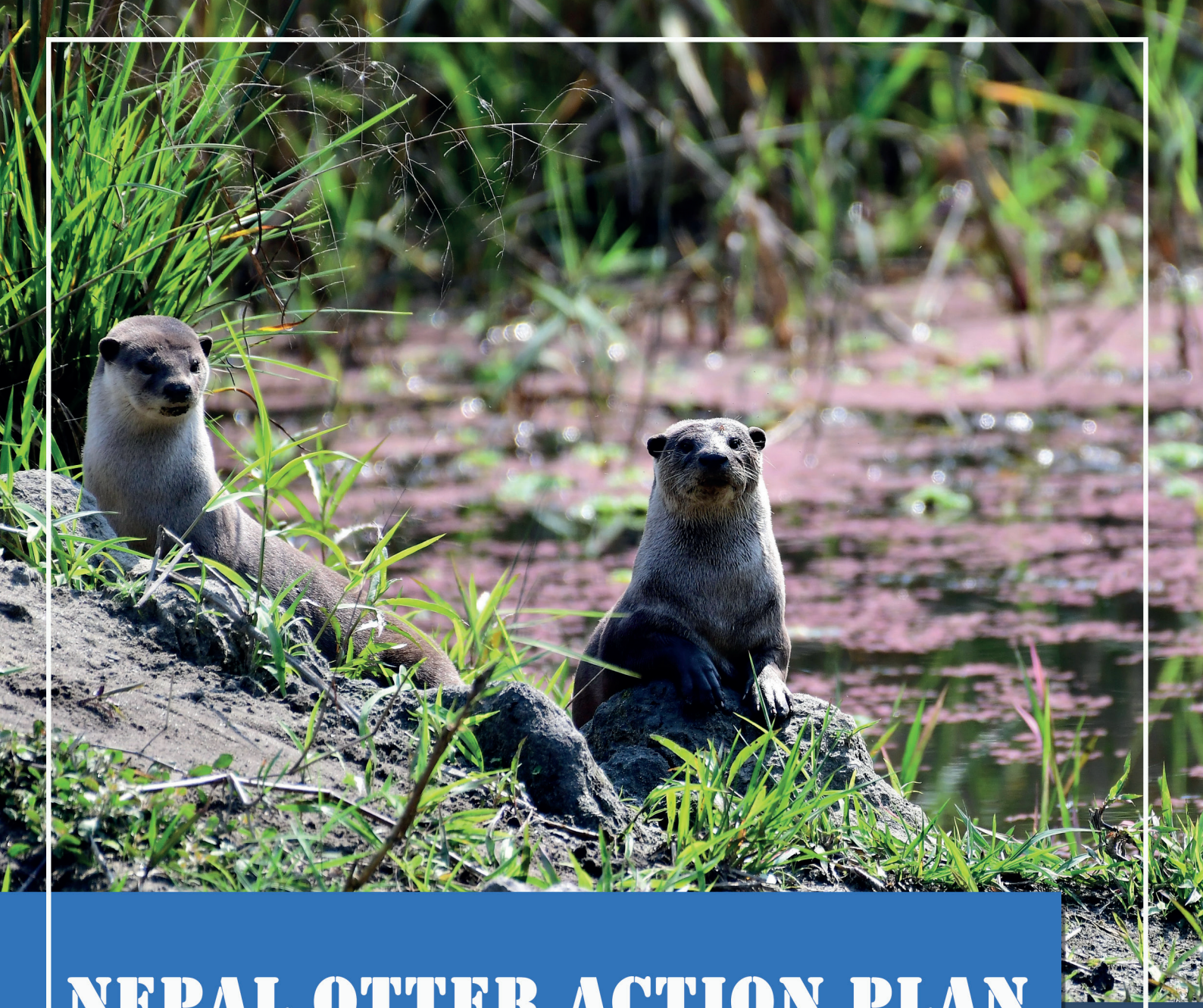

NEPAL OTTER ACTION PLAN

Phase I: Research Focus
2020-2022

IUCN

SSC
Species Survival Commission

Otter Specialist Group

Himalayan Otter Network

NEPAL OTTER ACTION PLAN

Phase I: Research Focus
2020-2022

Front cover Photo: A pair of Smooth-coated Otter at Rani Tal area in Suklaphanta National Park, Nepal (Photo by: Friedrich Esser)

Back cover photo: A Eurasian Otter (Photo by: Nicole Duplaix)

