface porose, pores rounded, 3-4

per mm, tubes 5-6 mm long, pileal trama 5-6 mm thick, when old brown, tough and corky.

Spores thick walled, 4.5-5.5×3.5-4 μm, nonamyloid. Basidia clavate, 9-12×4-5 μm, with 4 sterigmata. Cystidia none, setae brown, fusiform, 55×8 μm, thick-walled. Hyphae thin-to thick-walled, hyaline to brownish, 2-5.5 μm across, septa without clamp.

Habitat: On dead wood of broadleaved trees.

Distribution: Korea(Mt. Halla in Cheju Island) and Europe.

Genus, *Daedaleopsis* Schroet. em. Donk

key to species of *Daedaleopsis*

A. Hymenophore labyrinthine or corrugate.

a. Pileal surface rugulose, yellowish brown, hymenophore labyrinthine, sometimes corrugate *D. confragosa*

b. Pileal surface variegated zoned.

α. Pileal surface violet-brown, hymenophore perfectly lamellate *D. tricolor*

β. Pileal surface dark brown, hymenophore difformed, daedaloid *D. styracina*

B. Hymenophore hexagonal, pileus 1-1.5 mm thick, pileal surface glabrous, rugulose, fuscous or isabelline *D. tenuis*

C. Hymenophore porose

- a. Pileus below 2 cm thick, pileal surface glabrous, nut-brown*D. conchiformis*
- b. Pileus over 2 cm thick, pileal surface foculose, brown, later non haired, dark brown, zoned*D. purpurea*

***Daedaleopsis purpurea* (Cooke) Imazeki et Aosima 일본도장버섯 (新稱)**

polyporaceae 구멍장이버섯과

Imazeki et Aoshima, Tokyo Univ. Fl. East. Him.: 619~620, 1966.

Trametes purpurea Cooke, Grev. 10: 121, 1882-Saccardo, Syll. Fung. 6: 352, 1888.

Daedaleopsis nipponica Imazeki, Bull. Tokyo Sci. Mus. 6: 78, 1943.

Fruiting body annual, dimidiate, plane, pileus 4-10×3-6 cm, 0.5-3 cm thick where attached, pileal surface radially wrinkled-furrowed, concentrically zoned, uneven, later non haired, dark brown, flesh corky, under side porose, pores rounded-angular to daedaleoid-labyrinthine, tubes 0.3-2 cm long.

Spores 5.0-8×2-2.3 μm, cylindrical, slightly allantoid, smooth, hyaline, nonamyloid. Basidia slenderly clavate. Generative hyphae thin walled, 2-3 μm across, septa with clamps, causing white rot.

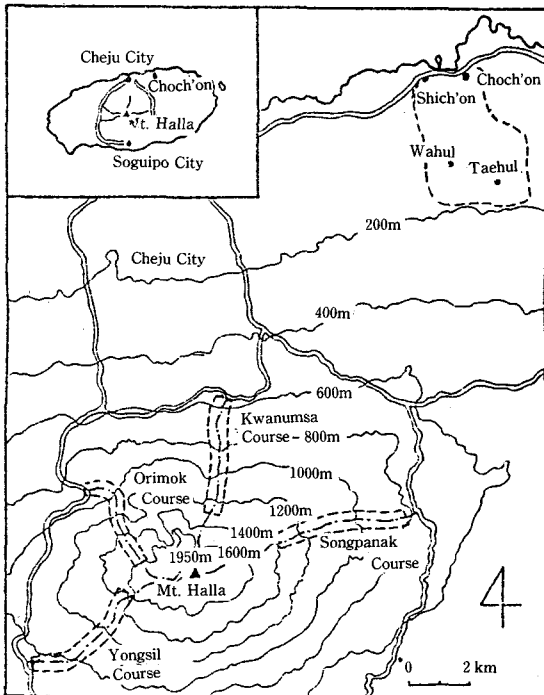


Fig.1. Survey area is showed within the dashed line.

