

Jan Svatopluk Presl's (1821) family-group names of mammals

Jména savců skupiny čeledi vytvořená Janem Svatoplukem Preslem (1823)

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Abstract. Jan Svatopluk PRESL created in 1821 eight family-group names of mammals, the existence of which has been overlooked by modern mammalogists. Three of them were not listed in subsequent catalogues (Catadontidae, Hypsiprymnidae and Lipuridae), while the remaining five were generally attributed to various junior authors in modern literature (Myrmecophagidae, Petauridae, Chironectidae, Georychidae, and Thylacidae). In addition, the family-group name Phyllostomatidae, also used by PRESL (1821), was found to be attributable to GOLDFUSS (1820), not to GRAY (1825) as generally believed.

INTRODUCTION

Jan Svatopluk PRESL (1791–1849) was a renowned Czech naturalist, whose scientific interests ranged from botany to mammalogy (HOFFMANNOVÁ 1973). In 1821–1823 he published a systematic synopsis of vertebrates (PRESL 1821, 1822, 1823; see also PRESL 1834). In this modernly structured classification he was one of the first naturalists to recognize the family level (cf. MAYR et al. 1953, BOCK 1994). Prior to him, the family level was recognized and family-group names were properly formed in mammalogy only by a few authors, such as Karl ILLIGER (1775–1813) in 1811, Gotthelf FISCHER VON WALDHEIM (1771–1853) in 1817, Georg August GOLDFUSS (1782–1848) in 1820, Wilhelm Friedrich HEMPRICH (1798–1825) in 1820, and John Edward GRAY (1800–1875) in 1821 (ILLIGER 1811, FISCHER VON WALDHEIM 1817, GOLDFUSS 1820, HEMPRICH 1820, GRAY 1821).

PRESL's classification of mammals (PRESL 1821) was published in Czech language in the then newly founded, prestigious, Czech scientific journal '*Krok*' (see LAISKE 1959), which might have been the reason, why it has been overlooked by PALMER (1904) and subsequent students of mammalian family-group names (SIMPSON 1945, WILSON & REEDER 2005). Below I present an account of mammalian family-group names used by PRESL (1821), with special respect to nomenclatural issues, which arose from their re-discovery. Family-group names are arranged alphabetically in the systematic part. PRESL's (1821) classification of mammals is given in full in the Appendix.

SYSTEMATIC PART

Catodontidae Presl

PRESL (1821: 84) created family Catodonta for *Catodon* Linnaeus, 1761, which is a junior subjective synonym of *Physeter* Linnaeus, 1758 (MEAD & BROWNELL 2005). Catodonta Presl, 1821 is thus a junior subjective synonym of Physeteridae Gray, 1821 (I assume here that the paper by GRAY was published earlier than that by PRESL).

Chironectidae Presl

PALMER (1904: 734; see also SIMPSON 1935: 135; 1945: 41) attributed the family-group name Chironectidae to ANONYMOUS (1897). The name was used already by PRESL (1821: 80), who spelled it Cheironectina and based it on *Chironectes* Illiger, 1811. *Cheironectes* is a subsequent incorrect spelling of *Chironectes* Illiger, hence the family-group name should be corrected to Chironectina (ICZN 1999: Art. 35.4.).

Water opossums of the genus *Chironectes* Illiger, 1811 are usually included in the subfamily Didelphinae of the family Didelphidae Gray, 1821 (GARDNER 2005). Chironectina Presl, 1823 is thus a junior subjective synonym of Didelphidae Gray, 1821, but it is available if *Chironectes* opossums are separated at the subfamily level, as recently suggested by HERSHKOVITZ (1997).

Georychidae Presl

Mole-rats of the genus *Georychus* Illiger, 1811 are usually included in the family Bathyergidae Waterhouse, 1841 (SIMPSON 1945, WOODS & KILPATRICK 2005). WOODS & KILPATRICK (2005: 1538) attributed the family-group name Georychidae to ROBERTS (1951), but already SIMPSON (1945: 99) traced the name back to GRAVENHORST (1841: facing p. 502), who spelled it Georychina. The name should be attributed to PRESL (1821: 81), who spelled it Georychina and based it on the genus *Georychus* Illiger, 1811.

