

*Ornithorhynchus* 0011110020 110112000? 0010210100 101--01101 010-101000  
200??011?(01) 0101100101 0110011001 -0000000-0 0(01)??1?000- 11010-0000 1101000000  
1021101010 00100542?? ?-?????000 ---00---0 ?0??110000 000?010000 ?0110?0000  
0?10000010 3010000010 0-1000-000 -202?00-0- 00-010010- 00000

*Tachyglossus* 1010110020 110020000? 0010210100 101--00101 010-101001  
000011010(01) 0101100101 011001(01)001 -2011100-0 000000010- 11220-0001 1001?01000  
1011101010 00102542?? ?-?????000 ---00---0 ?0??110000 000?010200 ?0110?0000  
0?10000010 4010101000 0-0000-100 -202?20-0- 00-010010- 10000

*Vincelestes* 10010?1120 11?1121010 ?2?101???? 0??1100111 001101111? ???01??1?0  
1?11?001?? 0???011011 12000000-0 011000011- 01110-0000 1101????? ???? ??????  
?????13100 (12)?00100??? 011210000? ?0?00010?0 ?00???0000 1001001200 ???0?????  
????0000?0 0-0000-000 -200000-00 00-0000000 00000

*Ukhaatherium* 0?0?1????? ??????1?10 1?0?0????? ???020?1?? 001?0?1?10 ??????????  
1011?001?? ?10?0?1?? ?111001101 011011011- 11?2100000 ?0? ?????? ???? ??????  
?????00100 00??1????? 00?21?0000 ?00??????1 ??11????? ?000?????0 ?????????? ?????3????  
?-???????0 -?????10?? ??????????1 01??1

*Asioryctes* 000?001010 0-?1001011 ?????????? ?????????? ?????????? 210????11??  
?????????? 0???01?0?0 ?11???1101 0???11??1- ?1?010?0?? ?0? ??????? 1???????10 ??????00100  
000011???? 0?12100000 00???00011 0011?23?00 0000000110 ?????????? ?????3?0?2 ?-  
10?101?0 ???1?2???0 ???1???111 01?00

*Deltatheridium* ?????????? ?????????? ?????????? ?????????? ?????????? ??????????  
?????????? ?????????? ?????????? ??????????1- 0???0-???? 11????????? ?????????? ?????11000  
001011?122 0?12101001 ?1???01??1 ??10???0?? ??00011??0 ?????????? ???210002 0-  
00010100 --01?11000 00-0000001 11000

*Mayulestes* 0001001100 ???????01? ?01?????1 0000111111 0110011111 ??????????1  
101??011?? 1???011010 1000?10110 011000?11- 1111000100 11010?000? ??????????  
?????00000 2010120122 0012111001 01?11010?1 0010??1000 01000112?0 ??????????  
?????100?2 ?-?1110100 -?01111000 1101?????1 11100

*Pucadelphys* 0001001100 1??1101011 1?0??10??2 0000211111 0010011111 ??????????1  
1011000100 100?011010 1000110110 001000?11- 1111000100 110101000? ??????????  
?????00000 2111120122 0112111001 0100111001 0010??1000 0100001200 ???0?????  
?????1{12}0001 0-11110110 -001111000 11000{01}11{01}1 11100

*Andinodelphys* 00010011?0 ???01?1?11 ??0??1???2 ?0002?1111 0011011111 2???0??101  
1011?01100 100?011??? ?000110110 001000?11- 1111000100 11010?000? ???1001000

?011?00000 2110120122 000201100? 01001100?1 0010??101? 0100001200 ???0?????  
????1{12}000? 0-11110110 -001?11000 1100001111 11100

*Didelphis* 1(01)(01)1010(01)10 1001221011 (01)200010012 0001101111  
0(01)1(01)011110 2110111100 101110(01)101 1100011021 1211000110 0010110(01)1-  
0112110100 0-11110000 1011011011 1000000000 2101121122 0112111001 0100110101  
001001(12)011 1000211(12)00 0?00100001 1410120002 1-00010101 0101121000 1110100001  
11001

