

## REPORT

# LOCAL PEOPLES' KNOWLEDGE AND PERCEPTIONS OF, AND CONSERVATION THREATS TO, EURASIAN OTTERS IN THE KALI GANDAKI WATERSHED IN MYAGDI DISTRICT, NEPAL

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**Abstract:** While there are an increasing number of field surveys reporting on distribution and habitat factors of Eurasian otters (*Lutra lutra*) in Nepal, there is still a significant lack of research on human interactions with the species. This study documents the socioeconomic status of local people, their perceptions and knowledge about Eurasian otters, and the pervasive threats to otters around the Kali Gandaki watershed area in the Myagdi District. A semi-structured questionnaire survey, using a purposive sampling technique, was conducted in the study area to explore these factors. Seventy residents living in the watershed participated in the survey. Simple descriptive statistics were used to analyze the quantitative data and Fisher's exact test was employed to evaluate the relationship between categorical variables. Our study findings show that local respondents have a positive attitude toward otters, likely attributed to the absence of commercial fishing activities. Around 62% of respondents reported that they believed otter populations have declined over the past 10 years. The majority of the respondents had little or no knowledge about the ecological value of otters in aquatic ecosystems. Nevertheless, a significant number of participants exhibited heightened enthusiasm and a keen interest in the conservation of otters in their locality. Hydropower dams and flash floods were ranked as the most prominent threats to the species' survival. Stringent enforcement of environmental laws related to riverine ecosystems coupled with community outreach programs are essential for the conservation of otters and their habitats.

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## INTRODUCTION

Human-wildlife interactions are common phenomena when the resources which contribute to their sustenance overlap. As such, direct competition for fish is prevalent between fishing folk and otters since fish play an important part in people's livelihoods and income generation (Barbieri et al., 2012; El Alami et al., 2020). Destruction of fishing gear and depredation on fish in gillnets by otters have been reported in many parts of the world, leading local people to perceive otters as a pest (Ergete et al., 2018; Dias, 2021; Trivedi and Variya, 2023). However, perceptions may vary across individuals ranging from positive or neutral to harshly negative depending on the level of knowledge, economic status, age, occupation, and level of interactions with otters (Biru et al., 2017).

The Eurasian otter (*Lutra lutra*) is a flagship semi-aquatic mammal having the widest distribution range among 13 extant otter species in the world. It inhabits primarily freshwater ecosystems such as rivers, lakes, ponds, and wetlands and forages mainly on fish and occasionally crabs, frogs, and other aquatic animals (Kruuk, 2006). This species is listed in the IUNC Red List as Near-Threatened with a declining population trend (Loy et al., 2022) and in Appendix I of Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

Eurasian otters throughout Asia and the Himalayan Range are threatened by human activities such as pollution, irrigation canal and hydropower dam construction, declines in fish biomass, bankside vegetation removal, and illegal trade (Duplaix and Savage, 2018; Loy et al., 2022). These threats are more profound in South Asia, including Nepal, due to the rapid rise in population in this region, ongoing large developmental projects, and the inevitable pressure on rivers and wetlands.

There are no specific policies or laws dedicated to the protection of otters in Nepal (Acharya et al., 2022). The Aquatic Life Protection Act 1961, amended in 2002, provided some degree of legal protection to two otter species: Eurasian otter and Smooth-coated otter. However, this law has not been effectively enforced for a long time, as there is no reported case of a person being persecuted under the act (Acharya et al., 2022). Similarly, the National Park and Wildlife Conservation Act, 1973 has not yet listed any otter species, including Eurasian otter, as protected mammals.