Georychina Presl, 1821 antedates Bathyergidae Waterhouse, 1843, which is the next oldest family-group name available for the family. Georychina Presl was not replaced by Bathyergidae Waterhouse because it was based on a junior synonym (cf. ICZN 1999: Art. 40). However, Georychina Presl should be set aside, because Bathyergidae Waterhouse is in prevailing use and both conditions of Art. 23.9.1. (ICZN 1999) are met: the name has not been used as valid after 1899 (Art. 23.9.1.1.) and at least 10 authors used Bathyergidae Waterhouse as valid taxon in at least 25 works in immediately preceding 50 years in a period that encompasses over 10 years (Art. 23.9.1.2.). Required citations are as follows: WOOD 1958, 1965, DE GRAFF 1975, JARVIS 1978, NEVO 1979, HARVEY et al. 1980, NEVO et al. 1987, HONEYCUTT et al. 1987, 1991, BENNETT & JARVIS 1988, DENYS 1989, LOVEGROVE 1989, 1991, JARVIS & BENNETT 1990, 1991, ALLARD & HONEYCUTT 1992, JANECK et al. 1992, BURDA & KAWALIKA 1993, FILIPUCCI et al. 1994, BUFFENSTEIN 1996, FAULKES et al. 1997, MCKENNA & BELL 1997, BENNETT & FAULKES 2000, SPINKS et al. 2000, WALTON et al. 2000, OOSTHUIZEN et al. 2003.

Hypsiprymnidae Presl

PRESL (1821: 80) based his family Hypsiprimnea [sic!] on the genus *Hypsiprimnus*, which is a subsequent incorrect spelling of *Hypsiprymnus* Illiger, 1811, The family-group name thus should be corrected to Hypsiprymnidae (ICZN 1999, Art. 35.4.). *Hypsiprymnus* Illiger, 1811 is

a junior objective synonym of *Potorous* Desmarest, 1804 (GROVES 2005b). Hence, *Hypsiprymna* Presl, 1821 is a junior objective synonym of *Potoridae* Gray, 1821 (I assume here that the paper by Gray was published earlier than that by Presl).

Lipuridae Presl

PRESL (1821: 80) based his family *Lipurina* on the genus *Lipurus* Goldfuss, 1817, which is a junior subjective synonym of *Phascolarctos* Blainville, 1816 (LEE & CARRICK 1989). *Lipurina* Presl, 1821 antedates *Phascolarctidae* created by OWEN (1839), which is the next oldest family-group name available for the family. *Lipurina* Presl was not replaced by *Phascolarctidae* Owen because it was based on a junior synonym (cf. ICZN 1999, Art. 40). However, *Lipurina* Presl should be set aside, because *Phascolarctidae* Owen is in prevailing use and both conditions of Art. 23.9.1. (ICZN 1999) are met: the name has not been used as valid after 1899 (Art. 23.9.1.1.) and at least 10 authors used *Phascolarctidae* Owen as valid taxon in at least 25 works in immediately preceding 50 years in a period that encompasses over 10 years (Art. 23.9.1.2.). Required citations are as follows: TURNBULL & LUNDELIUS 1970, IMAI et al. 1983, STRAHAN 1983, NAGY & MARTIN 1985, APLIN & ARCHER 1987, HAIGHT & NELSON 1987, MCKAY 1988, LEE & CARRICK 1989, DAVIDSON & YOUNG 1990, HARDING & APLIN 1990, GORDON 1991, LUCKETT 1994, OSAWA 1993, SZALAY 1994, RETIEF et al. 1996, BLACK & ARCHER 1997, KIRSCH et al. 1997, KEMPER et al. 2000, SHERWIN et al. 2000, FISHER et al. 2001, GRAND & BARBOZA 2001, CARDILLO et al. 2004, KAVANAGH et al. 2004, ARCHER & KIRSCH 2006, MUNEMASA et al. 2006, WEISBECKER & SÁNCHEZ-VILLAGRA 2006.

