

New locality record of the Asian House Shrew (*Suncus murinus*) from Tablas Island, Romblon province, Philippines

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Location: Campus orchard, Romblon State University (Main Campus), Odiongan municipality, Tablas Island, Philippines

Elevation: ~ 20m ASL.

Habitat: Fruit orchard.

Date and time: 09 January 2018 (collected from cage trap installed on 08 January 2018).

Identity of subject: Asian House Shrew, *Suncus murinus* (Mammalia: Eulipotyphla: Soricidae).

Description of record: During a Biodiversity Monitoring Training field exercise in 2018, an adult *Suncus murinus* was captured in a cage trap (baited with fried coconut smeared with peanut butter) on the campus orchard of Romblon State University, Odiongan.



Fig. 1. Adult *Suncus murinus*

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Fig. 2. Fruit orchard, Romblon State University (Main Campus).

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Remarks:

Following the morphological description provided by Heaney et al. (2010), the captured shrew was identified as the Asian House Shrew (*Suncus murinus*). This species was first described as *Sorex murinus* by Linnaeus (1766) from a specimen collected on the island of Java (Indonesia). The Asian House Shrew is native to South Asia and most of Southeast Asia, and has been inferred to originate from the forests of central India (Ellerman 1961). The inferred “Indian origin” of *S. murinus* was then supported by molecular data by Ruedi et al. (1996). Because of human migration and intercountry trade, this species has been introduced to several places including parts of Africa, Comoros, Japan, Madagascar, Mauritius, Saudi Arabia, and the Philippines (Hutterer & Tranier 1990; Hutterer et al. 2016).

Suncus murinus is primarily an insectivore; it is known to feed on various invertebrates including Orthoptera and Blattodea (Advani & Rana 1981; Brown et al. 2013), but sometimes feeds on plant materials (Khanam et al. 2017). In addition, *S. murinus* is a synanthropic species across its range. Due to its ability to tolerate anthropogenic disturbance, this species can also be found in human settlements (Yong 1974). Because of this, *S. murinus* can act as a reservoir for zoonotic pathogens and as a host to ectoparasites (Kundin et al. 1970; Rahelinirina et al. 2017; Wang et al. 2017).

In the Philippines, this introduced species is widespread but specific localities and published island records are often unavailable (Hutterer 2007). Heaney et al. (2010) listed the island records for *S. murinus* as follows: Caluya, Camiguin, Camiguin Norte, Cebu, Leyte, Luzon, Marinduque, Maybag, Mindanao, Mindoro, Negros, Palawan, Panay, and Siquijor; there were no records listed from Tablas Island in this list, which is considered as the most comprehensive geographic checklist of Philippine mammals. In addition, there are no records of the species from Tablas in the listing compiled by Timm and Birney (1980) of mammals collected during the Menage Scientific Expedition (1890-1893), despite the main islands of Romblon province (Romblon, Sibuyan, and Tablas) being amongst the collection areas. Thus, to our knowledge, this paper represents the first formal published record of *S. murinus* from Tablas Island.

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References:

- Advani, R., Rana, B.D. (1981) Food of the house shrew, *Suncus murinus sindensis* in the Indian desert. *Acta Theriologica* 26(7): 133-134.
- Brown, D.S., Burger, R., Cole, N., Vencatasamy, D., Clare, E.L., Montazam, A., Symondson, W.O.C. (2013) Dietary competition between the alien Asian musk shrew (*Suncus murinus*) and a re-introduced population of Telfair's skink (*Leiolopisma telfairii*). *Molecular Ecology* 23(15): 3695-3705.
- Ellerman, J.R. (1961) The Fauna of India including Pakistan, Burma and Ceylon. Mammalia. 2nd edition, Vol. 3. Rodentia. Zoological Survey of India, Calcutta, 884 pp.
- Heaney, L.R., Dolar, M.L., Balete, D.S., Esselstyn, J.A., Rickart, E.A., Sedlock, J.L. (2010) Synopsis of Philippine Mammals. http://archive.fieldmuseum.org/philippine_mammals/index.html. The Field Museum of Natural History, Chicago, USA. Accessed 05 October 2023.
- Hutterer, R. (2007) Records of shrews from Panay and Palawan, Philippines, with the description of two new species of *Crociodura* (Mammalia: Soricidae). *Lynx* 38: 5-20.
- Hutterer, R., Tranier, M. (1990) The immigration of the Asian house shrew (*Suncus murinus*) into Africa and Madagascar. In: Peters, G., Hutterer, R. (eds.) *Vertebrates in the tropics*. Museum Alexander Koenig, Bonn, pp. 309-319.
- Hutterer, R., Molur, S., Heaney, L. (2016) *Suncus murinus*. The IUCN Red List of Threatened Species 2016: e.T41440A22287830. <https://dx.doi.org/10.2305/IUCN.UK.2016-2.RLTS.T41440A22287830.en>. Accessed 05 October 2023.
- Khanam, S., Mushtaq, M., Nadeem, M.S., Kayani, A.R. (2017) Population characteristics of *Suncus murinus* in rural commensal habitats of Pothwar, Pakistan. *Asian Journal of Agriculture and Biology* 5(4): 270-279.
- Kundin, W.D., Carlos, E.R., Tsai, C.C., Kueczynski, G.A. (1970) *Suncus* as a potential reservoir of Leptospirosis: The blaming of the shrew. *Southeast Asian Journal of Tropical Medicine and Public Health* 1(2): 270-274.
- Linnaeus, C. (1766) *Systema naturae per regna tria naturae, secundum classes, ordines, genera, species, cum characteribus, differentiis, locis*. Vol. 1. Regnum animale. Holmiae: Laurentius Salvius, p. 74.
- Rahelinirina, S., Rajerison, M., Telfer, S., Savin, C., Carniel, E., Duplantier, J.-M. (2017) The Asian house shrew *Suncus murinus* as a reservoir and source of human outbreaks of plague in Madagascar. *PLoS Neglected Tropical Diseases* 11(11): e0006072.
- Ruedi, M., Courvoisier, C., Vogel, P., Catzeflis, F.M. (1996) Genetic differentiation and zoogeography of Asian *Suncus murinus* (Mammalia: Soricidae). *Biological Journal of the Linnean Society* 57(4): 307-316.
- Timm, R.M., Birney, E.C. 1980. Mammals collected by the Menage Scientific Expedition to the Philippine Islands and Borneo, 1890-1893. *Journal of Mammalogy* 61(3): 566-571.
- Wang, B., Cai, C.-L., Li, B., Zhang, W., Zhu, Y., Chen, W.-H., Zhuo, F., Shi, Z.-L., Yang, X.-L. (2017) Detection and characterization of three zoonotic viruses in wild rodents and shrews from Shenzhen city, China. *Virologica Sinica* 32: 290-297.
- Yong, H.-S. (1974) Geographic variation in the sex chromosomes of the West Malaysian house shrew *Suncus murinus* (Insectivora, Soricidae). *Caryologia* 27(1): 65-71.