

## **APPENDIX. Supplementary data to the article:**

Boev, Z. 2023. Quaternary vertebrate fauna of Bulgaria – composition, chronology and impoverishment. *Geologica Balcanica* 52 (1), 21–48.

### **List of the taxa of vertebrates established in the Quaternary localities in Bulgaria**

#### **Class Chondrichthyes Huxley, 1880**

##### **Selachimorpha Cope, 1871**

1. Squaliformes Goodrich, 1909 fam. indet. – ME: Ivanov (1959b).

#### **Class Actinopterygii Klein, 1885**

##### **Acipenseridae Bonaparte, 1831**

2. *Acipenser ruthenus*, Linnaeus, 1758 – ME: Beech and Irwing (2007).
3. *Huso huso* (Linnaeus, 1756) – ME: Beech and Irwing (2007).
4. Acipenseridae Bonaparte, 1831 gen. indet. – ME: Ivanov (1959b, 1965).

##### **Siluriformes G. Cuvier, 1817**

##### **Siluridae G. Cuvier, 1816**

5. *Silurus glanis* Linnaeus, 1758 – NO, ME: Beech and Irwing (2007); Boev (2016a, 2018b, 2020d); Iliev *et al.* (1992, 1993); Ivanov (1959b, 1965); Ninov (2014); Ribarov (1994); Spassov and Iliev (1986); Spassov and Iliev (in press); Spassov (unpublished data).

##### **Esociformes Bleeker, 1859**

##### **Esocidae G. Cuvier, 1817**

6. *Esox lucius* Linnaeus, 1758 – ME: Beech and Irwing (2007); Ribarov (1994).

##### **Pleuronectiformes Bleeker, 1859**

##### **Pleuronectidae G. Cuvier, 1816**

7. *Platichthys flesus* (Linnaeus, 1758) – ME: Beech and Irwing (2007).
8. Pleuronectidae G. Cuvier, 1816 gen. indet. – ME: Beech and Irwing (2007).
9. *Scophthalmus maeoticus* (Pallas, 1814) – NO: Ribarov (1991a) (reported as *R. maeoticus*).

##### **Salmoniformes Bleeker, 1859**

##### **Salmonidae G. Cuvier, 1816**

10. *Salmo trutta* Linnaeus, 1758 – ME: Beech and Irwing (2007).
11. Salmonidae G. Cuvier, 1816 gen. indet. – ME: Beech and Irwing (2007).

##### **Anguilliformes L. S. Berg, 1943**

##### **Anguillidae Rafinesque, 1810**

12. *Anguilla anguilla* (Linnaeus, 1758) – ME: Beech and Irwing (2007).

##### **Gadiformes Goodrich, 1909**

##### **Gadidae Rafinesque, 1810**

13. *Merlangius merlangus* (Linnaeus, 1758) – ME: Beech and Irwing (2007).

##### **Scombriformes Bleeker, 1859**

##### **Scombridae Rafinesque, 1815**

14. *Sarda sarda* (Bloch, 1793) – NO: Ribarov (1991a).
15. *Scomber scombrus* Linnaeus, 1758 – NO: Beech and Irwing (2007).
16. *Thunnus thynnus* (Linnaeus, 1758) – NO: Spassov and Iliev (1994).

##### **Perciformes Bleeker, 1863**

##### **Percidae Rafinesque, 1815**

17. *Perca fluviatilis* Linnaeus, 1758 – ME: Beech and Irwing (2007); Ribarov (1994).
18. *Sander lucioperca* (Linnaeus, 1758) – ME: Beech and Irwing (2007); Ribarov (1994, reported as *Lucioperca lucioperca*).

## **Cypriniformes Bleeker, 1859**

### **Cyprinidae Rafinesque, 1810**

19. cf. *Abramis* Cuvier, 1816 sp. – ME: Boev (2016a).
20. *Abramis brama* Linnaeus, 1750 – ME: Beech and Irwing (2007).
21. *Alburnus alburnus* (Linnaeus, 1756) – ME: Beech and Irwing (2007).
22. *Aspius aspius* (Linnaeus, 1756) – ME: Beech and Irwing (2007).
23. *Barbus barbatus* (Linnaeus, 1759) – ME: Beech and Irwing (2007).
24. *Carassius carassius* (Linnaeus, 1756) – ME: Beech and Irwing (2007).
25. *Chondrostoma nasus* (Linnaeus, 1758) – ME: Beech and Irwing (2007).
26. Cyprinidae Rafinesque, 1810 gen. indet. – ME: Beech and Irwing (2007); Boev (2016a).
27. *Cyprinus carpio* Linnaeus, 1758 – GR, NO, ME: Beech and Irwing (2007); Iliev *et al.* (1992, 1993); Ivanov (1959b, 1965); Ninov (2014); Popov (1904, 1925, 1929); Ribarov (1991a, 1994); Ribarov and Boev (1990).
28. *Leuciscus cephalus* (Linnaeus, 1758) – ME: Beech and Irwing (2007).
29. *Leuciscus idus* (Linnaeus, 1758) – ME: Beech and Irwing (2007).
30. *Rutilus rutilus* Rafinesque, 1820 sp. – ME: Manhart (1998).
31. *Scardinius erythrophthalmus* (Linnaeus, 1758) – ME: Ribarov (1994).
32. *Tinca tinca* (Linnaeus, 1758) – ME: Beech and Irwing (2007).

### **Leuciscidae Bonaparte, 1835**

33. Cypriniformes fam. indet. – ME: Boev and Popgeorgiev (2021d).
34. *Phoxinus phoxinus* (Linnaeus, 1756) – ME: Beech and Irwing (2007).
35. *Rutilus rutilus* (Linnaeus, 1758) – ME: Beech and Irwing (2007).

## **Class Amphibia Gray, 1825**

### **Urodela Duméril, 1806**

#### **Salamandridae Goldfuss, 1820**

36. *Lissotriton* Bell, 18139 sp. – GE: Boev (2016b, 2021c).
37. *Salamandra salamandra* (Linnaeus, 1758) – ME: Boev (2021c).
38. Salamandridae gen. indet. – GE: Boev (2016b, 2021c).
39. *Triturus* Rafinesque, 1815 sp. – GE: Boev (2016b, 2021c).

#### **Anura Duméril, 1806**

#### **Palaeobatrachidae Cope, 1865**

40. Palaeobatrachidae gen. indet. – GE: Boev (2016b; 2021c).

#### **Bufonidae Gray, 1825**

41. *Bufo* cf. *bufo* (Linnaeus, 1758) – GE: Boev (2016b, 2021c).
42. *Bufo* Garsault, 1764 sp. – CH, ME: Ivanova *et al.* (2011, 2021c; Manhart (1998).
43. *Bufo* cf. *viridis* (Laurenti, 1768) – GE: Boev (2016b, 2021c).

#### **Pelobatidae Bonaparte, 1850**

44. *Eopelobates* Parker, 1829 sp. – GE: Boev (2016b, 2021c).
45. *Pelobates fuscus* (Laurenti, 1768) – GR: Mitev and Boev (2006).
46. *Polobates* cf. *syriacus* – CH: Horacek (1982).

#### **Ranidae Rafinesque, 1814**

47. *Pelophylax* Fitzinger, 1843 sp. – GE, GR: Mitev and Boev (2006).
48. *Pelophylax ridibundus* (Pallas, 1771) – GR: Mitev and Boev (2006).
49. *Rana* cf. *graeca* Boulenger, 1891 – GE: Boev (2016b, 2021c).
50. *Rana dalmatina* Fitzinger, 1838 – GR: Mitev and Boev (2006).
51. *Rana* Linnaeus, 1758/*Pelophylax* Fitzinger 1843 – ME: Boev (2020d).
52. *Rana* Linnaeus, 1758 sp. – ME: Ribarov (1982); Schramm (1975, 1979).
53. *Rana temporaria* Linnaeus, 1758 – GE: Boev (2016b, 2021c).

## **Class Reptilia Laurenti, 1768**

### **Sauria Macartney, 1802**

#### **Scincidae Gray, 1825**

54. *Heremites auratus* (Linnaeus, 1766) – GE: Boev (2016b).

55. *Mabuya* Fitzinger, 1826 sp. – GE: Boev (2016b).

#### **Anguidae Gray, 1825**

56. *Anguis fragilis* Linnaeus, 1758– GE: Boev (2016, 2017b).

57. *Pseudopus apodus* (Pallas, 1775) – GE: Boev (2016b).

#### **Lacertidae Opperl, 1811**

58. *Lacerta agilis* Linnaeus, 1758 – UP: Kowalski (1982); Mlynarski (1982); Szyndlar, 1991b).

59. *Lacerta* Linnaeus, 1758 sp. – GE: Boev (2016b).

60. *Lacerta viridis* (Laurenti, 1768) – UP: Mlynarski (1982).

61. *Lacerta/Podarcis* sp. – ME: (Mitev, 2005, 2016a).

62. *Zootoca vivipara* (Lichtenstein, 1823) – CH: Horacek (1982) (reported as *Lacerta vivipara*).

#### **Varanidae Merrem, 1820**

63. Varanidae gen. indet. – GE: Boev (2017b).

#### **Colubridae Opperl, 1811**

64. Colubrinae gen. indet. – GE: Boev (2016b).

65. *Coronella* aff. *austriaca* Laurenti, 1768 – CH, UP: Boev (2017b); Mlynarski (1982); Szyndlar (1991a).

66. *Dolichophis caspius* (Gmelin, 1789) - CH, UP, ME: Boev and Popgeorgiev (2021); Boev (2017b); Szyndlar (1991).

67. *Elaphe quatuorlineata* (Lacépède, 1789) – CH: Szyndlar (1991a); Boev (2017b).

68. Natricinae gen. indet. – GE, UP, ME: Mlynarski (1982); Boev (2016b); Boev and Popgeorgiev (2021).

69. *Natrix* Laurenti, 1768 sp. – CH, ME: Mitev, 2005, 2016b); Szyndlar (1991b).

70. *Natrix natrix* (Linnaeus, 1758) – UP: Mlynarski (1982); Szyndlar (1991b).

71. *Platyceps collaris* (Müller, 1878) – CH, UP: Smid *et al.* (2021).

72. *Telescopus* Wagler, 1830 sp. – CH: Szyndlar (1991a); Boev (2017b).

73. *Zamenis longissimus* (Laurenti, 1768) – CH: Szyndlar (1991a); Boev (2017b).

74. *Zamenis situla* (Linnaeus, 1758) – CH: Szyndlar (1991a); Boev (2017b).

#### **Viperidae Opperl, 1811**

75. *Vipera* cf. *ammodytes* (Linnaeus, 1758) – UP, ME: Boev and Popgeorgiev (2021); Szyndlar (1991b).

76. *Vipera* Laurenti, 1768 sp. – (Boev, 2017b).

77. Viperidae gen. indet. – GE, ME: Boev (2016b); Mitev (2005, 2016a).

#### **Boidae Gray, 1825**

78. *Eryx* Daudin, 1803 sp. – GE: Boev (2017b).

79. Erycinae gen. indet. – GE: Boev (2016b).

#### **Elapidae F. Boie, 1827**

80. Elapidae F. Boie, 1827 gen. indet. – GE: Nikolay Tzankov (unpublished data); Boev (2017b).

#### **Testudines Linnaeus, 1758**

#### **Testudinidae Batsch, 1788**

81. *Testudo graeca* Linnaeus, 1758 – UP, NO, ME: Beech, 1993, 1997; 2007); Boev (2018c, 2022b); Popov (1904); Spassov and Iliev (1994).

82. *Testudo graeca/hermanni* – CA, UP, GR, NO, ME: Boev (2017b, 2021d, 2022b); Iliev *et al.* (1992); Mitev and Boev (2006); Ribarov (1982).

83. *Testudo hermanni* Gmelin, 1789 – ME: Boev (2020d).

84. *Testudo* Linnaeus, 1758 sp. – GE, CH, GR, NO, ME: Bacvarov *et al.* (2019); Boev (2016b, 2017b); Dzambazov (1957); Ivanova *et al.* (2011); Ninov (2014); Petrunova *et al.* (2019); Ribarov (1991c, 1994, and unpublished data); Schramm (1975, 1979); Spassov and Iliev (2007); Vagaslinski (2017b).

#### **Emydidae Rafinesque, 1815**

85. *Emys* Duméril, 1805 sp. – GE: Boev (2016b); Ribarov (1991a) (reported *ad Emys/Clemys*).

86. *Emys orbicularis* (Linnaeus, 1758) – NO, ME: Boev (1999a, 2018c); Iliev *et al.* (1993); Spassov and Iliev (1994).

**Class Aves Linnaeus, 1758**

**Subclass Ornithurae Haeckel, 1866**

**Infraclass Carinatae Merrem, 1813**

**Gaviiformes Wetmore, W. D. Miller, 1926**

**Gaviidae Wetmore, 1940**

87. *Gavia arctica* (Linnaeus, 1758) – NO, ME: Boev (1995a, 1996a, b, 2006a); Manhart (1998).

88. *Gavia arctica/ stellata* – NO: Boev and Ribarov (1990).

89. *Gavia* Forster, 1788 sp. – ME: Mitev (2016c).

90. *Gavia immer* (Brunnich, 1764) – NO: Boev (2006a).

91. *Gavia stellata* (Pontoppidan, 1763) – NO: Boev (1996a, b, 2006a); Boev and Ribarov (1990).

**Podicipediformes (Furbringer, 1888)**

**Podicipedidae Bonaparte, 1831**

92. *Podiceps cristatus* (Linnaeus, 1758) – UP, NO, ME: Boev and Beech (2007); Boev (1995a, 1996b, 2001d, 2006b); Boev and Ribarov (1990); Manhart (1998).

93. *Podiceps grisegena* (Boddaert, 1783) – UP, NO: Boev (1996b, 2001d); Boev and Ribarov (1990); Manhart (1998).

94. *Podiceps nigricollis* C. L. Brehm, 1831 – GR, NO: Boev (1996b); Boev and Ribarov (1990).

95. *Tachybaptus ruficollis* (Pallas, 1764) – UP, ME: Boev (1999a, 2019d); Mitev (2016c).

**Pelecaniformes Sharpe, 1891**

**Pelecanidae Vigors, 1825**

96. *Pelecanus crispus* Bruch, 1832 – ME: Ivanov (1965); Manhart (1998).

97. *Pelecanus* Linnaeus, 1758 sp. – GR, ME: Boev (1991, 1993); Boev and Beech (2006b, 2007).

98. *Pelecanus onocrotalus* Linnaeus, 1758 – GR, NO, ME: Bartosiewicz and Choyke (1991); Boev (1996b, 2006b, 2016a); Boev and Ribarov (1990); Manhart (1998); Schramm (1975).

**Threskiornithidae (Richmond, 1917)**

99. *Geronticus balcanicus* Boev, 1998 – CA: Boev (1998a, 2000a, 2011a); Boev and Spassov (in press).

**Ardeidae Leach, 1820**

100. *Ardea cinerea* Linnaeus, 1758 – GR, NO, ME: Boev (1995a, 1996b, 2020d, in press); Mitev (2006).

101. *Ardea purpurea* Linnaeus, 1766 - NO, ME: Mitev and Boev (2006).

102. Botaurinae gen. – CA: Boev (1999a)

103. *Egretta garzetta* (Linnaeus, 1766) – GR: Mitev (2006).

104. *Ixobrychus minutus* (Linnaeus, 1766) – GR: Mitev (2006); Mitev and Boev (2006).

105. *Nycticorax nycticorax* (Linnaeus, 1758) – ME: Boev (1999a); Mitev (2016c).

**Suliformes Sharpe, 1891**

**Phalacrocoracidae Reichenbach, 1850**

106. *Phalacrocorax aristotelis* (Linnaeus, 1761) – GR, NO: Boev (1996b, 2006, 2014); Boev and Ribarov (1990); Manhart (1998).

107. *Phalacrocorax carbo* (Linnaeus, 1758) – GR, NO, ME: Bartosiewicz and Choyke (1991); Boev and Beech (2007); Boev (1991, 1995a, 1996b, 2006b); Boev and Ribarov (1990); Manhart (1998).

108. *Phalacrocorax carbo/ aristotelis* – NO: Boev and Ribarov (1990).

**Anseriformes Wagler, 1831**

**Anatidae Vigors, 1825**

109. *Anas acuta* Linnaeus, 1758 – UP, ME: Manhart (1998).

110. *Anas crecca* Linnaeus, 1758 – UP, GR, NO, ME: Boev (1991, 1996a, b, 2001a, d, 2016a, 2019d).

111. *Anas* Linnaeus, 1758 sp. – ME: Boev (1991, 2001d); Boev and Beech (2007).

