

## ORDER SCANDENTIA

COMMENT: Often included in Insectivora; but see McKenna, 1975:41.

## Family Tupaiidae

REVIEWED BY: Earl of Cranbrook (Cranbrook); N. Langham (NL).

COMMENT: The ordinal placing of this family is controversial, but all evidence shows that it is a coherent natural group; see Luckett, ed., 1980, *Comparative Biology and Evolutionary Relationships of Tree Shrews*, New York, Plenum, 314 pp.; Campbell, 1974, *Mammal Rev.*, 4:125-143; Dene *et al.*, 1978, *J. Mammal.*, 59:697-706. Le Gros Clark, 1971, *The Antecedents of Man*, 3rd ed., and Van Valen, 1965, *Evolution*, 19:137-151, discussed affinities of this family; also see Campbell, 1966, *Evolution*, 20:276-281; Campbell, 1966, *Science*, 153:436. A bibliography, 1780-1969, was prepared by Elliott, 1971.

ISIS NUMBER: 530140300900000000.

*Anathana* Lyon, 1913. *Proc. U.S. Nat. Mus.*, 45:120.

ISIS NUMBER: 5301403009001000000.

*Anathana ellioti* (Waterhouse, 1850). *Proc. Zool. Soc. Lond.*, 1849:107.

TYPE LOCALITY: India, Andhra Pradesh, "hills between Cuddapah and Nellox (sic)," (=Velikanda Range).

DISTRIBUTION: India, in dry and moist forests of the peninsula, south of Ganges River.

ISIS NUMBER: 5301403009001001001.

*Dendrogale* Gray, 1848. *Proc. Zool. Soc. Lond.*, 1848:23.

ISIS NUMBER: 5301403009002000000.

*Dendrogale melanura* (Thomas, 1892). *Ann. Mag. Nat. Hist.*, ser. 6, 9:252.

TYPE LOCALITY: Malaysia, Sarawak, Mt. Dulit, 5000 ft. (1524 m).

DISTRIBUTION: Mountains of N.E. Sarawak and Kinabalu and Trus Madi, Sabah, nowhere below 3000 ft. (914 m).

ISIS NUMBER: 5301403009002001001.

*Dendrogale murina* (Schlegel and Mueller, 1845). *In* Temminck, *Verhandl. Nat. Gesch. Nederland Bezitt.*, *Zool.*, p. 167, pls. 26, 27.

TYPE LOCALITY: Indonesia, Kalimantan Barat Prov., Pontianak (Probably erroneous).

DISTRIBUTION: From eastern Thailand, Chatraburi and Trat Provinces, through Cambodia (Kampuchea) to Vietnam.

COMMENT: See Lyon, 1913, *Proc. U.S. Nat. Mus.*, 45:1-186 for discussion of type locality.

ISIS NUMBER: 5301403009002002001.

*Ptilocercus* Gray, 1848. *Proc. Zool. Soc. Lond.*, 1848:24.

COMMENT: Subfamily Ptilocercinae; see Campbell, 1974, *Mammal. Rev.*, 4:125-143.

ISIS NUMBER: 5301403009003000000.

*Ptilocercus lowii* Gray, 1848. *Proc. Zool. Soc. Lond.*, 1848:24.

TYPE LOCALITY: Malaysia, Sarawak, "caught in the Rajah's house", *i.e.*, Kuching.

DISTRIBUTION: Southern peninsular Thailand, peninsular Malaysia, Sumatra, including Riau Isls. and Batu Isls., Banka, Serasan Isl. and Borneo, including Labuan Isl.

ISIS NUMBER: 5301403009003001001.

*Tupaia* Raffles, 1821. *Trans. Linn. Soc. Lond.*, 13:256.

ISIS NUMBER: 5301403009004000000.

*Tupaia dorsalis* Schlegel, 1857. *Handl. Beoef. Dierk.*, 1:59, 447, pl. 3.

TYPE LOCALITY: Borneo.

DISTRIBUTION: The mainland of Borneo at low to moderate elevations (except S.E.).

COMMENT: United with *tana* in the subgenus *Tana* by Lyon, 1913, *Proc. U.S. Nat.*

*Mus.*, 45:1-186, but this is not supported by immunological evidence; see Dene *et al.*, 1978, *J. Mammal.*, 59:697-706.

ISIS NUMBER: 5301403009004001001.