Photographs by: Nicole Duplaix, Atul Sinai Borker, Hari Basnet, Sagar Giri and Sarjan Gwachha

Eurasian Otter Drawings by: Kuldip Jang Bahadur Gurung (courtesy of SMCRF)

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Figure 1: Painting of Asian Small-clawed Otter resting on a rock in the river (Art: Kuldip Jang Bahadur Gurung/ SMCRF)

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Figure 2: A party of Smooth-coated Otters in Bardia National Park (Photo: Sagar Giri)

Vision

Figure 3: Asian Small-clawed Otter (Photo: Nicole Duplaix)

Our vision for the future includes a safe natural landscape for wild otter populations in Nepal, coupled with abundant and clean water resources for human communities. To that end, we are developing a Nepal Otter Action Plan that includes a supportive legal and policy base, location-based habitat conservation, elimination of illegal trade, strategic research, education and outreach, collaborative capacity-building and support from all sectors of society, including the local communities who share otter habitats.

The first step toward achieving these goals is a strategy to foster research to fill the information gaps on diversity and distribution of otters throughout Nepal. The status of the three species of otters in Nepal urgently needs re-assessment, and basic data to support it. Research is of utmost importance for evidence-based conservation.

With this in mind, otter researchers and conservationists proposed, at the Third Himalayan Otter Network Workshop held in Kathmandu, February 21-23, 2020, agreed to develop a Nepal Otter Action Plan. This document describes the first step: Phase I: Research Focus: 2020-2022. This Phase will focus on enhancing rapid and intensive surveys and research over a period of three years to develop the basic data needed for a comprehensive conservation strategy for otters in Nepal.

1. Background

Otters are a keystone species in rivers and wetlands, playing an essentialrole in keeping aquatic ecosystems healthy and resilient. Yet, otter species across Asia are experiencing steep population declines. Threats to otters in the region have intensified greatly in recent decades, from increasing human pressure on water resources, hydroelectric development, overfishing,habitat destruction, and an illegal trade. Local communities and otters alike share and benefit from healthy, abundant water resources.

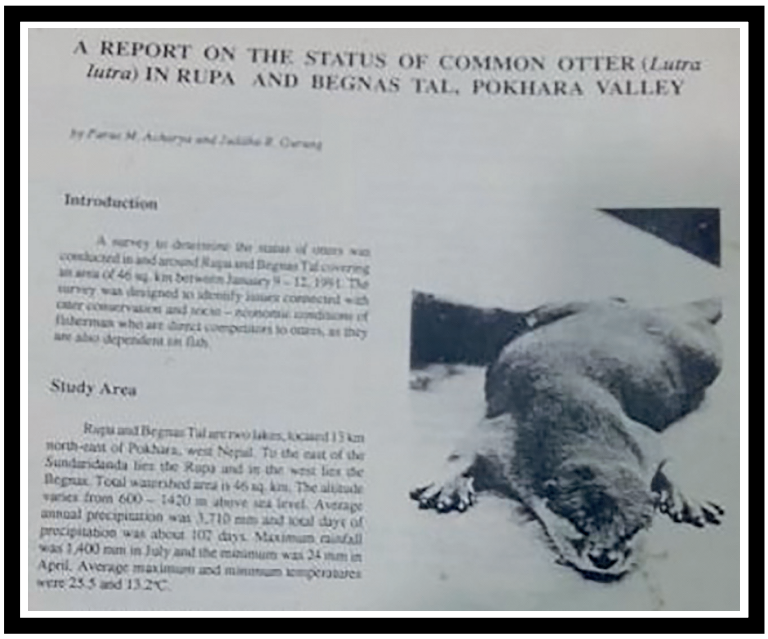
Nepal has some of the most magnificent, diverse and healthy landscapes in the world. Three species of otters inhabitthe country, but almost nothing is known about their distribution or status. Two of the species have not been observed in the wild in many years. New interest in the status and protection of the otters of Nepalnow raises hope for their conservation. A growing number of dedicated ecologists, conservationists, and community activists in the region is aencouraging trend.The recently published Global Otter Conservation Strategy has drawn attention to the plight of otter species worldwide and describs steps to protect and restore their populations locally.

This document presents a plan for creating such a conservation strategy for the otters of Nepal, with an initial research phase that entails a systematic approach to a country-wide portrait of the status of all three otter species. From this, a Nepal Otter Action Plan can be built collaboratively to conserve these ecologically important and threatened animals.