Myrmecophagidae Presl

The family-group name *Myrmecophagidae* is widely used and generally attributed to GRAY (1825b: 343) (e.g. GARDNER 2005: 102). It should be attributed to PRESL (1821: 82), who based it on the genus *Myrmecophaga* Linnaeus, 1758.

Petauridae Presl

GROVES (2005b: 53) attributed the family-group name *Petauridae* to BONAPARTE (1838: 112). It should be attributed to PRESL (1821: 79), who spelled it *Petaurina* and based it on the genus *Petaurus* Shaw, 1791.

Phyllostomatidae Goldfuss

SIMMONS (2005: 395) attributed the family-group name *Phyllostomidae* [sic!] to GRAY (1825a: 242), although most authors attributed it to GRAY (1825b: 338). Relative priority of these publications is irrelevant, however, because the name was used prior to GRAY (1825a, b) already by PRESL (1821: 78) and GOLDFUSS (1820: 460), of whom the latter spelled it *Phyllostomata* and based it on the genus *Phyllostoma* “Geoffr[oy Saint-Hilaire]” = Cuvier, 1800, which is a junior objective synonym of *Phyllostomus* Lacépède, 1799 (HEMMING 1955). The family-group name *Phyllostomatidae* thus should be attributed to GOLDFUSS (1820).

The family was generally spelled *Phyllostomatidae* until KUZJAKIN (1974) and HANDLEY (1980) argued that the name should be spelled *Phyllostomidae*. However, this is linguistically incorrect. Following Article 29.3.1. of the International Code of Zoological Nomenclature (ICZN 1999), “the stem for the purposes of the Code is found by deleting the case ending of the appropriate

genitive singular”. Here, the genitive singular of ‘stoma’ is ‘stomatis’, and the family-group name thus should be spelled Phyllostomatidae (see also KERŽNER 1974).

Thylacidae Presl

PRESL (1821: 80) based his family Thylacina on the genus *Thylacis* Illiger, 1811. The latter genus is generally included in the family Peramelidae Gray, 1825 (SIMPSON 1945, GROVER 2005a). Thylacina Presl, 1821 antedates Peramelidae Gray, 1825, which is the next oldest family-group name available for the family. Thylacina Presl was not replaced by Peramelidae Gray because it was based on a junior synonym (cf. ICZN 1999, Art. 40). However, Thylacina Presl should be set aside, because Peramelidae Gray is in prevailing use and both conditions of Art. 23.9.1. (ICZN 1999) are met: the name has not been used as valid after 1899 (Art. 23.9.1.1.) and at least 10 authors used Peramelidae Gray as valid taxon in at least 25 works in immediately preceding 50 years in a period that encompasses over 10 years (Art. 23.9.1.2.). Required citations are as follows: LIDICKER & FOLLETT 1968, TURNBULL & LUNDELIUS 1970, ARCHER & KIRSCH 1977, 2006, VAUGHAN 1978, STODDART & BRAITHWAITE 1979, GEMMELL 1982, SZALAY 1982, STRAHAN 1983, APLIN & ARCHER 1987, GORDON & HULBERT 1989, FRIEND 1990, GROVES & FLANNERY 1990, KEMPER et al. 1990, SOUTHGATE 1990, MENZIES 1991, SHERWIN et al. 1991, MURPHY & SERENA 1993, RETIEF et al. 1995, MCKENNA & BELL 1997, SHORT et al. 1998, MUIRHEAD 2000, WESTERMANN et al. 2001, BROUGHTON & DICKMAN 2002, CHAMBERS & DICKMAN 2002, RICHARDS & SHORT 2003, PRICE 2004, WESTERMAN et al. 2004.

SOUHRN

Jan Svatoopluk PRESL vytvořil roku 1821 ve své klasifikaci savců osm nových jmen skupiny čeledi. Z nich tři jména vůbec nebyla zahrnuta do pozdějších katalogů (Catadontidae, Hypsiprymniidae a Lipuridae), zatímco autorství ostatních pěti jmen bylo běžně připisováno různým mladším autorům (Myrmecophagidae, Petauridae, Chironectidae, Georychidae a Thylacidae). Kromě toho bylo zjištěno, že jméno Phyllostomatidae, zpravidla připisované GRAYOVI (1825a, b) a taktéž použité PRESLEM (1821), bylo vytvořeno již GOLDFUSSEM (1820).

