

PROJECT BLUE Wave

A Movement by PA PASSionWaVe
Promote a clean & blue water landscape



Water waste harms
our water friends.

**Protect Ottie
& Family!**

**Support Project
Blue WaVe!**

Help us spread the message!
Together, we can promote a
clean & blue water landscape!



PA.PASSionWaVe
ProjectBlueWave

About Project Blue WaVe

A MOVEMENT BY **PA** PASSION WAVE

Everyone in the community has a part to play in conserving the environment to make it a better place for all.

Project Blue WaVe is an initiative by **PA** PAssion WaVe to bring Singaporeans together and build a sense of ownership towards our environment through education on marine biodiversity and environment conservation.

- To engage the community to actively participate in marine life and nature conservation
- To enhance public awareness and understanding of the importance of marine life and nature conservation
- To connect communities and platforms for bonding amongst NGOs, VWOs, GROs, schools, government agencies and public
- To support and organise events, programmes and activities to promote field conservation



Interconnection

Everything is interconnected, one action can affect the entire ecosystem. It is important to understand this concept and recognise that our actions have an impact on all living things found in our communities and surrounding environments.

Litter on land could be washed away by rain or blown by wind into our waterways which will in turn flow into our reservoirs or into the sea. Trash discarded carelessly can end up killing wildlife through choking, suffocation, fatal ingestion, and injuries. Floating plastic bags in our waters have led to an increase in the number of deaths of fishes through suffocation.

Apple snails also get trapped inside floating aluminium drink cans in local reservoirs.

Litter in our waters cause pollution and in turn harm aquatic life. As a result, we may end up eating fish that feed on trash, indirectly affecting our health.

Contents & photos courtesy of Waterways Watch Society



- 01 Litter found along the Singapore River during bike patrol
- 02 Dead fish in plastic bag found during kayak patrol at Marina Reservoir
- 03 Cigarette butts picked up by primary school students during clean up along Kallang Riverside Park

Sustainability

The Earth provides all that we need to live and thrive. According to the Living Planet Report 2012 by World Wide Fund for Nature (WWF), we are living as if we have an extra planet at our disposal.

We are using 50 per cent more resources than the Earth can provide. Unless we start making a change, that number will grow very fast – by 2030, even two planets will not be enough.

The world is also facing increasing water scarcity and rising temperatures. This

will have an impact on the global water and food supply. We need to conserve and value water as well as re-look how we are to feed, clothe, and care for ourselves in the future.

To achieve a better quality of life, we should start adopting and promoting more eco-friendly habits like the **6Rs**.



RETHINK

Question and consider our consumption habits



REUSE/REPAIR

Extend the shelf life of products



REFUSE

Choose not to generate waste



RECYCLE

Reclaim raw materials



REDUCE

Decrease the amount of waste produced



REPLACE/REBUY

Consider recycled and green content

Contents & photos courtesy of Waterways Watch Society

Ownership



- 04 Bike Learning Trail at Marina Reservoir Waterways Watch Society (WWS)
- 05 River Monster Program at Marina Reservoir by WWS
- 06 Boat Patrol at Marina Reservoir by WWS

Everyone is dependent on the resources of the land, hence we have the responsibility to take care of our environment. We share the same planet and should take ownership by generating less waste and not littering, to keep our city clean. We should increase our efforts in developing social etiquette and educating family and friends on the proper methods of disposing trash. Everyone should step up and engage the community, to report and provide feedback on environmental lapses.