1.1 Historical records

B.H. Hodgson, in 1841, corrected the"Classified Catalogue of Mammals of Nepal", in which he catalogued six species of Lutra including Leptonyx and NairAuct. and four new species: Tarayensis, Monticola, Indigitata, Aurobrunnea, Nob. He describes the habitat of the first three as Tarai and Sal forest and of the next three as lower and central hilly regions(Hodgson, 1842). However, Gray (1847)catalogued only four species of otters from Nepal based upon skins, skulls and drawings presented to British Natural History Museum by Hodgson. Hodgson reported that Lutralutra, (as L.aurobrunnea)inhabited higherelevations (Pocock, 1941), in the high mountain streams of the Nepal Himalayas (Mitchell, 1977)and as L.monticolainhabited lower

and central hilly regions (Gray, 1847; Hinton & Fry, 1923). Hodgson also reported thatLutrogaleperspicillata (asL.tarayensis)was restricted to the Tarai(Hinton & Fry, 1923) and that Aonyxcinereus (as L. indigitatus) inhabitedthe lower and central hilly regions(Gray, 1847). A skull and dry hide of a Eurasian Otter recorded by Paynter in 1925 from Phewa Tal (800m asl), Pokhara, is preserved in the Museum of Comparative Zoology, Harvard University. Pocock(1941) reclassified L. aurobrunneus(as L. l. aurobrunnea) and L. monticola(as L. l. monticola) as two subspecies of L. lutra. A male specimen (skin and skull of Lutrogaleperspicillata), collected from Chisapaniand recorded by Weaver and Mack in 1948, is preserved at the National Museum of Natural History, Smithsonian Institution, USA. This specimen is also reported by Johnson, Ripley, & Thonglongya(1980). A dry specimen of an otter from west Nepal was deposited at Natural History Museum, UK in 1952. Two male specimens of Eurasian Otters were collected from west of Hetauda, Makwanpur District in 1967 by Maser, and deposited at the Field Museum of Natural History, Chicago, USA.



A REPORT ON THE STATUS OF COMMON OTTER (*Lutra lutra*) IN RUPA AND BEGNAS TAL, POKHARA VALLEY

by Parus M. Acharya and Indiba B. Gurung

Introduction

A survey to determine the status of otters was conducted in and around Rupa and Begnas Tal covering an area of 46 sq. km between January 9 – 12, 1991. The survey was designed to identify issues connected with otter conservation and socio – economic conditions of fisherman who are direct competitors to otters, as they are also dependent on fish.

Study Area

Rupa and Begnas Tal are two lakes, located 13 km north-east of Pokhara, west Nepal. To the east of the Sundaridanda lies the Rupa and in the west lies the Begnas. Total watershed area is 46 sq. km. The altitude varies from 600 – 1420 m above sea level. Average annual precipitation was 3,710 mm and total days of precipitation was about 102 days. Maximum rainfall was 1,400 mm in July and the minimum was 24 mm in April. Average maximum and minimum temperatures were 25.5 and 13.2°C.

Figure 4: A record of Eurasian Otter in Nepal from Pokhara, 1991 (Source: Acharya & Gurung 1994)

Mitchell bought two otter skins (light chestnut brown in color) without skulls from natives of the Langtang Valley (3640 m asl), Rasuwa District. Mitchell also sighted six individuals of Smooth-coated Otters playing along the banks of the Rapti River, Chitwan District on 24 January, 1968. He also sighted another party of this species of otter swimming in the Narayani River at Tamaspur, Nawalparasi District on 15th February of the same year. Chesemore(1970) recorded a skin of Lutralutrafrom a small shop at Jomsom, the animal apparently having been trapped along mountain streams in the area. According to local people, before 1977, otters could be sighted in rivers throughout the Tarai and Rapti Dun region (Mitchell, 1977). Evans, Heardman, Houghton, & Tiler(1985) estimated 8-10 family groups of Smooth-coated Otters in the Narayani River. Lastly, in 1991 a Eurasian Otter was recorded from Rupa and Begnas Lakes, Pokhara(Acharya & Gurung, 1994).

