

Mosses New to Hong Kong (III)

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Abstract. Ten moss species - *Philonotis turneriana* (Schwaegr.) Mitt., *Fissidens javanicus* Dozy & Molk., *Lopidium nazeense* (Ther.) Broth., *Himatocladium cyclophyllum* (C. Muell.) Fleisch., *Homaliodendron exigium* (Bosch & Lac.) Fleisch., *Homaliodendron microdendron* (Mont.) Fleisch., *Homaliodendron scapellifolium* (Mitt.) Fleisch., *Pinnatella anacamptolepis* (C. Muell.) Broth., *Calypothecium wrightii* (Mitt.) Fleisch. and *Haplocladium angustifolium* (Hampe & C. Muell.) Broth. are reported new to Hong Kong. Among them, four are new to Guangdong Province of China. An updated checklist of Hong Kong mosses is provided.

A locality near the summit of Tai Mo Shan, at an altitude of 700m, appears to be rich in rare moss species. It is a shaded area near a stream filled with rocks of varying sizes. Most of the mosses are epilithic, some are epiphytic. All species were collected during the summer of 1994.

The new records are listed below. Since Hong Kong is now part of the Guangdong Province of China, those new to Guangdong are marked with an asterisk.

An updated checklist of Hong Kong Mosses is also included.

Bartramiaceae

* *Philonotis turneriana* (Schwaegr.) Mitt.

This species was found in a large patch attached to a moist rock crevice. The terminal part has a cluster of closely arranged leaves, yellowish green in colour. The proximal part is dark brown producing clusters of rhizoids. The stem is 20-30 mm long, with lanceolate leaves which are slightly appressed. No capsule was observed.
(So 94808A Verified by P.C. Wu)

Fissidentaceae

Fissidens javanicus Dozy & Molk.

This species is fairly common on moist rocks near streams at an elevation of 300 m or above. The stem is 6-10 mm long, bearing yellowish green leaves

which have a characteristic rugose appearance on the dorsal surface. Capsules have not been observed.

(So 93824F, Verified by Z.H.Li)

Hypopterygiaceae

* *Lopidium nazeense* (Ther.) Broth.

This is an extremely rare species, found on the surface of only one rock. Superficially, it resembles *Hypopterygium tenellum* which grew in the same spot, but the leaves are brighter green in colour. It is characterized by having a creeping rhizome producing stout stipes and erect pinnate branches. The leaves are complanately arranged, and the costa is distinct and stout, shortly excurrent and slightly curved to one side of the leaf. (So 94617A, Verified by P.C. Wu)

Neckeraceae

Himatocladium cyclophyllum (C. Muell.) Fleisch.

This is again a moss of high altitude and is found creeping along rock surfaces. It usually occurs together with *Thanobryum plicatum* and *Homaliodendron scapellifolium* in a large patch. It has a distinctive, tree-like appearance and the leaves are almost rectangular in shape with a truncated tip. The plant is robust, green, not at all glossy. The leaves (to 5 mm long) are densely and spirally arranged along the branches. No capsules were observed.

(So and Yip 94830, Verified by L. Zhang)

Homaliodendron exiguum (Bosch & Lac.) Fleisch.

This is a common epilithic species which is found in almost all streams with rocks. Erect branches are produced from the rhizome which creeps over moist rock surfaces. The plant is fairly small, slightly glossy and the stems seldom grow to more than 30 mm long and 2 mm wide with leaves. The stems are sparsely branched, and branches are very short. Capsules have not been observed. (So 93824, Verified by D.K.Li.)

Homaliodendron microdendron (Mont.) Fleisch.

This is a rather common moss species found attached to base of trees or moist rock surfaces. Superficially, it bears some resemblance to *Homalia trichomanoides* but it is larger and glossier than the latter, which is a species of moist rock surfaces. The secondary stems are bi- to tripinnately branched and may grow to 60 mm long and 5 mm wide with leaves; branching is pinnate. Capsules have not been observed.

(So & Yip 94830H, Verified by Z. Iwatsuki)

Homaliodendron scapellifolium (Mitt.) Fleisch.

