

# 神戸大学西藏学術登山隊によって採集された川蔵小路の蘚苔類

メタデータ	言語: eng 出版者: 公開日: 2019-11-08 キーワード (Ja): キーワード (En): 作成者: メールアドレス: 所属:
URL	<a href="https://doi.org/10.24517/00055999">https://doi.org/10.24517/00055999</a>

This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 3.0 International License.



Hiroshi DOEI,\* Yoshiaki TAKEDA\*\* and Jinting WANG\*\*\*:  
**Bryophytes from Chuanzang Route Collected  
 by the Tibet Mountaineering and Scientific  
 Expedition of Kobe University in 1986**

土永浩史\*・武田義明\*\*・王 金亭\*\*\*：神戸大学西藏学術登山隊  
 によって採集された川蔵公路の蘚苔類

In April, 1986, Dr. K. HIRAI of Kobe University and his mountaineering party reached the summit of Kulakangri, 7554 m alt., in East Tibet (Xizang), China. During the scientific expedition, from March to May, the second and third authors were members of the party which visited East Tibet and West Sichuan, and collected bryophytes in the Chuanzang Route from Lhasa to Chengdou (Fig. 1, Table 1). The present collection was mainly made in the East Tibet highlands (2000-5000 m alt.), including specimens from the base camp (in Mengda).

The main vegetation types of the region are summarized as follows;

Lakang … coniferous and sclerophyllous forests (*Abies densa*, *Picea likiangensis* var. *linzhiensis*, *Pinus griffithii*, *Quercus semicarpifolia*).  
 Shengge … coniferous forest and shrub (*Picea likiangensis* var. *linzhiensis*, *Calagana jubata*, *Ceratostigma minus*).  
 Mengda … cushion plant community (*Androsace* (Base Camp) *tapete*, *Arenaria bryophylla*) and grassland (*Orinus throldii*, *Stipa purpurea*).  
 Miling … coniferous and sclerophyllous forests (*Pinus densata*, *Quercus aquifolioides*).  
 Tangmai … evergreen and deciduous mixed forests (*Quercus toungmaiensis*, *Populus ciliata* var. *gyirongensis*).  
 Yigong … coniferous forests (*Pinus armandi*,

*P. densata*).

Bomi …… coniferous and sclerophyllous forests (*Pinus densata*, *Picea*, *Quercus*).  
 Yajiang … coniferous forest (*Pinus densata*).  
 Luting …… evergreen and deciduous mixed forests (*Lithocarpus*, *Quercus*, *Cercidiphyllum*, *Davida*).

The bryophyte flora of Tibet had been very poorly known before LI *et al.* (1985), who recorded 754 species of bryophytes under 254 genera, 62 families. Thirteen species (eight mosses and five liverworts) that were not recorded by LI *et al.* are found in our collection; they are marked with an asterisk in the text.

The specimens are all located in the herbarium of Hattori Botanical Laboratory (NICH) and many of the duplicates in the Institute of Botany, Academia Sinica. The collector names Y. TAKEDA and J. WANG are abbreviated as YT. The names of specialists who identified the specimens follow each specimen number.

We are much indebted to Prof. N. KITAGAWA of Nara University of Education who read the manuscript and gave us valuable suggestions. And also greatly indebted to Dr. A. NOGUCHI of Hattori Botanical Laboratory, Dr. H. DEGUCHI of Kochi University, Emer. Prof. H. ANDO of Hiroshima University, Emer. Prof. N. TAKAKI of Nagoya University, and Mr. H. AKIYAMA of Kyoto University, who took the trouble to identify mosses. We wish to express our cordial thanks to the late Prof. S. NAKANISHI and Prof.