- Tupaia glis* (Diard, 1820). *Asiat. J. Mon. Reg.*, 10:478.  
 TYPE LOCALITY: Malaysia, Penang Isl.  
 DISTRIBUTION: S.E. Asia from Sikkim and S. China, including Hainan Isl., to Java and Borneo and various surrounding islands.  
 COMMENT: Includes *longipes*, *salatana*; see Chasen, 1940, *Bull. Raffles Mus.*, 15:4; Sorenson and Conaway, 1964, *Sabah Soc. J.*, 2:77-91. Includes *chinensis*; see Warkentin and Conaway, 1969, *J. Mammal.*, 50:817-818; includes *natunae* and *lucida* which have been placed with *splendidula*; see Lyon, 1913, *Proc. U.S. Nat. Mus.*, 45:1-186, but also see Medway, 1961, *Treubia*, 25:265-272. Includes *belangeri* and *ferruginea*; see Chasen, 1940, *Bull. Raffles Mus.*, 15:1; Napier and Napier, 1967:456; Lekagul and McNeely, 1977:5; Dene *et al.*, 1978, *J. Mammal.*, 59:697-706.  
 ISIS NUMBER: 5301403009004002001.
- Tupaia gracilis* Thomas, 1893. *Ann. Mag. Nat. Hist.*, ser. 6, 12:53.  
 TYPE LOCALITY: Malaysia, Sarawak, Baram Dist., Apoh River at base of Mt. Batu Song.  
 DISTRIBUTION: Borneo (except S.E.), west to Karimata Isl., Belitung Isl., and Banka Isl.; north to Banggi Isl.  
 ISIS NUMBER: 5301403009004003001.
- Tupaia javanica* Horsfield, 1822. *Zool. Res. Java*, 3 (pages unnumbered).  
 TYPE LOCALITY: Indonesia, Java, Jawa Timur Prov., perhaps near Banjuwangi.  
 DISTRIBUTION: Indonesian Isls. of Nias, Sumatra, Java, and Bali.  
 COMMENT: For type locality clarification, see Lyon, 1913, *Proc. U.S. Nat. Mus.*, 45:1-186.  
 ISIS NUMBER: 5301403009004004001.
- Tupaia minor* Guenther, 1876. *Proc. Zool. Soc. Lond.*, 1876:426.  
 TYPE LOCALITY: Malaysia, Sabah, mainland "opposite the island of Labuan."  
 DISTRIBUTION: Southern peninsular Thailand, peninsular Malayasia, Sumatra, Lingga Archipelago, Borneo, and offshore islands of Laut, Banggi and Balambangan.  
 ISIS NUMBER: 5301403009004005001.
- Tupaia montana* Thomas, 1892. *Ann. Mag. Nat. Hist.*, ser. 6, 9:252.  
 TYPE LOCALITY: Malaysia, Sarawak, Mt. Dulit, 5000 ft. (1524 m).  
 DISTRIBUTION: Mountains of Sarawak and W. Sabah; recorded from 1200 to 10400 ft. (366-3170 m) on Mt. Kinabalu.  
 COMMENT: Distribution in the central highlands of Borneo on the Indonesian side of the border is unknown (Cranbrook).  
 ISIS NUMBER: 5301403009004006001.
- Tupaia nicobarica* (Zelebor, 1869). *Reise "Novara"*, *Zool. Theil.*, 1:17, pl. 1.  
 TYPE LOCALITY: India, Nicobar Isls., Great Nicobar Isl.  
 DISTRIBUTION: Great and Little Nicobar Isls.  
 COMMENT: A distinctive species of uncertain affinity (Cranbrook).  
 ISIS NUMBER: 5301403009004007001.
- Tupaia palawanensis* Thomas, 1894. *Ann. Mag. Nat. Hist.*, ser. 6, 13:367.  
 TYPE LOCALITY: Philippine Isls., Palawan Isl.  
 DISTRIBUTION: Philippines, islands of Palawan, Busuanga, Cuyo, and Culion.  
 COMMENT: The taxon *palawanensis* was considered by Thomas, 1894, *Ann. Mag. Nat. Hist.*, ser. 6, 13:367, to be a geographical representative of *Tupaia glis* when he described it, but see Corbet and Hill, 1980:34.  
 ISIS NUMBER: 5301403009004008001.
- Tupaia picta* Thomas, 1892. *Ann. Mag. Nat. Hist.*, ser. 6, 9:251.  
 TYPE LOCALITY: Malaysia, Sarawak, Baram Dist.  
 DISTRIBUTION: Borneo, in N. Sarawak and parts of E. Kalimantan.  
 COMMENT: The species' distribution is poorly known (Cranbrook).  
 ISIS NUMBER: 5301403009004009001.

*Tupaia splendidula* Gray, 1865. Proc. Zool. Soc. Lond., 1865:322, pl. 12.

TYPE LOCALITY: Borneo.

DISTRIBUTION: Borneo, south of about 1° N.; Karimata Isl.; Laut Isl.; Bunguran Isl. (North Natuna Isls.).

COMMENT: The status of this species and its synonyms was discussed by Medway, 1961, *Treubia*, 25:265-272. *T. glis natunae* and *T. glis lucida* were associated with *splendidula* by Lyon, 1913, Proc. U.S. Nat. Mus., 45:1-186; but also see Chasen, 1940, Bull. Raffles Mus., 15:4; Medway, 1961, *Treubia*, 25:265-272. Includes *carinatae* and *muelleri*; see Medway, 1961, *loc. cit.*

ISIS NUMBER: 5301403009004010000.

*Tupaia tana* Raffles, 1821. Trans. Linn. Soc. New York, 13:257.

TYPE LOCALITY: Indonesia, west coast of Sumatra, by inference in Sumatra, Selatan Prov., in the neighborhood of Bengkulu ("Bencoolen")(Cranbrook).

DISTRIBUTION: Sumatra, including offshore islands of Tuanku, Batu group, Lingga group, Banga, Belitung, Tambelon, and Serasan groups; Borneo, Banggi Isl.

COMMENT: *T. tana* is the type of *Tana* Lyon = *Lyonogale* Conisbee, but immunological studies (Dene *et al.*, 1978, J. Mammal., 59:697-706) do not support the generic or subgeneric standing of this taxon.

ISIS NUMBER: 5301403009004011001.

*Urogale* Mearns, 1905. Proc. U.S. Nat. Mus., 28:435.

ISIS NUMBER: 5301403009005000000.

*Urogale everetti* (Thomas, 1892). Ann. Mag. Nat. Hist., ser. 6, 9:250.

TYPE LOCALITY: Philippine Isls., Mindanao, Zamboanga.

DISTRIBUTION: Mindanao (Philippines).

COMMENT: The species was considered by Lyon, 1913, Proc. U.S. Nat. Mus., 45:1-186, to be closest to *Tupaia tana*.

ISIS NUMBER: 5301403009005001001.