

An annotated type catalogue of varanid lizards (Reptilia: Squamata: Varanidae) in the collection of the Western Australian Museum

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ABSTRACT – There are currently 30 recognised species, with 13 subspecies, of varanid lizards (Varanidae: *Varanus*) occurring in Australia, with 24 known to occur in Western Australia, including five endemic species and one subspecies. Of the 37 Australian varanid species or subspecies, type material for 12 are, or have formerly been, housed in the collection of the Western Australian Museum, including 11 holotypes, one neotype and 67 paratypes. Of the 67 paratypes held in the WAM collection, five belonging to *V. panoptes rubidus* and *V. glauerti* have not been located and are presumed lost. An annotated catalogue is provided for all varanid type material currently and previously maintained in the herpetological collection of the Western Australian Museum.

KEYWORDS: type specimens, goanna, monitor lizard, holotype, neotype, paratype, nomenclature

INTRODUCTION

The varanid lizards (family Varanidae) are represented by a single genus (*Varanus*) distributed across Africa, the Middle East, South-East Asia and Australia (Pianka et al. 2004), comprising approximately 80 species, of which 30 (~37.5%) and 13 subspecies occur in Australia (Uetz et al. 2018). Australian species include the world's smallest extant varanid, *V. sparnus* Doughty, Kealley, Fitch & Donnellan, 2014 (less than 300 mm total length) and the third largest, Australia's largest, *V. giganteus* (Gray, 1845) (up to 2.59 m total length) (Doughty et al. 2014, Pianka et al. 2004). In comparison, the largest living species in the family, *V. komodoensis* Ouwens, 1912, can attain a total length of up to 3 m and a mass of 150 kg (Auffenberg 1981, Pianka et al. 2004).

George Shaw (in White 1790) described the first Australian species (*Lacerta varia*, now *V. varius*) and the generic name *Varanus* was first established by Merrem (1820). Most early taxonomic work on Australian varanids was carried out by researchers based in Europe until around the end of the 19th century with 13 of the 37 Australian taxa described during this era. This resulted in types nominated from European museums, with few types in the Western Australian Museum (WAM) or other Australian museums from these early descriptions. However, the exception to this is the neotype of *Hydrosaurus gouldii* (= *V. gouldii*) which was designated from the

WAM collection; it was subsequently gifted to the British Museum (Natural History), now the Natural History Museum, London. Only five currently recognised Australian varanids were described in the early 20th century (1901–1950), while the late 20th century (1951–2000) saw a substantial increase in the number of species or subspecies descriptions, with 16 taxa described. This increase was due to the taxonomic works of the German herpetologist Robert Friedrich Wilhelm Mertens (seven taxa) and WAM herpetologist Glen Milton Storr (five taxa), with single species described by Australian herpetologists Ludwig Glauert, Francis John Mitchell, Max King and Paul Horner, and Richard Walter Wells and Clifford Ross Wellington. The early 21st century (2001–) has already seen the description of three new taxa, all from Western Australia, with type material held in the WAM (*V. bushi*, *V. hamersleyensis* and *V. sparnus*).

The WAM was established in 1891 following the amalgamation of the Museum of the Swan River Mechanics Institute and the Geological Museum. Following the formation of the the WAM, it was originally known as the Public Museum, then Perth Museum and Western Australian Museum and Art Gallery, and subsequently WAM. Since its establishment, the WAM's natural history collection has grown substantially with respect to the terrestrial vertebrate fauna, particularly amphibians and reptiles (How and Cowan 2006). The herpetological collection

represents one of the largest regional collections in the world and the second largest in Australia, behind the Australian Museum, Sydney (AMS), containing approximately 166,745 specimens (as of September 2018). Following the establishment of the WAM, early donations of material were recorded in a donations register, titled '1895 Donations to the Museum'. The earliest entry referring to a varanid specimen is one 'Long tailed Iguana', donated by 'J. L. Salkild [?]' from 'Perth' (early localities often referred to the donor's locality or address, or was an approximation location and not always representative of the specimens precise collection location), dated 6 November 1895. From around 1896 through to 1912, all collected, purchased or donated material, including amphibian and reptile specimens, were accessioned into a series of six hardcopy general registers. The earliest varanid entry in the first WAM acquisition register (Register 1896–1900) was one 'Monitor Gouldii Gould's Monitor (Long-tailed Guana [iguana] or lizard)' from 'Mullewa-Cucky [?]', given to the museum by 'Mr Varden' and dated 25 September 1896. Some earlier entries list only 'lizard' and provide no further information. Earlier acquisitions into the WAM collection were sometimes also published in local press. The earliest such acknowledgement of varanid specimens being donated to the WAM is 'Mr. Varden, long-tailed iguana (monitor Gouldii)' (presumably the same specimen listed in the WAM Register 1896–1900 above), 'W. Cant, Gould's monitor (monitor Gouldii)' and also 'J. Harold, ...Gould's Monitor (monitor Gouldii)', published in the *West Australian*, 17 November 1896 (Anonymous 1896). No specimens matching the limited donor/collector and locality information of the latter two early acquisitions could be identified within the current varanid collection at the WAM and they are, therefore, presumed lost or disposed.