This is one of the largest moss species found in Hong Kong and a very common one, on rock near streams, at an altitude of 400 m and above. It is fairly easily recognized, with a distinct stipe, erect stem and complanate leaves. The erect stems may grow to 110 mm and are bi- to tripinnately branched, producing a large fan-like frond. The leaves on the secondary stems are broadly acute, to 5 mm long. One feature of the leaves is the sharply dentate tip which distinguishes it from the other *Homaliodendron* species in Hong Kong. No capsules were seen.

(So 94617C, Verified by L. Zhang)

* *Pinnatella anacamptolepis* (C. Muell.) Broth.

This is a rare species which was found on one rock surface in deep shade at an altitude of 700 m. It is a robust moss with a tree-like appearance and a leafless rhizome which creeps over the substrate. The stems with a distinct stipe are semi-erect, complanately and pinnately branched. No capsules were found.

(So 94617C, Verified by L. Zhang)

Pterobryaceae

* *Calypothecium wrightii* (Mitt.) Fleisch.

This is a rare species which was found creeping on the surface of a rock at an altitude of 700 m. The plant is robust, dull green in colour and slightly

glossy. The long rhizome produces distinctly spaced erect secondary stems which are pinnately branched. No capsule was observed. (So94520A, Verified by L. Zhang.)

Thuidaceae

Haplocladium angustifolium (Hampe & C. Muell.) Broth.

This is a common species which can be found on soil bank or rock surfaces at an altitude of 300 m or above. The plant is delicate, bi-pinnately branched, green above but brownish green below. The leaves are erect spreading when moist, but closely pressed together when dry. Capsules are numerous, with a seta of 7 mm. (So93914B, Verified by S.H.Lin)

An alphabetical list of Hong Kong mosses

The first checklist of mosses was compiled by Dixon more than 50 years ago (Dixon, 1933). The following is an updated checklist of mosses which includes all the new records reported since. The published records are cited by the abbreviations given below. The generic and species names which have been updated, follow that of Redfearn (1992). Synonyms are not included.

Literature abbreviations:

