



OTTER EXCLUSION TOOLKIT

A guide for
property owners
and managers

**NATIONAL
PARKS**

LET'S MAKE SINGAPORE
OUR CITY IN NATURE

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INTRODUCTION

You are a property owner or estate manager with a koi pond or water feature. Or perhaps you have read the reports of otters in urban areas and you are worried they may visit you someday. This guide on otters has been specifically produced for property owners and management teams and can provide some help for anyone who face otter-related issues. Read on to find out more about what these furry creatures are, why they are here, and how you can protect your pet fish and property.

WHAT ARE OTTERS?

Singapore is home to two species of otters – the **Oriental Small-clawed Otter**, and a larger species called the **Smooth-coated Otter**.

DISTINGUISHING THE TWO SPECIES



Photo credit: Max Khoo

Smooth-coated Otter (*Lutrogale perspicillata*)

It is a relatively large otter, ranging from 7 kg to 11 kg in weight and 96 cm to 120 cm in total body length. Its upperparts are brown, while its throat and sides of neck are cream in colour. It has a long body and a flattened tail covered in short, sleek fur. Its feet are fully webbed with prominent claws.

The Smooth-coated Otter frequents mangroves, mudflats and other coastal areas, as well as waterways with fish. In Singapore, it also travels over land through park connectors, parks, and urban estates near waterways.

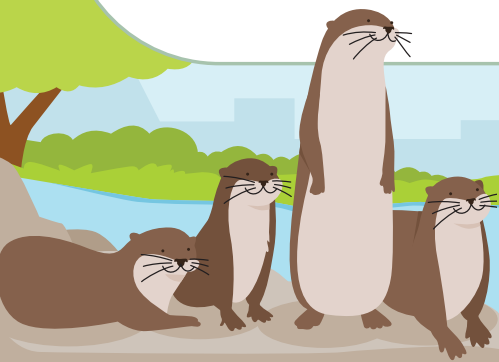


Photo credit: Max Khoo

Oriental Small-clawed Otter (*Aonyx cinereus*)

Unlike the Smooth-coated Otter, the Oriental Small-clawed Otter has short claws that have less webbing and do not extend beyond the pads of its webbed fingers and toes. With a total body length of 73 cm to 96 cm, it is the smallest otter species in the world.

The Oriental Small-clawed Otter lives in freshwater wetlands such as mangroves, swamps, meandering rivers, irrigated rice fields as well as estuaries, coastal lagoons and tidal pools. The distribution for the Oriental Small-clawed Otter in Singapore is restricted to Pulau Tekong and Pulau Ubin.



GENERAL CHARACTERISTICS

Otters found in Singapore are social animals which form groups of two to more than 10. They communicate by calls and scent, and are highly adapted for swimming. Otters are territorial and will defend their space, with different family groups marking their territory with their spraints, which contain a jelly-like substance with a distinct fishy smell. Resident otters compete for living and feeding spaces and will drive away rival otter families. Sometimes, adult otters may not be in groups and move around as a lone individual. These lone otters may either reunite with its family, or seek a new partner or territory.

A BRIEF HISTORY OF OTTERS IN SINGAPORE

Otters are native to Singapore, which means that they are naturally found here, and have existed for a long time. Back in the 1960s, they were quite a common sight in Singapore's waterways and shores. However, in the 1970s, due to degraded shores and polluted waterways, the otters became locally extinct.

Between the 1970s to 1980s, Singapore initiated a huge river clean-up, taking 10 years to complete. Subsequently in the early 1990s, Oriental Small-clawed Otters were reported in Pulau Tekong's mangroves. In 1998, a pair of Smooth-coated Otters took up residence in Sungei Buloh Wetland Reserve. It is believed that these otters swam over from Johor. We now have more than 10 families of Smooth-coated Otters all around mainland Singapore.

The presence of otters in our environment is a good indicator of a healthy ecosystem. It means the environment is healthy enough to support an apex predator like the otter. Otters also help maintain a healthy ecosystem by feeding on the slower and weaker prey, leaving behind a strong population of fish. However, this characteristic of going after easy prey may occasionally cause conflict with property owners with fish ponds.



Photo credit: Max Khoo

WHY ARE THEY HERE IN THE NEIGHBOURHOOD?

Otters can have huge territories and being curious animals, are always looking for new places to forage. In fact, the same otter group seen in one area today may be found 15 km away tomorrow! Thus, while otters are found in our waterways with fish, they also travel over land, and may pass through urban estates near the waterways. During these exploratory bouts, or on their way to another area, they may enter residential areas.

Otters are attracted to places where they can find fish, and they cannot differentiate between wild and pet fish. Moreover, fish in ponds are easy prey for otters, which encourages them to enter residences with such ponds. They can slip through gaps in fencing or under gates, and scale short barriers to get to a pond. Once otters find an accessible pond with fish, they are likely to return.



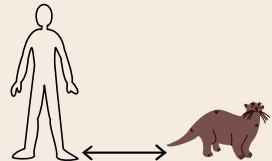
Photo credit: Jeffrey Teo

WHAT TO DO WHEN ENCOUNTERING OTTERS

Encountering otters in urban areas can be surprising. As they are often observed in family groups, and are fairly large creatures, some people may feel afraid. However, otters, like other wildlife, are generally quite shy animals, and will move away when approached. Having said that, it is important to remember that if otters feel threatened, they will protect themselves and their young.