In 1912 a separate handwritten hardcopy register was established specifically for herpetological specimens and all specimens accessioned into the collection from this point forward were given a registration number prefixed with 'R' for reptile. The 'R' prefix is still in use to denote registration numbers and specimens in the herpetological collection, including amphibians. Many specimens from the earlier general hardcopy registers were re-registered into the newer herpetofaunal register and given 'R' numbers; however, it is not clear if this was completed for the entire collection. The earliest varanid specimen documented in the WAM herpetofaunal register is R22, two '*Varanus gouldii* — young' with the locality 'from the Goldfields' and 'Mr Reece' listed as collector/donor, dated 7 July 1912. The details of most specimens formerly registered in the WAM herpetofaunal register with 'R' prefixed registration numbers appear to have since been entered into the current electronic database of herpetological specimens, where all new specimens

are now registered. The details for some specimens were not entered into the current digital WAM herpetological register, including R22 above, indicating specimens were possibly disposed of or not located prior to or during the transfer, or simply missed during the transfer of data. Currently, the earliest specimen on the WAM digital herpetological register is R330, a specimen of *V. caudolineatus* from Quinns, WA, collected by W.D. Campbell; no collection or accession date is provided, which was common for many early registrations. Specimens in the digital register are mostly listed in sequential order by collection date; some are not, indicating the transfer of records from early registers was not always completed in sequence (e.g. R60218 — collected 1972, R60260 (formerly 11329) — collected 1911, R60280 (formerly 12877) — collected 1912, R60348 — collected 1962, R60374 — collected 1978), or the specimen was not offered to the WAM until well after the collection date. The oldest specimen with reference to collection date is R60487, a specimen of *V. scalaris* from Napier Broome Bay, WA, collected in 1910 by G.F. Hill.

The family Varanidae is represented by 2,885 of the 166,745 specimens in the WAM's herpetological collection (as of September 2018), consisting almost entirely of Australian species. The collection contains 2,804 specimens representing 22 species or subspecies collected from Australia, in addition to 78 specimens from Indonesia representing three species (*V. indicus*, *V. salvator* and *V. timorensis*), one from Malaysia (*V. bengalensis*), one from Singapore (*V. salvator*) and one (*V. salvator*) formerly held by the Perth Zoo from uncertain origin. With the exception of Indonesian specimens collected during museum expeditions, the remaining non-native specimens have been obtained via Perth Zoo, quarantine intercepts or acquired from a deceased estate and lack precise locality data. Of the Australian specimens, 2,683 were collected from Western Australia, 78 from the Northern Territory, 12 from South Australia, 8 from Queensland and 5 from uncertain Australian localities. The majority of varanid specimens are whole specimens fixed in a 10% formalin solution, though oldest specimens are likely to have been alcohol fixed, and stored in a 70% ethanol solution, in addition to a small quantity of alizarin-alcian stained, skeletal, skin or mounted specimen preparations of some species. Over 7500 type specimens are held in the WAM herpetology collection with 79 specimens representing types of 12 varanid species or subspecies: 12 primary types (11 holotypes and one neotype) and 67 secondary types (paratypes). Of the 79 type specimens, four paratypes of *V. panoptes rubidus* and the single *V. glauerti* paratype could not be located in the collection and are considered lost.

