<報 文>

未記錄種을 包含한 消遙山의 蘚苔類

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Abstract

HONG, Won Shick (Catholic Medical College, Shool Korea): *The Bryophytes on Mt. Soyo, with Some New addition to the Korean Flora*. Kor, Jour, Bot, 3(1), 25—31. 1960

1. Mt. Soyo is situated in the central part of Korea, approximately 37°56′ W. Latitude, 127°4′ N. Longitude.

This mountain is about 530 meters above sea level, and consists mainly of granites. Above 200 meters the area is covered with oak trees (*Quercus mongolica, Q. aliena*) with a kind of Rhododendron (*Rhododendron mucronulatum, R. schlippenbachii*) as undergrowth. About 500 packets of bryophytes were collected by the writer in 1959.

2. The mosses collected in this region were of 68 species belonging to 51 genera. Those species may roughly be divided, as follows;

1) 15 species (22.1%) are distributed also in Europe and North America (Holarctic element).
2) 2 species (2.9%) occur also in Kamchatka and the Aleutians (North Pacific element).
3) 14 species (20.6%) are widely distributed everywhere (Cosmopolitan element).
4) 19 species (27.9%) occur also in the temperate region of the Far East (East Asiatic element).
5) 3 species (4.4%) occur also in Indomalaya and India (Tropical element).
6) 15 species (22.1%) are endemic to Japan and Korea.

3. The Hepaticae collected in this region are of 11 species belonging to 7 genera. Those may roughly be divided, as follows;

1) 4 species (36.4%) are distributed also in Europe and North America (Holarctc element).
2) 5 species (45.5%) occur also in the temperate region of the Far East (Asiatic element).
3) 1 species (9.1%) occur also in Indomalaya.
4) 1 species (9.1%) are endemic in Japan and Korea.

4. The species which are new to the flora of Korea are as follows;

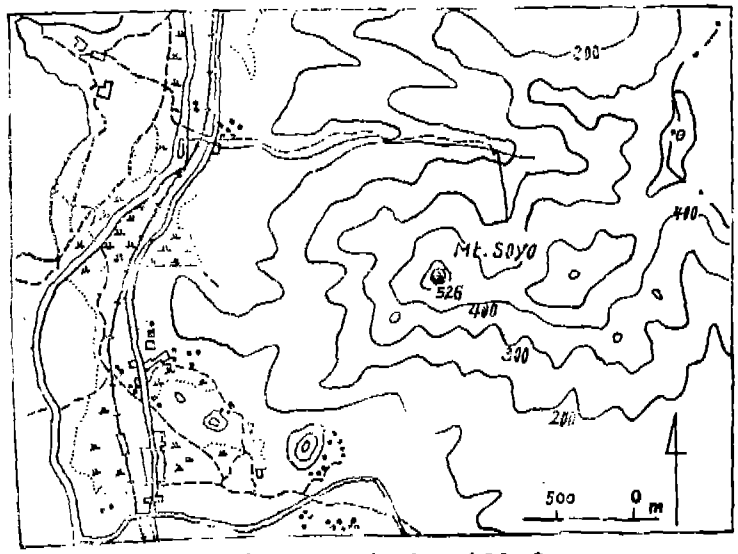
1) *Leucobryum glaucum* (L.) Schimp.
2) *Pseudoleskeopsis dicurvata* (Mitt.) Broth.
3) *Thuidium delicatulum* (Hedw.) Mitt.
4) *Dolichotheca perrobustum* (Broth.) Broth.
5) *Brachiolejeunia sandvicensis* (Gott.) Evans.
6) *Porella vernicosa* Lindb. ssp. *gracillima* (Mitt.) Ando.

逍遙山은 鐵嶺附近에서 主脈인 太白山脈으로부터 分岐된 廣州山脈의 延長으로 東經 127°4′~127°7′, 西經 37°56′~37°58′에 位置하고 있으며 主峰의 海拔高는 526m이다.