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APPENDIX

PRESL'S (1821) classification of mammals. Czech names proposed by PRESL (1821) for mammalian orders, families and genera are given in parentheses (most were not listed by ANDĚRA 1999). Note that PRESL (1821) did not name families when an order included only a single family.

1. **Bimana (dvaauručí)**

- 1.1. [Family not given]: *Homo* (člověk).

2. **Quadrmana (čtweroručí)**

- 2.1. Simia (opicowití): *Pithecus* (op), *Hylobates* (ramenáč), *Lasiopyga* (dlakořit), *Cercopithecus* (kočkodán), *Papio* (martyška), *Poago* (mirkuwín), *Cynocephalus* (psohlaw), *Colobus* (kykatas), *Ateles* (chapan), *Cebus* (malpa), *Pithecia* (chwo stan), *Aotus* (nočák), *Callitrix* (pěknowlasec), *Hapale* (kosman).
- 2.2. Prosimia (munowití): *Lemur* (muna), *Lichanotus* (požast), *Stenops* (autloň).
- 2.3. Prehensilia (palcuchowití): *Chirogeleus* (palcucha).
- 2.4. Macrotaisia (nártawnowití): *Tarsius* (nártaw), *Otolincus* (uchoš).

3. **Cheiroptera (letauni)**

- 3.1. Galeopithecia (letuškowití): *Galeopithecus* (letuška).
- 3.2. Phyllostomata (řasonosowití): *Phyllostoma* (řasonos), *Nycteris* (šerowec), *Rhinopoma* (nosalec), *Rhinolophus* (wrapenec), *Megaderma* (weloblanec).
- 3.3. Harpiae (upírowití): *Pteropus* (upír), *Cephalotes* (hlawan).
- 3.4. Noctiliones (nedopírowití): *Stenoderma* (auzkoblanec), *Vespertilio* (netopír), *Plecotus* (ušan), *Miopterus* (spaka), *Nyctinomus* (přišerec), *Noctilio* (mračník), *Dysopes* (psohubec), *Thapazous* (wečerník).

4. **Ferae (šelmy)**

- 4.1. Canina (psowití): *Megalotis* (welouch), *Canis* (pes), *Hyena* (hyena), *Felis* (kot), *Rycaena* (zeník).
- 4.2. Mustelina (kunowití): *Herpestes* (promyka), *Mephitis* (smrdoš), *Mustela* (kuna), *Ichneumon* (munkos), *Lutra* (wydra).
- 4.3. Ursina (nedwědowití): *Ursus* (nedwěd), *Meles* (jezwec), *Gulo* (rosomak), *Procyon* (mýwal), *Nasua* (nosál), *Cercoleptes* (ohonowín).
- 4.4. Erinacea (ježowití): *Centetes* (bodlín), *Erinaceus* (jež).
- 4.5. Talpina (krtkowití): *Condylura* (uzloš), *Chrysochloris* (zlatokrt), *Talpa* (krt), *Scalops* (hrabuška).
- 4.6. Sorexina (reyskowití): *Sorex* (reysek), *Mygale* (wychuchol).

5. **Marsupialia (waknatí)**

- 5.1. Petaurina (letawcowití): *Petaurus* (létawec), *Phalangista* (parowník).