A partial list of type material held in the WAM herpetological collection compiled by Glen M. Storr was published in WAM annual reports from 1960

to 1969, before being discontinued in 1970 with the intention of consolidating existing lists and producing a complete and updated list; this never eventuated (Anonymous 1961, 1970). Annual Report type lists only presented primary type material, with no secondary types listed. They were issued over a series of 10 parts, of which only part 2 (1960–61) included varanid material for three taxa, *Varanus* (*Varanus*) *gouldii*, *Varanus mertensi* and *Varanus* (*Odatria*) *timorensis glauerti* (Anonymous 1961). Since the 1970 Annual Report, there have been no further publications on the varanid type material held in the herpetological collection of the WAM.

In accordance with recommendation 72F of the International Code for Zoological Nomenclature (the Code) (International Commission on Zoological Nomenclature [ICZN] 1999), a type specimen audit was initiated in order to publish a current type catalogue of the material held in the WAM herpetological collection. Audits were undertaken by family due to the large size of the herpetological type collection and the type catalogue will be presented in a series of publications. The first of the series was a type catalogue of the turtles (Chelidae) (Ellis and Georges 2015) followed by the frogs (Anura: Hylidae, Limnodynastidae and Myobatrachidae) (Ellis et al. 2017) and the Gekkota (Squamata: Carphodactylidae, Diplodactylidae, Gekkonidae, Pygopodidae) (Ellis et al. 2018). The current type catalogue is the fourth of this series and presents the type varanid lizards (Squamata: Varanidae) held in the WAM collection.

METHODS

Information on type specimens was obtained from the original description and compared with information retrieved from accession data in early specimen registers and the current digital herpetology specimen database in addition to jar labels, personal communications and subsequent publications relating to relevant type material. All type specimens in the collection of the WAM were examined in addition to any respective label information and notations. Where specimens could not be located in the type collection, extensive searches of the general collection, accession data, original descriptions and other records were undertaken during the audit to locate missing specimens or those lacking data. This catalogue also includes type specimens of species that have, subsequent to their description, been synonymised and/or resurrected from synonymy with other taxa, or those with type material donated to the WAM since their description. This catalogue was prepared in accordance with the rules, recommendations, definitions and amendments of the Code (ICZN 1999, 2003, 2012).

FORMAT

This catalogue follows the format of previous WAM type catalogues on herpetological type material held in the WAM collection for turtles (Ellis and Georges 2015), frogs (Ellis et al. 2017), and geckos and legless lizards (Ellis et al. 2018).

ORIGINAL BINOMEN

***Genus species subspecies* Author, year**

Original type species citation

Author, year, title, journal, page(s), [page of description].

Primary type (holotype/neotype)

Registration number, locality (latitude/longitude), collector(s) and collection date.

Secondary type(s) (paratype/s) (number of types in WAM collection)

Registration number, locality.

Current nomenclature

Current generic and specific recognition of the species.

Current status

Current status and validity of the species, synonymies.

Remarks

Additional information provided on subjects including the history and status of types, location of additional type specimens, ambiguity in type designations and information regarding the synonymy or resurrection of a species or subspecies if necessary and available.

Each taxon is presented with the name provided by the original author(s), followed by the author's name, and year of publication. Species names are given in the exact format in which they were first published. Next, the original type species publication citation is presented displaying the author(s), year, title (of article or book), journal (unless otherwise), page(s) and the page on which the species description commences in square brackets [x]. Primary type (holotype or neotype) information includes WAM registration number, locality, latitude and longitude (in degrees minutes seconds, where recorded to that precision or decimal degrees as provided in the original description), collector(s) name and collection date where known. Primary type localities and coordinates shown in quotes are those presented in the original published descriptions, including errors. Coordinates presented in square brackets [x] unquoted are those identified from accession data not presented in the description or subsequently determined based on locality data presented in the description. All dates are presented as day – month – year, month – year or year, as presented in the original description or relevant

information sources. Secondary types (paratype/s) are displayed showing WAM registration number and locality. Specific locality (latitude and longitude) and collection details (collector and date) are not provided for secondary type specimens. Specimens marked with an asterisk (*) are no longer held in the collection of the WAM, due to being gifted to another institution, disposed of by the WAM or lost. Details of specimens no longer held in the collection are discussed further in the Remarks section of each species where information was available. Current nomenclature and status are only presented where a change from the original binomen or trinomen has occurred such as generic changes, specific amendments, changes to species or subspecies status and synonymy or resurrection from synonymy. Remarks include relevant information on issues and errors from original descriptions, specimens, historical remarks or subsequent publications referring to the species or specimens as well as information relating to the synonymy or resurrection of the species or information pertaining to lost or disposed specimens. Where known, tissue samples for type specimens are presented with tissue type, storage method and storage location. Tissue samples for type material that has been depleted is not presented. Square brackets ([x]) indicate corrections or additional information presented in the original description or subsequent publications. The prefix R is used to denote registration numbers corresponding to the specimens in the herpetofauna collection of the WAM. Specimens currently or previously held in other museum collections are prefixed with the institution's abbreviation prior to the institution's registration number for that specimen.

