Through trophic cascades it is proven that the presence of a top predator maintains a balance vital to the survival of the whole ecosystem. Otters are at the top of the food chain and occupy a number of habitats. Should otter populations decrease, this can have profound effects on food webs, biodiversity and habitats.

Otters are heavily trafficked within the illegal trade. They are often overlooked with concerns focused on more famous fauna such as leopards, rhinos and tigers. However, their need is just as great. It is believed that for every tiger skin that is seized, 10 otter skins are also found.

There is a growing concern over the otter pet trade. Social media, zoos, circuses and “otter cafés” are driving the demand for pet otters. People are shown “cute, playful” otters and immediately think that they want their own. Young otters are taken from the wild while the mother is killed trying to protect them. The rearing of young otters can be difficult and should they die, they are simply replaced, further reducing wild populations. Japanese otter cafés are further fuelling this issue and with Thailand-Japan now the most heavily trafficked route in the world, and given otter popularity in both countries, this is of growing concern. The trade is having serious effects on otter populations and in some cases local extinctions have already occurred.

IOSF was delighted to be able to return to its capacity building workshops following a 3-year absence due to the global Covid-19 pandemic. Our workshops are aimed at training conservationists, government officials and other similar stakeholders to engage with otters, demonstrate techniques in education, research, dealing with threats and other similar conservation issues. Our previous workshop was held in 2019 in Guyana and the Malaysia 2022 workshop was our sixth Asian workshop and our eighth in total, following workshops in Cambodia, Indonesia, Bangladesh, China, Lao PDR, Tanzania and Guyana.

During the Malaysian workshop IOSF partnered with the Malaysian Nature Society (MNS) and Malaysia Otter Network (MON). The workshop was held at Kuala Selangor Nature Park, which is a protected area in the Selangor region of Peninsula Malaysia. The area was chosen as it is home to three of the four species of otter in the region and allowed for practical field sessions on otter signs and spotting otters in the wild – although the latter was not guaranteed.
Across the world, and in Asia, not enough is known about otters, whether this be baseline data (such as populations, distribution etc.), habitat issues, genetics or human perceptions. In 2009, IOSF started a series of workshops to train local conservationists, communities and officials in otter conservation techniques including monitoring, trade reduction and community engagement.

The region is home to four species of otter – all of which have declining worldwide populations:
- Eurasian otter (*Lutra lutra*), classified in the Red List as “Near Threatened”
- Smooth-coated otter (*Lutrogale perspicillata*), classified in the Red List as “Vulnerable”
- Asian short-clawed otter (*Aonyx cinereus*), classified in the Red List as “Vulnerable”
- Hairy-nosed otter (*Lutra sumatrana*), classified in the Red List as “Endangered”

The Workshop
During the Malaysian workshop, 71 attendees took part, either in person or virtually through our Zoom sessions. We also welcomed a number of speakers to cover topics such as global otter conservation, surveying techniques, education and illegal trade issues. Although the workshop was based in Malaysia, we had a focus on otter conservation in South East Asia as a whole and had attendees from Myanmar, Indonesia, Thailand, Cambodia and Singapore, as well as speakers from Canada, the United Kingdom, Germany and Sri Lanka.

As always, our workshops were broken into two main sections: the classroom session and the fieldwork. This allows attendees the opportunity to learn from a number of speakers and then take their newly learned skills into the field with the support of field experts.

Opening speeches were given by Prof. Dr. Ahmad Ismail, President of Malaysia Nature Society; Grace Yoxon, Director of IOSF and Prof. Padma de Silva, Asian Otter Conservation Network. The classroom sessions were split into the following sessions and talks:

**Session 1: Introduction to Otters**
- Otters of the World – Dr Paul Yoxon, IOSF
- Status of Otters in Asia – Prof. Padma de Silva and Ben Yoxon, IOSF
- Otters in Malaysia – Dr. Ahmad Ismail, Malaysia Nature Society
- Otters in Thailand – Pai Worata Klinsawat, King Mongkut’s University of Technology Thonburi
- Otters in Myanmar – Prof. Dr Saw Pyone Naing, Myanmar Environmental Innovation Foundation (MEIF)
- Otters in Indonesia – Reza Lubis, Indonesian Otter Specialist
Through these initial sessions the attendees, both physical and virtual, gained a better understanding of otters as a whole, with more specific information on the countries within the area and also aspects that are causing their decline. The information, particularly on the four countries, gave a better idea of the status of each species within the region. For example, Malaysia has not seen Eurasian otters for a considerable amount of time. They are believed to be no longer present on Peninsula Malaysia and the species has been removed from protective status by the government for that region. However, the species is believed to be in parts of Thailand, Myanmar and Indonesia.

The presentations allowed more information on species dispersion across the region but identified that more baseline data needs to be done.
Clearly it is fundamentally important to do baseline surveys as unless we have this data, we cannot prepare and implement a practical conservation plan for the future. It is important to remember that much of the information offered, particularly that for Myanmar, was in relation to seized otters from illegal trade and there have been few official research projects. This, once again, emphasises the importance of encouraging more research and the importance of workshops such as this to teach correct techniques.

