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An annotated checklist of the fossil birds of Australia

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ABSTRACT

A complete annotated checklist of all species of birds based on fossil material known as of 2019 from continental Australia is presented. Taxa range from Cretaceous to Holocene in age. It includes synonyms with full bibliographic details and specifics of the type material in all cases, such as specimen or locality data, source local fauna and geological age. Nomina based on fossil material that are now synonymised under extant taxa are also included. The list includes 95 avian species, of which 78 are extinct, in 66 genera. Five extinct subspecies in modern genera are recognised. These species represent 33 family- and 19 ordinal-group taxa, or nearly half of modern avian orders.

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Introduction

Australia is home to a unique and diverse bird fauna that comprises about 936 species in 106 families, including 29 introduced species and 160 vagrants (Menkhorst et al., 2019). Our understanding of the total bird diversity of Australia is enhanced by the fossil record, which provides the only window into the prehistoric avifauna of our continent. Notable Australian bird fossils include the extinct mihirungs or giant fowl (Dromornithidae), and the flamingos (Phoenicopteriformes), which are today only found in Eurasia, Africa, and the Americas.

Australian fossil birds were first recorded in the world fossil bird checklists of Lydekker (1891), Lambrecht (1933) and Brodkorb (1963, 1964, 1967, 1971, 1978). While some fossil taxa were listed in regional avian checklists, e.g., Condon (1969), the first checklist of all Australian birds to list extinct taxa was compiled by Condon (1975), wherein fossil taxa were integrated within the list of extant taxa and presented with synonyms and other data. Rich and van Tets (1982) extensively reviewed the taxonomy and geological history of fossil birds from Australia and New Guinea and tabulated a useful summary of avifaunas from all then known Cenozoic localities. This was soon followed by a similar review of the fossil avian record (Rich & van Tets, 1984) alongside an annotated checklist of Australasian fossil birds (G. van Tets, 1984) including some synonyms and details of type specimens. Since then, there have been three notable publications by Vickers-Rich

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(1991), Baird (1991), and Boles (2006) that review the diversity of Australian fossil birds. The last publication listed 46 species of fossil birds, including 26 species in 18 extinct genera and 20 other species (including 2 unnamed).

Since the last checklist, 35 years have passed and there has been the considerable investigation of the fossil avifauna by several workers (summarised by Boles, 2017) and a concomitant increase in the number of new fossil avian taxa discovered. Furthermore, with the recent influx of genetic data and analyses, our understanding of modern bird relationships has considerably transformed in the last two decades.

Here we provide a new checklist, which is a timely update of the taxonomy and systematic status of fossil birds so far recorded for Australia. The known fossil record of birds in Australia spans the Lower Cretaceous to the Holocene. This systematic list, excluding nomina dubia, comprises 95 bird species, of which 78 are extinct, in 66 named genera. Extant species are only included to capture either now-synonymised taxa that are based on fossil material, or extinct subspecies. As such, we have not listed every extant bird species that has been recorded in fossil deposits. Three extant species in three genera have five recognised extinct subspecies. Together, these species represent 33 family- and 19 ordinal-group taxa, or nearly half of modern avian orders worldwide. One named taxon is probably not avian.

Each species entry includes reference to the original description, synonyms, type specimens and their repositories, geological and geographical details, and references to revisionary works. Taxonomic nomenclature and sequence of modern avian taxa follows the fourth edition of the *Howard and Moore Complete Checklist of Birds of the World* (Dickinson & Christidis, 2014; Dickinson & Remsen, 2013) unless stated otherwise. Exceptions include the recognition of orders Ciconiiformes, Suliformes, and Apodiformes, following Gill et al. (2010) and Gill and Donsker (2019). Following the convention in ornithology, the official English names of species are capitalised to distinguish between a taxonomic species and a general description of a bird (e.g., Brown Falcon, a particular taxonomic species, and a brown falcon). Where available, we have included the English names of fossil species given in their original descriptions. A cross symbol † indicates an extinct taxon.

Abbreviations

Institutional abbreviations: AM, Australian Museum, Sydney, Australia; ANWC, Australian National Wildlife Collection, CSIRO, Canberra, Australia; BMR, Bureau of Mineral Resources (now Geoscience Australia), Canberra, Australia; CPC, Commonwealth Palaeontological Collections, Bureau of Mineral Resources (now National Mineral and Fossil Collection, Geoscience Australia), Canberra, Australia; NHMUK, Natural History Museum, United Kingdom; NMV, Museums Victoria, Melbourne, Australia; QM, Queensland Museum, Brisbane, Australia; SAMA, South Australian Museum, Adelaide, Australia; UCMP, University of California, Museum of Paleontology, Berkeley, California, United States.

Other abbreviations: L, left; LF, Local Fauna; NSW, New South Wales; NT, Northern Territory; QLD, Queensland; R, right; SA, South Australia; TAS, Tasmania; VIC,

Victoria; VSQ, joint expedition by Victorian, South Australian and Queensland museums; WA, Western Australia.

Some conventions

Within a suprageneric taxon, geologically older fossil taxa are listed before geologically younger taxa, for example, late Oligocene taxa are listed before Pleistocene taxa.

Primary synonyms, which refer to original descriptions of taxa, are formatted with the scientific name (genus, species, author and date) followed by a colon and the publication including the page on which the name is erected. For secondary synonyms, for example, new combinations or spelling lapses, the scientific name (binomial and author) is followed by a semicolon and the author and reference for the new synonym.

Synonyms are provided only for Genus-group and Species-group taxa; higher-level taxa are provided with their taxon authority as detailed in the References. For modern genera and species, the primary synonym (valid name) of that genus/species is listed first; thereafter, only synonyms that are based on fossils are listed. For some of these extant species, more complete synonym lists are available in Condon (1975) and Gill et al. (2010).

Taxa in this Checklist are restricted to those deriving from continental Australia (Tasmania and mainland Australia). Avian taxa deriving from Norfolk Island and Macquarie Island (although Australian Territories) are not included here, as they are listed in the New Zealand Checklist (Gill et al., 2010).

Class **AVES** Linnaeus, 1758: Birds

Subclass †**ENANTIORNITHES** Walker, 1981: Opposite Birds

Family INCERTAE SEDIS

Genus †***NANANTIUS*** Molnar

Nanantius Molnar, 1986: *Nature 322*(6081): 737 – type by original designation *Nanantius eos* Molnar.

†***Nanantius eos*** Molnar

Nanantius eos Molnar, 1986: *Nature 322*(6081): 737, figs 1–2 – Warra Station, near Boulia, QLD; Toolebuc Formation, Lower Cretaceous (Albian). Holotype QM F12992, L tibiotarsus.

Subclass **NEORNITHES** Gadow, 1892: Modern Birds

Infraclass **PALAEOGNATHAE** Pycraft, 1900: Palaeognaths

Order **CASUARIIFORMES** Sclater, 1880a: Cassowaries and Emus

Family **CASUARIIDAE** Kaup, 1847: Cassowaries and Emus

Subfamily **CASUARIINAE** Kaup, 1847: Cassowaries

Genus ***CASUARIUS*** Brisson

Casuarius Brisson, 1760: *Ornithologia 5*: 10 – type by tautonymy "*Casuarius*" Brisson = *Struthio casuarius* Linnaeus. Earlier usage by Brisson (1760; *Ornithologia 1*: 16) a *nomen nudum*.

†***Casuarius lydekkeri*** Rothschild

Casuarius sp. cf. *C. picticollis* (= *C. bennetti*), Lydekker 1891, *Catalogue of Fossil Birds British Museum (Natural History)*: 353.

Casuarius lydekkeri Rothschild, 1911: *Verhandlungen des V. Internationalen Ornithologen Kongresses Berlin, 1910*: 151, 162 – unknown locality and age. Holotype AM F.50094, distal R tibiotarsus (figured in Miller, 1962: fig., p. 1).

Type locality and age reported as "Pleistocene cavern-deposits of the Wellington Valley, New South Wales" (Lydekker, 1891: 354; see also Miller, 1962), or as "Queensland Pleistocene" (Rothschild, 1911, p. 151). Based on its preservation features, the holotype is unlikely to have come from Wellington. It is similar in preservation to fossils collected from Darling Downs, Queensland (Dawson, 1985; G. van Tets, 1984; Worthy et al., 2014).

Subfamily **DROMAIINAE** G.R. Gray, 1871: Emus

Genus †***EMUARIUS*** Boles

Emuarius Boles, 1992: *Natural History Museum of Los Angeles County Science Series 36*: 198 – type by original designation *Dromaius gidju* Patterson & Rich.

†***Emuarius guljaruba*** Boles

Emuarius guljaruba Boles, 2001: *Emu 101*(4): 318, fig. 1B – Mammalon Hill, Lake Palankarinna, Tirari Sub-basin, Lake Eyre Basin, SA; Etadunna Formation (Faunal Zone D), late Oligocene, Ngama LF. Holotype SAMA P23977, L tarsometatarsus.

†***Emuarius gidju*** (Patterson & Rich)

Dromaius gidju Patterson & Rich, 1987: *Records of the South Australian Museum 21*(2): 96, fig. 1 – Leaf Locality (UCMP locality V6213), Lake Ngapakaldi, Tirari Sub-basin, Lake Eyre Basin, SA; Wipajiri Formation, late Oligocene–early Miocene, Kutjamarpu LF. Holotype SAMA P26779, associated distal tibiotarsus, partial tarsometatarsus, and phalanges of the left leg.

Emuarius gidju (Patterson & Rich); Boles 1992, *Natural History Museum of Los Angeles County Science Series 36*: 198.

Genus ***DROMAIUS*** Vieillot

Dromiceius Vieillot, 1816: *Analyse d'une nouvelle ornithologie élémentaire*: 54, 70 – type by monotypy *Casuarius novaehollandiae* Latham.

Metapteryx De Vis, 1892: *Proceedings of the Linnean Society of New South Wales (series 2) 6*(3): 453.

Peronista Mathews, 1912: *Austral Avian Record 1*(5): 107 – type by original designation *Dromaius peroni* Rothschild = *Dromaeus minor* Spencer (not *Casuarius diemenianus* Jennings).

Dromiceius is a misprint of *Dromaius* (Vieillot, 1816, p. 70) and is rejected and invalid (Serventy et al., 1965).

†*Dromaius arleyekweke* Yates & Worthy

Dromaius arleyekweke Yates & Worthy, 2019: *Journal of Vertebrate Paleontology 39*(4): e1665057, p.3, fig. 6A–D – Main Pit, Alcoota Scientific Reserve, NT; Waite Formation, late Miocene, Alcoota LF. Holotype NTM P6387, R tarsometatarsus.

†*Dromaius ocypus* Miller

Dromiceius ocypus Miller, 1963: *Records of the South Australian Museum 14*(3): 414, fig. 1C – Lawson-Daily Quarry (UCMP locality V5769), Lake Palankarinna, Tirari Sub-basin, Lake Eyre Basin, SA; Tirari Formation, Mampuwordu Sand Member, Pliocene, Palankarinna LF. Holotype SAMA P13444, R tarsometatarsus.

Dromaius novaehollandiae (Latham): Emu

Casuarius N. Hollandiae Latham, 1790: *Index ornithologicus 2*: 665 – "Novae Hollandiae", restricted to Sydney, NSW (*fide* Mathews, 1910a, *The Birds of Australia 1*: 3).

Dromaius ater Vieillot, 1817a: *Nouveau dictionnaire d'histoire naturelle 10*: 212. Synonym of *Dromaius novaehollandiae* following Mathews (1927, p. 1) and Condon (1975).

Dromaius patricius De Vis, 1888a: *Proceedings of the Linnean Society of New South Wales (series 2) 3*(3): 1290, pl. 36, fig. 13B – King Creek, Darling Downs, QLD; Pleistocene. Lectotype QM F5547, proximal R tibiotarsus (designated by Patterson & Rich, 1987, p. 95).

Dromaius gracilipes De Vis, 1892: *Proceedings of the Linnean Society of New South Wales (series 2) 6*(3): 445, pl. 23, fig. 7A–B – Darling Downs, QLD; Pleistocene (type locality and age presumed by Patterson & Rich, 1987, p. 95). Holotype QM F1142, distal L tarsometatarsus.

Metapteryx bifrons De Vis, 1892: *Proceedings of the Linnean Society of New South Wales (series 2) 6*(3): 453, pl. 23, fig. 8A–B – Darling Downs, QLD; Pleistocene (type locality and age presumed by Patterson and Rich (1987, p. 96). Holotype QM F1135, juvenile distal L tarsometatarsus. Originally placed in Apterygidae by De Vis (1892).

For other synonyms of *Dromaius novaehollandiae*, see Condon (1975).

†*Dromaius novaehollandiae minor* Spencer: King Island Emu

Casuarius diemenianus Jennings, 1828: *Ornithologia*: 382 – Van-Diemen's Land = TAS. *Nomen dubium*.

Dromaeus minor Spencer, 1906: *Victorian Naturalist 23*(7): 140 – King Island, Bass Strait, TAS; Recent. Syntypes NMV P15060–15061, toe bones; NMV P15062, pectoral girdle; NMV P15063, NMV P15087, ribs; NMV P15064–15067, pelves; NMV P15068, NMV P15070, NMV P15074, NMV P15078, R tibiotarsi; NMV P15069, 15079, 15084, L tibiotarsi; NMV P15071–15072, NMV P15076, R tarsometatarsi; NMV P15073, NMV P15075, NMV P15077, NMV P15080–15083, L tarsometatarsi; NMV P15085–15086, fibulae; NMV P15088, NMV P15090, L femur; NMV P15089, femur; NMV P15091–15093, R femur; NMV P15095–15097, sterna; NMV P15098–15099, cranial portions of skulls; NMV P15100, premaxilla; NMV B23642, skull.