\* Division of Environmental Science, The Graduate School of Science and Technology, Kobe University, Rokkodai 1-1, Nada-ku, Kobe 657, Japan; 〒657 神戸市灘区六甲台1-1 神戸大学大学院自然科学研究科環境科学専攻。

\*\* Biological Laboratory, Faculty of Education, Kobe University, Tsurukabuto 3-11, Nada-ku, Kobe 657, Japan; 〒657 神戸市灘区鶴甲3-11 神戸大学教育学部生物学研究室。

\*\*\* Institute of Botany, Academia Sinica, Beijing, China; 北京, 中国科学院植物学研究所。

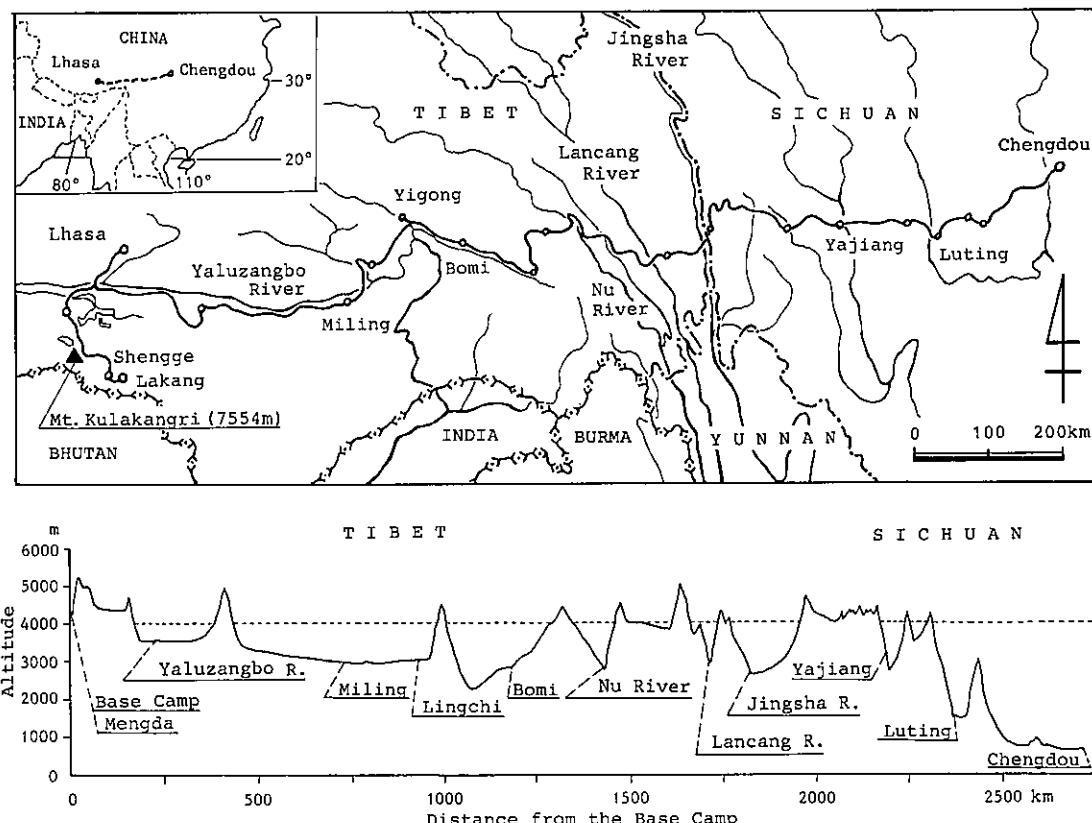


Fig. 1. Map showing the Chuanzang Route investigated by the Tibet mountaineering and scientific expedition of Kobe University (upper) and its vertical route section (lower).

M. TAMURA of Kobe University for their kind advice and encouragement throughout this study.

#### Enumeration of the Species MUSCI

Polytrichaceae  
*Atrichum undulatum* (HEDW.) P. BEAUV., Prodr. 42 (1805).

Specim. exam.: Bomi, Yigong, ca. 2370 m alt., on rotten log, YT-860428-3 (Ver. A. NOGUCHI).

Table 1. Date and collecting sites during the scientific expedition by Kobe University from March to May in 1986.

	Date	Locality	Altitude (m)
March	22-27	Xizang, Lhozhag, Lakang	3260-3880
April	2-3	Xizang, Lhozhag, Shengge	3560-3900
	6-12	Xizang, Lhozhag, Mengda (Base Camp)	4400-5010
	20	Xizang, Lang, Miling	3060-3070
	21	Xizang, Lingchi, Lingchi-Pai	3030
	25	Xizang, Bomi, Tangmai	2340-2390
	28	Xizang, Bomi, Yigong	2340-2390
May	2	Xizang, Bomi, Bomi,	2840
	4	Xizang, Bomi, Bomi-Ranwu	3410
	14	Sichuan, Yajiang,	2370-3120
	27	Sichuan, Tianquan	1270

Distr.: Widely distributed in Northern Hemisphere.