112. *Anas penelope* Linnaeus, 1758 – UP, NO, ME: Boev and Beech (2007); Boev and Iliev (1991); Boev (2001d, 2006b, 2018b); Manhart (1998); Mitev (2016c).
113. *Anas platyrhynchos domesticus* Linnaeus, 1758 – GR, ME: Boev (2006b, 2016a); Boev and Stallibrass (2020); Ivanov (1959b); Manhart (1998); Mitev (2006); Vasilev (1979).
114. *Anas platyrhynchos* Linnaeus, 1758 – UP, GR, NO, ME: Bochenski (1982); Boev and Beech (2007); Boev and Iliev (1991); Boev and Ribarov (1990, 1993); Boev and Stallibrass (2020); Boev (1991, 1993, 1995a, 1996a, b, 2001d, 2004, 2016a, 2019d, 2020c, d, in press); Cholakov and Raycheva (2017); Iliev *et al.* (1992, 1993); Ivanov and Vasilev (1975); Kovachev (1988); Manhart (1998); Vasilev (1983).
115. *Anas spatula* Linnaeus, 1758 – UP, NO, ME: Boev and Beech (2007); Boev and Ribarov (1993); Boev (1991, 1995a, 2006b); Mitev (2006).
116. *Anas strepera* Linnaeus, 1758 – UP, NO, ME: Boev (2006b); Boev and Ribarov (1993).
117. Anatinae gen. – GE: Boev (2016).
118. *Anser albifrons* (Scopoli, 1769) – GR, ME: Boev (1996a, b, 2006a, b, 2013, 2018); Boev and Beech (2007); Boev and Ribarov (1990); Karastoyanova (2011).
119. *Anser anser* (Linnaeus, 1758) – GR, NO, ME: Boev and Stallibrass (2020); Boev (1991, 1996a, b, 2004, 2006b, 2016c, 2017e, 2018a, b, c, 2022c, in press); Boev and Ribarov (1990); Cholakov and Raycheva (2017); Ivanov and Vasilev (1975); Manhart (1998); Ribarov and Boev (1990); Vasilev (1983); Velkov *et al.* (1986); Vagalinski (2017); Waluszewska-Bubien and Krupska (1983).
120. *Anser anser domestica* Linnaeus, 1758 – ME: Boev and Iliev (1991); Boev and Ribarov (1993); Boev and Stallibrass (2020); Boev (2004, 2006b, 2016a, 2017c, 2019e, 2020d, 2022c); Ivanov (1959b); Manhart (1998); Mitev (2006); Vasilev (1979).
121. *Anser erythropus* (Linnaeus, 1758) – UP, GR, NO, ME: Boev (1996a, b, 2001d, 2006a, 2009a, b, 2017e, 2018b, 2020d, 2022b, c, in press); Boev and Iliev (1991); Boev and Ribarov (1990); Mitev (2006).
122. *Anser fabalis* (Latham, 1787) – ME: Boev and Beech (2007); Boev and Iliev (1991); Boev (1991, 2006a, b, 2022b).
123. *Anser* Linnaeus, 1758 sp. – UP, GR, NO, ME: Boev and Beech (2007); Boev (1991, 1993, 2000b, 2001d, 2009b, c, 2013); Kovachev (1988); Ribarov (1991b).
124. *Aythya F. Boie*, 1822 sp. – ME: Boev (2006b); Boev and Ribarov (1990).
125. *Aythya ferina* (Linnaeus, 1758) – UP, GR, NO, ME: Boev (1991, 1996a, b, 2006b); Boev and Beech (2007); Boev and Ribarov (1990); Schramm (1975).
126. *Aythya fuligula* (Linnaeus, 1758) – UP, GR, ME: Manhart (1998).
127. *Aythya nyroca* (Guldenstadt, 1770) – UP, GR, NO: Boev (1995a, 1996a, b, 2006); Boev and Ribarov (1990); Mitev (2006).
128. *Branta ruficollis* (Pallas, 1769) – UP: Boev (1998b, 2001d, 2006c, 2009c); Manhart (1998).
129. *Bucephala clangula* (Linnaeus, 1758) - UP: Boev (2001d, 2006a); Manhart (1998).
130. *Cygnus cygnus* (Linnaeus, 1758) – NO, ME: Boev and Ribarov (1990); Manhart (1998); Schramm (1975); Vasilev (1983).
131. *Cygnus* Garsault, 1764 sp. – GR: Boev (1993); Ivanov and Vasilev (1975); Kovachev and Minkov (1986); Kovachev (1988).
132. *Cygnus olor* (Gmelin, 1789) – GR, NO, ME: Bartosiewicz and Choyke (1991); Boev and Beech (2007); Boev (1991, 1993, 1996b, 2006a, b, 2009a, c, d, 2018c, 2022c); Boev and Ribarov (1990, 1991c); Karastoyanova (2011); Manhart (1998).
133. *Melanita nigra* (Linnaeus, 1758) – UP: Boev (2001d, 2006a).
134. *Mergus albellus* (Linnaeus, 1758) – ME: Manhart (1998).
135. *Mergus merganser* Linnaeus, 1758 – ME: Manhart (1998).
136. *Netta rufina* (Pallas, 1773) – UP: Boev (1999a, 2001d).
137. *Oxyura leucocephala* (Scopoli, 1769) – UP, GR: Boev (2006).
138. *Spatula clypeata* (Linnaeus, 1758) – UP, ME: Manhart (1998); Boev (2001d) (reported as *Anas clypeata*).
139. *Tadorna ferruginea* (Pallas, 1764) – GR, ME: Boev (1996a, b).
140. *Tadorna tadorna* (Linnaeus, 1758) – GR, NO, ME: Boev and Beech (2007); Boev and Iliev (1991); Boev (1996a, b, 2006b, 2016a); Mitev (2006).

## **Ciconiiformes (Bonaparte, 1854)**

### **Ciconiidae Gray, 1840**

141. *Ciconia* Brisson, 1760 sp. – ME: Boev (2009b); Boev and Ribarov (1993).
142. *Ciconia ciconia* (Linnaeus, 1758) – GR, NO, ME: Bartosiewicz and Choyke (1991); Boev and Stallibrass (2020); Boev (1996b, 2006b, 2009b, 2016a); Manhart (1998); Spassov *et al.* (2001).
143. *Ciconia nigra* (Linnaeus, 1758) – ME: Manhart (1998).

### **Accipitriformes Vieillot, 1816**

#### **Accipitridae (Vieillot, 1816)**

144. *Accipiter* Brisson, 1760 sp. – GE: Boev (2001d, 2016).
145. *Accipiter gentilis* (Linnaeus, 1758) – GR, NO, ME: Boev and Beech (2007); Boev (1991, 1996b, c, 2006b, 2016a, c, in press); Manhart (1998); Mitev (2006); Schramm (1975).
146. *Accipiter nisus* (Linnaeus, 1758) – UP, NO, ME: Boev and Beech (2007); Boev (1991, 1996b, c, 1999a, 2006b, 2001d).
147. *Accipitridae* gen. – GE: Boev (2016).
148. *Aegypius monachus* (Linnaeus, 1766) – CA, UP, ME: Boev (1994, 2016a).
149. *Aquila chrysaetos* (Linnaeus, 1758) – CA, UP, GR, NO, ME: Bochenski (1982); Boev (1993, 1994, 1996b, c, 2001d, 2004, 2016a, 2017c, e, d; in press); Manhart (1998); Ribarov and Boev (1997).
150. *Aquila chrysaetos/heliaca* – GR: Mitev (2006).
151. *Aquila heliaca* Savigni, 1809 – NO, ME: Boev (1996b, c, 2016a); Manhart (1998).
152. *Aquila kurochkini* Boev, 2013b – GE: Boev (2013, 2016) (Fig. 1a).
153. *Aquila* Linnaeus, 1758 sp. – ME (Boev, 2018d).
154. *Buteo buteo* (Linnaeus, 1758) – ME: Boev and Beech (2007); Boev and Ribarov (1993); Boev and Stallibrass (2020); Boev (2020b); Manhart (1998); Mitev (2006).
155. *Buteo* Lacépède, 1799 sp. – GE: Boev (2016).
156. *Buteo lagopus* (Pontoppidan, 1763) – UP: Boev (2006a, 2009a).
157. cf. *Hieraetus* Kaup, 1844 sp. – CA: Boev (1999a).
158. *Circaetus gallicus* (Gmelin, 1788) – ME: Boev and Iliev (1991); Boev (2006b); Manhart (1998).
159. *Circaetus haemusensis* Boev, 2015 – GE: Boev (2015a, 2016) (Fig. 1b).
160. *Circus aeruginosus* (Linnaeus, 1758) – UP, GR: Bochenski (1982); Boev (2009d).
161. *Circus cyaneus* (Linnaeus, 1766) – UP, GR, ME: Mitev and Boev (2006a, 2009d); Mitev (2016c).
162. *Circus* Lacepede, 1799 sp. – ME: Manhart (1998).
163. *Clanga clanga* Pallas, 1811 – ME: Boev (1996b, c).
164. *Clanga pomarina* Brehm, 1831 – CA, UP, ME: Boev (1994, 2001d, 2004, 2016a); Manhart (1998).
165. *Gypaetinae* Bonaparte, 1831 gen. – CH: Boev (1999a).
166. *Gypaetus barbatus* (Linnaeus, 1758) – GR, NO, ME: Boev and Beech (2007); Boev (1991, 1993, 1996b, c, 2006b, 2009d); Ninov (1991).
167. *Gyps bochenskii* Boev, 2010 – GE: Boev (2010, 2011a, 2016) (Fig. 1c).
168. *Gyps fulvus* (Hablizl, 1783) – NO, ME: Boev and Iliev (1991); Boev and Ribarov (1993); Boev (1996b, c, 2006b, 2016a, 2017c, e, 2018b, 2020d); Iliev *et al.* (1993).
169. *Haliaeetus albicilla* (Linnaeus, 1758) – NO, ME: Bartosiewicz and Choyke (1991); Manhart (1998).
170. *Hieraetus fasciatus* (Vieillot, 1822) – NO, ME: Boev (1996b, c); Boev and Iliev (1991).
171. *Milvus* Lacépède, 1799 sp. – ME: Manhart (1998).
172. *Milvus migrans* (Boddaert, 1783) – GR: Mitev (2006).
173. *Milvus milvus* (Linnaeus, 1758) – ME: Boev (1999a, 2006b).
174. *Pernis apivorus* (Linnaeus, 1758) – GR: Boev (1996b, c).

### **Falconiformes (Sharpe, 1874)**

#### **Falconidae Vigors, 1824**

175. *Falco bakalovi* Boev, 1999 – CA: Boev (1999c, 2011a, b) (Fig. 1d).

176. *Falco cherrug* Gray, 1834 – CA, CH, GR, NO, ME: Boev (1996b, c, 2001d, 2006b, d, 2016a); Boev and Ribarov (1993); Mitev (2006, 2016a).
177. *Falco* Linnaeus, 1758 sp. – CA, UP: Boev (1999a).
178. *Falco peregrinus* Tunstall, 1771 – ME: Boev (2006b, 2016c).
179. *Falco subbuteo* Linnaeus, 1758 – CA, UP, GR, ME: Boev (1994, 2001b, d); Manhart (1998); Mitev (2006).
180. *Falco tinnunculus* (Linnaeus, 1758) – CA, UP, GR, ME: Boev (1994, 1996b, c, 1999a, 2001a, b, d, 2006b, 2019d); Boev and Beech (2007); Mitev (2006).
181. *Falco vespertinus* (Linnaeus, 1766) – CA, UP, GR: Boev and Beech (2007); Boev (1994, 2001a); Mitev (2006).

## **Galliformes Temminck, 1820**

### **Meleagrididae (G. R. Gray, 1840)**

182. *Meleagris gallopavo* Linnaeus, 1758 – ME: Boev (1996b); Ivanov (1959b).

### **Phasianidae Vigors, 1825**

183. *Alectoris graeca* (Meisner, 1804) – CA, CH, UP, NO, ME: Bochenski (1982); Boev and Beech (2007); Boev (1991, 1994, 1996a, b, 2001d, 2006b, d).
184. *Alectoris graeca/chukar* (J. E. Gray, 1830) – UP: Boev (2001a, d).
185. *Alectoris* Kaup, 1829 sp. – CH, GR, NO, ME: Boev (1999a, 2001d); Mitev (2006).
186. *Bonasa bonasia* (Linnaeus, 1758) – UP, GR: Boev (2000b, 2001a, d, 2002, 2006a, 2019d); Mitev (2006).
187. *Chauvireria balcanica* Boev, 1997 – GE: Boev (1997c) (Fig. 2a).
188. *Chauvireria bulgarica* Boev, 2020 – CA: Boev (2020e).
189. *Coturnix coturnix* (Linnaeus, 1758) – CA, CH, UP, GR, NO, ME: Boev (1991, 1994, 1996a, b, 1999a, 2000b, 2001a, b, d, 2006d, f, 2018c, 2019d); Mitev (2006); Boev and Beech (2007).
190. *Gallus* Brisson, 1760/*Phasianus* Linnaeus, 1758 – ME: Boev (1991, 2006b, 2016a).
191. *Gallus gallus* (Linnaeus, 1758) – NO, ME: Angelov and Doncheva-Petkova (1988); Boev and Beech (2007); Boev and Ribarov (1993); Boev and Iliev (1991); Boev and Stallibrass (2020); Boev (1991, 1996b, 1997e, 2001b, c, 2004, 2006f, 2009c, d, 2012a, 2014a, 2016a, c, 2017c, e, 2018b, 2019e, f, 2020d, 2021d, 2022b, c); Cholakov and Raycheva (2018); Iliev *et al.* (1992, 1993); Ivanov (1959b); Manhart (1998); Ninov (2012b, c, 2013); Ribarov (1982, 1991b); Ribarov and Boev (1990); Schramm (1975); Vagalinski (2017); Vagalinski *et al.* (2012); Vasilev (1979); Vasilev and Dishev (1986); Velkov *et al.* (1986); Waluszewska-Bubien and Krupska (1983).
192. *Lagopus balcanicus* Boev, 1995 – GE: Boev (1995b, 2002, 2011a) (Fig. 2b).
193. *Lagopus lagopus* (Linnaeus, 1758) – UP: Boev (2001a, b, d, 2002, 2006a).
194. *Lagopus lagopus/mutua* – UP: Boev (2001a).
195. *Lagopus mutua* (Montin, 1776) – UP: Bochenski (1982); Boev (2001d, 2002, 2006a).
196. *Lyrurus tetrrix* Linnaeus, 1758 – GE, CA, UP, GR, NO, ME: Boev (1993, 1996a, b, 1997b, 1999a, b, 2000b, 2001a, b, d (reported as *Tetrao tetrrix*), 2006a, 2009d, 2015b, 2019d, 2022b); Mitev and Boev (2006); Mitev (2016a).
197. *Pavo cristatus* (Linnaeus, 1758) – ME: Boev (1996b, 2006b); Boev and Beech (2007).
198. *Perdix paleoperdix* Mourer-Chauviré, 1975 – UP: Boev (1999a, 2000b, 2001b, 2006).
199. *Perdix perdix* (Linnaeus, 1758) – CA, CH, UP, GR, NO, ME: Bochenski (1982); Boev and Beech (2007); Boev (1991, 1993, 1994, 1996a, b, 1997d, e, 1999a, 2000b, 2001c, d, 2006b, 2012a, 2018c, 2019d); Iliev *et al.* (1992); Mitev (2006); Waluszewska-Bubien and Krupska (1983).
200. *Perdix perdix/palaeoperdix* – UP: Boev (2001a).
201. *Phasianus colchicus* Linnaeus, 1758 – UP, GR, NO, ME: Boev and Beech (2007); Boev and Ribarov (1993); Boev (1991, 1997d, 1999a, 2001b, 2004, 2006b, 2012a, 2016a, 2019d, 2022b, c); Boev *et al.* (2007); Iliev *et al.* (1993); Kovachev (1988); Mitev and Boev (2006); Ribarov (1986); Spassov *et al.* (2001).
202. *Tetrao partium* (Kretzoi, 1962) – GE: Boev (1999a, b, 2002, 2011a) (Fig. 2c).
203. *Tetrao urogallus* Linnaeus, 1758 – CH, UP, GR, NO, ME: Boev (1993, 1996d, b, 2001a, c, d, 2002, 2006d, 2016); Ivanov and Vasilev (1979); Kovachev (1988); Plachyński *et al.* (2018); Spassov *et al.* (2001); Vasilev (1983).

## **Gruiformes Coues, 1884**

### **Rallidae Reichenbach, 1882**

204. *Crex crex* (Linnaeus, 1758) – UP, GR, NO, ME: Boev and Ribarov (1993); Boev (1997d, 1999a, 2000b, 2001a, c, d, 2018c); Mitev and Boev (2006); Mitev (2006).
205. *Fulica atra* Linnaeus, 1758 – GR, NO, UP, ME: Boev (1995a, 1996a, b, 1997d, 2009c, 2019d); Boev and Ribarov (1990); Manhart (1998); Mitev (2006).
206. *Fulica atra pontica* Boev and Karaivanova 1998 – NO: Boev and Karaivanova (1998); Boev (2009b).
207. *Gallinula balcanica* Boev, 1999c – GE: Boev (1999d, 2011a) (Fig. 2d).
208. *Gallinula chloropus* (Linnaeus, 1758) – UP, GR, NO, ME: Bochenski (1982); Boev (1996a, b, 1997d, 1999a, 2001a, d, 2018c); Mitev (2006).
209. *Porzana botunensis* Boev, 2015b – GE: Boev (2015c) (Fig. 2e).
210. *Porzana porzana* (Linnaeus, 1766) – UP, GR: Bochenski (1982); Boev (1997d); Mitev and Boev (2006); Mitev (2006).
211. *Rallus aquaticus* Linnaeus, 1758 – UP, GR, NO, ME: Bochenski (1982); Boev (1996a, b, 1997d, 1999a, 2018c); Mitev (2006, 2016a, d).
212. *Zapornia parva* (Scopoli, 1769) – UP: Boev (1997d, 1999a, 2001a, d – reported as *Porzana parva*).
213. *Zapornia parva/pusilla* – UP: Boev (1999a, 2001d – reported as *Porzana parva/pusilla*).
214. *Zapornia pusilla* (Pallas, 1776) – UP, GR, ME: Boev (1996a, b, 1997d, 1999a, 2018c); Mitev (2006, 2016c, reported as *Porzana pusilla*).

### **Gruidae Vigors, 1825**

215. *Grus grus* (Linnaeus, 1758) – GR, NO, ME: Bartosiewicz and Choyke (1991); Boev and Ribarov (1993); Boev and Stallibrass (2020); Boev (1993, 1996a, b, 1997d, 2006b, 2009a, 2019e, 2020d, 2022c); Manhart (1998); Ribarov and Boev (1990).

## **Otidiformes Wagler, 1830**

### **Otididae Gray, 1845**

216. *Otis* aff. *khosatzkii* Bochenski, Kurochkin, 1987 – GE: Boev (1999a) (Fig. 2f).
217. *Otis* Linnaeus, 1758/*Tetrax* T. Forster, 1817 – UP: Boev (2001d)
218. *Otis tarda* Linnaeus, 1758 – GR, NO, ME: Boev and Beech (2007); Boev and Ribarov (1993); Boev (1991, 1993, 1996a, b, 1997d, 1999e, 2004, 2006b, 2009a, 2013, 2016c, 2017e, b, 2020d, c, in press); Karastoyanova (2011); Manhart (1998); Mitev and Boev (2006); Mitev (2016d); Ribarov and Boev (1990).
219. *Tetrax tetrax* (Linnaeus, 1758) – GR, NO, ME: Boev (1996a, b, 1997b, d, 1999e, 2006b, 2009a, 2013, 2016a, 2018b); Boev and Beech (2007); Karastoyanova (2011); Mitev (2006).
220. *Otis tarda/Tetrax tetrax* – UP: Boev (2019d).

## **Charadriiformes Huxley, 1867**

### **Haematopodidae Bonaparte, 1854**

221. *Himantopus himantopus* (Linnaeus, 1758) – UP: Boev (Boev 1999a).

### **Recurvirostridae Bonaparte, 1854**

222. *Recurvirostra avosetta* Linnaeus, 1758 – UP, ME: Boev (1996a, b, 1999a).

### **Charadriidae Vigors, 1825**

223. cf. *Charadrius* Linnaeus, 1758 sp. – UP: Boev (1999a, 2001d).
224. *Pluvialis squatarola* (Linnaeus, 1758) – UP, GR, ME: Boev (1999a); Mitev (2006, 2016c).
225. *Vanellus vanellus* (Linnaeus, 1758) – UP: Boev (1999a, 2001d).

## **Glareolidae C. L. Brehm, 1831**

226. *Glareola nordmanni* Fischer von Waldheim, 1842 – UP: Boev (2019d).

### **Scolopacidae Vigors, 1825**

227. *Actitis balcanica* Boev, 1998 – GE: Boev (1998c, 2011a) (Fig. 3a).
228. *Actitis hypoleucos* (Linnaeus, 1758) – UP: Boev (1999a, 2001d).
229. *Calidris alba* (Pallas, 1764) – UP: Boev (1999a, 2001d).
230. *Gallinago gallinago* (Linnaeus, 1758) – UP: Boev (1999a, 2001d).



