



中華人民共和國香港特別行政區政府總部食物及衛生局
Food and Health Bureau, Government Secretariat
The Government of the Hong Kong Special Administrative Region
The People's Republic of China

[English Translation]

Miss Josephine SO
Clerk to Panel on Food Safety and Environmental Hygiene
Legislative Council Complex
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Central
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6 February 2017

Dear Miss SO,

**Panel on Food Safety and Environmental Hygiene
Motion Passed at the Meeting of 10 January 2017**

You wrote to us on 12 January 2017 regarding the captioned. With respect to the motion raised by Hon Chan Han-pan on the surveillance programmes on mosquitos and pests, our response is as follows:

The Food and Environmental Hygiene Department (FEHD) has all along been monitoring the activities of various local mosquito vectors, including *Aedes albopictus*, a vector for dengue fever and Zika virus infection, *Culex tritaeniorhynchus*, the principle vector of Japanese encephalitis, as well as *Anopheles* mosquitoes that transmit malaria. As regards biting midges, they are not vector for mosquito-borne diseases such as dengue fever, Japanese encephalitis and Zika virus infection. Local biting midges are not confirmed vectors of any vector-borne diseases. In view of the local biting midges problems, FEHD has started to collect biting midges samples from different areas in Hong Kong since August 2016 to monitor the biting midges activities and would strengthen the prevention and control work where necessary.

Infestation of biting midges is seasonal and localized. The peak season for biting midges activities usually occurs in the humid and warmer months each year. Scrubby areas with lots of decaying vegetation are their typical habitats. Specific environmental control actions in these areas targeting at reducing their breeding places can effectively control infestation of midges.

FEHD will continue to monitor the infestation of biting midges in public places through various channels, including regular inspection carried out by frontline staff and handling of complaints. FEHD will enhance its control measures when necessary. Routine anti-mosquito work and environmental improvement measures carried out by FEHD such as removal of fallen leaves, decaying vegetation, silt in sand traps and surface channels help control infestation by reducing the number of breeding places for midges. Where necessary, fogging will be conducted at the infested areas in order to minimize the nuisance, and the Department also carries out environmental improvement measures to remove possible breeding places for midges.

Meanwhile, FEHD has strengthened its efforts to educate the public on how to prevent and control biting midges infestation. For example, the Department is disseminating information to stakeholders in housing estates and schools, and helping to enhance the effectiveness of their endeavours to control and prevent midges, as well as advising members of the public to take appropriate personal protection measures to minimize the nuisance caused by midges. Such personal protection measures include the installation of appropriate screens (mesh size <math><0.75\text{ mm}</math>), wearing long-sleeve clothing and applying insect repellents with DEET according to label instructions. Natural insect repellents may help repel midges to a certain extent, though the effect is less persistent given their high evaporability. Attached at Annex is a copy of the information leaflet that FEHD has prepared for the general public on matters relating to the control and prevention of biting midges. Members of the public may also visit the websites of FEHD to browse and look for more information on the control and prevention of biting midges.

In addition, FEHD provides technical assistance in the control of biting midges to the relevant Government departments, for example, FEHD has advised the respective departments, including the Leisure and Cultural Services Department, Highways Department, Housing Department and Education Bureau, to strengthen control over biting midges in areas under their management (e.g. parks, roadside slopes, housing estates and schools).

Where the infestation of midges occurs at private places, FEHD is willing to provide technical advice to the relevant parties that would help them carry out effective measures for controlling biting midges. For households, proper and regular maintenance of vegetation around households and gardens could help minimise or prevent breeding of biting midges in these areas.

The methods for preventing and controlling biting midges (i.e. environmental control and personal protection measures) currently adopted and recommended by FEHD align with those adopted by places worldwide, including the Mainland. FEHD will continue to keep close communications with relevant Government departments to assist them in enhancing measures for preventing and controlling biting midges.