Habitat: On dead wood of broadleaved trees.

Distribution: Korea(Mt. Halla in Cheju Island) and Japan.

The list of the other Aphylophorales in Cheju Island

- Family Clavariaceae 국수버섯과
 - Genus *Clavicornia* Doty 나무뿌리버섯속
 - C. turgida*(Lév.) Corner 녁가래나무뿌리버섯
 - Hab.: rotting stem of broadleaved trees, Orimok
 - C. pyxidata*(Pers. ex Fr.) Doty 좀나무뿌리버섯
 - Hab.: rotting stem of broadleaved trees, Orimok
 - Genus *Clavulinopsis* Van Over 창싸리버섯속
 - C. helvola*(Pers. ex Fr.) Corner 좀노랑창싸리버섯
 - Hab.: On soil in hardwood forests, Orimok
- Family Ramariaceae 싸리버섯과
 - Genus *Lentaria* Corner 뱅어버섯속
 - L. mucida*(Pers. ex Fr.) Corner 끈적뱅어버섯
 - Hab.: rotting stem of broadleaved trees, Orimok
- Family Corticiaceae Herter 고약버섯과
 - Genus *Stereum* Pers. ex Fr. 꽃구름버섯속
 - S. hiugense* Imaz. 털까치꽃구름버섯
 - Hab.: rotting stem of broadleaved trees, Orimok
 - S. ostrea*(Bl. et Nees) Fr. 갈색꽃구름버섯
 - Hab.: rotting stem of broadleaved trees, Orimok
 - Genus *Corticium* Pers. ex Fr. 고약버섯속
 - C. chrysocreas* Berk. et Curt. 황금고약버섯
 - Hab.: rotting stem of broadleaved trees, Orimok
- Family Hydnaceae Chev. 턱수염버섯과
 - Genus *Steccherium* S.F. Gray 바늘버섯속
 - S. septentrionale*(Fr.) Banker 수염바늘버섯
 - Hab.: rotting stem of broadleaved trees, Orimok
- Family Meruliaceae 아교버섯과
 - Genus *Merulius* Hall. ex Fr. sensu Pat. 아교버섯속
 - M. tremellosus* Schard. ex Fr. 아교버섯
 - Hab.: rotting stem of broadleaved trees, Orimok
 - Genus *Serpula* S.F. Gray 버짐버섯속
 - S. lacrymans*(Fr.) S.F. Gray 버짐버섯
 - Hab.: rotting stem of broadleaved trees, Wahul
- Family Hymenochaetaceae Donk 소나무바늘버섯과
 - Genus *Fuscoporia* Murr. em. Cunningham 녹순구멍버섯속
 - F. ferruginosa*(Schrad.) Murr. 녹순구멍버섯
 - Hab.: rotting stem of broadleaved trees, Orimok
 - Genus *Phellinus* Quél. em. Imaz. 진흙버섯속
 - P. igniarius*(L. ex Fr.) Quél. 말뚝진흙버섯