*Monodelphis* (01)101011010 1001101011 1200010012 00002101(12)1 0110001110  
2110111100 101110(01)101 1102011021 1111000110 001010011- 0101110100 0-11100000  
1011011011 1010000000 2101121122 0112111001 0101110101 001001(12)011 0000211200  
0??1100001 0410120002 1-10010101 0101121000 1110100001 11001

*Caenolestes* 00000110?0 1101(01)(012)1110 ?2??010012 0000021101 0010011110  
2110100100 1011101101 1101011020 0011000110 001010011- 0112110100 1001?00110  
00110?1000 0011010011 1011122122 121211-001 0101110201 0010011010 ?010211100  
0000000101 0210020002 0-10010101 0001?21100 0110010111 11001

*Dasyuroides* (01)(01)00011000 1011001(01)11 0?01010012 0000220111 0010001110  
202010110? 1011?00101 1101001020 0211110110 001011001- 00--110120 0-00110010  
0011001100 0012011000 2100120122 0012111001 0101010211 0010011011 0000(02)10100  
0?0000??0 030?120012 ?-10010101 1011021110 1121??111 11001

*Dasyurus* 11(01)1011010 10?1(12)(01)1(01)11 (01)201010012 000??21011  
1(01)1(01)001110 2020101101 1011100101 1102011021 1211110110 011011011- 0101110120  
??00100010 0011001100 0012011000 2100120122 0112111001 0101010211 0010011011  
000021(01)200 010000(01)10? 0300120012 1-00010101 1111021110 1111111(01)(01)1 11001

*Phascogale* 11?0011010 1011(01)(012)1111 0201010012 0000121121 0010001110  
2020101101 1011100101 1101011021 1211110110 011011001- 0101110120 ??00110010  
0011001000 0012011000 2100120122 0212111001 0101010211 001001101? ?000?10?00  
0??000???? ?30?120012 0-00010101 1111021110 1111111111 11001

*Notoryctes* 00(01)011?0(01)2 ?????01?10 0100210003 0000201010 1011001010  
20???001?0 0011100111 1100011200 -011010110 001011001- 00--111121 1100?13010  
01?111?110 0000221000 2-001?0?22 0102110001 0000010201 0010002011 ?0000?0?00  
1??0001?00 2100??0?2 ?-1001?1?1 1????211?? ??1?????1 11001

*Echymipera* 0001011000 11112(012)1110 1201211013 1100111130 0110001110  
2011000000 1011001010 1000001000 -201002110 000011101- 20--110111 1100001000  
1121000110 0100211000 2111121122 1112111001 1101110211 0010012011 (01)010201100  
??000???? ?3??120002 0-10010101 0201021000 0121011111 11001

*Perameles* 000001?000 11012(012)1?10 1201211013 1100011120 0010001110  
201110000? 1011001010 1000001000 -201102110 000111101- 20--110011 1100011000  
112(01)000100 0100201010 2111121122 1112111001 1101110211 0010012011 (01)010201200  
0?0000(01)000 2310120012 0-10010101 1201021100 012100?111 11001

*Dromiciops* (01)00001?000 10111(12)1?11 0100010011 0001200111 0011000110  
2020100102 1011100101 110?011021 1211000110 001000001- 0102100120 0-01?10210  
10110?1011 0000000000 1001120122 1112110001 1100010201 00101020{01}1 ?000201200  
1211100100 0210120012 1-10011101 1011121110 1121?1?111 11001

*Trichosurus* 1(01)01011000 1011121111 0100(12)10011 00012(02)0111 0011001110  
2000101100 1011101101 1101011021 1211010110 001001001- 0101110120 0-01?10210  
1011001011 0100022011 0011021100 120111-101 01110(01)1321 1111102010 0000211200  
12?(01)111100 1111120112 1-10010101 0101221101 112(01)101011 11011

*Phalanger* 10010(01)1010 10101(012)1111 0100010011 0001200111 0011001110  
1000101100 1011100101 1101010021 1211000110 001001011- 0101111120 0-01?10210  
1011001011 0100022011 0011021111 120111-101 01110(01)1321 11111021(12)0 0000211200  
121111??0 ?21?120102 0-10010101 000122110? 1121000?11 11001

*Petaurus* 1101011010 0-11011111 0100210011 00012001(01)1 0011001110  
1100001101 1011000101 1101011021 1211010110 001000001- 0101101120 0-00010210  
0011001011 0100022010 1011022111 100111-001 11010(01)0321 1111101010 ?000001200  
1211111200 1211110102 1-10010101 0101121101 1121000111 11001