1.2 Recent records

Acharya (1998) and Acharya & Lamsal (2010) recorded tracks and scats of otters from the confluence of the Rapti and Narayani Rivers and along the Narayani River in southern Nepal. Smooth-coated Ottershave been observedin the Karnali River and Bardia National Park (P.Thapa, 2002; Joshi, 2009; Acharya, 2017) and Suklaphanta National Park (Poudyal et al., 2019; P.Thapa, 2020). In 2018, a Smooth-coated Otter was observed and its tracks and scats have been recorded from the Babai River in Bardia National Park (Bhandari, 2019). Otter tracks and live Smooth-coated Otters were recently reported from Rani Tal (Photographs on March 12, 2020 by Friedrich Esser), Chaudhar River and Kalikich Lake in Shuklaphanta National Park (P.Thapa, 2020).

1.3 Current distribution

The current distribution of the three otter species alleged to inhabit the rivers and wetlands of Nepal is poorly documented. No Eurasian Otter appears to have been positively documented in the country since 1991. The Smooth-coated Otter has recently been recorded only from the southwestern Tarai of Nepal, west to Bardia National Park. No Asian Small-clawed Otter appears to have been recorded since 1839 (Kafle, 2009; Acharya & Rajbhandari, 2011).

In some cases, documented otter populations have disappeared in recent years. An otter population documented in Chitwan National Park and the Narayani River has not been observed since 2013. However, the observation effort is not regular, but rather opportunistic. Water pollution in otter habitats along the Narayani River appears to be insignificant, however, and therefore may not play a role in extirpating the otters there (Acharya & Rajbhandari, 2014).

Otter scats and tracks, unidentified to species, have been observed at the SaniBheri and the Uttar Ganga Rivers in Rukum West (Mohan Bikram Shrestha Pers. Comm.) and the catchment of the Nalgad River, Jajarkot (Tejab Pun Pers. Comm.) districts. Since surveys have not been conducted on many rivers and wetlands in the country, otters most likely inhabitother areas besides the current known distribution.

1.4 Information gap

There have been a handful of surveys for otters in Nepal since the early 1990s. Most were focused in a few areas; Pokhara (Acharya & Gurung, 1994); Chitwan

National Park and Narayani River (Acharya, 1998; Acharya & Lamsal, 2010; Chhetri, 2019) and Bardia National Park and Karnali River (T.B.Thapa, 2002; Bhandari, 2008, 2019; Joshi, 2009; Acharya, 2017). A few studies have been conducted at other areas including SaptaKoshi River (Pandit, 2012) and Budhi Gandaki River (Basnet, 2018). Most of the studies were conducted within the known distribution range of otters, for example, in Karnali, Chitwan and Bardia National Parks (Figure 5). However, surveys have yet to target some potential sites where otter populations are likely to existas reported by the local communities and observation (Figure 5). Since otter surveys have not been conducted systematically throughout Nepal, we lack a thorough understanding on the distribution of otters in the country. Otter studies have thus far been primarily focused on presence/absence surveys, distribution surveys and perception and threat surveys among local people (Table 1). We also lack information on habitat use and suitability of water systems for otters and empirical data on population trends. Therefore, a nation-wide otter survey is warranted. Given that the regional conservation status of otters is not healthy, such a survey is both important and urgent.

1.5 Limitations

Thus far funding for otter surveys has hampered the development of a conservation strategy for otters in Nepal. Most surveys have used indirect evidence such as sign surveys and Participatory Rural Appraisal methods, which are often inconclusive because of the difficulty in identifying species.

Only four of 20 otter studies in Nepal used camera traps. The majority of people involved in otter research, university students and researchers, lack the skill to distinguish one species of otter from another by observation. In addition, otters are elusive and are difficult to photograph. To document the distribution of otters conclusively, including which species are present, it will be necessary to use camera-trapping, genetic analysis and e-DNA techniques.

