**Supplementary Information**

**Discovery of a new mammal species (Soricidae: Eulipotyphla) from Narcondam volcanic Island, India**

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**Figure S1.** Ventral view of cranium showing (**a**) 4 upper unicuspids in genus *Suncus* (*S. murinus*, ZSI 16523) and (**b**) 3 unicuspids in *Crocidura* (*C. attenuata*, ZSI 16129). The photographs were captured by Nikon D7000 camera and edited manually in Adobe Photoshop CS 8.0.

C:\Users\Shantanu Kundu\Desktop\Mammals PLosOne\Final Submission\Fig S1.tif

C:\Users\Shantanu Kundu\Desktop\Mammals PLosOne\Final Submission\Fig 3.tif**Figure S2.** *Crocidura attenuata* (ZSI-16129, male). Views of stuffed skin (**a**) dorsal and (**b**) lateral. Views of the cranium (**c**) dorsal, (**d**) ventral and (**e**) lateral. Views of the mandible (**f**) occlusal and (**g**) lateral. (**BC**= Braincase; **LR**= lambdoidal ridge). The photographs were captured by Nikon D7000 camera and edited manually in Adobe Photoshop CS 8.0.

**C:\Users\Shantanu Kundu\Desktop\Mammals PLosOne\Final Submission\Fig 4 (2).tifFigure S3.** *Crocidura jenkinsi* (ZSI-19860, female). Views of stuffed skin (**a**) dorsal and (**b**) lateral. Views of the cranium (**c**) dorsal, (**d**) ventral and (**e**) lateral. Views of the mandible (**f**) occlusal and (**g**) lateral. The photographs were captured by Nikon D7000 camera and edited manually in Adobe Photoshop CS 8.0.

C:\Users\Shantanu Kundu\Desktop\Mammals PLosOne\Sci Rep Submission\nor new\final dataset\ML tree.tif**Figure S4.** The Maximum-Likelihood phylogenetic analysis of mitochondrial Cytb gene showed distinct clustering of*C. narcondamica* sp. nov. in compararion with other soricid species distributed in AN Archipelago, mainland of India, and Myanmar. The bootstrap supports were noted with each node. The GenBank accession numbers and species name were marked as per clade pattern. The distinct clade of the newly discovered species was marked by red colour box. The figure prepared in web-based iTOL tool (https://itol.embl.de/) and edited manually in Adobe Photoshop CS 8.0.

**Table S1.** List of white-toothed shrew *Crocidura* with their authority distributed in the Indian mainland, Andaman and Nicobar Archipelago, and Mynmar with their elsewhere distribution and IUCN status.

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| **Species** | **Distribution** | **IUCN Status** |
| *Crocidura andamanensis*  Miller, 1902 | Andaman and Nicobar Archipelago | Critically Endangered |
| *C. attenuata*  Milne-Edwards, 1872 | Cambodia, China, India, Laos, Malaysia, Myanmar, Philippines, Taiwan, Thailand, and Viet Nam | Least Concerned |
| *C. cranbrooki*  Jenkins et al. 2009 | Myanmar | Not Assessed |
| *C. fuliginosa*  (Blyth, 1855) | Cambodia, China, India, Laos, Malaysia, Myanmar, Thailand, and Viet Nam | Least Concerned |
| *C. hispida*  Thomas, 1913 | Andaman and Nicobar Archipelago | Vulnerable |
| *C. horsfieldii*  (Tomes, 1856) | India, Nepal, and Sri Lanka | Data Deficient |
| *C. indochinensis*  Robinson & Kloss, 1922 | China, Laos Republic, Myanmar, Thailand, and Viet Nam | Least Concerned |
| *C. jenkinsi*  Chakraborty, 1978 | Andaman and Nicobar Archipelago | Critically Endangered |
| *C. nicobarica*  Miller, 1902 | Andaman and Nicobar Archipelago | Critically Endangered |
| *C. pergrisea*  Miller, 1913 | India and Pakistan | Data Deficient |
| *C. pullata*  Miller, 1911 | India and Pakistan | Data Deficient |
| *C. rapax*  G. Allen, 1923 | China, India, Myanmar, and Taiwan | Data Deficient |
| *C. vorax*  G. Allen, 1923 | China, India, Laos, Thailand, and Viet Nam | Least Concerned |

**Table S2.** External and craniodental measurements of the examined specimens of *C. narcondamica* sp. nov. (holotype and paratype) and its congeners are known from the Andaman and Nicobar Archipelago, mainland of India and Myanmar. For trait abbreviations (columns) see Material and Methods. All measurements are in millimetres with Mean ± SD, range, and sample size within first bracket. Species abbreviation: CNA= *C. narcondamica* sp. nov.; CJI= *C. jenkinsi*; CNI= *C. nicobarica*; CAS= *C. andamanensis*; CHA= *C****.*** *hispida*;CCI= *C. cranbrooki*; CIS= *C. indochinensis*; CAA= *C. attenuata*; CFA= *C. fuliginosa*; CHI= *C. horsfieldii*; CPA= *C. pullata*; CRX=  *C. rapax*; CVX= *C. vorax*; CPA= *C. pergrisea*.

