

# CHECKLIST OF SCANDENTS AND PHOLIDOTS (MAMMALIA: SCANDENTIA AND PHOLIDOTA) OF SOUTH ASIA

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## Abstract

A checklist of three species of scandents belonging to two genera in one family, and two species of pholidots belonging to one genus in one family with current valid names, synonyms and broad distribution in South Asia is provided.

## Keywords

*Checklist, Tupaiidae, Manidae, Scandentia, Pholidota, Mammalia, South Asia*

## Introduction

Order Scandentia and Order Pholidota are among the least-represented small non-volant mammals of the World. The scandents (= tree shrews) were, for a long while, classified along with the primates or insectivores due to their close affinities. Recent works indicate that the tree shrews are of an order of their own.

Blyth (1863), Jerdon, (1874), Sterndale (1884) and Blanford (1891) include accounts on scandents and pholidots of the Indian subcontinent. Although the order Scandentia has been subjected to numerous taxonomic changes (Lyon, 1913; Ellerman & Morrison-Scott, 1951; Dene *et al.*, 1958; Campbell, 1966, 1974; Elliot, 1971; Goodman, 1975; McKenna, 1975; Corbet & Hill, 1980, 1986, 1991, 1992; Luckett, 1980; Yates, 1984; Napier & Napier, 1985; Wilson, 1993), the taxonomy of the order Pholidota remains unchanged (Ellerman & Morrison-Scott, 1951; Corbet & Hill, 1992; Schlitter, 1993).

## Methods

The present work also relies heavily on three major works, namely Ellerman and Morrison-Scott (1951), Corbet and Hill (1992), Hoffmann (1993), and also a list prepared by Dr. Mike Jordan. We reviewed the major works by Ellerman and Morrison-Scott (1951, 1953), Phillips (1980), Corbet and Hill (1991, 1992), Wilson (1993), Schlitter (1993), Roberts (1997), and Nowak (1999)

while reviewing the taxonomic status of these groups in the region. Besides these, we also referred to numerous sources listed under References for information.

Valid names, synonyms and distribution within South Asia provided in this review is as per Srinivasulu and Pradhan (2003).

## Results

A total of three species of tree shrews belonging to two genera, namely, *Anathana* Lyon, 1913 and *Tupaia* Raffles, 1821 of family *Tupaiidae* Gray, 1825 are recorded from South Asia. Among them two species, namely *Anathana ellioti* (Waterhouse, 1850) and *Tupaia nicobarica* (Zelebor, 1869) are endemic to India. Two species represent the Order Pholidota (Table 1).

The synonyms provided are those applicable for the South Asian region. We have not listed extra-limital synonyms that may be valid for some taxa elsewhere.

### Order: Scandentia

#### Family: Tupaiidae Gray, 1825

Lyon (1913), Dene *et al.* (1958), Campbell (1966, 1974), Elliot (1971), and Luckett (1980a, b) reviewed this family that includes representatives in two subfamilies Tupaiinae Gray, 1825 and Ptilocercinae Lyon, 1913. The taxonomy of this family remains controversial (Simpson, 1945; Sorenson, 1970; Mall, 1976; Ellerman & Morrison-Scott, 1951; Corbet & Hill, 1992). Earlier the tree shrews were classified with order Primates (Simpson, 1945; Sorenson, 1970; Mall, 1976) or Insectivora (Ellerman & Morrison-Scott, 1951; Campbell, 1974), but many now recognize it as distinct (Goodman, 1975; Hershkovitz, 1977; Dene *et al.*, 1978; Petter & Petter-Rouseaux, 1979; Luckett, 1980a; Yates, 1984; Napier & Napier, 1985; Corbet & Hill, 1991, 1992; Novacek, 1992; Nowak, 1999). It is represented by three species in two genera, namely *Anathana* Lyon, 1913 and *Tupaia* Raffles, 1821 in the region.

**Genus *Anathana* Lyon, 1913**  
**Indian Tree Shrew**

It belongs to subfamily *Tupaiainae* Gray, 1825 (Ellerman and Morrison-Scott, 1951). This monotypic genus is restricted in distribution to southern India.

**1. *Anathana ellioti* (Waterhouse, 1850)**

1850. *Tupaia ellioti* Waterhouse, Proc. zool. Soc. London, 1849: 107, pl. Mamm. 13 (1850).

Name: Madras Tree Shrew

Type locality: Hills between Cuddapah and Nellore (Velikonda Range), Andhra Pradesh, India

Synonyms: *Tupaia ellioti* Waterhouse, 1850  
*Anathana wroughtoni* Lyon, 1913  
*Anathana ellioti wroughtoni* (Lyon, 1913)  
*Anathana pallida* Lyon, 1913  
*Anathana ellioti pallida* (Lyon, 1913)

Subspecies: *Anathana ellioti ellioti* (Waterhouse, 1850)

Distribution: Endemic to India. Andhra Pradesh, Bihar, Chattisgarh, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Tamil Nadu and West Bengal in India.

Comments: Ellerman and Morrison-Scott (1966) synonymized *Anathana ellioti wroughtoni* (Lyon, 1913) and *Anathana ellioti pallida* (Lyon, 1913) with the nominate subspecies. For distribution records see Roonwal and Mohnot (1977), and, Chorazyna and Kurup (1975).