Dromaeus bassi Legge, 1907: *Emu 6*(3): 119 – King Island, Bass Strait, TAS; Recent.

**Dromaius peroni* Rothschild, 1907: *Extinct Birds*: 235, pl. 40 – Kangaroo Island, in error. Type, mounted specimen in Paris, and therefore from King Island, erroneously thought to be from Kangaroo Island (see Balouet & Jouanin, 1990; Hume & Walters, 2012; Jouanin, 1959).

**Dromaius parvulus* Mathews, 1910a: *The Birds of Australia 1*: 19, pl. 3. See Mathews (1910b, p. 34), for name he attributed to Gould to replace *Dromaius peroni* Rothschild; wrongfully attributed species to Kangaroo Island.

**Dromiceius spenceri* Mathews, 1912: *Novitates Zoologicae 18*(3): 176 (footnote). *Nomen nudum.*

**Peronista peroni* (Rothschild); Mathews 1913, *A List of the Birds of Australia*: 2.

Peronista spenceri (Mathews); Mathews 1913, *A List of the Birds of Australia*: 2.

**Peronista diemenianus* (Jennings); Mathews 1927, *Systema avium Australasianarum 1*: 2 (*P. diemeniana* in Corrections, p. v).

**Dromaius diemenianus* (Jennings); Mayr 1979, in Peters, *Check-list of the Birds of the World, ed. 2, 1*: 10.

Dromaius novaehollandiae minor Spencer; Gill & Donsker 2019, *IOC World Bird List* v9.2.

In referring to the Van-Diemen's Land Cassowary, Jennings (1828, p. 382) wrote "The three last species are arranged under one genus by Dr Latham". This may refer to Latham's (1823, p. 384) account of the "Van Diemen's Cassowary" based on two birds seen alive in "a London exhibition", thought to be from Van Diemen's Land (= Tasmania). The specimens of *Dromaius novaehollandiae diemenensis* from Tasmania in NHMUK were presented by R.C. Gunn in 1838 (Le Souëf, 1907) so post-date Latham's observation. No specimens of the Tasmanian Emu are known to have been sent alive to Europe (Hume & Walters, 2012), despite being recorded as early as 1803 (Le Souëf, 1904). Therefore, birds mentioned by Latham (1823) probably refer to those collected on the expedition led by Nicholas Baudin in 1802 or others from King Island (see Pfennigwerth, 2010). Of those from Baudin's expedition, two live birds reached Europe, one from King Island and one from Kangaroo Island, and only that from King Island is preserved as a skin specimen (Balouet & Jouanin, 1990; Hume, 2017; Pfennigwerth, 2010). Therefore, the name *Casuarius diemenianus* Jennings relates to two taxa of uncertain origin and thus is here considered a *nomen dubium*.

There has been extensive taxonomic confusion regarding the King Island and Kangaroo Island emus (Balouet & Jouanin, 1990; Hume, 2017; Hume & Walters, 2012; Jouanin, 1959; Pfennigwerth, 2010). Taxonomic names based on specimens of the King Island Emu that were erroneously thought to be from Kangaroo Island are marked with an asterisk *. Based on genetic and morphological analyses, the King Island, Kangaroo Island, and Tasmanian emus are considered subspecies of *D. novaehollandiae* (Heupink et al., 2011; Thomson et al., 2018).

†***Dromaius novaehollandiae baudinianus*** Parker: Kangaroo Island Emu

Dromaius baudinianus Parker, 1984: *Bulletin of the British Ornithologists' Club 104*(1): 20, pl. 3 – Kelly's Hill Caves, Kangaroo Island, SA; Recent. Holotype SAMA B6891b, L tarsometatarsus.

Dromaius novaehollandiae baudinianus Parker; Gill & Donsker 2019, *IOC World Bird List* v9.2.

All other names that have been applied to the Kangaroo Island Emu were based on the King Island birds, so are synonymised above under *Dromaius novaehollandiae minor* Spencer (Hume, 2017; Hume & Walters, 2012; Jouanin, 1959; Parker, 1984).

†***Dromaius novaehollandiae diemenensis*** Le Souëf: Tasmanian Emu

Dromaeus diemenensis Le Souëf, 1904: *Collection of Australian birds' eggs and nests in the possession of D. Le Souef, Director, Zoological Gardens, Melbourne*: 23 – Melbourne, VIC. *Nomen nudum*.

Dromaeus diemenensis Le Souëf, 1907: *Bulletin of the British Ornithologists' Club 21*(136): 13 – TAS; Recent. Syntypes NHMUK 1838.1.15.203, adult male skin; NHMUK 1838.1.15.204, adult female skin.

Dromaius novaehollandiae diemenensis Le Souëf; Mathews 1910a, *The Birds of Australia 1*: 14.

Dromaius novaehollandiae gunni Mathews, 1922: *Austral Avian Record 4*(1): 175. Unnecessary *nomen novum* for *Dromaius novaehollandiae diemenensis* Le Souëf.

Infraclass **NEOGNATHAE** Pycraft, 1900: Neognaths

Parvclass **GALLOANSERES** Sibley, Ahlquist, & Monroe, 1988: Landfowl and Waterfowl

Order †**GASTORNITHIFORMES** Stejneger, 1885a: Gastornithids and Mihirungs

Family †**DROMORNITHIDAE** Fürbringer, 1888: Mihirungs

Genus †***DROMORNIS*** Owen

Dromornis Owen, 1872: *Proceedings of the Scientific Meetings of the Zoological Society of London 1872*(1): 682 – type by monotypy *Dromornis australis* Owen.

Bullockornis Rich, 1979: *Bureau of National Resources, Geology and Geophysics Bulletin 184*: 26 – type by original designation *Bullockornis planei* Rich.

†***Dromornis murrayi*** Worthy, Handley, Archer, & Hand

Dromornis murrayi Worthy, Handley, Archer, & Hand, 2016: *Journal of Vertebrate Paleontology 36*(3): e1031345, p.11, fig. 5A–E – Hiatus A Site (QM locality 941), Hal's Hill, D Site Plateau, Riversleigh World Heritage Area, Boodjamulla (Lawn Hill) National Park, QLD; Riversleigh Faunal Zone A, late Oligocene, Hiatus LF. Holotype QM F57984, partial cranium.

†***Dromornis stirtoni*** Rich

Dromornis stirtoni Rich, 1979: *Bureau of National Resources, Geology and Geophysics Bulletin 184*: 33, figs 2E, 3B, 4B, 5B, 6B, 11E – Paine Quarry, Alcoota Scientific Reserve, NT; Waite Formation, late Miocene, Alcoota LF. Holotype CPC 13851, R femur.

†***Dromornis planei*** (Rich)

Bullockornis planei Rich, 1979: *Bureau of National Resources, Geology and Geophysics Bulletin 184*: 27, figs 2B, 8E, 9B, 10A–B, 11B – Bullock Creek, Camfield Station, NT; Camfield Beds, middle Miocene, Bullock Creek LF. Holotype CPC 13844, R femur.

Dromornis planei (Rich); Nguyen, Boles, & Hand, 2010, *Records of the Australian Museum 62*(1): 57.

†***Dromornis australis*** Owen

Dromornis australis Owen, 1872: *Proceedings of the Scientific Meetings of the Zoological Society of London 1872*(1): 682 – Peak Downs, QLD; ?Pliocene-Pleistocene. Holotype AM F.10950, R femur (described and figured in Owen, 1873).

Genus †***BARAWERTORNIS*** Rich

Barawertornis Rich, 1979: *Bureau of National Resources, Geology and Geophysics Bulletin 184*: 23 – type by original designation *Barawertornis tedfordi* Rich.

†***Barawertornis tedfordi*** Rich

Barawertornis tedfordi Rich, 1979: *Bureau of National Resources, Geology and Geophysics Bulletin 184*: 24, figs 2A, 9A, 10C–D, 11A – D Site (BMR locality 103D), D Site Plateau, Riversleigh World Heritage Area, Boodjamulla (Lawn Hill) National Park, QLD; Riversleigh Faunal Zone A, late Oligocene, D Site LF. Holotype CPC 7341, L femur.

Genus †***ILBANDORNIS*** Rich

Ilbandornis Rich, 1979: *Bureau of National Resources, Geology and Geophysics Bulletin 184*: 36 – type by original designation *Ilbandornis woodburnei* Rich.

†***Ilbandornis woodburnei*** Rich

Ilbandornis woodburnei Rich, 1979: *Bureau of National Resources, Geology and Geophysics Bulletin 184*: 38, figs 2F, 3C, 4C, 5C, 6C – Paine Quarry, Alcoota Scientific Reserve, NT; Waite Formation, late Miocene, Alcoota LF. Holotype CPC 13850, R femur.

†***Ilbandornis lawsoni*** Rich

Ilbandornis? lawsoni Rich, 1979: *Bureau of National Resources, Geology and Geophysics Bulletin 184*: 39, figs 17C–D, 18E–F, 19D–E, 20E – Newsome Locality (UCMP locality V6346), Alcoota Scientific Reserve, NT; Waite Formation, late Miocene, Alcoota LF. Holotype CPC 13852, R tarsometatarsus.

Genyornis lawsoni (Rich); Nguyen, Boles, & Hand, 2010, *Records of the Australian Museum 62*(1): 57.

Genus †***GENYORNIS*** Stirling & Zietz

Genyornis Stirling & Zietz, 1896a: *Transactions and Proceedings and Report of the Royal Society of South Australia 20*: 173 – type by monotypy *Genyornis newtoni* Stirling & Zietz as indicated on p.182.

†***Genyornis newtoni*** Stirling & Zietz

Genyornis newtoni Stirling & Zietz, 1896a: *Transactions and Proceedings and Report of the Royal Society of South Australia 20*: 182 (figured in Stirling & Zietz, 1896b: pl., p. 3) – Lake Callabonna, SA; Pleistocene. Lectotype SAMA P17001, L femur (designated by Stirling & Zietz, 1896b, p. 191)

Both the original description (Stirling & Zietz, 1896a) and description of additional material (Stirling & Zietz, 1896b) were reprinted in the *Memoirs of the Royal Society of South Australia* by Stirling and Zietz (1900). Further remains of *Genyornis newtoni* were described by Stirling and Zietz (1905, 1913)).

Genus INCERTAE SEDIS

Dromaius australis Woods, 1866: *Report on the geology and mineralogy of the south-eastern district the colony of South Australia*: 7 – Penola, SA; an archaeological site, so

presumed late Pleistocene. Two R tibiotarsi and two R tarsometatarsi, whereabouts unknown. *Nomen dubium*.

Dromaius australis Woods; Woods 1882, *Proceedings of the Linnean Society of New South Wales 7*(3): 387. *Nomen nudum.*

The specimens that formed the basis of the name *Dromaius australis* have not been located (Murray & Vickers-Rich, 2004) and were not illustrated; as such, the affinities of this taxon to Dromornithidae or Dromaiinae remain unresolved. Synonymy with *Dromornis australis* Owen, known only from a femur, is not supported given *Dromaius australis* Woods was based on tibiotarsi and tarsometatarsi (*contra* Brodkorb, 1963; Condon, 1975).

Order **ANSERIFORMES** Wagler, 1831: Waterfowl

Family †**PRESBYORNITHIDAE** Wetmore, 1926: Presbyornithids

Genus †***WILARU*** Boles, Finch, Hofheins, Vickers-Rich, Walters, & Rich

Wilaru Boles, Finch, Hofheins, Vickers-Rich, Walters, & Rich, 2013: *Paleornithological Research 2013, Proceedings of the 8th International Meeting of the Society of Avian Paleontology and Evolution, Vienna 2012*: 46 – type by original designation *Wilaru tedfordi* Boles, Finch, Hofheins, Vickers-Rich, Walters, & Rich. Transferred to Presbyornithidae from Burhinidae (Charadriiformes) by De Pietri et al. (2016).

†***Wilaru tedfordi*** Boles, Finch, Hofheins, Vickers-Rich, Walters, & Rich

Wilaru tedfordi Boles, Finch, Hofheins, Vickers-Rich, Walters, & Rich, 2013: *Paleornithological Research 2013, Proceedings of the 8th International Meeting of the Society of Avian Paleontology and Evolution, Vienna 2012*: 46, fig. 3A–B – Site C, Lake Pinpa (= Pine Lake), Callabonna Sub-basin, Lake Eyre Basin, SA; Namba Formation, late Oligocene, Pinpa LF. Holotype SAMA P48925, L humerus.

†***Wilaru prideauxi*** De Pietri, Scofield, Zelenkov, Boles, & Worthy

Wilaru prideauxi De Pietri, Scofield, Zelenkov, Boles, & Worthy, 2016: *Royal Society Open Science 3*(2): 150635, p.8, fig. 2Q–R,B' – Leaf Locality (UCMP locality V6213), Lake Ngapakaldi, Tirari Sub-basin, Lake Eyre Basin, SA; Wipajiri Formation, late Oligocene–early Miocene, Kutjamarpu LF. Holotype SAMA P53136, R tarsometatarsus.

