

Specimens examined. Rare on the wet stone wall under the fall at Bride's Pool. (Y. H. Yan 640, IBSC), altitude 150m.

Notes. Only one specimen of this species was collected from Mt. Nicholson on Hong Kong Island in 1906 (Hong Kong Herbarium, 2001) and it was considered as very rare in Hong Kong. This is the first collection since 1906 in Hong Kong.



Fig. 2. Underside view of *Cyrtomidietyum basipinnatum*.

Hypolepis punctata (Thunb.) Mett., Kuhn, Fil. Afri. 120. 1868.

Illustration. Shiew (1994): p. 156. fig. 60.

Distribution. Ceylon, Central and S. China, Himalayas, India, Indo-China, Japan, S. Korea, Malaya peninsula and Taiwan.

Specimens examined. Common along the roadside at the top of Mt. Taimoshan. (Y. H. Yan 605, IBSC), alt. 900m.

Notes. Only one specimen of this species was collected from Taimoshan in 1907 (Hong Kong Herbarium, 2001) and it was considered as very rare in Hong Kong. It is nearly one hundred years since it was last collected in Hong Kong. In our survey, a population of this species with more than 500 plants was founded at the mountaintop of Taimoshan. It is under the threat of heavy human disturbance because of its roadside location and numbers of tourists.

Trichomanes auriculatum Blume, Enum. Pl. Jav. 225. 1828.

Illustration. Tsai & Shieh (1994): p. 129. fig. 49.

Distribution. Widely distributed in China (Guangdong, Guangxi, Guizhou, Hainan, Jiangxi, Sichuan, Taiwan, Yunnan and Zhejiang), Himalayas, India, Indonesia, Japan, Malaysia, Micronesia, Ryukyus and Vietnam.

Specimens examined. Very rare on the tree or moist rocks near stream on Lantau Peak (Yan. H. H. 696, IBSC), alt. 700 m.

Notes. Only one specimen of this species was collected from Taimoshan in Hong Kong in 1907 (Hong Kong Herbarium, 2001) and it was considered as very rare in Hong Kong. It is very rare and only 5 plants were found. There are two species in *Trichomanes*, and the other species, *T. orientale*, is characterized by 3-pinnatifid fronds with longer stipes.

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It has now been approximately 6 months since the ceremony held at SWIMS to celebrate its renovation in December 2003. Since this event, and the upheavals of the renovation, we have finally been able to get down to the primary function of SWIMS – research. Students have adapted the aquarium to establish experiments. Over the last few months there have been a number of star species in the aquarium – notably the octopus and their babies; the burrowing *Austinoergia* (mudshrimp), bamboo sharks and their eggs, and also the echinoderms in the touch tank which recently featured in the nature column of Ming Pao.

This semester has also seen SWIMS host the undergraduate students undertaking their Coastal Ecology projects. Groups of students visited SWIMS to use the aquarium for their studies. In March, the entire class took part in a mini conference at SWIMS to present their results in the seminar room, followed by a BBQ and party at the residence block.

Postgraduate and undergraduate students from SWIMS participated in the Symposium on Marine Biology and Biotechnology held at Chinese University in April, with over 7 students giving talks/posters. We also hosted an alumni and Marine Biological Association (MBA, Hong Kong) open house and BBQ which was attended by over 60 people, including old friends and colleagues from Hong Kong UST, City University, Government departments and a large crowd from Chinese University led by Dr Put Ang. Dr Paul Shin gave a speech of welcome on behalf of the MBA and Kenny Leung coordinated the food and drink for what was a very relaxed and enjoyable evening!

Most recently, SWIMS hosted a Training Workshop on the Analysis of Multivariate Data from Ecology and Environmental Science using the statistics package Primer, led by Dr Bob Clarke (Plymouth Marine Laboratory, UK). For four days, 30 participants from DEB (HKU), Chinese University, City University, Agriculture, Fisheries and Conservation Department, Environmental Protection Department, South China Sea Institute and even as far afield as the National Institute of Education, Singapore were gently guided through the minefields of multivariate statistics (Fig. 1). It was truly enlightening to hear Bob, who has developed most of the methods, explain and demystify these techniques and before long people were discussing how they could apply Cluster analysis, MDS, ANOSIM and other techniques to their own data sets. The workshop was a great success, principally due to Bob's patience and teaching skills, and also the support team at SWIMS, especially Albert and Cecily who made sure things ran smoothly. No doubt we shall be seeing an increasing use of these forms of analysis in papers from Hong Kong and, as the workshop proved so popular, we may even run another one in a year or so's time!



Fig. 1. Primer workshop participants.

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DIVERSITY AT A GLANCE

This column aims to introduce interesting species of Hong Kong flora and fauna that might be encountered during fieldwork. Distinctive physical characteristics and some interesting ecological facts are included for each example.

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Macrobrachium hainanense by Sukhmani Kaur Mantel



Fig. 1. A large *Macrobrachium hainanense*.

Macrobrachium hainanense, known locally as the Hainan Swamp Shrimp 海南沼蝦 is a nocturnal shrimp belonging to the family Palaemonidae that you might encounter in forested upland streams in Hong Kong. These shrimps can be distinguished from other shrimps in these streams by their large chelae, due to which they get their name (*Macro* = large; *brachium* = arm). Palaemonid shrimps are present in tropical Asian and Neotropical streams, and species of *Macrobrachium* are found throughout the tropics, primarily in freshwaters. In Tai Po Kau Forest Stream (TPKFS in Tai Po Kau Nature Reserve) and Tai Shing Stream (TSS in Shing Mun Country Park), the shrimps are generalist predators that feed primarily on slow-moving or sedentary benthic macroinvertebrates. Tagging of shrimps, using individual numbered markers, followed by release in Tai Po Kau Forest Stream pools, was conducted to study their growth rate. Smaller shrimps grew faster than larger ones and growth rate was higher during the summer period. At the age of two years both sexes began breeding and females produced 20-75 eggs per brood between April and August. Males lived longer (up to four years) and grew larger (up to 79 mm total length) than females, which lived for only three years. Since these shrimps are relatively large and predatory in nature, it might be expected that they are important in structuring stream communities (Fig. 1). Experiments were, therefore, conducted in pools of the two streams (TPKFS and TSS) that compared