- 5.2. Cheironectina (plawákowití): *Cheironectes* (plawák).
- 5.3. Didelphina (wačicowití): *Ambliotis* (ruhoš), *Balantia* (tokaun), *Didelphis* (wačice).
- 5.4. Thylacina (torebníkowití): *Dasyurus* (srstaun), *Thylacis* (torebník).
- 5.5. Lipurina (kwíkolowití): *Phascolomys* (drapoš), *Lipurus* (kwíkol).
- 5.6. Hysiprimnea (skokeyšowití): *Hysiprimnus* (skokeyš), *Halmaturus* (klokan).
- 6. Rosores (hlodawí)**
- 6.1. Dipudina (tarbíkowití): *Dipus* (tarbík), *Pedetes* (nohas).
- 6.2. Sciurina (wewerowití): *Myoxus* (plch), *Tamias* (deňka), *Pteromys* (poletucha), *Sciurus* (wewer), *Cheiromis* (letaha).
- 6.3. Leporina (zajícowití): *Lepus* (zajíc), *Lagomys* (pičuha).
- 6.4. Cavinida (morčowití): *Coelogenys* (tlamák), *Dasyproctes* (nahoš), *Cavia* (morče, also wiska), *Hydrochaerus* (plawaun).
- 6.5. Histicina (dikobrazowití): *Histris* (dikobraz), *Coendu* (ostnoš), *Loncheres* (ježowec).
- 6.6. Castorina (bobrowití): *Hydromys* (woduška), *Guillino* (dlakaun), *Ondatra* (ondatra), *Castor* (bobr).
- 6.7. Georychina (hrabošowití): *Georychus* (hraboš), *Hypudaerus* (pestruška), *Fiber* (dlakoš).
- 6.8. Murina (myšowití): *Mus* (myš), *Cricetus* (křeček), *Arctomys* (swišť), *Viscacia* (wizkacha), *Spalax* (slepec), *Bathyergus* (rypoš).
- 7. Cingulata (pásatí)**
- 7.1. [Family not given]: *Dasybus* (pásowec), *Tolipeutes* (chaulan).
- 8. Pamphracta (Ssupani)**
- 8.1. [Family not given]: *Pamphractus* (ssupan).
- 9. Ornithostomata (ptakohubí)**
- 9.1. [Family not given]: *Ornithorhynchus* (ptakaun).
- 10. Tachiglossa (rychlozajiční)**
- 10.1. [Family not given]: *Tachyglossus* (rychlozajan).
- 11. Vermilingua (tenkojazyční)**
- 11.1. Manisia (luskaunowití): *Manis* (luskaun).
- 11.2. Myrmecophagina (mrawenčikowití): *Myrmecophaga* (mrawenčik), *Tamandua* (tamandua), *Orycteropus* (kuťoš).
- 12. Tardigrada (lenochodí)**
- 12.1. [Family not given]: *Bradypus* (lenochod), *Choloepus* (kulhoš).
- 13. Bisulca (dwaupaznehtní)**
- 13.1. Taurina (beykowití): *Bos* (beyk), *Ovibos* (owoskot), *Ovis* (owce), *Capra* (kozol), *Antilope* (sajka).
- 13.2. Cervina (jelenowití): *Cervus* (jelen), *Moschus* (kabarha).
- 13.3. Girafina (girařowití): *Camelopardalis* (girařa).
- 13.4. Camelina (welblaudowití): *Auchenia* (wikuně), *Camelus* (welblaud).
- 14. Solidungula (jednopaznehtní)**
- 14.1. [Family not given]: *Equus* (kůň).
- 15. Multungula (mnohopaznehtní)**
- 15.1. Elephantina (slonowití): *Elephas* (slon).
- 15.2. Tapiracea (tapířowití): *Tapirus* (tapíř).
- 15.3. Scrofina (wepřowití): *Sus* (wepř).
- 15.4. Hyracina (tlustošowití): *Lipura* (nehtaun), *Hyrax* (tlustoš).
- 15.5. Rhinocera (rohošowití): *Rhinoceros* (rohoš).
- 15.6. Hyppopotamea (hrochowití): *Hyppopotamus* (hroch).

16. Pinnipedia (ploskonoží)

16.1. [Family not given]: *Phoca* (teleň), *Pusa* (siwuč), *Nepus* (ťutě); also nerpa, lachták.

17. Syrtobatica (smeykali)

17.1. [Family not given]: *Trichechus* (morž).

18. Sirenia (ochechule)

18.1. [Family not given]: *Manatus* (kapustňak), *Halicore* (moroň), *Rytina* (koraun).

19. Cetacea (welrybi)

19.1. Balaenacea (kytowití): *Balaena* (kyt), *Balanopter* (pleytwák).

19.2. Catodonta (worwaňowití): *Physeter* (perutoš), *Oryx* (zubaun), *Cetus* (olbroť), *Catodon* (worwaň), *Delphinus* (pliskawice), *Delphinapterus* (běluha), *Physalus* (sykawice).