Family **ANSERANATIDAE** Sclater, 1880b: Magpie Geese

Genus †***EOANSERANAS*** Worthy & Scanlon

Eoanseranas Worthy & Scanlon, 2009: *Journal of Vertebrate Paleontology 29*(1): 206 – type by original designation *Eoanseranas handae* Worthy & Scanlon.

†***Eoanseranas handae*** Worthy & Scanlon

Eoanseranas handae Worthy & Scanlon, 2009: *Journal of Vertebrate Paleontology 29*(1): 206, fig. 1E–H,K – Hiatus A Site (QM locality 941), Hal's Hill, D Site Plateau,

Riversleigh World Heritage Area, Boodjamulla (Lawn Hill) National Park, QLD; Riversleigh Faunal Zone A, late Oligocene, Hiatus LF. Holotype QM F45451, L coracoid.

Family **ANATIDAE** Leach, 1819: Ducks, Geese, and Swans

Subfamily **ERISMATURINAE** Eyton, 1838: Stiff-tailed Ducks

The subfamily name for the stiff-tailed ducks, "Oxyurinae Swainson, 1832 [1831]", is invalid because it does not exist. This name is incorrectly attributed to Swainson (in Swainson & Richardson, 1832), who rejected the validity of the genus name *Oxyura* Bonaparte, 1828 and placed its type species in the genus *Fuligula* Stephens, 1824, in the subfamily Fuligulini (see Olson, 1995, p. 544). Furthermore, Oxyurinae Phillips, 1926 is a junior homonym of Oxyuridae Cobbold, 1864, a family of nematode worms (type genus *Oxyuris* Rudolphi, 1803), and therefore is unavailable (ICZN Article 53.1). Thus, Erismaturinae Eyton, 1838 (*Erismatura* Bonaparte, 1831 = *Oxyura*) is the first available name for a group including *Oxyura* and its allies.

Genus †***PINPANETTA*** Worthy

Pinpanetta Worthy, 2009: *Zoological Journal of the Linnean Society 156*(2): 416 – type by original designation *Pinpanetta tedfordi* Worthy.

†***Pinpanetta tedfordi*** Worthy

Pinpanetta tedfordi Worthy, 2009: *Zoological Journal of the Linnean Society 156*(2): 417, fig. 1A,F – Young Bucks Quarry, Lake Palankarinna, Tirari Sub-basin, Lake Eyre Basin, SA; Etadunna Formation (Faunal Zone A), late Oligocene, Minkina LF. Holotype SAMA P41257, R humerus.

†***Pinpanetta vickersrichae*** Worthy

Pinpanetta vickersrichae Worthy, 2009: *Zoological Journal of the Linnean Society 156*(2): 422, figs 1C–D,H–I – Kanunka Microsite, Lake Kanunka, Tirari Sub-basin, Lake Eyre Basin, SA; Etadunna Formation, late Oligocene, ?Ngapakaldi LF. Holotype SAMA P42703, R humerus.

†***Pinpanetta fromensis*** Worthy

Pinpanetta fromensis Worthy, 2009: *Zoological Journal of the Linnean Society 156*(2): 425, fig. 1E,J – Lake Pinpa (= Pine Lake), Callabonna Sub-basin, Lake Eyre Basin, SA; Namba Formation, late Oligocene, Pinpa LF. Holotype SAMA P43128, R humerus.

Genus †***TIRARINETTA*** Worthy

Tirarinetta Worthy, 2008: *Emu 108*(2): 158 – type by original designation *Tirarinetta kanunka* Worthy.

†***Tirarinetta kanunka*** Worthy

Tirarinetta kanunka Worthy, 2008: *Emu 108*(2): 159, fig. 3A,C,E – Stirton Quarry, Lake Kanunka, Tirari Sub-basin, Lake Eyre Basin, SA; Tirari Formation, Pliocene, Kanunka LF. Holotype SAMA P42735, proximal R humerus.

Subfamily **ANSERINAE** Vigors, 1825: Geese and Swans

Tribe **CYGNINI** Vigors, 1825: Swans

Genus ***CYGNUS*** Bechstein

Cygnus Bechstein, 1803: *Ornithologisches Taschenbuch von und für Deutschland 2*: 404 – type by monotypy *Anas olor* J.F. Gmelin.

Chenopis Wagler, 1832: *Isis von Oken 11*: 1234 – type by monotypy *Anas atrata* Latham.

Archaeocycnus De Vis, 1905: *Annals of the Queensland Museum 6*: 11 – type by original designation *Archaeocycnus lacustris* De Vis.

Cygnus atratus (Latham): Black Swan

Anas atrata Latham, 1790: *Index ornithologicus 2*: 834 – "lakes of Australia".

Archaeocycnus lacustris De Vis, 1905: *Annals of the Queensland Museum 6*: 11, pl. 3 – Cooper Creek and Warburton River, Tirari Sub-basin, Lake Eyre Basin, SA; Pleistocene. Syntypes QM F5520, sternal part L coracoid (lower Cooper Creek; fig. 1A–B); QM F5521, distal R humerus (lower Cooper Creek; fig. 2A); QM F5522, distal L humerus (Kalamurina, Warburton River; fig. 2B); QM F5523, proximal R radius (Wankamaminna, Cooper Creek; fig. 3A–B); QM F5524, distal R ulna (unknown locality; fig. 4); QM F5525, proximal L femur (lower Cooper Creek); QM F5526, proximal R femur (Unduwumpa, Cooper Creek; fig. 5A–B); QM F5527, distal L tibiotarsus (Malkuni, Cooper Creek; fig. 6A–B); QM F5528, proximal L tarsometatarsus (Wurdulumankula, Cooper Creek; fig. 7A–B); QM F5529, 4th cervical vertebra (unknown locality; referred to *Pelecanus conspicillatus* by Rich & van Tets, 1981, p. 239, fig. 3C). Provisional synonymy with *Cygnus atratus* by G. van Tets (1984, p. 471)

Chenopis nanus De Vis, 1905: *Annals of the Queensland Museum 6*: 13, pl. 2 – Cooper Creek and Warburton River, Tirari Sub-basin, Lake Eyre Basin, SA; Pleistocene. Syntypes QM F5530, cranial part L coracoid (lower Cooper Creek; fig. 3A–B); QM F5531, distal R humerus (lower Cooper Creek; fig. 5); QM F5532, distal L tibiotarsus (lower Cooper Creek; fig. 6); QM F5533, distal L tarsometatarsus (Malkuni, Cooper Creek; fig. 7); QM F5534, distal L tarsometatarsus (Wurdulumankula, Cooper Creek), QM F5535, partial pelvis (Unduwumpa, Cooper Creek; fig. 4). Appears to be juvenile of *Archaeocycnus lacustris* (see Brodkorb, 1964). Provisional synonymy with *Cygnus atratus* by G. van Tets (1984, p. 471).

Cygnus lacustris (De Vis); Brodkorb 1964, *Bulletin of the Florida State Museum, Biological Sciences 8*: 209.

Subfamily **ANATINAE** Leach, 1819: Ducks

Tribe **TADORNINI** Reichenbach, 1849: Shelducks

Genus †***AUSTRALOTADORNA*** Worthy

Australotadorna Worthy, 2009: *Zoological Journal of Linnean Society 156*(2): 428 – type by original designation *Australotadorna alecwilsoni* Worthy.

†***Australotadorna alecwilsoni*** Worthy

Australotadorna alecwilsoni Worthy, 2009: *Zoological Journal of Linnean Society 156*(2): 429, fig. 5B,D,F – Lake Pinpa (= Pine Lake), Callabonna Sub-basin, Lake Eyre Basin,

SA; Namba Formation, late Oligocene, Pinpa LF. Holotype SAMA P43141, L humerus.

Tribe **AYTHYINI** Delacour & Mayr, 1945: Diving Ducks

Genus ***AYTHYA*** Boie

Aythya Boie, 1822 (before May): *Tagebuch gehalten auf einer Reise durch Norwegen im Jahre 1817*: 308 – type by monotypy *Anas marila* Linnaeus.

Nyroca Fleming, 1822 (June): *Philosophy of Zoology 2*: 260 – type by tautonymy *Anas nyroca* Güldenstädt.

Aythya australis (Eyton): Hardhead

Nyroca australis Eyton, 1838: *Monograph on the Anatidae, or duck tribe*: 160 – Australia, restricted to NSW (*fide* Mathews, 1912, *Novitates Zoologicae 18*(3): 239).

Anas elapsa De Vis, 1888a: *Proceedings of the Linnean Society of New South Wales (series 2) 3*(3): 1281, pl. 33, fig. 4A–B – Chinchilla, Darling Downs, QLD; Chinchilla Sand, Pliocene, Chinchilla LF. Lectotype QM F1124, L tibiotarsus (designated by Olson, 1977, p. 128). Synonymy with *Aythya australis* by Olson, 1977, p. 128).

Nyroca reclusa De Vis, 1888a: *Proceedings of the Linnean Society of New South Wales (series 2) 3*(3): 1292, pl. 33 fig. 3 – Chinchilla, Darling Downs, QLD; Chinchilla Sand, Pliocene, Chinchilla LF. Holotype QM F1123, L coracoid. Synonymy with *Aythya australis* by Olson (1977, p. 128).

Nyroca reperta; De Vis, 1888a: *Proceedings of the Linnean Society of New South Wales (series 2) 3*(3): 1292 (footnote, *lapsus*).

Nettion elapsum (De Vis); Brodkorb, 1964, *Bulletin of the Florida State Museum, Biological Sciences 8*: 226.

Aythya reclusa (De Vis); Brodkorb, 1964, *Bulletin of the Florida State Museum, Biological Sciences 8*: 229.

For *Nyroca effodiata* De Vis, 1905, see *Phaps* sp. (Columbidae, Columbiformes) as the type distal humerus fits to the type proximal humerus of *Leucosarcia proevisa*, the latter of which has priority (Olson, 1977, p. 128).

Tribe **ANATINI** Leach, 1819: Typical Ducks

Genus ***ANAS*** Linnaeus

Anas Linnaeus, 1758: *Systema Naturae, ed. 10, 1*: 122 – type by subsequent designation (Lesson, 1828) *Anas boschas* Linnaeus = *Anas platyrhynchos* Linnaeus.

Anas superciliosa Gmelin: Pacific Black Duck

Anas superciliosa Gmelin, 1789: *Systema Naturae, ed. 13, 1*(2): 537. Based on the "Supercilious Duck" of Latham 1785, *A General Synopsis of Birds 3*(2): 497 – Dusky Sound, Fiordland, New Zealand.

Nyroca robusta De Vis, 1888a: *Proceedings of the Linnean Society of New South Wales (series 2) 3*(3): 1278, pl. 33, fig. 2 – Chinchilla, Darling Downs, QLD; Chinchilla Sand, Pliocene, Chinchilla LF. Lectotype QM F5550, L coracoid (designated by Olson, 1977, p. 127). Synonymy with *Anas superciliosa* by Olson (1977, p. 128).

Aythya robusta (De Vis); Brodkorb, 1964, *Bulletin of the Florida State Museum, Biological Sciences 8*: 229.

Anas castanea (Eyton): Chestnut Teal

Mareca castanea Eyton, 1838: *Monograph of the Anatidae, or duck tribe*: 119, pl. 22 – NSW.

Anas gracilipes De Vis, 1905: *Annals of the Queensland Museum 6*: 14, pl. 4, fig. 5A–B – Kalamurina, Warburton River, Tirari Sub-basin, Lake Eyre Basin, SA; Pleistocene. Lectotype QM F5540, R tarsometatarsus (designated by Olson, 1977, p. 129). Synonymy with *Anas castanea* by Olson (1977, p. 129).

Anas (*Nettium*) *strenua* De Vis, 1905: *Annals of the Queensland Museum 6*: 15, pl. 4, fig. 6 – Patteramordu, lower Cooper Creek, Tirari Sub-basin, Lake Eyre Basin, SA; Pleistocene. Lectotype QM F5541, proximal L humerus (designated by Olson, 1977, p. 129). Synonymy with *Anas castanea* by Olson (1977, p. 129).

Nettapus eyrensis De Vis, 1905: *Annals of the Queensland Museum 6*: 16, pl. 4, fig. 9 – lower Cooper Creek, Tirari Sub-basin, Lake Eyre Basin, SA; Pleistocene. Lectotype QM F5545, distal R humerus (designated by Olson, 1977, p. 129). Synonymy with *Anas castanea* by Olson (1977, p. 129).

Nettion gracilipes (De Vis); Brodkorb, 1964, *Bulletin of the Florida State Museum, Biological Sciences 8*: 226.

Nettion strenuum (De Vis); Brodkorb, 1964, *Bulletin of the Florida State Museum, Biological Sciences 8*: 226.

Tribe INCERTAE SEDIS

Genus †***AWENGKERE*** Worthy & Yates

Awengkere Worthy & Yates, 2018: *Contribuciones del MACN 7*: 224 – type by original designation *Awengkere magnanatis* Worthy & Yates.

†***Awengkere magnanatis*** Worthy & Yates

Awengkere magnanatis Worthy & Yates, 2018: *Contribuciones del MACN 7*: 224, fig. 1A–B – South Pit, Alcoota Scientific Reserve, NT; Waite Formation, late Miocene, Alcoota LF. Holotype NTM P4281, R tarsometatarsus.