The following acronyms and abbreviations in presenting type information in this catalogue have been used, institution acronyms follow Sabaj (2016).

BMNH	former British Museum (Natural History), now Natural History Museum, London, England, U.K.
E	east
HS	Homestead
ICZN	International Commission on Zoological Nomenclature
Is	Island
km	kilometres
Mt	mount
N	north
NE	northeast
NHMUK	Natural History Museum (formerly British Museum (Natural History)), London, England, U.K.
NNE	north-northeast

NNW	north-northwest
NW	northwest
NP	National Park
nr	near
NT	Northern Territory
NTM	Museums and Art Galleries of the Northern Territory (formerly Northern Territory Museum of Arts & Sciences), Darwin, NT, Australia
NW	northwest
S	south
SE	southeast
SSE	south-southeast
Stn	Station
SW	southwest
W	west
WA	Western Australia
WAM	Western Australian Museum, Perth, WA, Australia
WNW	west-northwest

ACCOUNT OF TYPE SPECIMENS

SQUAMATA

Family Varanidae

Hydrosaurus gouldii Gray, 1838

Gray, J.E. (1838) Catalogue of the slender-tongue saurian, with descriptions of many new genera and species. *Annals and Magazine of Natural History (Series 1)* 1: 388–394 [394].

Neotype

R131792 (now NHMUK 1997.1), 'Karrakatta [Cemetery], Perth, WA (31°58'S, 115°47'E)', G. Thompson, 29 September 1997.

Current nomenclature

Varanus gouldii, see Duméril and Duméril (1851).

Remarks

Gray did not designate any type specimens explicitly in the description; Mertens (1958) designated the specimen BMNH 1.17a (reregistered as BMNH 1946.9.7.61 after the Second World War) as the lectotype (Sprackland et al. 1997). Böhme (1991) noted that the lectotype of *Hydrosaurus gouldii* (*Varanus gouldii*) designated by Mertens (1958) was a specimen of *Varanus panoptes panoptes* Storr, 1980, technically rendering *V. panoptes panoptes* a junior synonym of

H. gouldii. In a case submitted to the International Commission on Zoological Nomenclature (Case 3042), Sprackland et al. (1997) proposed that the lectotype designated by Mertens (1958) be set aside and BMNH 1.17b (locality data lacking) be designated as the neotype in accordance with accustomed usage of both names. Shea and Cogger (1998) proposed an alternative neotype, BMNH 1997.1 (formerly WAM R131792) that had accompanying locality data, as well as tissue samples for genetic comparisons, as opposed to other possible material in the BMNH in poor condition and/or lacking collection and locality data. The ICZN ruled under the plenary power of the commission (Opinion 1948) that all previous type material of *Hydrosaurus gouldii* Gray, 1838 was to be set aside and BMNH 1997.1 was designated as the neotype for the species (ICZN 2000). Liver of neotype stored frozen (-75°C) at WAM.

Varanus bushi
Aplin, Fitch & King, 2006

Aplin, K.P., Fitch, A.J. and King, D.J. (2006) A new species of *Varanus* Merrem (Squamata: Varanidae) from the Pilbara region of Western Australia, with observations on sexual dimorphism in closely related species. *Zootaxa* **1313**: 1–38 [24].

Holotype

R108999, 'Marandoo, WA (22°37'S, 118°08'E)', G. Harold, 20 June 1991.

Paratypes (3)

R54230, R56834, R62171, Marandoo, WA.

Remarks

Liver and heart of holotype stored frozen (-75°C) at WAM.

Varanus (Varanus) gouldii rosenbergi
Mertens, 1957

Mertens, R. (1957a) Eine neuer melanistischer Waran aus dem südlichen Australien. *Zoologischer Anzeiger* **159**: 17–20 [18].

