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House Geckos

Overview

Geckos are reptiles of the family Gekkonidae, order Lacertiformes (lizards). Eight gecko species had been recorded in Hong Kong, while Bowring's Gecko (*Hemidactylus bowringii*) and Chinese Gecko (*Gekko chinensis*) were considered most common. The former can reach a length of 14cm, while the latter may reach 18cm. The uncommon Tokay Gecko (*Gekko gecko*) that lives on cliffs and trees can even reach 40cm. Most geckos in Hong Kong consume various small insects as food.

House geckos are renowned for their remarkable ability to walk on vertical surfaces and even ceilings. They are usually found on walls, inside cabinets, at various crevices indoors or amongst disused articles left unattended for a period of time.

A house gecko is capable of breaking its tail when it encounters threats to its life and may regenerate its tail repeatedly. A detached tail may continue to move vigorously for some time to distract a predator. However, it is a myth that the tail could fly or even fly into one's ear.

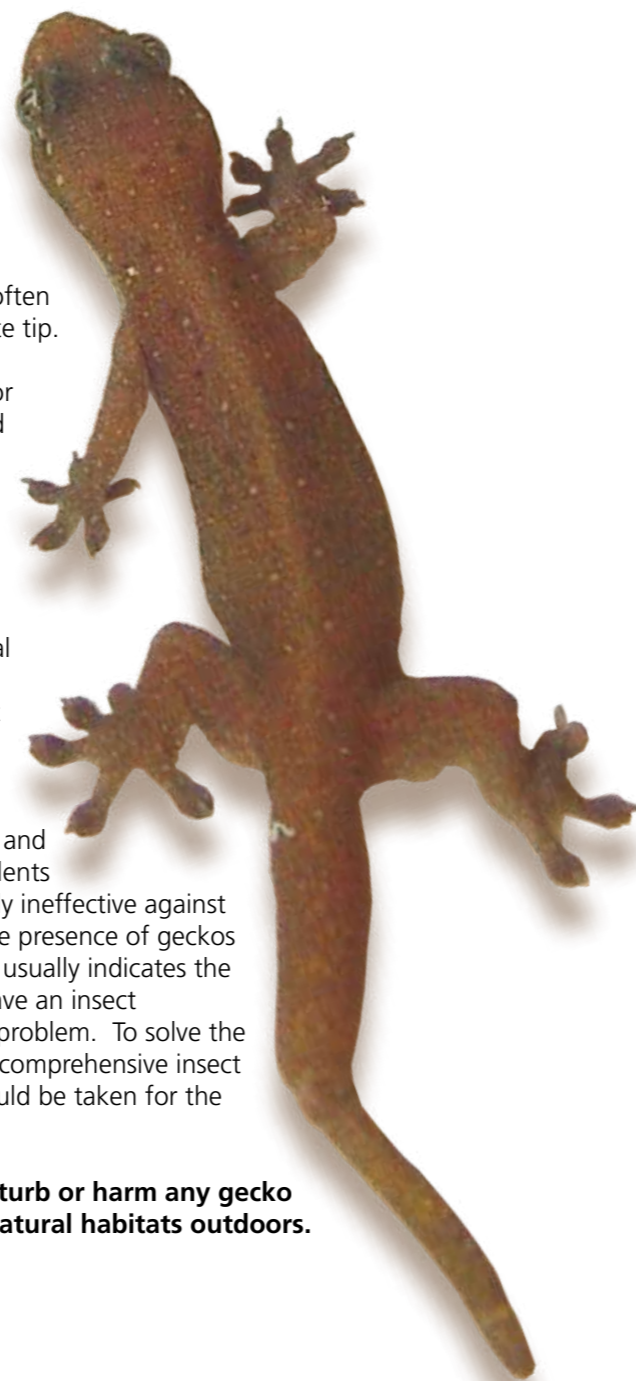
Although geckos might potentially create isolated contaminations on walls, textiles, articles or exposed food, particularly with their excrement, they do not normally bite humans and are not considered disease vectors. As the gecko diet consists largely of various small insects including insect pests such as ants and eggs of cockroaches, geckos are viewed as beneficial animals in general, and not regarded as pests in the public health perspective. Yet, in a modern household setting, the presence of geckos may be regarded as unsightly.

Prevention and control

If a gecko in the house is considered a nuisance, it can be guided away with a tool, e.g. a broom. Some non-chemical measures for insect prevention and control, such as removing food debris and unnecessary or damaged articles, sealing cracks and crevices, installing anti-mosquito screens on windows and using adhesive insect traps, could not only reduce their food sources (insects), but would also offer some degree of direct protection against gecko infestation.

Gecko droppings often carry a white tip. Any gecko droppings or unidentified animal droppings found in the house could be disinfected with general household disinfectant or diluted bleach solution. Insecticides and insect repellents are generally ineffective against geckos. The presence of geckos in premises usually indicates the premises have an insect infestation problem. To solve the problem, a comprehensive insect control should be taken for the premises.