Genus ***BIZIURA*** Stephens

Biziura Stephens, 1824: *General Zoology, or Systematic Natural History 12*(2): 221 – type by monotypy *Biziura novaehollandiae* Stephens = *Anas lobata* Shaw.

Biziura lobata (Shaw): Musk Duck

Anas lobata Shaw, 1796, in Shaw & Nodder: *The Naturalists' Miscellany: or Coloured figures of naturalobjects; drawn and described immediately from nature 8*: pl. 255 and text – NSW = King George Sound, WA (*fide* Mathews, 1915, *The Birds of Australia 4*: 143).

Dendrocygna validipinnis De Vis, 1888a: *Proceedings of the Linnean Society of New South Wales (series 2) 3*(3): 1282, pl. 34, fig. 5A–B – Chinchilla, Darling Downs, QLD; Chinchilla Sand, Pliocene, Chinchilla LF. Lectotype QM F1125, proximal L humerus (designated by Olson, 1977, p. 129). Synonymy with *Biziura lobata* by Olson (1977, p. 130).

Dendrocygna validipennis De Vis, 1888a; Lambrecht, 1933, *Handbuch der Palaeornithologie*: 367 (*lapsus*).

Biziura exhumata De Vis, 1889: *Proceedings of the Royal Society of Queensland* 6(1): 57, pl. 4 – Chinchilla, Darling Downs, QLD; Chinchilla Sand, Pliocene, Chinchilla LF. Holotype QM F1133, L tarsometatarsus. Synonymy with *Biziura lobata* by Olson (1977, p. 130).

Order **GALLIFORMES** Temminck, 1820: Landfowl

Family **MEGAPODIIDAE** Lesson, 1831: Megapodes

Genus †***NGAWUPODIUS*** Boles & Ivison

Ngawupodius Boles & Ivison, 1999: *Smithsonian Contributions to Paleobiology 89*: 201 – type by original designation *Ngawupodius minya* Boles & Ivison.

†***Ngawupodius minya*** Boles & Ivison

Ngawupodius minya Boles & Ivison, 1999: *Smithsonian Contributions to Paleobiology 89*: 201, fig. 1A–C – Lake Pinpa, Callabonna Sub-basin, Lake Eyre Basin, SA; Namba Formation, late Oligocene, Ericmas LF. Holotype NMV P160493, R tarsometatarsus.

Genus †***PROGURA*** De Vis

Progura De Vis, 1888b: *Proceedings of the Royal Society of Queensland 5*(4): 131 – type by monotypy *Progura gallinacea* De Vis.

Chosornis De Vis, 1889: *Proceedings of the Royal Society of Queensland* 6(1): 55 – type by monotypy *Chosornis praeteritus* De Vis.

Palaeopelargus De Vis, 1892: *Proceedings of the Linnean Society of New South Wales (series 2)* 6(3): 441 – type by monotypy *Palaeopelargus nobilis* De Vis.

Synonymy of *Progura* De Vis, 1888b with *Leipoa* Gould, 1841 was proposed by Boles (2008, p. 203), but these genera were shown to be morphologically distinct by Shute et al. (2017, p. 8).

†***Progura gallinacea*** De Vis

Progura gallinacea De Vis, 1888b: *Proceedings of the Royal Society of Queensland 5*(4): 131, unnumbered pl. – Condamine River, South Central QLD = Ravensthorpe, near Pilton (c.10 km from Condamine River), Darling Downs, QLD (see Van Tets, 1974a); Pleistocene. Lectotype QM F1143, proximal L tarsometatarsus (designated by Boles, 2008, p. 199). Originally placed in Columbidae (Columbiformes) and allied to species of *Goura* Stephens, 1819 by De Vis (but see Van Tets, 1974a).

Chosornis praeteritus De Vis, 1889: *Proceedings of the Royal Society of Queensland* 6(1): 55, pl. 4 – Chinchilla, Darling Downs, QLD (type locality presumed by Van Tets, 1974a, p. 215); Chinchilla Sand, Pliocene, Chinchilla LF. Holotype QM F1132, proximal R carpometacarpus (fits to QM F1139, holotype of *Palaeopelargus nobilis*). Synonymy with *Progura gallinacea* by van Tets. (Van Tets, 1974a, p. 214).

Palaeopelargus nobilis De Vis, 1892: *Proceedings of the Linnean Society of New South Wales (series 2)* 6(3): 441, pl. 24, fig. 4A–B – Darling Downs, QLD; Pleistocene (type locality and age presumed by Van Tets, 1974a, p. 215). Holotype QM F1139, distal R carpometacarpus (fits to QM F1132, holotype specimen of *Chosornis praeteritus*).

Originally described as a stork (Ciconiidae: Ciconiiformes). Synonymy with *Progura gallinacea* by van Tets. (Van Tets, 1974a, p. 214).

Progoura gallinacea De Vis; Brodkorb 1971, *Bulletin of the Florida State Museum, Biological Sciences 15*: 194 (*lapsus*).

Progura naracoortensis van Tets; van Tets 1985, *Kadimakara*: 196.

L. [*eipoa*] *(Progura) gallinacea* (De Vis); Boles 2008, *Oryctos 7*: 204.

†***Progura campestris*** Shute, Prideaux, & Worthy

Leipoa gallinacea (De Vis); Prideaux et al. 2007, *Nature 445*(7126): 423, table 1. Not *Progura gallinacea* De Vis, 1888b.

Progura campestris Shute, Prideaux, & Worthy, 2017: *Royal Society Open Science 4*(6): 170233, p.14, figs 5B,G,L,Q,V, 6E–H, 7D–F, 8, 9D–O, 10, 11A – Leaena's Breath Cave, Thylacoleo Caves, Nullarbor Plain, WA; early Pleistocene. Holotype WAM 15.9.5, associated remains of an adult individual.

Genus †***LATAGALLINA*** Shute, Prideaux, & Worthy

Latagallina Shute, Prideaux, & Worthy, 2017: *Royal Society Open Science 4*(6): 170233, p.24 – type by original designation *Progura naracoortensis* van Tets.

†***Latagallina naracoortensis*** (van Tets)

Progura naracoortensis van Tets, 1974a: *Transactions of the Royal Society of South Australia 98*(4): 214, fig. 4A – Henschke's Quarry Cave, near Naracoorte, SA; Pleistocene. Holotype SAMA P17856, R tarsometatarsus.

Progura gallinacea De Vis; Boles 2008, *Oryctos 7*: 199. In part. Not *Progura gallinacea* De Vis, 1888b.

Leipoa gallinacea (De Vis); Boles, 2008: *Oryctos 7*: 204. In part, fig. 6. Not *P. gallinacea* De Vis, 1888b.

L. [*eipoa*] *(Progura) gallinacea* (De Vis); Boles 2008, *Oryctos 7*: 204. Not *Progura gallinacea* De Vis, 1888b.

Latagallina naracoortensis (van Tets); Shute, Prideaux, & Worthy, 2017: *Royal Society Open Science 4*(6): 170233, p.25.

†***Latagallina olsoni*** Shute, Prideaux, &Worthy

Latagallina olsoni Shute, Prideaux, & Worthy, 2017: *Royal Society Open Science 4*(6): 170233, p.36, figs 5D,I,N,S, 17–19 – Leaena's Breath Cave, Thylacoleo Caves, Nullarbor Plain, WA; middle Pleistocene. Holotype WAM 15.9.6, associated remains of an adult individual.

Genus †***GARRDIMALGA*** Shute, Prideaux, & Worthy

Garrdimalga Shute, Prideaux, & Worthy, 2017: *Royal Society Open Science 4*(6): 170233, p.43 – type by original designation *Garrdimalga mcnamarai* Shute, Prideaux, & Worthy.

†***Garrdimalga mcnamarai*** Shute, Prideaux, & Worthy

Garrdimalga mcnamarai Shute, Prideaux, & Worthy, 2017: *Royal Society Open Science 4* (6): 170233, p.43, fig. 20A–D – Curramulka Quarry (site RF 95), Curramulka, Yorke Peninsula, SA; Pleistocene. Holotype SAMA P42711, R carpometacarpus.

Parvclass **NEOAVES** Sibley, Ahlquist, & Monroe, 1988: Higher Neognaths

Order **PHOENICOPTERIFORMES** Fürbringer, 1888: Flamingos and Allies

Family †**PALAELODIDAE** Stejneger, 1885b: Palaelodids

Genus †***PALAELODUS*** Milne-Edwards

Palaelodus Milne-Edwards, 1863: *Annales des Sciences Naturelles, Zoologie 4*(20): 158 – type by subsequent designation *Palaeolodus ambiguus* (see Milne–Edwards, 1869, p. 59).

†***Palaelodus pledgei*** Baird & Vickers-Rich

Palaelodus pledgei Baird & Vickers-Rich, 1998: *Alcheringa 22*(2): 137, fig. 2(1a,b) – Croc Pot Point (UCMP locality Site 3, V5762 = Turtle Quarry, ~25 m west of east tip of Paleomag. Hill South, G. Prideaux pers. comm. 12 December 2019), Lake Palankarinna, Tirari Sub-basin, Lake Eyre Basin, SA; Etadunna Formation (Faunal Zone A), late Oligocene, Minkina LF. Holotype SAMA P27996, distal L tarsometatarsus.

†***Palaelodus wilsoni*** Baird & Vickers-Rich

Palaelodus wilsoni Baird & Vickers-Rich, 1998: *Alcheringa 22*(2): 139, fig. 3 – Neville's Nirvana (Site VSQ 1978-01), Lake Palankarinna, Tirari Sub-basin, Lake Eyre Basin, SA; Etadunna Formation (Faunal Zone A), late Oligocene, Minkina LF. Holotype SAMA P27995, L tarsometatarsus.

Family **PHOENICOPTERIDAE** Bonaparte, 1831: Flamingos

Genus †***PHOENICONOTIUS*** Miller

Phoeniconotius Miller, 1963: *Condor 65*(4): 292 – type by monotypy *Phoeniconotius eyrensis* Miller.

†***Phoeniconotius eyrensis*** Miller

Phoeniconotius eyrensis Miller, 1963: *Condor 65*(4): 292, fig. 3 – UCMP locality V5763, Lake Palankarinna, Tirari Sub-basin, Lake Eyre Basin, SA; Etadunna Formation (Faunal Zone A), late Oligocene, Minkina LF. Holotype SAMA P13649, distal L tarsometatarsus, with associated proximal phalanx of L digit III and proximal phalanx of R digit IV.

Genus †***XENORHYNCHOPSIS*** De Vis

Xenorhynchopsis De Vis, 1905: *Annals of the Queensland Museum 6*: 9 – type by subsequent designation *Xenorhynchopsis tibialis* De Vis (Brodkorb, 1963, p. 291). Transferred from Ciconiidae (Ciconiiformes) to Phoenicopteridae by Rich et al. (1987).

†***Xenorhynchopsis tibialis*** De Vis

Xenorhynchopsis tibialis De Vis, 1905: *Annals of the Queensland Museum 6*: 10, pl. 1, fig. 6A–B – lower Cooper Creek, Tirari Sub-basin, Lake Eyre Basin, SA; Pleistocene. Lectotype QM F5515, distal R tibiotarsus (designated by Rich et al., 1987, p. 214).

†*Xenorhynchopsis minor* De Vis

Xenorhynchopsis minor De Vis, 1905: *Annals of the Queensland Museum 6*: 10, pl. 2, fig. 1A–B – Unduwampa, Cooper Creek, Tirari Sub-basin, Lake Eyre Basin, SA; Pleistocene. Holotype QM F5517, distal R tibiotarsus.

Genus *PHOENICOPTERUS* Linnaeus

Phoenicopterus Linnaeus, 1758: *Systema Naturae, ed. 10, 1*: 139 – type by monotypy *Phoenicopterus ruber* Linnaeus.

†*Phoenicopterus novaehollandiae* Miller

Phoenicopterus novaehollandiae Miller, 1963: *Condor 65*(4): 289, figs 1A,C, 2A – UCMP locality V6150, Lake Pitikanta, Lake Eyre Basin, SA; Etadunna Formation (Faunal Zone C), late Oligocene, Ngapakaldi LF. Holotype SAMA P13648, R tarsometatarsus.

Rich et al. (1987) tentatively referred several specimens to the extant *Phoenicopterus ruber* Linnaeus, 1758, including two of Pliocene age from the Stirton Quarry, Lake Kanunka, SA, and one of Pleistocene age from Wurdulumankula, Cooper Creek, SA, showing that the genus probably survived into the late Quaternary. Further research of these specimens is needed to resolve their taxonomic affinities.

Genus *PHOENICONAIAS* G. R. Gray

Phoeniconaias G. R. Gray, 1869: *Ibis (new series) 5*(20): 440 – type by monotypy *Phoenicopterus minor* E. Geoffroy Saint-Hilaire.

Ocyplanus De Vis, 1905: *Annals of the Queensland Museum 6*: 8 – type by monotypy *Ocyplanus proeses* De Vis. Junior homonym of *Ocyplanus* Fauvel, 1899 (Staphylinidae, Insecta; see Worthy & Yates, 2017).

