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SHORT COMMUNICATION

Long-tailed Bandicoot Rat (*Nesokia bunnii*) is not extinct

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The Long-tailed Bandicoot Rat (*Nesokia bunnii*), alternatively known as Bunni's Short-tailed Bandicoot Rat or Long-tailed Nesokia Rat, is an endemic rodent of Mesopotamian Marshes, described only recently (Khajuria, 1981), and known from a handful of specimens from a small area in southern Iraq (Kryštufek et al., 2020). Listed as Endangered by the IUCN (Dando, 2021), it has never been seen alive by a biologist, and was suspected to be extinct until a photo of a dead specimen was published by Haba (2009) and identified by Kryštufek et al. (2020), who suggested that the species must still be extant since extensive habitat is still available.

On the night of 26-27 June 2021 we conducted a spotlighting survey of mammals in the northern part of Hawizeh Marsh, the largest and best-preserved of Mesopotamian Marshes (Richardson & Hussain, 2006), located on the Iran-Iraq border. Using an inflatable boat with small, very quiet electric outboard motor (Ultralight 403 AC, Torquedo GmbH, USA), we explored the area W and WSW of 31.70N 47.74E (near Al Mazlaq, Misan Governorate) and used a bat detector for bat identification and a headlamp (Everbright, Hangzhou Greatstar Industrial Co. Ltd., China) with red light mode for eyeshine detection, subsequently turning on a brighter spotlight (Nitecore MH25S, Nitecore, USA) for species identification at closer range.

Despite extreme heat (51°C during the day and 32°C at night, with ~100% humidity at night) and bright moonlight (full moon on 24 June), mammal activity was high. We observed a total of 21 rodents, mostly in non-flooded reedbeds. The ones seen well enough to identify were six Brown Rats (*Rattus norvegicus*) and four Short-tailed Bandicoot Rats (*N. indica*); there was also one smaller, chunkier rodent that could be a Water Vole (*Arvicola* sp.). At 04:35 at 31.692N 47.705E, a large rodent was spotted swimming across a channel ~40 m wide with dense beds of ~1.5 m tall common reeds (*Phragmites australis*) on the banks. We paddled closer to the animal with lights off, turned on the spotlight when it was climbing out of the water, and both of us clearly saw the long tail, white cheeks (Burgin, 2017; note that the text description is accurate while the accompanying illustration is not), and distinctive reddish-and-white rump pattern (Kryštufek et al., 2020) diagnostic of the Long-tailed Bandicoot Rat. The only other rat-like rodents known from southern Iraq are *Rattus* rats that have much duller colouration, the Short-tailed Bandicoot Rat that lacks white cheeks and reddish-and-white rump pattern, and various jirds (*Meriones*) and gerbils (*Gerbillus*) that are sandy-coloured and live in arid habitats. The animal was observed on land for ~20 seconds at a distance of <4 m.

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Other mammals recorded in the marsh were numerous Long-fingered Myotis (*Myotis capaccinii*), Botta's Serotines (*Eptesicus bottae*), and Rüppell's Bats (*Vansonia rueppellii*), as well as a Eurasian Boar (*Sus scrofa*, not seen well), Golden Jackals (*Canis aureus*, heard only), and a Smooth-coated Otter (*Lutrogale perspicillata*), identified by very dark colouration typical of the Mesopotamian subspecies *maxwelli* (Hayman, 1956). All these species have been previously reported from the area (Haba, 2009; Al Sheikhly et al., 2015; Mensoor, 2021).

It is unclear why the Long-tailed Bandicoot Rat was found by our very short spotlighting survey but not by recent trapping surveys (Kryštufek et al., 2020). It might have a specialised diet and not be attracted to standard bait; however, its dentition is not specialized, being instead nearly identical to that of the Short-tailed Bandicoot Rat, a dietary and habitat generalist (Kryštufek et al., 2016). Another possible explanation is that its semi-aquatic habitat is simply difficult to set traps in; if this is the case, floating traps designed in North America for capturing Muskrats (*Ondatra zibethicus*) might be worth experimenting with.

All previous records (three still existing and two recently lost museum specimens plus one photo of a carcass) of Long-tailed Bandicoot Rat are from the area around Al Qurna, in or near the southern part of Hawizeh Marsh (Kryštufek et al., 2020), ~30-60 km SSW from the site of our observation. Thus Hawizeh Marsh appears to be the stronghold of this and other rare and endangered species. It is also an important habitat for millions of wintering waterbirds (Richardson & Hussain, 2006), so its protection is of high priority. Although the Iraqi part of the marsh is within Mesopotamian Marshes National Park, it is threatened by falling water supply, intensive oil extraction on its shores, and increasingly intense heat waves (Al-Handal & Hu, 2015; Guarasci, 2015; Schär, 2016; Price, 2018), while in the Iranian part, an extra threat is multiple oil rigs and access roads being constructed directly within the marsh, as visible in the most recent update of Google Earth (2021).

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