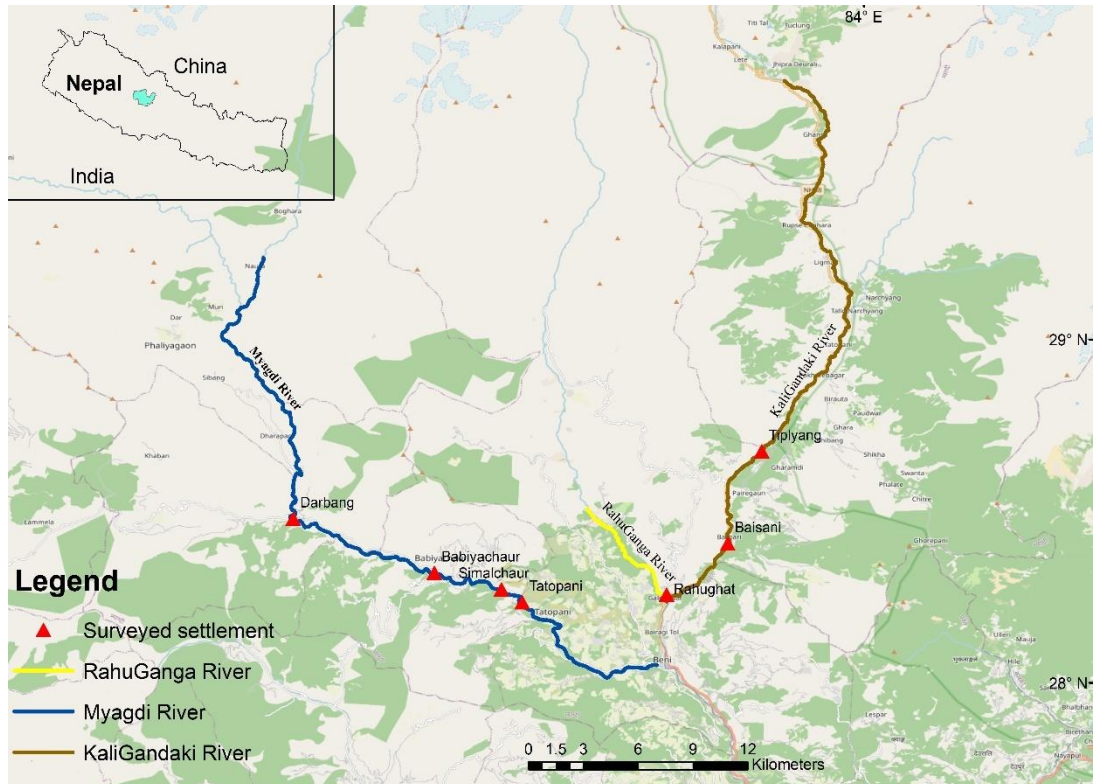
The population status of the Eurasian otter in Nepal is poorly understood, but it appears to survive in low numbers in rivers and wetlands of the mid-hill region, mostly outside protected areas (Basnet et al., 2020; Shrestha et al., 2021; Shrestha et al., 2022). For the first time, verifiable evidence of the Eurasian otter in Nepal was recorded at Begans Lake in 1993 (Acharya and Gurung, 1994) and recently in Roshi, Tubang, Pelma, and Berekot Rivers (Shrestha et al., 2021; Shrestha et al., 2022). An unusual carcass of an Eurasian otter has been found in a Kathmandu valley (Shrestha et al., 2023). Although recent surveys have enriched the general overview of the distribution of Eurasian otters in Nepal, little is known about local people's knowledge, attitudes, and perception towards them (Basnet et al., 2020; Shrestha et al., 2023).

Some studies have shown that local human populations possess valuable knowledge of their natural resources and environment, in which they live and utilize (Drew, 2005; Ulicsni et al., 2019). Systematically documented local knowledge can potentially offer valuable information for the design of effective conservation and management plans (Suwal et al., 2022; Basnet et al., 2020; Shrestha et al., 2023). As the success of conservation initiatives depends on public support, consideration of public attitudes and perceptions towards conservation and wildlife management is essential (Špur et al., 2018; Basnet et al., 2020; Shrestha et al., 2023). In this study, we assessed 1) local people's knowledge 2) their perceptions and attitudes towards Eurasian otters, and 3) their perceptions of threats towards Eurasian otters and their habitat.

## METHODOLOGY

### Study Area

The Myagdi District (28°42'24"N, 83°38'43"E) is located in Gandaki Province in the Mid-western part of Nepal, covering an area of 2297 km<sup>2</sup>. The district is elevated from 792 m above sea level (asl) to as high as 8167 m, comprising four different types of climates: sub-tropical, sub-temperate, temperate, and alpine (Poudel, 2022). The survey was conducted mainly in the villages of Tatopni, Simalchaur, Babiyachaur, Darbang, Tiplyang, Baisani, Galeshwor, and other small human settlements near three major rivers: the Kali Gandaki, Myagdi, and Rahuganga Rivers (Fig. 1).