†*Phoeniconaias proeses* (De Vis)

Ocyplanus proeses De Vis, 1905: *Annals of the Queensland Museum 6*: 8, pl. 1, fig. 5B – unknown locality, Lake Eyre Basin, SA; unknown age. Holotype QM F5512, distal L tarsometatarsus. Originally placed in Limicolae (= Charadrii: Charadriiformes) by De Vis (1905). Placed in Laridae by Lambrecht (1933) and P. Brodkorb (1967), and in Rallidae (Gruiformes) by Condon (1975). Re-identified as member of Phoenicopteridae by Rich et al. (1987).

Ibis (?) conditus De Vis, 1905: *Annals of the Queensland Museum 6*: 10, pl. 2, fig. 2 – Wurdulumankula, Cooper Creek, Tirari Sub-basin, Lake Eyre Basin, SA; Pleistocene. Holotype QM F5519, L femur. Originally described as a stork (Ciconiidae: Ciconiiformes); synonymy with *Ocyplanus proeses* by Rich et al. (1987, p. 222).

Phoeniconaias gracilis Miller, 1963: *Condor 65*: 294, fig. 4A,C – UCMP locality Site 1, V5772 (= Stirton Quarry), Lake Kanunka, Tirari Sub-basin, Lake Eyre Basin, SA; Tirari Formation, Pliocene, Kanunka LF. Holotype SAMA P13650, distal L tarsometatarsus. Synonymy with *Ocyplanus proeses* by Rich et al. (1987, p. 222).

Carphibis condita (De Vis); Brodkorb, 1963, *Bulletin of the Florida State Museum, Biological Sciences 7*: 279.

Threskiornis conditus (De Vis); Condon, 1975, *Checklist of the Birds of Australia 1*: 63.

Phoenicopterus gracilis (Miller); Condon, 1975, *Checklist of the Birds of Australia 1*: 64.

Order **COLUMBIFORMES** Latham, 1790: Pigeons and Doves

Family **COLUMBIDAE** Illiger, 1811: Pigeons and Doves

Genus †***PRIMOPHAPS*** Worthy

Primophaps Worthy, 2012: *Emu 112*(1): 24 – type by original designation *Primophaps schoddei* Worthy.

†***Primophaps schoddei*** Worthy

Primophaps schoddei Worthy, 2012: *Emu 112*(1): 24, fig. 1B,C,G – Hiatus A Site, Riversleigh World Heritage Area, Boodjamulla (Lawn Hill) National Park, QLD; Riversleigh Faunal Zone A, late Oligocene, Hiatus LF. Holotype QM F45234, L coracoid.

Genus ***PHAPS*** Selby

Phaps Selby, 1835: *The Naturalists' Library 9*: 194 – type by original designation *Columba chalcoptera* Latham.

Lithophaps De Vis, 1891: *Proceedings of the Linnean Society of New South Wales (series 2) 6*(1): 121 – type by monotypy *Lithophaps ulnaris* De Vis.

Phaps species indeterminate

Lithophaps ulnaris De Vis, 1891: *Proceedings of the Linnean Society of New South Wales (series 2) 6*(1): 122, unnumbered fig. on p. 121 – Warwick, Darling Downs, QLD; Pleistocene. Holotype QM F1119, R ulna. Reassigned to the genus *Phaps* by Van Tets and Rich (1980, p. 91).

Leucosarcia proevisa De Vis, 1905: *Annals of the Queensland Museum 6*: 8, pl. 1, fig. 5A – Wurdulumankula, Cooper Creek, Tirari Sub-basin, Lake Eyre Basin, SA; Pleistocene. Holotype QM F5511, proximal R humerus. Reassigned to the genus *Phaps* by Van Tets and Rich (1980, p. 90).

Nyroca effodiata De Vis, 1905: *Annals of the Queensland Museum 6*: 15, pl. 4, fig. 8 – Wurdulumankula, lower Cooper Creek, Tirari Sub-basin, Lake Eyre Basin, SA; Pleistocene. Holotype QM F5544, distal R humerus. Originally placed in Anatidae by De Vis (1905) but this specimen and the holotype of *Leucosarcia proevisa* are the distal and proximal portions of the same bone. The name *Leucosarcia proevisa* has priority (Olson, 1977, p. 128; see Van Tets & Rich, 1980).

Aythya effodiata (De Vis); Brodkorb, 1964, *Bulletin of the Florida State Museum, Biological Sciences 8*: 229. Either *Phaps chalcoptera* or *P. histrionica* on the basis of size, according to Van Tets and Rich (1980).

Van Tets and Rich (1980) noted that the fossils of *Lithophaps ulnaris, Leucosarcia proevisa* and *Nyroca effodiata* are indistinguishable from the extant Common Bronzewing *Phaps chalcoptera* and Flock Bronzewing *P. histrionica*.

Order **APODIFORMES** Peters, 1940: Owlet-nightjars, Swifts, and Hummingbirds

Family **AEGOTHELIDAE** Bonaparte, 1853: Owlet-nightjars

Genus †***QUIPOLLORNIS*** Rich & McEvey

Quipollornis Rich & McEvey, 1977: *Memoirs of the National Museum of Victoria 38*: 247 – type by original designation *Quipollornis koniberi* Rich & McEvey.

†***Quipollornis koniberi*** Rich & McEvey

Quipollornis koniberi Rich & McEvey, 1977: *Memoirs of the National Museum of Victoria 38*: 250, pl. 8 – Chalk Mountain, Warrumbungle Mountains, NSW; Chalk Mountain Formation, middle Miocene. Holotype AM F.49404 (part) and AM F.49405 (counterpart), near complete skeleton.

Family **APODIDAE** Olphe-Gaillard, 1887: Swifts

Genus ***COLLOCALIA*** G. R. Gray

Collocalia G. R. Gray, 1840: *A List of the Genera of Birds*: 8 – type by original designation *Hirundo esculenta* Linnaeus.

†***Collocalia buday*** Boles

Collocalia buday Boles, 2001: *Memoir of the Association of Australasian Palaeontologists 25*: 48, fig. 1 – Camel Sputum Site, Godthelp Hill, Riversleigh World Heritage Area, Boodjamulla (Lawn Hill) National Park, QLD; Riversleigh Faunal Zone B, early Miocene, Camel Sputum LF. Holotype QM F20907, L humerus.

Order **CUCULIFORMES** Wagler, 1830: Cuckoos and Allies

Family **CUCULIDAE** Leach, 1819: Cuckoos, Coucals, and Koels

Subfamily **CENTROPINAE** Eyton, 1867: Coucals

The name Centropodinae Horsfield, 1823, as advocated by Bock (1994) is invalid as Horsfield only used "Centropi" as a plural term for species of *Centropus* (see Olson, 1995). Therefore, we use the subfamily name Centropinae as erected by Eyton (1867, p. 88) for the coucals.

Genus ***CENTROPUS*** Illiger

Centropus Illiger, 1811: *Prodromus systematis mammalium et avium*: 205 – type by subsequent designation *Cuculus aegyptius* J.F. Gmelin = *Centropus senegalensis* (Linnaeus).

†***Centropus bairdi*** Shute, Prideaux, & Worthy

Centropus bairdi Shute, Prideaux, & Worthy, 2016: *Zoological Journal of the Linnean Society 177*(4): 975, fig. 2C,H,M – Leaena's Breath Cave, Thylacoleo Caves, Nullarbor Plain, WA; early to middle Pleistocene. Holotype WAM 09.3.282, L humerus.

†***Centropus maximus*** Shute, Prideaux, & Worthy

Centropus maximus Shute, Prideaux, & Worthy, 2016: *Zoological Journal of the Linnean Society 177*(4): 980, figs 2B,G,L, 3B,G,L, 5D–H,J–L,R,U,X – Flightstar Cave,

Thylacoleo Caves, Nullarbor Plain, WA; early to middle Pleistocene. Holotype WAM 09.3.283, associated remains of an adult individual.

†***Centropus colossus*** Baird

Centropus colossus Baird, 1985: *Records of the Australian Museum 37*(6): 360, figs 5, 6A – Green Waterhole Cave (= Fossil Cave, 5L81), Tantanoola, SA; middle or late Pleistocene. Holotype, SAMA P24240, L humerus.

Order **GRUIFORMES** Bonaparte, 1854: Rails, Cranes, and Allies

Family **RALLIDAE** Rafinesque, 1815: Rails, Crakes, and Coots

Genus †***AUSTRALLUS*** Worthy & Boles

Australlus Worthy & Boles, 2011: *Records of the Australian Museum 63*(1): 64 – type by original designation *Gallinula disneyi* Boles.

†***Australlus disneyi*** (Boles)

Gallinula disneyi Boles, 2005: *Records of the Australian Museum 57*(2): 182, figs 2C, 4C – White Hunter Site, Hal's Hill, Riversleigh World Heritage Area, Boodjamulla (Lawn Hill) National Park, QLD; Riversleigh Faunal Zone A, late Oligocene, White Hunter LF. Holotype QM F20906, proximal R humerus.

†***Australlus gagensis*** Worthy & Boles

Australlus gagensis Worthy & Boles, 2011: *Records of the Australian Museum 63*(1): 69, fig. 4 – Alan's Ledge 1990 (AL90) Site, Gag Plateau, Riversleigh World Heritage Area, Boodjamulla (Lawn Hill) National Park, QLD; Riversleigh Faunal Zone C, middle Miocene, AL90 LF. Holotype QM F54511, R humerus.

Genus ***PORPHYRIO*** Brisson

Porphyrio Brisson, 1760: *Ornithologia 1*: 48 – type by tautonymy "*Porphyrio*" Brisson = *Fulica porphyrio* Linnaeus.

Porphyrio melanotus (Temminck): Australasian Swamphen

Porphyrio melanotus Temminck, 1820: *Manuel d'ornithologie, ed. 2, 2*: 701 – NSW.

A multi-locus phylogenetic analysis has shown that the Purple Swamphen *Porphyrio porphyrio* species complex is paraphyletic, which is in agreement with morphological data (García-R & Trewick, 2015; Sangster, 1998). Accordingly, this complex has been split into six species: Western Swamphen *Porphyrio porphyrio*, African Swamphen *P. madagascariensis*, Grey-headed Swamphen *P. poliocephalus*, Black-backed Swamphen *P. indicus*, Philippine Swamphen *P. pulverulentus*, and Australasian Swamphen *P. melanotus* (García-R & Trewick, 2015; Sangster, 1998; Sangster et al., 2016).

†***Porphyrio melanotus nujagura*** Boles & Mackness

Porphyrio porphyrio nujagura Boles & Mackness, 1994: *Records of the South Australian Museum 27*(2): 145, fig. 1L – EVS Site, Bluff Downs Station, QLD; Allingham Formation, early Pliocene, Bluff Downs LF. Holotype QM F23250, proximal R tarsometatarsus.

Genus ***TRIBONYX*** Du Bus de Gisignies

Tribonyx Du Bus de Gisignies, 1840: *Bulletins de l'Académie royale des sciences, et belles-lettres de Bruxelles 7(Part 1, No. 4)*: 212 – type by monotypy *Tribonyx mortierii* Du Bus. [Or *L'Institut 8*(344): 258].

The native-hens (species *mortierii* and *ventralis*) were retained in *Tribonyx*, rather than being included in *Gallinula*, based on morphological analyses (Livezey, 1998).

Tribonyx mortierii Du Bus de Gisignies: Tasmanian Native-hen

Tribonyx mortierii Du Bus de Gisignies, 1840: *Bulletins de l'Académie royale des sciences, et belles-lettres de Bruxelles 7(Part 1, No. 4)*: 214.

Also published in Du Bus, 1840: *L'Institut. Journal général des Sociétés et des Travaux scientifiques de la France et l'étranger 8*(344): 258 (dated 30 July). Part 2 of Tome 7 of the *Bulletins de l'Académie royale des sciences* published the proceedings of the meeting of 4 July and thereafter, so Part 1 was likely published before 30 July and therefore has priority.

†***Tribonyx mortierii repertus*** (De Vis)

Porphyrio (?) reperta De Vis, 1888a: *Proceedings of the Linnean Society of New South Wales (series 2) 3*(3): 1283, pl. 34, fig. 7A–B – Chinchilla, Darling Downs, QLD; Chinchilla Sand, Pliocene, Chinchilla LF. Holotype QM F1126, distal R tarsometatarsus. Synonymy with *Tribonyx mortierii* as distinct subspecies by Olson (1975, p. 50).

Gallinula strenuipes De Vis, 1888a: *Proceedings of the Linnean Society of New South Wales (series 2) 3*(3): 1284, pl. 34, fig. 8A–B – Chinchilla, Darling Downs, QLD; Chinchilla Sand, Pliocene, Chinchilla LF. Holotype QM F1128, L tarsometatarsus. Synonymy with *Tribonyx mortierii repertus* by Olson (1975, p. 52).

Tribonyx effluxus De Vis, 1892: *Proceedings of the Linnean Society of New South Wales (series 2) 6*(3): 439 (figured in De Vis, 1888a: pl. 35, fig. 9B) – Chinchilla, Darling Downs, QLD; Chinchilla Sand, Pliocene, Chinchilla LF. Holotype QM F1138, distal R humerus (originally designated as a syntype of *Fulica prior* De Vis, 1888a). Synonymy with *Tribonyx mortierii repertus* by Olson (1975, p. 50).