Otter Distribution in Nepal

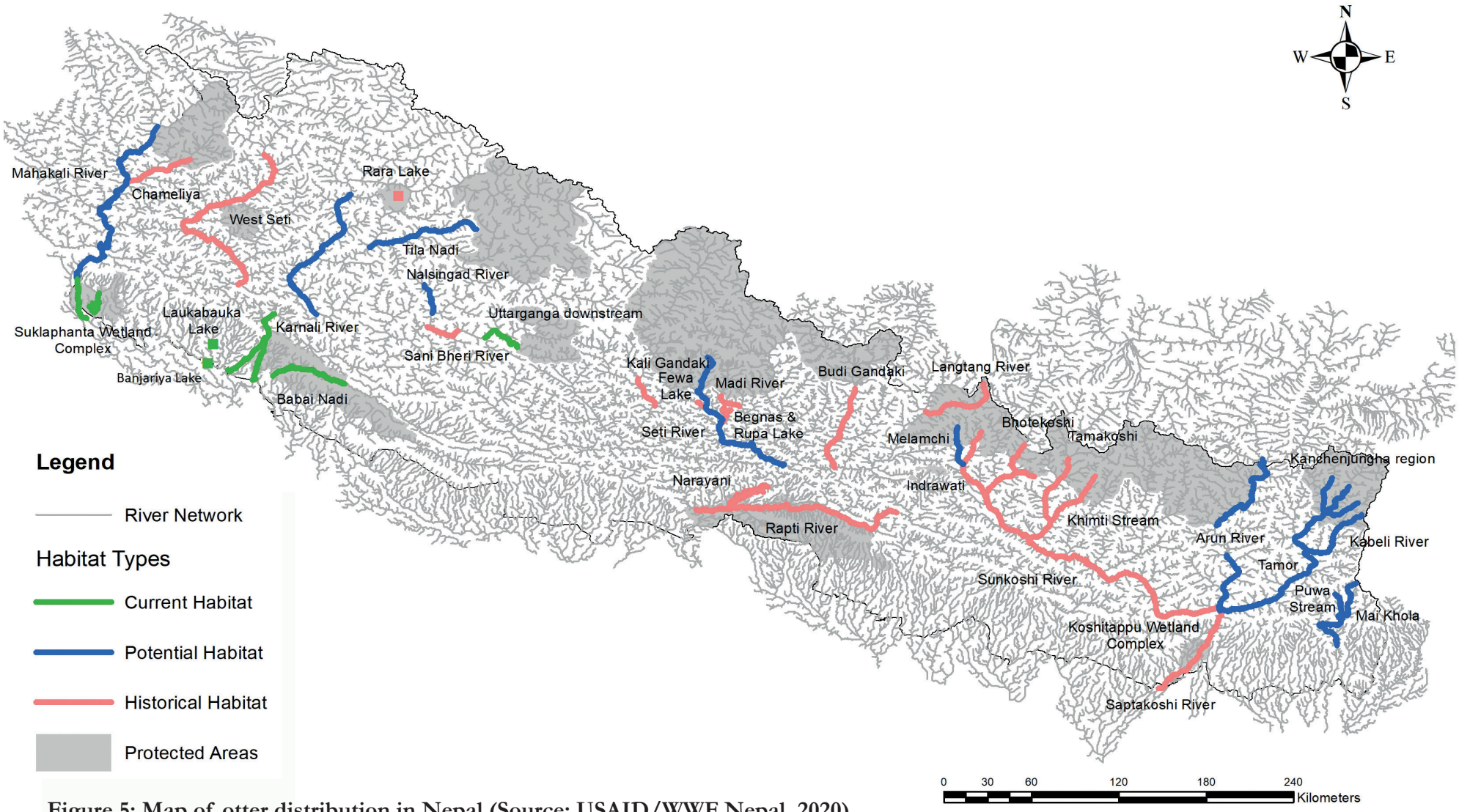


Figure 5: Map of otter distribution in Nepal (Source: USAID/WWF Nepal, 2020)

Table 1: Otter studies (Thesis research/ project/ survey) in Nepal

Name of the study (survey/ research/project)	Principal Investigator	Year	Site/area	Methodology deployed	Finding (detected / not detected)	Funding organization
Study of otters in Begnas and Rupa lakes of the Pokhara Valley in West Nepal	Paras Mani Acharya	1997	Begnas and Rupa Lakes	Sign Survey/ Observation	Detected	Nagao Natural Environment Foundation (NEF), Japan
Survey of status and distribution of otters in Rapti river of Chitwan National Park	Paras Mani Acharya	1998	Rapti River/Chitwan NP	Sign survey/ Observation	Detected	Otter Research Group (ORG) , Japan
Survey of the Smooth Indian Otter (*Lutrogale perspicillata*) in the Karnali River of Royal Bardia National Park, Nepal	Tej Bahadur Thapa	2002	Karnali River/Bardia NP	Sign Survey/ Observation	Detected	International Otter Survival Fund
Habitat Distribution and Conservation Awareness of Otter in KaliGandaki, River, Nepal	Dhruba Bijaya G.C./ Jyoti Bhandari	2007	Baglung, Myagdi, Parbat	Sign Survey/ Public perception	Not detected	River Otter Alliance, USA
Preliminary Survey and Awareness for Otter Conservation in Rupa Lake, Pokhara, Nepal	Jyoti Bhandari	2008	Rupa Lake	Public perception/ Observation	Not detected	Sea World and Busch Gardens Conservation Fund, USA
Status, distribution and major threats to otter in Bardia National Park, Nepal	Jyoti Bhandari	2008	Karnali River/Bardia NP	Sign Survey/ Observation	Detected	No funding
Status of Smooth Indian Otter (*Lutrogale perspicillata*) and Conservation of Freshwater Ecosystem Outside Protected Areas of Bardia National Park in Karnali River, Nepal	Dipesh Joshi	2009	Karnali River/Bardia NP/Buffer zone	Sign Survey/ Observation/ Public perception/ Education	Detected	Rufford Small Grants Foundation

