

SHORT COMMUNICATION

A RARE RECORD OF AN ALBINO EURASIAN OTTER *Lutra lutra* IN CENTRAL IRAQ

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Abstract: Colour aberrations such as albinism and leucism are congenital and heritable disorders in the synthesis of melanin pigmentation, and rarely observed in otters' wild populations. In June 2022, a rare albino young Eurasian Otter (*Lutra lutra*) was trapped in the Tigris River in Central Iraq and transported by the Iraqi environmental authorities to be raised in captivity at Baghdad Zoo. Here, we report a first case of albinism of the species in the wild population in Iraq.

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INTRODUCTION

The Eurasian Otter (*Lutra lutra*) is the most widespread otter species in Western Europe, across most of the Palearctic, downward to India, Southeast Asia, North Africa, and the Middle East (Duplaix and Savage, 2018; Yoxon and Yoxon, 2019; Roos et al., 2021). Its zoogeographical extent in the Middle East is represented by a patchy distribution of scattered populations that occur in Turkey, Palestine and Israel, Lebanon, Jordan, Syria, Iran, and Iraq (Al-Sheikhly et al., 2020). In Iraq, the Eurasian Otter inhabits almost in all suitable aquatic habitats along the Tigris and Euphrates Rivers (Al-Sheikhly and Nader 2013; Al-Sheikhly et al., 2017). It was reported from several localities in southern Iraq (Cheesman, 1920; Sanborn, 1940; Hatt, 1959; Harrison and Bates, 1991; Abass, 2013), with few observations made in the central and northern parts of the country (Al-Sheikhly and Nader 2013). However, the first photographic records were obtained in southern and northern Iraq by Al-Sheikhly et al. (2017). Moreover, a remarkable range extension of Eurasian Otter distribution in extreme western Iraq was recently made by Al-Sheikhly et al. (2020).

Albinism is a complete lack of melanin pigmentation in an animal's light-sensitive tissues at the posterior portion of the eyes (retina) and other bare parts (fur and skin), and attributed to congenital and heritable aberration in the pigment producing cells (melanocytes) (Dorp, 1987; van Grouw, 2012). Leucism is a partial or total lack of melanin in the skin where the amount of white can vary from just partial leucistic to all-white individuals, which always possess colourless skin as well, except that the eyes always being darkly pigmented (van Grouw, 2013, 2014; Al-Sheikhly et al., 2018).

These morphological anomalies can also be caused by non-hereditary external factors, e.g. low consumption of foods rich with tyrosine responsible for melanin synthesis (van Grouw, 2012). Observations of otters with colour aberration in the wild is extremely scarce; however, “white otters” of different species have been rarely reported worldwide. For examples, a young male albino Neotropical Otter (*Lontra longicaudis*) was recorded in the Camaratuba River in northeastern Brazil (Toledo et al., 2014). A total of three leucistic Neotropical otters were recorded from Mexico (Arriaga-Flores et al. 2016). A hypopigmented young “white otter” was reported among group of wild Oriental Small-clawed Otter (*Aonyx cinereus*) in Sumatra (Allen et al., 2019). However, a young captive-bred albino Oriental Small-clawed Otter, that originated from a breeding facility of white Oriental Small-clawed otters in Indonesia, was sent to Japan for exhibition (MMN 2017). A leucistic Smooth-coated Otter (*Lutrogale perspicillata*) was observed fishing in a watercourse at Huai Kha Khaeng Wildlife Sanctuary in Thailand (Sweetland, 2020).

Colour aberration in the Eurasian Otter is not unknown; atypical “white” Eurasian otters were reported across Northern Europe towards the continental part of the Russian Far East (Goncharuk et al., 2020). Nevertheless, a major review revealed several records of albino Eurasian otters in the British Isles and Europe, based on a 150 years dataset, persisting since 1859 (Green, 2018).

RECENT RECORD

On 15th of June 2022, a young albino Eurasian Otter was trapped by a local fisherman in the major watercourse of the Tigris River at Ishaqi District (34°03'56.3"N 44°01'48.2"E), ~ 20 km to the northwest of Balad Township, south of SalahAdain Province, Central Iraq. The site is situated within the Mesopotamian Shrub Desert (PA01320) Ecoregion. The habitat is comprised mainly of riparian vegetation of *Phragmites australis* beds, *Tamarix* sp. shrubs, *Ziziphus* sp., *Eucalyptus* sp., and *Populus* sp. trees and date palm, citrus, and grape orchids lined both banks of the Tigris River.

The albino otter was named “Tigris” (=Dijla in Arabic) and kept as a pet by the fisherman who published his extraordinary catch on the local hunting groups’ Facebook. An online notification on this unusual discovery was sent to the Iraqi Green Climate Organization (IGCO-a registered environmental NGO), which immediately informed the Iraqi Ministry of Environment (IMoEn) to take urgent action. Later, an IMoEn-IGCO joint mission was conducted to examine the albino otter on 16th of June 2022. An interview with the local fisherman indicated that the young albino otter was coincidentally trapped by a fishing net set on the river watercourse at 06:30 a.m. A close examination of the young (3-4 months) female Eurasian Otter, identified based on Harrison and Bates (1991), showed a rare case of albinism. It had pinkish nose and skin, bright red eyes, pale pinkish feet with complete white claws, and white mystacial vibrissae and fur (Fig. 1). The albino Eurasian Otter was observed swimming among a family group of eight otters, all of which were reported by the fisherman to be of normal fur colour except for one of the adults which was “white” as well. Despite several offers from local wildlife traders to buy this “white otter” in order to be raised as a pet or to be smuggled to neighboring gulf countries (see Al-Sheikhly and Nader 2013), the local fisherman decided to donate it to the Iraqi environmental authorities on 3rd of July 2022.