231. *Gallinago media* (Latham, 1787) – UP, GR: Boev (1999a, 2001d); Mitev (2006).  
 232. *Limosa limosa* (Linnaeus, 1758) – UP, ME: Boev (1999a, 2001d); Mitev (2016c).  
 233. *Numenius cf. phaeopus* (Linnaeus, 1758) – UP: Boev (1999a).  
 234. *Numenius phaeopus/ taenuirostris* – UP, GR: Boev (1999a, 2001d, 2006a, 2019d); Mitev (2006).  
 235. *Philomachus pugnax* (Linnaeus, 1758) – UP: Boev (1999a).  
 236. *Scolopax rusticola* Linnaeus, 1758 – UP, GR: Boev (2001d, 2019d); Mitev (2006).  
 237. *Tringa glareola* Linnaeus, 1758 – UP: Boev (2001d, 2006a).  
 238. *Tringa* Linnaeus, 1758 sp. – UP: Boev (2001a, d).  
 239. *Tringa nebularia* (Gunnerus, 1767) – UP, NO: Boev (1996a, b, 2001d, 2006a).  
 240. *Tringa ochropus* (Linnaeus, 1758) – UP, GR: Boev (1999a, 2001d); Mitev (2006a).  
 241. *Tringa stagnatilis* (Bechstein, 1803) – UP, ME: Boev (2000b, 2001a, d); Mitev (2016c).  
 242. *Tringa totanus* Linnaeus, 1758 – UP: Boev (1999a).

#### **Burrhinidae Mathews, 1912**

243. *Burrhinus oedicnemus* (Linnaeus, 1758) – UP: Boev (2019d).

#### **Laridae Vigors, 1825**

244. *Chlidonias* (Linnaeus, 1758) sp. – UP: Boev (1999a, 2001d).  
 245. *Chlidonias hybrida* Pallas, 1811 – ME: Mitev (2016c).  
 246. *Chlidonias nigra* Linnaeus, 1758 – ME: Mitev (2016c).  
 247. *Chroicocephalus ridibundus* Linnaeus, 1766 (reported as *Larus ridibundus*.) – UP, ME: Boev (1999a, 2001d – reported as *Larus ridibundus*); Mitev (2016c – reported as *Larus ridibundus*).  
 248. *Gelochelidon nilotica* (Gmelin, 1789) – UP: Boev (1999a, 2001d).  
 249. *Larus argentatus* Pontoppidan, 1763 – ME: Manhart (1998).  
 250. *Larus cachinnans* Pallas, 1811- ME: Manhart (1998).  
 251. *Larus canus* Linnaeus, 1758 – UP, ME: Boev (1999a, 2001d); Mitev (2016c).  
 252. *Larus* Linnaeus, 1758 sp. – GR, NO, ME: Boev and Beech (2007); Boev (1991, 1996b, 2006b); Boev and Ribarov (1990); Mitev (2006).  
 253. *Sterna hirundo* Linnaeus, 1758 – UP, ME: Boev (1999a, 2001d).

#### **Pteroclidiformes (Berlioz, 1950)**

##### **Pteroclididae Bonaparte, 1831**

254. cf. Pteroclididae gen. – GR, ME: Boev (1999); Mitev (2006).

#### **Columbiformes (Latham, 1790)**

##### **Columbidae (Illiger, 1811)**

255. *Columba* Linnaeus, 1758 sp. – GE, ME: Boev (1999, 2001d, 2016).  
 256. *Columba livia domestica* Gmelin, 1789 – GR, NO, ME: Boev (2004, 2006b, 2016, 2022); Boev and Iliev (1991).  
 257. *Columba livia* Gmelin, 1789 – UP, GR, ME: Boev (1991, 1996a, b, 1997e, 1999a, 2001b, d, 2006b, 2016c); Boev and Beech (2007); Mitev (2006).  
 258. *Columba oenas* Linnaeus, 1758 – CA, UP, GR, ME: Boev and Beech (2007); Boev (1991, 1994, 1996a, b, 2001d, 2006b); Mitev (2006, 2016a); Waluszewska-Bubien and Krupska (1983).  
 259. *Columba oenas/C. livia* – UP, ME: Boev (2019d); Manhart (1998).  
 260. *Columba palumbus* Linnaeus, 1758 – UP, GR, NO, ME: Boev (1991, 1996a, b, 2009a, 2016, 2019d, 2022c, in press); Boev and Beech (2007); Mitev (2006, 2016a).  
 261. *Streptopelia* Bonaparte, 1855 sp. – GE, GR, ME: Boev (2006b, 2016).  
 262. *Streptopelia decaocto* (Frivaldszky, 1838) – ME: Boev (2019 d); Mitev (2006).  
 263. *Streptopelia turtur* (Linnaeus, 1758) – UP, GR, NO, ME: Boev (1991, 1996a, b, 1999a, 2001d, 2004, 2006b, 2019d); Boev and Beech (2007); Boev and Ribarov (1993); Mitev (2006, 2016a).

#### **Cuculiformes (Wagler, 1830)**

##### **Cuculidae Vigors, 1825**

264. *Cuculus canorus* Linnaeus, 1758 – CA: Boev (1999); Mitev (2001d, 2006, 2016a).

#### **Strigiformes (Wagler, 1830)**

## **Strigidae Vigors, 1825**

265. *Aegolius funereus* (Linnaeus, 1758) – UP, ME: Boev (2001d, 2006a).  
266. *Asio flammeus* (Pontoppidan, 1763) – UP, NO: Boev (1999a); Mitev (2006).  
267. *Asio otus* (Linnaeus, 1758) – UP, GR, NO, ME: Boev (1999a, 2000b); Mitev and Boev (2006); Mitev (2006).  
268. *Asio otus/flammeus* – UP: Boev (2001d).  
269. *Athene* F. Boie, 1822 sp. – GE: Boev (2002, 2007, 2016).  
270. *Athene noctua* (Scopoli, 1769) – UP, GR, NO, ME: Boev and Beech (2007); Boev (1991, 1996b, c, 2000b, 2001b, d, 2004, 2006b); Manhart (1998); Mitev (2006).  
271. *Bubo bubo* (Linnaeus, 1758) – CA, UP, GR, NO, ME: Bochenski (1982); Boev (1993, 1994, 1996b, c, 1997e, 2001b, d, 2006b); Mitev (2006).  
272. *Bubo scandiacus* (Linnaeus, 1758) – UP: Boev (1998d, 1999a, 2001d (reported as *Nyctea scandiaca*)).  
273. *Glaucidium passerinum* (Linnaeus, 1758) – UP: Boev (1999a, 2001d, 2006a).  
274. *Otus scops* (Linnaeus, 1758) – UP, GR, NO: Boev (1999a); Mitev and Boev (2006); Mitev (2006, 2016a).  
275. *Strix aluco* Linnaeus, 1758 – CA, UP, NO, ME: Boev and Beech (2007); Boev (1991, 1994, 1996b, c, 1999a, 2001d, 2006b, in press, c); Boev and Iliev (1991); Mitev (2006).  
276. *Strix nebulosa* Forster, 1772 – UP: Boev (1999a, 2001d); Boev and Mikkola (2022).

## **Caprimulgiformes (Ridgway, 1881)**

### **Caprimulgidae Vigors, 1825**

277. *Caprimulgus europaeus* Linnaeus, 1758 – ME: Boev (1991, 1996b, 2006b); Boev and Beech (2007).

## **Apodiformes Peters, 1940**

### **Apodidae (Hartert, 1897)**

278. *Apus apus* (Linnaeus, 1758) – CA, UP, GR, NO, ME: Boev (1994, 1996b, 1999a, 2001d); Mitev (2016c).  
279. *Apus baranensis* Janossy 1977 – GE: Boev (2000d, 2002, 2011a) (Fig. 3b).  
280. *Tachymarptis melba* (Linnaeus, 1758) – UP, GR, NO: Boev (1998e, 1999a, 2000b, 2001d); Mitev (2006) (in all cited sources reported as *Apus melba*).

## **Coraciiformes Forbes, 1884**

### **Alcedinidae Rafinesque, 1815**

281. *Alcedo atthis* (Linnaeus, 1758) – GR: Mitev (2016a).

### **Meropidae Vigors, 1825**

282. *Merops apiaster* (Linnaeus, 1758) – NO, ME: Boev (1996b); Mitev (2006).

### **Upupidae Leach, 1820**

283. *Upupa epops* Linnaeus, 1758 – ME: Mitev (2006, 2016c).

### **Coraciidae (Vigors, 1825)**

284. *Coracias garrulus* Linnaeus, 1758 – GR, NO: Boev (1999a); Mitev (2006).

## **Piciformes (Meyer, Wolf, 1810)**

### **Picidae Vigors, 1825**

285. *Dendrocopos major* (Linnaeus, 1758) – UP: Boev (1999a, 2001d).  
286. *Dendrocopos syriacus* (Hemprich and Ehrenberg, 1833) – GR: Mitev (2016a).  
287. *Dryobates minor* (Linnaeus, 1758) – CA, CH, UP, GR: Boev (1994, 2000c, 2001d) (in all cited sources reported as *Dendrocopus minor*).  
288. *Dryocopus martius* (Linnaeus, 1758) – GR: Mitev and Boev (2006).  
289. *Picus viridis* Linnaeus, 1758 – NO: Mitev (2006).

## **Passeriformes (Linnaeus, 1758)**

### **Corvidae Vigors, 1825**

290. *Coloeus monedula* (Linnaeus, 1758) – GE, CA, UP, GR, NO, ME: Bochenski (1982); Boev and Beech (2007); Boev (1991, 1994, 1999a, 2000b, 2001a, b, c, d, 2006b, 2002, 2007, 2012a, 2016a); Mitev (2006, 2016a) (in all cited sources reported as *Corvus monedula*).
291. *Corvus* cf. *praecorax* Deperet (1892) – CA: Boev (1999a).
292. *Corvus corax* Linnaeus, 1758 – UP, ME: Bochenski (1982); Boev (1999a, 2001d, 2004, 2006a).
293. *Corvus cornix* Linnaeus, 1758 – UP, NO, ME: Boev and Beech (2007); Boev and Iliev (1991); Boev and Stallibrass (2020); Boev (1993, 2001a, d (reported as *Corvus corone*), 2006b, 2009a, 2022c); Manhart (1998); Ribarov and Boev (1990); Waluszewska-Bubien and Krupska (1983).
294. *Corvus frugilegus* Linnaeus, 1758 – UP, GR, NO, ME: Boev (1991, 1996b, 1999a, 2001d, 2004, 2006b, 2017d); Mitev (2006, 2016a); Schramm (1975); Waluszewska-Bubien and Krupska (1983).
295. *Corvus* Linnaeus, 1758 sp. – GE, GR, ME: Manhart (1998); Boev (2001a, b, d, 2006b); Mitev (2016a).
296. *Garrulus glandarius* (Linnaeus, 1758) – UP, GR, ME: Boev (1991, 1996b, 1999a, 2001a, b, d, 2006b); Mitev (2006, 2016a).
297. *Nucifraga* Brisson, 1760 sp. – GE, ME: Boev (2002, 2007); Boev and Beech (2007).
298. *Nucifraga caryocatactes* (Linnaeus, 1758) – CA, UP, ME: Boev and Beech (2007); Boev (1991, 1994, 1996b, 1999a, 2001d, 2006b).
299. *Pica pica* (Linnaeus, 1758) – CA, UP, GR, NO, ME: Boev (1991, 1994, 1999a, b, 2001d, 2004, 2009d, 2015b); Boev and Beech (2007); Mitev (2006).
300. *Pica praepica* Boev, 2021 – GE: Boev (2021e) (Fig. 3c).
301. *Pyrrhocorax graculus* (Linnaeus, 1766) – GE, CA, CH, UP, GR, NO, ME: Bochenski (1982); Boev and Beech (2007); Boev (1991, 1994, 1996b, 1999a, 2000b, 2001a–d, 2006b, e, 2007); Mitev and Boev (2006); Mitev (2006, 2016a).
302. *Pyrrhocorax graculus/pyrrhocorax* – UP: Boev (2001a, b, d).
303. *Pyrrhocorax pyrrhocorax* (Linnaeus, 1758) – GE, UP, GR: Bochenski (1982); Boev (2000b, 2001a, b, d, 2002, 2006d, 2007, 2011a).

#### **Sturnidae Vigors, 1825**

304. *Sturnus* Linnaeus, 1758 sp. – GE: Boev (1994; 2002; 2007).
305. *Sturnus roseus* (Linnaeus, 1758) – ME: Boev (1999a); Mitev (2016c).
306. *Sturnus vulgaris* Linnaeus, 1758 – CA, UP, GR, NO, ME: Boev (1994, 1996b, c, 1999a, 2001b, c, d, 2006b, 2012a); Boev and Beech (2007); Mitev (2006).

#### **Passeridae (Illiger, 1811)**

307. *Passer* Brisson, 1760 sp. – UP: Boev (2001d).
308. *Passer domesticus* (Linnaeus, 1758) – GR, ME: Boev (1991, 2000c, 2001d, 2006b); Boev and Beech (2007).
309. *Passer montanus* (Linnaeus, 1758) – UP: Boev (1999a, 2001d).
310. *Petronia petronia* (Linnaeus, 1766) – UP: Boev (2000b, d).

#### **Fringillidae Vigors, 1825**

311. *Carduelis* Brisson, 1760 sp. – GE, CA, UP: Boev (2001b, d, 2002).
312. *Carduelis carduelis* (Linnaeus, 1758) – GE, UP: Boev (2000b, 2001d, 2007).
313. *Carduelis chloris* (Linnaeus, 1758) – UP, GR: Boev (1999, 2001d); Mitev (2016a).
314. *Coccothraustes balcanicus* Boev, 1998 – CA: Boev (1998f).
315. *Coccothraustes coccothraustes* (Linnaeus, 1758) – CA, UP, GR, NO: Boev (2000c, 2001d, 2006d); Mitev (2006, 2016a).
316. *Coccothraustes simeonovi* Boev, 1998 – GE: Boev (1998f, 2001a) (Fig. 3d).
317. *Fringilla coelebs* Linnaeus, 1758 – GE, CH, GR, NO, ME: Boev (1994, 1996b, 1999a, 2001a, d, 2006b, 2007); Boev and Beech (2007); Mitev (2016a).
318. *Fringilla coelebs/montifringilla* – GR: Mitev (2016a).
319. *Fringilla montifringilla* Linnaeus, 1758 – UP, GR: Boev (2000b, 2001d); Mitev (2016a).
320. *Fringilla* sp. – CA, ME: Boev (1999a, 2001d).

321. *Linaria cannabina* (Linnaeus, 1758) – CA, UP, GR, NO, ME: Boev (1996b, 1999a, b, 2000c, 2001a, d (reported as *Carduelis cannabina*.), 2006b, d (reported as *Acanthis cannabina*); Boev and Beech (2007); Mitev (2016a).
322. *Loxia curvirostra* Linnaeus, 1758 – UP: Bochenski (1982); Boev (1999a, 2000b, 2001a, d).
323. *Loxia patevi* Boev, 1999 – GE: Boev (1999f) (Fig. 3e).
324. *Pyrrhula* Brisson, 1760 sp. – GE, CA, UP, GR, ME: Boev (1994).
325. *Pyrrhula pyrrhula* (Linnaeus, 1758) – UP, GR: Boev (1997a, 1999a, 2000c, 2001a, b, d, 2012a).

#### **Alaudidae (Vigors, 1825)**

326. *Alauda arvensis* Linnaeus, 1758 – CA, CH, UP, GR: Bochenski (1982); Boev (1994, 1999, 2001d, 2006e, 2019d).
327. *Alauda xerarvensis* Boev, 2012 – GE: Boev (2012b) (Fig. 3f).
328. *Eremophila alpestris* (Linnaeus, 1758) – UP, NO: Boev (2001d, 2019d).
329. *Eremophila prealpestris* Boev, 2012 – GE: Boev (2007; 2012b) (Fig. 4a).
330. *Galerida bulgarica* Boev, 2012 – GE: Boev (2012b) (Fig. 4b).
331. *Lullula arborea* (Linnaeus, 1758) – CH, UP, NO: Bochenski (1982); Boev (1999a, 2001d, 2018).
332. *Lullula balcanica* Boev, 2012 – GE: Boev (2007; 2012b) (Fig. 4c).
333. *Melanocorypha donchevi* Boev, 2012 – GE, UP: Boev (2012b) (Fig. 4d).
334. *Melanocorypha* F. Boie, 1828 sp. – UP: Boev (2000b, 2001d, 2011a).

#### **Hirundinidae Vigors, 1825**

335. *Delichon urbicum* (Linnaeus, 1758) – CH, UP: Bochenski (1982); Boev (1999a, 2001d (reported as *Delichon urbica*).
336. *Hirundo daurica* Linnaeus, 1771 – UP, GR, ME: Boev (1996b, 2000c, 2001b, d, 2006b).
337. *Hirundo rustica* Linnaeus, 1758 – CH, UP, GR, ME: Boev (1999a, 2000c, 2001b, d).
338. *Ptyonoprogne rupestris* (Scopoli, 1769) – UP: Bochenski (1982); Boev (2000c, 2001a, d, 2006a).
339. *Riparia riparia* (Linnaeus, 1758) – CH, UP, GR, ME: Boev (2000c, 2001a, d); Mitev (2016c).

#### **Motacillidae Vigors, 1825**

340. *Anthus* Bechstein, 1805 sp. - GE, CA, UP, GR: Boev (1997; 2000b, 2001d, 2002; 2007).
341. *Anthus campestris* (Linnaeus, 1758) – UP: Bochenski (1982); Boev (2001d).
342. *Anthus pratensis* (Linnaeus, 1758) – GR: Mitev (2016a).
343. *Anthus trivialis* (Linnaeus, 1758) – UP: Boev (2000b, 2001a, d); Mitev (2016a).
344. *Motacilla alba* Linnaeus, 1758 – GR: Mitev (2016a).
345. *Motacilla flava* Linnaeus, 1758 – ME: Boev (1999a).
346. *Motacilla* Linnaeus, 1758 sp. – GE: Boev (1997a; 2002; 2007).

#### **Bombycillidae (Swainson, 1824)**

347. *Bombycilla garrulus* (Linnaeus, 1758) – UP: Boev (1999a, 2001d, 2006a).

#### **Cinclidae (Cabanis, 1847)**

348. *Cinclus cinclus* (Linnaeus, 1758) – CH, GR: Boev (2000c, 2001d).

#### **Prunellidae Richmond, 1908**

349. *Prunella modularis* (Linnaeus, 1758) – UP: Boev (1999a, 2001b, d).

#### **Aegithalidae Reichenbach, 1850**

350. *Aegithalus caudatus* Linnaeus, 1758 – ME: Mitev (2016c).

#### **Paridae Boie, 1826**

351. *Cyanistes caeruleus* (Linnaeus, 1758) - GR: Mitev (2016a).
352. *Parus* Linnaeus, 1758 sp. – GE: Boev (1999)
353. *Parus major* Linnaeus, 1758 – GE, UP, GR, ME: Boev (2000b, 2001d 2002, 2997); Mitev (2016a).