BG = But & Gao 1991

D = Dixon 1993

GB = Gao & But 1992

H = Henry 1929

M1 = Mitten 1865

M2 = Mitten 1891

R = Reimers 1931

S = Salmon 1900

SL = Sullivan & Lesquereux 1859

SS = So & So 1994

SY1 = So & Yip 1994

SY2 = So & Yip present report

W = Wilson 1848

Aerobryidium wallichii (Brid.) Fleisch. H

Atrichum undulatum (Hedw.) P. Beauv. SY1

Barbula indica (Hook.) Spreng. in Stend. D

<i>Barbula javanica</i> Dozy & Molk.	D
<i>Barbula unguiculata</i> Hedw.	S
<i>Brachythecium moriense</i> Besch.	SY1
<i>Bryum atrovirens</i> Vill ex Brid.	D
<i>Bryum cellulare</i> Hook. in Schwaegr.	D
<i>Bryum coronatum</i> Schwaegr.	SY1
<i>Callicostella papillata</i> (Mont.) Mitt.	BG
<i>Calypothecium wrightii</i> (Mitt.) Fleisch.	SY2
<i>Calymperes afzeii</i> Sw.	RL
<i>Calymperes erosum</i> C. Muell.	S
<i>Calymperes fasciculatum</i> Dozy & Molk	RL
<i>Calymperes molluccense</i> Schwaegr.	RL
<i>Calymperes tenerum</i> C. Muell.	GB
<i>Campylopus japonicus</i> Broth.	D
<i>Campylopus laxitextus</i> Lac.	SS
<i>Campylopus serratus</i> Lac.	D
<i>Campylopus umbellatus</i> (Arn.) Par.	S
<i>Dicranella coarctata</i> (C. Muell.) Bosch et Lac.	S
<i>Dicranoloma cylindrothecium</i> (Mitt.) Sak.	D
<i>Dicranum sericifolium</i> Dix.	
<i>Diphyscium fulvifolium</i> Mitt.	BG
<i>Distichophyllum collenchymatosum</i> Card.	D
<i>Distichophyllum maibarae</i> Besch.	BG
<i>Ditrichum pallidum</i> (Hedw.) Hampe	SY1
<i>Ectropothecium dealbatum</i> (Hornsch. v Reinw.) Jaeg.	D
<i>Ectropothecium monumentorum</i> (Duby) Jaeg.	D
<i>Ectropothecium nervosum</i> Dix.	D
<i>Ectropothecium perreticulatum</i> Broth. in Salm.	S
<i>Ectropothecium zollingeri</i> (C. Muell.) Jaeg.	D
<i>Eurhynchium hians</i> (Hedw.) Lac.	SY1
<i>Fissidens ceylonensis</i> Dozy & Molk.	SS
<i>Fissidens dubios</i> P. Beauv.	SS
<i>Fissidens javanicus</i> Dozy & Molk.	SY2
<i>Fissidens geminiflorus</i> Dozy & Molk.	D
<i>Fissidens laxus</i> Sull. & Lesq.	SL
<i>Fissidens maceratus</i> Mitt.	SS
<i>Fissidens nobilis</i> Griff.	W
<i>Fissidens oblongifolius</i> Hook. f. & Wils.	SL
<i>Fissidens taxifolius</i> Hedw.	D
<i>Fissidens zippelianus</i> Dozy & Molk. in Zoll.	D
<i>Fissidens zollingeri</i> Mont.	D
<i>Funaria hygrometrica</i> Hedw.	S
<i>Garkea flexuosa</i> (Griffith) Marg. & Nork	SS
<i>Gymnostomiella longinervis</i> Broth.	BG
<i>Haplocladium angustifolium</i> (Hampe & C. Muell) Broth.	SY2

- Haplocladium microphyllum* (Hedw.) Broth. S
Herpetineuron toccoeae (Sull. & Lesq.) Card. M1
Himatocladium cyclophyllum (C. Muell.) Fleisch. SY2
Holomitrium densifolium (Wils.) Wijk & Marg. D
Homalia trichomanoides (Hedw.) B.S.G. SS
Homaliodendron exiguum (Bosch et Lac.) Fleisch. SY2
Homaliodendron microdendron (Mont.) Fleisch. SY2
Homaliodendron squarulosum Fleisch. D
Homaliodendron scapellifolium (Mitt.) Fleisch. SY2
Hookeria acutifolia Hook. et Grev. BG
Hyophila involuta (Hook.) Jaeg. D
Hypnum plumaeforme Wils. S
Hypopterygium tenellum C. Muell. BG
Hypopterygium sinicum Mitten M2
Isopterygium minutirameum (C. Muell.) Jaeg. SS
Isopterygium tenerum (Sw.) Mitt. S
Leucobryum aduncum Dozy & Molk. D
Leucobryum bowringii Mitt. D
Leucobryum glaucum (Hedw.) Aongstr. in Fr. D
Leucobryum javense (Brid.) Mitt. D
Leucobryum juniperoideum (Brid.) C. Muell. D
Leucobryum scaberulum Card. S
Leucobryum scaberulum Card. var. *divaricatum* Dix. D
Leucobryum scabrum Lac. D
Leucoloma molle (C. Muell.) Mitt. D
Lopidium nazeense (Ther.) Broth. SY2
Lorentzia velata (Mitt.) Buck & Crum BG
Macromitrium brevituberculatum Dix. D
Macromitrium ferriei Card & Ther. BG
Macromitrium heterodictyon Dix. D
Macromitrium tuberculatum Dix. D
Octoblepharum albidum Hedw. BG
Oediacidium fragile Card. D
Pinnatella anacamptolepis (C. Muell.) Broth. SY2
Philonotis appressifolia Dix. D
Philonotis hastata (Dub.) Wijk & Marg. D
Philonotis thwaitesii Mitt. SS
Philonotis turneriana (Schwaegr.) Mitt. SY2
Physcomitrium eurystomum Sendtn. W
Physcomitrium japonicum (Hedw.) Mitt. S
Pilotrichopsis dentata (Mitt.) Besch. D
Pinnatella anacamptolepis (C. Muell.) Broth. SY2
Plagiomnium succulentum (Mitt.) T. Kop. D
Pogonatum contortum (Brid.) Lesq. D
Pogonatum neesii (C. Muell.) Dozy SS
Polytrichum formosum Hedw. SS
Pseudobarbella attenuata (Thwaites & Mitt.) Nog. D
Pseudoleskeopsis zippelii (Dozy & Molk.) Broth. SY1
Racopilum aristatum Mitt. BG
Rhamphidium vaginatum Broth. D
Rhaphidostichum boscii ssp. *boscii* fide Kuo & Chiang. W
Rhaphidostichum boscii ssp. *thelidictyon* (Sull. & Lesq.) Seki SL
Rhaphidostichum macrostictum (Broth. & Par.) Broth. D
Schlothemia grevilleana Mitt. D
Sematophyllum pulchellum (Card.) Broth. D
Sematophyllum robustulum (Card.) Broth. D
Sematophyllum subhumile ssp. *japonicum* (Broth.) Seki D
Stereodontopsis pseudorevoluta (Reimers) Ando. D
Syrrophodon armatus Mitt. RL
Syrrophodon japonicus (Besch.) Broth. D
Syrrophodon prolifer var. *tosaensis* (Card.) Orban & Reese BG
Taxithelium oblongifolium (Sull. & Lesq.) Iwatsuki SL
Thamnobryum plicatum (Lac.) Iwats. SY1
Thuidium cymbifolium (Dozy & Molk.) Dozy & Molk. D
Thuidium glaucinoides Broth. D
Thuidium recognitum var. *delicatulum* (Hedw.) Warnst. S
Trematodon longicollis Michx. W
Trichosteleum mammosum (C. Muell.) Jaeg. SY1
Vesicularia dubyana (C. Muell.) Broth. D
Vesicularia reticulata (Dozy & Molk.) Broth. SY1
Weissia controversa Hedw. SY1