Holotype

R822, 'Monigup-Pass [Moingup Pass], Stirling Range, Südwest-Australien [Southwest Australia]', WA (34°24'S, 118°07'E), R. Bradshaw, 1920.

Paratype

R821, Moir Pass, Stirling Range, WA.

Current status and nomenclature

Varanus rosenbergi, see Storr (1980).

Varanus hamersleyensis
Maryan, Oliver, Fitch & O'Connell, 2014

Maryan, B., Oliver, P.M., Fitch, A.J. and O'Connell, M. (2014) Molecular and morphological assessment of *Varanus pilbarensis* (Squamata: Varanidae), with a description of a new species from the southern Pilbara, Western Australia. *Zootaxa* **3768**(2): 139–158 [150].

Holotype

R145733, 'Hamersley Range, Weeli Wolli Creek, WA (22°52'40"S, 119°14'24"E)' R.J. Teale and G. Harold, 28 April 2003.

Paratypes (5)

R125456, 30 km E Newman, WA; R125766, Circular Pool, Dales Gorge, WA; R129628, 120 km NW Newman, WA; R140734, Rocklea Stn, WA; R164579, 8.5 km NE Mt Rica, WA.

Remarks

Liver and heart of holotype stored frozen (-75°C) at WAM. Liver and heart of three paratypes (R125456, R129628, R140734) stored frozen (-75°C) and liver of two (R125766, R164579) stored in 100% ethanol at WAM.

***Varanus kingorum* Storr, 1980**

Storr, G.M. (1980) The monitor lizards (genus *Varanus* Merrem, 1820) of Western Australia. *Records of the Western Australian Museum* **8**(2): 237–239 [268].

Holotype

R60374, '10 km WNW of Timber Creek, NT (15°37'S, 130°23'E)', M. King, 9 June 1978.

Paratypes (2)

R63340 (formerly NTM R6682), Turkey Creek, NT; R63341 (formerly NTM R6955), Kununurra, WA.

Remarks

Two additional paratypes held in the NTM collection (NTM R6681, R6954). One paratype (R63341) is an alizarin-alcian stained skeleton in glycerol solution, with the skin stored separately in 70% ethanol solution.

***Varanus mertensi* Glauert, 1951**

Glauert, L. (1951) A new *Varanus* from east Kimberley, *Varanus mertensi* sp. n. *Western Australian Naturalist* **3**: 14–16 [14].

Holotype

R5819, 'Moola Bulla Cattle Station near Halls Creek, East Kimberley', WA (18°11'S, 127°30'E), H.W. Hall, collection date not specified, presented to WAM on 20 February 1936.

***Varanus (Odatria) timorensis glauerti*
Mertens, 1957**

Mertens, R. (1957b) Two new goannas from Australia. *Western Australian Naturalist* **5**: 183–185 [183].

Holotype

R12337, 'Wotjulum, West Kimberley, WA' (16°11'S, 123°37'E), A.M. Douglas, 1956.

Paratype

R11207*, Wotjulum, WA.

Current status and nomenclature

Varanus glauerti, see Storr (1980).

Remarks

The paratype specimen was not located in the WAM collection and is considered lost. No record of the paratype being sighted during previous general collection or type specimen audits, or evidence the specimen was gifted or disposed could be located.

***Varanus panoptes panoptes*
Storr, 1980**

Storr, G.M. (1980) The monitor lizards (genus *Varanus* Merrem, 1820) of Western Australia. *Records of the Western Australian Museum* **8**(2): 237–239 [273].

Holotype

R44792, 'Lake Argyle, WA (16°03'S, 128°47'E)', L.A. Smith, 9 January 1972.

Paratypes (17)

R22368, Kimberley Research Station, N Kununurra, WA; R23450, East Point, Darwin, NT; R26782, Grotto Creek, WA; R28033, R28035, Kalumburu, WA; R28009, R28017, R32173, Mt Anderson, WA; R44793–96, R60217–18, Lake Argyle, WA; R47717, 3 km S Old Lissadell, WA; R50492, R50549, Drysdale River NP, WA.

***Varanus panoptes rubidus*
Storr, 1980**

Storr, G.M. (1980) The monitor lizards (genus *Varanus* Merrem, 1820) of Western Australia. *Records of the Western Australian Museum* **8**(2): 237–239 [276].

Holotype

R19132, 'Wilgie Mia, 60 km NNW of Cue, WA (26°06'S, 117°42'E)', M.H. Williams, 6 March 1963.

