

# MEXICO OTTER WORKSHOP

# 2023

**Dates: 20-24 November 2023**  
**Venue: Jalcomulco, Veracruz, Mexico**



# CONSERVATION OF ENDANGERED OTTERS AND THEIR HABITATS IN CENTRAL AMERICA THROUGH EDUCATION AND A TRAINING WORKSHOP

IOSF was pleased to hold our first training workshop in Central America, and our second across the Americas, following our 2019 event in Guyana. The workshop was based in Jalcomulco, Mexico, but attendees were invited from across Central America and all nations that have native wild otter populations (Belize, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama and Trinidad and Tobago).

Our workshops are designed to train various stakeholders including conservationists, government officials, students, education workers etc. to engage with otters, demonstrate techniques in education, research, dealing with threats and other similar conservation issues. This workshop was our ninth international capacity building workshop following workshops in Bangladesh, Cambodia, China, Guyana, Indonesia, Lao PDR, Malaysia and Tanzania.

For the Central American workshop, IOSF partnered with Nutrias de México for the organisation of the event. Dr. Pablo César Hernández Romero, part of Nutrias de México, was our main contact and was part of the organisation team 'on the ground' in Mexico. Dr. Pablo joined our event in Guyana, as a Neotropical otter expert, so was well placed in organising this workshop. The workshop was held in Jalcomulco, in Veracruz, Mexico. This site was chosen for a variety of reasons. Firstly, after developing a healthy and positive relationship with Dr. Pablo, it was decided to hold the event in Mexico. Jalcomulco itself is known to have healthy Neotropical otter populations, following Dr. Pablo's studies, so was well-placed to

host the workshop and the field sessions, ensuring that could show the attendees various signs and techniques for research.

Globally there is a distinct lack of information about otters. This includes baseline data (such as populations, distribution etc.), habitat issues, genetics, threats and human perceptions. In Central America, some countries, such as Mexico, Costa Rica and El Salvador, have some base knowledge and publications have been produced, however, in other countries, such as Honduras, Nicaragua and Belize, there is very little information, studies or literature on otters.

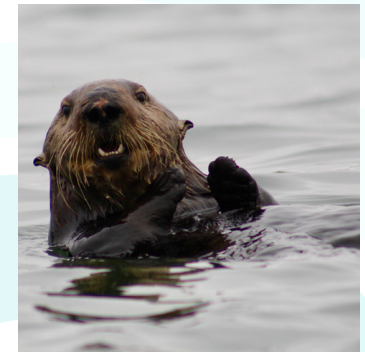
It was important to bring together the region, create an active network and understand all aspects of otter conservation across the area.



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The region is home to three species of otter – all of which are listed on the Red List:

- Sea otter (*Enhydra lutris*), classified in the Red List as “Endangered” – *only found in Mexico*
- North American River otter (*Lontra canadensis*), classified in the Red List as “Least concern” – *only found in Mexico*
- Neotropical otter (*Lontra longicaudis*), classified in the Red List as “Near-threatened” – *found across all nine nations aforementioned.*

Through trophic cascades it has been proven that the presence of a top predator maintains the balance which is vital to the survival of the whole ecosystem. The plight of the sea otter and the subsequent ecological issues that have followed have been well documented but a similar loss of species such as North American river otters and Neotropical otters will likely lead to a similar outcome. 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 their habitats.

Otters are heavily trafficked within the illegal wildlife trade. Although other parts of the world, namely Asia, are a well-known area for this being an issue it is important to understand that this is happening all over the world. Incidents of illegal trade within the Central America region are rare, however, they do happen, and have been documented across the region, including Mexico and Trinidad and Tobago. There have been occasions of pet otters across Central America, and it is important that we are aware of the chances of this occurring and remain vigilant to it. Without doing so, we leave ourselves open to an increasing supply and demand of pet otters, so education is part of the project to ensure that pet, and otter fur, trade is known to be detrimental to populations and illegal for perpetrators.

### The Workshop

During the workshop, 47 attendees took part, either in person or virtually through our Zoom sessions. We had attendees from 8 of the 9 countries in central America that have native wild otter populations (Belize, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama and Trinidad and Tobago), with Honduras the only nation that did not have a representative.

Unfortunately, due to political and bureaucratic issues in Panama and El Salvador respectively, these attendees could only join online. The representative in Trinidad and Tobago, due to personal reasons, also joined the programme online. Furthermore, there was also an individual from Peru who joined online to learn more about various otter issues, so although not within the original scope of the project, the use of an online platform allowed it to reach further to a country within South America that does have wild populations of Neotropical otters, as well as Giant otters (*Pteronura brasiliensis*).