*Polygonatum aloides* (HEDW.) P. BEAUV., Prodr. 84 (1805).

Specim. exam.: Bomi, Yigong, ca. 2370 m alt., on soil, YT-860428-4 (Det. A. NOGUCHI).

Distr.: Europe, East Africa, Himalaya, China, and Japan.

*Polygonatum perichcoetiale* (MONT.) JAEG., Ber. S. Gall. Naturw. Ges. 1873-74 : 257 (1875).

Specim. exam.: Lhohzag, Mengda (Base Camp-Attack Base Camp), ca. 5010 m alt., at waterway on soil, YT-860409-2 (Det. A. NOGUCHI).

Distr.: India, Himalaya, and West China.

*Polytrichum juniperinum* WILLD. ex HEDW., Spec. Musc. 89 (1801).

Specim. exam.: Lhohzag, Lakang, ca. 3390 m alt., on soil, YT-860325-6a (Ver. A. NOGUCHI).

Distr.: Cosmopolitan.

#### Dicranaceae

*Dicranum fuscescens* TURN., Musc. Hib. 60 (1804).

Specim. exam.: Lhohzag, Zengeshan, ca. 3830 m alt., on soil, YT-860327-2 (Det. A. NOGUCHI).

Distr.: Widely distributed in Northern Hemisphere.

*Distichium capillaceum* (HEDW.) B. S. G., Bryol. Eur. 2 : 156 (1846).

Specim. exam.: Lhohzag, Shengge, ca. 3560 m alt., on soil, YT-860403-1a (Det. A. NOGUCHI).

Distr.: Cosmopolitan.

#### Pottiaceae

*Barbula* sp.

Specim. exam.: Lhohzag, Lakang, ca. 3260 m alt., on soil, YT-860322-5b; Bomi, Yigong, ca. 2370 m alt., on concrete, YT-860428-7b, YT-860428-8; Yajiang, ca. 3120 m alt., on rock, YT-860514-13d.

*Didymodon cf. nigrescens* (MITT.) SAITO, Journ. Hattori Bot. Lab. 39 : 510 (1975).

Specim. exam.: Lhohzag, Mengda (Base Camp), ca. 4400 m alt., on soil, YT-860406-2 (Det. H. DEGUCHI).

Distr.: Himalaya, China, and Japan.

*Trichostomum* sp.

Specim. exam.: Yajiang, ca. 3120 m alt., on rock, YT-860514-13e.

*Weissia* sp.

Specim. exam.: Bomi, Yigong, ca. 2410 m alt., on fallen log, YT-860428-11.

#### Grimmiaceae

\**Grimmia affinis* HORNSCH., Flora 2 : 443 (1819).

Specim. exam.: Lang, Miling, ca. 3070 m alt., on rock, YT-860420-11 (Det. H. DEGUCHI).

Distr.: Europe, North Africa, Caucasus, Himalaya, China, Japan, New Guinea, North and South America.

This species was recorded from Tibet by CAO and VITT (1986).

*Grimmia apiculata* HORNSCH., Flora 2 : 85 (1819).

Specim. exam.: BC-ABC (Base Camp-Attack Base Camp), ca. 5000 m alt., on rock, YT-860412-1a (with *Grimmia affinis*, Det. H. DEGUCHI), YT-860412-1b.

Distr.: Europe, India, Himalaya, China, and Japan.

*Grimmia donniana* SM., Engl. Bot. 18 : 1259 (1804).

Specim. exam.: Lhohzag, Mengda (Base Camp), ca. 4420 m alt., on rock, YT-860406-7 (Det. H. DEGUCHI), YT-860406-8a (Det. H. DEGUCHI).

Distr.: Europe, North Africa, Caucasus, Northwestern India, China, East Siberia, Japan, Kamchatka, North and South America, and Antarctica.

\**Grimmia khasiana* MITT., Journ. Linn. Soc. Bot. Suppl. 1 : 45 (1859).