이 山이 차지하고 있는 地域은 江原道 西域의 早壯年期 乃至 滿壯年期 山地가 延長된 것이며 한편 이 山을 構成하고 있는 桃紅色의 花崗岩은 侏羅紀末以後의 新期噴出 花崗岩인 것이다.

磧川街道에서 오른쪽으로 溪谷을 끼고 올라가면서 보면 林相은 참으로 荒廢될대로 되었다는 것을 느끼지 않을수가 없다. 但 2m以上을 넘는 나무라고는 손가락으로 헤아릴만큼 그전의 鬱蒼했던 모습은 戰亂과 함께 盜伐로 因해 완전히 사라지고 말았다.

단지 落葉濶葉樹인 상수리나무, 졸참나무, 갈참나무等의 벤 줄기를 여기 저기서 볼수가 있으며 그 사이에는 찔레나무, 멍석딸기, 붉은병꽃나무(*Weigela florida*), 올괴불나무(*Lonicera praeforens*), 작살나무, 바위말발도리(*Deutzia glabrata*), 진달래, 털진달래나무, 철쭉나무, (*Rhododendron schlippenbachii*). 산철쭉(*Rhododendron yedoense* var. *poukhanense*). 조록싸리, 주엽나무, 산사나무, 국수나무, 고광나무(*Philadelphus schrenckii*), 생강나무, 으아리, 개암나무等의 灌木들이 混生해 있어 어떤 곳은 발을 들여 놓수조차 없을만큼 密生해 있어 濫伐하기전의 이 山의 林相을 可히 짐작할수가 있다.

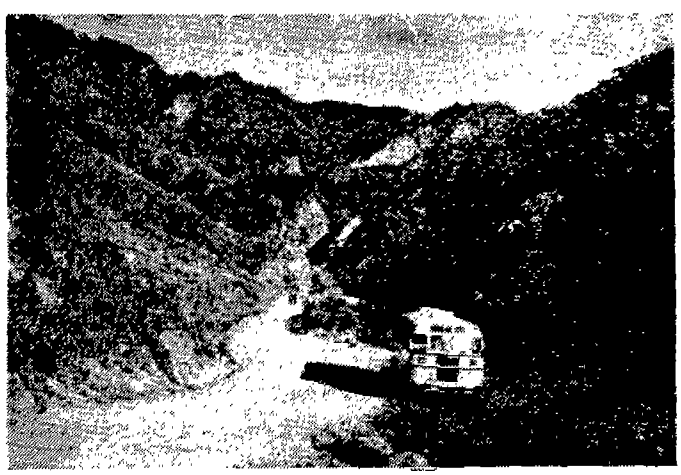


Map showing the locality of Mt. Soyo

한편 溪谷의 물이 흐르고 있는 砂地위나 岩石사이에는 갯버들, 호랑버들, 달뿌리풀等이 旺盛한 發育을 하고 있다. 高度가 높아지면서 신갈나무, 박달나무, 쪽동백, 함박꽃나무(*Magnolia verecunda*), 고로쇠나무, 단풍나무, 개벚나무 等이 함께 모여서 混淆林을 이루고 있는데 그 밑에는 진달래, 철쭉꽃, 조록싸리, 작살나무, 괄배나무, 개암나무 等의 灌木類가 나타나 있다.

그리고 草本層을 構成하는 林床植物로서는 십자고사리(*Ptilopteris triptera*). 관중, 대사초, 털대사초, 억새, 넓은외잎쑥(*Artemisia stolonifera*), 산거울, 김의털, 우산나물, 단풍취等의 群落을 볼수가 있다. 한편 岩床에는 참양지꽃이 두덕을 이루다싶이 密生해 있다.

蘚類의 分布에 있어서는 원래 岩盤이 露出된 곳이 많은 山이기 때문에 특히 이러한 比較的 乾燥한 곳을 좋아하는 蘚類가 많이 눈에 띈다. 즉 *Hedwigia ciliata*와 *Grimmia pilifera*가 가장 代表的인 것인데 이 두 種類는 中部以北에 있어서의 소나무와 낙엽송 같은 樹木이 茂盛하는 地域에 있어서의 標徵種인 것이다.