**Figure 1.** Map of the study area (World Street Map is used as the base map) showing major surveyed settlements and three major Rivers: Kali Gandaki, Myagdi, and Rahuganga Rivers.

The total population of Myagdi District in 2021 was 107,033, of which 48.7% were male and 51.3% female, with a population density of 47 persons per km<sup>2</sup> (National Population and Housing Census, 2021). Skilled agriculture, forestry, and fishery (67.3%) is the dominant economic activity of the people, followed by elementary workers (12%), managers (4%), professionals (3.5%), crafts and related trade workers (3.4%), service and sale (3.4%) and other activities. The district's literacy rate stands at 79.7%, with a slightly higher proportion of males (87.7%) compared to females (72.2%) (National Population and Housing Census, 2021). Major ethnic groups are: Magar, Kshetri, Bishwokarma, Brahman, Pariyar, Mijar, Pun, Chhantyal, Thakuri, and Newar. The majority of people follow the Hindu religion (87.6%) followed by Buddhist (8.2%), Christian (1.5%), Prakirti (2.1%), Islam (0.2%), and Kirat (0.02%) (National Population and Housing Census, 2021).

## **Questionnaire Survey Methodology**

In November and December 2022, we conducted a semi-structured questionnaire survey with local people living in proximity to the three rivers. In Nepal, the post-monsoon season in these two months offers suitable climatic conditions for field work. A purposive sampling method was followed since our main purpose was to elicit as much information as possible from informants (Tongco, 2007). Seventy respondents participated in our survey. Age was taken into consideration while selecting respondents, since older people were assumed to have more knowledge and experience of natural resources and their utilization. If there were young people who frequently visit the rivers for fishing, they were prioritized over the other, older, family members. Only one member of each family was interviewed. Some fishermen were interviewed while they were fishing in the river. A picture of the Eurasian otter was shown, and details of its characteristics were explained to participants to avoid confusion with crab-eating mongooses and other similar small mammals. The purpose of the survey was described to each of the participants, and they were assured that their identities would remain confidential. Verbal consent was obtained from each participant prior to the survey. The survey was conducted by the authors in the Nepali language and later translated to English for data analysis.

The questionnaire survey was categorized into five sections with a mix of closed and open-ended questions. In the first section, data on socio-economic and demographic information about the participating individuals were collected. In the second section, we documented the use of rivers, and fishing practices employed. In the third section, people were asked about sightings, and ethno-biological information associated with Eurasian otters. In the fourth section, data on the perceptions and attitudes of people towards otters were gathered. In the final section, people were asked to list possible threats to otters based on their observations.

Field observations by researchers and perceptions by respondents were used to estimate threats to Eurasian otters. During the field survey, the survey team recorded visible threats to otters and their habitat. Perceived threats to otters in the Myagdi District were collected through the questionnaire survey. The combined list of threats obtained from questionnaire survey and field observation were refined to six most plausible direct threats for whole site threat ranking method.

## **Data Analysis**

Simple descriptive statistics such as mean, frequency, and percentage were used for the analysis of quantitative data. Fisher's Exact Test was employed to evaluate the relationship between otter sightings (seen/heard of otter or not seen/heard of otter) and demographic factors including respondents' age, gender, education level, and preferred fishing season. The small sample size and low number of expected observations are the reasons behind opting for Fisher's Exact Test for understanding the relationship between categorical variables.

The relative whole-site threat ranking method developed by World Wildlife Fund (WWF, 2007) was applied to rank the most prominent threats to Eurasian otters (WWF, 2007; Kafle et al., 2020; Neupane et al., 2020). Six threats reduced from the combined list were then ranked by ten key stakeholders most familiar with the otter and their habitat, based on scope, severity, and urgency, ranging from value 6 to 1 (i.e., value 6

implies very high with serious effects and 1 implies very low impacts) (Table 1). For example, for ranking for scope, the largest value (6) was assigned to the threat affecting the largest habitat or population, continuing down to a rank of 1 for the threat that affects the smallest habitat or population of Eurasian otters. Similarly, each threat was ranked for severity and urgency. The mean response was calculated and these values classified into a four-point scale: (very high (13.6-≤18), high (9.1-≤13.5), medium (4.6-≤9), and low (≤4.5).

