Three new Miocene species of musky rat kangaroos (Hypsiprymnodontidae,
Macropodoidea): description, phylogenetics and palaeoecology

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SUPPLEMENTARY DATA

Nexus-formatted character matrix for the 35 taxa included in our phylogenetic analyses.
Outgroup taxa was *Trichosurus vulpecula*. ? = missing data; - = inapplicable.

#NEXUS

BEGIN TAXA;

DIMENSIONS NTAX=35;

TAXLABELS

'Trichosurus vulpecula'
'Balbaroo fangaroo'
'Bettongia moyesi'
'Bettongia penicillata'
'Bulungamaya delicata'
'Dendrolagus lumholtzi'
'Dorcopsis muelleri'
'Dorcopsoides fossilis'
'Ekaltadeta ima'
'Ganawamaya acris'
'Gangaroo bilamina'
'Hadronomas puckridgi'
'Hypsiprymnodon moschatus'
'Macropus rufus'
'Nambaroo gillespieae'
'Ngamaroo archeri'
'Nowidgee matrix'
'Petrogale penicillata'
'Potorous tridactylus'
'Procoptodon goliah'
'Purtia mosaicus'
'Rhizosthenurus flanneryi'
'Simosthenurus occidentalis'
'Thylogale thetis'
'Wabularoo naughtoni'
'Wakiewakie lawsoni'
'Wallabia bicolor'
'Wanburoo hylarous'
'Wururoo dayamayi'
'Hypsiprymnodon philcreaseri'
'Hypsiprymnodon dennisii'
'Hypsiprymnodon karenblackae'
'Hypsiprymnodon bartholomaei'
'Jackmahoneya toxoniensis'
'Propleopus oscillans'

;

ENDBLOCK;

BEGIN CHARACTERS;

DIMENSIONS NCHAR=107;
 FORMAT DATATYPE=STANDARD MISSING=? GAP=- SYMBOLS="012345";
 CHARLABELS

[1]	'Basioccipital/basisphenoid '
[2]	'FRONTAL REGION '
[3]	'FRONTAL SINUSES '
[4]	'POSTORBITAL CONSTRICTION OF SKULL '
[5]	'MASSETERIC PROCESS '
[6]	'CHEEK REGION OF SKULL '
[7]	'LATERAL WALL OF NEUROCRANIUM '
[8]	'PAROCCIPITAL PROCESS-ALISPHENOID CONTRIBUTION '
[9]	'MASTOID PROCESS '
[10]	'INFLATED ALISPHENOID FORMING AUDITORY BULLA'
[11]	'ALIGNMENT OF MOLAR DORSOVENTRAL AXES '
[12]	'DIGASTRIC EMINENCE '
[13]	'MANDIBULAR SYMPHYSIS '
[14]	'ANTERIOR PENETRATION OF MASSETER (ADULT)'
[15]	'MASSETERIC AND INFERIOR DENTAL CANALS '
[16]	'MANDIBULAR CANAL '
[17]	'POSTERIOR MENTAL FORAMEN '
[18]	'i1 OCCLUSAL SURFACE '
[19]	'CANINIFORM TOOTH PRESENT IMMEDIATELY POSTERIOR TO I1'
[20]	p2
[21]	C1
[22]	p3
[23]	'P3/p3'
[24]	MOLARS
[25]	m4
[26]	P3
[27]	p3
[28]	'm1 PROTOCONID '
[29]	'm1 PROTOCONID '
[30]	'Trigonid basin on m1 '
[31]	'm1 protostylid '
[32]	'Hypocingulid on lower molars'
[33]	'i1 dorsal enamel flange '
[34]	'i1 enamel '
[35]	''Forelink'' (preprotocrista) on M1'
[36]	'M1 styler cusp C '
[37]	'M1 styler cusp D '
[38]	'M1 anterolingual cingulum '
[39]	'M1 postprotocrista '
[40]	'M1 neometaconule and ''postlink'' '
[41]	'Postmetacrista-postmetaconule crista '
[42]	'Mental foramen'
[43]	'P3 lingual cingulum '
[44]	'Internal carotid foramen'
[45]	'Foramen ovale '
[46]	'Occlusal edge of i1 '
[47]	'MEDIAL MALLEOLAR FOSSA OF ASTRAGALUS '
[48]	'MEDIAL MALLEOLAR PROCESS OF ASTRAGALUS '
[49]	'MALLEOLAR FOSSA BORDER OF ASTRAGALUS '
[50]	'TROCHLEAR RIDGES ON ASTRAGALUS '
[51]	'POSTERIOR EDGE OF LATERAL TROCHLEAR CREST OF