#### **Sittidae (Bonaparte, 1831)**

354. *Sitta europaea* Linnaeus, 1758 – UP, GR: Boev (1999a, 2001b, d); Mitev (2016a).
355. *Sitta* Linnaeus, 1758 sp. – GE: Boev (1999a).

### **Oriolidae (Vigors, 1825)**

356. *Oriolus oriolus* Linnaeus, 1758 – ME: Boev (1999a); Mitev (2016c).

### **Laniidae Swainson, 1824**

357. *Lanius collurio* Linnaeus, 1758 – CA, UP, GR, NO, ME: Boev (1994, 1999a, 2000c, 2001a, c, d, 2020); Mitev (2006, 2016a).

358. *Lanius excubitor* Linnaeus, 1758 – ME: Boev (2020).

359. *Lanius minor* Gmelin, 1788 – NO, ME: Boev (2020); Mitev (2006, 2016c).

### **Regulidae, Vigors, 1825**

360. *Regulus bulgaricus* Boev, 1999 – GE: Boev (1999g, 2011a, 2016) (Fig. 5a).

### **Muscicapidae Vigors, 1825**

361. cf. *Muscicapa* Brisson, 1760 sp. – GE: Boev (2002; 1997a).

362. *Erilhacus* Cuvier, 1800 sp. – GE, UP: Boev (1999a, 2001d, 2002; 2007).

363. *Erithacus rubecula* (Linnaeus, 1758) – UP, NO, ME: Boev (1999a, 2001b, d, 2006b).

364. *Ficedula* cf. *albicollis* (Temminck, 1815) – UP: Boev (2001d).

365. *Ficedula* cf. *semitorquata* Von Homeyer, 1885 – UP: Boev (1999a).

366. *Luscinia megarhynchos* C. L. Brehm, 1831 – CA, GR: Boev (1999a, 2001d); Mitev (2016a).

367. *Monticola saxatilis* (Linnaeus, 1766) – GR: Boev (1999a, 2000c, 2001a, d).

368. *Oenanthe oenanthe* (Linnaeus, 1758) – CA, UP: Boev (1994, 2001d, 2019d).

### **Sylviidae (Vigors, 1825)**

369. *Cettia cetti* (Temminck, 1820) – UP: Boev (1999a, 2001d).

370. cf. Sylviidae gen. – GE: Boev (2002; 1997a).

371. *Phylloscopus sibilatrix* (Bechstein, 1793) – CA, GR: Boev (2000c).

372. *Sylvia atricapilla* (Linnaeus, 1758) – CA, GR, ME: Boev (2000c, 2001d, 2006); Mitev (2016c).

373. *Sylvia communis* Latham, 1787 – UP: Boev (1999a, 2001d, 2006a).

374. *Sylvia Scopoli*, 1769 sp. – UP, GR: Boev (2000c, 2001d); Mitev (2016a).

### **Turdidae Bonaparte, 1838**

375. *Turdus iliacus* Linnaeus, 1758 – GE, CA, UP: Boev (1999a, 2001c, 2002, 2007, 2019d).

376. *Turdus* Linnaeus, 1758 sp. – GE, CA, UP, ME: Boev (1999a, 2001d, 2006b).

377. *Turdus merula* Linnaeus, 1758 – CA, CH, UP, GR, NO, ME: Boev (1994, 1996a, b, 1999a, 2000c, 2001a, b, c, d, 2002, 2006b, 2007); Mitev (2006, 2016a).

378. *Turdus philomelos* C. L. Brehm, 1831 – GE, CA, CH, UP, GR: Bochenski (1982); Boev (1999a, 2000c, d, 2002, 2007); Mitev (2016a).

379. *Turdus pilaris* Linnaeus, 1758 – UP, NO: Boev (1999); Mitev (2006).

380. *Turdus ruficollis* Pallas, 1776 – ME: Boev (1999a, 2006b).

381. *Turdus torquatus* Linnaeus, 1758 – UP, ME: Boev (1999a); Boev and Stallibrass (2020).

382. *Turdus viscivorus* Linnaeus, 1758 – CA, UP, GR: Boev (1994, 2001a, d); Mitev (2006).

383. *Turdus naumanni* Temminck, 1820 – ME: Milchev and Boev (2014).

### **Emberizidae Vigors, 1831**

384. *Emberiza citronella* Linnaeus, 1758 – NO: Mitev (2006).

385. *Emberiza* Linnaeus, 1758 sp. – GE, CA, UP: Boev (1997a, 2001d, 2002, 2007).

### **Class Mammalia Linnaeus, 1758**

#### **Eulipotyphla Waddell et al., 1999**

#### **Soricidae G. Fischer, 1814**

386. *Asoriculus gibberodon* (Petenyi, 1864) – GE, CA: Popov (2004b (reported as *Asoriculus kubinyii* (Kormos, 1934), 2018); Rzebik-Kowalska and Popov (2005).

387. *Beremendia fissidens* (Petenyi, 1864) – GE, CA: Popov (1990, 1994, 2004b, 2018); Rzebik-Kowalska and Popov (2005).

388. *Crociodura* cf. *zorzii* Pasa, 1942 – CH: Popov (2018).

389. *Crociodura leucodon* (Hermann, 1780) – CA, CH, UP, GR: Fernandez (2009); Horacek (1982); Mitev (2006, 2016a, b); Popov and Marinska (2007); Popov (1990, 2018); Popov et al. (1994).

390. *Crocidura suaveolens* (Pallas, 1811) – GR, NO: Mitev (2016a, b); Popov (1990, 2018); Popov *et al.* (1994).
391. *Crocidura* Wagler, 1832 sp. – CA: Popov (2018).
392. *Mafia csarnotensis* Reumer, 1984 – GE, CA: Popov (2004b, 2018); Rzebik-Kowalska and Popov (2005).
393. *Neomys anomalus* Cabrera, 1907 – UP, GR: Mitev (2016a); Popov (1990, 2018); Popov *et al.* (1994).
394. *Neomys fodiens* (Pennant, 1771) – CA, UP, GR: Fernandez (2009); Popov and Marinska (2007); Popov (2018).
395. *Neomys* Kaup, 1829 sp. – CA, UP: Popov (2018); Popov and Marinska (2007).
396. *Petenya hungarica* Kormos, 1934 – GE: Popov (2004b, 2018); Rzebik-Kowalska and Popov (2005).
397. *Sorex araneus* Linnaeus, 1758 – CA, CH, UP, GR: Fernandez (2009); Horacek (1982); Mitev (2016a); Popov and Marinska (2007); Popov (2018).
398. *Sorex* Linnaeus, 1758 sp. – UP: Popov and Marinska (2007).
399. *Sorex minutissimus* Zimmermann, 1780 – CA, CH, UP: Fernandez (2009); Popov and Marinska (2007); Popov (1990, 1994, 2004b, 2018).
400. *Sorex minutus* Linnaeus, 1766 – GE, CA, CH, UP: Fernandez (2009); Horacek (1982); Popov (1994, 2004b, 2018); Popov and Marinska (2007); Rzebik-Kowalska and Popov (2005).
401. *Sorex runtonensis* Hinton, 1911 – GE, CA, CH: Popov (1990, 1994, 2004b, 2018); Rzebik-Kowalska and Popov (2005).
402. *Sorex subaraneus* Heller, 1958 – CA, CH, UP: Fernandez (2009); Popov and Marinska (2007); Popov (2018).

#### **Erinaceomorpha Gregory, 1910**

##### **Erinaceidae Fischer von Waldheim, 1817**

403. *Erinaceus* cf. *lechei* Kormos, 1934 – GE, CA: Popov (2004a, 2018); Rzebik-Kowalska and Popov (2005).
404. *Erinaceus* Linnaeus, 1758 sp. – GE, CA, CH, UP: Popov (2004a; 2018); Popov and Marinska (2007).
405. *Erinaceus roumanicus* Barrett-Hamilton, 1900 – UP, NO, ME: Boev (2016a (reported as *Erinaceus concolor*), 2022b); Georgiev *et al.* (2014); Leshtakov *et al.* (2007); Popov (2018); Ribarov (unpublished data); Mitev (2016b (reported as *Erinaceus concolor*); Spassov and Iliev (2008).

##### **Talpidae Fischer von Waldheim, 1817**

406. *Desmana* cf. *polonica* Pashkov et Topachevskiy, 1990 – GE, CA: Popov (2004a, 2018); Rzebik-Kowalska and Popov (2005).
407. *Desmana* Gldenstdt, 1777 sp. – CA, UP: Popov (2018); Popov and Marinska (2007).
408. *Quyania polonica* (Skoczen, 1980) (recently considered as *Neurotrichus polonicus* Skocze, 1980 (Rzebik-Kowalska, B. 2014)) – GE: Popov (2004a); Rzebik-Kowalska and Popov (2005).
409. *Scalopoides* cf. *copernici* (Skocze, 1980) – GE, CA: Popov (2004a, 2018); Rzebik-Kowalska and Popov (2005).
410. *Talpa* cf. *csarnotana* Kretzoi, 1959 – GE: Popov (2004a).
411. *Talpa* cf. *levantis* Thomas, 1906 – CA: Popov (2004a, 2018); Rzebik-Kowalska and Popov (2005).
412. *Talpa europaea* Linnaeus, 1758 – CH, UP, GR, ME: Boev (2022B); Mitev (2006, 2016a, b); Popov (1990, 2018); Popov *et al.* (1994).
413. *Talpa* Linnaeus, 1758 sp. – CA, CH, UP: Popov (2004a, 2018); Popov and Marinska (2007).

#### **Lagomorpha Brandt, 1855**

##### **Leporidae Fischer, 1817**

414. *Hypolagus brachygnathus* (Kormos, 1930) – GE, CA, CH: Fernandez (2009); Popov and Marinska (2007); Popov (1994, 2018, and unpublished data).
415. *Lepus europaeus* Pallas, 1778 – CH, UP, GR, NO, ME: Beech (1997, 2007, 2016a, 2020); Mitev (2016b); Biernacki and Klenina (2022); Boev (1999a, 2016a, 2018b, 2019e, 2020d, 2022b); Chernakov and Gurova (2013); Chichikova and Dimitrov (2016); Dzhambazov (1957, 1981);

Georgiev *et al.* (2014); Gurova *et al.* (2018); Horacek (1982); Iliev *et al.* (1992); Ivanov (1959a, b, 1965); Ivanov and Vasilev (1979); Ivanova *et al.* (2013, 2021); Karastoyanova (2011, 2018); Karastoyanova and Chohadziev (2019); Klasnakov *et al.* (2010, 2011); Markov (1958); Ninov (1987, 1994a, b, 2012a, b, c, 2014, 2013b, 2016); Nobis (2002a, b); Petrunova *et al.* (2019); Popov (1931, 1936a – reported as *Lepus timidus*, 1938); Popov (2018); Ribarov and Boev (1990, 1997); Ribarov (1982, 1990, 1991b, 1992a, and unpublished data); Schramm (1975, 1979); Slavchev *et al.* (2018b); Spassov and Iliev (1986, 1994, 2007, 2008, and unpublished data); Spassov and Iliev (in press); Spassov *et al.* (2001); Stallibrass (2010); Vagalinski (2017); Vagalinski *et al.* (2012); Velkov *et al.* (1986); Yurinich (1891).

416. *Lepus europaeus/Oryctolagus cuniculus* – ME: Boev (2022b).

417. *Lepus* sp. Linnaeus, 1758 – CA, CH: Delpech and Guadelli (1991); Ivanova *et al.* (2011, 2016); Markov (1951); Popov and Marinska (2007); Popov (2018); Spassov (unpublished data).

418. *Lepus timidus* Linnaeus, 1758 – CH, UP: Markov (1951 (reported as *Lepus* sp. (?*Lepus timidus* L.)); Nikolov (1983); Popov (1908, 1909 (reported as *Lepus timidus* L. (*L. europeus* Pall.)).

419. *Oryctolagus cuniculus* (Linnaeus, 1758) – NO, ME: Boev (2016a); Nakamura (2005).

420. *Oryctolagus* Lilljeborg, 1873 – CA: Guadelli *et al.* (2013).

421. *Trischizolagus Radulesco & Samson*, 1967. sp. – GE: Popov (2004).

#### **Ochotonidae Thomas, 1897**

422. *Ochotona* cf. *transcaucasica* (Vekua, 1967) – GE: Popov (2018).

423. *Ochotona* Link, 1759 sp. – CA, CH, UP: Popov (1990, 1994, 2018).

424. *Ochotona polonica* Sych, 1980 – GE: Popov (2018).

425. *Ochotona pusilla* (Pallas, 1769) – CA, CH, UP, GR: Mitev and Boev (2006); Mitev (2016b); Popov (1990, 2018); Popov *et al.* (1994).

#### **Chiroptera Blumenbach, 1779**

##### **Rhinolophidae Gray, 1825**

426. *Rhinolophus* cf. *lissiensis* (Mein, 1964) – GE: Popov (2004, 2018).

427. *Rhinolophus* cf. *macrorhinus* Topál, 1967 – CA: Popov (2018).

428. *Rhinolophus* cf. *mehelyi* Matschie, 1901 – CA: Popov (2018).

429. *Rhinolophus ferrumequinum* (Schreber, 1774) – GE, CA, UP, GR: Mitev (2006); Popov (2004, 2018).

430. *Rhinolophus hipposideros* (Bechstein, 1880) – GR: Mitev (2016a).

##### **Vespertilionidae Gray, 1821**

431. *Barbastella barbastellus* (Schreber, 1774) – CH, UP: Horacek (1982); Popov (2018).

432. *Barbastella* cf. *darjeligensis* – UP, GR: Popov (2018).

433. *Eptesicus nilssoni* (Keyserling et Blasius, 1839) – CH, UP: Horacek (1982); Popov (2018).

434. *Eptesicus serotinus* (Schreber, 1774) – CA, UP, GR: Popov (2018); Mitev (2006, 2016a, b).

435. *Hypsugo savii* Bonaparte, 1837 – UP, GR: Popov (2018).

436. *Mniopterus schreibersii* (Kuhl, 1819) – GE, CA, CH, UP, GR: Horacek (1982); Popov (2004, 2018).

437. *Myotis bechsteinii* (Kuhl, 1817) – CH: Horacek (1982).

438. *Myotis blythii* Tomes, 1857 – GE, CH: Horacek (1982); Popov (2004, 2018).

439. *Myotis* cf. *exillis* Heller, 1936 – GE, CA: Popov (2004, 2018).

440. *Myotis* cf. *gundersheimensis* Heller, 1936 – GE: Popov (2004).

441. *Myotis* cf. *schaubi* Kormos, 1934 – GE: Popov (2004, 2018).

442. *Myotis dasycneme* (Boie, 1825) – CH, UP: Horacek (1982); Popov (2018); Popov and Lakaovski (2019).

443. *Myotis daubentoni* (Kuhl, 1817) – CH: Horacek (1982).

444. *Myotis daubentoni/brandti* – UP: Popov (2018).

445. *Myotis emarginatus* (E. Geoffroy Saint-Hilaire, 1806) – UP: Popov (2018)

446. *Myotis estramonensis* Topal, 1983 – GE: Popov (2004, 2018).

447. *Myotis* Kaup, 1829 sp. – GR, ME: Mitev (2016a, c).

448. *Myotis myotis* (Borkhausen, 1797) – NO: Popov (2018).

449. *Myotis mystacinus* (Kuhl, 1817) – UP: Popov (2018).

450. *Myotis nattereri* (Kuhl, 1817) – CH, UP, GR: Horacek (1982); Popov (2018).  
 451. *Nyctalus lasiopterus* (Schreber, 1780) – UP, GR: Popov (2018).  
 452. *Nyctalus leisleri* (Kuhl, 1817) – UP, GR: Popov (2018).  
 453. *Nyctalus noctula* (Schreber, 1774) – UP, GR: Mitev (2016a, b); Popov (2018).  
 454. *Pipistrellus cf. nathusii* (Keyserling & Blasius, 1839) – CH: Horacek (1982).  
 455. *Pipistrellus pipistrellus* (Schreber, 1774) – CH, UP, GR: Horacek (1982); Mitev (2016a); Popov (2018).  
 456. *Plecotus auritus* (Linnaeus, 1758) – CH, UP, GR: Horacek (1982); Popov (2018).  
 457. *Plecotus cf. austriacus* (J.B. Fischer, 1829) – CH, NO: Horacek (1982); Popov (2018).  
 458. *Plecotus cf. crassidens* Kormos, 1930 – GE: Popov (2004).  
 459. *Plecotus* sp. E. Geoffroy, 1818 – CA, GR: Mitev (2016a); Popov (2018).  
 460. *Vespertilio* Linnaeus, 1758 sp. – GE, CA: Popov (2004, 2018).  
 461. *Vespertilio murinus* Linnaeus, 1758 – CH, UP: Horacek (1982); Popov (2018).  
 462. Vespertilionidae gen. ind. – GR: Mitev (2016b) .

#### **Hystricidae Fischer de Waldheim, 1817**

463. *Hystrix refossa* Gervais, 1852 – CA, CH, UP: Fernandez (2009); Popov and Marinska (2007); Popov (2018).  
 464. *Hystrix* sp. Linnaeus, 1758 – GE, CA: Gurova *et al.* (2017); Sirakov (1984); Popov (2018).

#### **Rodentia Bowdich, 1821**

##### **Castoridae Hemprich, 1820**

465. *Castor fiber* Linnaeus, 1758 – CA, CH, UP, GR, NO, ME: Beech (1997, 2007); Boev and Spassov (2019); Boev (2014a; 2015b); Bonchev (1900); Delpech and Guadelli (1991); Dzhambazov (1981); Fernandez (2009); Ganetsovski (2012); Ivanov *et al.* (1987); Markov (1951); Ivanov and Vasilev (1979); Karastoyanova (2018); Nikolov (1983); Ninov (1987); Popov (1904, 1908a, b, 1920b, 1924, 1934b, 1936a); Popov (2018); Ribarov and Boev (1990, 1997); Ribarov (1986, 1991c, 1992a); Schramm (1979); Spassov and Iliev (2014, in press); Spassov (unpublished data); Spassov *et al.* (2001); Stoianov (1904 – reported as *Castor fiber cf. fossilis*).