Mt. Soyo in the distance

元曉嶺 바로 밑에서 頂上으로 빠지는 길은 溪谷을 옆에다 끼고 올라가기 때문에 많은 濕地性의 것을 볼수 있을 뿐만아니라 中腹以上에 이르면 廣範圍한 礫岩地帶가 나타나기 때문에 많은 變化를 볼수가 있다. 길 옆에는 신갈나무와 쪽동백나무, 함박꽃나무 같은 喬木들이 樹冠을 形成하고 있으며 이 樹冠層 밑에는 母岩이 直接 裸出되어 있고 腐植土라든지 粘土가 적기 때문에 草木의 茂盛함이 별로 볼만한 것이 없고 반면에 蘚苔類가 茂盛한 것은 아주 굉장하다.

溪谷의 물이 흐르고 있는 地域에는 Mniaceae의 *Mnium stellare*, *M. cuspidatum*, *M. punctatum*이 서로 엄혀서 旺盛한 發育을 보

여주고 있다. 또 Brachythecium 屬의 *B. rivulare* 는 어떤 곳에 했어서는 1~2平方m에 아르는 바위 全面을 完全히 덮고 있다.

特히 Brachytheciaceae의 *Eurhynchium riparioides* 는 흐르는 물에 늘 적시어져있는 環境條件下에서 무더기를 形成하고 있는데 이 種은 본시 濕岩 또는 물속에서 나는것으로 알려진 種이며 中肋은 없다. 그런데 이렇게 여름철의 雨季뿐만 아니라 平素에도 늘 물이 흐르고 있는 近處에는 蘚類以外에 *Chiloscyphus polyanthus, Lejeunea* sp, *Brachiolejeunia sandvicensis, Plectocolea* sp, *Porella vernicosa, Bazzania trilobata, Porella grandiloba*等의 苔類가 茂盛한데 特히 Porella屬은 蘚類의 Eurhynchium屬과 함께 混生해서 濕岩의 全面을 덮고 있다.

溪流옆에는 洪水때 山頂이나 또는 그보다도 높은 高地帶에서 水流에 의해 흘러 내려온 나무가지라든지 人爲的인 伐採로 말미암아 생긴 베어진것을 많이 볼수가 있는데 이러한 곳에는 Hypnaceae의 *Dolichotheca perrobustum*, Sematophyllaceae의 *Brotherella yokohamae*, Thuidiaceae의 *Haplocladium subulaceum*, Plagiotheciaceae의 *Plagiothecium aomoriense*, Fabroniaceae의 *Schwetschkeopsis denticulata*, Brachytheciaceae의 *Brachythecium populeum, B. flagellare, Bryhnia noesica, Rhyncostegium pallidifolium*等의 蘚類를 볼 수가 있다.

List of Bryophyte collected in the Mt. Soyo

Musci

Fissidentaceae

Fissidens cristatus Wils. 300m, on moist rocks (+ *Thuidium toyamae*, + *Plagiothecium aomoriense*) (1340-2).

F. gymnogynus Besch. 180 m, on trees, on logs (+ *Bazzania trilobata*, + *Lejeunea vaginata*) (1394).

Ditrichaceae

Ditrichum pallidum (Schrad.) Hamp. 100m, on sand soil (65).

Dicranaceae

Trematodon drepanellus Besch. 100m, on wet rocks (+ *Atrichum undulatum*, + *Grimmia pilifera*) (66).

Campylopus japonicus Broth. 200m, on rocks. (+ *Grimmia pilifera*, + *Haplohymenium triste*) (1223-2).

Brothera leana (Sull.) C. Müll. 200m. at basal parts of trees (110-2).