ASTRAGALUS'

[52]	'ASTRAGALAR NECK'
[53]	'NAVICULAR FACET OF ASTRAGALUS '
[54]	'Sustentaculum tali of calcaneum '

[55] 'TUBER CALCIS OF CALCANEUM '
 [56] 'ASTRAGALUS-CALCANEUM FACET'
 [57] 'PLANTAR RUGOSITY ON THE CALCANEUM'
 [58] 'LONG AXIS OF DORSOLATERAL FACET OF CALCANEUM '
 [59] 'CUBOID BODY'
 [60] 'MEDIAL PLANTAR TUBEROSITY OF CUBOID '
 [61] 'GROOVE BETWEEN MEDIAN AND LATERAL PLANTAR TUBEROSITIES
 OF CUBOID '
 [62] 'CALCANEUM-CUBOID FACET'
 [63] 'GROOVE BETWEEN DORSOMEDIAL AND VENTROMEDIAN FACETS OF
 CUBOID '
 [64] 'NAVICULAR BODY '
 [65] 'NAVICULAR PLANTAR EMINENCE '
 [66] 'ASTRAGALAR FACET OF NAVICULAR '
 [67] 'MESOCUNEIFORM/NAVICULAR CONTACT'
 [68] 'CUBOID FACET OF NAVICULAR '
 [69] 'POSTERIOR NODE ON ENTOCUNEIFORM'
 [70] 'METATARSAL I'
 [71] 'METATARSAL I PROXIMAL FACET MARGIN '
 [72] 'METATARSAL IV '
 [73] 'PLANTAR CREST OF METATARSAL IV'
 [74] 'METATARSAL V FACET OF METATARSAL IV'
 [75] 'CUNEIFORM FACET OF METATARSAL IV '
 [76] 'INTRA-ARTICULAR GROOVE OF METATARSAL IV '
 [77] 'PEDAL DIGIT V'
 [78] 'LATERAL TUBEROSITY OF METATARSAL V'
 [79] 'VENTROMEDIAN PROCESS OF METATARSAL V'
 [80] 'METATARSAL V CUBOID FACET '
 [81] 'PEDAL DIGIT IV PROXIMAL AND MEDIAL PHALANGES'
 [82] 'CRUCIATE FOSSA OF PEDAL DIGIT IV PROXIMAL PHALANX '
 [83] 'CROSSED SESAMOID AND OBLIQUE SESAMOID LIGAMENT SCARS
 OF PEDAL DIGIT IV PROXIMAL PHALANX'
 [84] 'UNGUAL PROCESS OF PEDAL DIGIT IV DISTAL PHALANX '
 [85] 'POSTERIOR SURFACE OF FEMORAL SHAFT '
 [86] 'CONDITION OF FEMORAL HEAD'
 [87] 'DISTAL PORTION OF FIBULA SHAFT '
 [88] 'TIBIA SHAFT '
 [89] 'ACROMION PROCESS OF SCAPULA '
 [90] 'SUPRASPINOUS FOSSA OF SCAPULA '
 [91] 'CORACOID PROCESS OF SCAPULA'
 [92] 'SUPINATOR CREST OF HUMERUS'
 [93] 'DELTOID CREST OF HUMERUS'
 [94] 'LATERAL DELTOID RIDGE OF HUMERUS'
 [95] 'ENTEPICONDYLE OF HUMERUS'
 [96] 'CORONAL DEPRESSION OF HUMERUS'
 [97] 'CAPITELLUM AND TROCHLEA OF HUMERUS'
 [98] 'SHAFT OF ULNA'
 [99] 'OLECRANON PROCESS OF ULNA '
 [100] 'DISTAL APEX OF ILIUM'
 [101] 'ILIOPECTINEAL PROCESS OF ILIUM'
 [102] 'VENTRAL PROFILE OF ANTERIOR LUMBAR CENTRA'
 [103] 'CAUDAL CENTRA '
 [104] 'Ventral margin of mandible'
 [105] 'p3 transcristids'
 [106] 'p3 transcristid number'
 [107] 'Lower molar occlusal outline'
 ;