Do not disturb or harm any gecko found in natural habitats outdoors.



C. K. YUEN, Assistant Pest Control Officer

Termites, although commonly known as "white ants", are only distantly related to ants in terms of taxonomy. In older classification, termites are the single constituent of the order Isoptera, but more recent molecular studies revealed that they are closely related to cockroaches and hence are suggested to form a new group within the order Blattodea. Similar to Hymenopteran such as ants and some bees and wasps, termites are social insects. The community usually consists of the fertile king and queen, the sterile adult soldiers and workers, and large numbers of immature nymphs. Unlike other social insects, some of the juvenile termites can develop into reproductive individuals in a mature community to speed up the reproduction process. These substitute reproductives can replace the old parents with impaired reproduction ability or when they die. This feature makes the colony potentially immortal and, in case of an infestation, difficult to be eradicated. The substitute reproductives may also develop into new kings and queens and form new colonies.

Importance and interaction with humans

Termites are important in the ecosystem. Their feeding habit helps breaking down organic materials rapidly and tunnel making behaviour creates desirable environment for other organisms, as well as improving soil quality. Termites are also important protein sources for a wide range of predatory animals. However, in the human world, termites are often considered as pests as they may cause serious damage to agricultural crops and wooden articles and structures.

Identification

Information including location and structure of the nest, presence/absence of mud-covered passages, types of damage produced, and the presence/absence of faecal pellets could provide hints on the types of infesting termites. Precise identification relies on the features like wing venation and hair, body size and color, and the most commonly used feature is appearance of heads and mandibles of soldier termites (Fig. 1 A).

Termites in Hong Kong

Termites are abundant throughout the tropic and subtropical areas, including Hong Kong and the adjacent areas. More than ten species of termites have been identified in Hong Kong, with seven of them more comprehensively described. They include *Cryptotermes brevis*, *Coptotermes formosanus*, *Reticulitermes fukienensis*, *Capritermes fuscotibialis*, *Procapritermes sowerbyi*, *Macrotermes barneyi* and *Odontotermes formosanus*.

Control and prevention

To prevent termite infestation, the use of naturally termite

Termites

Species	Appearance of soldiers	Habit
<i>C. brevis</i>	Around 5mm long. The head is large, cylindrical and dark. The body is creamy white. Mandibles are small as compared with those of other species.	Live in a variety of structural timber away from ground in domestic environment. Found in dead tree branches occasionally.
<i>C. formosanus</i>	Around 5mm long. The head is pear-shaped and pale orange in colour. Mandibles are large, pointed and dark.	Inhabit dead tree branches and moist structural timber in domestic environment. May damage a wide range of items of wood origin. The most commonly encountered pest species in Hong Kong.
<i>R. fukienensis</i>	Around 4.5mm long. The rectangular head is yellow in colour. Mandibles are relatively short and stout with dark tips.	Live in old tree stumps and buried timber. May also infest moist structural timber in buildings.
<i>C. fuscotibialis</i>	The head is rectangular and yellow to light brown in colour. Mandibles are characteristically asymmetrical.	Feed on humus in soil. Usually found inhabiting parts of nests built by other larger termite species.
<i>P. sowerbyi</i>	Around 7mm in length. The head is rectangular and pale yellow. The body is white in colour. Mandibles are long, slender and slightly asymmetrical.	Feed on humus in soil. Little is known about this species and other habits are thought to be similar to those of <i>C. fuscotibialis</i> .
<i>M. barneyi</i>	With two classes of soldiers, the major soldiers (7.5-8mm long) and minor soldiers (5-6.5mm long). Major soldiers are with brownish red heads while those of minor soldiers are paler. Mandibles are black, long and saber-like.	Build underground nests. May also build large earth mounds to house their nests. Soil particles and saliva are used to build covers for foraging workers and feeding crowd. Maintain fungus combs in nests as nursery for young termites and food reserve for the community.
<i>O. formosanus</i>	Around 6mm long. The head is pale orange and oval-shaped. Mandibles are curved and sharply pointed, with a distinct tooth on the inner margin of the left mandible.	Build large underground nests. Build soil covers and keep fungus combs in their nests like <i>M. barneyi</i> .



Fig. 1 Heads of *Coptotermes formosanus* soldier (A) and worker (B).

resistant timber is recommended. Other timber with proper insect-proof treatment can also be used. Direct insecticide application, baiting and fumigation are effective in killing termites, but difficulties may arise in controlling termites due to their highly concealed nests and their unique reproductive habit. Infestation may spread if a colony is not thoroughly treated. Members of the public facing termite problems are advised to seek assistance from private pest control companies which are experienced and properly equipped for termite control.

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