Onchophorus crispifolius (Mitt.) Lindb. 300m, on rocks (+ *Lejeunea vaginata*) (1379).

Holomitrium japonicum Card. 200m, on rocks covered with humus (+ *Macromitrium makinoi*) (63).

Dicranum japonicum Mitt. 230m, on soil (+ *Polytrichum attenuatum*) (64), 280m, on rocks(+ *Hypnum plumaeforme*) (10039).

Leucobryaceae

* *Leucobryum glaucum* (L.) Schimp. 200m, on soil (+ *Thuidium toyamae*, + *Grimmia pilifera*) (1365) 320m, on logs (+ *Thuidium toyamae*, + *Cladonia crispata*) (10040).

Pottiaceae

Weisia controversa Hedw. 100m. on soil (+ *Grimmia pilifera*, + *Hypnum plumaeforme*) (1299-2) 80 m, on soil (+ *Pogonatum inflexum*) (10024).

Grimmiaceae

Grimmia pilifera P. Beauv. 150m, on rocks (+ *Ptychomitrium sinense*) (10001). 300m, on rocks (+ *Hedwigia ciliata*, + *Brachiolejeunea sandvicensis*) (85), 100m, on rocks (10018), 220m, on trees (+ *Brachythecium populeum*, + *Clapodium subpiliferum*) (10023), 180m, on rocks (+ *Ptychomitrium sinense*) (10031),

Rhacomitrium canescens (Weis. Timm.) Brid. 200m, on rocks (+ *Haplohymenium triste*, + *Grimmia pilifera*) (1362) 300m, on rocks (+ *Thuidium toyamae*, + *Grimmia pilifera*) (2386).

Funariaceae

Physcomitrium japonicum (Hedw.) Mitt. 100m, on soil (+ *Bryum argentum*, + *Anacamptodon* sp. + *Lejeunea vaginata*) (1272).

Bryaceae

Bryum argentum L. 300m, on rocks covered with humus (+ *Bryum pseudotriquetrum*) (1240-2).

B. pseudo-dilpinum Besch. 150m, on rocks, (1369) 200m, on soil (1381), 300m, on rocks covered with humus (+ *Bryum argentum*) (1240-2).

B. torlifolium Funck. 200m, on wet rocks near the stream (+ *Platyhypnidium rusciforme*) (78).

B. ventricosum Dicks. 140m, on moist rocks (97).

Mniaceae

Mnium cuspidatum Hedw. 220m, on rocks covered with humus (96).

M. punctatum Hedw. 180m, on wet rocks near

the stream (10047).

M. stellare Hedw. 300m, on wet rocks (+ *Bazzania trilobata*) (94).

M. striatulum Kdb. 200m, on wet rocks (+ *Bazzania trilobata*, + *Holomitrium japonicum*, + *Rhyncostegium pallidum*) (1364).

Bartramiaceae

Bartramia pomiformis (L.) Hedw. 160m, on rocks covered with humus (+ *Thuidium toyamae*, + *Hypnum plumaeforme*, + *Myuloclada concinna*) (1391).

Ptychomitriaceae

Ptychomitrium sinense (Mitt.) Jaeg. 150m, on rocks (+ *Grimmia pilifera*) (1393) 230m, on rocks (10037).

P. wilsonii Sull. et Lesq. 180m, on rocks covered with humus (+ *Rhyncostegium pallidifolium*) (1377).

Orthotrichaceae

Macromitrium mckinoi (Broth.) Par. 120m, on branches of trees (+ *Brachythecium populeum*) (60), 150m, on trees (10015).

Climaceae

Climacium japonicum Lindb. 220m, on rocks covered with humus (+ *Hypum oldhami*, + *Thuidium toyamae*, + *Bazzania trilobata*) (1331-2).

Hedwigiaceae

Hedwigia clbicans (Web.) Lbd. 200m, on rocks (+ *Grimmia pilifera*) (85), 230m, on trees (+ *Brotherella yokohamae*, + *Leptogium moluccanum*) (1009), 180m, on rocks (10017), 150m, on rocks (+ *Thuidium toyamae*) (10025), 250m, on rocks (10036), 260m, on rocks (+ *Hypnum plumaeforme*) (10051).