STATELABELS

1	coplanar
	angled,
2	'NOT FLAT'
	FLAT,
3	'NOT MARKEDLY INFLATED'
	'MARKEDLY INFLATED',
4	ABSENT
	PRESENT,
5	'NOT EXTENDING BELOW ALVEOLAR MARGIN'
	'EXTENDING BELOW ALVEOLAR MARGIN',
6	'SMOOTH TRANSITION OF ZYGOMA TO CHEEK'
	'WITH SULCUS ANTERIOR TO ZYGOMA',
7	'ALISPHENOID-PARIETAL CONTACT'
	'WITH SQUAMOSAL-FRONTAL CONTACT',
8	'DOES NOT CONTRIBUTE'
	'CONTRIBUTES TO ANTERIOR FACE',
9	'SMALL (<PAROCCIPITAL PROCESS)'
	'HYPERTROPHIED (>PAROCCIPITAL PROCESS)',
10	ABSENT
	PRESENT,
11	'CHANGING IN ANTEROPOSTERIOR DIRECTION '
	'ALIGNED ',
12	'CENTRALLY POSITIONED '
	'POSTERIORLY POSITIONED ',
13	'NOT ANKYLOSED '
	'ANKYLOSED ',
14	'MASSETER NOT INVADING MANDIBLE '
	'PENETRATION ANTERIOR TO M4 '
	'PENETRATION NOT ANTERIOR TO M4',
15	'MASSETERIC CANAL NOT DEVELOPED '
	'CANALS CONFLUENT ANTERIOR TO MASSETERIC FOSSA '
	'CANALS PARTITIONED ANTERIOR TO MASSETERIC FOSSA ',
16	'MASSETERIC FORAMEN ABSENT '
	'DISTINCT CANAL SEPARATES MANDIBULAR AND MASSETERIC
	FORAMINA '
	'CANAL LENGTH REDUCED, FORAMINA OVERLAP'
	'CANAL LOST, SINGLE MANDIBULAR FORAMEN',
17	'PRESENT '
	'ABSENT ',
18	'REACHING TO LEVEL OF MOLAR OCCLUSAL PLANE '

19 'BELOW MOLAR OCCLUSAL PLANE ',
 'PRESENT '
 'ABSENT ',
 20 'PRESENT, NOT REDUCED, PERSISTS AFTER p3 ERUPTION '
 'PRESENT, NOT REDUCED, DISPLACED BYp3 ERUPTION '
 'REDUCED OR ABSENT ',
 21 'PRESENT '
 'ABSENT ',
 22 'BUCCALLY FLEXED '
 'ALIGNED WITH MOLAR ROW ',
 23 'SHORT (<1.5Ml/1) '
 'ELONGATE (>1.5Ml/1)',
 24 'BUNODONT '
 'BUNOLOPHODONT '
 'LOPHODONT, BRACHYODONT'
 'LOPHODONT, HYPSONODONT',
 25 'MARKEDLY SMALLER '
 'NOT MARKEDLY SMALLER THAN ANTERIOR MOLARS ',
 26 'LACKING POSTEROLINGUAL CUSP OR RIDGE '
 'WITH POSTEROLINGUAL CUSP '
 'WITH POSTEROLINGUAL RIDGE',
 27 'cingulids absent'
 'with distinct labial and/or lingual cingulids',
 28 'CENTRAL '
 'BUCCAL ',
 29 'DOMINATES TRIGONID '
 'SUBEQUAL TO METACONID '
 REDUCED,
 30 'not developed '
 'narrow transversely '
 'broad transversely',
 31 'present as cuspid '
 'present as enamel ridge '
 absent,
 32 Present
 'absent ',
 33 'present '
 'absent ',
 34 'buccal surface only '
 'buccal and dorsolingual surfaces '
 'buccal and lingual surfaces',
 35