##### **Cricetidae J. Fischer, 1817**

466. *Allocricetus bursae* Schaub, 1930 – CA, CH, UP: Fernandez (2009); Popov and Marinska (2007); Popov (1990 a, b, 1994, 2018).  
 467. *Allocricetus ehiki* Schaub, 1930 – CA, CH, UP: Fernandez (2009); Popov and Marinska (2007); Popov (1994, 2018).  
 468. *Allophaiomys* Kormos, 1932 – CA: Popov (1994).  
 469. *Allophaiomys pliocaenicus* (Kormos, 1932) – CA: Popov (unpublished data).  
 470. *Arvicola amphibius* (Linnaeus, 1758) – CA, CH, UP, GR, NO, ME: Dzhambazov (1981); Fernandez (2009); Mitev (2016a, b); Popov and Marinska (2007); Popov (1990, 2018); Popov *et al.* (1994).  
 471. *Arvicola cantianus* Hinton, 1910 – CA: Fernandez (2009); Popov and Marinska (2007); Popov (2018).  
 472. *Arvicola cf. chozaricus* Alexandrova, 1976 – CH: Popov (2018).  
 473. *Arvicola cf. kalmakensis* Zazhigin, 1980 – CH: Popov (2018).  
 474. *Arvicola* sp. Lacépède, 1799 – CH: Horacek (1982).  
 475. *Bjornkurtenia canterranensis* (Michaux, 1976) – CH: Popov (2018).  
 476. *Borsodia altisinuosa* Rabeder, 1981 – GE: Popov (2004) (reported as *Villanyia altisinuosa*).  
 477. *Borsodia arankoides* (Aleksandrova, 1976) – CA, CH: Fernandez (2009); Popov and Marinska (2007); Popov (1994, 2018).  
 478. *Borsodia fejervaryi* (Kormos, 1934) – CA, CH: Fernandez (2009); Popov and Marinska (2007).  
 479. *Borsodia hungarica* (Kormos, 1938) – CA, CH: Fernandez (2009); Popov and Marinska (2007); Popov (1994, 2018).  
 480. *Borsodia Jánossy & van der Meulen*, 1975 sp. – CA: Popov (1994).  
 481. *Borsodia petenyii* (Mehely, 1914) – GE: Popov (2004).  
 482. *Castillomys* Michaux 1969 sp. – GE: Popov (2004).



483. *Chionomys nivalis* (Martins, 1842) – CA, CH, UP, GR, NO, ME: Dzambazov (1981) (reported as *Microtus nivalis*); Fernandez (2009); Horacek (1982); Ivanova *et al.* (2011a, b); Gurova *et al.* (2018); Mitev (2006); Popov and Marinska (2007); Popov (1990, 2018); Popov *et al.* (1994).
484. *Clethrionomys glareolus* (Schreber, 1780) – CA, CH, UP, GR, NO, ME: Dzambazov (1981); Mitev (2016a); Popov (1990a, b, 2018); Popov *et al.* (1994).
485. *Clethrionomys primitivus* Popov, 2001 – GE: Popov (2004, 2018 – reported as *Myodes primitivus*).
486. *Clethrionomys Tilesius*, 1850 sp. – CA: Popov (2018) (reported as *Myodes*); Popov and Marinska (2007).
487. *Cricetus cricetus* (Linnaeus, 1758) – CA, CH, UP, GR, ME: Fernandez (2009); Mitev and Boev (2006); Mitev (2005); Popov and Marinska (2007); Popov (2018).
488. *Cricetus nanus* (Schaub, 1930) – CA: Popov (1990a, b, 1994, 2018).
489. *Cricetus runtonensis* (Newton, 1909) – CA: Popov (2004, 2018).
490. *Cricetus* sp. Leske, 1779 – CA: Popov (2018).
491. *Cseria opsia* Rabeder, 1981 – GE: Popov (2004, 2018).
492. *Eolagurus gromovi* Topatchevski, 1963 – CH: Popov (2018).
493. *Eolagurus luteus* Eversmann, 1840 – CA, CH, UP, GR: Fernandez (2009); Ivanova *et al.* (2021); Mitev and Boev (2006); Ivanova *et al.* (2011); Mitev (2016b); Popov and Marinska (2007); Popov (2018).
494. *Jordanomys major* Kuss & Storch 1978 – CA: Popov (1994).
495. *Kolymnomys major* (Kuss, Storch, 1978) – CA: Popov (2018).
496. *Lagurodon arankae* Kretzoi, 1954 – CA, CH: Fernandez (2009); Popov and Marinska (2007); Popov (1990a, b, 1994, 2018).
497. *Lagurodon* Kretzoi, 1956 sp. – CA, CH, UP: Popov (1994); Popov and Marinska (2007).
498. *Lagurodon praepannonicus* Topačevski, 1965 – GE, CA, CH: Fernandez (2009); Popov and Marinska (2007); Popov (1990a, b, 1994, 2018).
499. *Lagurus lagurus* (Pallas, 1773) – CA, CH, UP, GR: Fernandez (2009); Horacek (1982); Gurova *et al.* (2018); Mitev and Boev (2006); Mitev (2006, 2016b); Popov and Marinska (2007); Popov (1990, 2018); Popov *et al.* (1994).
500. *Lagurus pannonicus* (Kormos, 1930) – CA, UP: Fernandez (2009 – reported as *Lagurodon pannonicus* Kormos, 1930); Popov and Marinska (2007 – reported as *Lagurus (Prolagurus) pannonicus* Kormos 1930); Popov (2018).
501. *Lagurus transiens* Janossy, 1962 – CA, CH: Fernandez (2009); Popov and Marinska (2007); Popov (2018).
502. *Lagurus transylvanicus* Terzea, 1989 – CA, CH, UP: Fernandez (2009); Popov and Marinska (2007); Popov (2018 – reported as *Prolagurus transylvanicus*).
503. *Mesocricetus newtoni* (Nehring, 1898) – GE, CA, CH, UP, GR, NO, ME: Fernandez (2009); Horacek (1982); Ivanova *et al.* (2011, 2021); Mitev and Boev (2006); Mitev (2006, 2016a, b); Popov and Marinska (2007); Popov (1990, 2018); Popov (unpublished data); Popov *et al.* (1994).
504. *Microtus arvalidens* Kretzoi, 1958 – CA, CH: Fernandez (2009); Popov and Marinska (2007); Popov (2018).
505. *Microtus arvalinus* Hinton, 1923 – CA: Popov (2018).
506. *Microtus arvalis* (Pallas, 1778) – CA, CH, UP, GR: Dzambazov (1981); Horacek (1982); Mitev (2016b); Gurova *et al.* (2018).
507. *Microtus burgondiae* (Chaline, 1972) – CA: Popov (1990a, b, 1994, 2018).
508. *Microtus deucalion* (Kretzoi, 1969) – CA, CH: Fernandez (2009); Popov and Marinska (2007); Popov (1994, 2018).
509. *Microtus* ex gr. *arvalis/agrestis* – CA, CH, UP, GR: Fernandez (2009); Ivanova *et al.* (2011a, b); Gurova *et al.* (2018); Popov and Marinska (2007); Popov (2018); Popov *et al.* (1994).
510. *Microtus gregalis* (Pallas, 1779) – CH, UP: Popov (2018); Popov and Marinska (2007).
511. *Microtus gregaloides/gregalis* – CH: Popov (2018).
512. *Microtus hintoni* / *M. gregaloides* Hinton, 1923 – CA: Popov (2018).
513. *Microtus hintoni* Kretzoi, 1941 – CA, CH: Fernandez (2009); Popov and Marinska (2007); Popov (2018, and unpublished data).
514. *Microtus levis* Miller, 1908 – GR: Mitev (2016a – reported as *Microtus rossiaemeridionalis*).

515. *Microtus nivalinus* Forsyth Major, 1902 – CA, CH, UP: Fernandez (2009); Popov and Marinska (2007); Popov (2018).
516. *Microtus nivaloides* Forsyth Major, 1902 – CA, CH, UP: Fernandez (2009); Popov and Marinska (2007).
517. *Microtus oeconomus* (Pallas, 1776) – CA: Popov (2018).
518. *Microtus pliocaenicus* Kormos, 1933 – CA: Fernandez (2009); Popov (1990a, b, 1994, 1998).
519. *Microtus savini*/*M. pusillus* – CA: Popov (unpublished data).
520. *Microtus* Schrank, 1798 sp. – UP: Dzhambazov (1981).
521. *Microtus subterraneus* (de Selys-Longchamps, 1836) – CH, UP, GR, NO, ME: Ivanova *et al.* (2011a, b – reported as *Terricola subterraneus*); Mitev (2006, 2016a, b – reported as *Pitymys subterraneus*); Popov and Marinska (2007); Popov (1990, 2018); Popov *et al.* (1994).
522. *Mimomys reidi* Hinton, 1910 – GE: Popov (2001; 2004, 2018).
523. *Mimomys blanci* (van der Meulen, 1973) – CA: Popov (2018).
524. *Mimomys* Forsyth-Major, 1902 – CA: Popov (1994).
525. *Mimomys pitymyoides* Janossy & van der Meulen, 1975 – CA: Fernandez (2009).
526. *Mimomys pliocaenicus* Forsyth Major, 1902 – GE, CA, CH: Petrov (1992); Popov and Marinska (2007); Popov (2001; 2004, 2018).
527. *Mimomys pusillus* Schreuder, 1933 – CA: Fernandez (2009); Popov (1994).
528. *Mimomys savini* Hinton, 1910 – CA, CH: Fernandez (2009); Popov (2018); Popov and Marinska (2007).
529. *Mimomys stenokorys* Rabeder, 1981 – GE: Petrov (1992; 2001; 2004b); Popov (2018).
530. *Mimomys tornensis* Janossy & van der Meulen (1975) – CA, CH: Fernandez (2009); Popov and Marinska (2007); Popov (1994, 2018).
531. *Myodes kretzoi* (Kowalski, 1958) – CA: Popov (1994, 2018).
532. *Myomys pitymyoides* Jánossy & van der Meulen, 1975 – CA, CH, UP: Popov (1990a, b, 1994, 1998); Popov and Marinska (2007).
533. *Myomys pusillus* (Mehely, 1914) – CA, CH: Popov (1990a, b, 2018); Popov and Marinska (2007).
534. *Notocricetulus migratorius* (Pallas, 1773) – CA, CH, UP, GR, NO, ME: Fernandez (2009); Horacek (1982); Popov and Marinska (2007 – reported as *Cicetulus migratorius*); Popov (1990, 1994, 2018 – reported as *Cricetulus migratorius*); Popov *et al.* (1994).
535. *Pliomys chalinei* Jeannet, 1974 – CA, CH: Fernandez (2009); Popov and Marinska (2007).
536. *Pliomys coronensis* (Méhely, 1914) – CH: Popov (2018).
537. *Pliomys episcopalis* Méhely, 1914 – CA, CH, UP: Fernandez (2009); Popov and Marinska (2007); Popov (2018).
538. *Pliomys lenki* (Heller, 1930) – CA, CH: Fernandez (2009); Popov and Marinska (2007); Popov (2018).
539. *Pliomys* Méhely, 1914 sp. – CA, CH: Popov and Marinska (2007); Popov (unpublished data).
540. *Pliomys simplicior* Kretzoi, 1956 – CA: Popov (1990a, b, 1994, 2018).
541. *Prolagurus* Kormos, 1938 sp. – CA: Sirakov (1984).
542. *Ungaromys nanus* Kormos, 1932 – CA, CH: Popov (2004, 2018).
543. *Villanyia exilis* Kretzoi, 1956 – GE, CA, CH: Fernandez (2009); Popov and Marinska (2007); Popov (2004, 2018).
544. *Villanyia petenyii* (Mehely, 1914) – GE: Popov (2004, 2018).
- Dipodidae Fischer de Waldheim, 1817**
545. *Allactaga major* (Kerr, 1792) – CA, CH, UP, GR: Fernandez (2009); Popov and Marinska (2007); Popov (2018).
- Sminthidae Brandt, 1855**
546. *Sicista loriger* (Nathusius, 1840) (reported as *Sicista subtilis*) – CA, CH, UP, GR, ME: Georgiev *et al.* (2014); Mitev and Boev (2006); Mitev (2004, 2016b, c); Popov (1990, 2018 – reported as *Sicista subtilis*); Popov *et al.* (1994).
547. *Sicista* sp. Gray, 1827 – CA, CH, UP, GR: Popov (1994, 2018); Popov and Marinska (2007).
- Muridae Illiger, 1811**
548. *Apodemus agrarius* (Pallas, 1771) – UP: Popov (2018).

549. *Apodemus flavicollis* (Melchior, 1834) – CA, CH, UP, GR, NO, ME: Mitev (2006, 2016a); Popov (2018).
550. *Apodemus* sp. Kaup, 1829 – CA, CH, UP: Popov (1994, 2018).
551. *Apodemus sylvaticus* (Linnaeus, 1758) – CH, UP, GR, NO, ME: Horacek (1982); Popov (2018).
552. *Apodemus sylvaticus/flavicollis* – CA, CH, UP, GR: Fernandez (2009); Mitev (2006, 2016a, b); Popov and Marinska (2007); Popov (1990a, b, 1994); Popov *et al.* (1994).
553. *Apodemus uralensis* (Pallas, 1811) – CA, UP, ME: Mitev (2006, 2016c – reported as *Sylvaemus uralensis*); Popov (2018).
554. *Dinaromys dalmatinus* (Kormos, 1931) – CA, CH: Fernandez (2009); Popov and Marinska (2007); Popov (2018).
555. *Micromys* cf. *praeminutus* Kretzoi, 1959 – CA: Popov (2018).
556. *Micromys* sp. Dehne, 1841 – NO: Popov (2018).
557. *Mus* cf. *spicilegus* Petényi, 1882 – UP, GR: Mitev (2016a); Popov (2018).
558. *Mus musculus* Linnaeus, 1758 – GR, NO: Popov (1990, 2018); Popov *et al.* (1994).
559. *Mus* sp. Clerck, 1757 – CH, UP, GR: Mitev (2016b); Popov (2018).
560. *Rattus norvegicus* (Berkenhout, 1769) – GR, NO, ME: Boev (2016a); Mitev (2006, 2016a, b).
561. *Rattus* (Linnaeus, 1758) sp. – CA, CH, GR, ME: Iliev *et al.* (1992); Popov (2018); Mitev (2016b).
562. *Rhagapodemus frequens* Kretzoi, 1959 – CA: Popov (2018).
563. *Rhagapodemus* sp. Kretzoi, 1958 – GE: Popov (2004).
564. *Sylvaemus dominans* Kretzoi, 1959 – GE: Popov (2004).
565. *Sylvaemus microps* (Kratohvíl & Rosicky, 1952) – CA, CH, UP: Fernandez (2009); Popov and Marinska (2007).
566. *Sylvaemus mystacinus* Danford & Alston, 1877 – CA, UP, GR: Fernandez (2009); Popov and Marinska (2007); Popov (1994, 2018).

#### **Gliridae Muirhead in Brewster, 1819**

567. *Driomys nitedula* (Pallas, 1778) – CH, UP, GR: Georgiev *et al.* (2014); Mitev (2006, 2016a, b); Popov (1990, 2018); Popov *et al.* (1994).
568. *Driomys* sp. Thomas, 1905 – CA: Popov (2018).
569. *Eliomys* sp. Wagner, 1840 – CA, UP: Popov (2018); Popov and Marinska (2007).
570. Gliridae Muirhead in Brewster, 1819 gen. indet. – CA: Spassov (unpublished data).
571. *Glis* Brisson, 1762 – UP: Popov and Marinska (2007).
572. *Glis* cf. *sackdillingensis* (Heller, 1930) – GE: Popov (2004).
573. *Glis glis* (Linnaeus, 1766) – CA, CH, UP, GR, NO, ME: Boev (1999a); Georgiev *et al.* (2014); Mitev (2006, 2016a); Popov (1990, 2018); Popov *et al.* (1994).
574. *Glis minor* Kowalski, 1956 – GE: Popov (2004).
575. *Muscardinus avellanarius* (Linnaeus, 1758) – CH, UP, GR, ME: Mitev (2016a); Popov (2018).
576. *Muscardinus* sp. Kaup, 1829 – CA, GR: Popov (2018); Popov and Marinska (2007).
577. *Myomimus* cf. *roachi* (Bate, 1937) – GE: Popov (2018).
578. *Myomimus* sp. Ognev, 1924 – GE: Popov (2004).
579. *Reteliomys podumcensis* Malez & Rabeder 1984 – CA: Fernandez (2009); Popov and Marinska (2007).

#### **Eomyidae Winge, 1887**

580. *Estramomys simplex* Jánossy, 1970 – GE: Popov (2018).

#### **Spalacidae Gray, 1821**

581. *Nannospalax* cf. *odessanus* (Topancevski, 1969) – CA: Popov (2018).
582. *Nannospalax leucodon* (Nordmann, 1840) – GE, CA, CH, UP, GR, NO, ME: Boev (2014a – reported as *Spalax leucodon*, 2022a); Gurova *et al.* (2018); Markov (1958, reported as *Spalax leucodon*); Mitev (2016a, b); Nikolov (1983); Popov *et al.* (1994); Popov, R. (1908, 1921b – reported as *Spalax typhlus*); Popov, V. (1990, 2018); Ribarov (1992a, reported as *Spalax leucodon*); Ribarov and Boev (1990, reported as *S. leucodon*).

583. *Nannospalax* sp. Palmer, 1903 – CA, CH, UP, GR, NO: Popov (1990, 1994, 2018); Popov and Marinska (2007).

584. *Pliospalax compositodontus* (Topachevskiy, 1969) – GE: Popov (2004).

#### **Sciuridae Fischer de Waldheim, 1817**

585. *Marmota bobak* (Müller, 1776) – CA, UP: Fernandez (2009); Popov and Marinska (2007, reported as *Marmota bobac*).

586. *Marmota* sp. Blumenbach, 1779 – CA: Sirakov *et al.* (2013); Popov (2018).

587. *Sciurus* Linnaeus, 1758 sp. – GE, UP: Popov (2018); Popov and Marinska (2007).

588. *Sciurus vulgaris* Linnaeus, 1758 – CH, GR: Mitev (2006); Popov (2018).

589. *Spermophilus* cf. *nogaici* (Topachevski, 1957) – CA: Popov (1994, 2018).

590. *Spermophilus* cf. *primigenius* (Kormos, 1934) – CA: Popov (1994, 2018).

591. *Spermophilus citellus* (Linnaeus, 1766) – CH, UP, GR, NO, ME: Horacek (1982); Markov (1958, reported as *Citellus citellus*); Mitev (2006, 2016b, reported as *Citellus citellus*); Nikolov (1983); Popov (1904, reported as *Spermophilus cittalus*), 1908, 1936a); Popov (1990, 2018); Popov *et al.* (1994); Ribarov (1990, and unpublished data); Spassov (unpublished data).

592. *Spermophilus* sp. Cuvier, 1825 – CA, CH: Popov (1990, 1994, 2018); Popov and Marinska (2007).

593. *Tamias* Illiger, 1811 sp. – CA: Popov (2018).

#### **Carnivora Bowdich, 1821**

##### **Canidae G. Fischer de Waldheim, 1817**

594. Canidae Fischer de Waldheim, 1817 gen. indet. – CA: Spassov (unpublished data).

595. *Canis aureus* Linnaeus, 1758 – GR, NO, ME: Boev (2020d); Bonchev (1900); Nikolov (1983); Popov (1908); Ribarov (1986, 1991c); Stoianov (1904).