Systematic arrangement of the Genera and Families

DITRICHACEAE

Ditrichum
Garkea

FISSIDENTACEAE

Fissidens

DICRANACEAE

Campylopus
Dicranella
Dicranoloma
Dicranum
Holomitrium
Leucoloma
Trematodon

LEUCOBRYACEAE

Leucobryum
Octoblepharum

CALYMPERACEAE

Calymperes
Syrrhopodon

POTTIACEAE

Barbula
Hyophila
Rhamphidium
Weissia

FUNARIACEAE

Funaria
Physcomitrium

SPLACHNACEAE

Gymnostomiella

BRYACEAE

Bryum

PLAGIOMNIACEAE

Plagiomnium

BARTRAMIACEAE

Philonotis

ORTHOTRICHACEAE

Macromitrium
Schlotheimia

RACOPILACEAE

Racopilum

CRYPHAEACEAE

Pilotrichopsis

PTEROBRYACEAE

Calyptothecium

MYRIACEAE

Oedocladium

METEORIACEAE

Aerobryidium
Pseudobarbella

NECKERACEAE

Homalia

Himatocladium

Homaliodendron

Pinnatella

Thamnobryum

BRACHYTHECIACEAE

Brachythecium

Eurhynchium

THUIDIACEAE

Herpetineuron

Lorentzia

Thuidium

DALTONIACEAE

Distichophyllum

CALLICOSTACEAE

Callicostella

Hookeria

HYPOPTERYGIACEAE

Hypopterygium

Lopidium

LESKEACEAE

Pseudoleskeopsis

SEMATOPHYLLACEAE

Rhaphidostichum

Sematophyllum

Taxithelium

Trichosteleum

HYPNACEAE

Ectropothecium

Hypnum

Isopterygium

Stereodontopsis

Vesicularia

POLYTRICHACEAE

Atrichum

Pogonatum

Polytrichum

BUXBAUMIACEAE

Diphyscium

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