- Hab.: rotting stem of broadleaved trees, Taehul
Family Polyporaceae Corda 구멍장이버섯과
Porieae 족
Genus *Poria*(Pers.) S.F. Gray 구멍버섯속
P. eupora(Karst.) Cooke 살색구멍버섯
Hab.: rotting stem of broadleaved trees, Orimok
polyporeae 구멍장이버섯족
Trametinae 송편버섯아족
Genus *Trametes* Fr. em. Imaz. 송편버섯속
T. suaveolens(L.) Fr. 송편버섯
Hab.: rotting stem of *Pinus* Wahul
T. orientalis(Yos.) Imaz. 시루송편버섯
Hab.: rotting stem of broadleaved trees, Orimok
T. dickinsii Berk. 등갈색송편버섯
Hab.: rotting stem of broadleaved trees, Orimok
T. kusanoana Imaz. 벌레송편버섯
Hab.: rotting stem of *Pinus* Wahul
T. gibbosa(Pers. ex Fr.) Fr. 대합송편버섯
Hab.: rotting stem of broadleaved trees, Orimok
T. sanguinea(L. ex Fr.) Lloyd 간버섯
Hab.: rotting stem of broadleaved trees, Orimok
T. cinnabarina(Jacq.) Fr. 주걱송편버섯
Hab.: rotting stem of *Pinus*, Wahul
Genus *Gloeophyllum* Karst. 조개버섯속
G. sepiarium(Wulf. ex Fr.) Karst. 조개버섯
Hab.: rotting stem of *Quercus*, Yongsil
Genus *Lenzites* Fr. em. Pat. 조개껍질버섯속
L. betulina(L.) Fr. 조개껍질버섯
Hab.: rotting stem of *Cryptomeria*, Wahul
Genus *Daedaleopsis* Schroet. em. Donk
도장버섯속
D. tricolor(Bull. ex Fr.) Bond. et Sing.
삼색도장버섯
Hab.: rotting stem of broadleaved trees, Orimok
D. styracina(P. Henn, et Shirai) Imaz. 매죽도장버섯
Hab.: rotting stem of broadleaved trees, Songpanak
Coriolinae 구름버섯아족
Genus *Irpex* Fr. em. Bond. et Sing.
기계충버섯속
I. lacteus Fr. 기계충버섯
Hab.: rotting stem of broadleaved trees, Orimok
Genus *Hirschioporus* Donk 옷솔버섯속
H. abietinus(Dick. ex Fr.) Donk 옷솔버섯
Hab.: rotting stem of *Pinus*, Taehul
H. fusco-violaceus(Schrad. ex Fr.) Donk
기와옷솔버섯
Hab.: rotting stem of *Pinus*, Chochon
Genus *Coriolus* Quél. 구름버섯속
- C. consors*(Berk.) Imaz. 송곳니구름버섯
Hab.: rotting stem of *Pinus*, Chochon
C. hirsutus(Wulf. ex Fr.) Quél. 흰구름버섯
Hab.: rotting stem of broadleaved trees, Songpanak
C. versicolor(L. ex Fr.) Quél. 구름버섯
Hab.: rotting stem of broadleaved trees, Orimok
C. unicolor(Fr.) Pat. 단색구름버섯
Hab.: rotting stem of *Citrus*, Chochon
C. pargameus(Fr.) Pat. 옷솔구름버섯
Hab.: rotting stem of *Pinus*, Orimok
Tyromycetinae 개떡버섯아족
Genus *Laetiporus* Murr. 덕다리버섯속
L. sulphureus(Bull. ex Fr.) Bond. et Sing.
덕다리버섯
Hab.: rotting stem of broadleaved trees, Orimok
Genus *Tyromyces* Karst. 개떡버섯속
T. borealis(Fr.) Imaz. 물렁개떡버섯
Hab.: rotting stem of broadleaved trees, Songpanak
Fomitinae 잔나비버섯아족
Genus *Fomitopsis* karst. 잔나비버섯속
F. pinicola(Swartz. ex Fr.) Karst.
조나무잔나비버섯
Hab.: rotting stem of *Pinus*, Taehul
Favolinae 벌집버섯아족
Genus *Polyporellus* Karst. 겨울우산버섯속
P. brumalis(Pers. ex Fr.) Karst. 겨울우산버섯
Hab.: rotting stem of broadleaved trees, Orimok
P. picipes(Fr.) Karst. 검정대겨울우산버섯
Hab.: rotting stem of broadleaved trees, Orimok
P. elegans(Fr.) Karst. 노란겨울우산버섯
Hab.: rotting stem of broadleaved trees, Orimok
P. squamosus(Fr.) Karst. 개덕다리겨울우산버섯
Hab.: rotting stem of broadleaved trees, Orimok
Genus *Favolus* Fr. em. Imaz. 벌집버섯속
F. alveolarius(Bosc. ex Fr.) Quél. 벌집버섯
Hab.: rotting stem of broadleaved trees, Orimok
Genus *Microporus* Kuntze em. Pat. 메꽃버섯속
M. affinis(Blum. et Ness ex Fr.) Kuntze
메꽃버섯부치
Hab.: rotting stem of broadleaved trees, Orimok
Ganodermae Ito 불로초족
Genus *Ganoderma* Karst. em. Murr. 불로초속
G. lucidum(Leyss. ex Fr.) Karst. 영지버섯
Hab.: rotting stem of broadleaved trees, Wahul
and Sanchondan
Genus *Elfvigia* Karst. em. Imaz.
잔나비결상속