Otter Research and Conservation Project in Wetlands of High Hills, Nepal	Gandhiv Kafle	2009	High Hills	Sign Survey/ Observation/ Camera trapping/ Public perception/ Education	Not detected	Rufford Small Grants Foundation
Project to Investigate Status of Otter Distribution in Narayani River	Paras Mani Acharya	2010	Narayani/Chitwan NP	Sign Survey/ Observation	Detected	Rufford Small Grants Foundation
Investigation of Population Status and Habitats of *Lutrogale perspicillata* in Narayani River, Chitwan National Park	Paras Mani Acharya	2011	Narayani/Chitwan NP	Sign Survey/ Observation	Detected	Rufford Small Grants Foundation
Conservation and Distribution Status of otter in Buffer Zone Area of KoshiTappu Wildlife Reserve, Nepal	Chandan Pandit	2012	KoshiTappu WR Buffer Zone	Sign Survey/ Observation	Not detected	No funding
Study of *Lutrogale perspicillata* in Babai Valley of Bardia National Park	Paras Mani Acharya	2012	Babai River/Bardia NP	Sign survey/ observation	Detected	International Otter Survival Fund (IOSF), UK
Investigation of population and habitats of smooth coated otter *Lutrogale perspicillata* in Karnali River Systems of Bardia National Park	Paras Mani Acharya	2016	Karnali River Systems/Bardia NP	Sign survey/ observation	Detected	Hariyo Ban Programme/WWF Nepal
Conservation Status Survey and Awareness of Smooth-Coated Otters in Babai River of Bardia National Park, Nepal	Jyoti Bhandari	2017	Babai River, Bardia NP	Sign Survey/ Observation/ Public perception/ Education	Detected	Rufford Small Grants Foundation

Distribution Status of Smooth Coated Otters (*Lutrogale perspicillata*) and Anthropogenic Factors: A Case Study from Karnali Corridor, Nepal	Rohit Raj Jha	2018	Bardia NP	Sign Survey/ Observation	Detected	International Otter Survival Fund
Ethnological study of otter to assess bygone and current evidence of otter in Budigandaki River of Nepal	Aarati Basnet	2018	Budi Gandaki River, Gorkha	Camera trapping/ Sign Survey/ Observation	Not detected	Small Mammals Conservation and Research Foundation
Involving Local Fisherman Community for Otter Survey and Educating them for its Conservation in Bheri River, Western Nepal	Sanjan Thapa/Tejab Pun	2019	Thuli Bheri and Nalgad Rivers, Jajarkot	Camera Trapping/ Sign Survey/ Observation	Detected	OSG Himalayan Otter Network
Distribution Status of Eurasian Otter (*Lutra lutra*) and Habitat Study in Sani Bheri River and its Upstream Tributaries, Mid-Western Nepal .	Mohan Bikram Shrestha	2019	Sani Bheri River and its Upstream tributaries	Sign Survey/ Observation	Detected	OSG Himalayan Otter Network
Assessment of Population Status, Threats and perception of Smooth-coated Otter in Narayani River of Chitwan National Park	Sumana Chhetri	2019	Narayani/CNP	Sign Survey/ Observation	Not detected	Small Mammals Conservation and Research Foundation
Scientific survey and public awareness program for otters in Madi river, Western Nepal	Subarna Ghimire	2019-2020 (ongoing)	Madi River	Camera Trapping/ Sign Survey/ Observation	Not detected	Wildlife Reserve Singapore/ OSG Himalayan Otter Network
Distribution and Threats to Otters in Shuklaphanta National Park, Nepal	Pramila Thapa	2019-2020	Chaudhar River, Kalikich Lake, Shuklaphanta NP	Sign Survey/ Observation/ Public Perception	Detected	No funding

1.6 Local people's perception

Figure 6: Feet of a hide which local people identified as those of otters in Rukum West District. The hide was ultimately identified as Masked Palm Civet (Photo: Hari Basnet)

Most of the detection/non-detection studies since 2000 rely on surveys oflocal people's perceptions. Local people can confuse other species such as Crab-eating Mongoose *Herpestes urva,* Masked Palm Civet *Paguma larvata*, Stone Marten *Martes foina* and weasels *Mustela* spp. with otters, since all these animals are of broadly similar body shape as otters, and may the same inhabit rivers and wetlands as do otters.