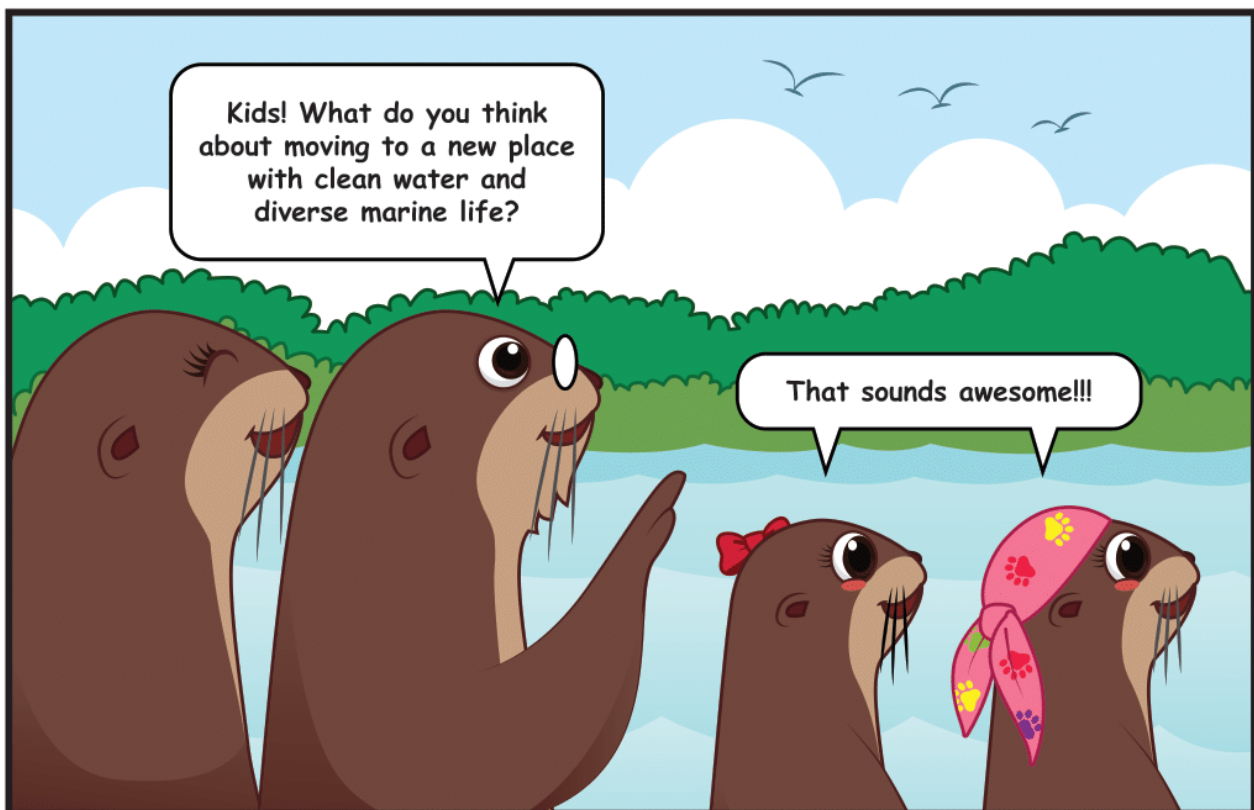
There are also Environmental Watch Groups for those keen to volunteer and willing to dedicate their time to make a difference by participating in various educational programs and events.

Find out more about us and what we do at wws.org.sg and check out our Facebook page at 'Movement 364'!