'absent '
 'present, diagonal '
 'buccally displaced, anteroposteriorly directed',
 36 'present '
 'reduced to stylar crest '
 absent,
 37 'present '
 'reduced to stylar crest '
 absent,
 38 'present '
 'absent ',
 39 'contacts metaconule '
 'contacts metaloph buccal to metaconule '
 absent,
 40 'absent '
 'present ',
 41 'separated '
 'continuous '
 overlap,
 42 'anterior to p3, well below diastemal margin '
 'close to p3, well below diastemal margin '
 'close to p3, close to diastemal margin',
 43 'absent '
 'present '
 'present and elevated',
 44 'anterior to suture '
 'close to or posterior to basioccipital/basisphenoid
 suture ',
 45 'lateral, floored by alisphenoid process from tympanic
 wing '
 'lateral, with narrow ventral alisphenoid process '
 'mesial, with incomplete ventral alisphenoid process',
 46 'not sinuous '
 'sinuous ',
 47 'LARGE AND OVOID '
 'SMALL AND CIRCULAR ',
 48 'TRANSVERSELY BROAD AND LATERALLY FLARING '
 'REDUCED AND TRANSVERSELY NARROW ',
 49 'SHORT AND NARROWING TOWARDS EXTREMITIES '
 'ELONGATE AND UNIFORMLY THICK ALONG LENGTH ',
 50 'INDISTINCT WITH NO CLEAR ORIENTATION '
 'OBLIQUELY ORIENTED RELATIVE TO LONG AXIS OF PES,
 GIVING RHOMBOIDAL OUTLINE '

'SUBPARALLEL TO LONG AXIS OF PES, GIVING RECTANGULAR
 DORSAL OUTLINE TO ARTICULAR FACET',
 51
 'CONTINUOUS '
 'TRUNCATED ',
 52
 'ELONGATE AND ANTERIORLY DIRECTED '
 'SHORT AND ANTERIORLY DIRECTED '
 'VERY SHORT AND PLANTARLY DIRECTED',
 53
 'ELONGATE AND CONDYLE LIKE '
 'ANTEROPOSTERIORLY SHORT AND ANTERIORLY DIRECTED ',
 54
 'horizontally oriented and transversely broad '
 'steeply inclined and transversely narrow ',
 55
 'DORSOVENTRALLY DEEP AND POSTERIORLY FLARING '
 'DORSOVENTALLY NARROW AND SUBCYLINDRICAL ',
 56
 'BROAD WITH MEDIAL CONSTRICTION ABSENT '
 'MEDIALY CONSTRICTED OR COMPLETELY DIVIDED ',
 57
 'ANTEROPOSTERIORLY SHORT WITH BROAD, SHALLOW PLANTAR
 SULCUS '
 'ANTEROPOSTERIORLY LONG WITH PLANTAR SULCUS NARROW,
 DEEP, OR ABSENT ',
 58
 'OBLIQUELY ORIENTED '
 'DORSOVENTRALLY ORIENTED ',
 59
 'NOT PROXIMODISTALLY COMPRESSED '
 'PROXIMODISTALLY COMPRESSED ',
 60
 'WEAKLY DEVELOPED '
 'WELL DEVELOPED, FORMING PROMINENT RAISED TUBERCLE ',
 61
 'ABSENT '
 'PRESENT ',
 62
 'WEAKLY STEPPED AND SIGMOIDAL '
 'DISTINCTLY STEPPED ',
 63
 'ABSENT '
 'PRESENT ',
 64
 'CRESCENTIC IN LATERAL VIEW WITH VENTRAL EDGE LONGER
 THAN DORSAL '
 'SUBRECTANGULAR IN LATERAL VIEW WITH DORSAL EDGE
 LONGER OR SUBEQUAL TO VENTRAL EDGE ',
 65
 'PROMINENT AND CONDYLE LIKE '
 'REDUCED ',
 66
 'TRANSVERSELY NARROW AND DORSOVENTRALLY ELONGATE '
 'TRANSVERSELY WIDE AND DORSOVENTRALLY SHORTENED ',
 67
 'PRESENT '
 'ABSENT ',