Porphyrio mackintoshi De Vis, 1892: *Proceedings of the Linnean Society of New South Wales (series 2) 6*(3): 440, pl. 24, fig. 2A–B – ?Darling Downs, QLD; unknown age. Holotype distal R tarsometatarsus, missing. Synonymy with *Tribonyx mortierii repertus* by Olson (1975, p. 52).

Gallinula peralata De Vis, 1892: *Proceedings of the Linnean Society of New South Wales (series 2) 6*(3): 440, pl. 24, fig. 3A–B – ?Darling Downs, QLD; unknown age. Holotype QM F1144, R humerus. Synonymy with *Tribonyx mortierii repertus* by Olson (1975, p. 52).

Porphyrio repertus De Vis; Brodkorb, 1967, *Bulletin of the Florida State Museum, Biological Sciences 11*: 126.

Gallinula effluxa (De Vis); Condon, 1975, *Checklist of the Birds of Australia 1*: 106.

Gallinula mortierii reperta (De Vis); Olson, 1975, *Emu 75*(2): 52.

Genus ***FULICA*** Linnaeus

Fulica Linnaeus, 1758: *Systema Naturae, ed. 10, 1*: 152 – type by Linnaean tautonymy *Fulica atra* Linnaeus.

Fulica atra Linnaeus: Eurasian Coot

Fulica atra Linnaeus, 1758: *Systema Naturae, ed. 10, 1*: 152 – Europe, restricted to Sweden (*fide* Peters, 1934, *Check-list of Birds of the World 2*: 211).

Fulica prior De Vis, 1888a: *Proceedings of the Linnean Society of New South Wales (series 2) 3*(3): 1285, pl. 35, fig. 9A – Chinchilla, QLD; Chinchilla Sand, Pliocene, Chinchilla LF. Holotype QM F1129, proximal R humerus. Synonymy with *Fulica atra* by Olson (1975, p. 50).

Order **SPHENISCIFORMES** Sharpe, 1891: Penguins

Family **SPHENISCIDAE** Bonaparte, 1831: Penguins

Genus †***PACHYDYPTES*** Oliver

Pachydyptes Oliver, 1930: *New Zealand Birds, ed. 1*: 85 – type by original designation *Pachydyptes ponderosus* Oliver.

†***Pachydyptes simpsoni*** Jenkins

Pachydyptes simpsoni Jenkins, 1974: *Palaeontology 17*(2): 294, pl. 37, figs 1–2; pl. 38, figs 1, 3; pl. 39, figs 3–5 – Blanche Point, SA; Blanche Point Formation, late Eocene. Holotype SAMA P14157a–g, associated remains of an individual comprising: SAMA P14157a, L coracoid; SAMA P14157b, proximal R humerus; SAMA P14157c, proximal L humerus; SAMA P14157d, R radius; SAMA P14157e, L carpometacarpus; SAMA P14157f, L phalanx II-1; SAMA P14157g, vertebra.

Synonymised with *Anthropornis nordenskjöldii* Wiman, 1905 by Jenkins (1985, p. 184), but this was rejected by Park and Fitzgerald (2012), who concluded that its affinities are unresolved. As such, this species is here retained in *Pachydyptes*, pending further re-evaluation.

Genus †***ANTHROPODYPTES*** Simpson

Anthropodyptes Simpson, 1959: *Proceedings of the Royal Society of Victoria 71*(2): 113 – type by original designation *Anthropodyptes gilli* Simpson.

†***Anthropodyptes gilli*** Simpson

Anthropodyptes gilli Simpson, 1959: *Proceedings of the Royal Society of Victoria 71*(2): 113, fig. 1 – Glenelg River, Devil's Den, VIC; Gellibrand Marl, early Miocene. Holotype NMV P17167, R humerus.

Genus †***PSEUDAPTENODYTES*** Simpson

Pseudaptenodytes Simpson, 1970: *Memoirs of the National Museum of Victoria 31*: 18 – type by original designation *Pseudaptenodytes macraei* Simpson.

†***Pseudaptenodytes macraei*** Simpson

Pseudaptenodytes macraei Simpson, 1970: *Memoirs of the National Museum of Victoria 31*: 20, pl. 1, figs 1–2; pl. 2, fig. 2; pl. 3, fig. 1 – Spring Creek, Minhamite, VIC;

Goodwood Formation, late Miocene–early Pliocene (Park & Fitzgerald, 2012). Holotype NMV P26668, L humerus.

Genus ***EUDYPTES*** Vieillot

Eudyptes Vieillot, 1816: *Analyse d'une nouvelle ornithologie élémentaire*: 67, 70 – type by subsequent designation *Aptenodytes chrysocome* J.R. Forster.

Tasidyptes van Tets & O'Connor, 1983: *Records of the Queen Victoria Museum Launceston 81*: 3 – type by monotypy *Tasidyptes hunteri* van Tets & O'Connor.

Eudyptes pachyrhynchus G.R. Gray: Fiordland Crested Penguin

Eudyptes pachyrhynchus G.R. Gray, 1845: in Richardson & J. E. Gray (eds), *The Zoology of the Voyage of H.M.S. Erebus & Terror, Birds 1*(8): 17 – Waikouaiti, Otago, New Zealand.

Cole et al. (2018 *Tasidyptes hunteri* van Tets & O'Connor, 1983: *Records of the Queen Victoria Museum Launceston 81*: 3, figs 2–3 – Stockyard Site, Hunter Island, TAS; late Holocene. Holotype ANWC B21141 (originally ANWC BS2670), pelvis in three parts. Synonymy by because the mitochondrial DNA sequences from the type specimens are indistinguishable from this species. Other referred specimens were attributed to *Eudyptes robustus* Oliver and *Eudyptula novaehollandiae* Stephens (see Cole et al., 2018, p. 463).

Sphenisciformes indeterminate

?Pseudaptenodytes minor Simpson, 1970: *Memoirs of the National Museum of Victoria 31*: 20 – Beaumaris, VIC; Black Rock Sandstone, late Miocene–early Pliocene (Park & Fitzgerald, 2012). Holotype NMV P26669, R humerus. *Nomen dubium* (see Park, 2014).

Order **PROCELLARIIFORMES** Fürbringer, 1888: Tube-nosed Seabirds

Family **DIOMEDEIDAE** G.R. Gray, 1840: Albatrosses

Genus ***DIOMEDEA*** Linnaeus

Diomedea Linnaeus, 1758: *Systema Naturae, ed. 10, 1*: 132 – type by subsequent designation *Diomedea exulans* Linnaeus.

†***Diomedea thyridata*** Wilkinson

Diomedea thyridata Wilkinson, 1969: *Memoirs of the National Museum of Victoria 29*: 42, pl. 3, fig. 2; pl. 4, figs 2, 5 – Beaumaris, VIC; Black Rock Sandstone, late Miocene–early Pliocene, Beaumaris LF. Holotype NMV P24172, partial premaxilla.

Diomedea thryidata Wilkinson; Brodkorb 1971, *Bulletin of the Florida State Museum, Biological Sciences 15*: 173 (*lapsus*).

At the time this species was described, *Diomedea* included species that are now segregated into four genera (*Diomedea, Phoebastria, Phoebetria* and *Thalassarche*), so the generic affinities of this species may need revision.

Order **CICONIIFORMES** Garrod, 1874: Storks

Family **CICONIIDAE** Sundevall, 1836: Storks

Genus ***CICONIA*** Brisson

Ciconia Brisson, 1760: *Ornithologia 1*: 48 – type by tautonymy "*Ciconia*" Brisson = *Ardea ciconia* Linnaeus.

†***Ciconia louisebolesae*** Boles

Ciconia louisebolesae Boles, 2005: *Records of the Australian Museum 57*(2): 171, fig. 2D, E – Bitesantennary Site, Riversleigh World Heritage Area, Boodjamulla (Lawn Hill) National Park, QLD; Riversleigh Faunal Zone B, early Miocene, Bitesantennary LF. Holotype QM F30290, distal R humerus.

†***Ciconia nana*** (De Vis)

Xenorhynchus nanus De Vis, 1888a: *Proceedings of the Linnean Society of New South Wales (series 2) 3*(3): 1287, pl. 35, fig. 11A–B – Chinchilla, Darling Downs, QLD; Chinchilla Sand, Pliocene, Chinchilla LF. Lectotype QM F1131, distal R tibiotarsus (designated by P. Brodkorb, 1963, p. 292).

Ciconia? *nana* (De Vis); Rich & van Tets 1982, *The Fossil Vertebrate Record of Australasia*: 345.

Ciconia nana (De Vis); Boles 2005, *Records of the Australian Museum 57*(2): 168.

Boles (2005a) reviewed the fossil storks of Australia and noted that the single extant species *Ephippiorhynchus asiaticus* (Latham) has a Pliocene – Pleistocene record.

Order **PELECANIFORMES** Sharpe, 1891: Pelicans, Ibises, Herons and Allies

Family **PELECANIDAE** Rafinesque, 1815: Pelicans

Genus ***PELECANUS*** Linnaeus

Pelecanus Linnaeus, 1758: *Systema Naturae, ed. 10, 1*: 132 – type by subsequent designation *Pelecanus onocrotalus* Linnaeus.

Pelicanus De Vis, 1892: *Proceedings of the Linnean Society of New South Wales (series 2) 6* (3): 444. Unjustified emendation.

†***Pelecanus tirariensis*** Miller

Pelecanus tirariensis Miller, 1966: *Memoirs of the Queensland Museum 14*(5): 182, fig. 1 – Turtle Quarry (UCMP locality V5762), Lake Palankarinna, Tirari Sub-basin, Lake Eyre Basin, SA; Etadunna Formation (Faunal Zone A), late Oligocene, Minkana LF. Holotype SAMA P13858, distal R tarsometatarsus.

†***Pelecanus cadimurka*** Rich & van Tets

Pelecanus cadimurka Rich & van Tets, 1981: *Records of the South Australian Museum 18* (12): 241, fig. 6 – Kuttipirra (Katipiri) Waterhole, UCMP locality Site 9, V5861, Cooper Creek, Tirari Sub-basin, Lake Eyre Basin, SA; Pleistocene. Holotype SAMA P22501, distal L tarsometatarsus.

†*Pelecanus proavus* (De Vis)

Pelicanus proavus De Vis, 1892: *Proceedings of the Linnean Society of New South Wales (series 2) 6*(3): 444, pl. 24, fig. 6A–B – ?Darling Downs, QLD; unknown age. Syntypes L tarsometatarsus, missing, and QM F1141, part carpometacarpus; the figured tarsometatarsus is here selected as the lectotype.

The detailed description of the tarsometatarsus (De Vis, 1892) clearly identifies this bone as a pelican, whereas the carpometacarpus is indeterminate (Miller, 1966a). Based on figures of the tarsometatarsus in De Vis's (1892) description, Miller (Miller, 1966b, p. 186) synonymised *Pelicanus proavus* with *Pelecanus conspicillatus*. However, Rich and van Tets (1981) remarked that the figures indicate a pelican distinct from *P. conspicillatus*, and recommended that *Pelicanus proavus* be provisionally retained until the lectotype is found.

Pelecanus conspicillatus Temminck: Australian Pelican

Pelecanus conspicillatus Temminck, 1824: *Recueil d'Oiseaux 5*(47); see Temminck, 1838, *Nouveau recueil de planches coloriées d'oiseaux 5*: [unpaginated, p.395], pl. 276 – Australia, restricted to NSW (*fide* Mathews, 1912, *Novitates Zoologicae 18*(3): 244).

Pelicanus validipes De Vis, 1894: in Brown, 1894: Report of Government geologist for year ended 30 June 1894, *Proceedings of the Parliament of South Australia 2*(25): 21, pl. 2, figs 5–6 – Warburton River, Tirari Sub-basin, Lake Eyre Basin, SA; Pleistocene. Holotype SAMA P18412, distal R tarsometatarsus. Synonymy with *Pelecanus conspicillatus* by Rich and van Tets (1981, p. 239).

Pelecanus grandiceps De Vis, 1905; *Annals of the Queensland Museum 6*: 16, pl. 5, fig. 3 – lower Cooper Creek, Tirari Sub-basin, Lake Eyre Basin, SA; Pleistocene. Lectotype QM F3751, distal L tarsometatarsus (designated by Miller, 1966a, p. 187). Synonymy with *Pelecanus conspicillatus* by Rich and van Tets (1981, p. 240).

Family **THRESKIORNITHIDAE** Poche, 1904: Ibises and Spoonbills

Subfamily **THRESKIORNITHINAE** Poche, 1904: Ibises

Genus ***THRESKIORNIS*** G.R. Gray

Threskiornis G.R. Gray, 1842: *A List of Genera of Birds* (revised ed.), Appendix: 13 – type by original designation *Tantalus aethiopicus* Latham = *Threskiornis aethiopicus* (Latham).

Threskiornis moluccus (Cuvier): Australian Ibis

Ibis molucca Cuvier, 1829: *Le Règne Animal, ed. 2, 1*: 520 (note) – Moluccas, Indonesia.

Platalea subtenuis De Vis, 1892: *Proceedings of the Linnean Society of New South Wales (series 2) 6*(3): 443, pl. 24, fig. 5A–B – ?Darling Downs, QLD; unknown age. Lectotype QM F1140, partial R femur (designated by Olson, 1975, p. 53). Synonymy by Boles (2005b, p. 2).