Specim. exam.: Lhohzag, Lakang, ca. 3260 m alt., on rock, YT-860322-12 (Det. H. DEGUCHI); Bomi, Pai, ca. 3030 m alt., on rock, YT-860421-2 (Det. H. DEGUCHI).

Distr.: Himalaya and China.

*Ptychomitrium tortula* (HARV.) JAEG., Ber. S. Gall. Naturw. Ges. 1872-73 : 105 (1874).

Specim. exam.: Bomi, Yigong, ca. 2370 m alt., on concrete, YT-860428-7a (Det. H. DEGUCHI); Yajiang, ca. 3120 m alt., on rock, YT-860514-9 (Det. H. DEGUCHI), YT-860514-10c.

Distr.: Nilghri, Himalaya, and China.

\**Racomitrium javanicum* DOZY et MOLK. in Zoll., Syst. Verz. 32 (1855).

Specim. exam.: Lhohzag, Lakang, ca. 3900 m alt., on rock, YT-860402-2 (Det. H. DEGUCHI), YT-860402-3 (Det. H. DEGUCHI).

Distr.: Himalaya and Java.

\**Schistidium strictum* (TURN.) KOP. et ISOV., in Koponen, Isoviita & Lammes, Flora Fennica 6 :

64 (1977).

Specim. exam.: Yajiang, ca. 3120 m alt., on rock, YT-860514-10b (Det. H. DEGUCHI), YT-860514-11c (Det. H. DEGUCHI).

Distr.: Europe, Siberia, Himalaya, China, Japan, and North America.

This species was recorded from Tibet by CAO and VIITT (1986).

#### Bryaceae

*Bryum argenteum* HEDW., Spec. Musc. 181 (1801).

Specim. exam.: Zongba (Bomi-Ranwu), ca. 3410 m alt., on rock, YT-860504-1.

Distr.: Cosmopolitan.

*Bryum pallens* Sw., Monthly Rev. London 34: 538 (1801).

Specim. exam.: Yajiang, ca. 3120 m alt., on rock, YT-860514-11b (Det. A. NOGUCHI).

Distr.: Nearly Circumboreal.

*Rhodobryum giganteum* (SCHWAEGR.) PARIS, Ind. Bryol. 1116 (1898).

Specim. exam.: Bomi, Yigong, ca. 2380 m alt., in shrubbery on soil, YT-860425-1a.

Distr.: South Africa, Madagascar, South to Southeastern Asia, Japan, and Pacific islands.

*Rhodobryum spathulatum* (HORNNSCH.) PÓCS, Acta Bot. Acad. Sci. Hung. 25: 257 (1979).

Specim. exam.: Bomi, Yigong, ca. 2370 m alt., on soil, YT-860428-6b (Ver. A. NOGUCHI).

Distr.: China.

#### Mniaceae

*Plagiomnium rostratum* (SCHRAD.) KOP., Ann. Bot. Fenn. 5: 147 (1968).

Specim. exam.: Yajiang, ca. 3120 m alt., on rock, YT-860514-10e (Det. A. NOGUCHI).

Distr.: Himalaya, China, and Formosa.

#### Bartramiaceae

*Bartramia halleriana* HEDW., Spec. Musc. 164 (1801).

Specim. exam.: Bomi, Yigong, ca. 2390 m alt., on rock, YT-860428-3a.

Distr.: Widely distributed in both hemispheres.

*Philonotis falcata* (HOOK.) MITT., Journ. Linn. Soc. Bot. Suppl. 1: 62 (1859).

Specim. exam.: Lang, Miling, ca. 3070 m alt., on wet soil, YT-860420-10 (Ver. A. NOGUCHI).

Distr.: Africa, India, Nepal, Bhutan, Burma,

Vietnam, China, Formosa, Korea, Japan, Philippines, and Hawaii.

#### Climaciaceae

*Climacium dendroides* (HEDW.) WEB. et MOHR, Naturh. Reise Schweden 96 (1804).

Specim. exam.: Lhohag, Shengge, ca. 3900 m alt., on soil, YT-860402-4a.

Distr.: Europe, Siberia, Nepal, China, Korea, Japan, North America, and New Zealand.

#### Cryphaeaceae

*Forssstroemia* sp.