Leucodontaceae

Leucodon coreensis Card. 230m, on rocks (+ *Brachythecium populeum*, + *Thuidium toyamae*, + *Porella setigera*) (1366) 280m, on rocks (10023).

Neckeraceae

Thamnium plicatulum S. Lac. 250m. on wet rocks (+ *Thuidium toyamae*, + *Entodon* sp.) (10052).

Theliaceae

Fauriella tenuis (Mitt.) Card. 200m, on logs (+ *Brachythecium flagellare*, + *Isopterygium* sp. + *Haplocladium sp.*).

Fabroniaceae

Schwetschkeopsis denticulata (Sull.) Broth. 160m, on logs (+ *Thuidium delicatulum*, + *Rhyncostegium pallidum*, + *Brachythecium populeum*,) (70), 220m, on trees (+ *Okamurae hakoniensis*) (1390).

Leskeaceae

* *Pseudoleskeopsis orbiculata* (Mitt.) Broth. 320m, on wet rocks (+ *Brachythecium flagellare*) (87).

Thuidiaceae

Haplohymenium triste (Ces.) Kindb. 250m, on logs (+ *Brotherella yokohamae*, + *Herpetineurum toccoae*, + *Leptogium moluccanum*,)

Anomodon giraldii C. Müll. 180m, on soil (+ *Porella grandiloba*, + *Rhytidiadelphus calvescens*) (1382) 320m, on rocks (+ *Brachythecium flagellare*, + *Myuloclada maximowiczii*, + *Thuidium toyamae*) (10003).

A. minor (Hedw.) Fuernr. 230m, on logs (+ *Plagiothecium aomoriensis*) (10043).

Herpetineuron toccoae (S. L.) Card. 280m, on rocks (+ *Thuidium toyamae*, + *Entodon challengeri*) (10030), 320m, on rocks (10042).

Claopodium subpiliferum (Lindb. et Arn.) Broth. 300m, on logs (+ *Grimmia pilifera*) (91).

Haplocladium capillatum (Mitt.) Broth. 130m, on rocks covered with humus (+ *Brachythecium flagellare*) (73).

H. subulatum (Mitt.) Broth. var. *subulatum* (Card.) Ther. 180m, on soil (+ *Brachythecium populeum*) (62).

* *Thuidium delicatulum* (Hedw.) Mitt. 200m, on rocks covered with humus (58).

T. recognitum (L.Hedw.) Lindb. 250m, on logs (+ *Plagiothecium aomoriensis*) (83).

T. toyamae Noguchi. 160m, on rocks covered with humus (+ *Porella grandiloba*) (59), 200m, on rocks (1372), 180m, on rocks (+ *Hypnum plumaeforme*, + *Hedwigia albicans*, + *Entodon challengeri*) (10019).

Amblystegiaceae

Cratoneurum filicinum (L.) Roth. 220m. on wet rocks (- Eurhynchium sp.) (121).

Campylium chrysophyllum (Brid.) Bryhn. 180m, on rocks (- *Hypnum oldhami*) (123). 250m, on rocks (+ *Thuidium toyamae*) (10005) 280m. on rocks (+ *Thuidium toyamae*, + *Porella grandiloba*) (10050).

Brachytheciaceae

Brachythecium flagellare (Hedw.) Jenn. 230m on rocks covered with humus (102).

B. populeum (Hedw.) B. S. G. 100m, on rocks (107). 250m on logs (+ *Thuidium toyamae*, + *Grimmia pilifera*) (10010) 200m, on rocks covered with humus (+ *Thuidium toyamae*, + *Porella vernicosa*) (10013) 150m, on soil (+ *Porella grandiloba*) (10014), 320 m, on rocks covered with humus (10022), 130m, on rocks (+ *Platyhypnidium rusciforme*) (10026), 180m, on rocks (10033), 280m, on logs (+ *Thuidium toyamae*, + *Entodon ramulosus*) (10038).