**Table 1.** Relative whole-site threat ranking method under scope, severity and urgency criteria (WWF, 2007)

Threat Classification Category	Definition
<b>Scope</b>	The proportion of the targeted population that can be affected by the threat within ten years, assuming that current circumstances and trends continue.
<b>Severity</b>	Within the scope, the damage level to the target population from the threat can reasonably be expected within the ten years, assuming that the current circumstances and trends continues.
<b>Urgency</b>	Importance of taking immediate actions to address threats in order to sustain a long-term healthy population of the target species.

## RESULTS

### Demographic Structure of the Respondents

Of the 70 respondents who participated in the interview, 89% were male and 11% were female. The age of the respondents ranged from 16 to 81 years of age, out of which 37% of the respondents were younger than 40 and 63% were older than 40. The majority of respondents were farmers (80%), followed by teachers (7.14%), students (5.71%), businessmen (4.29%), and labourers (2.86%). More than half of the respondents (57.14%) were literate, while 21.43% had primary education, 12.86 % were above secondary education, and 8.57% were illiterate.

### Fishing Practices

More than half of the respondents (55.7%) said that they preferred fishing in early summer whereas 25.7% fish all year round, and 18.6% fish in both summer and winter. Around 84% of the people responded that electric and poison fishing is not prevalent in their area, whereas 15.7% believe that people still fish using electric currents and poison. All the respondents (100%) agreed that fish populations in the river have decreased in the past 10 years. The gillnet (Tehari jal) was the preferred fishing gear used by local people.

### Local Knowledge of Respondents

Old-aged (42%) and middle-aged (40%) people reported having seen Eurasian otters more frequently than the younger people (18%). Fisher's Exact Test showed a statistically significant association between seen/heard of otters with age group (P=0.001), and gender (P=0.005). We did not find a significant association between

education level ( $P=0.078$ ) or preferred fishing season ( $P=0.145$ ) with seen/heard of otters.

Based on the interviews, 62.9% of people believed that the otter population has decreased in the last ten years, while 38.6% did not provide any response to the question (Table 2). Respondents mostly observed Eurasian otters in the early summer (40%), followed by winter (24.3%) and monsoon season (1.4%), while (24.3%) people gave no response. Of the total respondents, only 17.1% of people could identify the scat of otters, while the majority (82.9%) of respondents answered negatively. Almost all of the respondents (95.7%) said that there are no cultural or traditional myths associated with the otter. All respondents (100%) said that they do not use the body parts of otters for medicinal purposes, nor have they observed it in their community.

**Table 2.** General information on Eurasian otter ecology, cultural association with humans, and usage based on respondents' knowledge (N=70).

Characteristics	Responses	Number	Percentage (%)
Do you know where otters live?	Yes	43	61.4
	No	27	38.5
Status of otter population in the last 10 years?	Decreased	44	62.8
	No response	26	37.1
In which season are otter mostly seen?	Monsoon	1	1.4
	Early summer	28	40.0
	Winter	24	34.3
	No response	17	24.3
Can you identify otter scats?	No	58	82.9
	Yes	12	17.1
Cultural or traditional myths associated with otters?	No	67	95.7
	No response	3	4.3
Medicinal value of any body parts?	Yes	0	0
	No	70	100

### Perception and Attitudes of Local People about Otter Conservation

Respondents who expressed appreciation for otters account for 48.6% (N=51). 4% were neutral (Table 3). While 31.43% of respondents felt that otters are good for aquatic ecosystems, 68.6% gave no response. A large number of people (64.3%) believe that the presence of otter decreases the availability of fish, whereas 35.7% of people did not agree. Interestingly, 71.4% of respondents stated that the otter is not a harmful animal, while 27.1% were neutral. A significant number (81.4%) of respondents felt that otter should be conserved and only 18.6% did not provide a clear response.

*One respondent said: "Why I would hate these animals? They pose no threats to me so, I would love to see their population growing in our rivers".*

**Table 3.** General perception of respondents (n=70) on the Eurasian otter, its role in maintaining ecosystem services, and its conservation.