Paratypes (19)

R12907, [S] Fields Find, [Salt River], WA; R13307, Ullawarra [Stn], WA; R13975, New Forest, WA;

R13975a (now R177046), Nalbarra, WA; R14331, Dolphin Is, WA; R14884, 52 km W Tambrey, WA; R14889, 37 km E Mt Magnet, WA; R14890, [5 km N] Billabong [RH], WA; R21233 [in error, R27233], Wanjarri, WA; R26261*, 11 km E Wittenoom, WA; R30912*, 11 km S Yalgoo, WA; R51524*, 35 km N Ilgarri Creek, WA; R51614*, Peedamulla, [80 km NNE Onslow], WA; R53507, 16 km S Yalgoo, WA; R53508 [in error, R53058], Yinnietharra, WA; R53689, Errabiddy [Stn], WA; R65958, R65960, nr [2.5 km N] Mt Linden, WA; R65959, nr [7.75 km SSE] Mt Linden, WA.

Remarks

Two paratype registration numbers listed by Storr are erroneous, R21233 is associated with a specimen of *Hemiergis initialis initialis* (Werner, 1910) (Scincidae) from Kalamunda, WA and R53508 a specimen of *Chelodina steindachneri* (Siebenrock, 1914) (Chelidae) from Galena, WA. The correct registration numbers for specimens matching the localities provided by Storr are R27233 and R53058, respectively. Two specimens were associated with the registration number R13975 (R13975 and R13975a), both listed as paratypes by Storr. The paratype bearing the registration number R13975a has been reregistered as R177046. Two paratypes (R13975 and R13975a (now R177046)) have been identified as *Varanus gouldii* (Gray, 1838). Four paratypes (R26261, R30912, R51524, R51614) could not be located in the WAM collection and are presumed lost or have been disposed of at some point following the description. No record of the missing paratypes being sighted during previous general collection or type specimen audits could be located.

***Varanus pilbarensis*
Storr, 1980**

Storr, G.M. (1980) The monitor lizards (genus *Varanus* Merrem, 1820) of Western Australia. *Records of the Western Australian Museum* **8**(2): 237–239 [278].

Holotype

R39782, 'Chichester Range, WA (22°03'S, 118°48'E)', J.C. Wombey, 7 April 1971.

Paratypes (8)

R10811, Abydos, WA; R13082, R28011–12, R60432, Woodstock [Stn], WA; R14901, Dales Gorge, WA; R20017, Black Hill Pool, WA; R39158, Nullagine, WA.

Remarks

One paratype, R14901, has since been identified as a specimen of *Varanus hamersleyensis* Maryan, Oliver, Fitch & O'Connell, 2014 (Maryan et al. 2014).

Varanus sparnus
Doughty, Kealley, Fitch & Donnellan, 2014

Doughty, P., Kealley, L., Fitch, A. and Donnellan, S.C. (2014) A new diminutive species of *Varanus* from the Dampier Peninsula, western Kimberley region, Western Australia. *Records of the Western Australian Museum* **29**: 128–140 [132].

Holotype

R168486, 'Coloumb Point, Dampier Peninsula, WA (-17.4277°S, 122.1522°E [17°25'39"S, 122°09'07"E])', R.J. Teale and G. Harold, 10 March 2009.

Paratypes (2)

R168474–75, Coloumb Point, Dampier Peninsula, WA.

Remarks

Liver of holotype and both paratypes stored in 100% ethanol at WAM.

Varanus storri ocreatus
Storr, 1980

Storr, G.M. (1980) The monitor lizards (genus *Varanus* Merrem, 1820) of Western Australia. *Records of the Western Australian Museum* **8**(2): 237–239 [283].

Holotype

R42717, 'Argyle Downs airstrip, WA (16°20'S, 128°46'E)', D.J. Kitchener, 11 October 1971.

Paratypes (9)

R13720, Inverway, NT; R40998, Kildurk [Stn], NT; R42764, 28 km SW Argyle Downs, WA; R51266, Bull Flat Bore, Christmas Creek Stn, WA; R57244, Old Theda [Stn HS], WA; R60041, 30 km SE Halls Creek, WA; R60042, Wave Hill Police Station, NT; R60043, Gordon Creek, 28 km S Victoria River Downs, NT; R60044, Gordon Creek, 49 km S Victoria River Downs, NT.

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