It is incredibly important during the workshop time period that we manage to cover as many aspects in relation to otter conservation as possible, so the programme was split in to two main 'themes': classroom sessions and fieldwork. This allows the attendees the chance to learn a number of different aspects and pieces of the otter conservation 'jigsaw' from a wide range of otter and wetland experts and then gain field skills with the support of field experts. The workshop was opened by Grace Yoxon, Director of the International Otter Survival Fund, and Dr. Pablo César Hernández Romero, of Nutrias de México, who welcomed all attendees who had travelled from near and far to join us.

The first day focussed on a wide range of otter-related topics, with the following programme:

#### Session 1: Introduction to Otters

- Introduction to otters in the world context – *Dr. Paul Yoxon, IOSF*
- Status in Central America – historical overview, 3 species recorded (Neotropical, Sea and North American River) with a specific focus on Neotropical otters across Central America – *Dr. Pablo César Hernández Romero, Nutrias de México and Manuel Santiago-Plata, University of Idaho*



## Session 2: Otter Biology and Ecology

- Otter biology and ecology – *Manuel Santiago-Plata, University of Idaho*
- Genetics – *María Camila Latorre Cárdenas, Instituto de Investigaciones en Ecosistemas y Sustentabilidad - Universidad Nacional Autónoma de México*
- Otters as a symbol of wetland conservation – *M. Fabiola Corona Figueroa, Centro de Estudios Conservacionistas (CECON) - Guatemala; El Colegio de la Frontera Sur (ECOSUR) – Mexico*

## Session 3: Otters and People

- Otters and communities with emphasis on otter-human conflict – *Dr. Pablo César Hernández Romero, Nutrias de México*
- Education and public awareness, social surveys/interviews, meetings – *Mariela García-Sánchez, Tirimbina Biological Reserve*
- Children's environment education/Team Otter – *Ben Yoxon, IOSF*



## Session 4: Otters and People (continued)

- Illegal trade in otters for furs and pets – *Ben Yoxon, IOSF*
- Caring for individual otters – General introduction – *Grace Yoxon, IOSF*
- Discussion about the day's topics

The attendees had a mixture of experience in relation to otters: some were experts (in certain fields), some had moderate interactions in

otter related work, and a lot were beginners and had a very limited experience of the species. The classroom presentations allowed the opportunity for all attendees to gain more information on a variety of factors that are attributed to the long-term conservation of otters. As you can see from the programme, we covered many different aspects in relation to otter and wetland conservation.

The beginning of the workshop looked at Otters in a World Context then a more specific look at the three species in central America, two of which are only native to Mexico, the Sea otter (*Enhydra lutris*) and the North American River otter (*Lontra canadensis*). Following this, there was a more in depth look at the current status of the Neotropical otter (*Lontra longicaudis*) across Central America. The Neotropical otter is the only species that is native across all nine nations so a further look at the current status, and research being conducted in each country was presented. It was evident, as aforementioned, that some countries (namely Honduras, Nicaragua, Belize) had a limited amount of work being done, and in others, there were some areas that had limited information. These presentations helped us gain a better understanding on what was known, or perhaps more important, what wasn't known in relation to otter distribution and presence across a large part of the Neotropical otter range and made it evident that a more concerted effort to gaining data was necessary. The presentations also offered an insight in to a number of other factors in relation to otters. Aspects such as genetics and genetic diversity; otters as a symbol for wetland conservation; otter ecology and biology as well as a number of anthropogenic issues, such as conflict management, illegal trade, rehabilitation measures and education work and benefits.

The attendees were very engaged throughout the day, offering various questions and thoughts for each speaker and were enthralled to learn all about the different factors in the jigsaw of otter conservation.

It was clear from day one that there was a very high level of interest and a positive atmosphere among the attendees to make a difference for otters in the region.

Day two offered the first introduction to otter survey techniques and the correct techniques and procedures for non-invasive monitoring of otter populations. We began with two brief presentations:

- Characteristics of Neotropical otter tracks - *Dr Pablo Cesar Hernández Romero*
- A summary of survey methods – secondary signs, correlation between active holts and numbers of otters, camera traps, radiotelemetry, drones, data recording - *Biol. Josué Isaías Chávez Lima and Dr. Pablo César Hernández Romero*



Following these presentations, we put these new learned skills to the practice, as we split the attendees into two groups. One group went to the river, while the other took part in classroom practicals, with a short field visit to a different area. The following day, the

groups were swapped, and so they could all have a chance to take part in both sessions.

For the river visit, the group took to the Río de los Pescados, on the Rio La Antigua, outside of Jalcomulco. The group were split in to three sub-groups, each in a raft and in search of otters and otter signs. At first, the group leaders were spotting spraints upon rocks, fallen trees and other similar signs. But soon, the attendees had

mastered their new skill, and were spotting spraint along the river. During the field visits, we took the opportunity to get out and search for signs on foot, collect spraint (or otter droppings) for analysis in the 'classroom' or spot any footprints. As the group continued down the river, we managed to spot a Neotropical otter holt (or otter den) where we set up a camera trap nearby to see if we could catch a glimpse of the elusive otter.