Characteristics	Opinion	Number	Percentage (%)
Do you like otters?	Yes	34	48.6
	Neutral	36	51.4
Is the presence of otters good for the ecosystem?	Yes	22	31.4
	No response	48	68.6
Influence of otter presence on fish populations?	Decrease	45	64.3
	Remains same	0	0
	Don't know	25	35.7
Is the otter a harmful animal?	Yes	1	1.4
	Neutral	19	27.1
	No	50	71.4
Should we conserve otters?	Yes	57	81.5
	No	0	0
	Don't know	13	18.6

### Ranking of Perceived Threats to Otters

All the respondents (100%) stated that no awareness program related to otters had previously been conducted in their locality. Only 2.9% of participants stated that they had killed an otter in retaliation, while 55.7% of participants had no knowledge of such incidents happening in their area. Based on the interviews, 14.3% of respondents had seen otters caught or killed by someone, while 85.7% had not observed such occurrences. Among all participants, 8.6% reported that an otter had been entangled in fishing gear, while 91.43% stated that they had not witnessed such incidents.

***“Some respondents recalled that, about 20 to 30 years ago, people from the Terai region used to come to these rivers, and set up tents along the river banks for months to hunt otters.”***

These results suggest that, of the six major threats listed, the hydropower dam construction and flash floods were believed to be the most urgent threats to otters in the study area (Table 4). Unsustainable fishing, and expansion of roads and development projects were also highly ranked. Habitat destruction and hunting/illegal killing were ranked as medium and low respectively.

**Table 4:** The relative whole-site threat ranking results of six prominent threats to otters in the study area.

SN	Conservation Threats	Scope	Severity	Urgency	Total	Classification
1.	Hydropower dam construction	5.6	5.3	5.2	16.1	VH
2.	Expansion of roads and development projects	4.2	3.9	3.9	12	H
3.	Unsustainable fishing	3.6	4.3	3.4	11.9	H
4.	Flash floods	4.6	4.5	4.5	13.6	VH
5.	Habitat destruction (sand and boulder extraction, grazing and deforestation)	1.9	1.8	2.6	6.3	M
6.	Hunting/illegal killing	1.1	1.2	1.4	3.7	L
	Total	21	21	21		

Note: Very High (VH), High (H), Medium (M), Low (L)

## DISCUSSION

The number of male participants is quite high in these surveys because of their greater knowledge and information about the species in contrast to female participants. Usually, men go to the river for fishing, collection of wood, and other purposes while women are restricted to household chores and are therefore less familiar with the species, their habitat, and ecological information.

The questionnaire survey revealed that, with few exceptions, commercial fishing was not practiced by the people living along these rivers. Rather, local people occasionally went fishing for household consumption and recreation. This might be explained by increased opportunities for jobs in recent times and decreasing fish stocks in the river. Local people apparently prefer to fish in early summer or before the onset of monsoon, perhaps because of the good weather condition, low river current, optimal water temperature, and greater fish movement during this season (Singh, 2021). In our survey, the percentage of people using explosives, electric current, or poison for fishing is relatively low (17.6%); in contrast, Khatri et al. (2023) have reported the rampant practice of illegal fishing in Kathe River, Baglung Nepal. In our study, the majority stated that they use gill nets and cast nets for fishing, practices considered less harmful to otters. It may be that people were reluctant to disclose information about electric current, explosive or poison fishing since they are unlawful in Nepal. Respondents reported that the fish populations have drastically decreased in the last ten years as a consequence of habitat destruction, flash floods, unsustainable fishing, and dams.

The number of respondents who had observed otters was relatively low. Otters were observed more often in winter and early summer, perhaps due to the preferred fishing season. Respondents who were aware of otters believed that their population had decreased considerably in the last decade and were observed less frequently now than before. This assertion is further reinforced by the year-wise analysis of the data from the questionnaires survey, revealing that mostly middle and old-aged people (age=36+) have observed otters in rivers, while young people have fewer sightings rate. This inference aligns with the results of Shrestha et al. (2023), suggesting either a decline in otter population, or a reduction in fishing activities by the young respondents,



or both. However, we do not have quantitative historical and current data to support or oppose the questionnaire survey findings, highlighting a need for immediate population survey of the Eurasian otter. The decreasing otter population could be attributed to the reduction in prey biomass, habitat destruction, damming, and illegal poaching/killing (Basnet et al., 2020). Very few respondents (12%) were able to identify the indirect signs such as scat, tracks, and dens, suggesting less familiarization of local people with the otter. Our study found no cultural myths and beliefs associated with otters and no body parts were used for medicinal purposes, similar to the findings of (Basnet et al., 2020).