E. applanata(Pers.) Karst. 잔나비결상
 Hab.: rotting stem of broadleaved trees, Orimok

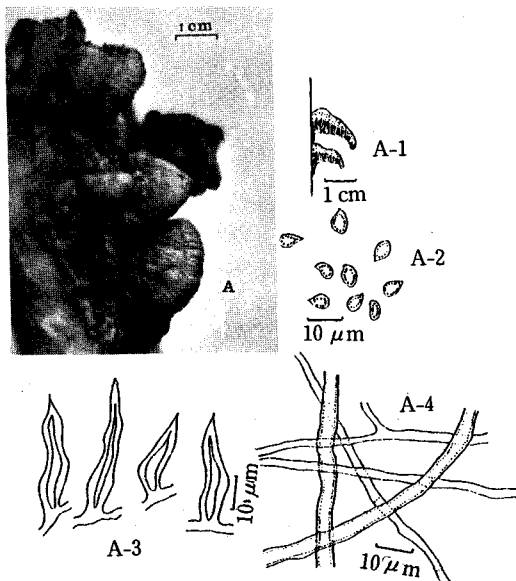


Fig.2. The morphology of *Inonotus nodulosus*(Fr.) Pilāt.

- A: Fruiting body
- A-1: Side cut-down view of fruiting body
- A-2: Spores
- A-3: Setae
- A-4: Hyphae without clamp connection

摘 要

漢拏山을 中心으로 1986年 3月부터 12月까지 350여 점의 擔子菌類를 採集하여 그 중 민주름버섯만을 同定한 결과 7科 26屬 45種으로 分類되었으며 이 중 *Inonotus nodulosus*와 *Daedaleopsis purpurea*는 韓國未記錄種으로 확인되어 그 특징을 記載하고 韓國名을 新稱하였다.

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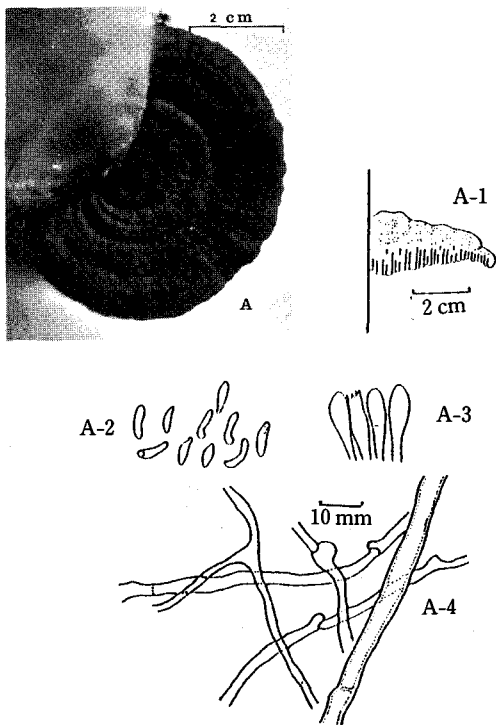


Fig.3. The morphology of *Daedaleopsis purpurea* Imazeki et Aoslima.

- A: Fruiting body
- A-1: Side cut-down view of fruiting body
- A-2: Spores
- A-3: Basidia
- A-4: Hyphae with clamp connection

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