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striped rabbit
Nesolagus netscheri (Schlegel, 1880) into
the wild

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First release of a captured Sumatran striped rabbit *Nesolagus netscheri* (Schlegel, 1880) into the wild

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Abstract

The Sumatran striped rabbit *Nesolagus netscheri* (Schlegel, 1880) is a rare, endemic mammal found only in mainland Sumatra, Indonesia. In late September 2021, the Nature Conservation Agency of Bengkulu province received two young *N. netscheri* individuals caught from a village in Bengkulu province, Sumatra, Indonesia. After four months in captivity, in early February 2022, the Nature Conservation Agency of Bengkulu Province decided to release the rabbits in the general area where they had been collected. This is the first known instance of a release of *N. netscheri* into the wild after a period of captivity.

Key words: Sumatran striped rabbit, *Nesolagus netscheri*, Lagomorph, Endemic, Sumatra.

Introduction

The Sumatran striped rabbit *Nesolagus netscheri* is one of the rarest lagomorph species and is endemic only to Sumatra, Indonesia (Schai-Braun & Hacklander 2016). This species is classified as Data Deficient by IUCN, owing to a lack of data on which to base estimates of population size, density, and distribution (McCarthy *et al.* 2019). The species is thought to be found primarily at elevations above 600 m in montane and sub-montane primary habitat of Bukit Barisan mountain range in western Sumatra, from Leuser National

Park in the north, to the Bukit Barisan Selatan National Park in the south (Flux 1990; Setiawan *et al.* 2019). The Sumatran striped rabbit is presumed to be strongly forest dependent, with the only records in the agricultural landscapes reported around the border of the forest, or in newly clear areas from which they have been displaced (McCarthy *et al.* 2012; Setiawan *et al.* 2018).

The *N. netscheri* was a species protected by Indonesian law since 1972 (Noerdjito & Maryanto 2001), and this species still recently protected by new updated Indonesian law (Ministry of Environment and Forestry 2018). However, conservation awareness was very limited, and it is no wonder if *N. netscheri* still found offers for sale on social media (Setiawan *et al.* 2019; Supardi 2021). McCarthy *et al.* (2019) proposed one of the conservation actions of *N. netscheri* is to conduct a targeted study of the species, with a methodology designed specifically to maximize its detection.

Due to its rarity, we report the incidental capture of two young *N. netscheri*, and their subsequent release into the wild after four months in captivity.

Methods

In late September 2021, the Nature Conservation Agency of Bengkulu Province (Balai Konservasi Sumber Daya Alam Provinsi Bengkulu or BKSDA Bengkulu) received two young *N. netscheri* from local people. It is presumed that the rabbits were roughly one month of age, and they were both males. The rabbits were collected by local people in a garden in a village at Curup Selatan Subdistrict (specific location is not mentioned because of rarity and endemicity of the species), Rejang Lebong District, Bengkulu Province. Local people who had obtained the rabbits did not recognize that the animals were officially protected by Indonesian law. They gave the rabbits to the Nature Conservation Agency of Bengkulu Province after they were informed of the species's identity and national regulations protecting the species. After four months in captivity at the Nature Conservation Agency (from late September 2021 to early February 2022), it was decided that the individuals should be released back into the wild. The release went smoothly with attended by a small number of people (less than 10 people) from representation of the Nature Conservation Agency of Bengkulu Province, Forest Management Unit Protected of Bukit Balai Rejang and local people. The location of release is the similar area where *N. netscheri* was first time caught by local people. There is no specific monitoring program on *N. netscheri*, but there is a regular monitoring regarding patrol on conservation areas (that also detected the presence of *N. netscheri*).

Results and Discussion

The two captured individuals of *N. netscheri* had darker colour, indicating that these individuals were young (Fig. 1). *Nesolagus netscheri* is a distinctive mammal in Sumatra, and easily identifiable by its morphological characters and size (Schai-Braun & Hackländer 2016). This species has a conspicuous dark brown or wide black stripes on a yellowish-gray background that become rusty brown toward the rear, the ventral fur and the chin; having black ears; and the inside of the legs are whitish, with young individuals displaying a slightly darker coloration (Flux 1990; Schai-Braun & Hackländer 2016; Setiawan *et al.* 2019).

The condition of two young *N. netscheri* are very in health condition. They are very active in the movement, particularly at night. Unfortunately, there are none of any samples collected (eg. tissue, feces or other), The keeper try to reduce any disturbance to avoid stress to the rabbits. The captive *N. netscheri* were fed some vegetables during quarantine, but Water spinach *Ipomoea aquatic* was the favourite plant ate by the captive individuals. Flux (1991) summarized possible plants and food accepted by *N. netscheri*, including *Cyrtandra* sp., *Aracea* sp, to cooked Rice *Oryza sativa*, young Maize *Zea mays*, bread, ripe Bananas *Musa* sp., Pineapple *Ananas comosus*, Beans, Radishes *Raphanus raphanistrum*, Carrots *Daucus carota* and young shoots (Oak *Quercus* sp., Elm *Ulmus* sp. and Beech *Fagus* sp.); and few plants were eaten reluctantly such as sweet potato *Ipomoea batatas*, *Jussieua suffruticosa*, Knotweed *Polygonum* sp., Spiderwort *Tradescantia* sp., *Elatostemma* sp., *Hemigraphis colorata* and Clover *Trifolium* sp. Among the plants, the *Cyrtandra* sp. was considered as important diet of *N. netscheri* in the wild (Setiawan *et al.* 2018).