At present, the World Health Organization (WHO) has not published any guidelines for systematic surveillance of biting midges. Furthermore, other places like Mainland China, Singapore, Malaysia as well as countries in America and Europe have not formulated any kind of indexes for the surveillance of biting midges. Though the WHO has not recommended systematic surveillance of biting midges, FEHD will continue to keep in view closely the biting midges problem in Hong Kong and review our strategy in the prevention and control of biting midges taking into account the advice given by the WHO, the extent and seriousness of the problem and the latest global development in monitoring of biting midges.

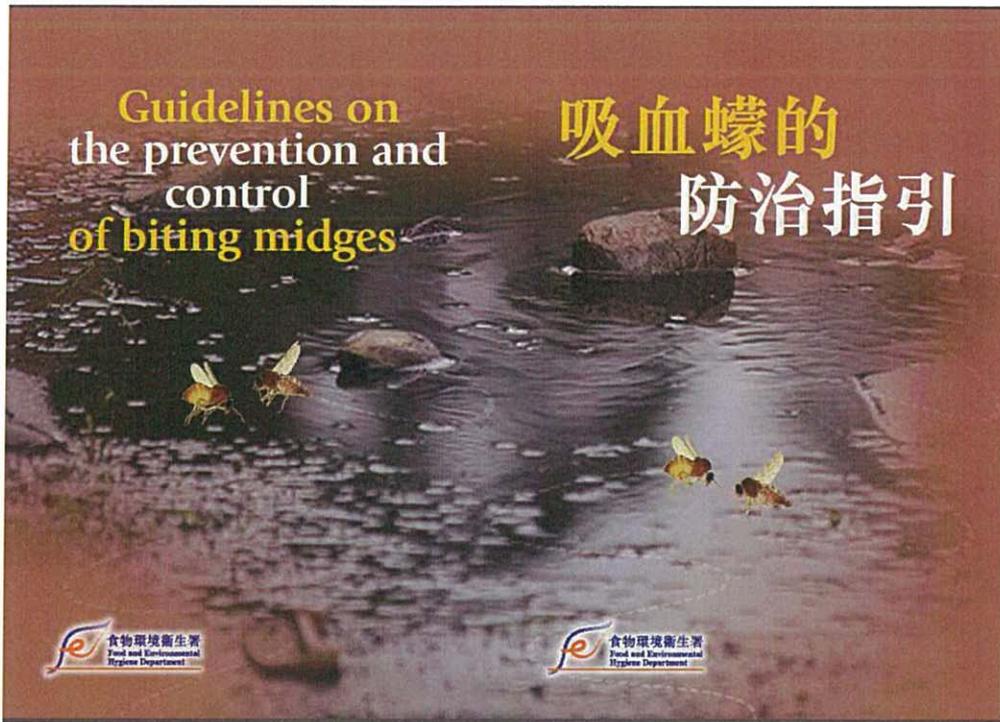
As for other pests, FEHD will continue to monitor the situation of pests in the context of public health. If necessary, it will make reference to WHO's recommendations, advice of experts and the latest development on the surveillance of related pests in other places, in order to review its strategies in preventing and controlling those pests, including implementing a systematic surveillance programme.

[signed]

(Miss Irene CHEUNG)
for Secretary for Food and Health

c.c.

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Guidelines on the prevention and control of biting midges

吸血蠓的 防治指引



吸血蠓的生態和特徵

吸血蠓體型細小，全身黑色，是屬於蠓科的飛蟲。不論在郊野或市區，吸血蠓都對人類構成滋擾。只有雌性吸血蠓叮人，但牠們很少在室內叮人。由於牠們的口器短小，無法刺穿衣服叮人，因此身體外露部分往往較易受襲。在本港，叮咬人類的吸血蠓有明斑庫蠓和台灣蠓蠓兩種。

