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## Mosses New to Hong Kong (II)

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**Abstract.** Ten moss species - *Thamnobryum plicatulum* (Lac.) Iwats., *Ditrichum pallidum* (Hedw.) Hampe, *Brachythecium moriense* Besch., *Eurhynchium hians* (Hedw.) Lac., *Atrichum undulatum* (Hedw.) P. Beauv., *Bryum coronatum* Schwaegr., *Pseudoleskeopsis zippelii* (Dozy & Molk.) Broth., *Weissia controversa* Hedw., *Trichosteleum mammosum* (C. Muell.) Jaeg. and *Vesicularia reticulata* (Dozy & Molk.) Broth. are reported new to Hong Kong. Among them, seven are new to Guangdong Province of China.

Following a half-year preliminary investigation of local mosses and liverworts conducted during the summer of 1993, a continued search turned up more species new to Hong Kong. Most of them were found at an altitude of 500 m in the vicinity of a waterfall. Water is plentiful most of the year, especially during the summer months. Even during the dry winter months, the rocks around the waterfalls remain wet. The mosses are mostly epilithic and are often splashed by water.

The new records are listed below:

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

Brachytheaceae

\* *Brachythecium moriense* Besch.

This creeping moss is light green in colour with prostrate stems producing numerous branches which creep over almost any object as it grows. It is especially abundant in a shaded area at the top of Tai Mo Shan (980m), twining around trees, creeping over stones and forming dense mats on the forest floor. The stem leaves are appressed and concave, with a tapering tip. Branch leaves are lanceolate, also concave, with costa reaching just over half the length of the lamina. No capsule was observed.

(So 93928J Verified by S.H. Lin.)

\* *Eurhynchium hians* (Hedw.) Lac.

This delicate creeping moss was abundant at an elevation of 500m, covering rock surfaces in stream and forming a dense mass. It is continuously wetted by water. The stem is fairly robust, only sparingly covered by leaves. However, the branches are densely leaved. Leaf margins are serrated, and the costa extends to near the leaf apex. No capsule was found.  
(So 94208H Verified by P.C. Wu)

#### Bryaceae

##### *Bryum coronatum* Schwaegr.

This is one of the common species of *Bryum* found locally. It is found almost everywhere, often together with two other common mosses *Hyophila involuta* and *Barbula indica*. It can be seen in urban areas, exposed to bright light and as well as at high altitudes in forested habitats. These small mosses occur in green dense tufts and even large cushion-like masses closely adhered to the substratum. The stem is about 5 mm long and the stem leaves are spirally arranged forming a rosette when viewed from the surface.  
(So 93710B Verified by S.H. Lin)

#### Ditrichaceae

##### \* *Ditrichum pallidum* (Hedw.) Hampe

This species makes its appearance only during the cold winter season (Jan.-March.) and usually disappears in summer. It is not very common and has been seen at an elevation of 300-500 m on sandy soil in large patches of light green tufts. The stem reaches 10 mm long, bearing erect, filiform, light green leaves along its length. The leaves are thin except at the base and the costa is broad, long excurrent, occupying most of the lamina. Capsules (2 mm) borne on a long seta (20 mm) are suberect, cylindrical and slightly asymmetric, becoming reddish brown when mature and the peristome teeth are twisted above. The calyptra is rather long (3 mm) when compared to the size of the capsule; pale in colour.  
(So 94131A Verified by P.C. Wu)

#### Hypnaceae

##### *Vesicularia reticulata* (Dozy & Molk.) Broth.

This is a very common species which is often found in large masses on moist rocks. It is characterized by having complanate leaves, often glossy and yellowish green. The creeping stem bears pinnate branches. The stem leaves are broadly ovate. The branch leaves are also broadly ovate with an obscure costa. The pendent capsules are borne on a seta 15 mm long. The operculum has a short beak.  
(So 94110D Verified by P.C. Wu)

#### Leskeaceae

##### \* *Pseudoleskeopsis zippelii* (Dozy & Molk.) Broth.

This is a very common species of creeping moss which is found at an elevation of 500 m on rocks near a waterfall, continuously dripped by water. Often it grows together with *Racopilum aristatum* and *Hypnum plumaeforme* in large patches. The plant is robust and murky in colour, with long creeping stems which branch profusely. The stem leaves are broadly lanceolate, but branch leaves are incurved. The seta varies from 10-20 mm in length, and the capsules are oblong in shape. The calyptra is 3 mm in length.  
(So 94208C Verified by P.C. Wu)

#### Polytrichaceae

##### \* *Atrichum undulatum* (Hedw.) P. Beauv.

This is not a common species and was found at the bottom of a waterfall at 500m. It forms a thick mass on the surface of moist rocks, continuously splashed by water. The leaves are dark green, very robust and crowded around the erect stems (2 cm tall), especially at the tip. The leaves are lanceolate in shape and the lamina has a characteristic "rippled" appearance. Margins are bordered by two rows of linear cells, and the costa is percurrent.  
(So 94208F Verified by P.C. Wu)

#### Pottiaceae

##### \* *Weissia controversa* Hedw.

This is a rather common species of erect moss which can be found at an elevation of 100 m to 500 m on soil banks, exposed to bright light. Often the leaves are found to be incurved in a claw-like fashion around the stem. The stem is 5 mm long, bearing spirally arranged light green leaves which are linear lanceolate in shape; leaf margins are slightly involute and the costa is excurrent. This moss bears abundant capsules which are erect, ovoid, brown in colour when mature. The seta is 10 mm long.

(So94131B Verified by Z. Iwatsuki)

Sematophyllaceae

*Trichosteleum mammosum* (C. Muell.) Jaeg.

This moss forms a compact mass on rotten logs at an elevation of 300 m. The leaves are dull green in colour, and not glossy at all. The stems are prostrate, bearing closely arranged erect leaves which are ovate in shape, tapering at the tip. Margins are entire but laminal cells have very fine papillae, and also a distinct border. Alar cells are three in number, oblong, uniformly thickened, and much longer than the cells at the leaf base. The seta is 5 mm long, bearing a pendent capsule with a smooth calyptra.

(So94131E Verified by P.C. Wu)

Thamnobyaceae

\* *Thamnobryum plicatum* (Lac.) Iwats.

This is one of the few large epilithic mosses found in Hong Kong. It is not very common and has been observed in deep shade near a stream at an elevation of 800 M and also at an elevation of 600 M on a large moist rock. The plant is green in colour and slightly glossy. The secondary stem is erect and 60 mm long, bearing a complanate frond above a stipitate base. The stipe bears small ovate leaves. Secondary stem leaves are also ovate; margins slightly toothed. The costa is slender and extends just beneath the tip. No capsule was observed.

(So94208B Verified by P.C. Wu)

**Conclusion**

1. The bryoflora in Hong Kong is still an unexplored territory, welcoming any student interested in the mosses and liverworts.
2. All of the mosses described in this short paper were collected during the winter months (Dec.-Jan.) where the temperatures ranged between 12-18°C.
3. A waterfall at an elevation of 500 m in the New Territories of Hong Kong is a special haven for a number of rare moss species.
4. An indepth search for mosses may reveal more rare species.

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#### References

- Dixon H.N. 1933.** Mosses of Hong Kong with other Chinese mosses. The Hong Kong Naturalist Supplement 2: 1-31.
- Noguchi A. 1987-1994.** Illustrated Moss Flora of Japan. Parts 1-5.