Contents & photos courtesy of Waterways Watch Society



Diary of Ottie the Otter and Family

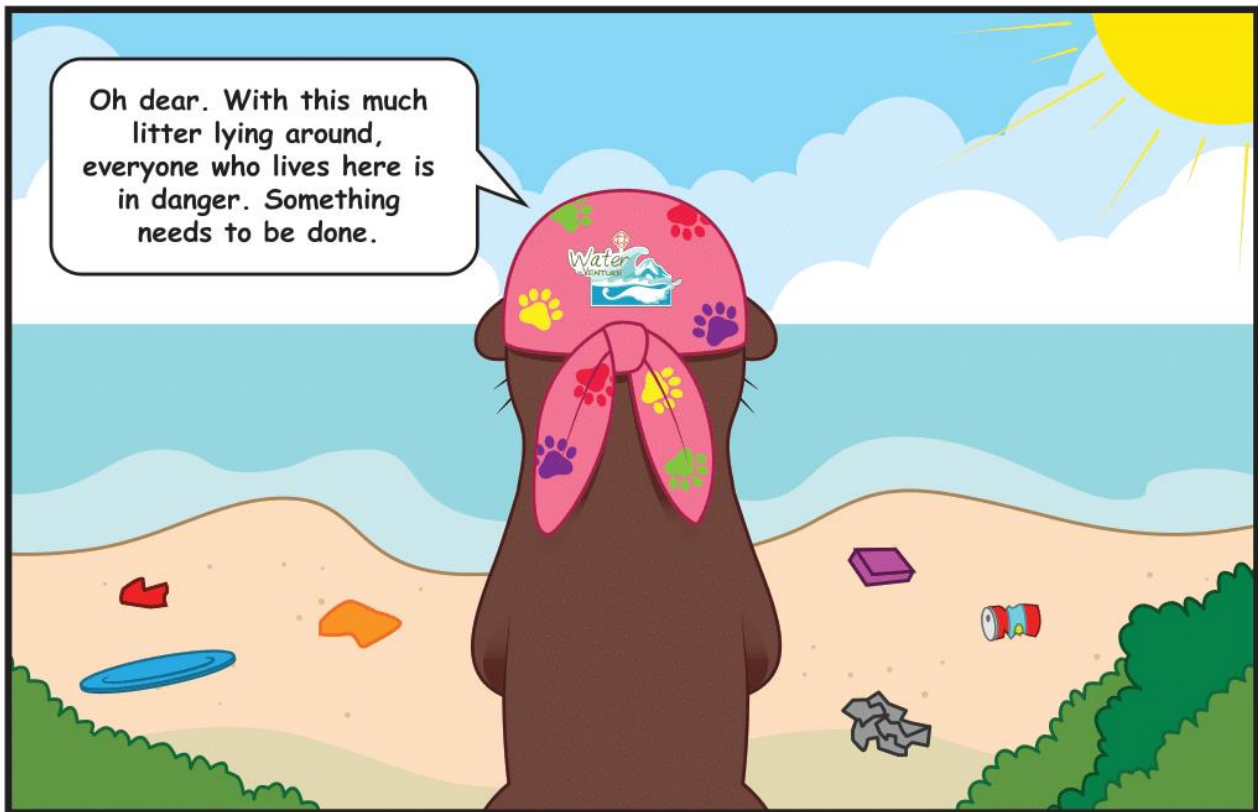




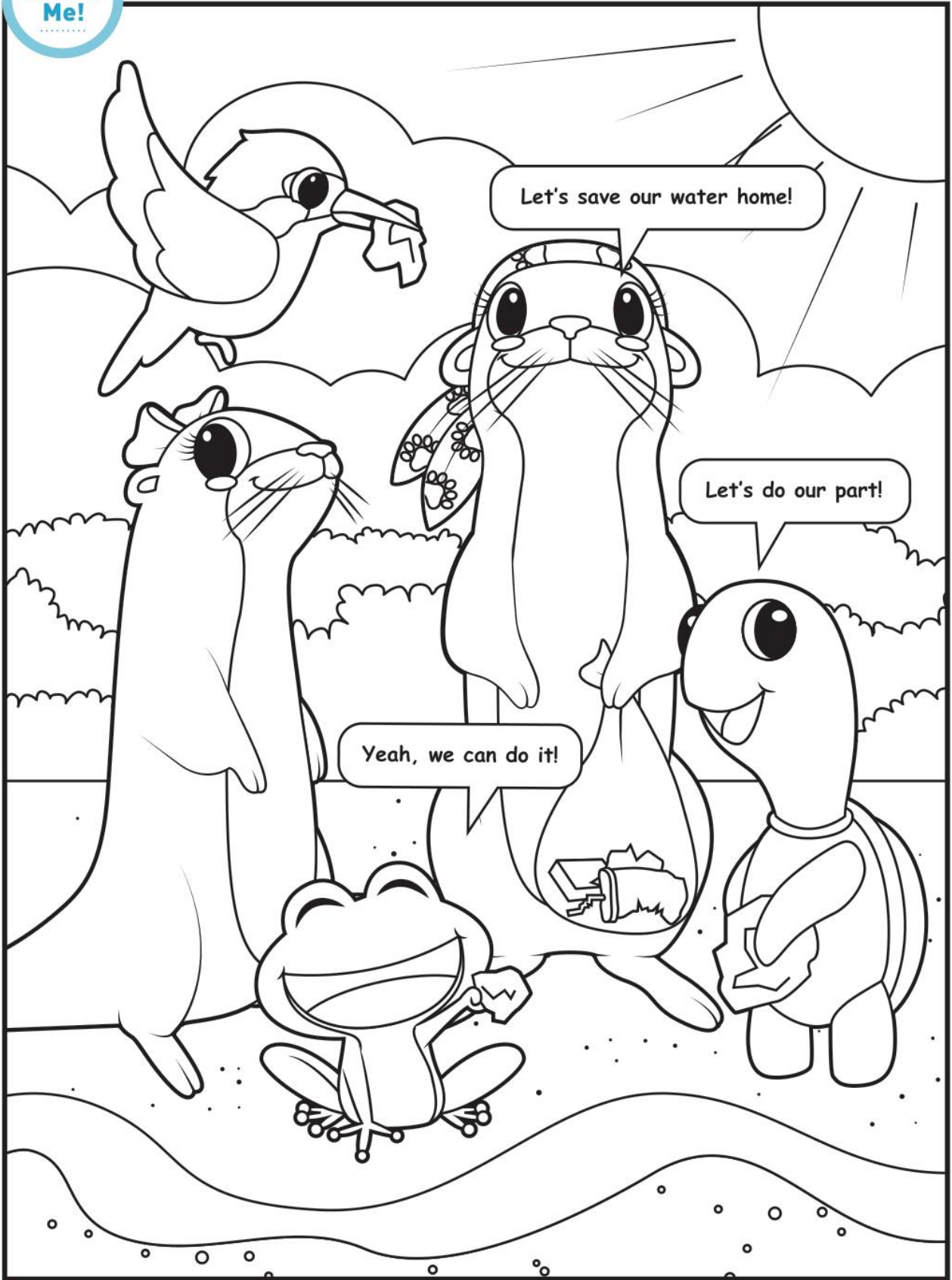














Smooth-coated otter

Species

- a Scientific name: *Lutrogale perspicillata*

Diet

- a Smooth-coated otters are mainly fish eaters (piscivores). When in mangroves, they have been known to eat prawns. In Singapore's waterways and reservoirs, they are often seen eating tilapia, which are abundant in these water bodies.

Location

- a Global range: Smooth-coated otter is distributed throughout south Asia and southeast Asia. Its distribution is continuous from Indonesia, through southeast Asia, and westwards from southern China to India and Pakistan, with an isolated subpopulation in Iraq.
- b Local range: Can be sighted around many parts of Singapore, including: Pasir Ris, Changi, Tanah Merah/East Coast, Marina Bay, Sentosa, Ulu Pandan, Sungei Buloh Wetland Reserve, Seletar Reservoir, Serangoon Reservoir and Pulau Ubin.

Habitat characteristics

- a Smooth-coated otters are semi-aquatic. They require both water and access to land to survive
- b In Singapore, the smooth-coated otters occupy the mangrove, coastal and riverine aquatic habitats. In other

countries, the smooth-coated otters can also be found in peat swamp forests and even rice fields.

- c The smooth-coated otters use land area to rest, groom and spraint. Sprainting at a spraint site on land involves defecating and leaving behind fish remains and pheromones which add a characteristic musky smell. These chemicals act as a form of territorial marking and communicate information such as age, sex and their reproductive status.

And other relevant points we may have!

- a What role do otters play in Singapore's ecosystem and broader society?
- b The otter is an apex predator, i.e. right at the top of a wetland ecosystem food chain, so their presence means the animals in lower levels are present in sufficient numbers and the environment is relatively healthy. In local canals and reservoirs in Singapore, in the absence of apex predators, hardy, non-native freshwater fish species have outnumbered native species which can be heavily preyed on, and outcompeted for food and shelter. Studies elsewhere with different species have demonstrated that indicate apex predators can help bring balance to all levels of the food web.

Contents & photos courtesy of Otterwatch and Jeffery Teo



Asian small-clawed otter



1. Species

- a. Scientific name: *Aonyx cinereus*

2. Diet

- a. They feed mainly on crabs, snails, insects and small fish.