68 'DORSOVENTRALLY SHORT '
69 'DORSOVENTRALLY ELONGATE ',
70 'PRESENT '
71 'ABSENT ',
72 'PRESENT '
73 'ABSENT ',
74 'WITH PLANTAR LIP '
75 'WITHOUT PLANTAR LIP ',
76 'SHORT AND ROBUST WITH TOTAL LENGTH < THREE TIMES
TRANSVERSE WIDTH OF DISTAL FACET '
77 'LONG AND SLENDER WITH TOTAL LENGTH > THREE TIMES
TRANSVERSE WIDTH OF DISTAL FACET ',
78 'ABSENT '
79 'PRESENT ',
80 'CONTINUOUS WITH MEDIAN GROOVE ABSENT '
81 'SUBDIVIDED BY DISTINCT MEDIAN GROOVE ',
82 'CONVEX OR PLANAR '
83 'CONCAVE AND INSET ',
84 'LATERALLY OPENING '
85 'VENTRALLY OPENING ',
86 'WELL DEVELOPED '
87 'REDUCED ',
88 'WELL DEVELOPED AND POSTERIORLY EXTENDING '
89 'REDUCED ',
90 'PRESENT '
91 'ABSENT ',
92 'SHALLOW AND TRANSVERSELY ELONGATE '
93 'DEEP AND CUP-SHAPED ',
94 'NOT COMPRESSED '
95 'DORSOVENTRALLY COMPRESSED ',
96 'DEEP AND NARROW '
97 'SHALLOW AND BROAD ',
98 'WEAKLY DEVELOPED '
99 'WELL DEVELOPED ',
100 'TAPERING AND POINTED OR DISTINCTLY CLEFT '
101 'ROUNDED AND HOOF LIKE ',
102 'MIDLINE BOSS VERY WEAKLY DEVELOPED OR ABSENT '
103 'BEARING PROMINENT MIDLINE BOSS ',
104

'SPHERICAL WITH CIRCULAR SECTION AND ORIENTED OBLIQUE
 TO LONG AXIS OF SHAFT '
 'WITH DOMED SEMICIRCULAR SECTION ORIENTED
 PERPENDICULAR TO LONG AXIS OF SHAFT ',
 87
 'D-SHAPED IN CROSS SECTION '
 'CRESCENTIC IN CROSS SECTION ',
 88
 'STRAIGHT OR SLIGHTLY CURVED IN ANTEROPOSTERIOR VIEW '
 'SINUOUS IN ANTEROPOSTERIOR VIEW ',
 89
 'WELL DEVELOPED AND ANTERODORSALLY PRODUCED '
 'POORLY DEVELOPED AND ROUNDED ',
 90
 'ANTEROPOSTERIORLY ELONGATE AND SUBEQUAL IN LENGTH TO
 INFRASPINOUS FOSSA '
 'ANTEROPOSTERIORLY SHORTENED RELATIVE TO INFRASPINOUS
 FOSSA ',
 91
 'LARGE WITH NECK '
 'REDUCED WITHOUT NECK ',
 92
 'WELL DEVELOPED AND TRANSVERSELY BROAD WITH DISTINCTLY
 POINTED APEX '
 'REDUCED AND TRANSVERSELY NARROW WITH ROUNDED APEX ',
 93
 'NOT UNIFORM IN HEIGHT WITH DISTAL EXTREMITY FORMING A
 STEEP INCLINE THAT MAY BEAR A RUGOSE BOSS AT ITS APEX '
 'UNIFORM IN HEIGHT ALONG ITS LENGTH WITH DISTAL
 EXTREMITY FORMING A SHALLOW INCLINE ',
 94
 'POORLY DEVELOPED '
 'WELL DEVELOPED AND PROMINENT ',
 95
 'SEPARATED FROM TROCHLEA BY A DISTINCT GROOVE '
 'CLOSELY ABUTS TROCHLEA ',
 96
 'SHALLOWLY EXCAVATED AND WEAKLY DELINEATED '
 'DEEPLY EXCAVATED AND STRONGLY DELINEATED ',
 97
 'DISTINCTLY UNEQUAL IN SIZE WITH CAPITELLUM LARGER
 THAN TROCHLEA '
 'SUBEQUAL IN SIZE ',
 98
 'STRAIGHT VENTRAL-EDGE PROFILE '
 'DISTINCTLY SINUOUS VENTRAL-EDGE PROFILE ',
 99
 'DORSOVENTRALLY TALL WITH DISTINCT TRANSVERSE DORSAL
 CREST '
 'DORSOVENTRALLY SHORT AND ROUNDED IN LATERAL VIEW ',
 100
 'TRANSVERSELY NARROWED BY POOR CONTRIBUTION OF DISTAL
 END OF ILIAC CREST '
 'TRANSVERSELY BROADENED BY CONTRIBUTION OF THE RAISED
 DISTAL END OF THE ILIAC CREST ',
 101
 'REDUCED AND RESTRICTED TO A SLIGHT RIDGE '
 'PROMINENT AND SUBCYLINDRICAL ',