596. *Canis etruscus* Forsyth Major, 1877 – GE, CA: Fernandez (2009); Guadelli *et al.* (2005); Spassov (1997; 2000); Spassov and Cregut-Bonnoure (1999).

597. *Canis familiaris* Linnaeus, 1758 – GR, NO, ME: Bachvarov *et al.* (2010); Boev (1999, 2014b, 2016a, 2017f, 2018b, 2019e, 2020d, 2022b); Bonev and Aleksandrov (1991); Boyadzhiev *et al.* (2013); Chernakov and Gurova (2013); Chichikova and Dimitrov (2016); Chohadzhiev (1980); Dzhambazov (1953); Ganetsovski (2012); Gergova *et al.* (2010); Iliev (2019); Ivanov *et al.* (1987); Ivanov and Vasilev (1979); Iliev *et al.* (1992, 1993); Ivanov (1965); Kalchev and Andreeva (2017); Kancheva-Ruseva and Koleva (2011); Karastoyanova and Chohadzhiev (2019); Karastoyanova (2011, 2018); Kitov and Borisova (1988); Klasnakov *et al.* (2010, 2011); Markov (1958); Mitev (2006); Nakamura (2005); Nehrizov and Ivanov (2011); Nehrizov and Tsvetkova (2012); Ninov (1987, 1989, 1994a, b, 2010, reported as *Canis familiaris intermedius*, 2012 a, d, 2013b, 2016); Nobis (2002a, b); Petrov (1988); Popov (1904, 1908, 1909, 1912, 1934a, b, 1936c, 1937); Poppow (1913); Ribarov and Boev (1990, 1997); Ribarov (1982, 1991b, 1992a, and unpublished data); Schramm (1975, 1979); Spassov and Iliev (1986; 2007, 2008, 2014, in press); Spassov (unpublished data); Spassov *et al.* (2001); Stallibrass (2010); Stoychev *et al.* (2014); Vagalinski (2017, 2019); Vagalinski *et al.* (2012a, b); Vasilev and Dishev (1986); Velichkov (2010); Velkov *et al.* (1973, 1986).

598. *Canis lupus* Linnaeus, 1758 – CA, CH, UP, GR, NO, ME: Boev and Popgeorgiev (2021); Boev (2014b, 2015b, 2016c, 2018b, 2019e, g, f, 2020d, 2022b); Boudadi-Maligne (2009); Delpech and Guadelli (1991); Dzhambazov (1957, 1981); Fernandez (2009); Georgiev *et al.* (2014); Guadelli and Delpech (2000); Guadelli *et al.* (2005, 2011a, b, 2014); Gurova *et al.* (2016a, b, 2017, 2018); Horacek (1982); Ivanov and Vasilev (1979); Ivanova *et al.* (2012, 2013a, b, 2014, 2016); Karastoyanova (2018); Nikolov (1983); Ninov (1987); Nobis (2002); Popov (1904, 1908, 1920c, 1925b, 1926, 1931, 1934b, 1936a, 1938); Ribarov (1982, and unpublished data); Spassov and Iliev (2007, 2014); Spassov (unpublished data); Spassov *et al.* (2001); Stoianov (1904); Vasilev and Dishev (1986); Yurinich (1891).

599. *Canis lupus/familiaris* – ME: Boev (2018b, 2020b).

600. *Canis mosbachensis* Soergel, 1925 – CA: Spassov (unpublished data).

601. *Canis* sp. Linnaeus, 1758 – UP, GR: Boev (2015b); Bonchev (1900); Popov (1904, 1921a, b, 1933, 1936a, 1938).

602. *Cuon alpinus europaeus* Bourguignat, 1868 – UP: Nikolov (1983, reported as *Cuon coun*) (Fig. 5b).
603. *Cuon* cf. *stehlini* (Moullé, 1992) – CA: Fernandez (2009); Guadelli *et al.* (2005).
604. *Cuon* Hodgson, 1838 sp. – CH: Gurova *et al.* (2015, 2016 a, b, 2017a, b); Ivanova *et al.* (2011 a, b, 2012, 2014, 2016).
605. *Nyctereutes* cf. *tingi* Tedford & Qiy, 1991 – GE: Spassov (1997; 2000); Spassov and Cregut-Bonnoure (1999).
606. *Nyctereutes megamastoides* (Pomel, 1842) – CA: Fernandez (2009).
607. *Vulpes alopecoides* F. Major, 1877 – GE: Sirakov *et al.* (2012); Spassov (1997; 2000); Spassov and Cregut-Bonnoure (1999).
608. *Vulpes* cf. *praeglacialis* (Kormos, 1932) – CA: Fernandez (2009); Guadelli *et al.* (2005).
609. *Vulpes* Garsault, 1764 sp. – UP: Delpech and Guadelli (1991, 1992); Guadelli and Delpech (2000).
610. *Vulpes lagopus* (Linnaeus, 1758) – CA: Gurova *et al.* (2017a, b – reported as *Alopex lagopus*).
611. *Vulpes vulpes* (Linnaeus, 1758) – CA, CH, UP, GR, NO, ME: Beech (1997, 2007); Biernacki and Klenina (2022); Boev (1999a, 2015b, 2016a, 2018b, 2019e, 2020d, 2022b); Dzhambazov (1957, 1981); Fernandez (2009); Georgiev *et al.* (2014); Guadelli *et al.* (1999, 2005, 2010, 2011a, b, 2013b, c, 2014b, 2015, 2019); Gurova *et al.* (2015, 2016a, b, 2017, 2018); Iliev *et al.* (1992); Ivanov (1965); Ivanov and Vasilev (1979); Ivanova *et al.* (2011, 2012, 2013, 2016, 2021); Karastoyanova (2018); Karastoyanova and Chohadziev (2019); Klasnakov *et al.* (2011); Mitev (2006); Mitev (2016b); Miteva (2008); Nakamura (2005); Nikolov (1983); Ninov (1987, 2012c); Nobis (2002a); Popov (1904, 1908, reported as *Canis vulpes*, 1909, 1912, 1914, 1920c, 1933, 1934b, 1936a, 1938); Ribarov and Boev (1990, 1997); Ribarov (1982, 1986, 1990a, 1992a, unpublished data); Schramm (1975, 1979); Sirakov *et al.* (2016); Spassov and Iliev (2007); Spassov and Iliev (in press); Spassov (unpublished data); Spassov *et al.* (2001); Yurinich (1891).

#### **Ursidae G. Fischer de Waldheim, 1817**

612. *Ursus arctos* Linnaeus, 1758 – CH, UP, GR, NO, ME: Atanasov *et al.* (2014); Beech (1997, 2007); Biernacki and Klenina (2022); Boev (1999a, 2015a, 2016a, 2019e, 2020d, 2022b); Bonchev (1900, reported as *Ursus arctoideus*); Boyanov (2012); Damyanov and Boyadzhiev (2010, 2012); Dzhambazov (1957, 1981); Fernandez (2009); Fremondeau *et al.* (2020); Guadelli *et al.* (2013); Ignatov *et al.* (2014); Ivanov (1959a); Ivanov *et al.* (1987); Ivanov and Vasilev (1979); Ivanova *et al.* (2012); Kisyov (1987, reported as “cave bear”); Klasnakov *et al.* (2011); Markov (1951, 1958); Mitev (2006); Ninov (1987, 2012b, c, 2016); Nobis (2002b); Popov (1904, 1908a, b, 1911, 1912, 1914, 1920c, 1933, reported as *Ursus arctos fossilis*), 1934b, 1936a, 1938); Ribarov and Boev (1997); Ribarov (1986, 1990, 1991c, and unpublished data); Spassov and Iliev (2007); Spassov *et al.* (2001); Taneva *et al.* (2012); Velichkov (2010).
613. *Ursus* cf. *thibetanus* G. Cuvier, 1823 – CA, CH: Gurova *et al.* (2017a, b); Ivanova *et al.* (2013).
614. *Ursus* cf. *wenzensis* Stach, 1953 – GE: Spassov (1997); Spassov and Cregut-Bonnoure (1999).
615. *Ursus deningeri* von Reichenau, 1904 – CA: Fernandez (2009); Guadelli *et al.* (2005); Popov (1936a, reported as *Ursus arctoideus*).
616. *Ursus etruscus* Cuvoer 1823 – CA: Fernandez (2009); Guadelli *et al.* (2005); Sirakov *et al.* (2012, 2013).
617. *Ursus savini* C. W. Andrews, 1922 – CA, CH: Gurova *et al.* (2015, 2016b, 2017, 2018 – reported as *Ursus savini rossicus*); Ivanova *et al.* (2012, 2014); Spassov *et al.* (2017).
618. *Ursus ingressus* Rabeder *et al.*, 2004 – CA, CH, UP: Fremondeau *et al.* (2020); Georgiev *et al.* (2010); Gurova *et al.* (2017); Ivanova *et al.* (2012, 2013).
619. *Ursus* Linnaeus, 1758 sp. – CH, UP: Dzhambazov (1957); Guadelli and Delpech (2000); Mikov (1926); Miteva (2008); Stoianov (1904); Taneva *et al.* (2012).
620. *Ursus minimus* D. de Chabriol & Bouillet, 1827 – GE: Spassov (1997); Spassov and Cregut-Bonnoure (1999).
621. *Ursus rossicus* Borissiak, 1930 – CH: Spassov *et al.* (2017).
622. *Ursus spelaeus* Rosenmüller, 1794 – CA, CH, UP: Anonymous (1906); Boev (2015b); Dzhambazov (1952, 1953, 1954, 1981); Dzhambazov *et al.* (1977); Fernandez (2009); Georgiev

*et al.* (2014); Guadelli *et al.* (1999, 2013a, b, c, 2015); Ivanova (1995); Ivanova *et al.* (2011, 2012, 2013, 2016, 2021); Markov (1949, 1951); Mikov and Dzhambazov (1957, 1959, 1960); Mikov (1928, 1933, 1936a); Mitev (2016a); Nikolov (1983); Popov (1904, 1911, 1912, 1913a, b, 1920a, b, c, 1921, 1923, 1925a, b, 1928, 1929 b, 1931, 1933, 1936a, 1943); Sirakov *et al.* (2012, 2017, 2018a, 2019a, b); Slavchev *et al.* (2018).

#### **Mustelidae G. Fischer de Waldheim, 1817**

623. *Baranogale balcanica* Spassov, 2001 – GE: Spassov (1997; 2001); Spassov and Cregut-Bonnoure (1999).
624. *Baranogale* Kormos, 1934. sp. – CA: Guadelli *et al.* (2005).
625. *Cyrnaonyx antiqua* (de Blainville, 1841) – CH: Gurova *et al.* (2016a, b); Ivanova *et al.* (2014a, b).
626. *Lutra lutra* (Linnaeus, 1766) – ME: Ribarov (1990, 1991c, 1992a); Schramm (1975).
627. *Martes* cf. *vetus* (Kretzoi, 1933) – CA: Guadelli *et al.* (2005).
628. *Martes foina* (Erxleben, 1777) – UP, GR, NO, ME: Ganetsovski (2012); Georgiev *et al.* (2014); Iliev *et al.* (1992); Mitev (2006); Popov, R. (1908, reported as *Mustela martes*); Ribarov (1991); Stoianov (1904, reported as *Mustela martes*); Spassov (unpublished data).
629. *Martes martes* (Linnaeus, 1758) – UP, GR: Markov (1951, reported as *Mustela martes*); Nikolov (1983, reported as *Mustela martes*); Popov (1904, 1934b, 1936a – reported as Stone marten (*Mustela martes*)).
630. *Martes* Pinel, 1792 sp. – GR, NO: Bonchev (1900) (reported as *Mustela* sp. (pine marten, stone marten)); Spassov *et al.* (2001); Spassov and Iliev (2014).
631. *Martes wenzensis* Stach, 1959 - *M. vetus* Kretzoi, 1942 – GE: Spassov (1997; 2000); Spassov and Cregut-Bonnoure (1999).
632. *Meles* Brisson, 1762 sp. – CA: Guadelli *et al.* (2005); Sirakov *et al.* (2013).
633. *Meles meles* Linnaeus, 1758 – CA, UP, GR, NO, ME: Beech (1997, 2007); Boev (2016a, 2020d); Bonchev (1900); Dzhambazov (1981); Fernandez (2009); Ganetsovski (2012); Guadelli and Delpech (2000); Karastoyanova (2018); Markov, 1951 (reported as *Meles taxus*), 1958); Mitev (2006); Mitev (2016a); Nikolov (1983, reported as *Meles taxus*); Ninov (1987, 2013); Popov (1904, 1908a,b, 1911, 1914, 1920c, 1921 – reported as *Meles taxus*), 1925, 1931, 1936a, 1937, 1938); Ribarov and Boev (1990, 1997); Ribarov (1991a, 1992a, and unpublished data); Sirakov *et al.* (2016); Stoianov (1904).
634. *Meles thoralis* Viret, 1951 – GE, ME: Spassov (1997; 2000); Spassov and Cregut-Bonnoure (1999).
635. *Mustela eversmanii* (Lesson, 1827) – NO: Spassov (1982, and unpublished data).
636. *Mustela* Linnaeus, 1758 sp. – GR: Popov (1904, 1934b, 1936a).
637. *Mustela nivalis* Linnaeus, 1766 – GE, CH, GR, ME: Boev (2022b); Horacek (1982); Mitev (2006, 2016b); Ribarov (1982).
638. *Mustela nivalis/erminea* – UP: Guadelli and Delpech (2000).
639. *Mustela putorius* Linnaeus, 1758 – CA, CH, UP, GR, NO, ME: Delpesh and Guadelli (1991); Fernandez (2009); Horacek (1982); Nikolov (1983, reported as *Putorius putorius*); Popov, R. (1908, 1911, 1936, reported as *Putorius putorius*); Ribarov (1982, reported as *Putorius putorius*), 1991b – reported as *Putorius putorius*); Spassov (unpublished data); Velkov *et al.* (1986).
640. *Mustela putorius/eversmanii* – GR: Mitev (2006).
641. *Pannonictis ardea* (Bravard, 1828) – GE: Spassov (1997; 2000); Spassov and Cregut-Bonnoure (1999).
642. *Vormela peregusna* (Güldenstädt, 1770) – GR: Karastoyanova (2011); Mitev (2006).
643. *Vormela petenyii* Kretzoi, 1942 – GE: Spassov (1997; 2000); Spassov and Cregut-Bonnoure (1999).

#### **Hyaenidae Gray, 1821**

644. *Chasmaporthetes lunensis* Del Campana, 1914 – CA: Fernandez (2009); Guadelli *et al.* (2005)
645. *Crocota crocota spelaea* Goldfuss, 1823 – CA, CH, UP: Anonymous (1906); Boev (2015a); Dzhambazov (1953, 1955b, 1957, 1959, 1981) (reported as *Hyaena spelaea*); Fernandez (2009); Guadelli and Delpech (2000); Guadelli *et al.* (1999, 2005, 2011a, b, 2013a, b, c, 2014a, b, 2015, 2019); Gurova *et al.* (2016); Hlebarov (2004); Ivanova *et al.* (2011, 2012, 2013 (reported as

*Crocota spelaea*, 2014a, b, 2016); Markov (1951); Mikov (1926, 1933, reported as *Hyaena* sp.); Nikolov (1983); Popov (1904, 1911, 1912, 1913a, b, 1920a, b, c, 1925b, 1926, 1928, 1929b, 1931, 1933, 1936a, 1938, 1943) – reported as *Hyaena spelaea*; Sirakov *et al.*, (2017); Slavchev *et al.* (2018); Taneva *et al.* (2012).

646. Hyaenidae gen. (non *P. brevirostris*) – GE: Spassov (2000).

647. *Pliocrocota perrieri* (Croizet & Jobert, 1828) (reported as *Pachycrocota perrieri.*) – GE, CA: Fernandez (2009); Guadelli *et al.* (2005); Spassov and Cregut-Bonnoure (1999); Spassov (1997; 2000) (Fig. 5c).

### **Felidae Waldheim, 1817**

648. *Acinonyx pardinensis* Croizet & Jobert, 1828 – GE, CA: Sirakov *et al.* (2010); Spassov (2011) (Fig. 5d).

649. Felidae Linnaeus, 1758 gen. indet. – CA: Spassov (unpublished data).

650. *Felis catus* (Linnaeus, 1758) – NO, ME: Boev (2016a, 2019e, 2020d, 2022b); Chichikova and Dimitrov (2016); Iliev *et al.* (1992, 1993); Ivanov (1965); Markov (1958, reported as *Felis domestica*); Mitev (2006); Nikolov (1983); Ninov (2012c, 2013); Ribarov (unpublished data); Schramm (1975, 1979); Vagalinski (2017).

651. *Felis catus/silvestris* – ME: Boev (2016a, 2018b, 2020d).

652. *Felis* cf. *lunensis* Martelli, 1906 – CA: Fernandez (2009); Guadelli (2009); Guadelli *et al.* (2005).

653. *Felis* cf. *minuta* Temminck, 1824 – CA: Fernandez (2009).

654. *Felis* Linnaeus, 1758 sp. – UP, GR: Nikolov (1983); Mitev (2016b).

655. *Felis silvestris* Schreber, 1777 – CA, UP, GR, NO, ME: Boev (1999a, 2016a, 2020d, 2022b); Dzhambazov (1981); Fernandez (2009); Georgiev *et al.* (2014); Guadelli (2009); Guadelli *et al.* (2013); Klasnakov *et al.* (2011); Markov (1951, reported as Wildcat *Felis catus*); Mitev (2006); Popov (1908, reported as *Felis catus* (Wild Cat)), 1914, 1933b (reported as *Felis catus* (Wild Cat)), 1936a); Ribarov (1990, 1992a); Ribarov and Boev (1990); Sommer and Benecke (2006); Spassov and Iliev (1994); Spassov (unpublished data); Spassov *et al.* (2001).

656. *Homotherium crenatidens* (Weithofer, 1889) – CA, CH: Fernandez (2009); Guadelli (2009); Guadelli *et al.* (2011).

657. *Homotherium* Fabrini, 1890 sp. – CA: Sirakov *et al.* (2013).

658. *Homotherium latidens* (Owen, 1846) (reported as *Dinobastis latidens* Cope (1893).) – CA: Fernandez (2009); Guadelli (2009); Guadelli *et al.* (2005).

659. ?*Homotherium* sp./*Panthera spelea* – CA: Spassov (unpublished data).

660. *Lynx issiodorensis issiodorensis* (Croizet, Jobert, 1828) – GE, CA: Fernandez (2009); Guadelli (2009); Guadelli *et al.* (2005); Guadelli *et al.* (2005); Spassov (1997a, 1997b, 2003) (Fig. 6a).

661. *Lynx* Kerr, 1792 sp. – UP: Guadelli *et al.* (2005, 2009); Sirakov *et al.* (2010).

662. *Lynx lynx* (Linnaeus, 1758) – UP, GR, NO, ME: Boev (200e, (2020, 2017a); Ivanov (1965); Karastoyanova (2018); Mitev (2006, 2016c); Nikolov (1977, 1983); Popov (1908, reported as *Felis lynx*), 1920c, 1933a, b); Ribarov (1986); Spassov *et al.* (2001; 2015); Vasilev (1985).