In many parts of the world, conflicts between humans and otters have been linked to economic losses due to fish depredation and net damage (El Alamit et al., 2020; Dias, 2021; Jain and Karanth, 2023). Commercial or extensive subsistence fishing practices are, however, not prevalent in the study area, which is one reason why respondents may not perceive otters as harmful or nuisance animals. Most respondents were unaware of the ecological role of the otter in freshwater ecosystems, potentially undermining the effectiveness of otter conservation efforts. This is consistent with the result of El Alami et al., (2020), where only 3% of the interviewees were aware of the ecological role of the Eurasian otter. A large number of respondents agreed that Eurasian otters should be conserved and protected, which is a promising sign for otter conservation. However, we suggest conducting Eurasian otter-centric awareness and community outreach programs in these local communities as a foundation for sustainable conservation of the species.

Hydropower dam construction and flash floods are perceived as the major threats to Eurasian otters in the study area. Hydropower dams are under construction on the Myagdi and Rahuganga Rivers, potentially resulting in disruption of the regular flow of water, habitat fragmentation, and reduced food availability impacting the otter population (Acharya et al., 2022). Some respondents reported that construction of Kali Gandaki A (144MW) hydropower dam in the Syangja District has impeded the upward migration of large fish, again potentially affecting the otter population - a finding consistent with the case study report prepared by the Asian Development Bank (2018). The regional mean temperature of the Himalayas over the past 100 years has increased by 0.74° C (Lamsal et al., 2017), leading to a rapid rise in snow melts, catastrophic avalanches, flash floods, erosion, and landslides (Arora et al., 2016), likely to have severe consequences on otters, which live in a narrow linear riverine habitat (Kruuk, 2006). Flash floods, with their excessive mud content may block the holes and rock cervices along the riverbank that otters rely on for shelter. Pandey et al. (2022) similarly identified natural calamities as the major threats to otter species in India. The ever-increasing expansion of road construction is also detrimental to river dwelling species. Ineffective enforcement and implementation of existing national policies to curb the impacts of developmental projects is a challenge for conservation (Acharya et al., 2022). Evidence suggests that large developmental works including hydropower projects in Nepal do not fully comply with environmental regulations (Acharya et al., 2022). The scant evidence of hunting/killing of otters in the area in recent times may reflect depletion of otter populations. In contrast, Shrestha et al. (2023) documented intense poaching of otters in the past in the Mugu District, perhaps prompted by closer international border and an easy trade route to China (Li et al., 2000). Unsustainable fishing practices such as electric current, explosives, or poison fishing are widespread in rivers and wetlands in the mid-hills region of a country (Khatri et al., 2023) and cause severe damage to the entire aquatic ecosystem. Such practices pose detrimental threats

to fishes, the primary prey of otter that will ultimately impose adverse consequences on the Eurasian otter's survival.

## CONCLUSION AND CONSERVATION IMPLICATIONS

Eurasian otter populations may have experienced a decline in the Kali Gandaki watershed in recent decades, as suggested by reduced sightings by locals. A systematic survey is needed to accurately assess the population status of the otter. The lack of significant human-otter conflict in the study area may reflect a positive attitude of local people towards otters. We strongly advise that environmental laws and regulations that would more effectively protect the Eurasian otter be implemented and that regular follow-up monitoring be conducted. For example, regular monitoring of the provision of Environmental Impact Assessment before and after the dam construction will be critical in mitigating the negative impacts of dams on a river system. Awareness and community outreach programs would be invaluable in enhancing the conservation knowledge of local people and promoting their participation in otter conservation at the local level. In addition, partnership and collaboration among the relevant conservation stakeholders could positively reward the otter conservation efforts. For sustainable management of Eurasian otter populations and their habitat in the Kali Gandaki watershed, conservation measures specific to otters should be implemented and their significance recognized in the broader management strategies of rivers basins.