Figure 1. Two young individuals of *N.netscheri* received by Nature Conservation Agency of Bengkulu Province from local people, late September 2021, Rejang Lebong District, Bengkulu Province (Photo: Said Jauhari).



Figure 2. Release *N. netscheri* in early February 2022, Rejang Lebong District, Bengkulu Province (Photo: Said Jauhari).

The *N. netscheri* was in captivity for four months (from late September 2021 to early February 2022). As the young rabbits continued to grow and become more active, the Nature Conservation Agency of Bengkulu Province became afraid that the rabbits would escape, so the captive individuals were released into the wild in early February 2022 (Fig. 2). The successful release of the individuals after confiscation, is the success story of conservation actions conducted by government authority for this little known endemic mammal in Sumatra. This case reflect *N. netscheri* is adaptable to various plants and food if the species keep with great care. Furthermore, working close to local people could be potentially duplicated in the other conservation region areas in this country. Public conservation awareness is a key to support effective conservation efforts, particularly in forest large areas with limited staff in many conservation areas in Indonesia.

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References

- Flux, J.E.C. (1990) The Sumatran rabbit *Nesolagus netscheri*. In: Chapman, J.A. & Flux, J.E.C. (Eds.), *Rabbits, Hares and Pikas: Status Survey and Conservation Action Plan*. IUCN/SSC Lagomorph Specialist Group, Gland, pp. 137–139.
- McCarthy, J., Holden, J., Martyr, D. & McCarthy, K. (2019) *Nesolagus netscheri*. The IUCN Red List of Threatened Species 2019: e.T14662A45178557. Available from: <https://dx.doi.org/10.2305/IUCN.UK.2019-2.RLTS.T14662A45178557.en> (11 March 2022).
- McCarthy, J.L., Holden, J. & Martyr, D. (2018) *Nesolagus netscheri* (Schlegel, 1880) Sumatran striped rabbit. In: Smith, A.T., Johnston, C.H., Alves, P.C. & Hacklander, K. (Eds.), *Lagomorphs: Pikas, Rabbits, and Hares of the World*. Johns Hopkins University Press, Baltimore, pp. 95–97.
- McCarthy, J.L., Fuller, T.K., McCarthy, K.P., Wibisono, T.H. & Livolsi, M.C. (2012) Using camera trap photos and direct sightings to identify possible refugia for the Vulnerable Sumatran striped rabbit *Nesolagus netscheri*. *Oryx*, 46, 438–441. <https://doi.org/10.1017/S0030605312000051>
- Ministry of Environment and Forestry. (2018) *Perubahan Kedua atas Peraturan Menteri Lingkungan Hidup dan Kehutanan Nomor P.20/MENLHK/SETJEN/KUM.1/6/2018 tentang jenis tumbuhan dan satwa yang dilindungi (Regulation of Minister of Environment and Forestry of Indonesia No. P.106/MENLHK/SETJEN/KUM.1/12/2018)*, Ministry of Environment and Forestry, Jakarta, 31 pp [in Indonesia]
- Noerdjito, M. & Maryanto, I. (2001) *Jenis-jenis Hayati yang Dilindungi Perundang-undangan Indonesia*. Museum Zoologicum Bogoriense, LIPI, The Nature Conservancy and USAID, Cibinong, 221 pp. [in Indonesia].
- Schai-Braun, S.C. & Hackländer, K. (2016) Family Leporidae (Hares and rabbits). In: Wilson, D.E., Lacher, T.E. & Mittermeier, R.A. (Eds.) *Handbook of the Mammals of the World. Vol. 6. Lagomorphs and Rodents* I. Lynx Edicions, Barelona, pp. 62–148.
- Setiawan, A., Iqbal, M., Halim, A., Saputra, R.S., Setiawan, D. & Yustian, I. (2019) First description of an immature Sumatran striped rabbit (*Nesolagus netscheri*), with special reference to the wildlife trade in South Sumatra. *Mammalia*, 84, 250–252. <https://doi.org/10.1515/mammalia-2018-0217>
- Setiawan, A., Iqbal, M., Komarudin., Saputra, R.F., Setiawan, D. & Yustian, I. (2018) New reports of the presence and ecology of the Sumatran striped rabbit (*Nesolagus netscheri*), in South Sumatra. *Mammalia*, 82, 589–591. <https://doi.org/10.1515/mammalia-2017-0064>
- Supardi, A. (2021) *Kelinci Sumatera, Si Belang yang Begitu Sulit Ditemukan di Hutan*. Available from: <https://www.mongabay.co.id/2021/08/20/kelinci-sumatera-si-belang-yang-begitu-sulit-ditemukan-di-hutan/> (04 April 2022). [in Indonesia]

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