

ORDER SCANDENTIA

by Don E. Wilson

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SYNONYMS: Tupaiioidea.

COMMENTS: Sometimes included in Insectivora; but see McKenna (1975:41).

Family Tupaiidae Gray, 1825. Ann. Philos., n.s., 10:339.

SYNONYMS: Cladobatae, Glisoricina.

COMMENTS: The classification of this family is controversial, but most evidence suggests a coherent natural group; see Campbell (1966, 1974), Dene et al. (1978), Elliott (1971), and Luckett (1980).

Subfamily Tupaiinae Gray, 1825. Ann. Philos., n.s., 10:339.

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

TYPE SPECIES: *Tupaia ellioti* Waterhouse, 1850.

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

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

DISTRIBUTION: India, south of Ganges River.

SYNONYMS: *pallida*, *wroughtoni*.

COMMENTS: Ellerman and Morrison-Scott (1966) lumped the three species included by Lyon (1913).

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

TYPE SPECIES: *Hylogalea murina* Schlegel and Müller, 1843.

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

TYPE LOCALITY: Malaysia, Sarawak, Mt. Dulit, 5,000 ft. (1,524 m).

DISTRIBUTION: Mountains of NE Sarawak and Kinabalu and Trus Madi, Sabah, nowhere below 3,000 ft. (914 m).

SYNONYMS: *baluensis*.

Dendrogale murina (Schlegel and Müller, 1843). In Temminck, Verh. Nat. Gesch. Nederland. Overz. Bezitt., Zool., p. 167[1845], pls. 26, 27[1843].

TYPE LOCALITY: Indonesia, Kalimantan Barat Prov., "Pontianak" (Probably erroneous, see Lyon, 1913).

DISTRIBUTION: From E Thailand, Chatraburi and Trat Provinces, through Cambodia to Vietnam.

SYNONYMS: *frenata*.

Tupaia Raffles, 1821. Trans. Linn. Soc. London, 13:256.

TYPE SPECIES: *Tupaia ferruginea* Raffles, 1821 (= *Sorex glis* Diard, 1820).

SYNONYMS: *Lyonogale*, *Tana*.

COMMENTS: This group was last revised by Lyon (1913), and is badly in need of review. The arrangement presented here represents an hypothesis based on Chasen (1940), Dene et al. (1978), Lekagul and McNeely (1977), Luckett (1980), Lyon (1913), Medway (1961), and Napier and Napier (1967).

Tupaia belangeri (Wagner, 1841). Schreber's Die Säugthiere, Suppl., 2:42.

TYPE LOCALITY: Burma, Pegu, near Rangoon, Siriam.

DISTRIBUTION: Malaysia N of 10° N latitude, Thailand, Burma, India, China, Cambodia, Laos, Vietnam and associated coastal islands.

SYNONYMS: *annamensis*, *assamensis*, *brunetta*, *chinensis*, *clarissa*, *cambodiana*, *cochinchinensis*, *concolor*, *dissimilis*, *gaoligongensis*, *gonshanensis*, *kohtauensis*, *laotum*, *lepcha*, *modesta*, *olivacea*, *peguanus*, *pingi*, *siccata*, *sinus*, *tenaster*, *tonquinia*, *versurae*, *yaoshanensis*, *yunalis*.

COMMENTS: This arrangement places all named forms north of the Isthmus of Kra in *belangeri*, the oldest named form from the region. Some may prove to be distinct species, and some names attributed to *glis* may actually prove to be *belangeri*. Immunological (Dene et al., 1978) evidence supports this arrangement.

Tupaia chrysogaster Miller, 1903. *Smithson. Misc. Coll.*, 45:58.

TYPE LOCALITY: North Pagi Island, off southwest coast of Sumatra.

DISTRIBUTION: N and S Pagi, and Sipora of the Mentawai Islands, off the southwest coast of Sumatra.

COMMENTS: May prove to be only a subspecies of *glis*. May also include *siberu* and possibly *tephrura*, both currently in the synonymy of *glis*.

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 SE).

COMMENTS: United with *tana* in the genus *Tana* by Lyon (1913), but separation into two genera is not supported by immunological evidence; see Dene et al. (1978).

Tupaia glis (Diard, 1820). *Asiat. J. Mon. Reg.*, 10:478.

TYPE LOCALITY: Malaysia, Penang Isl.

DISTRIBUTION: SE Asia from below 10° N on the Isthmus of Kra (Thailand) through mainland Malaysia and Sumatra (Malaysia) to Java (Indonesia) and various surrounding islands.

SYNONYMS: *anambae*, *batamana*, *castanea*, *chrysomalla*, *cognata*, *demissa*, *discolor*, *ferruginea*, *hypochrysa*, *jacki*, *lacernata*, *longicauda*, *obscura*, *operosa*, *pemangilis*, *penangensis*, *phaeniura*, *phaeura*, *pulonis*, *raviana*, *redacta*, *riabus*, *siaca*, *siberu*, *sordida*, *tephrura*, *ultima*, *umbratilis*, *wilkinsoni*.

COMMENTS: See Chasen (1940), Dene et al. (1978), Lekagul and McNeely (1977), Lyon (1913), Medway (1961), Napier and Napier (1967), and comments under *belangeri*.