3. Location

- a. Geographic range: The asian-small clawed otter's geographic range extends from India in South Asia eastwards through Southeast Asia to Palawan (Philippines), Taiwan and southern China

- b. Local range: Pulau Ubin and Pulau Tekong

4. Habitat characteristics

- a. Their habitat includes mangroves, rivers and freshwater swamps

Contents & photos courtesy of Otterwatch and Jeffery Teo

Reservoirs in Singapore

The reservoirs of Singapore are considered to be a freshwater ecosystem. These water reserves not only support the life of Singaporeans, but also support a diversity of our native flora and fauna. You can find plants growing along the edge of the pond, on water surfaces and even submerged underwater. They, together with microscopic plants and algae serve the beginning of the food chain as well as a major source of oxygen. River otters, kingfishers, egrets, fishes, shrimps, dragonflies are animals that you may find in some reservoirs. Not to mention the large variety of microscopic animals – all of which play an important part in the freshwater community.

Contents & photos courtesy of Science Centre Singapore



The region's most recognised environmental label

Look out for this logo the next time your family shops for household items like soaps, tissue paper and paints! There are more than 2,800 products with this logo and all of them have been carefully made with environmentally-friendly materials!

The Green Label is part of the Singapore Green Labelling Scheme (SGLS), which was introduced by SEC in 1999. Purchasing products with the Green Label supports

companies which have committed to being environmentally-friendly in their design and manufacturing processes.

When we use things with the Green Label, we can be sure that there will be less hazardous chemicals present. These things are made with recycled materials, whenever possible, to cut wastage and protect Mother Nature.



Contents & photos courtesy of Singapore Environment Council



Joining the Movement

We believe that everyone have a part to play in the **preservation of our environment** and **our journey starts today.**

Project Blue Wave offers you two programmes, each with its brand of unique experience, promoting an ownership of the environment in our daily lives.

1. **Blue Ripple** is a 2hr programme. Led by facilitators, participants engage in interactive games, making connections back to environment conservation messages as they embark on a mission to cleanse Singapore's beaches of litter.
2. **Kayak 'N' Klean** is a half day programme. Supervised by our trainers, participants journey into various reservoirs or mangroves on kayaks to clear up clusters of litter that pollute the unseen areas of our water bodies.

If you would like to volunteer with us and inspire our community onwards to a more sustainable world, join us on our **Project Blue Wave ambassadorship programme today!** Drop us an email at passionwave@pa.gov.sg or call us at 6247 7338 to enquire!

Take part in Project Blue Wave today. Make a Difference. Endeavour for a Clean and Blue water landscape.



OTTIE'S PROFILE



Name: Ottie
Age: 2
Gender : Female
DOB: 19 October 2014
Family: Younger Sister,
Mother & Father

Hometown: Singapore
Species: Smooth Coated Otter
Size: 70cm
Weight: 7 Kg

Ottie is a filial, cheerful and fun-loving otter. Her hobbies are fishing, running and sun-bathing with her family and friends. Ottie's new mission is to keep the environment clean so that her family and friends can live on in clean, blue waters without fear of contracting illness through contaminated food.



PASSION WAVE OUTLETS

PAassion WaVe @ Bedok Reservoir

📍 911 Bedok Reservoir Road,
Singapore 479311
☎ 9710 1697

PAassion WaVe @ Marina Bay

📍 11 Rhu Cross #01-01
Singapore 437440
☎ 6296 6683

PAassion WaVe @ Jurong Lake Gardens

📍 100 Yuan Ching Road,
Singapore 618662

PAassion WaVe @ Lower Seletar Reservoir

📍 100 Yishun Ave 1,
Singapore 769140
☎ 9710 1826

PAassion WaVe @ East Coast

📍 1390 East Coast Parkway,
Singapore 468961
☎ 6444 0409

PAassion WaVe @ Pasir Ris

📍 125 Elias Road,
Singapore 519926
☎ 6582 4796

PAassion WaVe @ Sembawang

📍 60 Jalan Mempurong,
Singapore 759058
☎ 6755 0225

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People's Association