B. rivulare (Bruch.) B. S. G. 150m, on moist rocks (+ *Thuidium toyamae*, + *Thamnium plicatulum*).

Bryhnia noesica (Besch.) Broth. 230m, on wet rocks (82).

Rhyncostegium pallidifolium (Mitt.) Jaeg. 320m, on logs (105).

Myuloclada maximowiczii Steere & Schofield. 230 m, on rocks covered with humus (+ *Thuidium toyamae*, + *Hypnum plumaeforme*, + *Bartramia pomiformis*) (1391), 300m, on rocks (+ *Brachythecium flagellare*, + *Thuidium toyamae*, + *Anomodon minor*) (1003), 180m, on rocks covered with humus (+ *Anomodon minor*, + *Herpentineuron toccae*) (1006).

Eurhynchium riparioades (Hedw) Rich. 150m, on rocks covered with humus (78), 280m, on moist rocks (+ *Entodon challengeri*) (10020), 320m, on wet rocks (+ *Haplohymenium triste*) (10021), 320m, on moist rocks near the stream (10035).

Entodontaceae

Entodon challengeri (Par.) Card. 240m, on wet rocks near the stream (23-2).

E. ramulosus Mitt. 280m, on logs (+ *Thuidium toyamae* + *Brachythecium poplueum*) (10038), 200m, on rocks (*Thuidium toyamae*, + *Hypnum plumaeforme*, + *Hedwigia ciliata*) (10049).

Plagiotheciaceae

Plagiothecium aomoriense Besch, 180m, on rocks covered with humus (10027), 240m, on rocks (10046), 260m, on logs (+ *Rhyncostegium pallidifolium*). (68).

Sematophyllaceae

Brotherella yokohame (Broth.) Broth. 170m, on logs (+ *Holomitrium japonicum*) (57). 300m, on trees (1367). 280m, on trees (1403).

Hypnaceae

Pylaisia brotheri Besch 280m, on trees (125).

Homomallium connexum (Card.) Broth. 170m, on logs covered with humus (+ *Brachythecium flagellare*) (113).

Hypnum oldhami (Mitt.) Jaeg. 200m, on rocks covered with humus (+ *Climacium japonicum*, + *Thuidium toyamae*, + *Bazzania trilobata*) (13312).

H. plumaeforme Wils. 100m, on logs (+ *Lejeunea vaginata*) 300m, on rocks covered with humus (+ *Thuidium toyamae*) (10002), 130m, on rocks (+ *Hedwigia albicans*) (10007), 210m, on rocks (+ *Thuidium toyamae*) (10011) 180m, on rocks (10032).

Isopterygium sp. 200m, on trees, (+ *Fauriella tenuis*, + *Brachythecium, flagellare* + *Haplocladium sp.*)(102).

Taxiphyllum taxirameum (Mitt.) Fl. 180m, on rocks (1395).

* *Dolichotheca perrobustum* (Broth) Broth. 330m, on logs (+ *Lophocolea minor*) (1396).

Rhytidiaceae

Okamuraea hakoniensis (Mitt.) Broth. 180m, on rocks covered with humus (+ *Grimmia pilifera*, + *Haplohymenium triste*) (10012), 230m, on rocks (+ *Grimmia pilifera*) (10044), 260m, on rocks (+ *Grimmia pilifera*) (10048).

Rhytidiadelphus calvescens (Wills.) Broth. 200m, on soil (+ *Anomodon giraldii*, + *Porella grandiloba*).

Polytrichaceae

Atrichum undulatum (Hedw.) P.Beauv. 180m, on soil (+ *Lophocolea heterophylla*, + *Lejeunea* sp. + *Taxiphyllum* sp.)