102 'SMOOTH AND ROUNDED '
 'BEARS DISTINCT MEDIAN KEEL ',
 103 'CYLINDRICAL WITH SUBCIRCULAR CROSS SECTION '
 'MARKEDLY DORSOVENTRALLY COMPRESSED WITH OVOID CROSS
 SECTION ',
 104 'convex (anteriormandible steeply inclined)'
 'straight (anterior mandibleshallowly inclined)',
 105 absent
 'coarse, deeply incised'
 'fine, shallowly incised',
 106 'transcristae absent'
 orless
 'between 5 and 10'
 '10 or more',
 107 'rectangular (length atleast 0.3 > width)'
 'square (sub-equal length/width)',

;

MATRIX

	'Trichosurus vulpecula'	0001100001	0010000002
0001100000	1100122100 1100100000 0000000000	0000000000	0000000000
0000000000	0000000000 00000000		
	'Balbaroo fangaroo'	0011001010	000121?001
0002110010	20??012111 100100???? ?????????? ?????????? ??????????		
??????????	?????????? ????120		
	'Bettongia moyesi'	?000000???	0?01111001
0111000112	2110102001 010??0???? ?????????? ?????????? ??????????		
??????????	?????????? ????130		
	'Bettongia penicillata'	1000000101	1001011011
0111000112	2110102001 0201000001 1001000001	111010?111	0100100000
0000111000	0000010000 1100120		
	'Bulungamaya delicata'	0100000???	1?01110101
?112?10112	2110101011 111110???? ?????????? ?????????? ??????????		
??????????	?????????? ????120		
	'Dendrolagus lumholtzi'	0010110100	1102211111
0112110112	2100012110 1111000001 0100010000	1111111111	0000100110
0000010011	1001011001 0101110		
	'Dorcopsis muelleri'	1000010100	0102211111
0113110112	2100022110 21?1000001 0110011001	1111111111	0110100110
0000011111	1001111111 1101110		
	'Dorcopsoides fossilis'	????1????1	1?01111???
?102110112	2000001110 100??00001 0100011001	11111111??	?110100000
0000??00??	??????1??? ?101110		
	'Ekaltadeta ima'	0011001?10	0001211000
?001000000	0011122100 100100???? ?????????? ?????????? ??????????		
??????????	?????????? ????120		
	'Ganawamaya acris'	????00????	0001111101
?112111000	1011222010 101??0???? ?????????? ?????????? ??????????		
??????????	?????????? ????120		
	'Ganguroo bilamina'	??????????	1001110101
?0120?1112	2100?????? ?1???0???? ?????????? ???001?0?? ??????????		
??????0?10	1110110000 1101120		