The second day provided an introduction into surveying techniques and offered the attendees information on how they can carry out research into the species. The session was starting by Mr Woo Chee Yoong, MNS and MON, who gave an introduction to identifying the four species of otters found within the region, using MON’s Species ID card, to ensure correct identification. This presentation was followed by Grace Yoxon, IOSF, presenting a summary of survey methods for otters looking at field research and how important accurate information can be gained. This was followed by more detailed presentations on survey methods such as spraint and diet analysis, genetic work and footprint analysis through WildTrack Footprint Identification Technology (FIT).

Then we visited the park to put our newly acquired skills and techniques into practice. As mentioned, Kuala Selangor Nature Park is home to three of the four species of otter and this allowed the attendees to use survey techniques to spot presence/absence with a particular emphasis on spraint/spraint analysis and footprint ID.

The group was split into two, which swapped to cover both aspects. One session was led by Larissa Slaney of Wildtrack focusing on footprint identification, comparing species and uploading to the Wildtrack website. The second group was led by Ben Yoxon, IOSF, with an emphasis on spraint recognition and correct procedures for collection of spraint for laboratory analysis. This focused on Asian short-clawed and smooth-coated otters, as spraint was found for both species to allow comparison. For virtual attendees, both presentations were filmed and played through Zoom preceding the final classroom session.

The final classroom session, and the final session of the day, was a practical session on spraint analysis and footprint analysis. The WildTrack team showed attendees how the programme works and how to upload footprints, as well as using the collected prints to test the programme. Dr. Paul Yoxon demonstrated spraint analysis including processing of spraints and analysis of diet.
The following day was split into two sessions. The first was another field visit, this time to try and spot otters in their natural habitat, find signs such as slides and sprainting points and more opportunities to record footprints. The group were fortunate to see a large family of smooth-coated otters which hunted for a brief time before heading back in to the forest. Their presence had ensured that there was an abundance of recent footprints and trails to be documented to help the artificial intelligence (AI) for footprint recognition.

The second half of the day allowed an open discussion about plans moving forward to try and increase knowledge, reduce threats and increase conservation of otters across the region. MNS plan to produce a roadmap for otter conservation to encourage more involvement of other ecologists and the general public.

The discussion was focused on three main sub-headings: research, education and threats. This enabled all attendees, both virtual and physical, to provide their input on what is necessary to move forward. By having attendees from a variety of different backgrounds, including government officials, universities and other conservation groups, it allowed for an open and flowing discussion.

With regards to research, it was agreed that it is most important to gain baseline data on otter distribution and presence/absence of species. This can be achieved in a number of ways and by using the training received it means that everyone can contribute. Furthermore, attendees can share their new knowledge with colleagues and acquaintances to generate more information.

Threats were identified as illegal trade, human-otter conflict and loss of habitat. Better cross-national and cross-regional co-operation is essential in order to reduce this and it is vital to work closely with local communities so that any conflicts are kept to a minimum and addressed accordingly. By inviting members of the communities to the workshop we got first-hand information about what the communities want and need, and how conflict resolution can be achieved.

Finally, community education and outreach were planned in a way to help individuals and stakeholders to obtain a better understanding of the benefits of otters with a special emphasis on children and local communities. It is important to empower both parties to be part of the change.
On the final morning Dr Paul Yoxon on behalf of IOSF formally invited MON/MNS to be a part of the Asian Otter Conservation Network. Following discussions with MNS there are further plans on how to move the network forward and keep working towards the same common goal.

The workshop was officially closed following speeches by Dr Paul Yoxon, Dr. Ahmad Ismail, Malaysian Nature Society and YBhg. Dato’ Fakhrul Hatta bin Musa, Department of Wildlife and National Parks Peninsular Malaysia (DWNP).

IOSF and MNS/MON were delighted with the positive nature of the workshop as the aim is not to hold a talking shop but to create real action. Despite the pandemic providing many hurdles, it was great to hold the workshop together with so many positive individuals and organisations. Future plans to gain more baseline data on otter distribution and increase human interaction is in the pipeline and there will be many positive outcomes from this workshop.

Thanks
We are very grateful to Mr Woo Chee Yoong, Malaysian Nature Society and Malaysia Otter Network for his help in organising the workshop.

We would also like to thank Nur Afiqah binti Affendi, Fatin Nurulizaty binti Azmi (both of Sime Darby Plantation Berhad), Lim Wei Hang and Haizan anak Kamarul Zaman (both of MNS) for their support, expertise and hard work in ensuring the workshop was run smoothly.

Thanks to all the trainers who provided their time free of charge.

We would also like to thank our sponsors: Colchester Zoo Action for the Wild, The Rufford Foundation, Dierenpark Amersfoot Wildlife Fund and Keidanren Nature Conservation Fund.

And finally, thanks to all the participants for their enthusiasm for otter conservation.

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