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| **Variable** | **CNA**  **Holotype** | **CNA**  **Paratype** | **CJI** | **CNI** | **CAS** | **CHA** | **CCI** | **CIS** | **CAA**  **(40)** | **CFA**  **(73)** | **CHI**  **(13)** | **CPA**  **(20)** | **CRX**  **(10)** | **CVX**  **(12)** | **CPA**  **(86)** |
| **Source** | *C. narcondamica* sp. nov. | | ZSI 19860 | Miller 1912 | | Menon 2014 | Jenkins et al. 2009 | | Jiang and Hoffmann 2001 | | | | | | Tez and Kefelioglu 2000 |
| **HB** | 67 | 63 | 107 | 120 | 114 | 85 | 76.13 ± 7.77  65–86 (8) | 60.5 ± 6.35  53–71 (6) | 76.0 ± 6.60  60.0–89.0 | 86.3 ± 6.7  72.0–100.0 | 61.1 ± 6.18  49.0–71.0 | 83.2 ± 4.00  73.0–89.0 | 64.1 ± 4.51  56.0–70.0 | 67.3 ±9.77  54.0–90 | 73.05±5.30  65-86 |
| **TL** | 58.5 | 55.6 | 95.2 | 90 | 86 | 103 | 74.13 ± 7.16  65–88 (8) | 45.3 ± 3.77  40–50 (6) | 50.5 ± 5.29  43.0–60.0 | 74.1 ±5.4  62.0–89.0 | 40.8 ± 5.97  30.0–48.0 | 44.2 ± 4.38  39.0–53.0 | 42.4 ± 2.80  38.0–47.0 | 46.7 ±3.34  41.0–51.0 | 43.56±2.75  37-51 |
| **HF** | 13.4 | 12.4 | 26 | 24 | 25 |  | 14.94 ± 0.64  14–16 (9) | 11.53 ± 1.24  10–13 (6) | 13.4 ± 1.12  11.0–16.0 | 16.5 ± 1.1  15.0–19.0 | 11.0 ±1.04  10.0–13.0 | 15.06 ± 0.66  14.0–16.0 | 11.9 ± 0.60  11.0–13.0 | 12.3 ± 0.78  11.0–14.0 | 13.73±0.68  13-15 |
| **CIL** | 19.6 | 18.9 | 27.6 | 29 | 25.6 |  | 21.38 ±0.67  19.9–22.2 (14) | 17.31 ±0.21  17.0–17.6 (6) | 20.13 ± 0.70  18.51–21.49 | 23.26 ± 0.64  22.04–25.00 | 17.18 ±0.40  16.14–17.82 | 20.26 ± 0.46  19.45–21.21 | 18.14 ± 0.27  17.45–18.33 | 19.09 ± 0.77  17.74–20.11 | 17.97±0.59  16.30-19.30 |
| **BB** | 8.7 | 8 | 11.4 |  |  |  | 9.31 ± 0.2  9.0–9.6 (14) | 8.11 ± 0.22  7.8–8.4 (6) | 9.02 ± 0.32  8.32–9.82 | 10.33 ± 0.35  9.40–11.19 | 8.17 ± 0.25  7.69–8.61 | 9.27 ± 0.20  8.92–9.63 | 8.32 ±0.35  7.64–8.78 | 8.40 ± 0.48  7.57–9.06 | 8.68±0.38  8.05-9.95 |
| **UTR** | 8.8 | 7.9 | 12.5 | 13 | 12 |  | 9.29 ± 0.29  8.6–9.8 (17) | 7.24 ± 0.13  7.1–7.5 (7) | 8.50 ± 0.28  8.07–9.10 | 10.06 ± 0.35  9.21–10.85 | 7.07 ±0.33  6.46–7.72 | 8.61 ± 0.22  8.22–9.00 | 7.57 ±0.30  7.11–8.07 | 7.77 ± 0.39  7.16–8.23 | 8.18±0.26  7.45-8.90 |
| **MTR** | 7.7 | 7 | 11 | 12 | 11 |  | 8.68 ± 0.28  8.0–9.2 (16) | 6.73 ± 0.11  6.6–6.9 (7) | 8.11 ±0.28  7.36–8.70 | 9.51 ± 0.28  8.74–10.33 | 6.83 ±0.18  6.58–7.26 | 8.94 ± 0.22  7.77–8.70 | 7.25 ±0.27  6.87–7.79 | 7.37 ± 0.32  6.79–7.86 | 7.33±0.37  6.20-8.05 |
| **ML** | 11.6 | 10.8 | 17.6 | 15 | 15 |  | 13.35 ± 0.45  12.2–13.9 (16) | 10.45 ± 0.23  10.2–10.8 (7) | 10.77 ± 0.44  9.68–11.55 | 12.61 ± 0.41  11.74–13.45 | 9.18 ±0.26  8.78–9.85 | 10.59 ± 0.26  10.12–11.09 | 9.58 ± 0.39  8.70–10.13 | 9.60 ± 0.37  8.77–10.12 | 10.14±0.34  9.30-10.85 |

**Table S3.** The between and within groupKimura-2-parameter (K2P) genetic distances of the Sorcid genera (top) and *Crocidura* species (bottom) based on partial mtCytb gene in the present dataset. n/c= not calculated due to single sequence.