	'Hadronomas puckridgi'	1110000???	1101?11111
?112111112	2102011110 1111001102 1111001100	01111111??	?111110011
1111111001	0??0?1?0? 1101121		
	'Hypsiprymnodon moschatus'	0000001001	0001110001
0001000000	0010122100 1001000001 0000000000	0100001100	0100000000
0000010100	0010100000 0001120		
	'Macropus rufus'	1000110100	1102211111
1113121112	2100022110 0011000001 1111111001	1111111111	0110100110
0000111011	1001001111 1101110		
	'Nambaroo gillespieae'	0011001010	0001110001
0002010000	0001022110 1001000011 0000000000	0100001000	1100000000
0000010100	0??0?00000 1011120		
	'Ngamaroo archeri'	??????????	100111???
??111?1112	21????????? ?????????? ???0000000	010???????	?000?????
????01?0??	??101111?? ???0230		
	'Nowidgee matrix'	????00????	1001110001
?011000112	2100102011 11??0????? ???????????	??????????	??????????
??????????	?????????? ???1120		
	'Petrogale penicillata'	1000110101	1102211111
1113120112	2100222110 0011200001 1110011001	1111111111	0110100110
0000111011	1001001111 1101110		
	'Potorous tridactylus'	?000000???	0001111011
0111000112	2100102001 010??000?1 0000000000	01100010??	?100000000
0000??1100	?011000001 10?0110		
	'Procoptodon goliah'	1?10?10101	1112210011
1113120112	2102022111 2120011102 1111001110	01111111?1	0111111011
1111111011	0011011111 ?101110		
	'Purtia mosaicus'	??????????	00?111??11
?011??1112	2110?????? ?1????????? ??????????	??????????	??????????
??????????	?????????? ???231		
	'Rhizosthenurus flanneryi'	1110000?00	1101111111
0112111112	?1020????? 1111000002 1110001100	01111111??	?110100011
1111??10??	?0??0?1?0? ??01121		
	'Simosthenurus occidentalis'	1100110?00	1112210011
1113120112	2102022120 2121011102 1111001110	01111111?1	0111111011
1111111011	0011011111 1101110		
	'Thylogale thetis'	1001110100	0102211111
1113110112	2100222110 1111000001 0110011001	1111111111	0110100110
0000111011	1001001111 1101110		
	'Wabularoo naughtoni'	?100000??1	000???0?01
?012?00112	21????????? ?????0????? ???????????	??????????	??????????
??????????	?????????? ???1120		
	'Wakiewakie lawsoni'	??????????	10011100?1
?1110?0112	21????????? ??????????? ???????????	??????????	??????????
??????????	?????????? ???0231		
	'Wallabia bicolor'	1000110100	1102211111
1113120112	2100222110 1010000001 1100111001	1111111111	0110100110
0000111011	1001001111 1101110		
	'Wanburoo hilarus'	?????0????	11011101?1
0102?10112	2100112011 1110?????? ???????????	??????????	??????????
??????????	?????????? ???1121		
	'Wururoo dayamayi'	??????????	?011101?1
?102??0011	1011?????? ?1??0????? ???????????	??????????	??????????
??????????	?????????? ???1120		
	'Hypsiprymnodon philcreaseri'	????0?????	00011100?1
?001000000	0010122100 100??0????? ???????????	??????????	??????????
??????????	?????????? ???1120		

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'Hypsiprymnodon dennisi'          0001110??1
?001000000 00??102100 1?0??????? ?????????? ?????????? ??????????
?????????? ?????????? ???120
'Hypsiprymnodon karenblackae'      0?????????
??01?0???? ????122000 1?0??????? ?????????? ?????????? ??????????
?????????? ?????????? ???????
'Hypsiprymnodon bartholomaii'      00011 0?0?1?????
??01?0???? ?0??122100 1?01??????? ?????????? ?????????? ??????????
?????????? ?????????? ???????0
'Jackmahoneya toxoniensis'         00011110?1
?0010?0000 00??102000 100??????? ?????????? ?????????? ??????????
?????????? ?????????? ???120
'Propleopus oscillans'             00011110?1
0001000000 0010122000 100??????? ?????????? ?????????? ??????????
?????????? ?????????? ???120
;
ENDBLOCK;

BEGIN ASSUMPTIONS;
  OPTIONS DEFTYPE=UNORD POLYTCOUNT=MINSTEPS;
  TYPESET * default = ORD: 14 - 15 24 26 29 34 36 43 45 52 105;
ENDBLOCK;

BEGIN NOTES;
  [Taxon comments]

  [Character comments]

  [Character state comments]

  [Attribute comments]

  [Taxon pictures]

  [Character pictures]

  [Character state pictures]

  [Attribute pictures]
ENDBLOCK;

```