吸血蠓會在密林間或偶爾在有遮陰的地方歇息。牠們作“之”字形飛行，通常不會飛越離滋生地 100 米的範圍，惟有可能被風吹而擴散。然而，若風速每小時超過 5.6 公里及溫度低於攝氏 10 度，便會阻礙吸血蠓的飛行。事實上，吸血蠓的生命很脆弱，乾滾的天氣會縮短其壽命。吸血蠓的幼蟲是水棲或半水棲動物，通常可在潮濕地方或污泥中找到。

吸血蠓的危害

吸血蠓叮所引致的發癢和不適可持續數天至數星期。抓搔使癢癢惡化，更可導致細菌感染及延緩傷處癒合。不過，吸血蠓不算是傳播疾病給人類的重要病媒。

吸血蠓的防治

由於吸血蠓的滋生地範圍廣泛，所以很難才能完全消滅其幼蟲。以下方法可減少吸血蠓的滋生：

- 利用犁田或排水方法減少泥土表面水分。
 - 清除斜坡或花園上的垃圾、舊葉和其他枯萎植物，以及沙漏/排水明渠內的堵塞物（例如淤泥）。
 - 定期修剪生長茂密的植物，令泥土表面多些暴露於陽光和空氣中。
 - 如環境防治方法未能奏效，可在幼蟲滋生地施放留效殺蟲劑。
- 短暫防治方面，可以在吸血蠓的歇息地方直接噴灑即效性殺蟲噴霧，以便控制吸血蠓的成蟲。
- 此外，可在適當地點設置捕蟲器，防止該等地點受到吸血蠓的侵擾，從而減低吸血蠓帶來的滋擾。

如有需要，可聘請滅蟲公司提供滅蟲服務。

個人保護措施方面，市民可安裝紗網（網眼小於 0.75 毫米）、穿長袖衫、長褲及按驅蟲劑標籤的指示使用驅蟲劑驅避吸血蠓。

Biology and Characteristics of Biting Midges

Biting midges are tiny and dark-coloured flies belonging to the family Ceratopogonidae. They cause nuisance to human beings in both rural and urban areas. Only females bite but they rarely do it indoors. Since they have short mouthparts, they cannot bite through clothing and so exposed body parts are more often attacked. Local species of biting midges attack humans are *Culicoides circumscriptus* and *Lutibolea taiwanensis*.

Biting midges rest in dense vegetation and sometimes shady places. They fly in zigzag patterns and usually no more than 100 meters from their breeding grounds; however, dispersal by wind is possible. Nevertheless, wind over 5.6 kilometers/hour and temperatures below 10°C inhibit flying. In fact, they are so fragile that cool and dry weather will shorten their life. Larvae are aquatic or semi-aquatic and are usually found in damp places or in mud.

Hazards Caused by Biting Midges

Irritation and discomfort caused by their bites can last for days, or even weeks. Scratching aggravates the pruritus and may lead to bacterial infection and slow-healing sores. However, biting midges are not considered important vectors of human diseases.

Control and Prevention of Biting Midges

Breeding places for biting midges can be extensive and so complete disinfection of larvae is difficult. Reduction of breeding could be achieved by:

- keeping the moisture content of soil surface low by techniques like plough or draining.
- removing refuse, fallen leaves and other decaying vegetation on slopes or on the flower beds as well as choking matters (e.g. muddy soil) in sand-traps/surface drainage channels.
- trimming, on a regular basis, densely grown vegetation to increase the exposure of soil surface to sunlight and air.
- applying residual insecticide at breeding places if environmental control means are not successful.

For temporary control, adult midges can be controlled by fogging of knockdown insecticide directly to their resting places.

The nuisance caused by the insect could be reduced by installation of insect traps at appropriate sites to protect the venues from invasion by the insect.

Pest control company could be appointed to provide insect control services if necessary.

Personal protection measures against biting midges include installation of screens (mesh size <0.75 mm), wearing long-sleeved clothing and applying insect repellents according to label instructions.

本冊內容可作公眾閱覽，但不得翻印或轉載。
 Published for the Information and Publicity Department of the Food and Environmental Hygiene Department.
 Photo by Mr. Albert Chan (Photographer: Albert Chan)