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| **Genera** | **Between genera** | | | | | | | | | **Within genera** |
| *Crocidura* |  |  |  |  |  |  |  |  |  | 13.2 |
| *Feroculus* | 17.6 |  |  |  |  |  |  |  |  | n/c |
| *Suncus* | 19.3 | 16.9 |  |  |  |  |  |  |  | 13.8 |
| *Episoriculus* | 28.0 | 25.9 | 25.2 |  |  |  |  |  |  | 8.9 |
| *Sorex* | 28.8 | 29.1 | 25.9 | 22.8 |  |  |  |  |  | 1.0 |
| *Blarinella* | 28.9 | 26.6 | 28.5 | 19.8 | 22.3 |  |  |  |  | n/c |
| *Anourosorex* | 29.4 | 29.1 | 28.7 | 21.7 | 24.9 | 23.4 |  |  |  | 0.4 |
| *Soriculus* | 29.6 | 27.4 | 27.0 | 21.9 | 20.9 | 21.4 | 23.5 |  |  | 0.3 |
| *Nectogale* | 29.6 | 31.7 | 29.0 | 20.2 | 23.1 | 27.1 | 22.2 | 18.2 |  | 0.3 |
| *Chimarrogale* | 30.1 | 29.5 | 30.3 | 22.3 | 26.2 | 23.1 | 23.3 | 19.9 | 15.3 | 5.9 |
| **Species** | **Between species** | | | | | | | | | **Within species** |
| *C. narcondamica* |  |  |  |  |  |  |  |  | | 0 |
| *C. rapax* | 12.0 |  |  |  |  |  |  |  | | 1.3 |
| *C. indochinensis* | 12.4 | 13.6 |  |  |  |  |  |  | | 0 |
| *C. fuliginosa* | 12.4 | 13.1 | 9.3 |  |  |  |  |  | | 1.3 |
| *C. attenuata* | 12.5 | 13.4 | 12.5 | 11.7 |  |  |  |  | | 4.2 |
| *C. horsfieldii* | 15.1 | 16.9 | 15.9 | 15.2 | 15.5 |  |  |  | | 12.9 |
| *C. nicobarica* | 15.1 | 15.0 | 14.1 | 13.1 | 14.3 | 14.5 |  |  | | n/c |
| *C. vorax* | 16.6 | 14.9 | 13.0 | 16.3 | 14.0 | 17.2 | 13.0 |  | | n/c |
| *C. andamanensis* | 16.6 | 18.0 | 16.6 | 18.1 | 18.4 | 18.4 | 15.3 | 15.5 | | n/c |

**Table S4.** Identification characters of different genus under Soricidae family known from Indian mainland, Andaman and Nicobar Archipelago, and Myanmar.

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| **Genus** | **Identification characters**  (Lekagul and Mcneely 1977; Francis 2008) |
| *Crocidura* | Medium to small shrews with short to long-tail; the tail possesses scattered bristle hairs; unpigmented teeth; 3 upper unicuspids. |
| *Anourosorex* | Rounded body shrews with a very short mole-like tail; the scale-covered tail is equal to the length of the hindfoot; unpigmented teeth; 2 upper unicuspids; no external ear pinnae. |
| *Blarinella* | Small shrews; the tail length is about half of the head and body length; anterior teeth with distinct reddish-orange tips; 5 upper unicuspids. |
| *Suncus* | Medium to large shrew; the tail is shorter than the head and body length, heavy and having bristle-like hairs thinly scattered; 4 upper unicuspids, |
| *Chimarrogale* | Medium to large shrews with a long and thick-haired tail; the hindfoot with long silvery guard hairs; unpigmented teeth; 3 upper unicuspids. |
| *Episoriclus* | Medium to small shrews; red/brown pigmented teeth; differences in the shape of articular facets of the mandible; 4 upper unicuspids. |
| *Feroculus* | Medium-sized shrews; almost whitish forefeet with long claws. The tail is grey with some whitish hairs near the tip. |
| *Nectogale* | Medium-sized shrews with a long and white-haired tail; the teeth are either pigmented or unpigmented; 3 upper unicuspids; no external ear pinnae. |
| *Sorex* | Small shrews; the tail is equal to head and body length; reddish-orange pigmented teeth; 5 upper unicuspids. |
| *Soriculus* | A long-tailed shrew with 5 anterior teeth chestnut red in colour. |