The classroom group had the opportunity to learn new skills, such as camera trap installation and also took a look at spraint analysis with Dr. Paul and Grace Yoxon, of the International Otter Survival Fund. This allowed attendees to analyse spraint that had been collected from this area prior to the beginning of the workshop and show how it is possible to determine certain parts of the otter's diet. Using a chemical formula, it is possible to remove impurities within the spraint and therefore just leave the prey matter, such as fish bones, feathers, scales (of both fish and reptiles) and other similar items that can help us determine diet. Dr Paul Yoxon also presented on how this method has limitations, and these need to be considered, and also how quantity of spraints cannot act as a direct method to predict populations. The final day of the workshop began with a presentation from Mariam Weston Flores, with Simon Mickleburgh, of the Rufford Foundation on Funding Opportunities in conservation from a well-renowned organisation. This was followed by a question and answer opportunity to allow the



attendees to ask any questions that they might have in relation to applying for funding. This was a really important aspect to include within the workshop as it is important for us all to know how we can apply for funding and the best practices for doing so. So again, we are grateful to the Rufford Foundation for both supporting this workshop, and taking their time to give their experience to the attendees.



Following this, the groups split in to the two sessions as on the previous day. This time, we took the opportunity to remove the camera traps that had been set, three of which were put out prior to the workshop time period by Ben Yoxon, of IOSF, and Dr. Pablo César Hernández Romero, and one which was placed in the first rafting session. The attendees, once again had field visits and classroom practicals, and those on the classroom practicals were able to learn how to check two of the cameras for any otters (or other wildlife) but unfortunately no otters appeared. The remaining two cameras were collected on the rafts and checked at a later time.



The final session of the workshop is often the most important, the discussion and formation of a network for Central America. This was an open discussion with all attendees saying how they felt we can move forward with otter conservation across Central America.

It allows all attendees the opportunity to say what they think, what they can offer the new network and what are the best plans for moving forward. What followed, was an engaging and healthy discussion about how to work on otter conservation, in all aspects, across the region.

There are a number of ways in which each attendee can help, and they all have a variety of skill sets, and this was recognised. Some attendees have experience in education, or research, or rehabilitation, IT/Social media skills and it was believed that each could bring a different aspect to the network.

One important aspect that was discussed within this session was that it was important to set goals that are achievable, creating building blocks to grow over time, and to set aims that are achievable in the short-term, moving on to more long-term goals.

The discussion produced these initial thoughts:

- Plans to produce a social media page where updates can be posted, such as sightings, works and other similar factors. A website can also be planned.
- The newly formed group/network will need a logo. We are pleased that one of the attendees is already working on this and has sent multiple drafts to the group for consideration and comment.
- Plans to collect data on the presence of otters. It was suggested to use platforms such as iNaturalist, where you can set up private groups to monitor specific species and areas. iNaturalist has a policy of keeping exact locations for certain species private which is important for otters.
- Gain an understanding of the legal and protective status for otters in each country

- Information will be shared through the network through Google Drive – which has already been set up.
- Citizen Science - Information needs to be given out to encourage the public, eco-tourist operators etc. to offer the network all the information they have on otters, including sightings, persecution or any potential conflict/threats.
- More education and outreach work with schools and hopefully form more Team Otter clubs. Plans for this are already underway with interest in Costa Rica and Mexico.
- Get more people involved. Possibly through Universities or maximising social media impact.
- Important to meet fairly regularly, perhaps annually, to maintain contact within the network. As mentioned, a private WhatsApp group has already been formed and Google Drive folder for the group.
- Establish country representatives for each of the nine nations with Dr. Pablo César Hernández Romero to overlook the network as regional co-ordinator.



The workshop attendees plan to do a literature review of their respective nations and areas with a view to gaining a better understanding of what is, and, perhaps more importantly, what is not known about otters with a view to filling the gap. From there, they will be further be able to identify potential priorities and set future programmes.

The workshop was closed by Ben Yoxon, of IOSF, and Dr. Pablo César Hernández Romero, of Nutrias de México, who handed our certificates to the attendees and distributed the camera traps to various attendees (courtesy of IdeaWild). There were also brief closing talks offering thanks to the attendees and excitement about what lies ahead for the future of the Central American otter network.

The final part of the workshop was met with great excitement and offered a great catalyst for the future of otters in the area - the final camera trap footage. After looking across all four cameras, we managed to capture an otter (*see picture below*). The perfect way to close the workshop and the attendees were thrilled!