Specim. exam.: Bomi, Yigong, ca. 2340 m alt., on soil, YT-860425-2a.

#### Leucodontaceae

*Leucodon strictus* (HARV.) JAEG., Ber. S. Gall. Naturw. Ges. 1875-76: 216 (1877).

Specim. exam.: Bomi, Yigong, ca. 2390 m alt., on fallen log, YT-860428-12b (Det. H. AKIYAMA); ca. 2430 m alt., on fallen log, YT-860428-13 (Det. H. AKIYAMA); Bomi, Bomi, ca. 2840 m alt., on tree trunk of *Quercus*, YT-860502-3 (Det. H. AKIYAMA).

Distr.: West Nepal, China, and Japan.

#### Trachypodaceae

*Trachypus humilis* LINDB., Act. Soc. Sc. Fenn. 10: 230 (1872).

Specim. exam.: Bomi, Yigong, ca. 2390 m alt., on rock, YT-860428-3d.

Distr.: Nepal, China, Formosa, Korea, Japan, Tropical Asia, Pacific islands, and Australia.

#### Meteorieraceae

*Meteorium buchananii* (BRID.) BROTH. subsp. *buchananii* in Engler u. Prantl, Nat. Pflanz. 1(3): 818 (1906).

Specim. exam.: Bomi, Yigong, ca. 2390 m alt., on fallen log, YT-860428-12a; Bomi, Bomi, ca. 2840 m alt., on rock, YT-860502-2a (Det. A. NOGUCHI).

Distr.: India, Himalaya, Thailand, and China.

#### Neckeraceae

\**Neckera brachyclada* BESCH., Ann. Sc. Nat. Bot., ser. 7, 15: 75 (1892).

Specim. exam.: Bomi, Yigong, ca. 2390 m alt.,

on rock, YT-860428-3b (Det. A. NOGUCHI).

Distr.: Himalaya.

*Neckeropsis calcicola* NOG., Journ. Hattori Bot. Lab. 16: 124 (1956).

Specim. exam.: Xingon-Tianquan, ca. 1270 m alt., on rock, YT-860527-2a, YT-860527-2b.

Distr.: China and Japan.

#### Thuidiaceae

*Abietinella abietina* (HEDW.) FLEISCH., Musci Fl. Buitenzorg 4: 1497 (1923).

Specim. exam.: Lhzhag, Lakang, ca. 3260 m alt., on soil, YT-860322-3b, ca. 3280 m alt., on soil, YT-860322-11a, YT-860322-11b.

Distr.: Widely distributed in Northern Hemisphere.

*Actinothuidium hookeri* (MITT.) BROTH., in Engler u. Prantl, Nat. Pflanz. 1(3): 1020 (1908).

Specim. exam.: Lhzhag, Lakang, ca. 3880 m alt., on soil, YT-860324-2b, ca. 3430 m alt., on soil, YT-860324-5a, YT-860324-5b, YT-860324-5c.

Distr.: Himalaya, Assam, Burma, China, Buthan, and Formosa.

*Herpetineuron toccoce* (SULL. et LESQ.) CARD., Beih. Bot. Centralbl. 19(2): 127 (1905).

Specim. exam.: Bomi, Yigong, ca. 2340 m alt., on rock, YT-860425-2b.

Distr.: Africa, Asia, and North and South America.

*Thuidium cymbifolium* (DOZY et MOLK.) DOZY et MOLK., Bryol. Jav. 2: 115 (1865).

Specim. exam.: Lhzhag, Shengge, ca. 3900 m alt., on soil, YT-860402-4b (Det. A. NOGUCHI); Yajiang, ca. 3120 m alt., on rock, YT-860514-11d; Bomi, Bomi, ca. 2840 m alt., on rock, YT-860502-1c; Yajiang, ca. 3120 m alt., on rock, YT-860514-13a (Det. A. NOGUCHI).

Distr.: Widely distributed in Asia.

#### Brachytheciaceae

\**Brachythecium glareosum* (SPR.) B. S. G., Bryol. Eur. 6: 23 (1853).

Specim. exam.: Yigong, ca. 2370 m alt., on soil, YT-860428-6a (Det. N. TAKAKI).