Originally described as a spoonbill (Threskiornithidae), on the basis of syntypes including a partial femur and two distal right tibiotarsi. Olson (1975) identified the tibiotarsi as belonging to *Tribonyx mortierii repertus* and designated the femur as the lectotype for

Platalea subtenuis. Olson (1981) recommended that *Platalea subtenuis* be treated as Aves *incertae sedis*, pending detailed comparisons of the lectotype specimen. Boles (2005b) identified the lectotypic femur as that of the living Australian Ibis *Threskiornis moluccus*.

Order **SULIFORMES** Sharpe, 1891: Frigatebirds, Anhingas, Gannets, and Cormorants

Family **PHALACROCORACIDAE** Reichenbach, 1849: Cormorants and Shags

Genus †***NAMBASHAG*** Worthy

Nambashag Worthy, 2011: *Zoological Journal of the Linnean Society 163*(1): 284 – type by original designation *Nambashag billerooensis* Worthy.

†***Nambashag billerooensis*** Worthy

Nambashag billerooensis Worthy, 2011: *Zoological Journal of the Linnean Society 163*(1): 284, fig. 1 – White Sands Basin, Lake Palankarinna, Tirari Sub-basin, Lake Eyre Basin, SA; Etadunna Formation (Faunal Zone B), late Oligocene, Ditjimanka LF. Holotype SAMA P29079, R tarsometatarsus.

†***Nambashag microglaucus*** Worthy

Nambashag microglaucus Worthy, 2011: *Zoological Journal of the Linnean Society 163*(1): 292, fig. 3A–C – Site 2, Billeroo Creek, Frome Downs Station, Callabonna Sub-basin, Lake Eyre Basin, SA; Namba Formation, late Oligocene, Namba LF. Holotype SAMA P32584, R femur.

Genus ***MICROCARBO*** Bonaparte

Microcarbo Bonaparte, 1856: *Comptes rendus hebdomadaires des séances de l'Académie des sciences 43*: 577 – type by original designation *Pelecanus pygmaeus* Pallas.

†***Microcarbo serventyorum*** van Tets

Microcarbo serventyorum van Tets, 1994: *Records of the South Australian Museum 27*(1): 136, figs 2, 4 – West Bullsbrook, 30 km north of Perth, WA; Holocene. Holotype WAM 70.2.10, pelvis and associated proximal femora and caudal vertebrae.

Microcarbo melanoleucos (Vieillot): Little Pied Cormorant

Hydrocorax melanoleucos Vieillot, 1817: *Nouveau dictionnaire d'histoire naturelle*, nouv. éd. *8*: 88 – "Australasie", restricted to NSW (*fide* Mathews, 1912, *Novitates Zoologicae 18*(3): 241).

Plotus parvus De Vis, 1888a: *Proceedings of the Linnean Society of New South Wales (series 2) 3*(3): 1286, pl. 35, fig. 10A–B – Chinchilla, Darling Downs, QLD; Chinchilla Sand, Pliocene, Chinchilla LF. Holotype QM F1130, R humerus. Synonymy with *Haliëtor* (= *Microcarbo*) *melanoleucos* by Miller (1966b, p. 317).

Anhinga parva (De Vis); Brodkorb 1963, *Bulletin of the Florida State Museum, Biological Sciences 7*: 256.

Genus ***PHALACROCORAX*** Brisson

Phalacrocorax Brisson, 1760: *Ornithologia 1*: 60 – type by tautonymy "*Phalacrocorax*" Brisson = *Pelecanus carbo* Linnaeus.

Australocorax Lambrecht, 1933: *Handbuch der Palaeornithologie*: 293 – type by subsequent designation (Brodkorb, 1952) *Phalacrocorax vetustus* De Vis.

Phalacrocorax carbo (Linnaeus): Great Cormorant

Pelecanus carbo Linnaeus, 1758: *Systema Naturae, ed. 10, 1*: 133 – Europe, restricted to the "rock nesting form of the north Atlantic Ocean" (*fide* Hartert, 1920, *Die Vögel der Paläarktischen Fauna*: 1387).

Phalacrocorax gregorii De Vis, 1905: *Annals of the Queensland Museum 6*: 18, pl. 7, fig. 2A–B – Malkuni, Cooper Creek, Tirari Sub-basin, Lake Eyre Basin, SA; Pleistocene. Lectotype QM F3756, proximal L humerus (designated by Boles, 2010, p. 153). Synonymy with *Phalacrocorax carbo* by oles (2010, p. 153).

Australocorax gregorii (De Vis); Lambrecht, 1933, *Handbuch der Palaeornithologie*: 293.

Phalacrocorax varius (J. F. Gmelin): Great Pied Cormorant

Pelecanus varius Gmelin, 1789: *Systema Naturae, ed. 13, 1*(2): 576. Based on the "Pied Shag" of Latham, 1785, *A General Synopsis of Birds 3*(2): 605 – Queen Charlotte Sound, Marlborough, New Zealand.

Phalacrocorax vetustus De Vis, 1905: *Annals of the Queensland Museum 6*: 22, pl. 8, fig. 3A–B – Malkuni, Cooper Creek, Tirari Sub-basin, Lake Eyre Basin, SA; Pleistocene. Lectotype QM F3792, proximal L humerus (designated by Boles, 2010, p. 154). Synonymy with *Leucocarbo* (*Phalacrocorax*) *fuscescens* by Rich et al. (1982, p. 365) and synonymy with *P. varius* by Boles (2010, p. 154).

Australocorax vetustus (De Vis); Lambrecht, 1933, *Handbuch der Palaeornithologie*: 294.

Family **ANHINGIDAE** Lesson, 1831: Anhingas and Darters

Genus ***ANHINGA*** Brisson

Anhinga Brisson, 1760: *Ornithologia 1*: 60 – type by tautonymy and monotypy "*Anhinga*" Brisson = *Plotus anhinga* Linnaeus.

Plotus Linnaeus, 1766: *Systema Naturae, ed. 12, 1*: 218 – type by monotypy *Plotus anhinga* Linnaeus.

†***Anhinga walterbolesi*** Worthy

Anhinga walterbolesi Worthy, 2012: *Auk 129*(1): 98, fig. 2A–E,H – Snake Dam, Clayton River, southeast of Lake Eyre, Muloorina Station, Tirari Sub-basin, Lake Eyre Basin, SA; late Oligocene. Holotype NMV P166373, L tarsometatarsus.

†***Anhinga malagurala*** Mackness

Anhinga malagurala Mackness, 1995: *Emu 95*(4): 267, fig. 1 – Main Quarry, Bluff Downs Station, QLD; Allingham Formation, early Pliocene, Bluff Downs LF. Holotype QM F25776, R carpometacarpus.

Anhinga novaehollandiae (Gould): Australasian Darter

Plotus Novae-Hollandiae Gould, 1847: *Proceedings of the Zoological Society of London 1847*(15): 34 – "Southern coast of Australia" = NSW (*fide* Mathews, 1913, *A List Birds Australia*: 97).

Plotus laticeps De Vis, 1905: *Annals of the Queensland Museum 6*: 17, pl. 6, fig. 1A–B – lower Cooper Creek, Tirari Sub-basin, Lake Eyre Basin, SA; Pleistocene. Lectotype QM F3747, cranium (designated by Miller, 1966b, p. 317). Synonymy with *Anhinga novaehollandiae* by Mackness and van Tets (1995, p. 613).

Anhinga laticeps (De Vis); Brodkorb 1963, *Bulletin of the Florida State Museum, Biological Sciences 7*: 256.

Order **CHARADRIIFORMES** Huxley, 1867: Shorebirds

Suborder **CHARADRII** Strauch, 1978: Thick-knees, Sheathbills, Plovers, Oystercatchers, and Allies (*sensu* Paton et al., 2003)

Superfamily **CHIONOIDEA** Lesson, 1828: Stone-curlews and Sheathbills

Family INCERTAE SEDIS

Genus †***CHIONOIDES*** De Pietri, Scofield, Hand, Tennyson, & Worthy

Chionoides De Pietri, Scofield, Hand, Tennyson, & Worthy, 2016: *Journal of the Royal Society of New Zealand 46*(3-4): 191 – type by monotypy *Chionoides australiensis* De Pietri, Scofield, Hand, Tennyson, & Worthy.

†***Chionoides australiensis*** De Pietri, Scofield, Hand, Tennyson, & Worthy

Chionoides australiensis De Pietri, Scofield, Hand, Tennyson, & Worthy, 2016: *Journal of the Royal Society of New Zealand 46*(3-4): 191, fig. 1I,K,M,O – Neville's Nirvana, Lake Palankarinna, Tirari Sub-basin, Lake Eyre Basin, SA; Etadunna Formation (Faunal Zone A), late Oligocene, Minkina LF. Holotype SAMA P41458, left coracoid.

Superfamily **CHARADRIOIDEA** Leach, 1820: Plovers and Lapwings

Family **CHARADRIIDAE** Leach, 1820: Plovers and Lapwings

Genus ***VANELLUS*** Brisson

Vanellus Brisson, 1760: *Ornithologia 1*: 48 – type by tautonymy "*Vanellus*" Brisson = *Tringa vanellus* Linnaeus.

†***Vanellus liffyae*** De Pietri, Scofield, Prideaux, & Worthy

Vanellus liffyae De Pietri, Scofield, Prideaux, & Worthy, 2018: *Emu 118*(4): 338, fig. 3A,E, I,J,M – Lake Kanunka, Tirari Sub-basin, Lake Eyre Basin, SA; Tirari Formation, Pompapillina Member, late Pliocene, Kanunka LF. Holotype SAMA P54992, R coracoid.

Suborder **SCOLOPACI** Strauch, 1978: Snipes, Sandpipers, and Allies

Family **PEDIONOMIDAE** Bonaparte, 1856: Plains-wanderers

Genus †***OLIGONOMUS*** De Pietri, Camens, & Worthy

Oligonomus De Pietri, Camens, & Worthy, 2015: *Ibis 157*(1): 70 – type by monotypy *Oligonomus milleri* De Pietri, Camens, & Worthy.

†***Oligonomus milleri*** De Pietri, Camens, & Worthy

Oligonomus milleri De Pietri, Camens, & Worthy, 2015: *Ibis 157*(1): 70, fig. 1A,F,H,I, K,N – Steve's Site (SAMA site 8309 = UCMP RV-8447), Lake Palankarinna, Tirari Sub-basin, Lake Eyre Basin, SA; Etadunna Formation (Faunal Zone B), member 7, late Oligocene, Ditjimanka LF. Holotype SAMA P27976, L coracoid lacking sternal end.

Order **ACCIPITRIFORMES** Vieillot, 1816: Diurnal Birds of Prey

Family **ACCIPITRIDAE** Vigors, 1824: Kites, Eagles, Hawks, and Allies

Genus †***PENGANA*** Boles

Pengana Boles, 1993: *Alcheringa 17*(1): 20 – type by original designation *Pengana robertbolesi* Boles.

†***Pengana robertbolesi*** Boles

Pengana robertbolesi Boles, 1993: *Alcheringa 17*(1): 20, fig. 1 – Sticky Beak Site, D Site Plateau, Riversleigh World Heritage Area, Boodjamulla (Lawn Hill) National Park, QLD; Riversleigh Faunal Zone A, late Oligocene, Sticky Beak LF. Holotype QM F16865, distal L tibiotarsus.

Genus †***NECRASTUR*** De Vis

Necrastur De Vis, 1892: *Proceedings of the Linnean Society of New South Wales (series 2) 6* (3): 437 – type by monotypy *Necrastur alacer* De Vis.

†***Necrastur alacer*** De Vis

Necrastur alacer De Vis, 1892: *Proceedings of the Linnean Society of New South Wales (series 2) 6*(3): 439, pl. 24, fig. 1A–B – ?Darling Downs, QLD; unknown age. Holotype QM F1136, proximal R humerus.

Gaff (2002) observed that this species significantly differed in size and morphology from modern Australian accipitrids.

Genus ***AVICEDA*** Swainson

Aviceda Swainson, 1836: *On the Natural History and Classification of Birds 1*: 300 – type by subsequent monotypy *Aviceda cuculoides* Swainson.

Baza Hodgson, 1837: *Journal of the Asiatic Society of Bengal 5*(60): 777 – type by original designation *Baza syama* Hodgson = *Falco leuphotes* Dumont.

†?*Aviceda gracilis* (De Vis)

Baza gracilis De Vis, 1905: *Annals of the Queensland Museum 6*: 7, pl. 1, fig. 4 – Locality 6, lower Cooper Creek, Tirari Sub-basin, Lake Eyre Basin, SA; Pleistocene. Holotype QM F5510, partial L humerus.

Aviceda gracilis (De Vis); Brodkorb 1964, *Bulletin of the Florida State Museum, Biological Sciences 8*: 280.

Considered Accipitriformes *incertae sedis* by G. van Tets (1984), pending discovery of additional material. Van Tets and Rich (1990) and Gaff (2002) suggested that this taxon was referable to the extant goshawk genus *Accipiter*.

Genus *AQUILA* Brisson

Aquila Brisson, 1760: *Ornithologia 1*: 28 – type by tautonymy "*Aquila*" Brisson = *Falco chrysaetos* Linnaeus.

Uroaetus Kaup, 1844: *Classification der säugethiere und vögel*: 121 – type by original designation *fucosa* = *Aquila fucosa* Temminck? = *Vultur audax* Latham (*fide* Peters, 1931, p. 256).