663. *Lynx spelaeus* (Boule, 1906) – CA, CH: Fernandez (2009); Guadelli (2009); Guadelli *et al.* (2005, 2009); Sirakov *et al.* (2010).

664. Machairodontinae gen. indet. – CA: Guadelli (2009).

665. *Megantereon cultridens* (Cuvier, 1824) – GE: Boev (2008) (Fig. 6b).

666. *Panthera* aff. *fossilis* Reichenau, 1906 – CA: Gurova *et al.* (2015).

667. *Panthera gombaszogensis* (Kretzoi, 1938) – GE, CA: Fernandez (2009); Guadelli (2009); Guadelli *et al.* (2005).

668. *Panthera leo europaea* Lupták, 2009 – NO, ME: Manhart (1998); Ninov (1987, 1989); Ribarov (1991a, reported as *Felis leo*); Sommer and Benecke (2006); Spassov and Iliev (1994).

669. *Panthera leo fossilis* (Reichenau, 1906) – CA, CH: Gurova *et al.* (2016a, b).

670. *Panthera pardus* (Linnaeus, 1758) – UP, NO: Sommer and Benecke (2006); Spassov and Raychev (1997).

671. *Panthera spelaea* Goldfuss, 1810 – CA, CH: Delpesch and Guadelli (1991, 1992); Fernandez (2009); Guadelli (2009); Guadelli *et al.* (2005, 2014); Ivanova *et al.* (2012, 2013, 2014a, b, 2016); Sirakov *et al.* (2017, reported as *Panthera leo spelaea*); Spassov and Bozkov (1983).

672. *Puma pardoides* Owen, 1846 – CA: Fernandez (2009) (reported as *Panthera schaubi* Viret, 1954); Guadelli (2009); Guadelli *et al.* (2005) (reported as *Panthera schaubi* Viret, 195.); Sirakov *et al.* (2012, 2013, reported as *Panthera schaubi* Viret, 1954) (Fig. 6c).

#### **Phocidae Gray, 1821**

673. *Monachus monachus* (Hermann, 1779) – GR, NO, ME: Boev (2018a); Ninov (2013); Klasnakov *et al.* (2011); Ribarov (1991a).

#### **Artiodactyla Owen, 1848**

##### **Camelidae Gray, 1821**

674. *Camelus bactrianus* Linnaeus, 1758 – ME: Boev (2019b, e, 2020d).  
675. *Camelus dromedarius* Linnaeus, 1758 – ME: Boev (2019b).  
676. *Camelus* Linnaeus, 1758 sp. – ME: Boev (2020d), Ribarov (1993); Schramm (1975, 1979); Velichkov (2010).

##### **Cervidae Goldfuss, 1820**

677. *Alces alces* (Linnaeus, 1758) – CA, CH: Boev (in press, a); Delpesch and Guadelli (1991, 1992); Fernandez (2009); Guadelli and Delpesch (2000); Guadelli *et al.* (1999, 2005).  
678. *Capreolus capreolus* (Linnaeus, 1758) – CA, UP, GR, NO, ME: Beech (1997, 2007); Biernacki and Klenina (2022); Boev and Popgeorgiev (2021); Boev (1999a, 2016a, 2018b, 2019e, f, 2020d, 2022b); Bonchev (1900); Boyanov (2012); Chernakov and Gurova (2013); Chichikova and Dimitrov (2016); Cholakov and Raycheva (2018); Dzhambazov (1953, 1981); Fernandez (2009); Ganetsovski (2012); Georgiev *et al.* (2014); Guadelli and Delpesch (2000); Guadelli *et al.* (2005); Iliev *et al.* (1992, 1993); Ivanov (1959a, b, 1965); Ivanov and Vasilev (1979); Ivanova *et al.* (2012b); Karastoyanova (2011, 2018); Karastoyanova and Chohadziev (2019); Klasnakov *et al.* (2010, 2011); Kuzov *et al.* (2017); Markov (1958); Nehrizov and Tsvetkova (2012); Nikolov (1983, reported as *Cervus capreolus*); Ninov (1987, 1994, 2010, 2012b, 2013b, 2014, c, 2016); Nobis (2002a, b); Popov (1904, 1908, 1909, 1911 (reported as *Cervus capreolus*), 1912, 1913b, 1914, 1920c, 1921b, 1934b, 1937, 1938); Slavchev *et al.* (2018b); Ribarov and Boev (1990, 1997); Ribarov (1982, 1991a, b, 1992a, and unpublished data); Schramm (1975, 1979); Spassov and Iliev (2007); Spassov and Iliev (2008, 2014, in press); Spassov (unpublished data); Spassov *et al.* (2001); Stoianov (1904); Vagalinski (2017); Tsontchev (1942); Vagalinski *et al.* (2012a, b); Velkov *et al.* (1986); Venelinova *et al.* (2012, 2013); Yurinich (1891).  
679. *Cervalces latifrons* Johnson, 1874 – CA: Fernandez (2009); Guadelli *et al.* (2005, reported as *Alces latifrons*); Boev and Spassov (in press).  
680. *Cervus elaphus* Linnaeus, 1758 – CA, CH, UP, GR, NO, ME: Atanasov (1994); Bacvarov *et al.* (2019); Biernacki and Klenina (2022); Beech (1997, 2007, 2019); Boev and Popgeorgiev (2021); Boev (1999a, 2014b, 2015b, 2016a, 2018b, 2019e, f, g, 2020d, 2021d, 2022a); Bonchev (1900); Boyanov (2012); Chernakov and Gurova (2013); Chichikova and Dimitrov (2016); Cholakov and Raycheva (2018); Delpesch and Guadelli (1991, 1992); Dimitrov and Avramova (1994); Dzhambazov (1953, 1954, 1957, 1960, 1981); Ganetsovski (2012); Gergova *et al.* (2010); Guadelli *et al.* (2015, 2013b, 2019); Gurova *et al.* (2015, 2016b, 2017); Ivanova *et al.* (2012b, 2013, 2014b); Fernandez (2009); Georgiev *et al.* (2014); Guadelli and Delpesch (2000); Guadelli *et al.* (1999, 2005); Gurova *et al.* (2016, 2018); Iliev *et al.* (1992, 1993); Ivanov (1959a, b, 1965); Ivanov and Vasilev (1979); Ivanova *et al.* (2012); Kancheva-Ruseva and Koleva (2011); Kancheva-Ruseva *et al.* (2008); Karastoyanova (2011, 2018); Karastoyanova and Chohadziev (2019); Katincharov *et al.* (1977); Klasnakov *et al.* (2010, 2011); Kuzov *et al.* (2017); Leshtakov *et al.* (2007); Manhart (1998); Markov (1951, 1958); Markov and Petrov (1962); Mikov and Dzhambazov (1960); Mikov (1927b); Nehrizov and Tsvetkova (2012); Nikolov (1983); Ninov (1987, 1989, 1994, 2012a, b, c, d, 2013a, b, 2014, 2016); Nobis (2002); Petrunova *et al.* (2019); Popov (1904 (reported as *Cervus elaphus fossilis*), 1908, 1909, 1912, 1913a, b, 1914, 1921b, 1925, 1929b, 1933, 1934b, 1936a, 1937, 1938); Poppow (1913); Rabadjiev *et al.* (2018); Ribarov and Boev (1990, 1997); Ribarov (1982, 1986, 1990a, 1991b, c, 1992a, and unpublished data); Schramm (1975, 1979); Sirakov *et al.* (2016b, 2017, 2018a, 2019 (reported as *Servus elaphus*)); Spassov and Iliev (1986); Slavchev *et al.* (2018b); Spassov and Iliev (1994, 2008); Spassov and Iliev (2007, 2014, in press); Spassov (unpublished data); Spassov *et al.* (2001); Stallibrass (2010);



- Stoianov (1904, reported as *Cervus elaphus fossilis*); Stoychev *et al.* (2014); Tsontchev (1942); Vagalinski *et al.* (2012a, b); Velkov *et al.* (1986); Venelinova *et al.* (2012, 2013); Yurinich (1891).
681. *Cervus elaphus/Dama dama* – ME: Boev (2020d).
682. *Cervus* Linnaeus, 1758 sp. – CA, UP: Dzhambazov (1960); Gurova *et al.* (2017); Mikov (1933, reported as *Servus*); Popov (1904, 1931, 1936a); Sirakov *et al.* (2019b); Spassov (unpublished data).
683. *Cervus philisi* Schaub, 1941 – GE, CA: Fernandez (2009); Spassov and Cregut-Bonnoure (1999); Spassov (1997; 2000).
684. *Dama dama* (Linnaeus, 1758) – GR, NO, ME: Boev (2014b, 2016a (reported as *Cervus dama*), 2019e, g, 2020d, 2022b); Ivanov and Vasilev (1979); Ivanova *et al.* (2012b, 2014b); Karastoyanova (2011, 2018); Karastoyanova *et al.* (2019); Klasnakov *et al.* (2010, 2011); Manhart (1998); Nehrizov and Tsvetkova (2012); Ninov (2012, 2013, 2014); Nikolov (1983); Ribarov and Boev (1990, 1997); Ribarov (1983, 1985, 1986, 1990a, 1991b); Ribarov (1991a, b); Spassov and Iliev (1994, 2008); Stoychev *et al.* (2014); Velkov *et al.* (1986).
685. *Dama* Frisch, 1775 sp. – UP: Ivanova *et al.* (2014).
686. *Eucladoceros ctenoides* (Nesti 1841) – GE: Fernandez (2009); Spassov (2005).
687. *Eucladoceros senezensis* (Deperet, 1910) – GE: Popov (2004) (Fig. 6d).
688. *Megaloceros giganteus* (Blumenbach, 1799 – CA, CH, UP: Boev (2019a); Delpech and Guadelli (1992); Fernandez (2009); Guadelli *et al.* (1999, 2005, 2013b, c); Ivanova *et al.* (2012, 2013, 2016); Spassov (1982).
689. *Megaloceros* sp. – CH: Gurova *et al.* (2016a, b, 2017 a, b, 2018); Ivanova *et al.* (2014a, b).
690. *Rangifer tarandus* (Linnaeus, 1758) – CA, CH, UP: Boev (in press, a); Dzhambazov (1955b, 1957); Guadelli *et al.* (1999, 2005, 2013, 2014, 2015); Mikov (1926, 1933, 1936a (reported as *Cervus tarandus*); Popov (1908, 1911, 1920c, 1925b, 1928, 1929b, 1936a (reported as *Cervus tarandus*)).

### **Suidae Gray, 1821**

691. *Sus cf. strozzi* Forsyth Major, 1881 – CA: Guadelli *et al.* (2005).
692. *Sus domesticus* Erxleben, 1777 – GR, NO, ME: Atanasov *et al.* (2014); Bacvarov *et al.* (2019); Boev (1999a, 2014a, b, 2016a, c, 2018b, 2019e, f, g, 2020d, 2021d, 2022b); Bonchev (1900, reported as *Sus provincialis*); Boyanov (2012); Boyadzhiev and Boyadzhiev (2011); Chernakov (2011); Chichikova and Dimitrov (2016); Cholakov and Raycheva (2017, 2018, 2019); Dimitrov (1985); Grgbska-Kulow *et al.* (2016); Grigorov (2012); Iliev *et al.* (1992, 1993); Ivanov (1959a, b, 1965); Ivanov and Vasilev (1979); Ivanova *et al.* (2011); Kancheva-Ruseva *et al.* (2008); Karastoyanova (2011, 2018); Karastoyanova and Chohadziev (2019); Kitov and Borisova (1994); Klasnakov *et al.* (2010, 2011); Kuzov *et al.* (2017); Leshtakov *et al.* (2007); Markov (1958); Melamed and Evtimova (2018); Nakamura (2005); Ninov (1987, 1994b, 2012a, b, c, 2013c, d, 2016); Nobis (2002b); Popov (1934a, b, 1936a, b, 1937); Rabadjiev *et al.* (2018); Raduncheva and Koleva (1992); Ribarov and Boev (1990, 1997); Ribarov (1982, 1991c, 1992a, and unpublished data); Slavchev *et al.* (2018b); Spassov and Iliev (2014, in press); Spassov *et al.* (2001); Stallibrass (2010); Stoychev *et al.* (2014); Tonkova and Vasileva (2011); Vagalinski *et al.* (2012a, b); Vasilev and Dishev (1986); Vazharova (1979); Venelinova *et al.* (2012, 2013); Yurinich (1891).
693. *Sus* Linnaeus, 1758 sp. – UP: Popov (1904, 1921b).
694. *Sus scrofa* Linnaeus, 1758 – CA, UP, GR, NO, ME: Atanasov (1994); Bakardzhiev and Valchev (2016); Biernacki and Klenina (2022); Beech (1997, 2007); Boev and Popgeorgiev (2021); Boev (2016a, 2017f, 2018b, 2019e, f, g, 2020d, 2021d, 2022b); Bonchev (1900) (reported as *Sus scropha*.); Borislavov *et al.* (2016); Chernakov and Gurova (2013); Chichikova and Dimitrov (2016); Dimitrov and Avramova (1994); Dzhambazov (1953, 1981); Fernandez (2009); Georgiev *et al.* (2014); Gergova *et al.* (2010); Guadelli *et al.* (2005); Iliev *et al.* (1992, 1993); Ivanov (1959a, b, 1965); Ivanova *et al.* (2012b); Ivanov and Vasilev (1979); Karastoyanova (2011); Karastoyanova and Chohadziev (2019); Klasnakov *et al.* (2010, 2011); Markov (1951, 1958); Mikov (1927b); Nehrizov and Tsvetkova (2012); Nikolov (1983); Ninov (1987, 1989, 1994a, b, 2010, 2012a–d, 2013a, b, d, 2016); Nobis (2002a); Popov (1904, 1908, 1909, 1911,

1912, 1913, 1921, 1931 (reported as *Sus scropha*.), 1934b, 1936a, b, 1937); Poppow (1913); Ribarov and Boev (1990, 1997); Ribarov (1982, 1990a, 1991b, 1992a, and unpublished data); Schramm (1975, 1979); Slavchev *et al.* (2018b); Spassov and Iliev (1986); Spassov and Iliev (1994, 2007, 2014, in press); Stoianov (1904); Taneva *et al.* (2012); Vagalinski *et al.* (2012a, b); Vasilev and Dishev (1986); Velkov *et al.* (1986); Venelinova (2013); Yurinich (1891).

695. *Sus scrofa/domesticus* – ME: Boev (2020d).

### **Bovidae Linnaeus, 1758**

696. *Bison bonasus* (Linnaeus, 1758) – NO, ME: Biernacki and Klenina (2022); Boev (2014b, 2021, 2022b); Manhart (1998); Petkov (1930); Ribarov (1986); Spassov and Iliev (1986, 2008); Vasilev (1981, 1885, 1989).

697. *Bison* Hamilton Smith, 1827 sp. – CA, CH, UP, NO: Bonev and Aleksandrov (1991); Delpetch and Guadelli (1991); Guadelli and Delpetch (2000); Sirakov *et al.* (2019); Slavchev *et al.* (2018); Taneva *et al.* (2012).

698. *Bison priscus* Bojanus, 1827 - CA, CH: Fernandez (2009); Guadelli *et al.* (2005, 2010, 2013); Ivanova *et al.* (2013, 2016); Sirakov *et al.* (2018b, 2019b).

699. *Bos brachyceros* Gray, 1837 – CA: Fernandez (2009).

700. *Bos primigenius* Bojanus, 1827 – CA, CH, UP, GR, NO, ME: Biernacki and Klenina (2022); Boev and Boev (2018); Boev (2014b, 2015b, 2016a, 2019e, 2020d, 2021a, b, 2022b); Bonchev (1900); Chichikova and Dimitrov (2016); Dimitrov and Avramova (1994); Dzhambazov (1955a,b, 1957, 1959, 1981); Elenski (2017); Fernandez (2009); Ganetsovski (2012); Guadelli and Delpetch (2000); Guadelli *et al.* (2005); Hlebarov (2004); Ivanov (1959a, b, 1965); Ivanov and Vasilev (1979); Ivanova *et al.* (2012, 2013, 2016); Iwanoff (1949); Kancheva-Ruseva and Koleva (2011); Kancheva-Ruseva *et al.* (2008); Karastoyanova (2011, 2018); Klasnakov *et al.* (2011); Leshtakov *et al.* (2007); Markov (1951, 1958); Mikov (1926); Nikolov (1983); Ninov (1987, 2012c); Nobis (2002a, b); Petkov (1931, 1934); Petrov (1964); Petrov (1964); Popov (1911, 1912, 1920c, 1925b, 1928, 1931, 1934a, b, 1936a, 1938, 1943); Ribarov and Boev (1990, 1997); Ribarov (1982, 1986, 1990a, 1991a, b, c, 1992a, and unpublished data); Sirakov *et al.* (2016b, 2017, 2018a, b, 2019b); Spassov and Iliev (2007, 2014); Spassov and Iliev (2008); Spassov *et al.* (2001); Stoianov (1904); Velkov *et al.* (1986); Yurinich (1891) (Fig. 7a).

701. *Bos* Linnaeus, 1758 sp. – GR: Dzhambazov (1960, 1981); Guadelli *et al.* (2014b); Markov (1951); Mikov and Dzhambazov (1960); Mikov (1927b, 1936a); Popov (1904, 1912, 1921a, b, 1925, 1933, 1936a).

702. *Bos taurus* Linnaeus, 1758 – GR, NO, ME: Atanasov (1994, 2014); Bachvarov *et al.* (2010, 2014); Bakardzhiev and Valchev (2016); Biernacki and Klenina (2022); Boev and Popgeorgiev (2021); Boev (2014a, b, 2016a, 2017f, 2018b, 2019e, f, g, 2020d, 2021, 2022b); Borislavov *et al.* (2016); Boyanov (2012); Boyadzhiev *et al.* (2013); Boyadzhiev and Boyadzhiev (2011); Chernakov (2011); Chernakov and Gurova (2013); Chichikova and Dimitrov (2016); Cholakov and Raycheva (2017, 2018, 2019); Chohadzhiev (1980); Chukalev (2012); Dimitrov and Avramova (1994); Dzhambazov (1954); Ganetsovski (2012); Gergova *et al.* (1990, 2010); Grgbska-Kulow *et al.* (2016); Grigorov (2012); Guadelli *et al.* (2016); Iliev *et al.* (1992,1993); Ivanov (1959a, b, 1965); Ivanov and Vasilev (1979); Kalchev and Andreeva (2017); Kancheva-Ruseva *et al.* (2008); Karastoyanova (2011, 2018); Karastoyanova and Chohadzhiev (2019); Klasnakov *et al.* (2010, 2011); Kuzov *et al.* (2017); Lazarov *et al.* (1988); Leshtakov *et al.* (2007); Manova and Asparuhov (1983); Markov (1951, 1958); Melamed and Evtimova (2018); Mikov (1927a); Nakamura (2005); Nehrizov and Tsvetkova (2012); Nikolov (1983); Ninov (1987, 1989, 1991, 1994a, b, 2010, 2012a, b, c, d, 2013a, d, 2016); Nobis (2002b); Petrunova *et al.* (2019); Popov (1908, 1909, 1911, 1934a, b, 1936b, 1937); Poppow (1913); Rabadjiev *et al.* (2018); Rashev *et al.* (1988); Ribarov and Boev (1990, 1997, 1999); Ribarov (1982, 1991b 1992a); Schramm (1975, 1979); Slavchev *et al.* (2018b); Spassov and Iliev (1986, 2007, 2014, in press); Spassov and Iliev (2008); Spassov (unpublished data); Spassov *et al.* (2001); Stallibrass (2010); Taneva *et al.* (2012); Tonkova and Vasileva (2011); Tsontchev (1942); Vagalinski (2016, 2017); Vagalinski *et al.* (2012a, b); Vajsov *et al.* (2016); Vasilev and Dishev (1986); Velkov *et al.* (1986); Venelinova *et al.* (2012, 2013).