Distr.: Caucasus, Siberia to Northern Hemisphere.

*Brachythecium plumosum* (HEDW.) B. S. G., Bryol. Eur. 6: 8 (1853).

Specim. exam.: Bomi, Yigong, ca. 2340 m alt.,

on soil, YT-860425-2c (Det. A. NOGUCHI).

Distr.: Widely distributed in Northern Hemisphere, and New Zealand.

*Camptothecium auriculatum* (JAEG.) BROTH., Nat. Pfl. ed. 2, 11: 353 (1925).

Specim. exam.: Bomi, Bomi, ca. 2840 m alt., on rock, YT-860502-1b (Ver. A. NOGUCHI), YT-860502-2b.

Distr.: China, Formosa, Japan, and Sakhalin.

*Eurhynchium laxirete* BROTH. in Card., Bull. Soc. Bot. Geneve ser, 2, 4: 380 (1912).

Specim. exam.: Bomi, Yigong, ca. 2380 m alt., in shrubbery on soil, YT-860425-1b (Det. A. NOGUCHI).

Distr.: China, Korea, and Japan.

#### Entodontaceae

*Entodon concinnus* (DE NOT.) PARIS, Ind. Bryol. ed. 2, 2: 130 (1904).

Specim. exam.: Bomi, Bomi, ca. 2840 m alt., on rock, YT-860502-1a (Ver. A. NOGUCHI), YT-860502-2c; Yajiang, ca. 3120 m alt., on rock, YT-860514-11a.

Distr.: Europe, Asia, and North America.

#### Sematophyllaceae

*Brotherella falcatula* Broth., Symb. Sin. 4: 119 (1929).

Specim. exam.: Lhzhag, Lakang, ca. 3380 m alt., on rotten log, YT-860325-3a (Det. A. NOGUCHI), YT-860325-3b.

Distr.: China.

#### Hypnaceae

\**Callicladium haldanianum* (GREV.) CRUM, Bryologist 74: 167 (1971).

Specim. exam.: Yajiang, ca. 3120 m alt., on rock, YT-860514-12 (Ver. A. NOGUCHI).

Distr.: Europe, Siberia, Kashimir, East China, Korea, Japan, Kuril Islands, and North America.

\**Hypnum macrogynum* BESCH., Ann. Sc. Nat. Bot., ser. 7, 15: 91 (1892).

Specim. exam.: Lang, Milng, ca. 3060 m alt., on rock, YT-860420-8 (Det. H. ANDO).

Distr.: Himalaya to Southern China, and Formosa.

*Rhytidadelphus triquetrus* (HEDW.) WARNST., Krypt. Fl. Brandenburg 920: 996 (1906).

Specim. exam.: Lhzhag, Lakang, ca. 3880 m

alt., on soil, YT-860324-2a.

Distr.: Widely distributed in Northern Hemisphere.

*Rhytidium rugosum* (HEDW.) KINDB., Bih. K. Svensk. Vet Ak. Handl. 7(9): 15 (1883).

Specim. exam.: Lhohzag, Lakang, ca. 3260 m alt., on soil, YT-860322-3a, YT-860322-4.

Distr.: Europe, Morokko, Caucasus, Siberia, Himalaya, China, Formosa, Korea, Japan, and North America.

#### HEPATICAE

##### Herbertaceae

*Herbertus fragilis* (STEPH.) HERZ., Ann. Bryol. 12: 80 (1939).

Specim. exam.: Lhohzag, Lakang, ca. 3390 m alt., on soil, YT-860325-6h (Det. N. KITAGAWA).

Distr.: Ceylon, Himalaya, Sikkim, and China.

#### Pseudolepicoleaceae

*Blepharostoma trichophyllum* (L.) DUM., Rec. d' Obs. Jung. 18 (1835).

Specim. exam.: Lhohzag, Lakang, ca. 3390 m alt., on soil, YT-860325-6d.

Distr.: Europe, Himalaya, China, Formosa, Korea, Japan, Sakhalin, and North America.

#### Lepidoziaceae

*Bazzania bidentula* (STEPH.) STEPH. ex YASUDA, Syokubuthgaku-Kakuron, 711 (1911).