Local fishermen, especially in Tarai region, believe that otters prey on fish their ponds. However, other species, including Fishing Cat *Prionailurus viverrinus*, Golden Jackal *Canis aureus*, civets (various genera of Viverridae), Crab-eating Mongoose and birds (S. Thapa, 2019) often use the same habitat and also feed on fish. There have been no studies that identify which species are competitors with fishermen for fish and how serious the competition is.

1.8 Conservation

Global conservation status is assessed by the International Union for Conservation of Nature Red List for *Lutra lutra* as Near Threatened (NT) (Roos, Loy, de Silva, Hajkova, & Zemanová, 2015), *Lutrogale perspicillata* as Vulnerable (VU) A2cde (de Silva et al., 2015) and *Aonyx cinereus* as Vulnerable (VU) A2acde (Wright, de Silva, Chan, & Reza Lubis, 2015). National conservation status for Nepal is assessed for *Lutra lutra* as Near Threatened (NT), *Lutrogale perspicillata* as Endangered (EN) C1 and *Aonyx cinereus* as Data Deficient (DD) (Jnawali et al., 2011).These assessments need to be revised due to information gap.

The Asian Small-clawed Otter has not been documented in Nepal since 1839. There has been no reliable empirical record of the Eurasian Otter since 1991. The Smooth-coated Otter has now been recorded only from the southwestern Tarai, west to Bardia National Park. This alarming situation implies that all otters are at risk of extinction in Nepal. Despite severe threats and a likely steeply declining status, none of the three species of otters is protected by National Parks and Wildlife Conservation (NPWC) Act, 1973. Eurasian Otter and Smooth-coated Otter, however, are now legally protected under Amendment (2002) of Aquatic Life Protection Act 1961 (Acharya & Rajbhandari, 2011; Savage & Shrestha, 2018).

Table 2: List of Participants of Third Himalayan Otter Network Meeting, Kathmandu, Nepal, February 21-23, 2020

S.N.	Name	Affiliation	Email address
1	Mohan Bikram Shrestha	Bird Conservation Nepal	shrmohan5@gmail.com
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6	Aarati Basnet	Tribhuvan University, Institute of Forestry, Pokhara	aaratibasnet662@gmail.com
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24	Sagar Dahal	Small Mammals Conservation and Research Foundation	sagardahalinktm@gmal.com
25	Melissa Savage	Himalayan Otter Network	forests@ucla.edu

Figure 7: Group photo of participants in Third Otter Network Meeting, Kathmandu, Nepal

GOAL OF PHASE I: RESEARCH FOCUS

Develop baseline data on species diversity and distribution of otters in Nepal

Figure 8: A standing Smooth-coated Otter (Photo: Atul Sinai Borker)

Research focus strategy

There has been little funding available thus farto conduct the surveys and research needed to develop a conservation strategy for otters in Nepal. Most of the surveys have been focused on specific areas, leaving large areas of the country unrecorded. In order to determine otter distribution in potential habitats, considering limited funding, we need to prioritize potential sites for intensive surveys.

Objective 1. Identify priority sites for surveys to determine otter distribution

S.N.	Action	Timeline	Focal Person
1.	Set up criteria for selection of potential survey locations	September 2020	Mr. Purna Man Shrestha
2.	Prepare a distribution map of potential locations	October 2020	Mr. Pushpinder Jamwal
3.	Verify potential distribution map and identify seven priority sites, in each of seven provinces	November 2020	Prof. Paras Acharya

Due to lack of funding and equipment, most surveys in the past used sign survey techniques (indirect evidence) and Participatory Rural Appraisal methods. Future surveys should deploy camera-traps, genetic analysis, and e-DNA analysis of otter signs to identify species. It will be necessary to build national capacity, and a cadre of trained researchers, to undertake future surveys using cutting-edge techniques that can accurately document otter presence and identify to species level.