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## **RÉSUMÉ: CONNAISSANCES, PERCEPTIONS ET MENACES POUR LA CONSERVATION DES LOUTRES EURASIENNES (LUTRA LUTRA) DANS LE BASSIN VERSANT DE KALI GANDAKI, DISTRICT DE MYAGDI, AU NÉPAL**

Bien qu'un nombre croissant d'enquêtes de terrain rendent compte de la répartition et des facteurs d'habitat des loutres eurasiennes (*Lutra lutra*) au Népal, il existe encore un manque important de recherches sur les interactions humaines avec l'espèce. Cette étude documente le statut socioéconomique des populations locales, leurs perceptions et leurs connaissances sur les loutres eurasiennes, ainsi que les menaces omniprésentes qui pèsent sur les loutres autour du bassin versant de Kali Gandaki dans le district de Myagdi. Une enquête à l'aide d'un questionnaire semi-structuré, utilisant une technique d'échantillonnage ciblé, a été menée dans la zone d'étude pour explorer ces facteurs. Septante résidents vivant dans le bassin versant ont participé à l'enquête. De simples statistiques descriptives ont été utilisées pour analyser les données quantitatives et le « test exact de Fisher » a été appliqué afin d'évaluer la relation entre les variables

catégorielles. Les résultats de notre étude montrent que les personnes interrogées ont une attitude très positive envers les loutres, probablement liée à l'absence d'activités de pêche commerciale. Environ 62 % des personnes consultées ont déclaré qu'elles pensaient que les populations de loutres avaient diminué au cours des 10 dernières années. La majorité des personnes sondées n'avaient que peu ou pas de connaissances sur la valeur écologique des loutres dans les écosystèmes aquatiques. Néanmoins, un nombre significatif de participants ont fait preuve d'un enthousiasme accru et d'un vif intérêt pour la conservation des loutres dans leur localité. Les barrages hydroélectriques et les crues soudaines ont été classés comme les menaces les plus importantes pour la survie de l'espèce. Une application stricte des lois environnementales liées aux écosystèmes fluviaux, associée à des programmes de sensibilisation communautaire, est essentielle pour la conservation des loutres et de leurs habitats.

**RESUMEN: CONOCIMIENTOS Y PERCEPCIONES DE LA POBLACIÓN LOCAL, Y AMENAZAS A LA CONSERVACIÓN DE LAS NUTRIAS EURASIÁTICAS EN LA CUENCA DE KALI GANDAKY, DISTRITO MYAGDI, NEPAL**

Aunque hay un número creciente de reportes de campo que informan sobre la distribución y factores del hábitat de las Nutrias Eurasiáticas (*Lutra lutra*) en Nepal, aún hay una significativa falta de investigación sobre las interacciones de la especie con el ser humano. Este estudio documenta el status socioeconómico de la población local, sus percepciones, y su conocimiento sobre la nutria Eurasiática, y las extendidas amenazas sobre las nutrias en los alrededores de la cuenca de Kali Gandaky, en el Distrito Myagdi. Condujimos un relevamiento con cuestionario semi-estructurado, utilizando una técnica de muestreo deliberado, para explorar estos factores. Participaron en el relevamiento, setenta residentes que viven en la cuenca. Utilizamos estadísticos descriptivos simples para evaluar la relación entre las variables categóricas. Nuestros hallazgos muestran que los pobladores locales que respondieron tienen una actitud positiva hacia las nutrias, probablemente atribuible a la ausencia de actividades de pesca comercial. Alrededor del 62% de los que respondieron expresaron que creían que las poblaciones de nutria han declinado en los últimos 10 años. La mayoría de los que respondieron tenían poco o ningún conocimiento sobre el valor ecológico de las nutrias en los ecosistemas acuáticos. Sin embargo, un número significativo de participantes exhibió un acentuado entusiasmo y un alto interés en la conservación de las nutrias en su localidad. Como las amenazas más prominentes para la supervivencia de la especie, fueron rankeadas las represas hhdroeléctricas y las inundaciones repentinas. El control riguroso de las leyes ambientales relacionadas con los ecosistemas fluviales acoplado con programas de vinculación con la comunidad, son esenciales para la conservación de las nutrias y su hábitat.