Figure 1. The young female albino Eurasian Otter (*Lutra Lutra*) “Tigris”. A: frontal view shows pinkish nose, bright red eyes, and white mystacial vibrissae; B: pale pinkish feet with complete white claws and fur feeding on *Mesopotamian Himri* (*Carasobarbus luteus*) offered by the fisherman. Photos © Omar Al-Sheikhly 2022.

The Eurasian Otter is listed as Near Threatened on the IUCN Red List based on population declines and lack of information from many parts of the range, sensitivity of the species to pollution, prey base depletion, and habitat degradation (Roos et al., 2021). In Iraq, the species population is declining and becoming rare mainly due to illegal hunting and trapping, which is banned by the Iraqi Wild Animals Protection Law No. 17, issued on 15th of February 2010 (Al-Sheikhly et al., 2014). Regardless, Eurasian otters are continuously targeted by local poachers for their fur or to be raised as pets (Al-Sheikhly and Nader, 2013), or deliberately persecuted by local fishermen who consider them to be destructive aquatic animals to their nets and aquaculture (Al-Sheikhly et al., 2014; Aidek et al., 2021). Furthermore, strangulation and drowning of otters in fishing drift nets has been recognized as a cause of mortality of Eurasian otters from range countries (Al-Sheikhly et al., 2020).

In our case, releasing the young albino Eurasian Otter back to the wild was a matter of contention. Parsons and Bondrup-Nilsen (1995) suggests that animals with colour aberration are rarely observed in wild populations allegedly due to lower life expectancy. Animals with colour anomalies are highly exposed to predation in the wild (Sazima and Di-Bernardo, 1991), intraspecific conflicts (Holt et al., 1995, Al-Sheikhly et al., 2018), or susceptible to infection of optical, immune, and physiological pathogens (Hain and Leatherwood, 1982; Pérez-Carpinell et al., 1992; Fertl and Rosel, 2002; Garipis and Hoffman, 2003; Manglani et al., 2004; Summers, 2009; Toledo et al., 2014; Goncharuk et al., 2020). Based on what mentioned above, combined with prolonged discussion with international experts (see acknowledgments), the albino Eurasian Otter which had been tamed by the fisherman was advised to be raised in captivity. It is currently being kept in an indoor enclosure at Baghdad Zoo where a close health check was provided (Aljazeera Mubasher, 2022). It is worth mentioning, that this incident report is the first record of albinism in the Eurasian Otter wild population in Iraq and probably in the Middle East, and warrants further *in situ* investigation.

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RESUME

UNE OBSERVATION RARE DE LA LOUTRE EURASIENNE ALBINOS *Lutra lutra* DANS LE CENTRE DE L'IRAK

Les aberrations de couleur telles que l'albinisme et le leucisme sont des troubles congénitaux et héréditaires de la synthèse de la pigmentation mélanique, et rarement observés dans les populations sauvages de loutres. En juin 2022, cas rare, une jeune loutre eurasiennne (*Lutra lutra*) albinos a été piégée dans la rivière Tigre au centre de l'Irak et transportée par les autorités environnementales irakiennes pour être élevée en captivité au zoo de Bagdad. Nous rapportons ici un premier cas d'albinisme de l'espèce dans la population sauvage d'Irak.

RESUMEN

UN RARO REGISTRO DE UNA NUTRIA EURASIÁTICA *Lutra lutra* ALBINA EN IRAQ CENTRAL

Las aberraciones cromáticas como el albinismo y el leucismo son desórdenes congénitos y heredables en la síntesis de la pigmentación con melanina, y se observan raramente en poblaciones silvestres de nutrias. En Junio de 2022, fue capturado en una trampa un raro juvenil albino de Nutria Eurasiática (*Lutra lutra*), en el Río Tigris en Iraq Central, y fue transportado por las autoridades ambientales Iraquíes para ser mantenido en cautiverio en el Zoo de Bagdad. Aquí, reportamos un primer caso de albinismo de la especie en la población silvestre en Iraq.

الخلاصة

الأحرفات اللونية مثل المهاق والبهاق هي اضطرابات خلقية وراثية في تخليق صبغة الميلانين، ونادرًا ما تُلاحظ في المجموع السكانية البرية لقضاعات الماء. في حزيران / يونيو 2022، تم أسر قضاعة أوراسية (*Lutra lutra*) صغيرة ذات لون أمهق نادر في نهر دجلة في وسط العراق وتم نقلها من قبل السلطات البيئية العراقية لتربى في الأسر في حديقة حيوان بغداد. هنا، نُبلغ عن أول حالة إصابة بالمهاق في المجموعة السكانية للنوع في العراق.