IOSF and Nutrias de México were delighted with the workshop and the positive response from all the attendees and we are all excited to see how this network progresses. The future for otter conservation in Central America is extremely positive and held in good hands.



## Thanks

Firstly, a massive thank you to our co-organiser Dr. Pablo César Hernández Romero of Nutrias de México for helping with all the organisation of the workshop.

We are grateful to Dr. Pablo, Josué Isaías Chávez Lima, Manuel Santiago Plata, María Camila Latorre Cárdenas, Mariam Weston Flores, Mariela Garcia-Sánchez, M. Fabiola Corona Figueroa and Simon Mickleburgh for offering their time and expertise during the workshop with a series of insightful presentations.

We would like to offer a further thanks to Ilana Wolchinsky, of Foundation for International Aid to Animals, who joined us and produced a short documentary of the workshop. Furthermore, a major thanks to Avril Turvey who helped to translate.

We would also like to thank our sponsors: Foundation for International Aid to Animals (FIAA), IdeaWild, the Rufford Foundation and Confuror.

And finally, thanks to all the participants for their enthusiasm for otter conservation across central America and we are truly excited to see the next steps.



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**List of Signed up Participants- both in-person and online (11 other participants joined separately)**

**Alejandro Sánchez Pastén**, Benemérita Universidad Autónoma de Puebla, México  
**Alexia Pereira Casal**, Universidad Nacional, Costa Rica  
**Andrea Yadira Porres Camacho**, Universidad Nacional of Costa Rica, Costa Rica  
**Avril Turvey**, Mexico  
**Ben Yoxon**, International Otter Survival Fund, United Kingdom  
**Biol. Marisol Talavera**, Nutrias de México, Mexico  
**Dana Lizeth Tapia Ortiz**, Facultad de Estudios Superiores Iztacala - Universidad Nacional Autónoma de México, México  
**Dr. Osvaldo Eric Ramírez Bravo**, Benemerita Universidad Autonoma de Puebla, México  
**Edna Ariadna Aldana Contreras**, Benemerita Universidad Autonoma de Puebla, México  
**Elsa Arely Rocha Ortega**, Facultad de Estudios Superiores Iztacala - Universidad Nacional Autónoma de México, México  
**Eric Enrique Flores de Gracia**, Panama Wildlife Conservation, Panama  
**Francisco Samuel Álvarez Calderón**, Fundación Naturaleza El Salvador, El Salvador  
**Grace Yoxon**, International Otter Survival Fund, United Kingdom  
**Ilana Wolchinsky**, Foundation for International Aid to Animals, USA  
**Joelbin De La Cruz**, Panama Wildlife Conservation, Panama  
**Josmari Rachel Medrano Lozano**, National University of Costa Rica, Costa Rica  
**Josué Isaías Chávez Lima**, Universidad de El Salvador, El Salvador  
**Karla Lizbeth Sánchez Pérez**, Facultad de Estudios Superiores Iztacala - Universidad Nacional Autónoma de México, México

**Kelly Anays Hernández Huerta**, Nutrias de México and Universidad Nacional Autónoma de México, México  
**Luis David Perez Gracida**, Universidad Veracruzana, México  
**Luke Rostant**, The University of the West Indies, Trinidad and Tobago  
**M. Fabiola Corona Figueroa**, Centro de Estudios Conservacionistas (CECON); El Colegio de la Frontera Sur (ECOSUR), Guatemala and México  
**Manuel Santiago Plata**, University of Idaho, México  
**María Camila Latorre Cárdenas**, Instituto de Investigaciones en Ecosistemas y Sustentabilidad - Universidad Nacional Autónoma de México, México  
**Mariam Weston Flores**, Rufford Foundation, UK/México  
**Mariela García-Sánchez**, Tirimbina Biological Reserve, Costa Rica  
**Marlon Wilfredo Sotelo Reyes**, Paso Pacifico, Nicaragua  
**Melissa Marcela Oviedo Lara**, Universidad para la Cooperación Internacional (UCI), El Salvador  
**Miguel Angel Torres Maldonado**, Okapia Conservacion, México  
**Pablo César Hernández Romero**, Nutrias de México, México  
**Paul Yoxon**, International Otter Survival Fund, United Kingdom  
**Reynold Norbert Cal**, Foundation for Wildlife Conservation Belize, Belize  
**Simon Mickleburgh**, Rufford Foundation, UK  
**Victor Hugo Torres Maldonado**, Okapia Conservacion, México  
**Wilber Evan Martinez**, Foundation for Wildlife Conservation Belize, Belize  
**Ximena Luna García**, Facultad de Estudios Superiores Iztacala - Universidad Nacional Autónoma de México, México  
**Xochilt María Pocasangre Orellana**, Fundación Naturaleza El Salvador, El Salvador