Taphaetus De Vis, 1891: *Proceedings of the Linnean Society of New South Wales (series 2) 6*(1): 123 – type by original designation *Uroaetus brachialis* De Vis.

†*Aquila bullockensis* Gaff & Boles

Aquila bullockensis Gaff & Boles, 2010: *Records of the Australian Museum 62*(1): 72, fig. 4 – Bullock Creek, NT; Camfield Beds, middle Miocene, Bullock Creek LF. Holotype QVM:2000:GFV:154, distal R humerus.

Genus INCERTAE SEDIS

†*Aquila brachialis* (De Vis)

Uroaetus brachialis De Vis, 1889: *Proceedings of the Royal Society of Queensland 6*(4): 162, unnumbered pl. (pl. 10) – King Creek, Darling Downs, QLD; Pleistocene. Holotype QM F1117, distal L humerus.

Taphaetus brachialis (De Vis); De Vis 1891, *Proceedings of the Linnean Society of New South Wales* (*series 2*) *6*(1): 123.

Uroaetus brachialis De Vis; De Vis 1905, *Annals of the Queensland Museum 6*: 6.

Aquila brachialis (De Vis); Condon 1975, *Checklist of the Birds of Australia 1*: 84.

The affinities of *Uroaetus brachialis* are uncertain; De Vis (1889) initially considered it similar to *Uroaetus* (= *Aquila*), but then, when referring a femur to *brachialis*, erected the genus *Taphaetus*, for which the type species was *U. brachialis* by monotypy. However, with the discovery of the specimens named *Taphaetus lacertosus* by De Vis (1905), that author reassigned *brachialis* back to *Uroaetus*. Condon (1975) considered this species to be possibly referable to *Aquila audax*, whereas G. van Tets (1984) considered it to be an indeterminate accipitrid. Pending a revision of the species, it seems advisable to retain *brachialis* in *Aquila* (= *Uroaetus*), following De Vis (1905).

†"*Taphaetus*" *lacertosus* De Vis

Taphaetus lacertosus De Vis, 1905: *Annals of the Queensland Museum 6*: 4, pl. 1, fig. 1 – Kalamurina, Warburton River, Lake Eyre Basin, SA; Pleistocene. Lectotype QM F5507, distal R humerus (designated by van Tets, 1974b, p. 58).

Uroaëtus lacertosus (De Vis); Brodkorb 1964, *Bulletin of the Florida State Museum, Biological Sciences 8*: 272.
Aquila lacertosus (De Vis); Condon 1975, *Checklist of the Birds of Australia 1*: 84.

Following the original description (De Vis, 1889) of *Uroaetus brachialis*, De Vis (1891) erected a new genus, *Taphaetus*, for this species based on a partial left femur (QM F118) that he referred to the species. De Vis (1905, p. 6) later restored the holotype of the type species *T. brachialis* to the genus *Uroaetus* and incorrectly used the genus name *Taphaetus* for a new species, *T. lacertosus*, based on a distal right humerus (QM F5507) and a right quadrate (QM F5507). In naming this taxon, De Vis created *Taphaetus* De Vis, 1905, type species *Taphaetus lacertosus* De Vis, 1905 by monotypy. This is invalid as it is a junior homonym of *Taphaetus* De Vis, 1891, now a synonym of *Uroaetus* (= *Aquila*). If *lacertosus* is deemed to be generically distinct, then it requires a new generic name; but if it is only specifically distinct, then it needs to be referred to an appropriate existing genus (van Tets, 1974b). van Tets (1974b) proposed assigning *Taphaetus lacertosus* to the modern genus *Ichthyophaga* (now in *Haliaeetus*), then later suggested that this species may be a member of the Old World vulture subfamily Gypaetinae (van Tets, 1984). Pending the revision of *lacertosus*, we leave this species in "*Taphaetus*".

Order **FALCONIFORMES** Sharpe, 1874: Falcons and Allies

Family **FALCONIDAE** Leach, 1819: Falcons

Genus ***FALCO*** Linnaeus

Falco Linnaeus, 1758: *Systema Naturae, ed. 10, 1*: 88 – type by subsequent designation *Falco subbuteo* Linnaeus.
Asturaetus De Vis, 1905: *Annals of the Queensland Museum 6*: 6 – type by monotypy *Asturaetus furcillatus* De Vis.
Plioaetus Richmond, 1909: *Proceedings of the United States National Museum 35*: 592 (footnote). New name for *Asturaetus* De Vis, which is preoccupied by *Asturaëtos* Brehm, 1855.

Falco berigora Vigors & Horsfield: Brown Falcon

Falco berigora Vigors & Horsfield, 1827: *Transactions of the Linnean Society of London 15* (1 [1826]): 184. All of Volume 15 was published in 1827 (Browning & Monroe, 1991).
Asturaetus furcillatus De Vis, 1905: *Annals of the Queensland Museum 6*: 6, pl. 1, fig. 3 – Locality 5, lower Cooper Creek, Tirari Sub-basin, Lake Eyre Basin, SA; Pleistocene. Holotype QM F5509, R tibiotarsus. Synonymy with *Falco berigora* by Rich and van Tets (1982, p. 687).
Plioaetus furcillatus (De Vis); Brodkorb, 1964, *Bulletin of the Florida State Museum, Biological Sciences 8*: 291.

Order **PASSERIFORMES** Linnaeus, 1758: Perching Birds

Suborder **PASSERI** Linnaeus, 1758: Oscine Passerines

Family **MENURIDAE** Lesson, 1828: Lyrebirds

Genus ***MENURA*** Latham

Menura Latham, 1801: *Supplementum Indicis Ornithologici*: lxi – type by monotypy *Menura novaehollandiae* Latham.

†***Menura tyawanoides*** Boles

Menura tyawanoides Boles, 1995: *Courier Forschungsinstitut Senckenberg 181*: 166, fig. 1C–D – Upper Site, Riversleigh World Heritage Area, Boodjamulla (Lawn Hill) National Park, QLD; Riversleigh Faunal Zone B, early Miocene, Upper LF. Holotype QM F20887, L carpometacarpus.

Family **DASYORNITHIDAE** Schodde, 1975: Bristlebirds

Genus ***DASYORNIS*** Vigors & Horsfield: Bristlebirds

Dasyornis Vigors & Horsfield, 1827: *Transactions of the Linnean Society of London 15*(1): 231 – type by monotypy *Dasyornis australis* Vigors & Horsfield = *Turdus brachypterus* Latham.

†***Dasyornis walterbolesi*** Nguyen: Walter's Bristlebird

Dasyornis walterbolesi Nguyen, 2019: *Journal of Vertebrate Paleontology 39*(1): e1575838, p.3, figs 2, 3A,D,G,J, 4A,C,E – Camel Sputum Site, Riversleigh World Heritage Area, Boodjamulla (Lawn Hill) National Park, QLD; Riversleigh Faunal Zone B, early Miocene, Camel Sputum LF. Holotype QM F50580, associated L femur, partial R tibiotarsus, and partial L tarsometatarsus.

Family **ACANTHIZIDAE** Bonaparte, 1854: Thornbills, Scrubwrens, and Allies

Genus ***PYCNOPTILUS*** Gould

Pycnoptilus Gould, 1851: *Proceedings of the Zoological Society of London 1850 18*(206): 95 – type by monotypy *Pycnoptilus floccosus* Gould.

†***Pycnoptilus fordi*** Baird

Pycnoptilus fordi Baird, 1993: *Alcheringa 17*: 395, fig. 5A,B3 – Pyramids Cave (M-89), Buchan, VIC; late Pleistocene. Holotype NMV P183128, R humerus.

Family **ORTHONYCHIDAE** G.R. Gray, 1840: Logrunners

Genus ***ORTHONYX*** Temminck

Orthonyx Temminck, 1820: *Manuel d'ornithologie, ou, Tableau systématique des oiseaux qui se trouvent en Europe, ed. 2, 1*: lxxxi – type by subsequent monotypy *Orthonyx temminckii* Ranzani.

†***Orthonyx kaldowinyeri*** Boles

Orthonyx kaldowinyeri Boles, 1993: *Emu 93*(1): 45, fig. 1D – Last Minute Site, Riversleigh World Heritage Area, Boodjamulla (Lawn Hill) National Park, QLD; Riversleigh Faunal Zone C, middle Miocene, Last Minute LF. Holotype QM F16867, L femur.

†***Orthonyx hypsilophus*** Baird

Orthonyx hypsilophus Baird, 1985: *Records of the Australian Museum 37*(6): 363, fig. 7, 8C – Green Waterhole Cave (= Fossil Cave, 5L81), Tantanoola, SA; middle or late Pleistocene. Holotype SAMA P24444, partial pelvis.

†***Orthonyx wakefieldi*** Baird

Orthonyx wakefieldi Baird, 1993: *Alcheringa 17*(4): 390, fig. 3A – Pyramids Cave (M-89), Buchan, VIC; late Pleistocene. Holotype NMV P183118, R femur.

Family **NEOSITTIDAE** Ridgway, 1904: Sittellas

Genus ***DAPHOENOSITTA*** De Vis

Daphoenositta De Vis, 1897: *Ibis 39*(3): 380 – type by monotypy *Daphoenositta miranda* De Vis.

†***Daphoenositta trevorworthyi*** Nguyen: Trevor's Sittella

Daphoenositta trevorworthyi Nguyen, 2016: *Palaeontologia Electronica 19.1.1A*: 4, fig. 1.1, 1.3, 1.5 – Rick's Sausage Site, Riversleigh World Heritage Area, Boodjamulla (Lawn Hill) National Park, QLD; Riversleigh Faunal Zone C, middle Miocene, Rick's Sausage LF. Holotype QM F57897, distal left tibiotarsus.

Family **CINCLOSOMATIDAE** Mathews, 1922: Quail-thrushes and Jewel-babblers

Genus ***CINCLOSOMA*** Vigors & Horsfield

Cinclosoma Vigors & Horsfield, 1827: *Transactions of the Linnean Society of London 15* (1): 219 – type by monotypy *Turdus punctatus* Latham = *Turdus punctatus* Shaw.

†***Cinclosoma elachum*** Nguyen, Archer, & Hand

Cinclosoma elachum Nguyen, Archer, & Hand, 2018: *Acta Palaeontologica Polonica 63* (3): 495, fig. 1A – Wayne's Wok Site, Riversleigh World Heritage Area, Boodjamulla (Lawn Hill) National Park, QLD; Riversleigh Faunal Zone B, early Miocene, Wayne's Wok LF. Holotype QM F57949, partial R carpometacarpus.

Family **ORIOLIDAE** Boie, 1826: Orioles and Allies

Genus †***LONGMORNIS*** Boles

Longmornis Boles, 1999: *Alcheringa 23*(1): 54 – type by original designation *Longmornis robustirostrata* Boles.

†***Longmornis robustirostrata*** Boles

Longmornis robustirostrata Boles, 1999: *Alcheringa 23*(1): 54, fig. 1A–B – Neville's Garden Site, Riversleigh World Heritage Area, Boodjamulla (Lawn Hill) National Park, QLD; Riversleigh Faunal Zone B, early Miocene, Neville's Garden LF. Holotype QM F30886, mandible.

Family **ARTAMIDAE** Blyth, 1849: Woodswallows, Butcherbirds, and Allies

Subfamily **CRACTICINAE** Chenu & des Murs, 1853 (1836): Peltops, Butcherbirds, Magpies, and Currawongs

Genus †***KURRARTAPU*** Nguyen

Kurrartapu Nguyen, 2013: *Emu 113*(4): 375 – type by original designation *Kurrartapu johnnguyeni* Nguyen.

†***Kurrartapu johnnguyeni*** Nguyen

Kurrartapu johnnguyeni Nguyen, 2013: *Emu 113*(4): 377, figs 1, 2B – Price is Right Site, Riversleigh World Heritage Area, Boodjamulla (Lawn Hill) National Park, QLD; Riversleigh Faunal Zone B, early Miocene, Price is Right LF. Holotype QM F56251, proximal R tarsometatarsus.

Family INCERTAE SEDIS

Genus †***CORVITALUSOIDES*** Boles

Corvitalusoides Boles, 2006: *Alcheringa 30*(S1): 34 – type by original designation *Corvitalusoides grandiculus* Boles.

†***Corvitalusoides grandiculus*** Boles

Corvitalusoides grandiculus Boles, 2006: *Alcheringa 30*(S1): 34, fig. 1 – Dirk's Towers Site, Riversleigh World Heritage Area, Boodjamulla (Lawn Hill) National Park, QLD; Riversleigh Faunal Zone B, early Miocene, Dirk's Towers LF. Holotype QM F36341, distal R tibiotarsus.

AVES INCERTAE SEDIS

Genus †***PALAEOLESTES*** De Vis

Palaeolestes De Vis, 1911: *Annals of the Queensland Museum 10*: 17 – type by monotypy *Palaeolestes gorei* De Vis, 1911.

†***Palaeolestes gorei*** De Vis

Palaeolestes gorei De Vis, 1911: *Annals of the Queensland Museum 10*: 17, pl. 2, figs 4–6 – Yandilla, Darling Downs, QLD; Pleistocene. Holotype first phalanx of digit I of foot, missing.

Originally described as a member of Accipitridae, but may be non-avian (Brodkorb, 1978; Boles, 2006). The affinities of *Palaeolestes gorei* are uncertain, pending detailed study of the holotype and only specimen.

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