Pogonatum inflexum Ldb. 120m, on soil (1300-2), 100m, on soil (10004), 150m, on soil (10008). 80m, on soil (+ *Weisia controversa*) (10024).

Polytrichum attenuatum Menz. 120m, on rocks covered with humus (10034), 160m, on rocks (+ *Thuidium toyamae*, + *Mnium punctatum*, + *Camphylium chrysophyllum*)

P. commune L. 400m, on soil (+ *Campylium chrysophyllum*) (131-2).

Hepaticae

Lepidoziaceae

Bazzania trilobata (L.) Gray. 180m, on trees, (+

Fissidens gymnogynus) (1394), 300m, on wet rocks (+ *Mnium stellare*) (94).

Cephaloziaceae

Cephaloziella recurvifolia (Steph.) Hatt. 200m, on wet rocks. (1379), 230m. on wet rocks (10041).

Harpanthaceae

Chiloscyphus polyanthus (L.) Corda. 150m, on wet rocks. (72).

Lophocolea heterophylla (Schrad.) Dum. 180m, on soil (+ *Atrichum undulatum*, + *Lejeunea* sp. + *Taxiphyllum* sp.) (120).

L. minor Nees. 300m. on logs (+ *Dolichotheca perrobusta*)

Porellaceae

Porella grandiloba Lindb. 150m, on rocks covered with humus (+ *Anomodon giraldii*, + *Thuidium toyamae*, (+ *Brachythecium flagellare*), (99), 220m, on soil (+ *Anomodon giraldii*, + *Rhytidiadelphus calvescens*) (1382).

P. setigera (Steph) Hatt. 180m, on rocks (+ *Brachythecium populeum*, + *Thuidium toyamae*, + *Leucodon coreensis* (1366)

* *P. vernicosa* Lindb. ssp. *gracilima* (Mitt.)Ando. 220m, on logs (+ *Grimmia pilifera*) (90),

ssp. *vernicosa*, 250 m, on wet rocks (+ *Thuidium toyamae* (1384).

Lejeuneaceae

* *Brachiolejeunia sandvicensis* (Gott.) Evans. 130m, on rocks (+ *Grimmia pilifera*, + *Hedwigia ciliata*) (85).

Lejeunea vaginata steph. 180m, on trees, (+ *Fissidens gymnogynus* (1394), on rocks (+ *Hypnum plumaeforme*) (119)

The species preceded by an asterisk are new additions to the Korean flora.

The writer wishes to express his thanks to Father, K. Yang, Dr. Yoon of Catholic Medical College, for help and criticism. He also wishes to express his thanks to Prof. H. Ando for the identification of many species.

摘 要

1. 筆者는 淸遠山의 蘚苔類에 對해서 1959年 봄서부터 겨울에 이르기까지 日曜日과 休暇를 利用해서 硏究했다.

2. 이 山의 蘚苔 flora을 植物地理學的으로 보면 다음과 같다.

	北 周 極	北太平洋	全 世 界	東 亞	熱 帶	日本共通
蘚 類	15(22.1%)	2(2.9%)	14(20.6%)	19(27.9%)	3(4.4%)	15(22.1%)
苔 類	4(36.4%)	——	——	5 (45.5%)	1(9.1%)	1(9.1%)

3. 蘚類는 全體 28科 51屬 67種 1變種을 採集했으며 그 中 다음의 4種은 韓國未記錄種이다.

1). *Leucobryum glaucum* (L). Schimp. 2). *Pseudoleskeopsis ordiculata* (Mitt.) Broth. 3). *Thuidium delicatulum* (Hedw.) Mitt. 4). *Dolichotheca perrobustum* (Broth.) Broth.

4. 苔類는 全體 5科 7屬 9種 2亞種을 採集했으며 그 中 다음의 2種은 韓國未記錄種이다.

1). *Brachiolejeunia sandvicensis* (Gott.) Evans. 2). *Porella vernicosa* Lindb. ssp. *gracillima* (Mitt.) Ando.

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