**Genus *Tupaia* Raffles, 1821**

Lyon (1913) reviewed this genus that is restricted in distribution to South and South East Asia.

**2. *Tupaia belangeri* (Wagner, 1841)**

1841. *Cladobates belangeri* Wagner, Schreber's Die Saugthiere, Suppl., 2: 42.

Name: Common Tree Shrew

Type locality: Siriam, near Rangoon, Pegu, Myanmar

Synonyms: *Tupaia glis assamensis* Wroughton, 1921  
*Tupaia belangeri assamensis* (Wroughton, 1921)  
*Tupaia glis verusuriae* Thomas, 1922  
*Tupaia belangeri verusuriae* (Thomas, 1922)  
*Tupaia glis lepcha* Thomas, 1922  
*Tupaia belangeri lepcha* (Thomas, 1922)

Subspecies: None

Distribution: Arunachal Pradesh, Assam, Manipur, Mizoram, Nagaland, Tripura, Sikkim and West Bengal in India; probably in Bhutan and Bangladesh.

Comments: Ellerman and Morrison-Scott (1951) listed it under *Tupaia glis* Diard, 1826, while chromosomal studies indicated it to be distinct (Arrighi *et al.*, 1969; Elliot *et al.*, 1969).

**3. *Tupaia nicobarica* (Zeblebor, 1869)**

1869. *Cladobates nicobaricus* Zeblebor, Reise Oesterr. Fregatte Novara Zool. 1 (Wirbelthiere), I (Saugth.): 17, pl. I, figs. 1,2,3 and pl. II.

Name: Nicobar Tree Shrew

**Table 1. Species diversity of Orders Scandentia and Pholidota in South Asia**

Family	Genus	No. of Species	Remarks
Scandentia			
Tupaiaidae	<i>Anathana</i>	1	Indian endemic
	<i>Tupaia</i>	2	1 Indian insular endemic
Pholidota			
Manidae	<i>Manis</i>	2	

Type locality: Great Nicobar Island, Nicobar Isles, Andaman & Nicobar Islands, India.

Synonyms: *Tupaia nicobarica surda* Miller, 1902

Subspecies: *Tupaia nicobarica nicobarica* (Zeblebor, 1869)

Distribution: Endemic to the India. Only from the Nicobar Isles in Andaman and Nicobar Islands.

Comments: We follow Wilson (1993) to synonymize *Tupaia nicobarica surda* Miller, 1902 with the nominate subspecies.

**Order: Pholidota**

**Family: Manidae Gray, 1821**

**Genus *Manis* Linnaeus, 1758**

**Scaly Ant-eaters**

The order Pholidota is monogeneric and is represented by seven species in a single family Manidae Gray, 1821 distributed from Africa to Asia. Pocock (1924) reviewed genus *Manis* Linnaeus, 1758 in detail and recognized three subfamilies in family *Manidae* Gray, 1821 and six genera in genus *Manis* Linnaeus, 1758. Presently, five subgenera are recognized of which only subgenus *Manis* Linnaeus, 1758 is represented in the region. It is represented by two species in the region.

**1. *Manis crassicaudata* (Gray, 1827)**

1827. *Manis crassicaudatus* Gray, In Griffith *et al.*, Anim. Kingdom, 5: 282.

Name: Indian Pangolin

Type locality: India

Synonyms: *Manis laticuada* Illiger, 1815 (*nom. nud.*)  
*Manis crassicaudatus* Gray, 1827  
*Pholidotus indicus* Gray, 1865

Subspecies: None.

Distribution: Andhra Pradesh, Bihar, Chattisgarh, Delhi, Gujarat, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Tamil Nadu, Uttaranchal, Uttar Pradesh, and West Bengal in India; Bangladesh; Pakistan; Nepal; Sri Lanka.

Comments: Belongs to subgenus *Manis* Linnaeus, 1758. Schlitter (1993) opines that it was formerly erroneously called '*pentadactyla*'.

**2. *Manis pentadactyla* Linnaeus, 1758**

1758. *Manis pentadactyla* Linnaeus, Syst. Nat., 10<sup>th</sup> edition, 1: 36.

Name: Chinese Pangolin

Type locality: Taiwan (now Formosa), China

Synonyms: *Manis auritus* Hodgson, 1836

*Pholidotus assamensis* Fitzinger, 1872

*Phatages bengalensis* Fitzinger, 1872

Subspecies: *Manis pentadactyla aurita* (Hodgson, 1836)

Distribution: Arunachal Pradesh, Assam, Meghalaya, Nagaland and Sikkim in India; Nepal.

Comments: Belongs to subgenus *Manis* Linnaeus, 1758. Schlitter (1993) opines that it formerly included representatives of '*pentadactyla*' that are now treated distinctly.

**Acknowledgements**

We thank Ms. Sally Walker and Mr. Sanjay Molur of Zoo Outreach Organization, Coimbatore, and Dr. Mike J.R. Jordan, Chester Zoo, England who helped us in many ways. We thank Ms. Binu Priya and Ms. Padma Priya, Zoo Outreach Organization for their help in literature survey and preparation of the final checklist. CS and BS thank the Head, Department of Zoology, Osmania University, Hyderabad for encouragement and acknowledge individual Research Grants from CSIR, New Delhi.

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