Objective 2. Increase capacity of researchers, university students, and staff from local government agencies, including those from protected areas and non-governmental organizations

S.N.	Action	Timeline	Focal Person
1.	Organize a detailed field methodology training including otter sign identification, camera-trapping techniques, e-DNA methodology, habitat suitability and variables assessment	February 2021	Dr. Tom Serfass, Prof. Paras Acharya, Mr. Sanjan Thapa
2.	Select and arrange a venue		
3.	Secure permission, collaboration and financial support		
4.	Arrange trainer/s		
5.	Select participants		
6.	Arrange transportation and logistics		

The trained participants will be involved in the future intensive surveys in the prioritized sites (each site in seven provinces) throughout Nepal. Recent surveys have only recorded Smooth-coated Otter, and the current presence and distribution of Eurasian Otter and Small-clawed Otter is still unknown. Future surveys should target the identification and distribution of these two species.

Objective 3. Escalate field survey and research on diversity and distribution of species

S.N.	Action	Timeline	Focal Person
1.	Collaborate with government agencies and I/NGOs	February 2021	Dr. Jyoti Bhandari, Mr. Purna Man Shrestha, Mr. Mohan Bikram Shrestha, Mr. Sanjan Thapa
2.	Apply funding and logistics	2022	
3.	Arrange available equipment		
4.	Conduct an intensive Nepal-wide research survey using e-DNA and camera-trapping techniques		

Figure 9: A party of Asian small-clawed Otter (Photo: Nicole Duplaix)

Figure 10: Drawing of Eurasian Otter catching fish (Art: Kuldip Jang Gurung/ SMCRF)

Tentative Intensive Research Plan

Province #	Tentative duration	Team
1	Mar/ Apr 2021	Sagar Dahal, Sanjan Thapa
2	October/ Nov 2021	Dr. Gandhiv Kafle, Rajesh Jha
Bagmati (3)	Mar/ Apr 2021	Prof. Paras Acharya, Sanjan Thapa
Gandaki (4)	Mar/ Apr 2022	Dr. Dhruba Bijaya G.C., Subarna Ghimire
5	October/ Nov 2021	Dr. Jyoti Bhandari, Aarati Basnet, Sarjan Gwachha
Karnali (6)	Mar/ Apr 2022	Mohan Bikram Shrestha, Tejab Pun
Sudur Paschim (7)	October/ Nov 2022	Ramesh Bdr. Bohara, Pramila Thapa, Sujita Dhakal

Note: Researchers will be joined in the surveys by trainees who attended the field methodology training workshop

Budget for executing Phase I

	Action	Tentative Budget (US $)
1.	Conduct a detailed field methodology training including otter sign identification, camera-trapping techniques, e-DNA methodology, habitat suitability and variables assessment	4,500
2.	Purchase equipment and kits	7,800
3.	Conduct intensive Nepal-wide research surveys using e-DNA and camera-trapping techniques - seven sites	20,720

Tentative budget for equipment

Particulars	Number of items	Rate (per item)	Amount (US $)
e-DNA kit	7 pc	200 per item	1,400
Genetic analysis of samples	20 samples * 7 sites	35 per sample	4,900
Camera traps	10 pc	15 0 per item	1,500
		Total Amount	**7,800**

Tentative budget for Training Workshop for 21 attendees

Particulars	Description (# person*days)	Rate (per person/day)	Amount (US $)
Bus Transportation (KTM-Venue-KTM)	21* 2	30	1,260
Accommodation and Food	21*3	20	1,260
Training venue including projector	Lumpsum for 3 days	400	400
Local transportation (four- wheel drive)	3 Jeeps Lumpsum for 1 day	600	600
Batteries and equipment accessories for training	Lumpsum	400	400
Remuneration to trainer	Lumpsum	500	500
		Total Amount	**4,420**

Tentative budget for intensive research for each survey

Particulars	Description (# person*days)	Rate (per person/day)	Amount (US $)
Bus Transportation (KTM-Venue-KTM)	3* 2	30	180
Local transportation (four- wheel drive)	3*15	4	180
Accommodation and Food	3*30	20	1,800
Batteries and equipment accessories for training	Lumpsum for 30 days	500	500
Remuneration to local guide or supporter	Lumpsum	300	300
		Total Amount	**2,960**

Figure 11: Otters in Khauraha River, Bardia National Park (Photo: Sarjan Gwachha)

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