703. *Bos taurus/primigenius* – ME: Boev (2020d, 2016a).

704. *Bubalus bubalis* (Linnaeus, 1758) – ME: Ishirkov (1921); Boev (2016a, 2020d).
705. *Bubalus* C. H. Smith, 1827 sp. – CH: Bonchev (1900); Ishirkov (1921).
706. *Capra caucasica* Gldenstdt & Pallas, 1783 – CA: Boev (2022c); Fernandez (2009); Guadelli *et al.* (2005, 2010, 2011b); Sirakov *et al.* (2017, reported as *Capra caucasicus*, 2018a, b).
707. *Capra hircus* Linnaeus, 1758 – GR, NO, ME: Atanasov (1994, 2014); Bachvarov *et al.* (2014); Boev (1999a, 2014a, b, 2016a, c, b, 2017f, 2018b, 2019e, f, g, 2020d, 2021d, 2022b); Borislavov *et al.* (2016); Boyanov (2012); Boyadzhiev *et al.* (2013); Chernakov and Gurova (2013); Chichikova and Dimitrov (2016); Cholakov and Raycheva (2019); Chukalev (2012); Elenski (2017); Dimitrov and Avramova (1994); Dzhambazov (1953); Gergova *et al.* (2010); Grgbska-Kulow *et al.* (2016); Grigorov (2012); Iliev *et al.* (1992, 1993); Guadelli *et al.* (2016); Ivanov (1959a); Kancheva-Ruseva and Koleva (2011); Kancheva-Ruseva *et al.* (2008); Karastoyanova (2018); Karastoyanova and Chohadziev (2019); Klasnakov *et al.* (2010, 2011); Kuzov *et al.* (2017); Leshtakov *et al.* (2007); Markov (1958); Melamed and Evtimova (2018); Mitev (2006); Moreva-Arabova *et al.* (202); Ninov (1987, 1989, 1994, 2012a, b, c, d, 2013a, b, d, 2014, 2016); Nehrizov and Ivanov (2011); Nobis (2002a, b); Petrunova *et al.* (2019); Popov (1934b); Ribarov and Boev (1990, 1997); Rabadjiev *et al.* (2018); Ribarov (1982, 1991b); Spassov and Iliev (2007, 2014, in press); Stoychev *et al.* (2014); Tonkova and Vasileva (2011); Vagalinski (2017, 2019); Tsontchev (1942); Vagalinski *et al.* (2012a, b); Vasilev and Dishev (1986).
708. *Capra ibex* Linnaeus, 1758 – UP: Boev (2015b, 2022a); Dzhambazov (1981, reported as *Capra aegagrus*); Georgiev and Stoycheva (2010); Delpech and Guadelli (1992, reported as *Capra hircus ibex*); Guadelli and Delpech (2000); Guadelli *et al.* (1999); Gurova *et al.* Ivanova *et al.* (2011a, b, 2012, 2021); Nikolov (1983, reported as *Capra aegagrus*); Popov (1934b, 1936a – reported as *Capra aegagrus*; Sirakov *et al.* (2018a).
709. *Capra* Linnaeus, 1758 sp. – CA, CH, UP, GR: Boev (2016a); Delpech and Guadelli (1991); Dzhambazov (1955a, 1960); Guadelli *et al.* (2014b); Gurova *et al.* (2017); Markov (1951); Mikov and Dzhambazov (1960); Nikolov (1983); Popov (1931, 1925b, 1933); Taneva *et al.* (2012).
710. *Gallogoral* Gurin 1965 sp. – GE: Spassov and Cregut-Bonnoure (1999).
711. *Gazellospira* cf. *torticornis* (Aymard, 1854) – CA: Sirakov *et al.* (2010) (Fig. 7b).
712. *Gazellospira* Pilgrim and Schaub 1939 sp. – GE: Spassov and Cregut-Bonnoure (1999).
713. *Hemitragus* (Hodgson, 1841) sp. – GE: Spassov and Cregut-Bonnoure (1999).
714. *Hemitragus* cf. *bonali* Harl & Stehlin, 1913 – CA: Guadelli *et al.* (2005).
715. *Hemitragus* cf. *cedrensis* Crgut-Bonnoure, 1989 – CA: Guadelli *et al.* (2005).
716. *Hemitragus orientalis* Cregut-Bonnoure & Spassov, 2002 – CA, CH: Cregut-Bonnoure and Spassov (2002); Fernandez (2009); Guadelli *et al.* (2011).
717. *Leptobos* Rtimeyer, 1878 sp. – CA: Sirakov *et al.* (2012).
718. *Megalovis* aff. *balcanicus* Crgut-Bonnoure & Dimitrijevi, 2006 – CA: Fernandez (2009).
719. *Megalovis latifrons* Schaub, 1923 – GE: Spassov (1997; 2000); Spassov and Cregut-Bonnoure (1999).
720. *Megalovis* Schaub, 1923 sp. – GE: Spassov and Cregut-Bonnoure (1999).
721. *Ovis* aff. *antiqua* Pommerol 1879 – CA: Fernandez (2009).
722. *Ovis aries* Linnaeus, 1758 – GR, NO, ME: Angelov and Doncheva-Petkova (1988); Atanasov (1994, 2014); Bachvarov *et al.* (2014); Boev and Popgeorgiev (2021); Boev (2014a, b, 2016a, 2017f, 2018b, 2019e, f, 2020d, 2022b); Borislavov *et al.* (2016); Boyanov (2012); Boyadzhiev *et al.* (2013); Chernakov and Gurova (2013); Chichikova and Dimitrov (2016); Cholakov and Raycheva (2019); Chukalev (2012); Dimitrov (1985); Dimitrov and Avramova (1994); Dzhambazov (1953); Elenski (2017); Georgiev *et al.* (2014); Gergova *et al.* (1990, 2010); Grgbska-Kulow *et al.* (2016); Guadelli *et al.* (2016); Iliev *et al.* (1993); Ivanov (1959a); Kancheva-Ruseva and Koleva (2011); Kancheva-Ruseva *et al.* (2008); Karastoyanova (2018); Karastoyanova and Chohadziev (2019); Kitov and Borisova (1994); Klasnakov *et al.* (2010); Kuzov *et al.* (2017); Leshtakov *et al.* (2007); Markov (1958); Melamed and Evtimova (2018); Moreva-Arabova *et al.* (202); Nakamura (2005); Nikolov (1983); Ninov (1987, 1994, 2010, 2012a, b, c, d, 2013a, d, 2014, 2016); Nobis (2002a, b); Petrunova *et al.* (2019); Popov (1904, 1908, 1909, 1911, 1912, 1913, 1921, 1925, 1934b, 1936a, b); Poppow (1913); Rashev *et al.*

- (1988); Ribarov and Boev (1997); Rabadjiev *et al.* (2018); Ribarov (1982, 1991b); Ribarov and Boev (1990); Slavchev *et al.* (2018b); Spassov and Iliev (2007, 2014, in press); Stoychev *et al.* (2014); Tsarov (1994); Vagalinski (2019); Tsontchev (1942); Vagalinski *et al.* (2012a, b, 2017); Vasilev and Dishev (1986); Venelinova *et al.* (2012, 2013).
723. *Ovis* Linnaeus, 1758 sp. – GE, CH, UP: Guadelli *et al.* (2005); Markov (1951); Nikolov (1983); Spassov and Cregut-Bonnoure (1999); Stoianov (1904); Taneva *et al.* (2012).
724. *Ovis/ Capra* – GR, NO, ME: Boev (2018b, 2019g, 2020d, 2021d, 2022b); Boyadzhiev and Boyadzhiev (2011); Cholakov and Raycheva (2017, 2018); Ganetsovski (2012); Grigorov (2012); Ivanov (1959b, 1965); Ivanov and Vasilev (1979); Ivanova *et al.* (2011); Karastoyanova (2011); Nehrizov and Tsvetkova (2012); Ninov (2012d); Ribarov (1992a), Vagalinski (2016); Schramm (1975, 1979).
725. *Pliotragus* Kretzoi, 1941 sp. GE: Spassov and Cregut-Bonnoure (1999).
726. *Procamptoceras brivatense* Schaub, 1923 – GE, CA: Fernandez (2009); Spassov and Cregut-Bonnoure (1999).
727. *Procamptoceras* Schaub 1923 sp. – CA: Guadelli *et al.* (2005); Sirakov *et al.* (2013).
728. *Rupicapra* Garsault, 1764 sp. – UP: Ivanova *et al.* (2012).
729. *Rupicapra rupicapra* (Linnaeus, 1758) – CA, CH, UP, GR, NO: Delpech and Guadelli (1991, 1992); Dzhabazov (1981); Fernandez (2009); Guadelli and Delpech (2000); Guadelli *et al.* (2005, 2010, 2014); Ivanova *et al.* (2013, 2016); Nikolov (1983); Ninov (1987, 1994); Popov (1938); Sirakov *et al.* (2016b, 2019); Spassov *et al.* (2001).
730. *Saiga tatarica* (Linnaeus, 1766) – UP, NO: Dzhabazov (1957); Spassov (2010).
731. *Soergelia* aff. *intermedia* Crégut-Bonnoure & Dimitrijević, 2006 – CA: Fernandez (2009).
732. *Soergelia* sp. Schaub, 1951 – CA: Guadelli *et al.* (2005).

#### **Delphinidae Gray, 1821**

733. Delphinidae Gray, 1821 gen. indet. – NO: Klasnakov *et al.* (2011).
734. *Delphinus delphis* Linnaeus, 1758 – NO, ME: Ninov (2013); Ribarov (1991a); Spassov and Iliev (1994); Ribarov (1991c).
735. *Tursiops truncatus* (Montagu, 1821) – NO, ME: Ribarov (1991a); Spassov and Iliev (1994).

#### **Perissodactyla Owen, 1848**

##### **Rhinocerotidae Gray, 1820**

736. cf. *Stephanorhinus etruscus* (Falconer, 1868) – GE: Spassov (2005) (Fig. 7c).
737. *Coelodonta antiquitatis* (Bronn, 1831) – CA, CH, UP: Beron *et al.* (2006); Boev (2015b, 2017g, 2021); Boev (2017, 2021); Dzhabazov (1981, reported as *Rhinoceros tichorhinus*); Fernandez (2009, reported as *Dicerorhinus etruscus*); Guadelli *et al.* (2013c, 2014a, b); Kovachev (1906); Nikolov (1977, 1983); Popov (1929b, 1931, 1933, 1934b, 1936a, b – reported as *Rhinoceros tichorhinus*); Nikolov (1977, 1983); Popov (1983).
738. *Dicerorhininae* Simpson, 1945 gen. – CA: (Boev, 2017g).
739. *Rhinocerotidae* gen. – CA, CH, UP: Dzhabazov (1953, 1955a); Guadelli and Delpech (2000); Guadelli *et al.* (2005); Gurova *et al.* (2016b, 2017); Ivanova *et al.* (2014a, b, 2016); Mikov (1926, reported as *Rhinoceros* sp.); Popov (1925b, 1928, 1938).
740. *Stephanorhinus kirchbergensis* Jäger, 1839 – CA, CH: Bakalov and Nikolov (1962, reported as *Dicerorhinus kirchbergensis*); Boev (2017); Nikolov (1977, 1983 – reported as *Rhinoceros mercki*).

##### **Equidae Gray, 1821**

741. *Equus africanus asinus* Linnaeus, 1758 – GR, NO, ME: Boev and Popgeorgiev (2021); Boev (2014a, b, 2016a, (reported as *Equus asinus*) c, 2018b (reported as *Equus asinus*), 2019e, g, 2020d, 2021d, 2022b); Borislavov (2012); Dzhabazov (1981); Iliev *et al.* (1992, 1993); Ninov (1991, 2012b, c, 2013); Popov (1933, 1936a); Ribarov (unpublished data); Schramm (1975, 1979); Vagalinski *et al.* (2012a, b); Vasilev and Dishev (1986).
742. *Equus altidens* von Reichenau, 1915 – CH: Guadelli *et al.* (2005); Spassov (unpublished data).
743. *Equus caballus germanicus* Nehring, 1884 – CA, CH: Guadelli *et al.* (2013b, 2014); Ivanova *et al.* (2013); Sirakov *et al.* (2019); Slavchev *et al.* (2018).
744. *Equus* cf. *mosbachensis* Reichenau, 1903 – CA, CH: Fernandez (2009).

745. *Equus cf. suessenbornensis* (Wüst, 1901) – CA: Fernandez (2009).
746. *Equus ferus caballus* Linnaeus, 1758 – UP, GR, NO, ME: Agre (1984); Atanasov (1994); Boev and Popgeorgiev (2021); Biernacki and Klenina (2022); Boev (1999a, 2014b, 2016a (reported as *Equus caballus*.), 2017f, 2018b, 2019e–g, 2020d, 2021d, 2022b); Bonchev (1900); Cholakov and Raycheva (2018); Chichikova (1983); Chohadzhiev (1980); Dzhambazov (1953, 1955a, 1960, 1981); Ganetsovski (2012); Guadelli *et al.* (2014); Ivanov (1965); Ivanov *et al.* (1987); Iliev *et al.* (1992, 1993); Kuzov *et al.* (2017); Markov (1958, reported as *Equus caballus*); Melamed and Evtimova (2018); Mikov (1926, 1927b, 1928 – reported as *Equus Cabalus antiquus*, 1933); Nakamura (2005); Nehrizov and Tsvetkova (2012); Ninov (1989, 1991, 1994b, 2012b, c, 2013d, 2014, 2016); Nobis (2002); Petrunova *et al.* (2019); Popov (1904, 1908 (reported as *Equus caballus fossilis*), 1911; 1912a,b (reported as *Equus caballus*), 1925b, 1933, 1934a, b (reported as *Equus caballus fossilis*), 1936a, b); Poppow (1913); Ribarov and Boev (1990, 1997); Ribarov (1991a (reported as *Equus caballus f. ferrus*.), b, and unpublished data); Schramm (1975, 1979); Spassov and Iliev (1986, 2007, 2014, in press); Spassov (unpublished data); Stallibrass (2010); Vagalinski (2017); Vagalinski *et al.* (2012a, b); Vasilev and Dishev (1986).
747. *Equus ferus ferus* Boddaert, 1785 – CH, UP: Boev (2015b); Delpéch and Guadelli (1991); Dzhambazov (1953, 1955a, 1960, 1981); Fernandez (2009); Delpéch and Guadelli (1992) (reported as *Equus caballus*.); Guadelli and Delpéch (2000); Guadelli *et al.* (2013); Hlebarov (2004); Karastoyanova (2018); Markov (1951, reported as *Equus caballus fossilis*); Mikov and Dzhambazov (1955b, 1957, 1959, 1960); Nikolov (1983); Popov (1920c, 1928, 1938) (reported as *Equus caballus fossilis*); Ribarov (1986, 1991a (reported as *Equus gmelini*), c (reported as *Equus przewalsky gmelini*); Ribarov and Boev (1990, reported as *Equus gmelini*); Sirakov *et al.* (2016b, 2018a, b, 2019a, b).
748. *Equus germanicus transylvanicus* (Fitzinger, 1859) – CH, UP, GR, NO: Dzhebir *et al.* (2018); Guadelli *et al.* (2005, 2014b); Ivanova *et al.* (2011, 2012, 2016, 2021); Spassov and Iliev (1997); Spassov *et al.* (2001, 2018).
749. *Equus hydruntinus* Regalia, 1907 – CA, CH, UP, NO, ME: Boev (2015b); Delpéch and Guadelli (1991); Fernandez (2009); Delpéch and Guadelli (1992); Guadelli and Delpéch (2000); Guadelli *et al.* (2005); Gurova *et al.* (2017, 2018); Ivanova *et al.* (2012, 2013); Karastoyanova (2018); Manhart (1998); Popov (1938, 1943 – reported as Wild donkey *Equus asinus*); Ribarov (1991c, 1992a); Sirakov *et al.* (2018b); Slavchev *et al.* (2018); Spassov and Iliev (2002).
750. *Equus latipes* Gromova, 1949 (Spassov & Iliev (1997) considered *Equus latipes* as a synonym of *Equus germanicus transylvanicus*.) – ME: Ribarov (1992a, and unpublished data).
751. *Equus* Linnaeus, 1758 sp. – CH, UP: Dzhambazov (1953, 1960); Guadelli and Delpéch (2000); Gurova *et al.* (2016a, b); Popov (1931); Spassov (unpublished .data); Stoianov (1904).
752. *Equus stehlini* Azzaroli, 1964 – CA: Fernandez (2009).
753. *Equus stenonis* Cocchi, 1867 – GE, CA: Fernandez (2009); Guadelli *et al.* (2005); Iliev (1997); Popov (1920c); Sirakov *et al.* (2012); Spassov (1997; 2000) (Fig. 7d).
754. *Equus suessenbornensis* (Wüst, 1901) – CA: Guadelli *et al.* (2005).

### **Proboscidea Illiger, 1811**

#### **Elephantidae Gray, 1821**

755. *Mammuthus cf. trogontherii* – CH: Guadelli *et al.* (2005).
756. *Mammuthus primigenius* (Blumenbach, 1799) – CA, CH, UP: Bakalov (1932); Dzhambazov (1981); Fernandez (2009); Guadelli *et al.* (2005); Gurova *et al.* (2016a); Markov (2004); Mikov (1926), reported as *Elephas primigenius*); Nikolov (1983); Popov (1913, 1920, 1925b, 1926, 1928, 1929a, b, 1931, 1936a, 1938 – reported as *Elephas primigenius*); Sirakov *et al.* (2019).
757. *Mammuthus* sp. – CH: Gurova *et al.* (2016).

### **Primates Linnaeus, 1758**

#### **Cercopithecidae Gray, 1821**

758. Cercopithecidae Gray, 1821 gen. indet. – CA: Sirakov *et al.* (2010).
759. *Macaca sylvanus* (Linnaeus, 1758) – CA: Fernandez (2009); Guadelli *et al.* (2005).