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 SE), west to Karimata Isl, Belitung Isl, and Banka Isl; north to Banggi Isl.

SYNONYMS: *edarata*, *inflata*.

Tupaia javanica Horsfield, 1822. *Zool. Res. Java*, pt. 3 (pages unno.).

TYPE LOCALITY: Indonesia, Java, Jawa Timur Prov., perhaps near Banjuwangi. See Lyon (1913).

DISTRIBUTION: Indonesian Isls of Nias, Sumatra, Java, and Bali.

SYNONYMS: *balina*, *bogoriensis*, *occidentalis*, *tjibruniensis*.

Tupaia longipes (Thomas, 1893). *Ann. Mag. Nat. Hist.*, ser. 6, 11:343.

TYPE LOCALITY: Sarawak.

DISTRIBUTION: Borneo.

SYNONYMS: *salatana*.

COMMENTS: Frequently considered a subspecies of *glis*, but see Dene et al. (1978).

Tupaia minor Günther, 1876. *Proc. Zool. Soc. Lond.*, 1876:426.

TYPE LOCALITY: Malaysia, Sabah, mainland "opposite the island of Labuan."

DISTRIBUTION: S peninsular Thailand, peninsular Malaysia, Sumatra and Lingga Archipelago (Indonesia), Borneo and offshore islands of Laut (Indonesia), Banggi and Balambangan (Malaysia).

SYNONYMS: *caedis*, *humeralis*, *malaccana*, *sincipis*.

Tupaia montana Thomas, 1892. *Ann. Mag. Nat. Hist.*, ser. 6, 9:252.

TYPE LOCALITY: Malaysia, Sarawak, Mt. Dulit, 5,000 ft. (1,524 m).

DISTRIBUTION: Mountains of Sarawak and W Sabah; recorded from 1,200 to 10,400 ft. (366-3,170 m) on Mt. Kinabalu.

SYNONYMS: *baluensis*.

Tupaia nicobarica (Zelevor, 1869). *Reise Oesterr. Fregatte Novara Zool.* 1(Wirbelthiere), 1(Säugeth.):17, pl. 1.

TYPE LOCALITY: India, Nicobar Isls, Great Nicobar Isl.

DISTRIBUTION: Great and Little Nicobar Isls.
SYNONYMS: *surda*.

Tupaia palawanensis Thomas, 1894. Ann. Mag. Nat. Hist., ser. 6, 9:251.

TYPE LOCALITY: Philippines, Palawan.

DISTRIBUTION: Palawan, Busuanga, Cuyo, and Culion (Philippines).

SYNONYMS: *busuanga*, *cuyonis*, *moellendorffi*.

Tupaia picta Thomas, 1892. Ann. Mag. Nat. Hist., ser. 6, 9:251.

TYPE LOCALITY: Malaysia, Sarawak, Baram Dist., Apoh. See Lyon (1913).

DISTRIBUTION: N Sarawak and East Kalimantan (Borneo).

SYNONYMS: *fuscior*.

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

TYPE LOCALITY: Borneo.

DISTRIBUTION: S Borneo; Bunguran and Laut (N Natuna Isls) and Karimata (Indonesia).

SYNONYMS: *carimatae*, *lucida*, *muelleri*, *natunae*, *ruficaudata*.

COMMENTS: See Medway (1961).

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

TYPE LOCALITY: Indonesia, Sumatra, Bencoolen (= Bengkulu).

DISTRIBUTION: Indonesia: Sumatra, Tuanku, Batu group, Lingga group, Banga, Belitung, Tambelon, and Serasan groups, Banggi; Borneo.

SYNONYMS: *banguei*, *besara*, *bunoe*, *cervicalis*, *chrysur*, *grismoldi*, *kelabit*, *kretami*, *lingae*, *masae*, *nainggolani*, *nitida*, *paitana*, *speciosus*, *sirhasseensis*, *tuancus*, *utara*.

COMMENTS: See Dene et al. (1978) for comment on generic status of *Tana* Lyon (= *Lyonogale* Conisbee).

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

TYPE SPECIES: *Urogale cylindrura* Mearns, 1905 (= *Tupaia everetti* Thomas, 1892).

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

TYPE LOCALITY: Philippines, Mindanao, Zamboanga.

DISTRIBUTION: Mindanao, Dinigat, and Siargao (Philippines).

SYNONYMS: *cylindrura*.

Subfamily Ptilocercinae Lyon, 1913. Proc. U. S. Natl. Mus., 45:4.

COMMENTS: See Campbell (1974).

Ptilocercus Gray, 1848. Proc. Zool. Soc. Lond., 1848:24 [publ. 1 Aug. 1848].

TYPE SPECIES: *Ptilocercus lowii* Gray, 1848.

COMMENTS: McAllan and Bruce (1989) argued that the original publication should be: The Literary Gazette, 1624:167 [publ. 4 March 1848].

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

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

DISTRIBUTION: S peninsular Thailand; peninsular Malaysia; Sumatra, Riau Isls, Batu Isls, Banka, and Serasan Isl (Indonesia); Borneo; Labuan Isl (Malaysia).

SYNONYMS: *continentis*.