Specim. exam.: Lhohzag, Lakang, ca. 3390 m alt., on soil, YT-860325-6b (Det. N. KITAGAWA).

Distr.: China, Korea, and Japan.

\**Lepidozia stahlii* STEPH., Spec. Hepat. 3: 616 (1909).

Specim. exam.: Lhohzag, Lakang, ca. 3390 m alt., on soil, YT-860325-6g.

Distr.: Himalaya, Java, and Papua New Guinea.

#### Calypogeiaeae

*Calypogeia* sp.

Specim. exam.: Lhohzag, Lakang, ca. 3390 m alt., on soil, YT-860325-6e.

#### Lophoziaeae

*Lophozia* sp.

Specim. exam.: Lhohzag, Shengge, ca. 3560 m alt., on soil, YT-860403-1b.

#### Geocalycaceae

\**Heteroscyphus argutus* (NEES) SCHIFFN., Oesterr. Bot. Zeitschr. 60: 172 (1910).

Specim. exam.: Bomi, Yigong, ca. 2380 m alt., in shrubbery on soil, YT-860425-1c (a form with subentire leaves, Det. N. KITAGAWA).

Distr.: Southeastern Asia, New Zealand, and Australia.

#### Plagiochilaceae

*Plagiochila* sp.

Specim. exam.: Bomi, Yigong ca. 2390 m alt., on rock, YT-860428-3c; Yajiang, ca. 3120 m alt., on rock, YT-860514-13c.

\**Xenochila integrifolia* (MITT.) INOUE, Bull. Nat Sci. Mus. 6(4): 373 (1963).

Specim. exam.: Bomi, Yajidng, ca. 2380 m alt., in shrubbery on soil, YT-860425-1d.

Distr.: Himalaya, Formosa, Korea, and Japan.

#### Frullaniaceae

*Frullania davurica* HAMPE, in Gott., Lindenb. & Nees, Synop. Hepat. 422(1845).

Specim. exam.: Yajiang, ca. 3120 m alt., on rock, YT-860514-13b (with \**Ptychanthus chinensis* STEPH., Det. N. KITAGAWA).

Distr.: Southeastern Siberia, China, Formosa, Korea, and Japan.

#### Porellaceae

*Porella obtusata* (TAYL.) TREV. fo. *macroloba* (STEPH.) HATT., Journ. Hattori Bot. Lab. 44: 106 (1978).

Specim. exam.: Lhohzag, Lakang, ca. 3390 m alt., on soil, YT-860325-6f.

Distr.: Northwestern India, China, Formosa, and Japan.

#### Lejeuneaceae

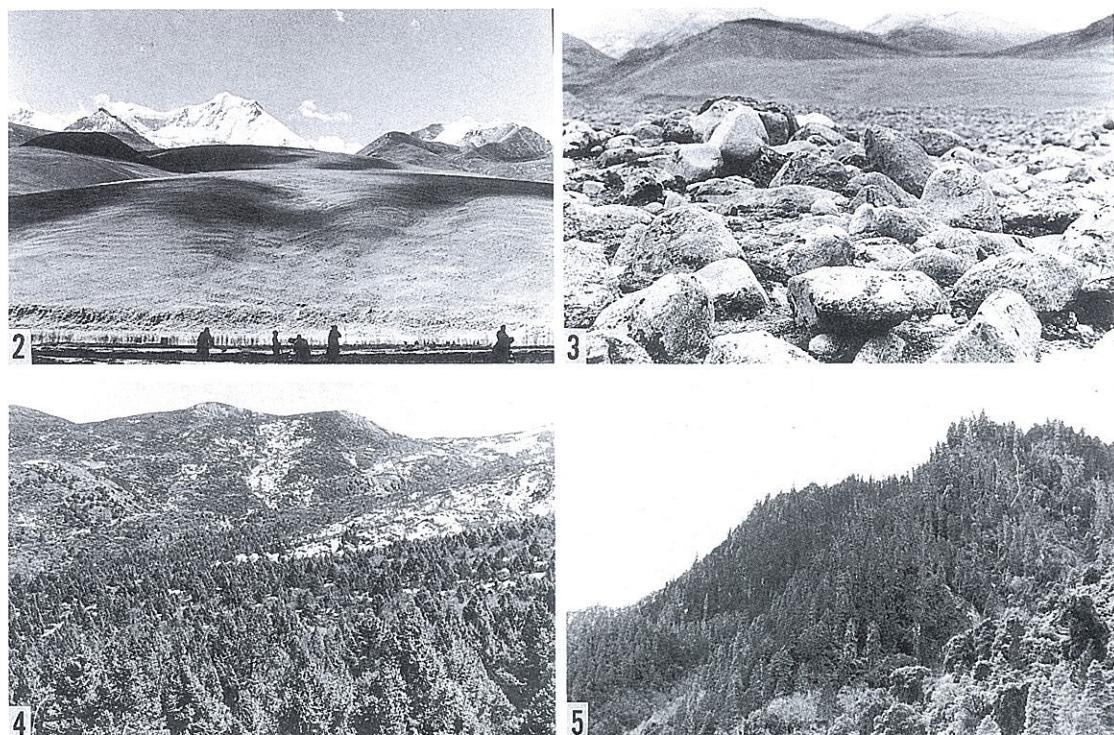
\**Lejeunea discreta* LINDENB., in Gott., Lindenb. & Nees, Synop. Hepat. 361 (1845).