*Pseudochirops* 1002011000 1010211110 0100010012 0001200111 0011000110  
1100??1100 1011100101 1102010021 1211000110 001001011- 0101111120 0-00010210  
1011000011 0100023010 0111011102 121011-011 0101011321 1111102010 ?000011200  
12?11112?0 1211110102 1-10010101 0101121101 1121(01)01011 11001

*Cercartetus* 00000?1010 0-?1111111 0100110011 000021?111 00110?111? 1?00101100  
1011?00101 1100011021 1211000110 001000001- 0112101120 1100?10210 0011001011  
0100023010 0011021111 121111-001 0101?1?321 111110203? 0000211100 1???1?1??0  
121?110012 0-100101?1 0001021101 112100??11 11001

*Macropus* 1002001000 1010221111 0101010??3 0002210111 1111000110 0000001112  
1111111111 0100011220 1000111110 101111002- 1102110101 1200112001 1000-01(01)2- -  
103223011 1011021022 10000?-101 0111111321 0011102120 1000(02)11201 1211101200  
1211120012 1-10010101 1211101101 1121(01)000(01)1 11001

*Dendrolagus* 100100110(01) 1010221111 0101210013 0002220111 0111001110  
0100000111 1111101111 0100011020 1100001110 101011002- 0102110021 1200102000 1000-

0102- -103123011 1011021022 110001-101 0111111321 0011102120 0000(02)11201  
?????0???? ????120012 1-00010101 0211101101 112110??01 11001

*Dorcopsis* 1002011000 1010221110 0001210013 0002200111 1111000110 0000000112  
1111111110 0100011220 1000111110 101111002- 1102110101 1200112001 1000-0112- -  
103223011 1011021022 1(01)0001-101 0111111321 0011102120 ?000211201 ??????????  
????120012 1-10010101 0211101101 1120101001 11001

*Thylogale* 1002011000 1010221111 0100210013 0002220111 1111000110 0?00001112  
1111111111 0100011220 1000101110 101111002- 1102110101 1200112001 1000-0112- -  
103223011 1011021022 100001-101 0111111321 0011102120 000021(01)(12)01 ???101?0?  
1211??0012 1-00?????1 021110110? ????????11? 11?01

*Vombatus* (01)001010010 0-11121111 0100100012 0001220111 1111001110  
(01)000101102 1011101101 0101010021 1111001110 001011111- 00--100120 ??01?10010  
1011001011 0100043011 101101?000 0-000?-011 0111101(01)21 0012103021 00001?1100  
1100(01)0?210 2111221002 0-10010100 --0110100- 11210(01)?1?1 11010

*Phascolarctos* 1002010010 0-00221110 0100100011 0001200101 0011001110 0000001110  
1011101101 1101000221 1011001110 001011111- 00--100120 ??01?10011 1011001?11  
0100023010 1111022000 021001-011 0011111201 0011102111 ?000111200 1?000??10  
2111120012 1-10010100 -20100110- 1110000111 11001

*Herpetotherium* ?????????? ??????1??? ??0??????? ?????????? 0???0????? ??????????1  
1?1??00101 110?011020 1001000110 001010111- 21110-0100 1101?????? ??????????  
?????00000 2101122122 001211000? ?10011?2?1 ???012??? ?002?1??0 ??????????  
????020002 1-10010101 0001?11100 1111100111 11001

*Asiatherium* ?????????? ?????????? ???0????? 0?????01?1 ?0???1??1 ?00??????0  
1??1?0?1?? ?10?0?1??? ?????????? ??????????- ?????????? ?????????? ?????????? ??????????0  
0011?2???? ?1?1?000? ?????????? ???0?(12)?? ????0?1??? ???0????? ???????0?? ?-  
???11??1 0?0??1100? ??????????1 ??0??

*Djathia* ?????????? ?????????? ?????????? ?????????? ?????????? ??????????  
?????????? ?????????? ?211010110 001000011- 0112110(01)20 0-0?0????? ??????????  
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?????1{23}00(01)2 0-10010101 0001?21000 112(01)0110?1 110??