If you see otters:

- 1 Always observe them from a distance.
- 2 Do not approach an otter family especially if there are pups as they are fiercely protective over them.
- 3 Do not chase, corner or disturb them.
- 4 Do not talk loudly or use flash photography.



- 5 Do keep your pets under control, e.g keeping your dog on a tight leash.



If you find otters in your garden and/or are preying on your fish, do not attempt to chase them out, as you do not want the otters to feel threatened. You can try playing loud noises (eg. whistle, bang pots and pans) and guide them to the nearest exit point. If the otters seem unable to leave, call NParks' 24-hour Animal Response Centre at 1800-476-1600 for assistance.

EXCLUDING OTTERS

If you are a property owner or manager with a fish pond, and are worried that the otters may prey on your fish, the best way to prevent this from happening is to exclude the otters. If done right, the otters will be unable to enter your premises.

The first step is to **identify all possible entry points otters may take to enter your premises**. Keep in mind that otters are able to jump surprisingly high, so **any fence should be at least 1.5m tall**. They are also able to squeeze through gaps that are 5cm or larger. Look around the perimeter of your premises and check for small gaps the otters may be able to pass through.

Once you have identified all possible gaps, **seal up these openings**. Below are some examples of how this can be done.



Wire mesh to cover gaps in gate



Panel to cover bottom of gates/fences

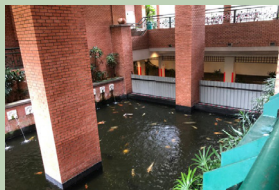


Modify the gates/fences to make the gaps in fences smaller

Photo credit: Rekha Mohan

We recommend using materials such as **plexiglass** and **polycarbonate boards** to cover gaps in gates because the smooth surface will not provide a foothold for the otters to climb over.

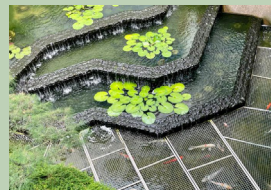
You can also choose to focus the **exclusion measures at the pond itself**. There are several ways you can do this.



Fence off the pond



Sturdy netting can be used to cover the pond



Use sturdy materials such as metal meshing or panels to cover the pond

Photo credit: Rekha Mohan and Mei Hwang

Remember that any fence should be at least 1.5m high, preferably with an overhang and has a smooth surface with no anchors for the otters to climb.

DO-IT-YOURSELF

You may wish to contact a company to help you with constructing exclusion barriers, or you can also do it yourself. The following are some recommended items you can use.

1 Wire mesh with PVC coating

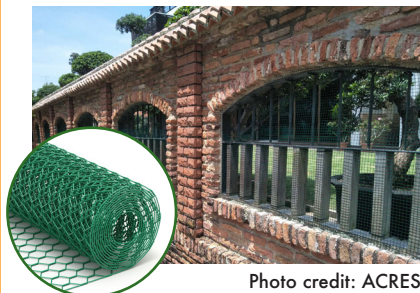


Photo credit: ACRES

Purpose

To seal up the gaps and entry points

2 Cable ties (5x350mm)



Purpose

To secure the wire mesh to anchor points

3 Poly-carbonate twin-wall board (cheaper alternative to acrylic)

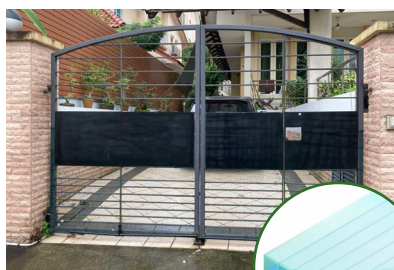


Photo credit: ACRES

Purpose

To create a smooth surface to prevent the otters from climbing over the fence

4 PVC pipe



Photo credit: ACRES

Purpose

To block gaps, usually at the side and bottom of the gates

USEFUL LINKS AND CONTACTS

NParks' Animal Response Centre Helpline

For urgent assistance or feedback involving otters or other wildlife, you can contact **NParks' 24-hour Animal Response Centre at 1800-476-1600.**

Otter-proofing contacts

For advice on otter-proofing matters, you can also contact the following recommended animal management companies.

Mastermark Pte Ltd

General: 6741 6880
info@mastermark.com.sg

Wildlife Studies & Control

General: 8282 7093
wsc_singapore@outlook.com

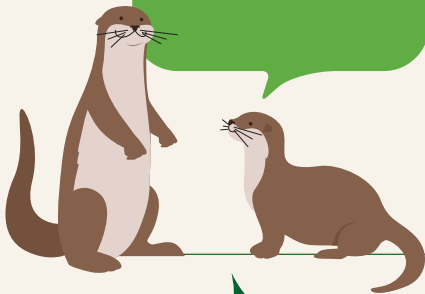
JK Wildlife Pte Ltd

General: 8118 8058
joe@jkwildlife.sg



You can find other animal management companies on NParks' public registry of certified animal management specialists online.

To learn more
about otters



OtterCity

Social media page on
otters in Singapore



Otterwatch

Social media page on
otters in Singapore



Our Wild Neighbours

Information on how you
can live with wildlife



Share your love for nature and animals at
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