Specim. exam.: Yajiang, ca. 3120 m alt., on rock, YT-860514-10d (Det. N. KITAGAWA).

Distr.: India, Ceylon, Himalaya, Japan, Sumatra, Java, Borneo, Molucca, Philippines, New Guinea, and New Caledonia.

#### Metzgeriaceae

*Apometzgeria pubescens* (SCARANK) KUWAH.,



Figs. 2-5. 2: A view of Mt. Kulakangri (Mengda). 3: The family Grimmiaceae growing on the rocks (Base Camp, ca. 4400 m alt.). 4: The *Picea likiangensis* var. *linzhiensis* forest in Shengge (ca. 3900 m alt.). 5: The *Pinus armandi* forest in Yigong (ca. 2300 m alt.).

Rev. Bryol. Lichénol. 34 : 212 (1966).

Specim. exam.: Lhohzag, Lakang, ca. 3390 m alt., on soil, YT-860325-6c.

Distr.: Europe, Caucasus, India, Himalaya, Temperate regions of Asia, Alutians, Alaska, North America, and Southern South America.

#### References

- CAO, T. and VITT, D. H. 1986. A taxonomic revision and phylogenetic analysis of *Grimmia* and *Schistidium* (Bryopsida; Grimmiaceae) in China. Journ. Hattori Bot. Lab. 61: 123-247.  
LI X. -J. (chief ed.). 1985. Bryflora of Xizang. 581pp. Scince Press. Beijing.

#### 摘要

1986年3月から5月にかけて、神戸大学西藏学術登山隊によって中国の西藏と四川を結ぶ川蔵公路沿いの蘚苔類が採集された。その中で、LI et al. (1985)に報告されていない13種類（8種の蘚類と5種の苔類）を新たに記録した。それらは蘚類の *Brachythecium glareosum*, *Callicladium haldanianum*, *Grimmia affinis*, *G. khasiana*, *Hypnum macrogynum*, *Neckera brachyclada*, *Racomitrium javanicum*, *Schistidium strictum* と苔類の *Heteroscyphus argutus*, *Lejeunea discreta*, *Lepidozia stahlii*, *Ptychanthus chinensis*, *Xenochila integrifolia* であった。

(Received Feb. 17, 1988)

○ 池上義信（監修）石沢 進（編集）新潟県植物分布図集 第8集 コーエイ印刷株式会社（〒950 新潟市弁天橋通1-31-30, 振替口座 新潟1-5599), 昭和62年12月25日発行。A4判, 498頁+図版12頁。定価は不詳につき、植物同好じねんじょ会（小千谷市山寺, 関省吾方）に御尋ね下さい。

第7集（本誌35巻1号に紹介）と同様100種につき、水平分布図・垂直分布図ならびに引用した標本産地が記されている。なお、巻末に第1~7集の追補と新潟県で新らしく記録された種類の記録の他、所々に赤崎山の風光、フユイチゴの分布の北限、グンバイヒルガオの漂着など多くの雑録が挿入されている。（里見信生）